



QAD Enterprise Applications

User Guide
QAD BI Modules and
Key Performance Indicators

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QAD BI Modules and Key Indicators User Guide Change Summary

The following table summarizes significant differences between this document and the previous version.

Date/Version	Description	Reference
March 2015/QAD BI 3.11	Rebranded for QAD BI 3.11	--
March 2014/QAD BI 3.10	Rebranded for 3.10	--
October 2013/QAD BI 3.9	Added the OM dashboard	page 361
March 2013/QAD BI 3.8.1	Added the EE Financial dashboards (EEAP)	page 305
	Added the EE Financial dashboards (EEAR)	page 317
	Added the EE Financial dashboards (EECFO)	page 329
November 2012/QAD BI 3.8	No updates made	--
November 2012/QAD BI 3.7	New manual	--

Introduction

This chapter provides an introduction to the modules and KPIs in QAD Business Intelligence (BI).

Overview 2

A brief overview of the modules in QAD BI.

BI Module Dashboards 2

A complete list of the BI Module dashboards.

Overview

The BI solution provides out-of-the box ERP and EAM aware modules, which streamline access to current and historical QAD ERP data. The QAD modules are preformatted groupings of data, based on QAD's extensive application and vertical knowledge. The following are the key features of the modules:

- They contain QAD-specific transformation logic.
- They allow for a fast initial setup of the BI, including historical data.
- They include QAD standard queries, reports, visual items, and dashboards.
- They contain a clear upgrade path to new versions of QAD ERP.
- They are extensible, to support non-QAD data sources.
- They are ERP aware.
- They can be installed separately.

BI Module Dashboards

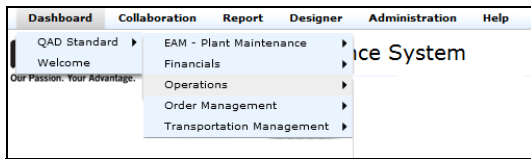
QAD BI contains the following module related dashboards:

- **EAM Plant Maintenance (Early Adopter only)**
 - Equipment Availability
 - Maintenance Backlog
 - Maintenance Cost
 - Maintenance for Department
 - Maintenance Work Orders
 - PM Compliance
- **Financials**
 - EE Accounts Payable
 - EE Accounts Receivable
 - SE Accounts Payable
 - SE Account Receivable
 - SE CFO Dashboard
- **Operations**
 - Capacity Planning and Control – Production Lines
 - Inventory Management Dashboard
 - Purchasing Dashboard
- **Order Management**
 - Order Management
 - Order Management 2
- **Transportation Management**
 - Mobile
 - Delivery Performance

- Package Exceptions Summary
- Shipment Costs Summary
- Shipment Volume Summary
- Delivery Performance Dashboard
- Package Exceptions Summary Dashboard
- Shipment Costs Summary Dashboard
- Shipment Volume Summary Dashboard

Access each of the dashboards for the modules from Dashboard|QAD Standard.

Fig. 1.1
BI Module Dashboards



Operations: Capacity Planning and Control

This chapter provides detailed information about Overall Equipment Effectiveness (OEE) and Throughput metrics that can be viewed through the Capacity Planning and Control - Production Lines Dashboard in QAD BI. It includes the following topics:

Introduction 6

An introduction to OEE and Throughput and the metrics included in capacity planning and control.

Capacity Planning and Control – Production Lines 6

Detailed overview of the OEE and Throughput KPIs, primary diagnostic indicators, and measurement grids.

Capacity Planning and Control Dashboard 11

Detailed overview of the dashboard.

Introduction

QAD BI includes metrics focused on factory performance and capacity management, including the following measures of production line effectiveness:

- **Overall Equipment Effectiveness (OEE).** A set of industry standard performance metrics.
- **Throughput.** A single metric of volume performance over time.

These metrics are reported by site and by production line.

Capacity Planning and Control – Production Lines

OEE Metrics

The OEE metrics in QAD BI attempt to simplify complicated production issues via simpler, more intuitive graphs of performance that can be used to trace problems back to their root causes—whether they are downtime, excessive setup, efficiency problems, scrap and rework, or lack of work.

The kinds of issues that can be identified using OEE include:

- **Bottlenecks.** Identify which resources cannot perform up to expectations and therefore are creating bottlenecks for the entire facility.
- **Downtime.** Identify which resources are down constantly, generally not available when needed, or require a setup that is so excessive that production capacity is compromised.
- **Unused or underutilized capacity.** Identify which resources have potential capacity improvements that do not require buying more equipment or hiring more people. Determine if you can increase through productivity gains rather than more machines.
- **Quality.** Determine if you have improved equipment availability or improved efficiency at the expense of defect levels. Identify if improvement efforts and investments can be better targeted to reducing scrap rates rather than increasing efficiency or reducing downtime.

Specific questions that can be answered using OEE include:

- How productive are we? In each of our major manufacturing or supply chain resources? Overall? What percentage of our hours is value adding? What is our equipment utilization?
- What kind of downtime are we experiencing in our key resources or work centers? What is the equipment availability?
- How do the key resources or lines perform against our standards?
- What is our current quality performance in key resources or departments? By work center or production line, by item? How much scrap? In percentage terms? Dollars?

Generally speaking, the goal of OEE programs is to reduce and eliminate the most common causes of productivity loss in manufacturing, which include:

- **Breakdowns.** Eliminating unplanned downtime is critical to improving OEE. Other OEE factors cannot be addressed if the process is down. It is not only important to know how much downtime your process is experiencing (and when) but also to be able to attribute the lost time to the specific source or reason for the loss. With downtime statistics and supporting data, root-cause analysis can trace back to the most severe loss categories.

- **Setup and Adjustment Time.** Setup and adjustment time is generally measured as the time between the last good part produced before setup, to the first consistent good parts produced after setup. This often includes substantial adjustment and/or warm-up time to consistently produce parts that meet quality standards.

Tracking Actual Setup Time is critical to reducing this loss, together with an active program to reduce this time (such as an SMED – Single Minute Exchange of Dies program).

- **Minor Stoppages, Reduced Speeds.** Minor Stoppages and Reduced Speed are often the most difficult of the losses to monitor and record, especially when the data depends on discrete time reporting by operation. When reporting is done via labor reporting transactions rather than from backflushing at standard, Cycle Time Analysis can be utilized to pinpoint these loss types.
- **Startup Rejects and Production Rejects.** Startup rejects and production rejects are different and the root causes are often different between startup and steady-state production. Tracking when rejects occur during the process—say immediately following setup—can help pinpoint potential causes and drive improved corrective action.

Throughput Metrics

Throughput is a single metric of volume performance over time, so you can understand how much product is being produced during a period defined by the range of dates specified in the selection criteria. For instance, the throughput metric can show the volume of work per hour that is being produced in each week or month. Common measures of throughput performance include:

- Units produced per period.
- Standard units produced per period, where all units of measure have been standardized through some conversion across all items produced on the line. For example, on a pharmaceutical line that produces pouches of some products, tins of others, and buckets of others, the standard unit of measure might be kilograms.
- Standard hours produced per period.
- Standard cost dollars produced per period, such as euros, yen, baht, and so on.

Since not all items necessarily have the same unit of measure, QAD BI produces a throughput metric based on the standard cost of each product produced. Throughput shows the ratio between Volume Produced, as measured by standard cost dollars, and Planned Production Hours based on the shop calendar. The calculation of throughput in the system is the following:

$$\text{Throughput} = \Sigma(\text{Standard cost of all products produced}) / \text{scheduled hours from shop calendar}$$

The data warehouse carries the quantity produced, at various levels of aggregation, so it is possible for a user to aggregate quantities and produce a throughput statistic that is based on the volume of product produced, not the dollar volume produced. Recognize, though, that you may be mixing apples and oranges when producing the statistic this way.

Specific Metrics Included in Capacity Planning and Control

The OEE and the throughput metrics provide a way to monitor production line performance. The following metrics are included in Capacity Management for Production Lines:

- OEE by site and production line
- Availability by site and production line

- Performance by site and production line
- Quality Performance by site and production line
- Throughput by site and production line
- Associated drill downs and reports

Capacity Planning and Control includes the following standard graphs:

- OEE for all sites in a domain, for a specific production line at a site
- Availability for a specific production line at a site
- Performance for a specific production line at a site
- Quality Performance for a specific production line at a site
- Throughput for all sites in a domain

Because the system keeps statistics at various summary levels, it is possible to use the development tools in the BI software to produce the following graphs:

- OEE for multiple production lines at a site
- Availability for a site or sites in a domain
- Performance for a site or sites in a domain
- Quality for a site or sites in a domain
- Throughput for sites in a domain

And, as is always the case, QAD BI includes an extensive data warehouse of associated statistics and information for use in more ad hoc analysis of the OEE measures.

Primary Diagnostic Indicators for OEE

OEE organizes the most common and important sources of manufacturing productivity loss, places them into three primary categories, and then reduces them to metrics that you can use to improve factory and production line performance.

OEE is a composite assessment of performance produced from the ratio of Fully Productive Time to Planned Production Time. The actual calculation of OEE is done as the product of its three factors:

- **Availability.** What percentage of the time is the equipment up and available?
- **Performance.** How efficiently are we producing parts?
- **Quality Performance.** What percentage of the parts that we produce are good parts?

Availability

Availability takes into account downtime loss, which includes any events that stop planned production for an appreciable length of time. Downtime loss, which is usually several minutes and long enough to log as a trackable event, includes the following:

- Equipment failures, referred to in the QAD system documentation as downtime
- Material shortages that have been reported as downtime
- Setup time, which is included in OEE analysis, since during the setup process the equipment is not available to produce parts

The remaining available time, which is the planned production time minus the downtime, is called Operating Time.

Availability is the ratio of Operating Time to Planned Production Time:

$$\text{Availability} = \text{Operating Time} / \text{Planned Production Time}$$

100% Availability means the process has been running without any recorded stops.

In QAD BI,

$$\text{Availability by Site} = \Sigma \text{Operating Time for All Production Lines at the Site} / \Sigma \text{Planned Production Time for All Production Lines at the Site},$$

and

$$\text{Availability by Production Line} = \text{Operating Time for Production Line} / \text{Planned Production Time for Production Line}.$$

The shop calendar provides the source for planned plant operating time, such as normal work days, shifts per day, hours per shift, as well as planned holidays. It also includes all events that are excluded from OEE analysis because there is no intention of running production; for example, breaks, lunch, scheduled maintenance, meetings, and so on. The difference between planned plant operating time and *exceptions* represents Planned Production Time.

Because QAD Enterprise Applications allows you to associate a production line with multiple work centers and machines and to report manufacturing activity like setup hours, run hours and downtime hours at each work center, QAD BI includes additional logic to compute the total planned operating time for the production line. This logic uses the applicable production line calendar, which defines the elapsed clock hours per week that the line is running, and the number of manufacturing work centers on the line.

$$\text{Planned Production Time} = \text{Calendar Hours} \times \text{Number of Work Centers}$$

The BI calculation of Planned Production Time uses the appropriate calendar from the core manufacturing system. If the production line in question has a specific calendar, that calendar is used in the calculation. If the production line does not have its own calendar, the calendar for the site is used in the calculation. If the site does not have a specific calendar, the calendar for the domain is used.

Operating Time is computed as the difference between planned production time and reported downtime.

$$\text{Operating Time} = \text{Planned Production Time} - \text{Total Downtime}$$

Note Availability does not measure whether the machine is utilized during a period; rather, it is more like an *instantaneous uptime* or *instantaneous availability* measure indicating whether the machine is available to produce parts if needed.

Performance

Performance takes into account speed loss when running. Speed loss includes any factors that cause the process to operate at less than the maximum possible speed; for example, machine wear, substandard materials, misfeeds, and operator inefficiency.

Performance is the ratio of Standard Time to Actual Time:

$$\text{Performance} = \text{Ideal Cycle Time per Piece} / (\text{Time Reported} / \text{Total Pieces Produced})$$

Time Reported is the number of actual hours based on shop reporting and pieces produced, so that this calculation is the equivalent of the ratio of Ideal Cycle Time to Actual Cycle Time, or alternately the ratio of Standard Hours to Actual Hours.

In QAD BI, this is equivalent to:

$$\text{Performance by Site} = \Sigma \text{Standard Hours for All Production Lines at the Site} / \Sigma \text{Actual Run Hours for All Production Lines at the Site},$$

Or

$$\text{Performance by Production Line} = \Sigma \text{Standard Hours for Production Line} / \Sigma \text{Actual Run Hours for Production Line}.$$

Example A site produces a single item in 150 hours of elapsed time on a single production line. However, the theoretical number of hours to produce the item should be 100 standard hours. In this case, the production line has a performance metric of .66 (66%)—100 standard hours / 150 actual hours. Because the site only has one production line, the site performance is .66 as well.

The system includes logic to calculate production line performance in situations where the line has multiple work centers corresponding to reporting points for standard and actual time. While this is not a typical situation, the system allows it and consequently the statistics must reflect the data properly. In this logic, the system accumulates the standard hours reported against the line, irrespective of the work center where the reporting is done. Similarly, it accumulates any actual time reported against the line, again irrespective of the work center where the reporting took place. The ratio of these numbers becomes the performance for the line.

Example A production line has two work centers, Assy-01 and Assy-02. In the reporting period, Assy-01 takes in 65 actual hours to complete 50 standard hours of work, while Assy-02 takes 65 actual hours to complete 40 standard hours of work. In this case, Assy-01 has a performance metric of .77—50 standard hours / 65 actual hours. Assy-02 has a performance metric of .62—40 standard hours / 65 actual hours. The production line itself has a performance metric of .69—90 standard hours for production line / 130 actual hours for production line.

Because performance is capped at 100%, a 100% performance means the process has been consistently running at its theoretical *maximum* speed.

This means that performance is different from traditional *efficiency* calculations, which would reflect via an efficiency statistic greater than 100%, situations where a line was able to beat the standard. Traditional efficiency calculations also include setup time, which is not part of the performance statistic.

Quality Performance

Since the goal is to maximize fully productive time, the final OEE factor measures ratio between good parts and total parts produced for each item averaged over all items.

Quality performance takes into account quality loss, which accounts for produced pieces that do not meet quality standards. This includes both scrap and rework.

The calculation of quality performance can be done in several ways, including as a ratio between the standard hours generated from producing good parts and the total standard hours producing scrap and good parts. However, we have chosen to compute quality performance as the ratio between good pieces produced and total pieces, aggregated and averaged across all parts produced in the resource in the period:

Quality Performance by Site = Σ Quality Performance by Item / Number of Different Items Produced in the Period across all the Items

Quality Performance by Production Line = Σ Quality Performance by Item / Number of Different Items Produced in the Period on the Production Line

Quality Performance by Item = Quantity of Good Parts Produced in the Period / Quantity of Good and Scrap Produced in the Period

100% quality means there have been no scrap pieces.

Note Rework is not included in the quality performance metric. In QAD Enterprise Applications, a user can report that rework has occurred on an item, but the subsequent disposition indicates whether the part has been scrapped or is good.

Example You process 150 units of item A on a particular production line. Of the 150 items, 50 of are reworked. The final result is 125 are good and 25 are scrap. For this item, the quality performance metric is .83—125 good items / 150 total items. Rework statistics are shown in the grid of quality performance, but as noted above, they are not used in the calculations.

Capacity Planning and Control Dashboard

The Capacity Planning and Control – Production Lines dashboard displays the OEE and Throughput metrics for each of your manufacturing sites.

Dashboard Metrics

The Capacity Planning and Control dashboard includes the following primary metrics:

- **OEE.** OEE = Availability x Performance x Quality Performance
- **Throughput.** Throughput = Dollars Produced / Scheduled Hours from Shop Calendar

The dashboard contains an OEE graph showing the summary statistics for each time period over the specified range of dates, from 1 to n weeks or months, for each site in the selected domain. For example, in the Overall OEE chart in Figure 2.1, there are OEE statistics for five different manufacturing sites, over ten weekly periods.

OEE Key Performance Indicators

The standard calculation of OEE by Site and Production Line is:

OEE = Availability x Performance x Quality

In QAD BI,

OEE by site = Availability for the Site x Performance for the Site x Quality Performance for the Site,

and

OEE by production line = Availability for the production line x Performance for the production line x Quality Performance for the production line.

Throughput Key Performance Indicators

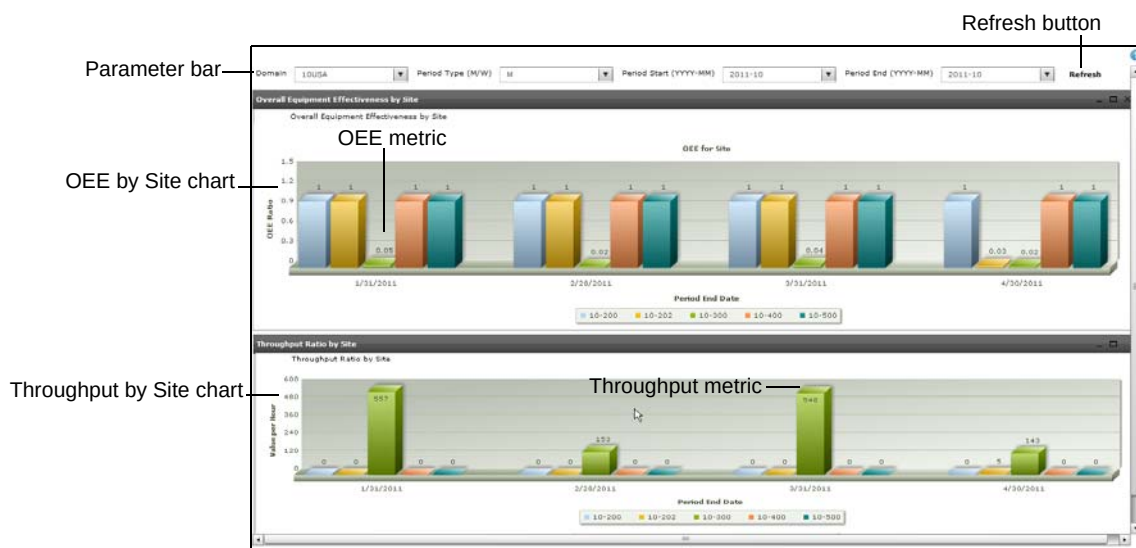
The standard calculation of Throughput by Site and by Production Line is:

$$\text{Throughput} = \Sigma(\text{Standard cost of all products produced}) / \text{scheduled hours from shop calendar}$$

Dashboard Overview

To access this dashboard, select the Dashboard drop-down menu then select QAD Standard|Operations|Capacity Planning and Control - Production Lines.

Fig. 2.1
Capacity Planning and Control - Production Lines Dashboard



The dashboard contains the OEE by Site and Throughput by Site charts, which show the OEE and throughput metrics for each of your manufacturing sites.

Use the parameter bar, located above the two charts, to set the parameters for both of the charts. The following parameters are available:

- **Domain.** Select the financial entity with which a group of sites is associated; for example, all the US sites or all the Thai sites.
- **Period Type (M/W).** Select between weekly (W) or monthly (M) periods in the display.
- **Period Start (YYYY-MM).** Select the starting month for statistics.
- **Period End (YYYY-MM).** Select the ending months for statistics.

In cases where you specify W (weekly) and you specify the current month as the Period End Date, the system displays as many full weeks as possible, up to the current date.

Click in any of the parameter bar fields and type an appropriate value directly, or you can use the drop-down list and select the appropriate period size or period date. After making your selections, click Refresh.

Fig. 2.2
Parameter Bar Selections

Navigation Overview

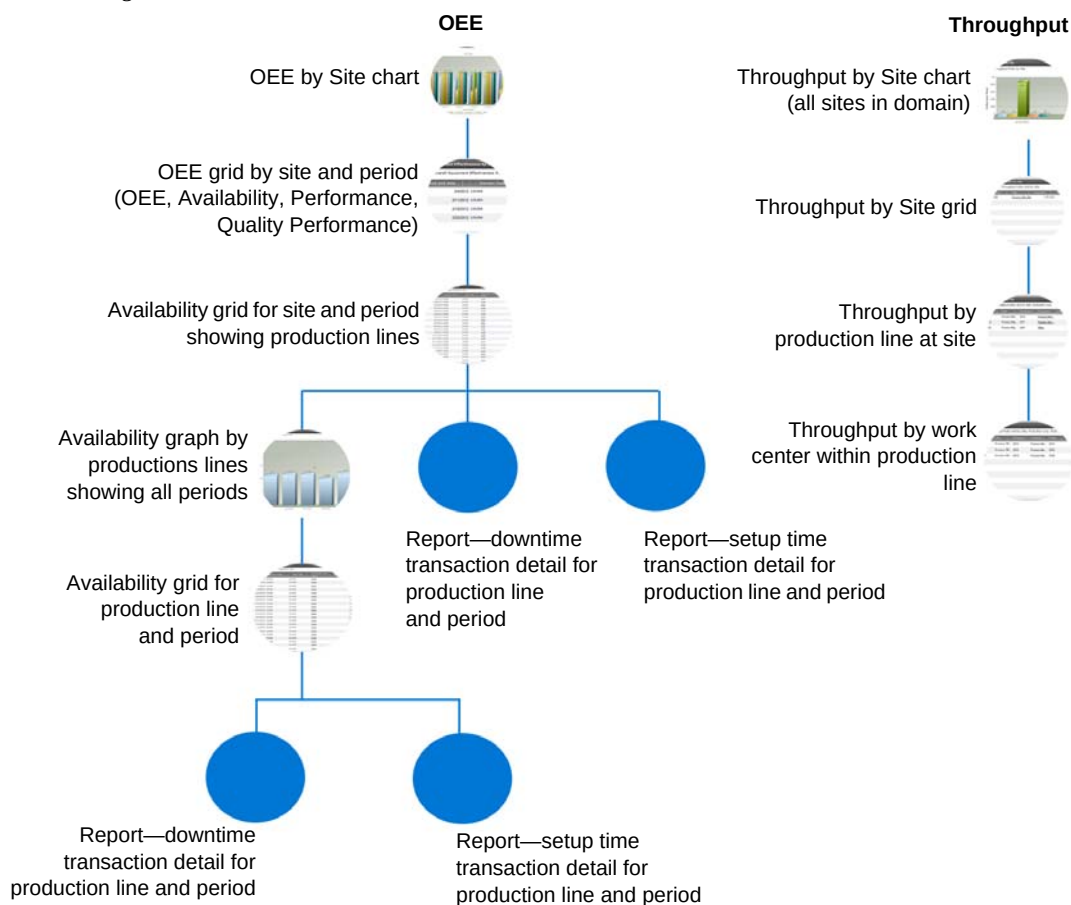
Using the drill-in feature in the Capacity Planning and Control dashboard, you are able to understand high-level site performance and specific resource performance, as well as identify and trace a problem performance back to its root cause.

From the OEE chart, you can drill in many levels. You can drill in from a selected bar on the chart to a grid of data showing availability, performance, and quality performance for the site and period. Then you can drill in to a measures grid that displays the production lines and metrics for the selected site and period. Then you can drill in to graphs of availability, performance and quality by production line. Then you can drill in to the resource detail: availability, performance, and quality performance. Then you can drill in to the underlying details of items and operation history transactions.

To return to the previous graph or grid, click on the back arrow in the upper left corner.

Figure 2.3 shows the navigation flow from the OEE by Site chart, to the Availability metric for the Site, to the availability metric for the production lines at that site, and to the detail behind the availability calculation. Similar navigation exists for OEE to performance and quality performance details.

Fig. 2.3
Dashboard Navigation Flow



The OEE by Site chart displays the OEE metrics of each site for each specified time period. The chart is organized by time period, where each bar depicts the site's OEE in that period. Each period displays the following:

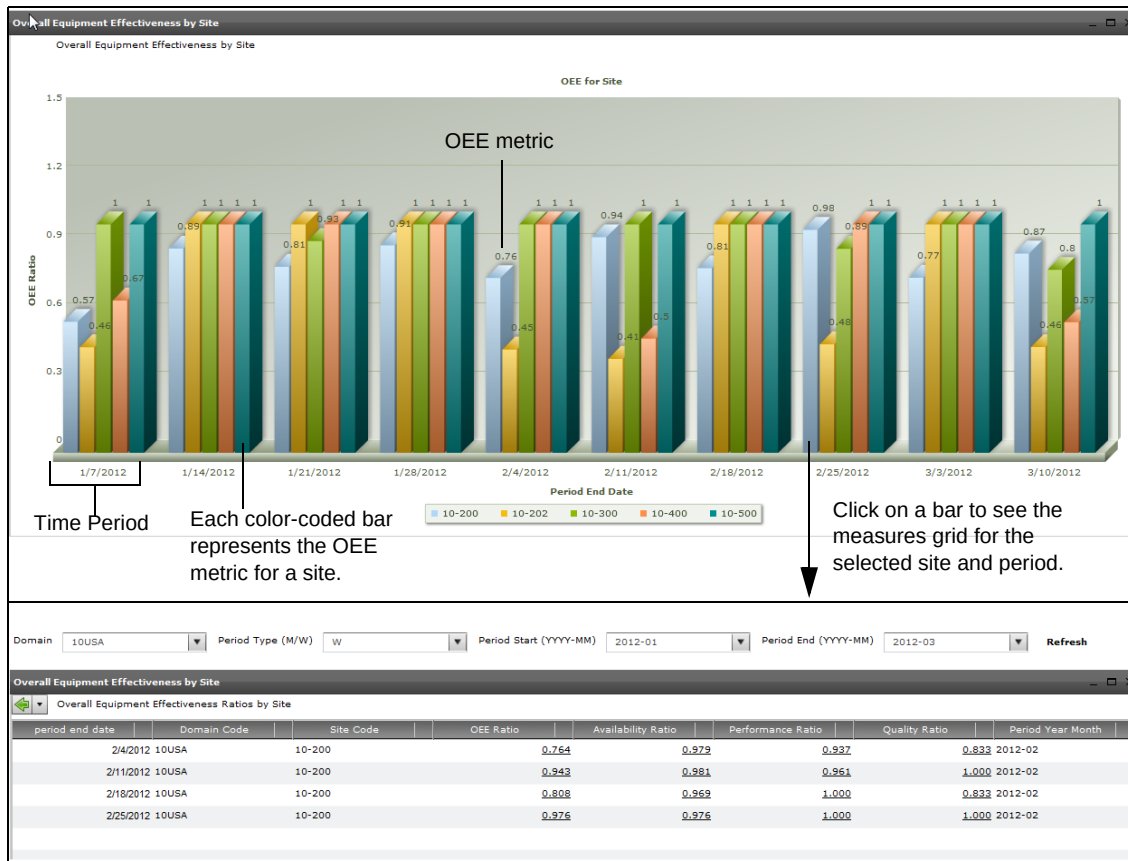
- Sites with Production Lines and Production Line Statistics
- Color-coded bars, which represent the OEE for each site

Note Each bar is linked to a measures grid that displays the various production lines and production line metrics for the selected site and period. This functionality provides the mechanism for navigating to production line charts and the detailed data behind the calculations.

- OEE Statistic, displayed at the top of each bar

Click on any bar to display a measures grid showing the site, the OEE metrics for the period selected, and any other periods in the same month.

Fig. 2.4
OEE by Site Chart



The OEE measures grid displays the following ratios for a specified site and time period:

- **OEE.** Linked to a grid of all production lines and their OEE statistics
- **Availability.** Linked to a grid of all production lines and their Availability statistics
- **Performance.** Linked to a grid of all production lines and their Performance statistics
- **Quality.** Linked to a grid of all production lines and their Quality statistics

Throughput Navigation Flow

The throughput chart in Figure 2.5 shows the throughput metrics for five different manufacturing sites for each time period over the specified range of dates defined by the starting and ending dates in the selection criteria.

From the Throughput chart, you can drill in to a grid that shows the throughput metrics for each site. Then you can drill in to a measures grid that shows the throughput metrics for all productions lines at a site. Then you can drill in to a grid that shows the throughput metric for each work center in a production line at a site.

To return to the previous graph or grid, click the back arrow in the upper left corner.

Fig. 2.5
Throughput Navigation Flow



The following is shown for each time period:

- The sites with production lines and production line metrics
- A bar representing throughput metric for a unique site
- The throughput metric, which is shown at the top of each bar

OEE Measures Grids

The measures grids provide a mechanism for navigating to production line graphs and to the detailed data behind the calculations. There is a distinct measures grid by site and by production line for each of the major statistics that make up OEE.

OEE by Site

The OEE by Site grid shows the OEE metrics for a selected site over a selected period of time. Click on the OEE, Availability, Performance, or Quality metrics to view more detailed information. The following table shows the data that appears on the grid along with the link-to grid you can drill in to:

Column Table	Linked	Target
Period End Date		
Domain Code		
Site Code		
OEE Ratio	X	OEE Ratios by Site, Production Line grid. Shows all the production lines along with the OEE statistics for the time period. See “OEE Ratios by Site, Production Line” on page 17.
Availability Ratio	X	Availability Data by Site, Production Line grid. Shows all the production lines along with the availability data for the time period. See “Availability Data by Site, Production Line” on page 19.
Performance Ratio	X	Performance Data by Site, Production Line grid. Shows all the production lines along with the performance data for the time period. See “Performance Data by Site, Production Line” on page 20.
Quality Ratio	X	Quality Data by Site, Production Line grid. Shows all the production lines along with the quality performance data for the time period. See “Quality Data by Site, Production Line” on page 21.
Period Year Month		

Fig. 2.6
OEE Measures Grid by Site

period end date	Domain Code	Site Code	OEE Ratio	Availability Ratio	Performance Ratio	Quality Ratio	Period Year Month
2/4/2012 10USA	10-200		0.764	0.978	0.937	0.833	2012-02
2/11/2012 10USA	10-200		0.943	0.981	0.961	1.000	2012-02
2/18/2012 10USA	10-200		0.808	0.968	1.000	0.833	2012-02
2/25/2012 10USA	10-200		0.976	0.976	1.000	1.000	2012-02

OEE Ratios by Site, Production Line

The OEE Ratios by Site, Production Line grid shows the OEE metrics for a selected production line at a selected site over a selected period of time. Click on the Production Line Code and the Availability, Performance, or Quality metrics to view more detailed information. The following table shows the data that appears on the grid along with the link-to grid you can drill in to:

Column Table	Linked	Target
Period End Date		
Domain Code		
Site Code		
Production Line Code	X	OEE by Site, Production Line chart. Shows a period-by-period chart of OEE for that production line. See “OEE by Site, Production Line Chart” on page 22.
Production Line		
OEE Ratio		
Availability Ratio	X	Availability Data by Site, Production Line grid. Shows all the production lines along with the availability data for the time period. See “Availability Data by Site, Production Line” on page 19.
Performance Ratio	X	Performance Data by Site, Production Line grid. Shows all the production lines along with the performance data for the time period. See “Performance Data by Site, Production Line” on page 20.
Quality Ratio	X	Quality Data by Site, Production Line grid. Shows all the production lines along with the quality performance data for the time period. See “Quality Data by Site, Production Line” on page 21.
Utilization at Standard*		
Utilization at Actual*		
Period Year Month		

* Reserved for future use.

Fig. 2.7
OEE Ratios by Site, Production Line Grid

period end date	Domain Code	Site Code	Production Line Code	Production Line	OEE Ratio	Availability Ratio	Performance Ratio	Quality Ratio	Utilization at Standard	Utilization at Actual Ratio	Period Year Month
2/4/2012	10USA	10-200	1000	Assembly	0.585	0.750	0.937	0.833	1.000	1.050	2012-02
2/4/2012	10USA	10-200	2130	Stamping 1	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2131	Stamping 2	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2132	Stamping 3	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2133	Stamping 4	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2134	Stamping 5	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2270	Subcontract Pla...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2280	Robotic Wire W...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2281	Robotic Wire W...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2282	Robotic Wire W...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2283	Robotic Wire W...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/4/2012	10USA	10-200	2284	Robotic Wire W...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/11/2012	10USA	10-200	1000	Assembly	0.745	0.775	0.961	1.000	0.875	0.875	2012-02
2/11/2012	10USA	10-200	2130	Stamping 1	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/11/2012	10USA	10-200	2131	Stamping 2	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/11/2012	10USA	10-200	2132	Stamping 3	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/11/2012	10USA	10-200	2133	Stamping 4	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/11/2012	10USA	10-200	2134	Stamping 5	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/11/2012	10USA	10-200	2270	Subcontract Pla...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02
2/11/2012	10USA	10-200	2280	Robotic Wire W...	1.000	1.000	1.000	1.000	0.000	0.000	2012-02

Availability Data by Site, Production Line

The Availability Data by Site, Production Line grid shows the availability metrics for a selected production line at a selected site over a selected period of time. Click on the Production Line Code, Actual Setup Time, Actual Run Time, and Actual Downtime metrics to view more detailed information. The following table shows the data that appears on the grid along with the link-to grid or report you can drill in to:

Column Table	Linked	Target
Period End Date		
Domain Code		
Site Code		
Production Line Code	X	Availability by Site, Production Line graph. Shows the period-by-period graph of availability for that production line. See “Availability Charts, Grids, and Reports” on page 23.
Production Line		
Availability Ratio		
Total Hours in Period		
Actual Setup Time	X	Setup Time report. Shows the transactions reporting setup hours for the period for the production line. See “Availability Charts, Grids, and Reports” on page 23.
Actual Run Time	X	Run Time report. Shows the transactions reporting run hours for the period for the production line. See “Availability Charts, Grids, and Reports” on page 23.
Reported Downtime	X	Downtime report. Shows the transactions reporting downtime hours for the period for the production line. See “Availability Charts, Grids, and Reports” on page 23.
Period Year Month		

Fig. 2.8
Availability Data by Site, Production Line Grid

period end date	Domain Code	Site Code	Production Line Code	Availability Ratio	Total Hours in Period	Actual Setup Time	Actual Run Time	Reported Downtime	Period Year Month
2/4/2012	10USA	10-200	1000	0.750	40.00	10.00	32.00	0.00	2012-02
2/4/2012	10USA	10-200	2130	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2131	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2132	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2133	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2134	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2270	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2280	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2281	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2282	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2283	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2284	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	1000	0.775	40.00	2.00	26.00	0.00	2012-02
2/11/2012	10USA	10-200	2130	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2131	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2132	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2133	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2134	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2270	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2280	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2281	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2282	1.000	40.00	0.00	0.00	0.00	2012-02

Performance Data by Site, Production Line

The Performance Data by Site, Production Line grid shows the performance metrics for a selected production line at a selected site over a selected period of time. Click on the Production Line Code, Actual Setup Time, Actual Run Time, Standard Setup Time, and Standard Run Time metrics to view more detailed information. The following table shows the data that appears on the grid along with the link-to grid or report you can drill in to:

Column Table	Linked	Target
Period End Date		
Domain Code		
Site Code		
Production Line Code	X	Performance by Site, Production Line graph. Shows the period-by-period graph of performance for that production line and period. See “Performance Graphs, Grids, and Reports” on page 26.
Production Line		
Performance Ratio		
Actual Setup Time	X	Actual Setup Time report. Shows a report of transactions showing items produced in the period along with the actual setup hours reported in the period. See “Performance Graphs, Grids, and Reports” on page 26.
Actual Run Time	X	Actual Run Time report. Shows a report of transactions showing items produced in the period along with the actual hours reported in the period. See “Performance Graphs, Grids, and Reports” on page 26.
Standard Setup Time	X	Standard Setup Time report. Shows a report of transactions showing items produced in the period along with the standard setup hours earned in the period. See “Performance Graphs, Grids, and Reports” on page 26.
Standard Run Time	X	Standard Run Time report. Shows a report of transactions showing items produced in the period along with the standard hours earned in the period. See “Performance Graphs, Grids, and Reports” on page 26.
Total Hours in Period		
Period Year Month		

Fig. 2.9
Performance Measures Grid

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QAD Business Intelligence System
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Domain: 10USA Period Type (M/W): W Period Start (YYYY-MM): 2012-01 Period End (YYYY-MM): 2012-03 Refresh

Overall Equipment Effectiveness by Site

Performance Data by Site, Production Line

period end date	Domain Code	Site Code	Production Line Code	Production Line	Performance Ratio	Actual Setup Time	Actual Run Time	Standard Setup Time	Standard Run...	Total Hours in Period	Period Year Month
2/4/2012	10USA	10-202	ASSY-01	Assembly PL G...	0.456	0.00	110.43	0.00	50.44	224.00	2012-02
2/4/2012	10USA	10-202	CAST-G	Casting PL Group	1.000	0.00	0.00	0.00	0.00	63.00	2012-02
2/4/2012	10USA	10-202	PLATE-01	Plating PL Group	1.000	0.00	0.00	0.00	0.00	152.25	2012-02
2/4/2012	10USA	10-202	PLATE-02	Plating PL Group	1.000	0.00	0.00	0.00	0.00	133.00	2012-02
2/4/2012	10USA	10-202	PLATE-03	Plating PL Group	1.000	0.00	0.00	0.00	0.00	152.25	2012-02
2/4/2012	10USA	10-202	STAMP-01	Stamping PL 01	1.000	0.00	0.00	0.00	0.00	56.00	2012-02
2/4/2012	10USA	10-202	STAMP-02	Stamping PL 02	1.000	0.00	0.00	0.00	0.00	56.00	2012-02
2/4/2012	10USA	10-202	STAMP-03	Stamping PL 03	1.000	0.00	0.00	0.00	0.00	56.00	2012-02
2/4/2012	10USA	10-202	STAMP-G	Stamping PL G...	1.000	0.00	0.00	0.00	0.00	168.00	2012-02
2/11/2012	10USA	10-202	ASSY-01	Assembly PL G...	0.439	0.00	4.03	0.00	1.77	224.00	2012-02
2/11/2012	10USA	10-202	CAST-G	Casting PL Group	1.000	0.00	0.00	0.00	0.00	63.00	2012-02
2/11/2012	10USA	10-202	PLATE-01	Plating PL Group	1.000	0.00	0.00	0.00	0.00	152.25	2012-02
2/11/2012	10USA	10-202	PLATE-02	Plating PL Group	1.000	0.00	0.00	0.00	0.00	133.00	2012-02
2/11/2012	10USA	10-202	PLATE-03	Plating PL Group	1.000	0.00	0.00	0.00	0.00	152.25	2012-02
2/11/2012	10USA	10-202	STAMP-01	Stamping PL 01	1.000	0.00	0.00	0.00	0.00	56.00	2012-02
2/11/2012	10USA	10-202	STAMP-02	Stamping PL 02	1.000	0.00	0.00	0.00	0.00	56.00	2012-02
2/11/2012	10USA	10-202	STAMP-03	Stamping PL 03	1.000	0.00	0.00	0.00	0.00	56.00	2012-02
2/11/2012	10USA	10-202	STAMP-G	Stamping PL G...	1.000	0.00	0.00	0.00	0.00	168.00	2012-02
2/18/2012	10USA	10-202	ASSY-01	Assembly PL G...	1.000	0.00	0.00	0.00	0.00	0.00	2012-02
2/18/2012	10USA	10-202	CAST-G	Casting PL Group	1.000	0.00	0.00	0.00	0.00	63.00	2012-02

Quality Data by Site, Production Line

The Quality Data by Site, Production Line grid shows the quality performance metrics for a selected production line at a selected site over a selected period of time. Click on the Production Line Code and the Quality Ratio metrics to view more detailed information. The following table shows the data that appears on the grid along with the link-to grid you can drill in to:

Column Table	Linked	Target
Period End Date		
Domain Code		
Site Code		
Production Line Code	X	Quality by Site, Production Line graph. Shows the period by period graph of quality performance for that production line. See "Quality Performance Graphs, Grids, and Reports" on page 29.
Production Line		
Quality Ratio	X	Quality by Site, Production Line, Item grid. Shows all the items produced in the period, along with their quality performance statistics. See "Quality Performance Graphs, Grids, and Reports" on page 29.
Good Standard (standard hours of good production)		
Scrap Standard (standard hours of scrapped production)		
Total Standard (standard hours total, good + scrap)		
Period Year Month		

Fig. 2.10
Quality Performance Measures Grid

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Domain: 10USA Period Type (M/W): W Period Start (YYYY-MM): 2012-01 Period End (YYYY-MM): 2012-03 Refresh

Overall Equipment Effectiveness by Site

Quality Data by Site, Production Line

period end date	Domain Code	Site Code	Production Line	Production Line	Quality Ratio	Good Standard	Scrap Standard	Total Standard	Period Year
2/4/2012	10USA	10-200	1000	Assembly	0.833	25.00	5.00	30.00	2012-02
2/11/2012	10USA	10-200	1000	Assembly	1.000	25.00	0.00	25.00	2012-02
2/18/2012	10USA	10-200	1000	Assembly	0.833	50.00	10.00	60.00	2012-02
2/25/2012	10USA	10-200	1000	Assembly	1.000	25.00	0.00	25.00	2012-02

Diagnostic Graphs and Production Line Statistics

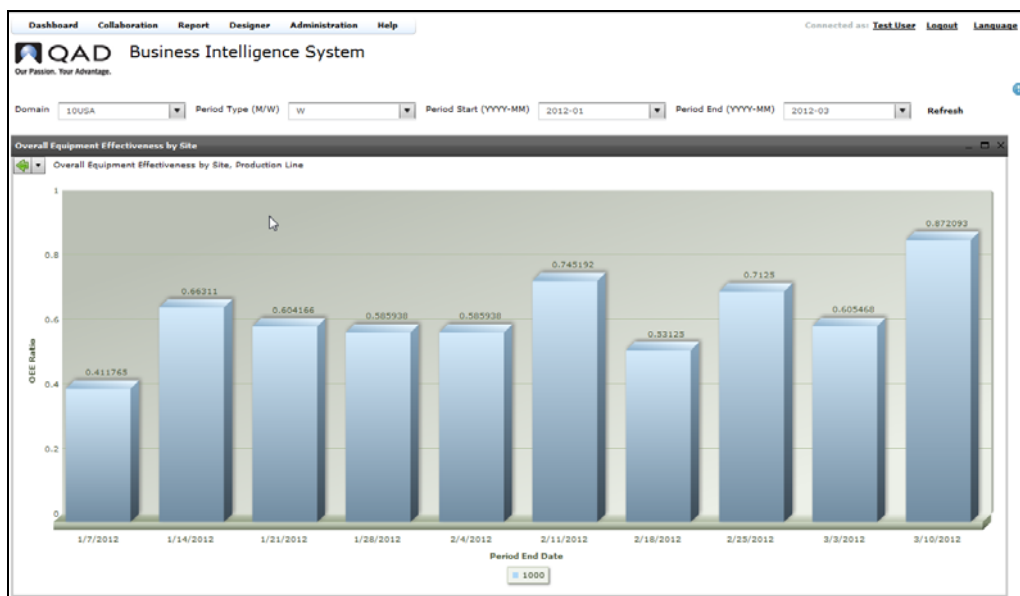
OEE by Site, Production Line Chart

The OEE by Site, Production Line chart displays the OEE statistic for each time period for the selected production line.

Follow these steps to access the OEE by Period for Production Line chart:

- 1 From the OEE by Site chart, click on a bar representing the OEE for a site.
- 2 Click OEE Ratio.
- 3 Click the Production Line Code you want.

Fig. 2.11
OEE by Site, Production Line Chart



Availability Charts, Grids, and Reports

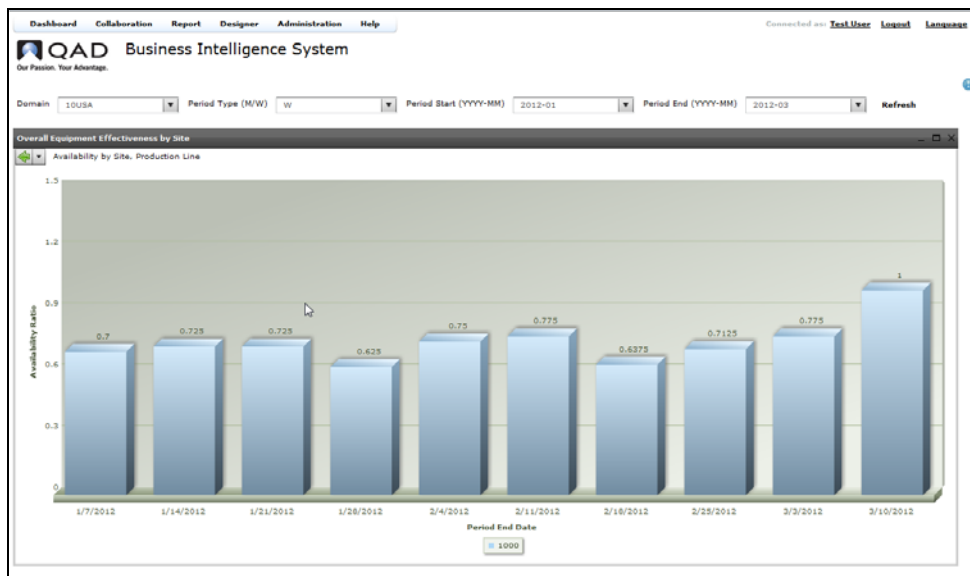
The Availability by Site, Production Line chart displays the availability statistic for each time period for the selected production line.

Follow these steps to navigate through the Availability charts, grids, and reports:

- 1 From the OEE by Site chart, click on a bar representing the OEE for a site.
- 2 From the OEE Ratios by Site grid, click the Availability Ratio you want.
- 3 Click the Production Line Code you want.
- 4 The dashboard displays the Availability by Site, Production Line chart.

Fig. 2.12

Availability by Site, Production Line Chart



- 5 Click on a bar to view the Availability Data grid for that week or month.

Note If you click on a bar that corresponds to a weekly period, the system returns a grid showing the detail data for that week and all the others in the same month.

Fig. 2.13
Availability Data by Site, Production Line Grid

period end date	Domain Code	Site Code	Production Line Code	Availability Ratio	Total Hours in Period	Actual Setup Time	Actual Run Time	Reported Downtime	Period Year Month
2/4/2012	10USA	10-200	1000	0.750	40.00	10.00	22.00	0.00	2012-02
2/4/2012	10USA	10-200	2130	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2131	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2132	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2133	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2134	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2270	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2280	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2281	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2282	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2283	1.000	40.00	0.00	0.00	0.00	2012-02
2/4/2012	10USA	10-200	2284	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	1000	0.775	40.00	3.00	26.00	0.00	2012-02
2/11/2012	10USA	10-200	2130	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2131	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2132	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2133	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2134	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2270	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2280	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2281	1.000	40.00	0.00	0.00	0.00	2012-02
2/11/2012	10USA	10-200	2282	1.000	40.00	0.00	0.00	0.00	2012-02

- 6 Navigate back and forth between the Availability Data grid and the Availability graph. To navigate back to the graph, click the green arrow in the top left corner of the grid. To navigate back to the grid, click on any bar on the Availability graph.

The Availability graph and grid give you the ability to research the detail of the performance statistics across any time period, whether it is week by week or month by month.

- 7 From the Availability Data grid you can access the following reports:

- **Downtime Report.** To view, click Reported Downtime statistic.

Fig. 2.14
Downtime Report



Down Time for Site 10-200, Production Line 1000

Work Center	Work Center Description	Item Number	Item Description	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Reported Downtime
2280	Robotic Weld	02250	Bifurcated Valve Assem	10	DOWNTIME	30974	02-14-2012		4.00

3/7/2012

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The Downtime Report contains the following fields:

- Work Center (within the Production Line)
- Work Center Description
- Item Number
- Item Description
- Order Number

- Work Order Operation
- Operation Type
- Transaction Number
- Effective Date (Transaction Date)
- Reported Downtime
- Total Downtime (Summary Line)
- **Setup Time Report.** To view, click the Actual Setup Time statistic.

Fig. 2.15
Setup Time Report



Setup Time for Site 10-200, Production Line 1000

Work Center	Work Center Description	Item Number	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Actual Setup Time
2280	Robotic Weld	02250		10	SETUP	30979	01-30-2012	10.00
								10.00

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The Setup Time Report contains the following fields:

- Work Center (within the Production Line)
- Work Center Description
- Item Number
- Order Number
- Work Order Operation
- Operation Type Code
- Transaction Number
- Effective Date (Transaction Date)
- Actual Setup Time
- Total Setup Time (Summary Line)
- **Run Time Report.** To view, click the Actual Run Time statistic.

Fig. 2.16
Run Time Report



Run Time for Site 10-200, Production Line 1000

Work Center	Work Center Description	Item Number	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Actual Run Time	Quantity Good	Quantity Scrap
2280	Robotic Weld	02250		10	BACKFLSH	30967	01-30-2012	32.00	10.00	2.00
								32.00	10.00	2.00

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The Run Time Report contains the following fields:

- Work Center (within the Production Line)
- Work Center Description
- Item Number

- Order Number
- Work Order Operation
- Operation Type Code
- Transaction Number
- Effective Date (Transaction Date)
- Actual Run Time
- Total Run Time (Summary Line)
- Quantity Good
- Total Good (Summary Line)
- Quantity Scrap
- Total Scrap (Summary Line)

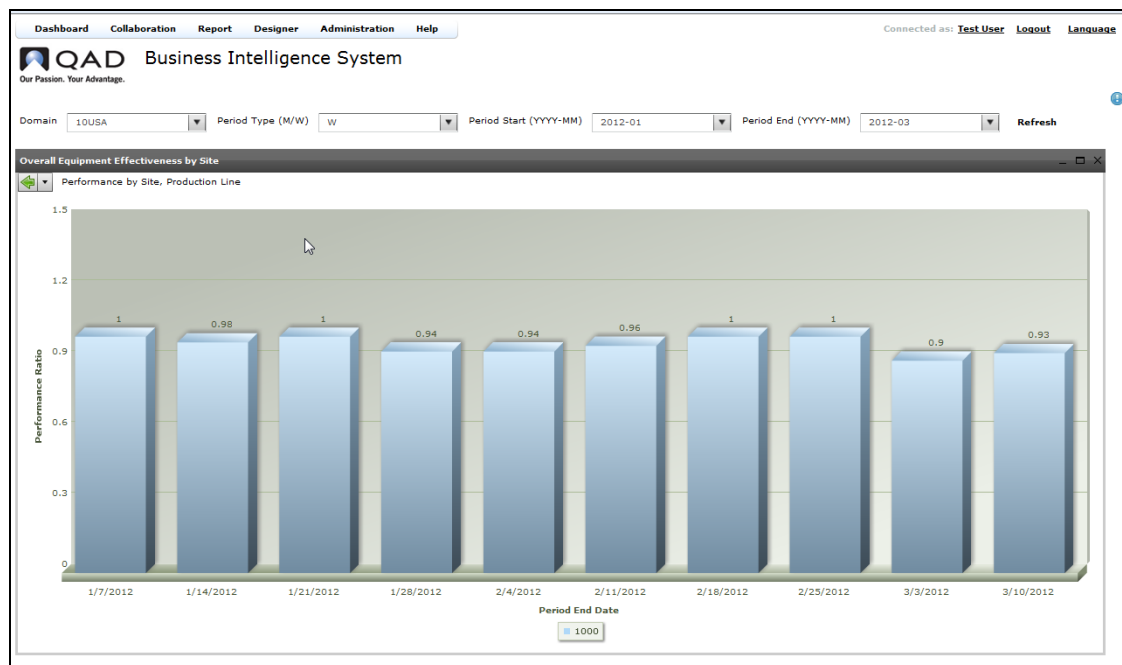
Performance Graphs, Grids, and Reports

The Performance by Site, Production Line chart displays the availability statistic for each time period for the selected production line.

Follow these steps to navigate through the Performance charts, grids, and reports:

- 1 From the OEE by Site chart, click on a bar representing the OEE for a site.
- 2 From the OEE Ratios by Site grid, click the Performance Ratio you want.
- 3 Click the Production Line Code you want.
- 4 The dashboard displays the Performance by Site, Production Line chart.

Fig. 2.17
Performance by Site, Production Line Chart



- 5 Click on a bar to view the Performance Data grid for that week or month.

Note If you click on a bar that corresponds to a weekly period, the system returns a grid showing the detail data for that week and all the others in the same month.

Fig. 2.18
Performance Ratios Grid

period end date	Domain Code	Site Code	Production Line Code	Production Line	Performance Ratio	Actual Setup Time	Actual Run Time	Standard Setup Time	Standard Run Time	Total Hours in Period	Period Year Month
1/7/2012	10USA	10-200	1000	Assembly	1.000	12.00	22.00	10.00	42.50	40.00	2012-01
1/14/2012	10USA	10-200	1000	Assembly	0.975	10.00	82.00	10.00	80.00	40.00	2012-01
1/21/2012	10USA	10-200	1000	Assembly	1.000	11.00	29.00	10.00	20.00	40.00	2012-01
1/28/2012	10USA	10-200	1000	Assembly	0.937	13.00	24.00	10.00	22.50	40.00	2012-01

- 6 Navigate back and forth between the Performance Data grid and the Performance graph. To navigate back to the graph, click the green arrow in the top left corner of the grid. To navigate back to the grid, click on any bar on the Performance graph.

The Performance graph and grid give you the ability to research the detail of the performance statistics across any time period, whether it is week by week or month by month.

- 7 From the Performance Data grid you can access the following reports:
- **Actual Run Time Report.** To view, click the Actual Run Time statistic.

Fig. 2.19
Actual Run Time Report

Work Center	Work Center Description	Item Number	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Actual Run Time	Quantity Good	Quantity Scrap
2280	Robotic Weld	02250	10	BACKFLSH	30967	01-30-2012		32.00	10.00	2.00
								32.00	10.00	2.00

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The Actual Run Time Report contains the following columns:

- Work Center (within the Production Line)
- Work Center Description
- Item Number
- Order Number
- Work Order Operation
- Operation Type Code
- Transaction Number
- Effective Date (Transaction Date)
- Actual Run Time
- Total Run Time (Summary Line)
- Quantity Good

- Total Good (Summary Line)
- Quantity Scrap
- Total Scrap (Summary Line)
- **Standard Run Time Report.** To view, click the Standard Run Time statistic.

Fig. 2.20
Standard Run Time Report



Standard Run Time for Site 10-200, Production Line 1000

Work Center	Work Center Description	Item Number	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Standard Run Time	Quantity Good	Quantity Scrap
2280	Robotic Weld	02250		10	BACKFLSH	30967	01-30-2012	30.00	10.00	2.00
								30.00	10.00	2.00

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The Standard Run Time Report contains the following fields:

- Work Center (within the Production Line)
 - Work Center Description
 - Item Number
 - Order Number
 - Work Order Operation
 - Operation Type Code
 - Transaction Number
 - Effective Date (Transaction Date)
 - Standard Run Time
 - Total Run Time (Summary Line)
 - Quantity Good
 - Total Good (Summary Line)
 - Quantity Scrap
 - Total Scrap (Summary Line)
 - **Actual Setup Time Report.** To view, click the Actual Setup Hours statistic.
- Note that the Actual Setup Time data is not part of the performance calculation.

Fig. 2.21
Actual Setup Time Report



Setup Time for Site 10-200, Production Line 1000

Work Center	Work Center Description	Item Number	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Actual Setup Time
2280	Robotic Weld	02250		10	SETUP	30979	01-30-2012	10.00
								10.00

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The Actual Setup Time Report contains the following fields:

- Work Center (within the Production Line)

- Work Center Description
 - Item Number
 - Order Number
 - Work Order Operation
 - Operation Type Code
 - Transaction Number
 - Effective Date (Transaction Date)
 - Actual Setup Time
 - Total Setup Time (Summary Line)
- **Standard Setup Time Report.** To view, click the Standard Setup Time statistic.
Note that the Standard Setup Time data is not part of the performance calculation.

Fig. 2.22
Standard Setup Time Report



Standard Setup Time for Site 10-200, Production Line 1000

Work Center	Work Center Description	Item Number	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Standard Setup Time
2280	Robotic Weld	02250		10	SETUP	30979	01-30-2012	10.00
								10.00

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The Standard Setup Time Report contains the following fields:

- Work Center (within the Production Line)
- Work Center Description
- Item Number
- Order Number
- Work Order Operation
- Operation Type Code
- Transaction Number
- Effective Date (Transaction Date)
- Standard Setup Time
- Total Setup Time (Summary Line)

Quality Performance Graphs, Grids, and Reports

The Quality by Site, Production Line chart displays the quality performance statistic for each time period for the selected production line.

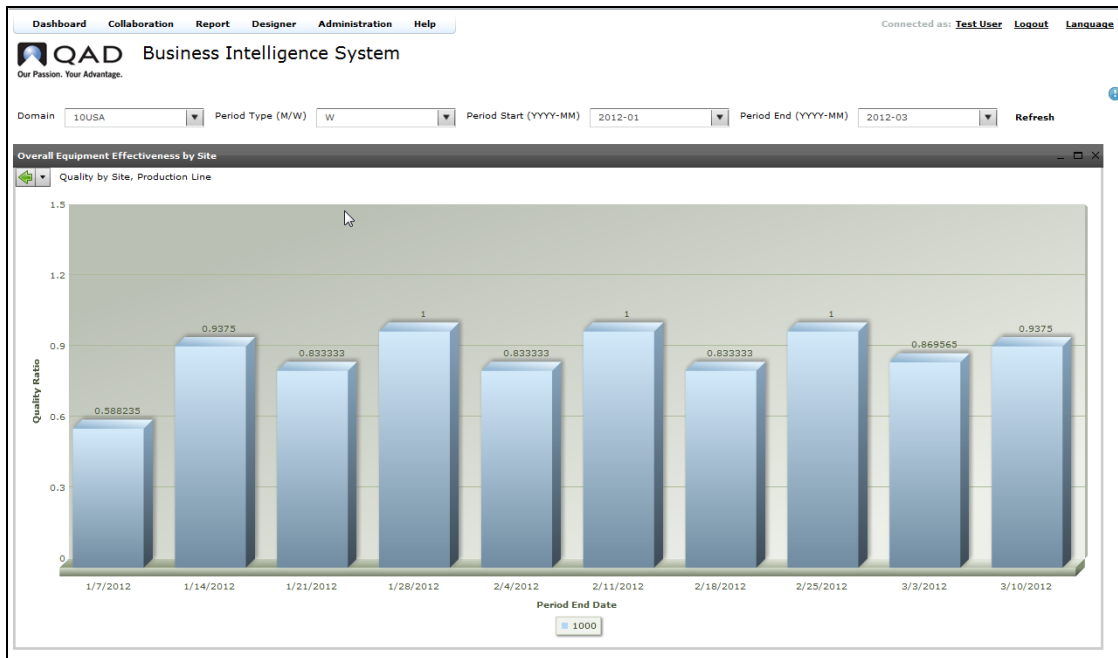
Follow these steps to navigate through the quality performance charts, grids, and reports:

- 1 From the OEE by Site chart, click on a bar representing the OEE for a site.
- 2 From the OEE Ratios by Site grid, click the quality performance Ratio you want.
- 3 Click the Production Line Code you want.

- 4 The dashboard displays the Quality by Site, Production Line chart.

Fig. 2.23

Quality by Site, Production Line Chart



Note This graph is for a specific production line, but the Production Line ID is not shown. To find the Production Line ID that you are working on, simply float your cursor over the title shown just under the gray title bar for the graph and a pop-up box appears that displays the production line ID. This functionality exists for all visual items in the Capacity Planning and Control module.

- 5 Click on a bar to view the Quality Data by Site, Production Line grid for that week or month.

Note If you click on a bar that corresponds to a weekly period, the system returns a grid showing the detail data for that week and all the others in the same month.

Fig. 2.24

Quality Ratios Grid

period end date	Domain Code	Site Code	Production Line	Quality Ratio	Good Standard	Scrap Standard	Total Standard	Period Year
2/4/2012	10USA	10-200	1000	0.833	25.00	5.00	30.00	2012-02
2/11/2012	10USA	10-200	1000	1.000	25.00	0.00	25.00	2012-02
2/18/2012	10USA	10-200	1000	0.833	50.00	10.00	60.00	2012-02
2/25/2012	10USA	10-200	1000	1.000	25.00	0.00	25.00	2012-02

- 6 Navigate back and forth between the Quality Data grid and the Quality graph. To navigate back to the graph, click the green arrow in the top left corner of the grid. To navigate back to the grid, click on any bar on the Quality graph.

The Quality graph and grid give you the ability to research the detail of the performance statistics across any time period, whether it is week by week or month by month.

- 7 Quality Performance for a production line is computed as an average of item quality across all the items produced in the period. It is not calculated from the ratio of good standard hours to total standard hours (scrap plus good), although this data is shown in the Quality grids in the system.

To understand where a particular quality ratio came from, it is necessary to understand the individual quality performance by item. Click on the Quality Ratio in the Quality grid to view the Quality Data by Site, Production Line, Item grid.

Fig. 2.25
Quality Data by Site, Production Line, Item Grid

period end date	Site Code	Production Line Code	Item Number	Item Description	Good Quantity	Scrap Quantity	Rework Quantity	Total Quantity	Good Standard	Scrap Standard	Quality Ratio	Period Year Month
2/4/2012 10-200	1000	1000	02250	Bifurcated Val...	10.00	2.00	0.00	12.00	25.00	5.00	0.833	2012-02
2/11/2012 10-200	1000	1000	02250	Bifurcated Val...	10.00	0.00	0.00	10.00	25.00	0.00	1.000	2012-02
2/18/2012 10-200	1000	1000	02250	Bifurcated Val...	20.00	4.00	0.00	24.00	50.00	10.00	0.833	2012-02
2/25/2012 10-200	1000	1000	02250	Bifurcated Val...	10.00	0.00	0.00	10.00	25.00	0.00	1.000	2012-02

- 8 From the Quality Data grid you can access the following reports:
- **Good Quantity Report.** To view this report, click the Good Quantity statistic.

Fig. 2.26
Good Quantity Report

Good Quantity for Site 10-200, Production Line 1000, Item 02250

Work Center	Work Center Description	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Quantity Good	Standard Run Time Good
2280	Robotic Weld		10	BACKFLSH	30967	01-30-2012	10.00	25.00
							10.00	25.00

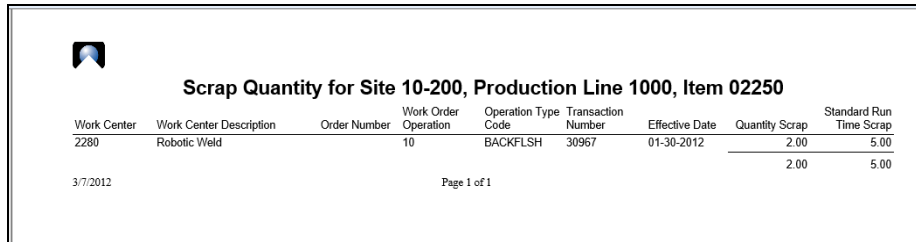
3/7/2012

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The Good Quantity report contains the following fields:

- Work Center (within the Production Line)
- Work Center Description
- Order Number
- Work Order Operation
- Operation Type Code
- Transaction Number
- Effective Date (Transaction Date)
- Quantity Good
- Standard Run Time Good
- Total Quantity Good (Summary Line)
- Total Standard Run Hours (Summary Line)
- **Scrap Quantity Report.** To view this report, click the Scrap Quantity statistic.

Fig. 2.27
Scrap Quantity Report



Scrap Quantity for Site 10-200, Production Line 1000, Item 02250

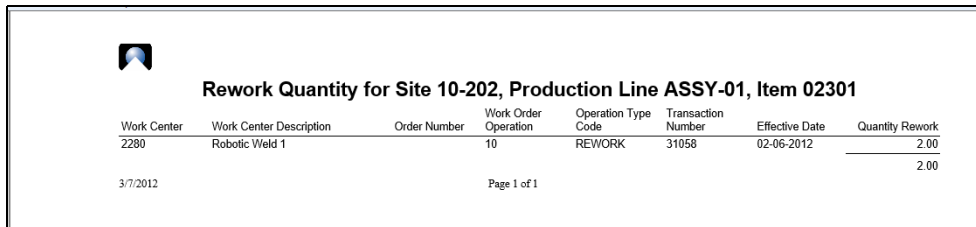
Work Center	Work Center Description	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Quantity Scrap	Standard Run Time Scrap
2280	Robotic Weld		10	BACKFLSH	30967	01-30-2012	2.00	5.00
							2.00	5.00

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The Scrap Quantity report contains the following fields:

- Work Center (within the Production Line)
- Work Center Description
- Order Number
- Work Order Operation
- Operation Type Code
- Transaction Number
- Effective Date (Transaction Date)
- Quantity Scrap
- Standard Run Time Scrap
- Total Quantity Scrap (Summary Line)
- Total Standard Scrap Hours (Summary Line)
- **Rework Quantity Report.** To view this report, click the Rework Quantity statistic.

Fig. 2.28
Rework Quantity Report



Rework Quantity for Site 10-202, Production Line ASSY-01, Item 02301

Work Center	Work Center Description	Order Number	Work Order Operation	Operation Type Code	Transaction Number	Effective Date	Quantity Rework
2280	Robotic Weld 1		10	REWORK	31058	02-06-2012	2.00
							2.00

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The Rework Quantity report contains the following fields:

- Work Center (within the Production Line)
- Work Center Description
- Order Number
- Work Order Operation
- Operation Type Code
- Transaction Number
- Effective Date (Transaction Date)
- Quantity Reworked
- Total Quantity Reworked (Summary Line)

Throughput Measures Grids

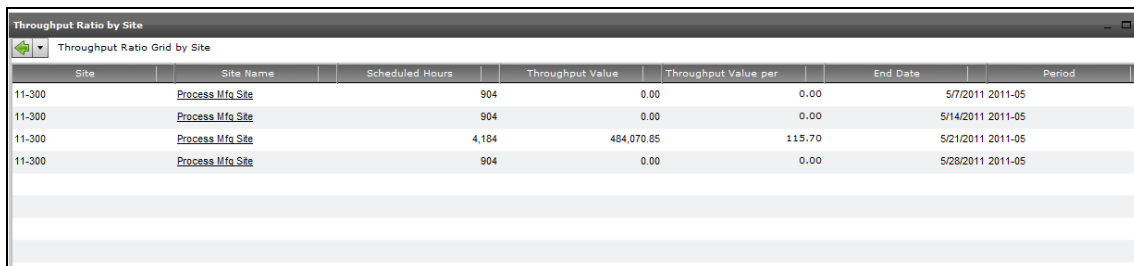
Throughput Ratio by Site

The Throughput Ratio by Site grid shows the throughput metrics for a selected site over a selected period of time. In this grid, the total volume of product produced in the period is the sum of the throughput volumes for the individual production lines at the site. These volumes are the sum of the work center volumes, which in turn are those that are reported on shop transactions. Scheduled Hours for the production line is the sum of the scheduled hours for each of the production lines at the site.

Click on the Site Name to view the Throughput Ratio by Site, Production Line grid. The following table shows the data that appears on the grid along with the link-to grid you can drill in to:

Column Table	Linked	Target
Site		
Site Name	X	Throughput Ratio by Site, Production Line grid. Shows the production line detail, including the data used to calculate the throughput metric for the time periods. See “Throughput Ratio by Site, Production Line” on page 33.
Scheduled Hours (calendar hours in the period)		
Throughput Value (dollar volume produced in the period)		
Throughput Value per (dollar volume per hour)		
End Date (end date of period)		
Period		

Fig. 2.29
OEE Measures Grid by Site



Site	Site Name	Scheduled Hours	Throughput Value	Throughput Value per	End Date	Period
11-300	Process Mfg Site	904	0.00	0.00	5/7/2011 2011-05	
11-300	Process Mfg Site	904	0.00	0.00	5/14/2011 2011-05	
11-300	Process Mfg Site	4,184	484,070.85	115.70	5/21/2011 2011-05	
11-300	Process Mfg Site	904	0.00	0.00	5/28/2011 2011-05	

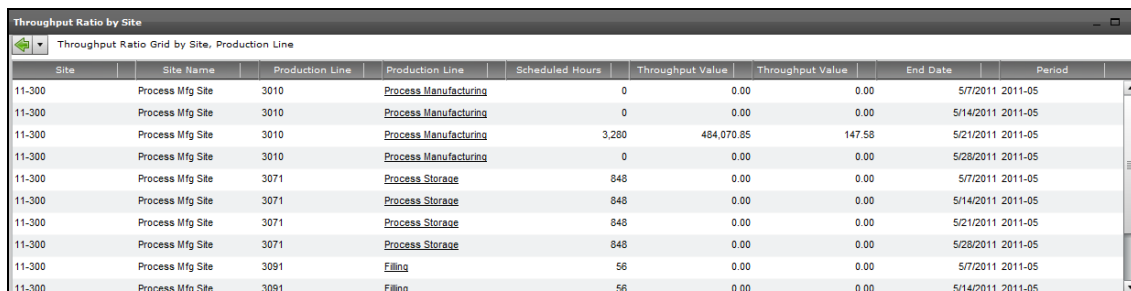
Throughput Ratio by Site, Production Line

The Throughput Ratio by Site, Production Line grid shows the throughput metrics for a selected production line in a selected site over a selected period of time. In this grid, the total volume of product produced in the period is the sum of the throughput volumes for the individual work centers that are part of the production line. These volumes are the sum of those reported on shop transactions. Scheduled Hours for the production line is the sum of the scheduled hours for each of the work centers that make up the production line.

Click on the Production Line Description to view the Throughput Ratio by Site, Production Line, Work Center grid. The following table shows the data that appears on the grid along with the link-to grid you can drill in to:

Column Table	Linked	Target
Site		
Site Name		
Production Line		
Production Line Description	X	Throughput Ratio by Site, Production Line, Work Center grid. Shows the throughput metrics for the selected time period and all the work centers on the production line. See “Throughput Ratio by Site, Production Line, Work Center” on page 34.
Scheduled Hours (calendar hours in the period)		
Throughput Value (dollar volume produced in the period)		
Throughput Value per (dollar volume per hour)		
End Date (end date of period)		
Period		

Fig. 2.30
Throughput Ratio by Site, Production Line Grid



Site	Site Name	Production Line	Production Line	Scheduled Hours	Throughput Value	Throughput Value	End Date	Period
11-300	Process Mfg Site	3010	Process Manufacturing	0	0.00	0.00	5/7/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	0	0.00	0.00	5/14/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3,280	484,070.85	147.58	5/21/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	0	0.00	0.00	5/28/2011	2011-05
11-300	Process Mfg Site	3071	Process Storage	848	0.00	0.00	5/7/2011	2011-05
11-300	Process Mfg Site	3071	Process Storage	848	0.00	0.00	5/14/2011	2011-05
11-300	Process Mfg Site	3071	Process Storage	848	0.00	0.00	5/21/2011	2011-05
11-300	Process Mfg Site	3071	Process Storage	848	0.00	0.00	5/28/2011	2011-05
11-300	Process Mfg Site	3091	Filing	56	0.00	0.00	5/7/2011	2011-05
11-300	Process Mfg Site	3091	Filing	56	0.00	0.00	5/14/2011	2011-05

Throughput Ratio by Site, Production Line, Work Center

The Throughput Ratio by Site, Production Line, Work Center grid shows the throughput metrics for all work centers in a production line at a selected site over a selected period of time. In this grid, the total volume of product produced in the period is the sum of the throughput volumes reported on shop transactions.

The following table shows the data that appears on the grid:

Column Table	Linked	Target
Site		
Site Name		
Scheduled Hours (calendar hours in the period)		
Throughput Value (dollar volume produced in the period)		

Column Table**Linked Target**

Throughput Value per (dollar volume per hour)

End Date (end date of period)

Period

Fig. 2.31

Throughput Ratio by Site, Production Line, Work Center Grid

Throughput Ratio by Site									
Throughput Ratio Grid by Site, Production Line, Work Center									
Site	Site Name	Production Line	Production Line	Work Center	Scheduled Hours	Throughput	Throughput	End Date	Period
11-300	Process Mfg Site	3010	Process Manufacturing	3010	0	0.00	0.00	5/7/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3010	0	0.00	0.00	5/14/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3010	1,640	431,999.46	263.41	5/21/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3010	0	0.00	0.00	5/28/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3070	0	0.00	0.00	5/7/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3070	0	0.00	0.00	5/14/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3070	1,640	52,071.39	31.75	5/21/2011	2011-05
11-300	Process Mfg Site	3010	Process Manufacturing	3070	0	0.00	0.00	5/28/2011	2011-05

Operations: Inventory Management

This chapter provides detailed information about the Operations - Inventory Management dashboard. It includes the following topics:

Introduction **38**

An introduction to inventory management and the metrics included in Inventory Management module.

Inventory Management Dashboard **38**

Detailed overview of the Inventory Management dashboard and the inventory turns, inventory turns, days on hand, nettable vs. non-nettable, and the inventory on hand trend KPIs.

Introduction

The Inventory Management module in QAD BI includes measures of inventory turnover, inventory days of supply, and inventory value by site and product line. The goal of this module is to ensure that inventory is matched to customer needs, allowing you to meet demand while minimizing inventory. The inventory metrics in this module help answer the following questions:

- How many dollars do we have invested in inventory? By site? By product line?
- How productively are we using our inventory? Are we turning our finished goods faster or slower than we did in the past? Are we turning overall inventories faster or slower?
- Where are our opportunities for increased inventory turnover and reduced inventory carrying cost?
- How do our inventory turns compare to our competitors?

The inventory metrics provide a way to monitor inventory levels and inventory productivity with the following KPIs:

- Inventory Turns by Site
- Inventory On Hand by Site
- Inventory On Hand by Product Line
- Average Days On Hand by Site
- Average Days On Hand by Product Line
- Nettable versus Non-nettable
- Inventory On Hand Trend (year)

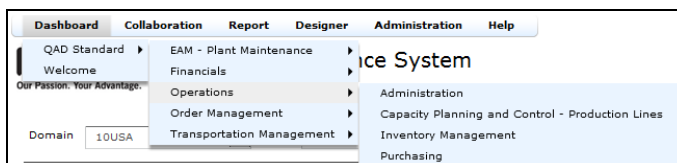
Since the system actually keeps statistics at various summary levels, it is possible to use the development tools in the BI software to produce graphs of inventory performance for other groupings or dimensions; for example, by commodity grouping at a site or by item type within a domain. As is always the case, QAD BI includes an extensive data warehouse of associated statistics and information for use in more ad hoc analysis of the OEE measures.

Inventory Management Dashboard

The Inventory Management dashboard contains common measures of inventory performance that display inventory turnover and inventory value metrics that you can use to improve inventory performance for any of your manufacturing sites.

To access the Inventory Management dashboard, select Dashboard|QAD Standard|Operations|Inventory Management.

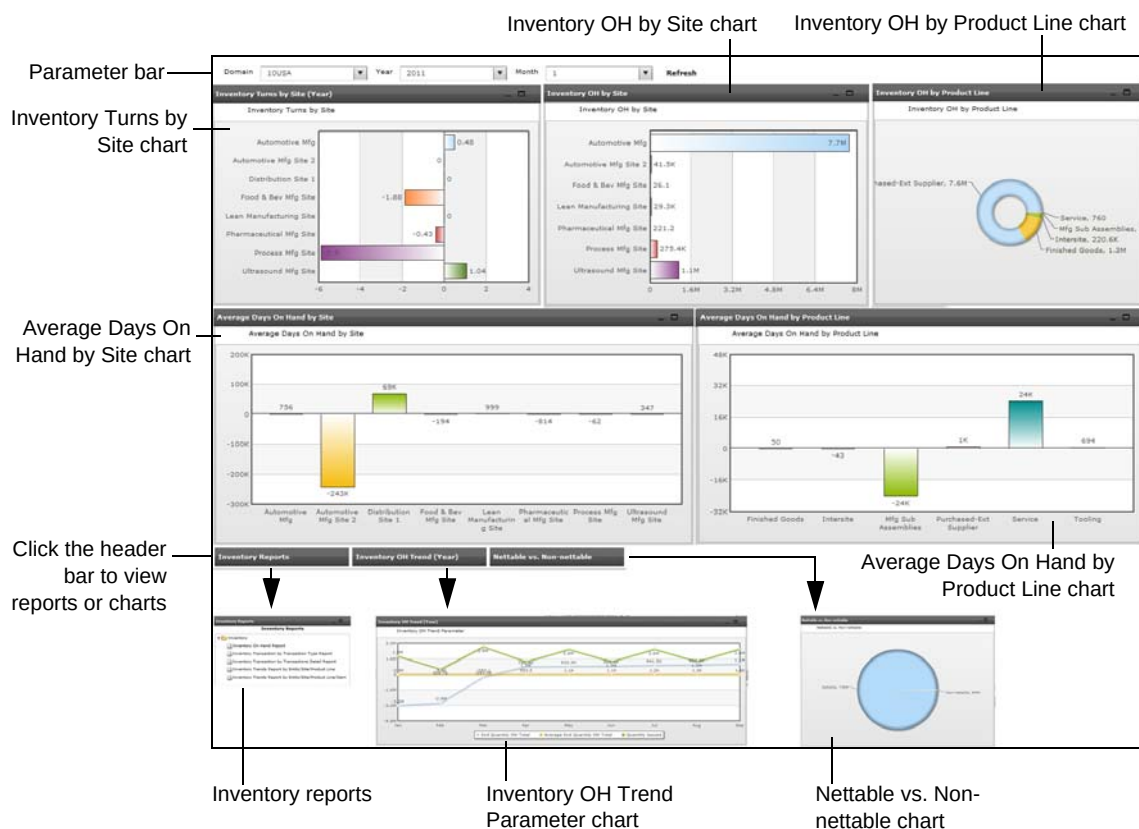
Fig. 3.1
Operations Dashboards



This dashboard contains the following KPIs and reports:

- **Inventory Turns by Site.** See “Inventory Turns” on page 39.
- **Inventory On Hand by Site.** See “Inventory On Hand by Site Chart” on page 44.
- **Inventory On Hand by Product Line.** See “Inventory On Hand by Product Line Chart” on page 46.
- **Average Days On Hand by Site.** See “Average Days On Hand by Site Chart” on page 47.
- **Average Days On Hand by Product Line.** See “Average Days On Hand by Product Line” on page 47.
- **Nettable versus Non-nettable.** See “Nettable vs. Non-Nettable” on page 48.
- **Inventory On Hand Trend (Year).** See “Inventory On Hand Trend” on page 50.
- **Inventory Reports.** See “Inventory Reports” on page 51.

Fig. 3.2
Inventory Management Dashboard



Use the parameter bar to select the domain, year, and month and then click Refresh.

Inventory Turns

The inventory turn, or inventory turnover, metric shows you the inventory productivity at each site. Typically, inventory turnover can be measured in several different ways. It can be measured using historical usage, where actual consumption is based on inventory transactions, or future demand. The horizon for computing historical usage can be fixed (like a rolling year), or variable

(year to date usage) that is converted to period usage (annual usage typically). It can be measured based on the actual inventory value at a specified point in time, from the average actual inventory value during a period, or based on the projected inventory value at some point in the future.

The period used for calculating turnover can be a year, quarter, month, week or any other slice of time.

Note Turnover is most frequently expressed as an annual value.

All the various inventory turnover metrics express the number of times that a company cycles through its inventory in the particular period. For example, one inventory turn indicates that the inventory has been used and replaced one time during the period in question. Two inventory turns indicates that inventory has been used and replaced twice during the period. Twelve inventory turns per year would indicate that the inventory has (or will be) used and replaced completely each month, or twelve times per year.

As you probably suspect, if the inventory ratio is higher then inventory is being used more productively. If the inventory ratio is lower then not only is the inventory being used less productively but as a result the company or location is less successful financially. In cases where the turnover ratio is small, the inventory exists but it is not generating revenue and it is generating cost because it must be warehoused, secured, tracked, and maintained. For example, in a company that turns inventory one time a year, the inventory sits around gathering dust, generating cost, and reducing financial results.

Having said that though, there is no standard or absolute value that you can use to determine whether you are doing well or poorly in inventory management. Three inventory turns might be industry-best performance for some companies. For others, in different markets, three inventory turns might signal serious problems in the inventory management processes of the company. In manufacturing enterprises, it is not surprising to see inventory turns ranging from 2 to 150 depending on their markets, customers, products, demand variability, product shelf life, product life cycle, and so on.

However, what is universally true is this:

- Higher inventory turns are better than lower inventory turns.
- Position is not necessarily meaningful but direction is. Position is the kind of turns you are getting at one specific point and direction is whether the turns are improving or getting worse.

Typically, finance and accounting departments prefer to see a computation of inventory turnover based on historical usage. They feel that using historical demand is preferable to future demand because of the uncertainty of the forecast. After all, everyone agrees that the forecast is wrong.

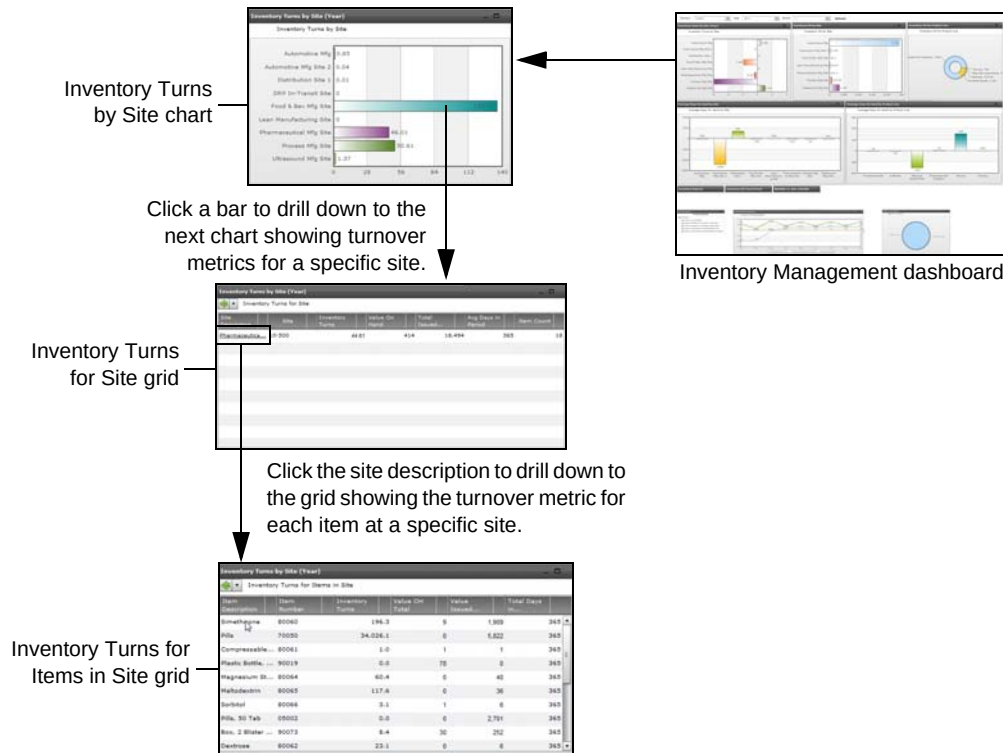
On the other hand, operations department, such as manufacturing, materials, purchasing, operations, and supply chain management, typically prefer to use future demand. Future demand is based on the forecast, existing customer orders, dependent demands for components computed from the explosion of the master schedule, and so on. Their position is that the inventory that exists today is there to satisfy future requirements, and the only way to evaluate how productive that inventory will be is to use future demand in the calculation.

In QAD BI, the inventory turnover metric is based on historical usage for the year-to-date and the value of inventory on hand at the end of the month. It is expressed as the number of turns per year.

Navigation

The Inventory Turns by Site chart is linked to grids that display the basic turnover metrics for a specific site and each item at that site. This provides you a way to understand high-level site performance and also be able to trace back to its individual items that may be dragging down that overall performance.

Fig. 3.3
Navigation Overview for the Inventory Turns KPI



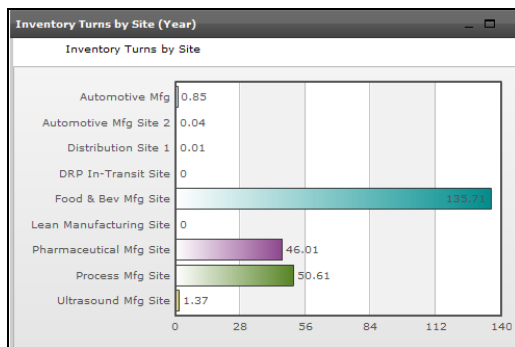
Inventory Turns by Site Chart

The Inventory Turns by Site chart shows the summary turnover metric for each site in the month, year, and domain that you select from the dashboard parameter bar. In Figure 3.4 there are turnover metrics for eight different manufacturing sites for the specified time period.

Note The Inventory Management module in QAD BI calculates the inventory turnover metric from the ending inventory value for the specified month and the historical usage year-to-date.

From the Inventory Turns by Site chart, you can click a bar in the chart and drill down to the Inventory Turns for Site grid that shows the turnover metrics for the selected site.

Fig. 3.4
Inventory Turns by Site Chart



Inventory Turns For Site Grid

The Inventory Turns for Site grid shows the turnover metrics for a selected site. This grid contains the following columns:

- Site Description.
- Site.
- Inventory Turns.
- Value On Hand. Inventory value for selected period.
- Total Issued Value. Usage value for year-to-date.
- Avg Days in Period. Number of usage days.
- Item Count.

Click the green back arrow to return to previous chart. Click the site description to drill down to the Inventory Turns for Items in Site grid, which shows the inventory turn metrics for all items inventoried at the site.

Fig. 3.5
Inventory Turns for Site Grid

Inventory Turns by Site (Year)						
Inventory Turns for Site						
Site Description	Site	Inventory Turns	Value On Hand	Total Issued...	Avg Days in Period	Item Count
Pharmaceutica...	10-500	44.61	414	18,494	365	18

Inventory Turns for Items in Site Grid

The Inventory Turns for Items in Site grid shows the inventory turn metrics for all items inventoried at the site during the selected time period. This grid contains the following columns:

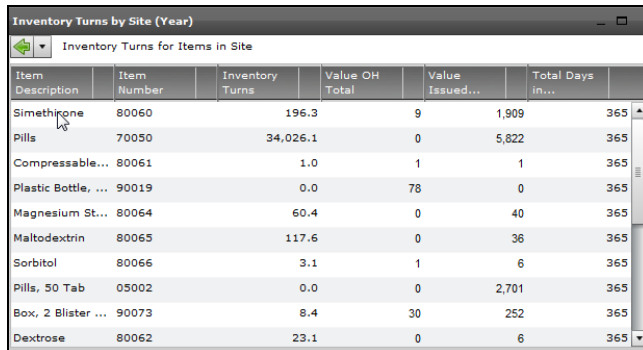
- Item Description.

- Item Number.
- Inventory Turns.
- Value OH Total. Inventory value on hand (OH) for selected period.
- Value Issued Total. Usage value over the prior year.
- Total Days in Period.

Click the green back arrow to return to the previous grid.

Fig. 3.6

Inventory Turns for Items in Site Grid



Item Description	Item Number	Inventory Turns	Value OH Total	Value Issued...	Total Days in...
Simethicone	80060	196.3	9	1,909	365
Pills	70050	34,026.1	0	5,822	365
Compressible...	80061	1.0	1	1	365
Plastic Bottle, ...	90019	0.0	78	0	365
Magnesium St...	80064	60.4	0	40	365
Maltodextrin	80065	117.6	0	36	365
Sorbitol	80066	3.1	1	6	365
Pills, 50 Tab	05002	0.0	0	2,701	365
Box, 2 Blister ...	90073	8.4	30	252	365
Dextrose	80062	23.1	0	6	365

Inventory Value

The inventory value metric displays the value of inventory in dollars, euros, yen, or other currency for individual items or groups of items. Because the value of inventory is often the largest component of working capital, it is helpful to know the following:

- How much money is invested in inventory rather than being available for other purposes?
- How much cash might be made available through a targeted inventory reduction program?
- How does each site compare to the others in the same grouping defined by the domain?
- Does one product line require significantly more or less inventory than another to produce the same volume of sales, perhaps because of the variability of demand associated with the product lines?
- What is or what was the starting inventory value for a particular period?

Inventory in a warehouse or stockroom costs money to maintain because of the cost of the facility, the cost of security, the loss of interest on the money, and so on. Knowing the value of inventory along with the carrying rate provides a sense of how much ongoing benefit to the business would result from an inventory reduction.

In some sense there are two benefits to an inventory reduction:

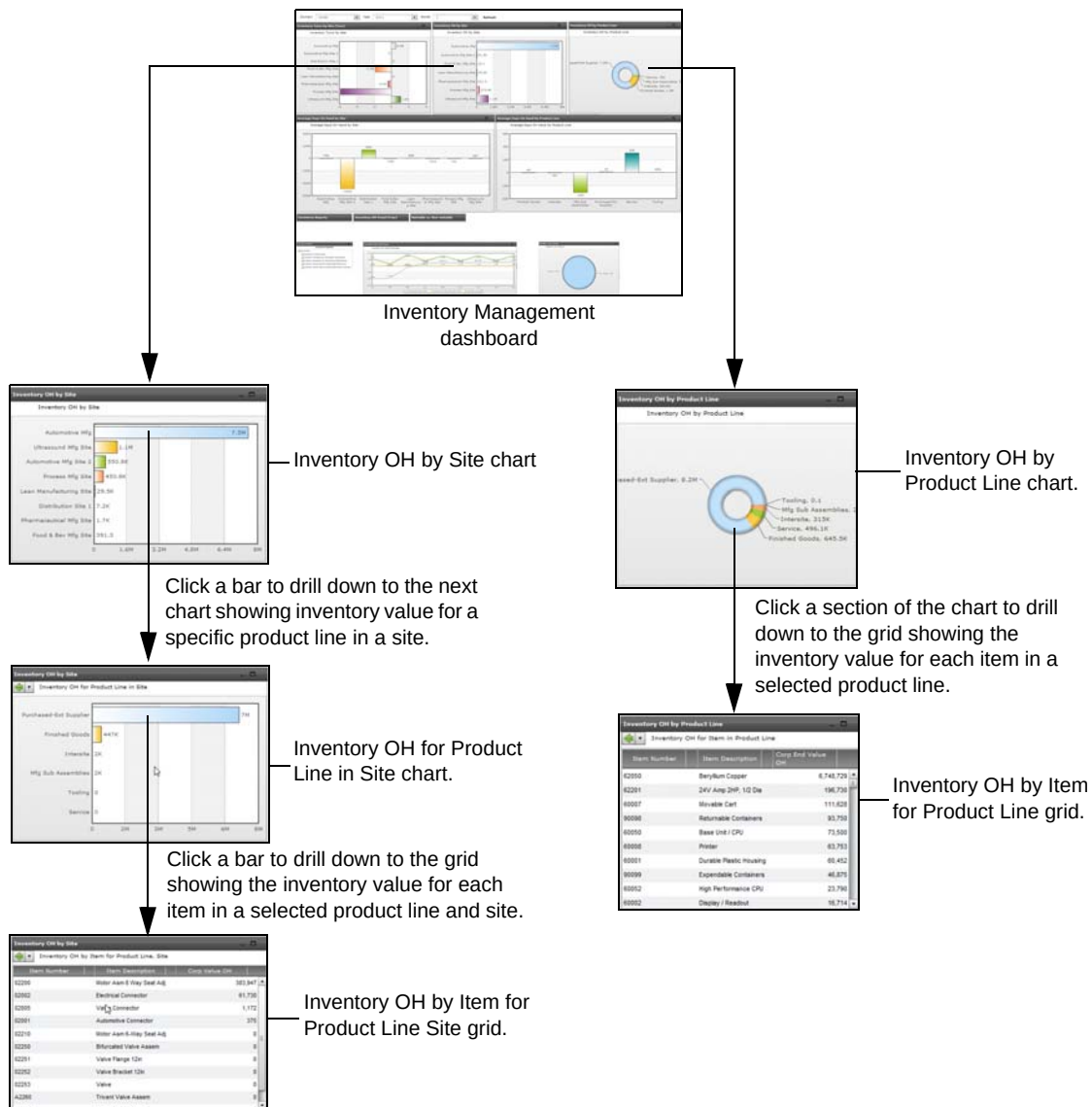
- The one-time cash flow as the value of inventory moves to the bank account
- The ongoing reduced carrying costs

The inventory value metric is one that can be useful to determine where to focus inventory reduction efforts.

Navigation

The Inventory OH by Site and by Product Line charts are linked to charts and grids that display the inventory values for each product line and each item in the product line.

Fig. 3.7
Navigation Overview for the Inventory Value KPI

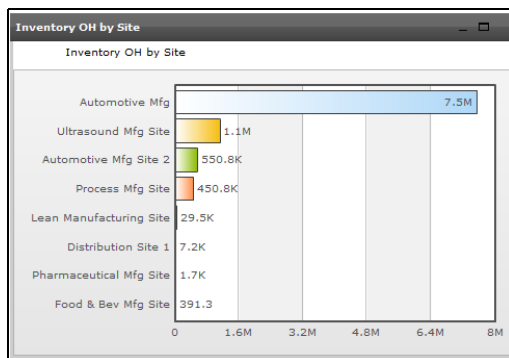


Inventory On Hand by Site Chart

The Inventory OH by Site chart shows the total value of inventory for each site in the month, year, and domain you select from the dashboard parameter bar. In Figure 3.8, there are metrics for eight different manufacturing sites for the specified period.

Click a bar in the chart to drill down to the Inventory OH for Product Line in Site chart, which shows the inventory value for all the product lines in the selected site.

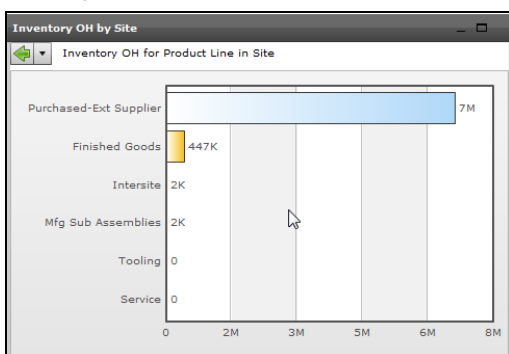
Fig. 3.8
Inventory OH by Site Chart



Inventory On Hand for Product Line in Site Chart

The Inventory OH for Product Line in Site chart shows the inventory value for all the product lines in a selected site.

Fig. 3.9
Inventory OH for Product Line in Site Chart



Click the green back arrow to return to the previous chart. To view more detail on inventory value, click a bar chart for any product line to drill down to the Inventory OH by Item for Product Line, Site grid, which shows the inventory value for each item in the selected product line.

Inventory OH by item for Product Line, Site Grid

The Inventory OH by Item for Product Line, Site grid shows the inventory value for each item in the selected product line and Site. This grid contains the following columns:

- Item Number.
- Item Description.
- Corp Value OH. Value of on-hand balance.

Click the green back arrow to return to the previous chart.

Fig. 3.10
Inventory OH by Item for Product Line Site Chart

Inventory OH by Site		
Inventory OH by Item for Product Line, Site		
Item Number	Item Description	Corp Value OH
02200	Motor Asm 8 Way Seat Adj	383,947
02002	Electrical Connector	61,730
02005	Valve Connector	1,172
02001	Automotive Connector	375
02210	Motor Asm 6-Way Seat Adj	0
02250	Bifurcated Valve Assem	0
02251	Valve Flange 12in	0
02252	Valve Bracket 12in	0
02253	Valve	0
A2260	Trivent Valve Assem	0
A2261	Valve Flange 12in	0

Inventory On Hand by Product Line Chart

The Inventory OH by Product Line donut chart shows the total value of inventory for each product line in the month, year, and domain that you select from the dashboard parameter bar. In Figure 3.11 there are metrics for six different product lines.

Click any section of the donut chart to drill down to the Inventory OH for Item in Product Line grid, which shows the inventory value for all items in the selected product line.

Fig. 3.11
Inventory OH by Product Line Chart



Inventory OH for Item in Product Line

The Inventory OH for Item in Product Line grid shows the inventory value for all items in the selected product line. This grid contains the following columns:

- Item Number.
- Item Description.
- Corp Value OH. Value of on-hand balance.

Click the green back arrow to return to the previous chart.

Fig. 3.12
Inventory OH for Item in Product Line Grid

Item Number	Item Description	Corp End Value OH
62050	Beryllium Copper	6,748,729
62201	24V Amp 2HP, 1/2 Dia	196,730
60007	Movable Cart	111,828
90098	Returnable Containers	93,750
60050	Base Unit / CPU	73,500
60008	Printer	63,753
60001	Durable Plastic Housing	60,452
90099	Expendable Containers	46,875
60052	High Performance CPU	23,790
60002	Display / Readout	16,714

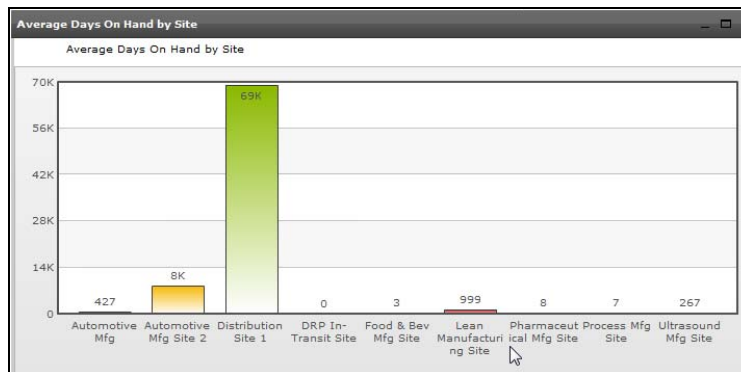
Days On Hand

A Days On Hand KPI expresses the inventory turnover metric in a slightly different way. Rather than indicating how many times the inventory is cycled through in each year, this metric indicates how long it takes, on average, to cycle through the inventory.

Average Days On Hand by Site Chart

The Average Days On Hand by Site chart shows the historical inventory performance for each site in the domain as measured by the number of days of inventory at the site. This metric is calculated from the ratio of the number of days in one year (365) and the calculated inventory turns metric from the Inventory Turns by Site chart.

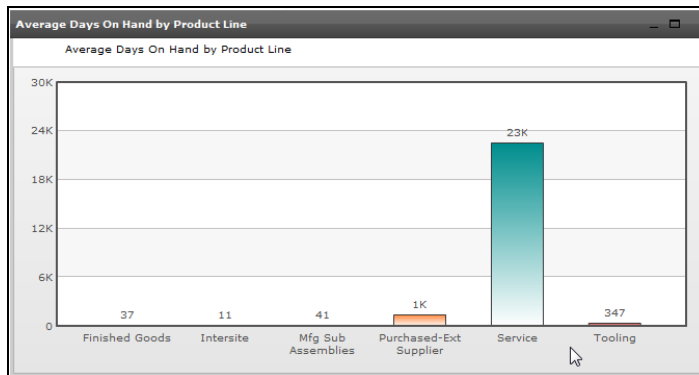
Fig. 3.13
Average Days on Hand by Site Chart



Average Days On Hand by Product Line

The Average Days On Hand by Product Line shows the historical inventory performance as measured by the number of days of inventory for each product line. This chart shows the number of days of inventory calculated from the ratio of the number of days in one year (365) and the calculated inventory turns for the Product Line. Annual inventory turns for each product line are calculated using historical usage for the year-to-date and the value of inventory on hand at the end of the month.

Fig. 3.14
Average Days On Hand by Product Line Chart



Nettable vs. Non-Nettable

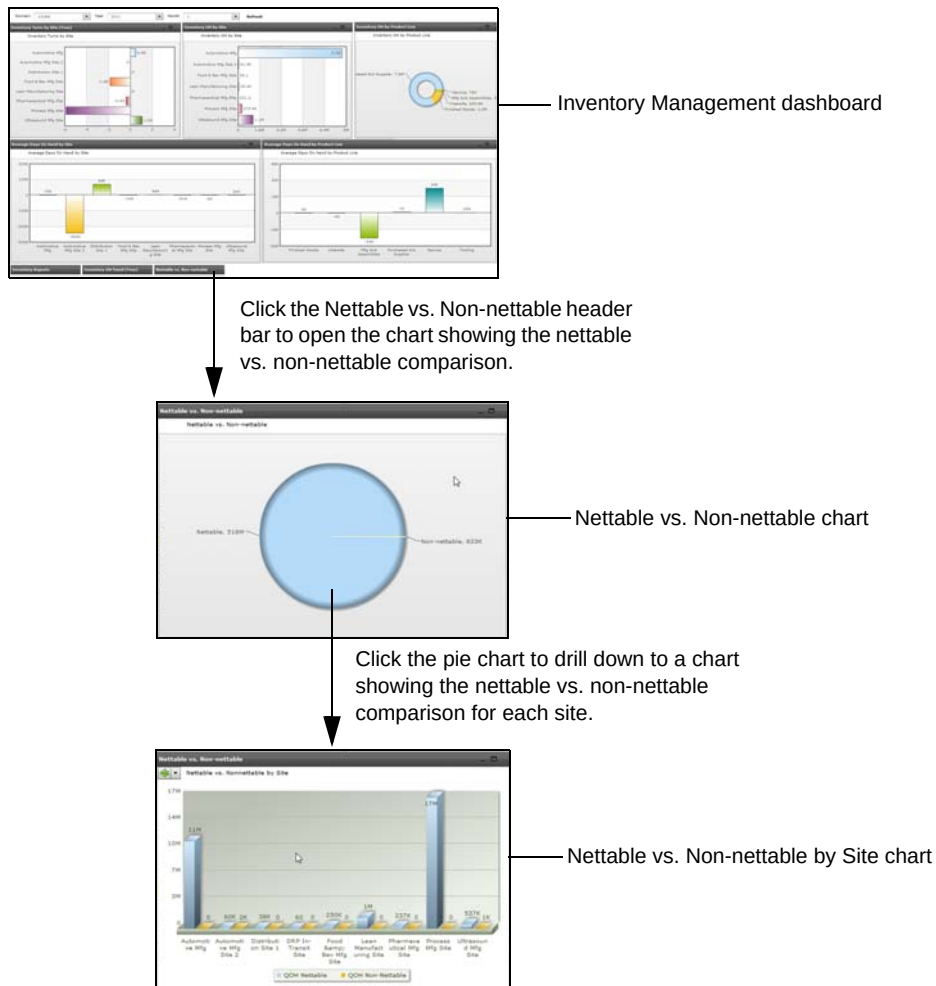
The Nettable vs. Non-nettable KPI compares the value of good, usable inventory to the value of inventory that has expired or been rejected and is awaiting disposition. Since the write-off of inventory immediately affects the bottom line of the business, it is very desirable to have low non-nettable inventory.

Navigation

The Nettable vs. Non-nettable chart, which compares the nettable to the non-nettable inventory for a domain, is linked to a chart comparing the nettable to the non-nettable inventory for each site in the domain.

Fig. 3.15

Navigation Overview for the Nettable vs. Non-nettable KPI



Nettable vs. Non-nettable Chart

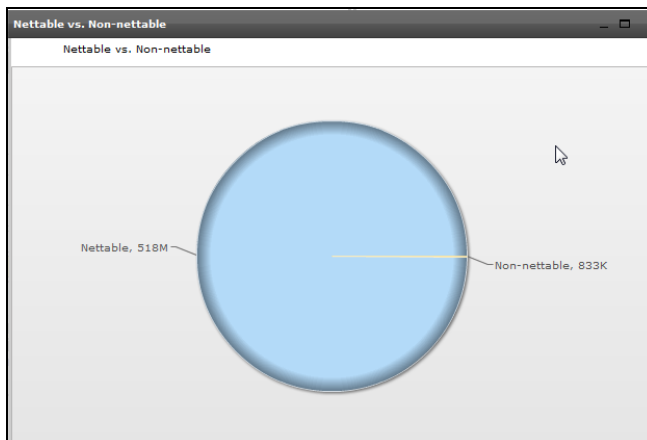
The Nettable versus Non-nettable pie chart shows two principal categories of on-hand inventory value:

- **Nettable inventory.** Inventory that can be used for planning and order fulfillment.
- **Non-nettable inventory.** Inventory that is typically not usable in its current form or at the current time.

This chart compares the value of nettable and non-nettable inventory for all sites in the domain you select from the dashboard parameter bar. While this is helpful information, it is not likely to be used as a primary performance indicator. Therefore, the graph is minimized and shown at the bottom of the dashboard.

Click anywhere on the chart to drill down to the Nettable vs. Non-nettable chart, which compares the value of nettable and non-nettable inventory for each site in the domain.

Fig. 3.16
Nettable vs. Non-nettable Chart

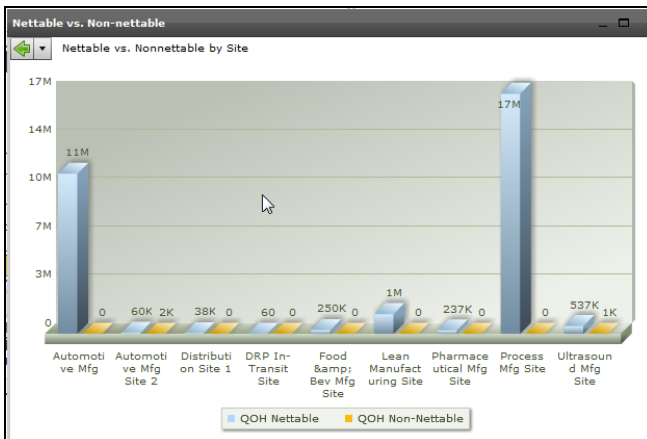


Nettable vs. Non-nettable by Site Chart

The Nettable vs. Non-nettable by Site chart compares the value of nettable and non-nettable inventory for each site in the domain.

Click the green back arrow to return to the previous chart.

Fig. 3.17
Nettable vs. Non-nettable by Site Chart



Inventory On Hand Trend

The Inventory OH Trend Parameter KPI shows the change in inventory value over time. While this cannot be used as an absolute measure of inventory performance, it is a useful indicator of whether inventories are under control.

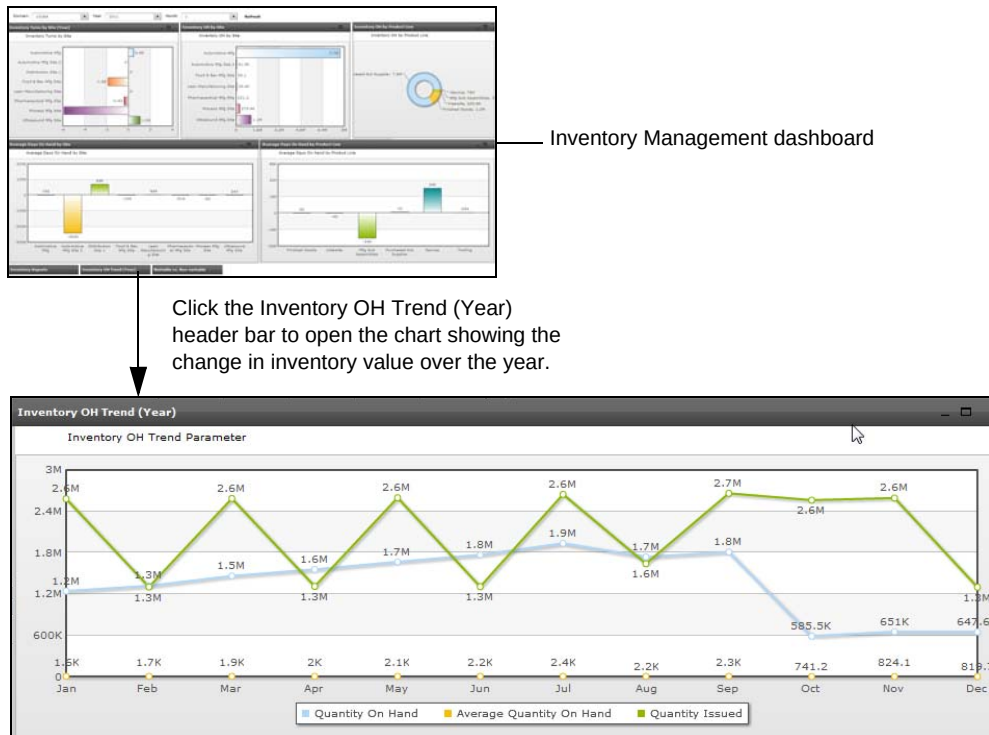
Note This KPI cannot be used as an absolute indicator of performance because there can be a situation where inventory is increasing while sales is increasing at a faster rate. In this situation there is no problem because inventory turnover is increasing, which is definitely desirable, while the inventory on hand trend metric shows a problem.

The Inventory OH Trend Parameter line chart shows the following aggregated data for the current year and the domain you select from the dashboard parameter bar:

- **Quantity On Hand.** Quantity of inventory on hand at the beginning of the month, represented by its currency value.
- **Average Quantity On Hand.** Average quantity of inventory on hand during the month, represented by its currency value.
- **Quantity Issued.** Total quantity of inventory issued in the month, represented by its currency value.

While this is helpful information, it is not likely to be used as a primary performance indicator. Therefore, the graph is minimized and shown at the bottom of the dashboard.

Fig. 3.18
Inventory OH Trend (Year) Chart



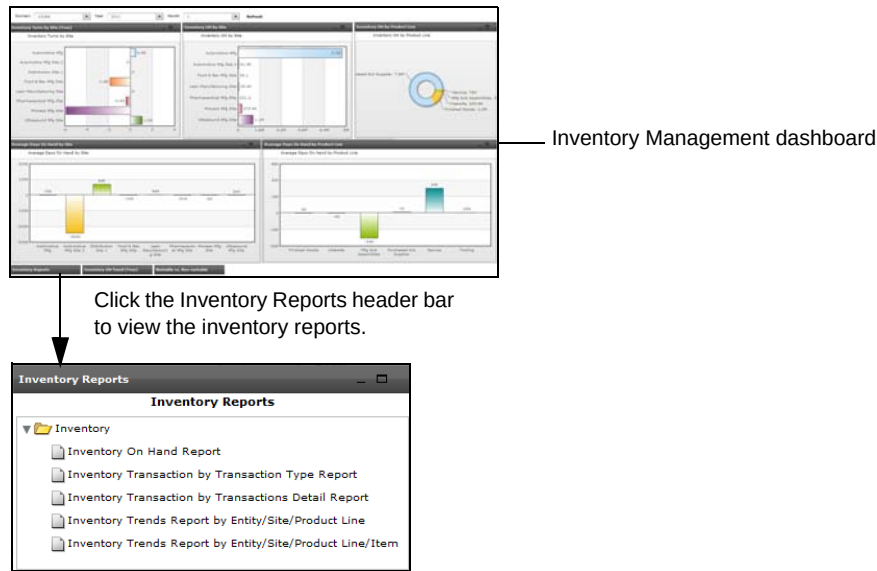
Inventory Reports

The Inventory Management dashboard also includes five detailed reports on inventory data, for use in root cause analysis and correction. Click on the Inventory Reports header bar to view the following list of reports:

- Inventory On Hand
- Inventory Transaction by Transaction Type
- Inventory Transaction by Transaction Detail
- Inventory Trends by Entity, Site, Product Line
- Inventory Trends by Entity, Site, Product Line, Item

Note Because this information is used for diagnostics, the list of standard reports is minimized and shown at the bottom of the dashboard.

Fig. 3.19
Inventory Reports



Operations: Purchasing

This chapter provides detailed information about the Operations - Purchasing dashboard. It includes the following topics:

Introduction 54

An introduction to purchasing and the metrics included in the Purchasing module.

Purchasing Dashboard 54

Detailed overview of the Purchasing dashboard and the purchasing OTIF, cash requirements forecast, open PO amount by month, top items by spend, and the top suppliers by spend KPIs.

Introduction

The Purchasing module in QAD BI includes measures of purchasing delivery performance, forecasted purchase dollars, committed future purchase order dollars, and past purchases.

Professional purchasing departments must get the right materials at the right price and at the right time. This department frequently needs to source raw materials that have the longest lead times of any flowing across the entire supply chain. In many cases, purchasing is responsible for the materials that may be the most disruptive to uninterrupted flows through the plant, either because of delivery or quality issues. Because purchasing is often responsible for as much as 60% of the cost of sales, it is essential for this department to have the professional tools to do the job and the professional measurements to determine how effectively that job is being done.

A primary goal of the purchasing department is to ensure that the right parts and raw materials are delivered precisely on-time, neither early nor late, against the future production schedules that have been established by operations. In a well-managed operation, 95% or more of all purchase order schedules are delivered on time and in full (OTIF).

Another goal of professional purchasing departments is to manage the money being spent for purchased parts and raw materials, with respect to both historical purchases and future expenditures.

The purchasing metrics included in QAD BI help answer the following questions:

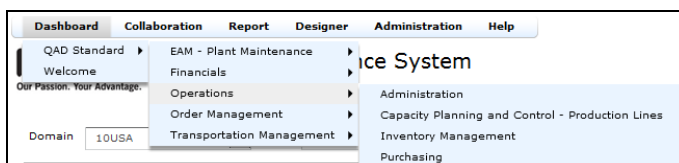
- What percentage of our purchased deliveries are delivered on time and in full? On time? In full?
- What are our future cash needs for purchased parts and raw material? How does this compare to our budgets?
- What have we spent historically on purchase parts and raw material?
- Who are and who were our top 10 suppliers, and what kind of volume do we do with them?
- What are and what were our top 10 purchased parts or raw material, and what kind of volume do we purchase?

Purchasing Dashboard

The Purchasing dashboard contains common measures of purchasing that show purchasing turnover and value metrics that you can use to improve purchasing performance.

To access the Purchasing dashboard, select Dashboard|QAD Standard|Operations|Purchasing.

Fig. 4.1
Operations Dashboards



This dashboard contains the following KPIs and reports:

- **Purchasing On-Time In-Full.** See “Purchasing On Time In Full” on page 56.

- **Cash Requirements Forecast.** See “Cash Requirements Forecast” on page 60.
- **Open PO Amount by Month.** See “Open PO Amount by Month” on page 61.
- **Top Items by Spend.** See “Top Items by Spend” on page 61.
- **Top Suppliers by Spend.** See “Top Suppliers by Spend” on page 64.
- **Purchasing Reports.** See “Purchasing Reports” on page 66.

Fig. 4.2
Purchasing Dashboard



Use the parameter bar to select the domain and year and then click Refresh.

Note Domain refers to the financial entity with which a group of sites is associated; for example, you can view the metrics for all the US sites or all the Thailand sites.

Since the system actually keeps statistics at various summary levels, it is possible to use the development tools in the BI software to produce graphs of purchasing performance for other groupings or dimensions; for example, by commodity grouping at a site or by item type within a domain.

As is always the case, QAD BI includes an extensive data warehouse of associated statistics and information for use in more ad hoc analysis of the OEE measures.

Purchasing On Time In Full

Purchasing delivery performance metrics provide a view into how well suppliers are honoring their delivery commitments, in terms of performance to both due date and quantity required.

Purchasing delivery performance can typically be measured in several ways:

- Based on due date performance within some specified tolerance
- Based on order quantity performance within some specified tolerance—percentage or dollar limit
- Based on a combination of date and quantity performance, each with some tolerance

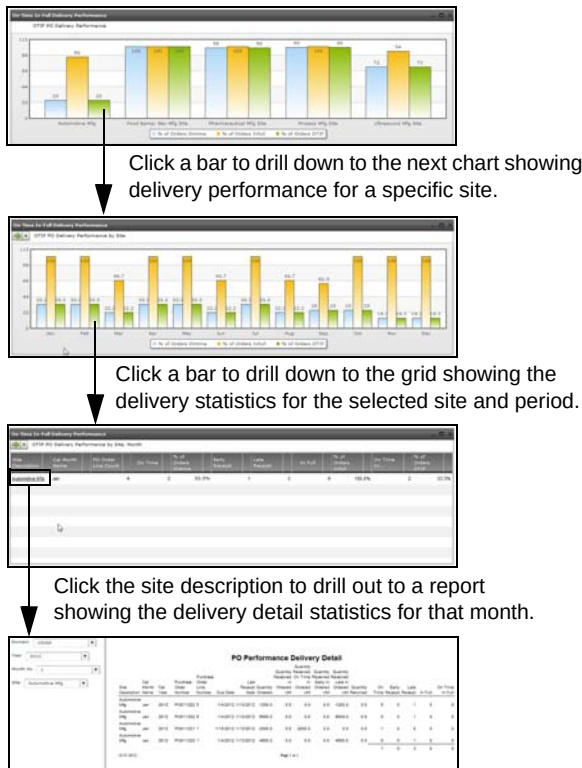
In QAD BI, delivery performance metrics are provided for each of these methods

The minimum purchasing delivery performance needed to support an effective enterprise is 95%. Ninety-five percent of all scheduled deliveries must be delivered on time and in full (OTIF). In most cases, the tolerance for determining whether an order was delivered on time should range from zero to several days, and the in-full tolerance should typically range from zero to 5%.

Navigation

The OTIF PO Delivery Performance chart is linked to charts that show the delivery performance metrics for any site and any time period.

Fig. 4.3
Navigation Overview for the Purchasing On-Time In-Full KPI



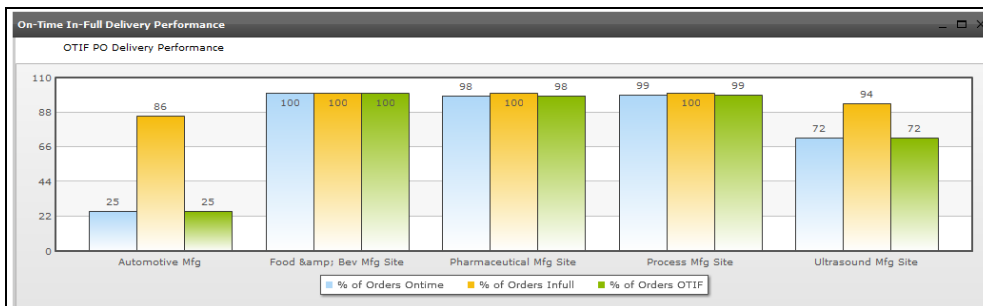
OTIF PO Delivery Performance Chart

The OTIF PO Delivery Performance chart shows the following delivery performance metrics for each site in the domain and year that you select from the dashboard parameter bar:

- % of orders delivered on time
- % of orders delivered in full
- % of orders delivered both on time and in full

Note Only purchase orders that are spot buys or blanket orders are included in the purchasing on-time in-full analysis. Deliveries against supplier schedules are not included in these statistics.

Fig. 4.4
OTIF PO Delivery Performance Chart



The delivery performance metrics use tolerances that can be defined by the user. If you are using QAD PRO/PLUS, you can define these tolerances globally, or by any combination of supplier, commodity, item and site. If you do not use PRO/PLUS, you define the tolerances as global parameters that apply to all BI sites, items, suppliers, and so on.

The tolerances used for delivery performance include both date and quantity tolerances. In effect, you can define a delivery window for each order; for example, you can define on-time from X days earlier than the due date to Y days late. Similarly, you can define a quantity range for each order; for example, you can define in-full as N units under the order quantity to M units over, or P percent of the order quantity under, or Q percent over.

From the On-Time In-Full Delivery Performance chart, you can drill in from a selected bar on the bar chart to the OTIF PO Delivery Performance by Site chart.

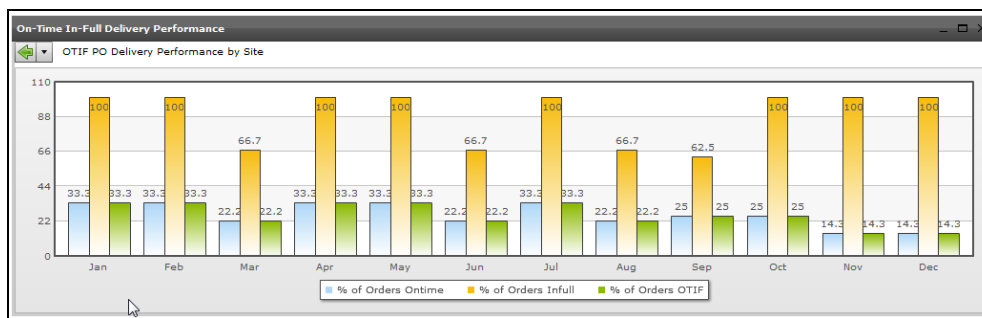
OTIF PO Delivery Performance by Site Chart

The OTIF PO Delivery Performance by Site chart shows the following delivery performance metrics for a selected site in the domain and year that you select from the dashboard parameter bar:

- % of orders delivered on time
- % of orders delivered in full
- % of orders delivered both on time and in full

Fig. 4.5

OTIF PO Delivery Performance by Site Chart



You can return to the prior display by clicking on the small back arrow in the upper left corner.

To see even more detail on delivery performance for a specific month, click one of the bars associated with the month in question to drill down to the OTIF PO Delivery Performance by Site, Month grid.

OTIF PO Delivery Performance by Site, Month Grid

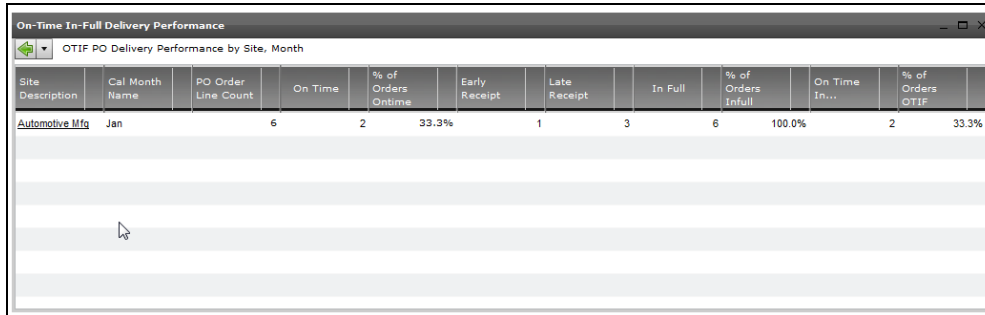
The OTIF PO Delivery Performance by Site, Month grid shows the delivery statistics for the selected site and month. This grid contains the following columns:

- Site Description.
- Cal Month Name.
- PO Order Line Count.
- On Time. The number of scheduled deliveries delivered on time.
- % of Orders On time. The percentage of scheduled deliveries delivered on time.

- Early Receipt. The number of scheduled deliveries with early deliveries
- Late Receipt. The number of scheduled deliveries with late deliveries.
- In Full. The number of scheduled deliveries delivered for the full quantity.
- % of Orders In full. The percentage of scheduled deliveries delivered for the full quantity.
- On Time In Full. The number of scheduled deliveries delivered on time and in full.
- % of Orders OTIF. The percentage of scheduled deliveries delivered on time and in full.

Fig. 4.6

OTIF PO Delivery Performance by Site, Month Grid



Site Description	Cal Month Name	PO Order Line Count	On Time	% of Orders OnTime	Early Receipt	Late Receipt	In Full	% of Orders Infull	On Time In...	% of Orders OTIF
Automotive Mfg	Jan	6	2	33.3%	1	3	6	100.0%	2	33.3%

You can return to the prior chart by clicking the green back arrow in the upper left corner. To drill out to the PO Performance Delivery Detail report, click the Site Description.

PO Performance Delivery Detail Report

The PO Performance Delivery Detail report shows the delivery detail statistics for that month. This report contains the following columns:

- Site Description.
- Cal Month Name.
- Cal Year.
- Purchase Order Number.
- Purchase Order Line Number.
- Due Date.
- Last Receipt Date.
- Quantity Ordered.
- Quantity Received in Ordered UM.
- Quantity Received On Time in Ordered UM.
- Quantity Received Early in Ordered UM.
- Quantity Received Late in Ordered UM.
- Quantity Returned.
- On Time. On-time indicator (1=on-time, 0 = not on-time).
- On Time totals (summary line).
- Early Receipt. Early indicator (1=early deliveries against order, 0=no early deliveries).
- Early Receipt totals (summary line).

- Late Receipt. Late indicator (1=late deliveries against order, 0=no late deliveries).
- Late Receipt totals (summary line).
- In Full. Number of scheduled deliveries delivered in full.
- In Full totals (summary line).
- On Time In Full. Number of scheduled deliveries delivered on time and in full.
- On Time In Full totals (summary line).

Fig. 4.7
PO Performance Delivery Detail Report

Domain: 10USA

Year: 2012

Month No: 1

Site: Automotive Mfg

PO Performance Delivery Detail

Site Description	Cal Month	Cal Year	Purchase Order Number	Purchase Order Line Number	Due Date	Last Receipt Date	Quantity Ordered	Quantity Received			Quantity Returned	On Time Receipt	Early Receipt	Late Receipt	In Full	On Time In Full
								On Time	Early	Late						
Automotive Mfg	Jan	2012	PO011202	5	1/4/2012	1/13/2012	1200.0	0.0	0.0	0.0	1200.0	0.0	0	0	1	0
Automotive Mfg	Jan	2012	PO011202	5	1/4/2012	1/13/2012	9500.0	0.0	0.0	0.0	9500.0	0.0	0	0	1	0
Automotive Mfg	Jan	2012	PO011221	1	1/15/2012	1/13/2012	2000.0	0.0	2000.0	0.0	0.0	0.0	1	0	0	0
Automotive Mfg	Jan	2012	PO011222	1	1/4/2012	1/13/2012	4000.0	0.0	0.0	0.0	4000.0	0.0	0	0	1	0
												1	0	3	0	0

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Cash Requirements Forecast

The Cash Requirements KPI provides a view of how much money is required to support future purchases and can be shown as follows:

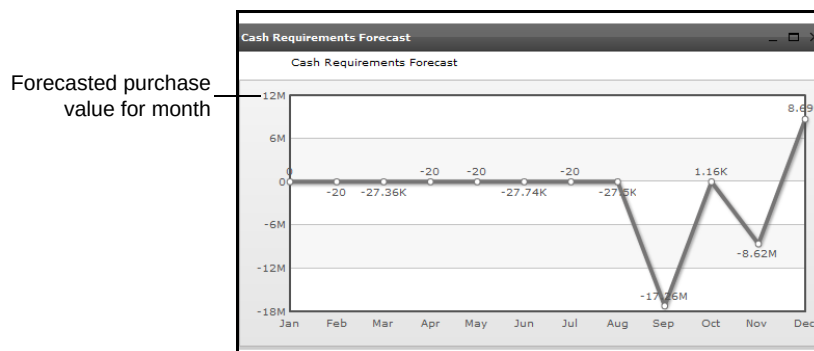
- As committed cash requirements based on purchase orders placed with suppliers
- Or as forecasted cash requirements that combine the actual purchase orders already placed with a supplier with projected planned purchases from the material planning system.

These metrics are a kind of cash flow projection that displays the point in time where cash will actually be committed.

The Cash Requirements Forecast chart shows the projected purchases for the domain for the current calendar year.

Note This graph does not use the year from the dashboard parameter bar. This graph is a forecast and therefore uses data for the current year.

Fig. 4.8
Cash Requirements Forecast Chart

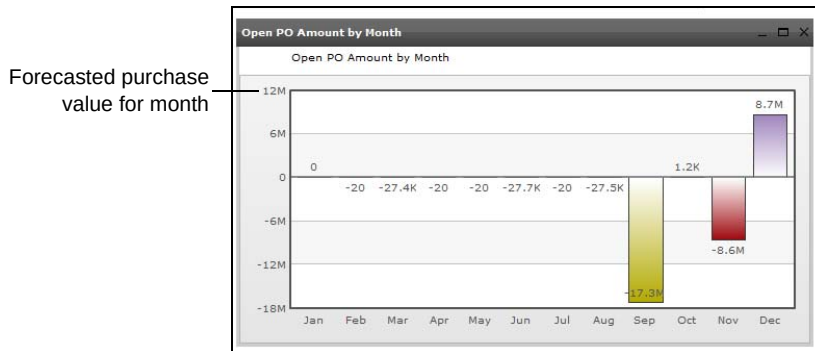


Open PO Amount by Month

The Open PO Amount by Month chart shows the total value of purchase orders that have been placed with suppliers.

Note This graph does not use the year from the dashboard parameter bar. This graph is a forecast and therefore uses data for the current year.

Fig. 4.9
Open PO Amount by Month Chart



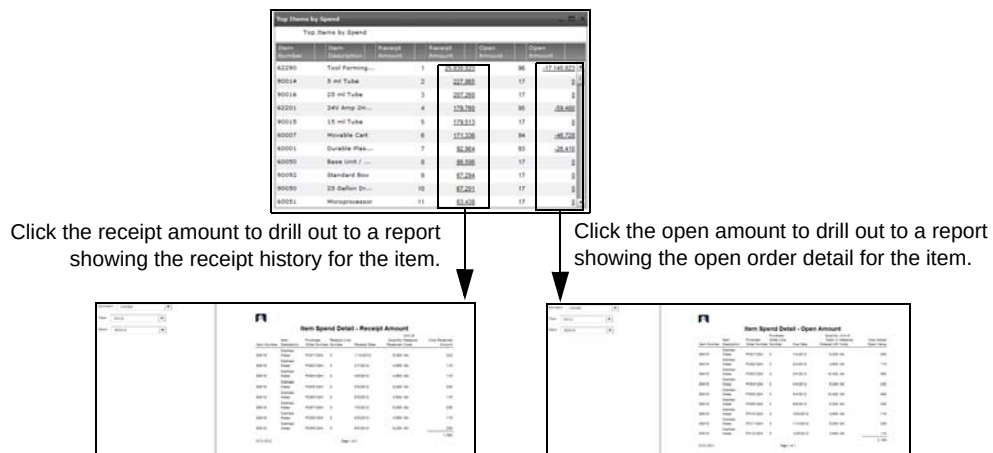
Top Items by Spend

The Top Items by Spend KPI looks at historical purchases, showing how much money was spent on a particular item. It is particularly useful for Pareto analysis—analyzing the 20% of the item numbers that represent 80% of purchase volume. This KPI allows you to focus performance improvement initiatives on a smaller number of items that provide a better value.

Navigation

The Top Items by Spend grid is linked to reports that show the receipt history and open order detail for a specific item.

Fig. 4.10
Navigation Overview for the Top Items by Spend KPI

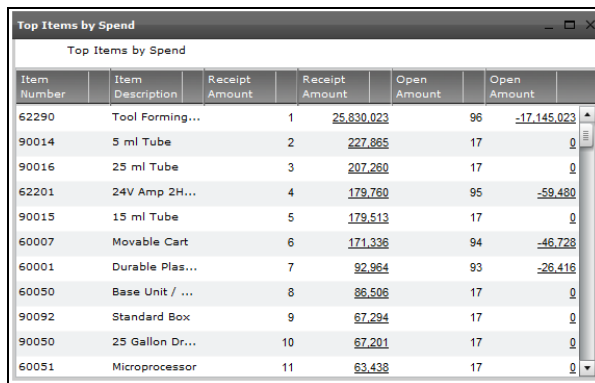


Top Items by Spend Grid

The Top Items by Spend grid shows each item that was purchased in the domain and year you select from the dashboard parameter bar. The data is initially sorted in descending order by the total value received. You can sort the data in ascending or descending order by any of the columns. The grid contains the following columns:

- Item Number.
- Item Description.
- Receipt Amount. Ranking based on receipt amount (value of purchase receipts).
- Receipt Amount. The value of purchase receipts.
- Open Amount. Ranking based on open amount (value of open purchase orders).
- Open Amount. The value of open purchase orders.

Fig. 4.11
Top Items by Spend Grid



Item Number	Item Description	Receipt Amount	Receipt Amount	Open Amount	Open Amount
62290	Tool Forming...	1	25,830,023	96	-17,145,023
90014	5 ml Tube	2	227,865	17	0
90016	25 ml Tube	3	207,260	17	0
62201	24V Amp 2H...	4	179,760	95	-59,480
90015	15 ml Tube	5	179,513	17	0
60007	Movable Cart	6	171,336	94	-46,728
60001	Durable Plas...	7	92,964	93	-26,416
60050	Base Unit / ...	8	86,506	17	0
90092	Standard Box	9	67,294	17	0
90050	25 Gallon Dr...	10	67,201	17	0
60051	Microprocessor	11	63,438	17	0

Click the receipt amount to drill out to the Item Spend Detail Receipt Amount report. Click the open amount to drill out to the Item Spend Detail Open Amount report.

Item Spend Detail Receipt Amount Report

The Item Spend Detail Receipt Amount report shows the receipt history for a selected item, domain, and year. This report contains the following columns:

- Item Number
- Item Description
- Purchase Order Number
- Receipt Line Number
- Receipt Date
- Quantity Received
- Unit of Measure Code
- Corp Received Amount
- Corp Received Amount total (summary line)

Fig. 4.12
Item Spend Detail Receipt Amount Report

Domain	10USA
Year	2012
Item	80010

Item Spend Detail - Receipt Amount						
Item Number	Item Description	Purchase Order Number	Receipt Line Number	Receipt Date	Quantity Measure	Corp Received Amount
80010	Distilled Water	PO011204	3	1/13/2012	9,300 GA	232
80010	Distilled Water	PO021204	3	2/7/2012	4,600 GA	115
80010	Distilled Water	PO041204	3	4/5/2012	4,600 GA	115
80010	Distilled Water	PO051204	3	5/5/2012	9,200 GA	230
80010	Distilled Water	PO061204	3	6/5/2012	4,600 GA	115
80010	Distilled Water	PO071204	3	7/5/2012	9,200 GA	230
80010	Distilled Water	PO081204	3	8/5/2012	4,600 GA	115
80010	Distilled Water	PO091204	3	9/5/2012	9,200 GA	230
						1,382

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Item Spend Detail Open Amount Report

The Item Spend Detail Open Amount report shows the open order details for a selected item, domain, and year. This report contains the following columns:

- Item Number
- Item Description
- Purchase Order Number
- Purchase Order Line Number
- Due Date
- Quantity Open in Ordered UM
- Unit of Measure Code
- Corp Actual Open Value
- Corp Actual Open Value total (summary line)

Fig. 4.13
Item Spend Detail Open Amount Report

Domain	10USA
Year	2012
Item	80010

Item Spend Detail - Open Amount						
Item Number	Item Description	Purchase Order Number	Purchase Order Line Number	Due Date	Quantity Unit of Open in Measure Ordered UM Code	Corp Actual Open Value
80010	Distilled Water	PO011204	3	1/4/2012	9,200 GA	230
80010	Distilled Water	PO021204	3	2/4/2012	4,600 GA	115
80010	Distilled Water	PO031204	3	3/4/2012	18,400 GA	460
80010	Distilled Water	PO041204	3	4/4/2012	9,200 GA	230
80010	Distilled Water	PO051204	3	5/4/2012	18,400 GA	460
80010	Distilled Water	PO061204	3	6/6/2012	9,200 GA	230
80010	Distilled Water	PO101204	3	10/6/2012	4,600 GA	115
80010	Distilled Water	PO111204	3	11/4/2012	9,200 GA	230
80010	Distilled Water	PO121204	3	12/6/2012	4,600 GA	115
						2,185

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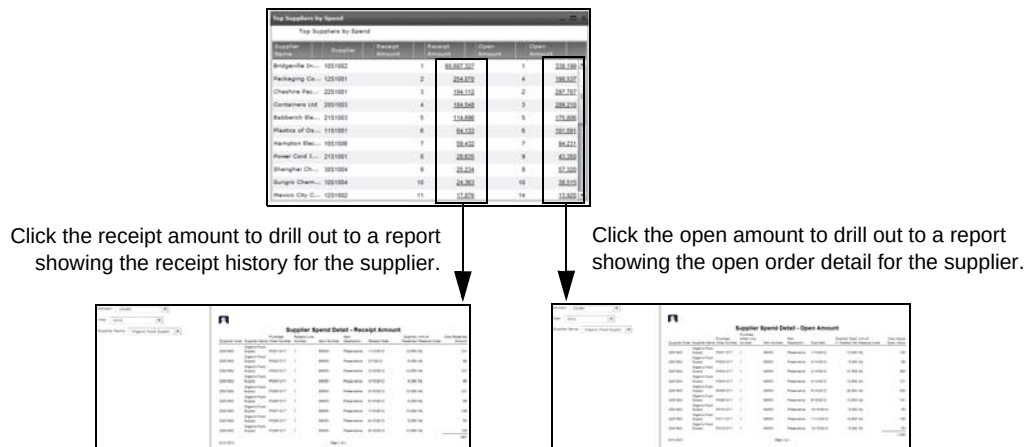
Top Suppliers by Spend

The Top Suppliers by Spend KPI looks at historical purchases, showing how much money was spent with a specific supplier. It is particularly useful for Pareto analysis—analyzing the 20% of the suppliers responsible for 80% of volume. This KPI allows you to focus performance improvement initiatives on a smaller number of suppliers that provide a bigger bang for the buck.

Navigation

The Top Suppliers by Spend grid is linked to reports that show the receipt history and open order detail for a specific supplier.

Fig. 4.14
Navigation Overview for the Top Suppliers by Spend KPI



Top Suppliers by Spend Grid

The Top Suppliers by Spend grid shows every supplier that you purchased material from for the domain and year that you select from the dashboard parameter bar. The data is initially sorted in descending order by the total value received. You can sort the data in ascending or descending order by any of the columns. This grid contains the following columns:

- Supplier Name
- Supplier Number
- Ranking based on receipt value
- Value of purchase receipts
- Ranking based on open amount value
- Value of open purchase orders

Fig. 4.15
Top Suppliers by Spend Grid

Top Suppliers by Spend						
Top Suppliers by Spend						
Supplier Name	Supplier	Receipt Amount	Receipt Amount	Open Amount	Open Amount	
Bridgeville In...	10S1002	1	60,687,327	1	338,199	
Packaging Co...	12S1001	2	254,070	4	198,537	
Cheshire Pac...	22S1001	3	194,112	2	297,787	
Containers Ltd	20S1003	4	184,548	3	289,210	
Babberich Ele...	21S1003	5	114,696	5	175,806	
Plastics of Os...	11S1001	6	64,133	6	101,591	
Hampton Elec...	10S1006	7	59,432	7	94,231	
Power Cord I...	21S1001	8	28,635	9	43,350	
Shanghai Ch...	30S1004	9	25,234	8	57,320	
Sungro Chem...	10S1004	10	24,363	10	38,515	
Mexico City C...	12S1002	11	17,876	14	13,920	

Supplier Spend Detail Receipt Amount Report

The Supplier Spend Detail Receipt Amount report shows the receipt history for a selected supplier, domain, and year. This report contains the following columns:

- Supplier Code
- Supplier Name
- Purchase Order Number
- Receipt Line Number
- Item Number
- Item Description
- Receipt Date
- Quantity Received
- Unit of Measure Code
- Corp Received Amount
- Corp Received Amount total (summary line)

Fig. 4.16
Supplier Spend Detail Receipt Amount Report

Domain

10USA

Year

2012

Supplier Name

Organic Food Supply



Supplier Spend Detail - Receipt Amount

Supplier Code	Supplier Name	Purchase Order Number	Receipt Line Number	Item Number	Item Description	Receipt Date	Quantity Unit of Received Measure Code	Corp Received Amount
22S1002	Organic Food Supply	PO011217	1	80053	Preservative	1/13/2012	12,500 ML	121
22S1002	Organic Food Supply	PO021217	1	80053	Preservative	2/7/2012	6,250 ML	60
22S1002	Organic Food Supply	PO031217	1	80053	Preservative	3/15/2012	12,500 ML	121
22S1002	Organic Food Supply	PO041217	1	80053	Preservative	4/15/2012	6,250 ML	60
22S1002	Organic Food Supply	PO051217	1	80053	Preservative	5/15/2012	12,500 ML	121
22S1002	Organic Food Supply	PO061217	1	80053	Preservative	6/15/2012	6,250 ML	60
22S1002	Organic Food Supply	PO071217	1	80053	Preservative	7/15/2012	12,500 ML	125
22S1002	Organic Food Supply	PO081217	1	80053	Preservative	8/15/2012	6,250 ML	63
22S1002	Organic Food Supply	PO091217	1	80053	Preservative	9/15/2012	12,500 ML	125
								857

10/31/2012

Page 1 of 1

Supplier Spend Detail Open Amount Report

The Supplier Spend Detail Open Amount report shows the open order detail for a selected supplier, domain, and year. This report contains the following columns:

- Supplier Code
- Supplier Name
- Purchase Order Number
- Purchase Order Line Number
- Item Number
- Item Description
- Due Date
- Quantity Open in Ordered UM
- Unit of Measure Code
- Corp Actual Open Value
- Corp Actual Open Value total (summary line)

Fig. 4.17
Supplier Spend Detail Open Amount Report

Domain10USA

Year2012

Supplier NameOrganic Food Supply

Supplier Spend Detail - Open Amount

Supplier Code	Supplier Name	Purchase Order Number	Purchase Order Line Number	Item Number	Item Description	Due Date	Quantity Open in Ordered UM	Unit of Measure Code	Corp Actual Open Value
22S1002	Organic Food Supply	PO011217	1	80053	Preservative	1/14/2012	12,500	ML	125
22S1002	Organic Food Supply	PO021217	1	80053	Preservative	2/14/2012	6,250	ML	60
22S1002	Organic Food Supply	PO031217	1	80053	Preservative	3/14/2012	37,500	ML	363
22S1002	Organic Food Supply	PO041217	1	80053	Preservative	4/14/2012	12,500	ML	121
22S1002	Organic Food Supply	PO051217	1	80053	Preservative	5/14/2012	25,000	ML	242
22S1002	Organic Food Supply	PO061217	1	80053	Preservative	6/16/2012	12,500	ML	121
22S1002	Organic Food Supply	PO101217	1	80053	Preservative	10/16/2012	6,250	ML	63
22S1002	Organic Food Supply	PO111217	1	80053	Preservative	11/14/2012	12,500	ML	125
22S1002	Organic Food Supply	PO121217	1	80053	Preservative	12/16/2012	6,250	ML	63
									1,282

10/31/2012

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Purchasing Reports

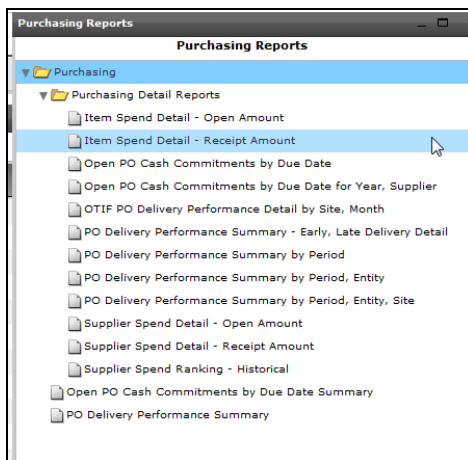
The Purchasing dashboard includes the following 14 detailed reports on purchasing data, for use in root cause analysis and correction. Click on the Purchasing Reports header bar to view the following reports:

- Item Spend Detail Open Amount
- Item Spend Detail Receipt Amount
- Open PO Cash Commitments by Due Date
- Open PO Cash Commitments by Due Date for Year, Supplier
- OTIF PO Delivery Performance Detail for Site, Month
- PO Delivery Performance Summary Early, Late Delivery Detail
- PO Delivery Performance Summary by Period

- PO Delivery Performance Summary by Period, Entity
- PO Delivery Performance Summary by Period, Entity, Site
- Supplier Spend Detail Open Amount
- Supplier Spend Detail Receipt Amount
- Supplier Spend Ranking Historical
- Open PO Cash Commitments by Due Date Summary
- PO Delivery Performance Summary

Note Because this information is used for diagnostics, the list of standard reports is minimized and shown at the bottom of the dashboard.

Fig. 4.18
Purchasing Reports



Enterprise Asset Management: Plant Maintenance

This chapter provides detailed information about Enterprise Asset Management (EAM). It includes the following topics:

***Introduction* 70**

An introduction to dashboards available in the EAM module.

***Equipment Availability* 70**

A detailed overview of the KPIs, charts, and reports included in the Equipment Availability dashboard.

***Maintenance Backlog* 93**

A detailed overview of the KPIs, charts, and reports included in the Maintenance Backlog dashboard.

***Maintenance Cost* 138**

A detailed overview of the KPIs, charts, and reports included in the Maintenance Cost dashboard.

***Maintenance for Department* 156**

A detailed overview of the KPIs, charts, and reports included in the Maintenance for Department dashboard.

***Maintenance Work Orders* 197**

A detailed overview of the KPIs, charts, and reports included in the Maintenance Work Orders dashboard.

***PM Compliance* 227**

A detailed overview of the KPIs, charts, and reports included in the PM Compliance dashboard.

***Current and YTD Reports* 260**

A detailed overview the current and YTD reports included in the EAM module.

Introduction

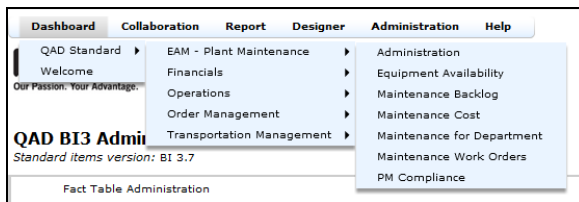
The Enterprise Asset Management (EAM) module contains the following dashboards:

- **Equipment Availability.** See “Equipment Availability” on page 70.
- **Maintenance Backlog.** See “Maintenance Backlog” on page 93.
- **Maintenance Cost.** See “Maintenance Cost” on page 138.
- **Maintenance for Department.** See “Maintenance for Department” on page 156.
- **Maintenance Work Orders.** See “Maintenance Work Orders” on page 197.
- **PM Compliance.** See “PM Compliance” on page 227.

To access the EAM dashboards, select Dashboard|QAD Standard Items|EAM-Plant Maintenance and then select the dashboard.

Note EAM is available as early adopter only.

Fig. 5.1
EAM Dashboards



Equipment Availability

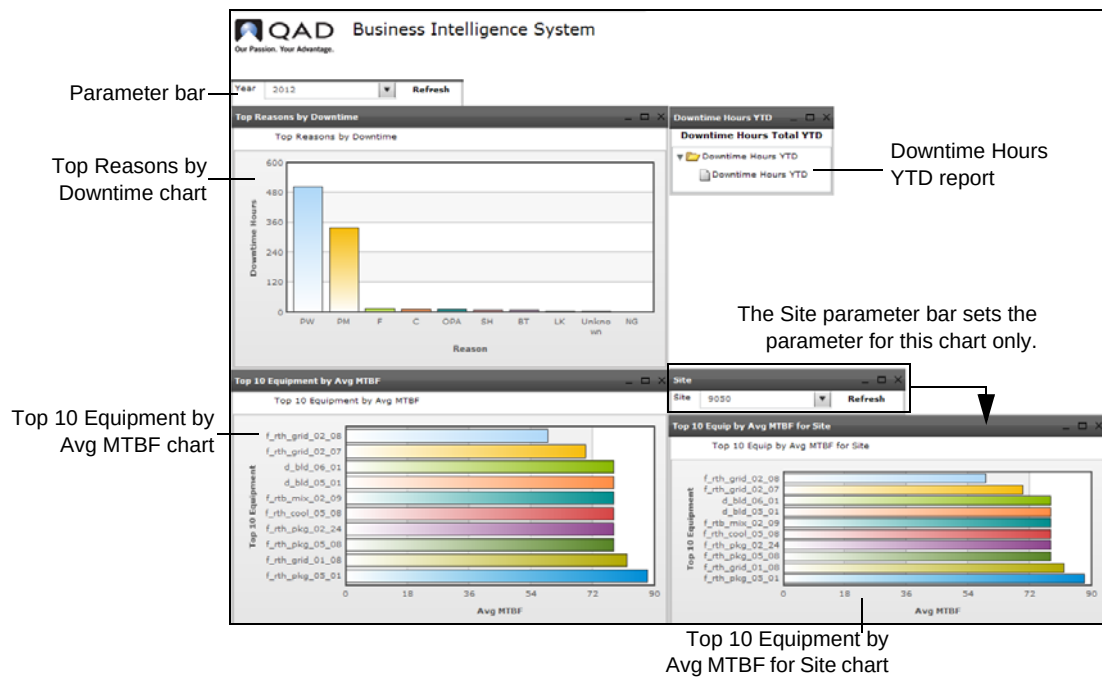
Dashboard Overview

The Equipment Availability dashboard provides the Top Reasons by Downtime KPI to monitor the top reasons for equipment down time. It also provides the Top Equipment by Average MTBF KPI to monitor the associated average MTBF (Mean Time Between Failures) for equipment in all sites or a specific site. These KPIs give you a specific view of equipment availability for the business from the maintenance organization. The KPIs identify the equipment that is failing most frequently and the causes of the breakdowns. This information helps the maintenance department focus on trouble areas, ensuring more efficient use of resources.

This dashboard provides the following KPIs:

- **Top Reasons by Down Time.** See “Top Reasons by Downtime” on page 71.
- **Top Equipment by Average MTBF All Sites.** See “Top Equipment by Average MTBF” on page 82.
- **Top Equipment by Average MTBF for Site.** See “Top Equipment by Average MTBF for Site” on page 87.
- **Downtime Hours YTD.** See “Downtime Hours Total YTD Report” on page 92.

Fig. 5.2
Equipment Availability Dashboard



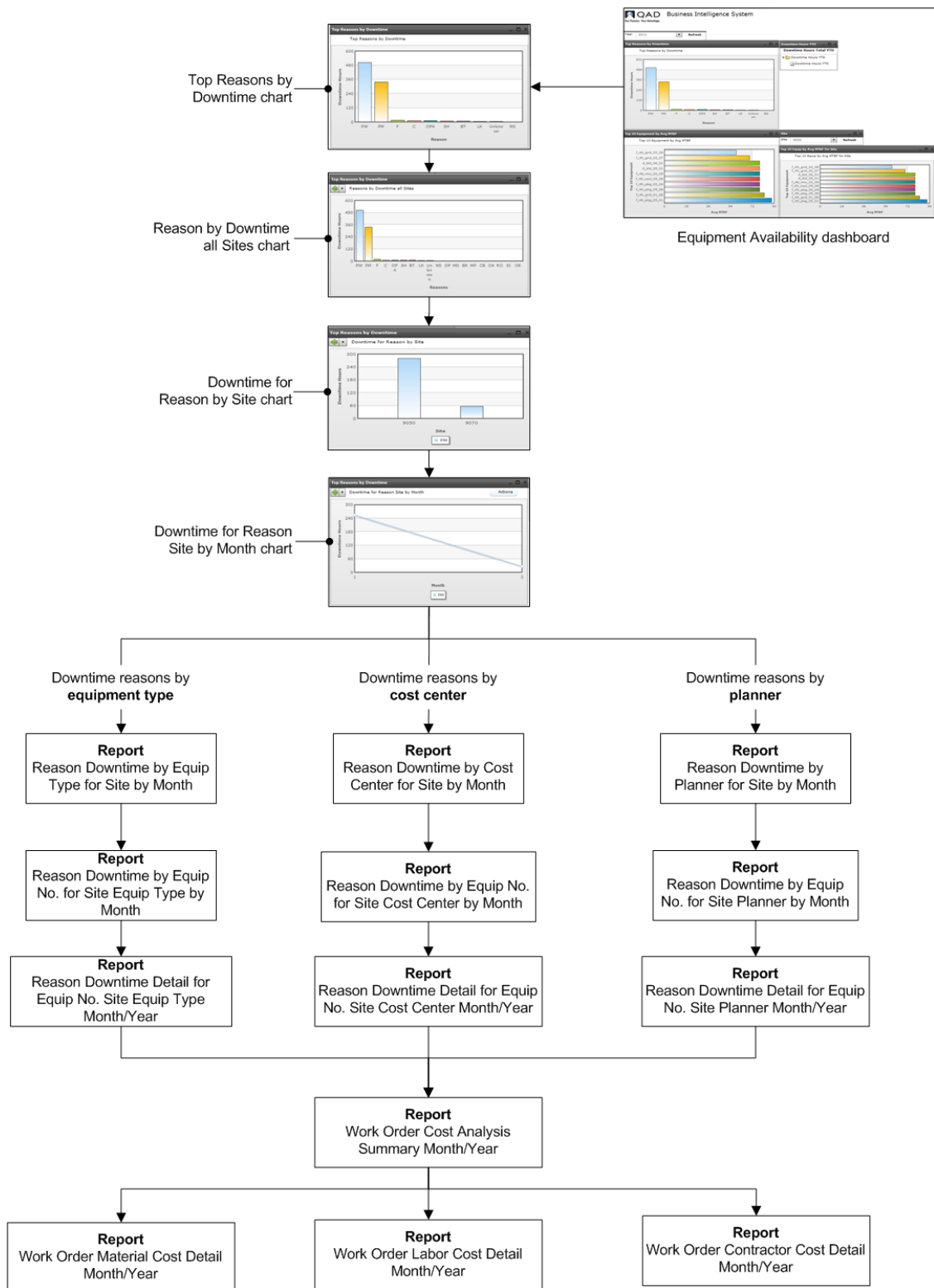
Top Reasons by Downtime

The Top Reasons by Downtime KPI allows you to monitor the top reasons for equipment down time. Maintenance changes might be necessary to address frequently recurring reason codes for down time.

From the Top Reasons by Downtime chart, you can drill down and:

- Compare all the reasons codes for down time for all sites.
- Compare the frequency of a particular reason between all sites.
- Analyze the monthly occurrence of a particular reason code by equipment type, cost center, or planner in a selected site.
- Analyze the monthly occurrence of a particular reason code by equipment number.
- Access the details for a particular down time event.
- Access cost analysis for a particular work order.

Fig. 5.3
Navigation Overview for Top Reasons by Downtime KPI



Downtime Reason Charts

Access the Downtime Reason charts from the Equipment Availability dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Top Reasons by Downtime

The Top Reasons by Downtime chart shows the total downtime hours for all the sites by the top ten downtime reasons.

Reasons by Downtime all Sites

The Reasons by Downtime all Sites chart shows the total downtime hours for all the sites by all downtime reasons.

Downtime for Reason by Site

The Downtime for Reason by Site chart compares downtime hours between sites for the selected downtime reason.

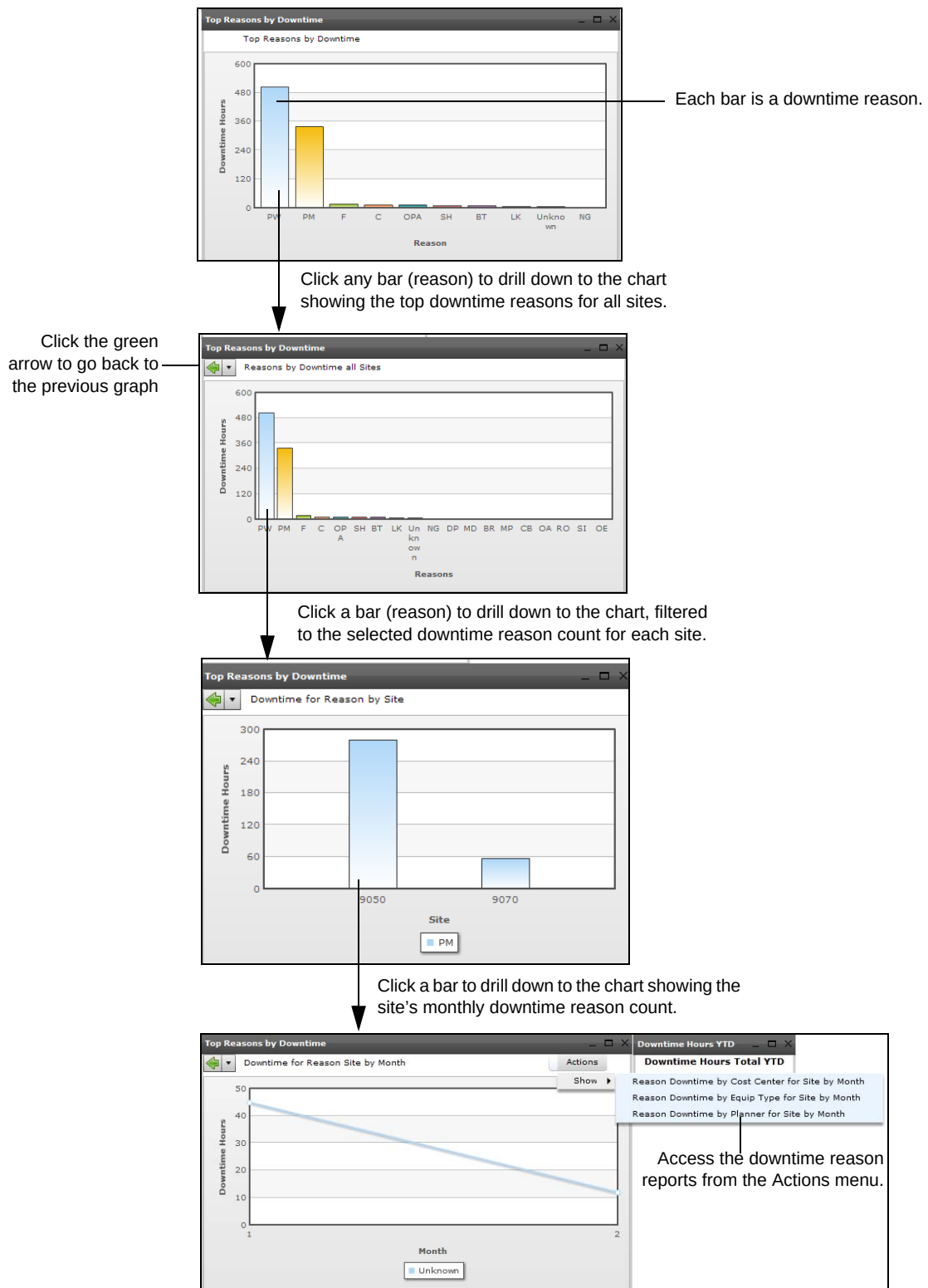
Downtime for Reason Site by Month

The Downtime for Reason Site by Month line chart shows the monthly downtime hours for a selected downtime reason and site. This chart is helpful because you can see if the downtime hours are going up or down from month to month.

Click the Actions menu to access the following reports:

- Reason Downtime by Cost Center Planner by Month
- Reason Downtime by Equip Type by Month
- Reason Downtime by Planner by Month

Fig. 5.4
Navigation for Downtime Reason Charts



Reports on Downtime Reasons by Cost Center

Access the downtime reason reports from the Actions menu in the Downtime for Reason Site by Month chart. These reports show downtime hours for a selected downtime reason, site, and year.

Reason Downtime by Cost Center for Site

This report shows the monthly and yearly downtime hour totals for each cost center. This report contains the following columns:

- Cost Center Code
- Down Time 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Down Time 1-12 totals (summary line)
- Total
- Total (summary line)

Reason Downtime by Equip No for Site Cost Center

This report shows the monthly and yearly downtime hour totals for each equipment number for a selected cost center. This report contains the following columns:

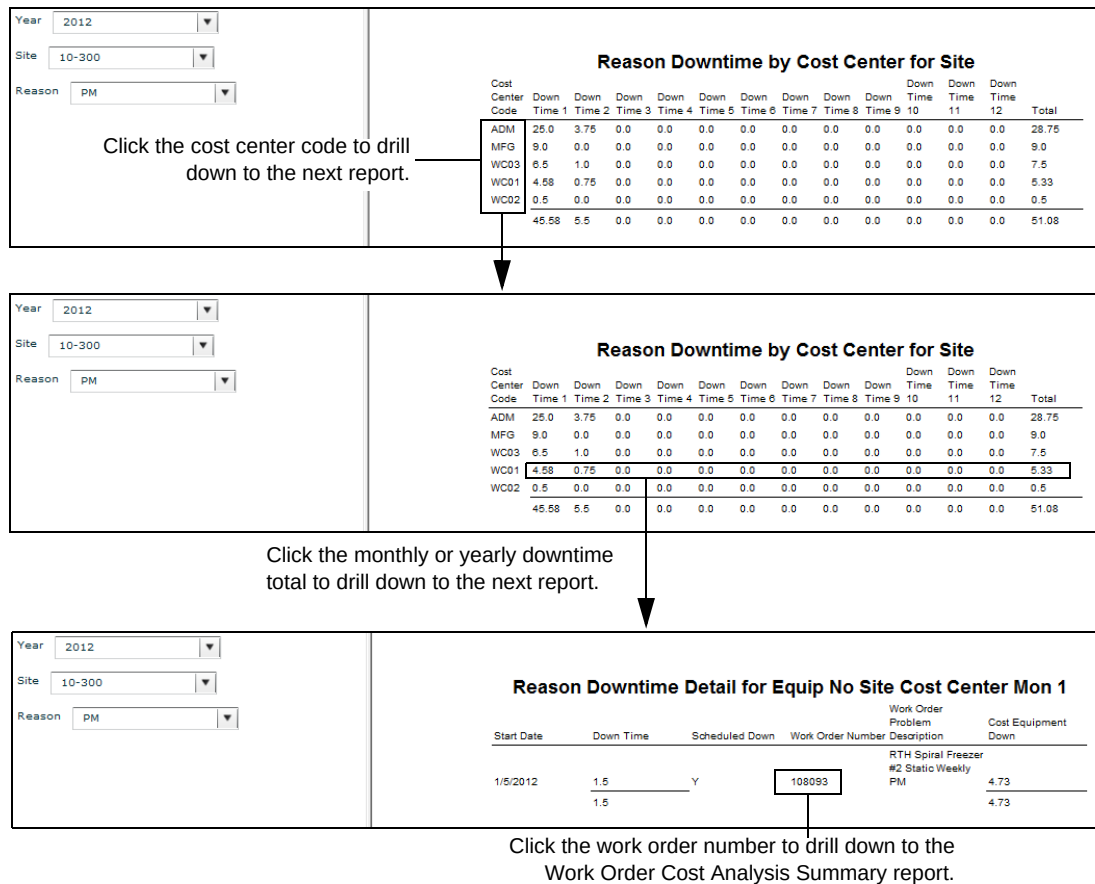
- Equipment Number
- Down Time 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Down Time 1-12 totals (summary line)
- Total
- Total (summary line)

Reason Downtime Detail for Equip No Site Cost Center Month/Year

This report shows the downtime details for a selected equipment number for a selected month. This report contains the following columns:

- Start Date
- Down Time
- Down Time total (summary line)
- Scheduled Down (Y/N)
- Work Order Number
- Work Order Problem Description
- Cost Equipment Down
- Cost Equipment Down total (summary line)

Fig. 5.5
Report Navigation for Downtime Reasons by Cost Center



Reports on Downtime Reasons by Equipment Type

Access the downtime reason reports from the Actions menu in the Downtime for Reason Site by Month chart. These reports show downtime hours for a selected downtime reason, site, and year.

Reason Downtime by Equip Type for Site by Month

This report shows the monthly and yearly downtime hour totals for each equipment type. This report contains the following columns:

- Equipment Type Code
- Down Time 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Down Time 1-12 totals (summary line)
- Total
- Total (summary line)

Reason Downtime by Equip No for Site Equip Type by Month

This report shows the monthly and yearly downtime hour totals for each equipment number for a selected equipment type. This report contains the following columns:

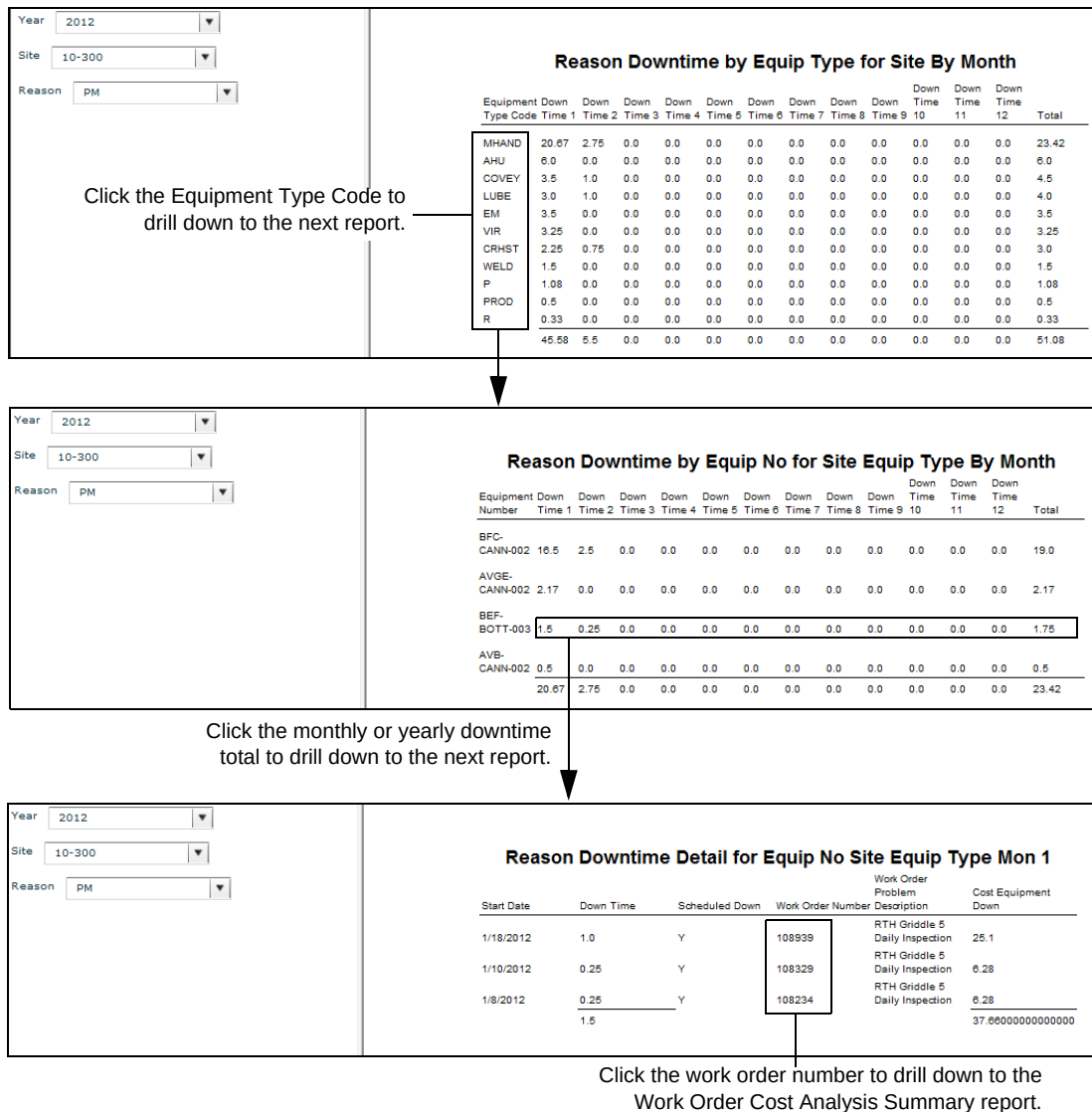
- Equipment Number
- Down Time 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Down Time 1-12 totals (summary line)
- Total
- Total (summary line)

Reason Downtime Detail for Equip No Site Equip Type Month/Year

This report shows the downtime details for a selected equipment number for a selected month. This report contains the following columns:

- Start Date
- Down Time
- Down Time total (summary line)
- Scheduled Down (Y/N)
- Work Order Number
- Work Order Problem Description
- Cost Equipment Down
- Cost Equipment Down total (summary line)

Fig. 5.6
Report Navigation for Downtime Reasons by Equipment Type



Reports on Downtime Reasons by Planner

Access the downtime reason reports from the Actions menu in the Downtime for Reason Site by Month chart. These reports show downtime hours for a selected downtime reason, site, and year.

Reason Downtime by Planner for Site by Month

This report shows the monthly and yearly downtime hour totals for each planner. This report contains the following columns:

- Planner
- Down Time 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Down Time 1-12 totals (summary line)

- Total
- Total (summary line)

Reason Downtime by Equip No for Site Planner by Month

This report shows the monthly and yearly downtime hour totals for each equipment number for a selected planner. This report contains the following columns:

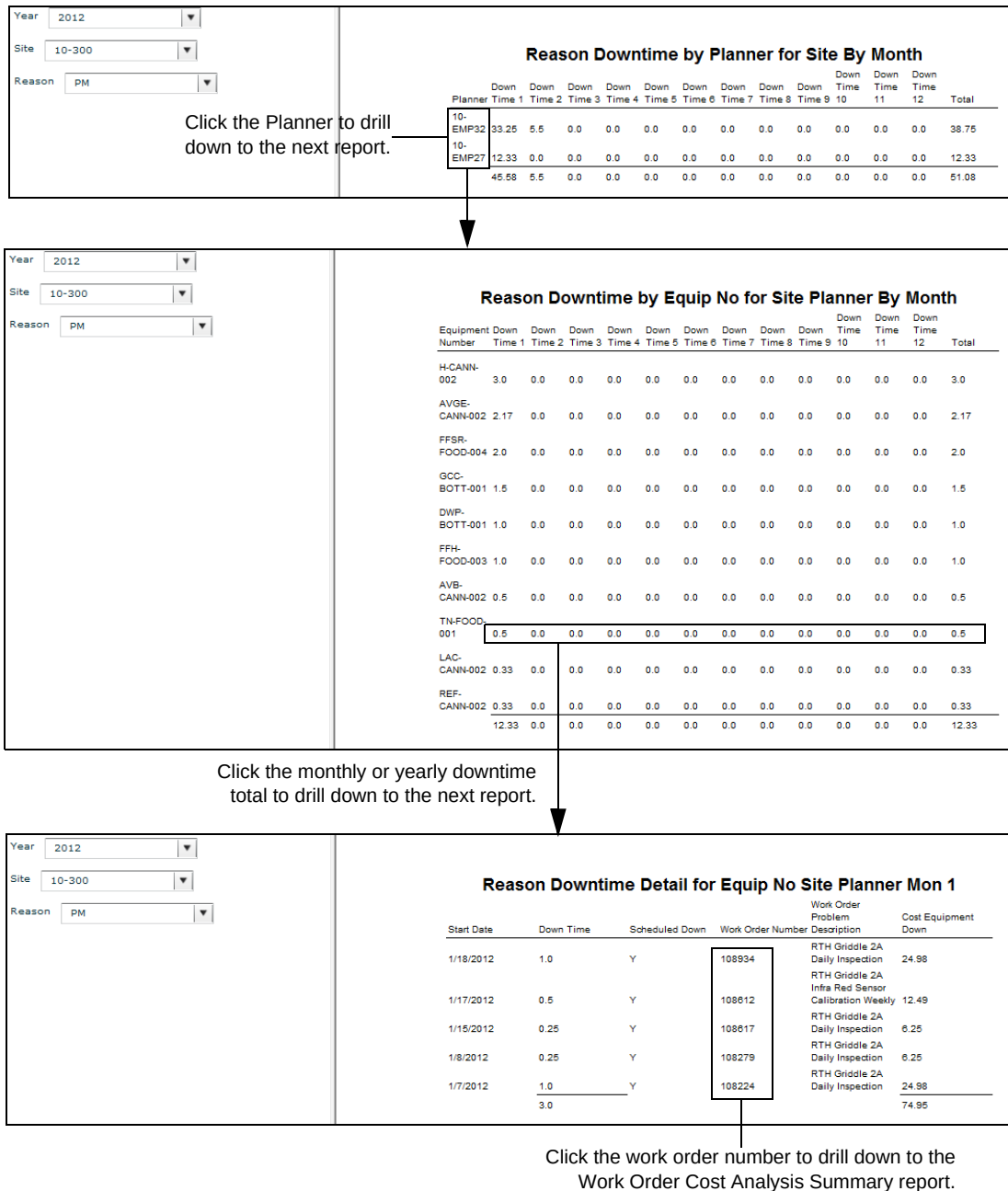
- Equipment Number
- Down Time 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Down Time 1-12 totals (summary line)
- Total
- Total (summary line)

Reason Downtime Detail for Equip No Site Planner Month/Year

This report shows the downtime details for a selected equipment number for a selected month. This report contains the following columns:

- Start Date
- Down Time
- Down Time total (summary line)
- Scheduled Down (Y/N)
- Work Order Number
- Work Order Problem Description
- Cost Equipment Down
- Cost Equipment Down total (summary line)

Fig. 5.7
Report Navigation for Downtime Reasons by Planner



Work Order Cost Analysis Summary

The Work Order Cost Analysis Summary report shows a summary of labor, material, and contract cost totals for a selected work order number. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description

- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.8

Work Order Cost Analysis Summary Report

Year: 2012										
Site: 9050										
Reason: PM										

WO Cost Analysis Summary Mon 2										
Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost	
109560	f_ftb	F Batteries Forktruck	0.0	0.0	30.0	0.0	0.0	0.0	30.0	

Click the material, labor, or contractor cost totals to drill down to the Backlog Work Order Material/Labor/Contract Cost Detail report.

Click the material, labor, or contractor actual cost to drill down the corresponding report:

- Work Order Material Cost Detail report
- Work Order Labor Cost Detail report
- Work Order Contractor Cost Detail report

Work Order Material/ Labor/Contract Cost Detail

The Work Order Cost Detail reports show transaction details for the material, labor, or contract cost totals. These reports contains the following columns:

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Employee Number • Employee Name • Total Time • Total Time total (summary line) • Total Cost • Total Cost total (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.9

Work Order Material/Labor/Contract Cost Detail Report

Year2012

Site9050

ReasonPM

WO Labor Cost Detail Mon 2

Employee Number	Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
145	Garniel Diaz	1.5	30.0	2/1/2012	9050	5200	8008040	A
		1.5	30.0					

Top Equipment by Average MTBF

The Top Equipment by Average MTBF KPI allows you to identify which equipment is failing most frequently in all sites and the causes of the breakdowns. This information helps the maintenance department focus on trouble areas to ensure more efficient use of resources.

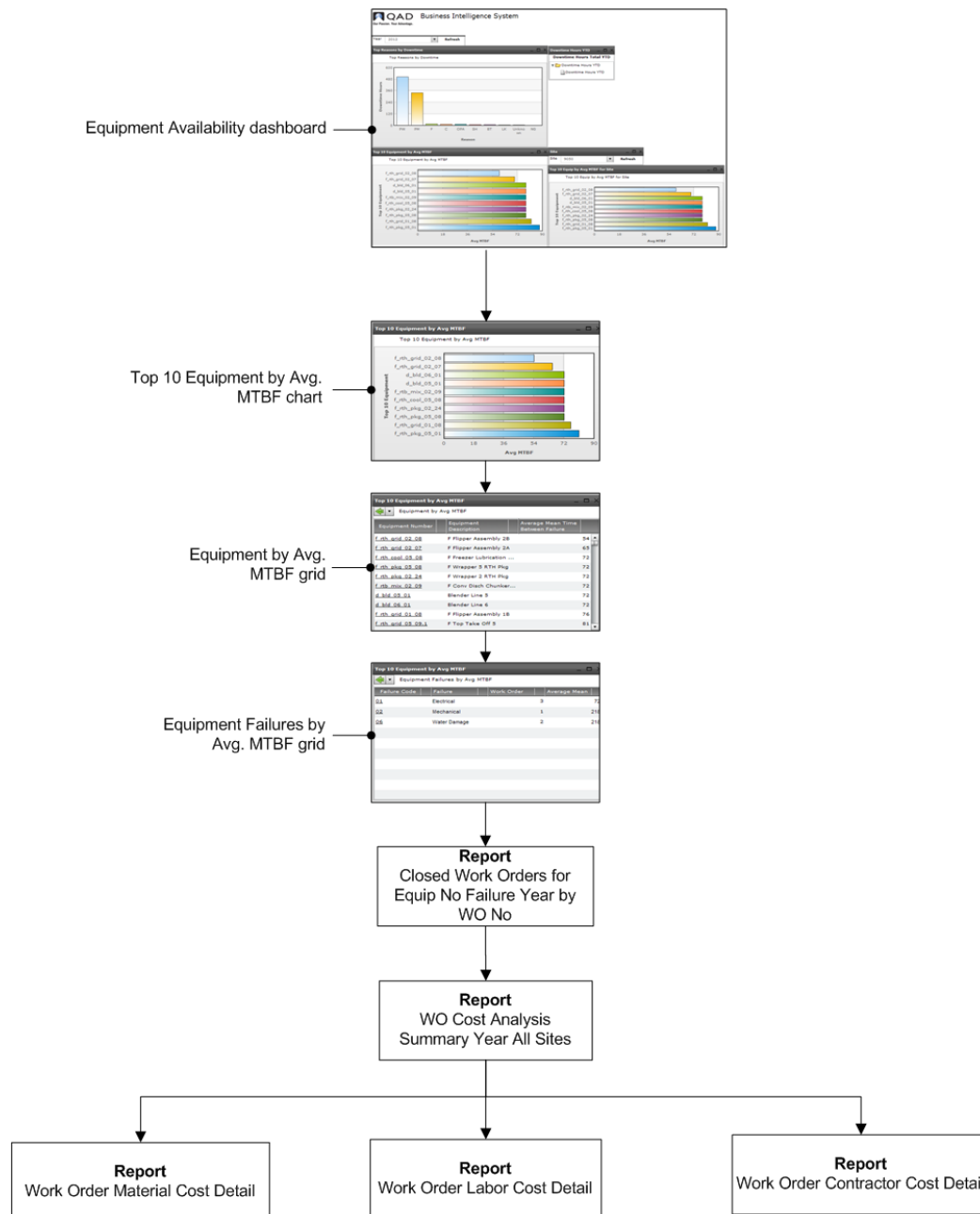
From the Top Equipment by Average MTBF chart, you can drill down and:

- Compare the top 10 equipment by average MTBF for all sites in a selected year. The MTBF metric is the ratio of days in the year (365) to the number of closed corrective maintenance (CM) work orders:

MTBF (Mean Time Between Failures) = 365 (days in the year) / # of closed CM Work orders

- Access a list of all equipment in all sites by the average MTBF for each month and year.
- Analyze equipment failures by MTBF.
- Access a list of closed work orders for a selected equipment number and failure code for the filtered date range.
- Access the cost analysis summary and detail information for a closed work order.

Fig. 5.10
Navigation Overview for the Top Equipment by Average MTBF KPI



Top Equipment by Average MTBF Charts and Grids

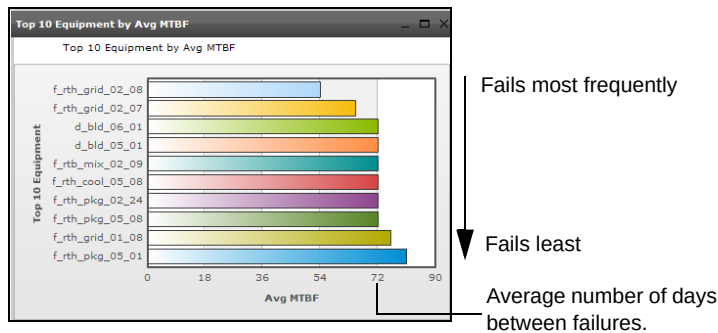
Access the Top Equipment by Average MTBF charts from the Equipment Availability dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Top 10 Equipment by Average MTBF

The Top 10 Equipment by Average MTBF chart lists the top ten equipment in all sites by the average MTBF metric, which represents the average number of days between failures. In this chart the equipment that fails most frequently is at the top and the equipment that fails the least is at the bottom.

Example In Figure 5.11, the f_rth_grid_02_08 equipment fails most frequently while the f_rth_pkg_05_01 equipment fails the least. According to the chart, the f_rth_grid_02_08 operates for an average of 54 days between failures while f_rth_pkg_05_01 operates for an average of 80 days between failures.

Fig. 5.11
Top 10 Equipment by Average MTBF Chart



Equipment by Avg MTBF

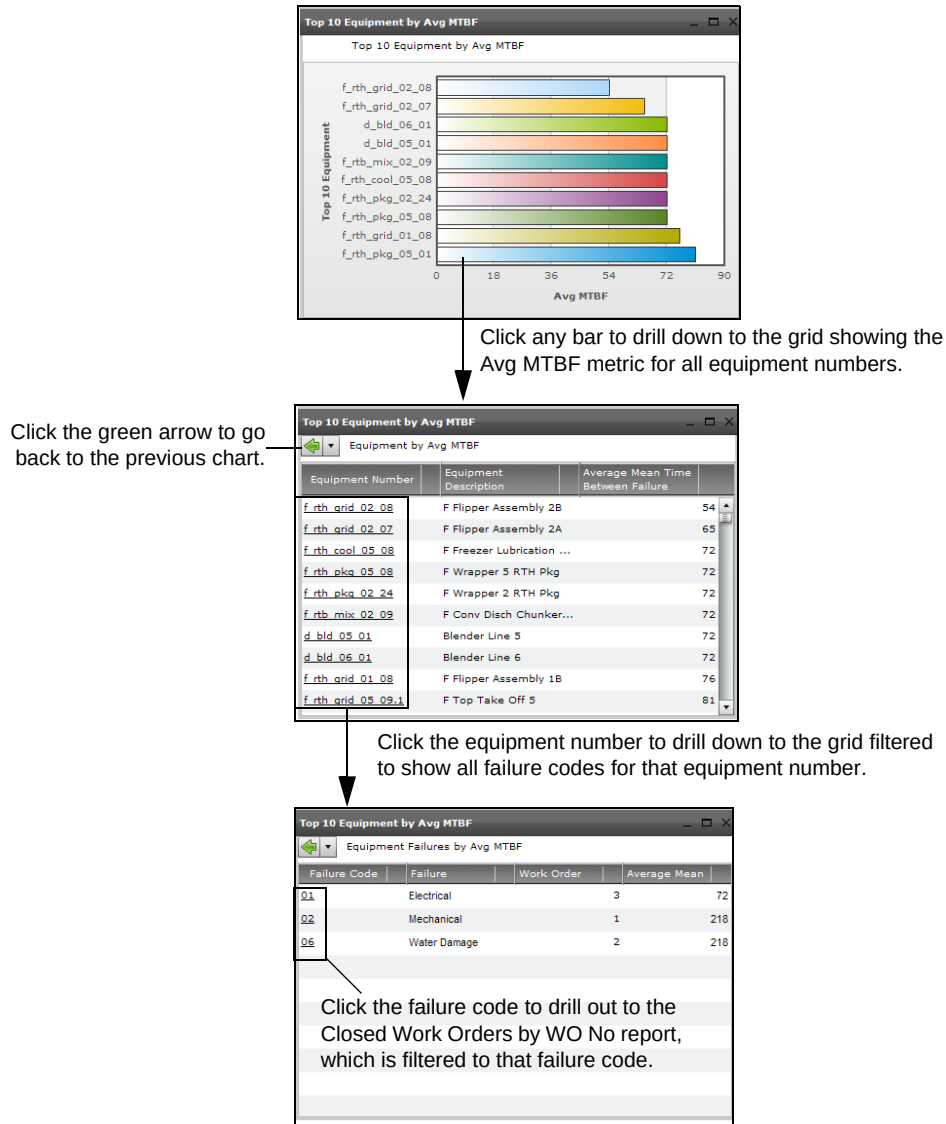
The Equipment by Avg MTBF grid lists all the equipment for all sites by the average MTBF. The grid can be sorted in ascending or descending order by any of the columns.

Equipment Failures by Avg MTBF

The Equipment Failures by Avg MTBF grid lists the failure details for a selected equipment number. This grid contains the failure code, a description of the failure, the number of closed CM work orders, and the average MTBF (in days) for each failure code. The grid can be sorted in ascending or descending order by any of the columns.

Fig. 5.12

Navigation for the Top Equipment by Average MTBF Charts and Grids



Top Equipment by Average MTBF Reports

Access the Top Equipment by Average MTBF reports from the Equipment Failures by Avg MTBF grid.

Closed Work Orders for Equip No Failure Year by WO No

This report lists the closed work orders for a selected failure code, equipment number, and year. This report contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code

- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Work Order Cost Analysis Summary

This report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

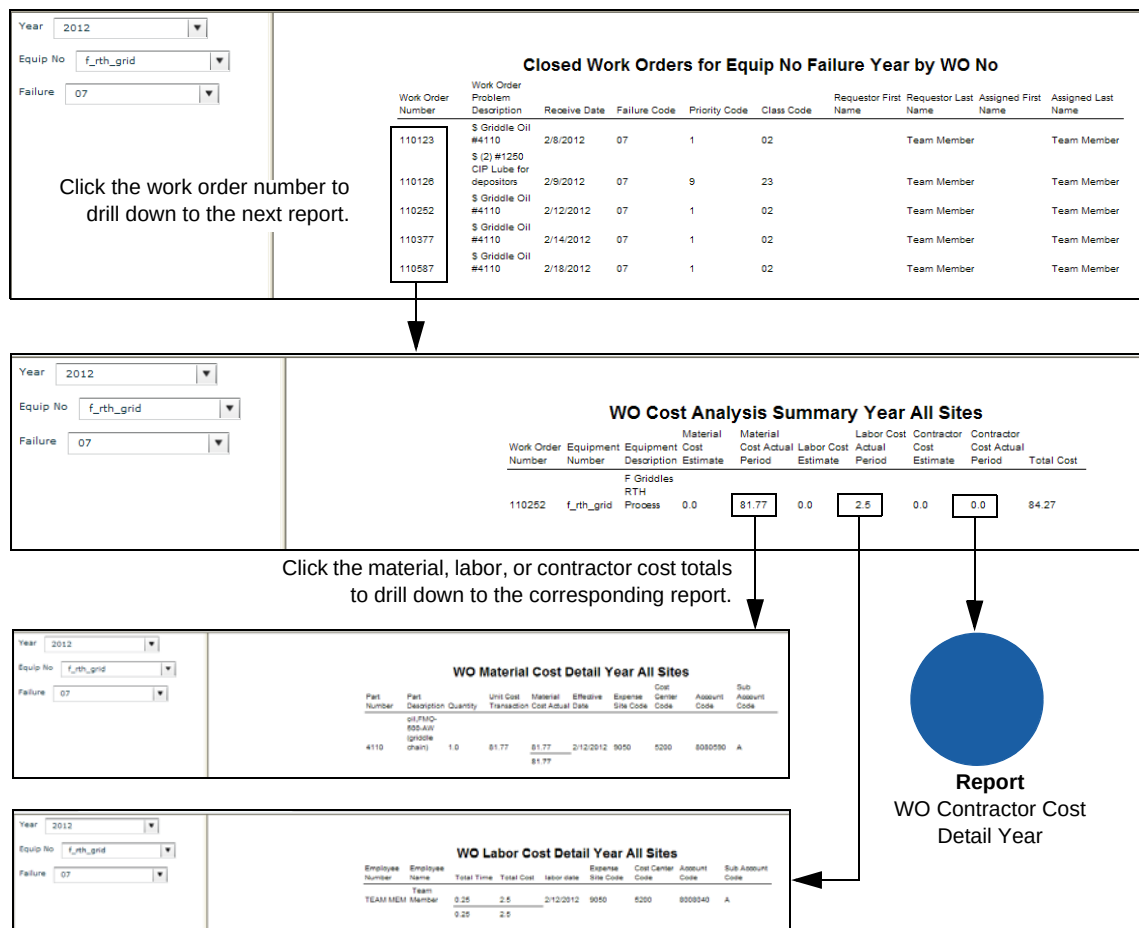
- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Work Order Labor/Material/Contract Cost Detail

The Work Order Cost Detail reports show transaction details for the material, labor, or contract cost totals. These reports contain the following columns:

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Employee Number	• Part Number	• Part Number
• Employee Name	• Part Description	• Part Description
• Total Time	• Quantity	• Quantity
• Total Time total (summary line)	• Unit Cost Transaction	• Unit Cost Transaction
• Total Cost	• Material Cost Actual	• Contractor Cost Actual
• Total Cost total (summary line)	• Material Cost Actual total (summary line)	• Contractor Cost Actual total (summary line)
• Labor Date	• Effective Date	• Effective Date
• Expense Site Code	• Expense Site Code	• Expense Site Code
• Cost Center Code	• Cost Center Code	• Cost Center Code
• Account Code	• Account Code	• Account Code
• Sub Account Code	• Sub Account Code	• Sub Account Code

Fig. 5.13
Report Navigation for Closed Work Orders by WO No Reports



Top Equipment by Average MTBF for Site

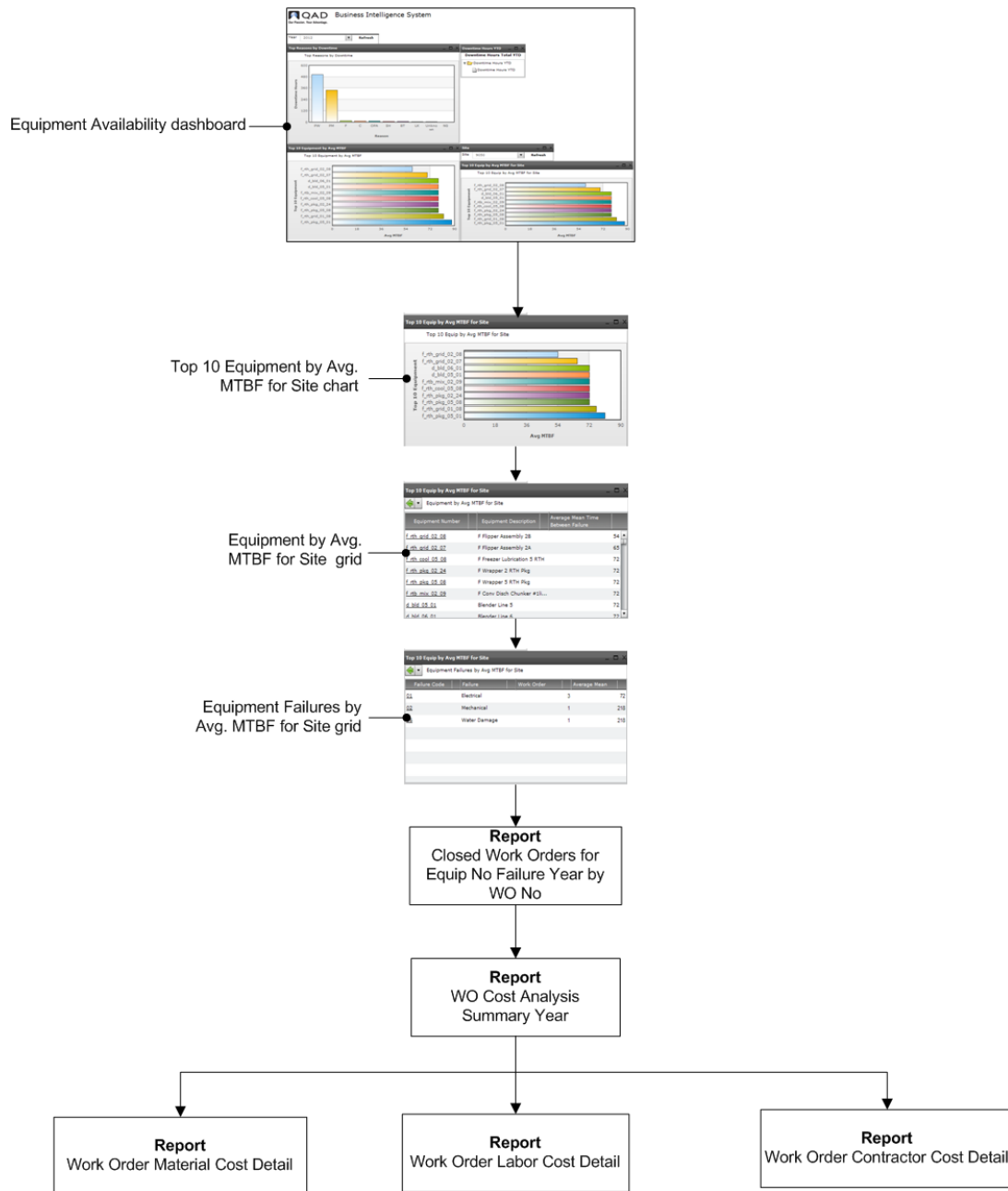
The Top Equipment by Average MTBF for Site KPI allows you to identify which equipment is failing most frequently at a specific site and the causes of the breakdowns. This information helps the maintenance department focus on trouble areas to ensure more efficient use of resources.

From the Top Equipment by Average MTBF for Site chart, you can drill down and:

- Compare the top 10 equipment by average MTBF for a selected site and year.
- Access a list of all equipment by average MTBF for a selected site and year.
- Analyze equipment failures by average MTBF.
- Access a list of closed work orders for a selected equipment number and failure code for the filtered date range.
- Access the cost analysis summary and detail information for a closed work order.

Fig. 5.14

Navigation Overview for Top Equipment by Average MTBF for Site KPI



Top Equipment by Average MTBF for Site Charts and Grids

Access the Top Equipment by Average MTBF for Site charts from the Equipment Availability dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

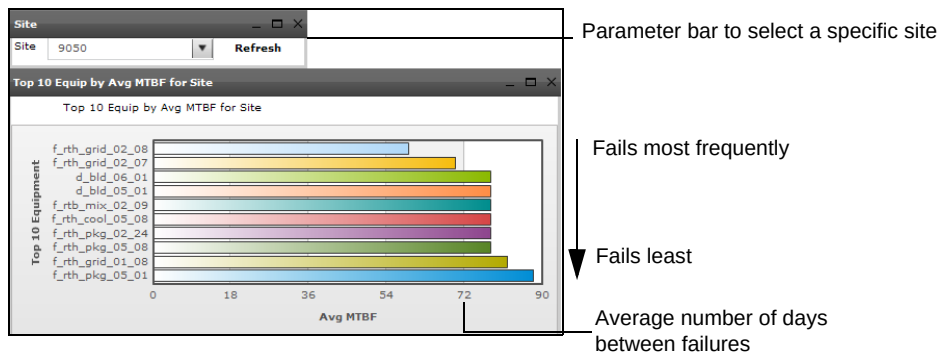
To view the average MTBF metric for a specific site use the parameter bar located above the chart. Once you select a site, click Refresh to view the average MTBF metric for that specific site.

Top 10 Equipment by Average MTBF for Site

The Top 10 Equipment by Average MTBF for Site chart lists the top ten equipment numbers in a selected site by the average MTBF metric, which represents the average number of days between failures. In this chart the equipment that fails most frequently is at the top and the equipment that fails the least is at the bottom.

Example In Figure 5.15, the f_rth_grid_02_08 equipment fails most frequently while the f_rth_pkg_05_01 equipment fails the least. According to the chart, the f_rth_grid_02_08 operates for an average of 54 days between failures while f_rth_pkg_05_01 operates for an average of 80 days between failures.

Fig. 5.15
Top 10 Equipment by Average MTBF for Site Chart



Equipment by Avg MTBF for Site

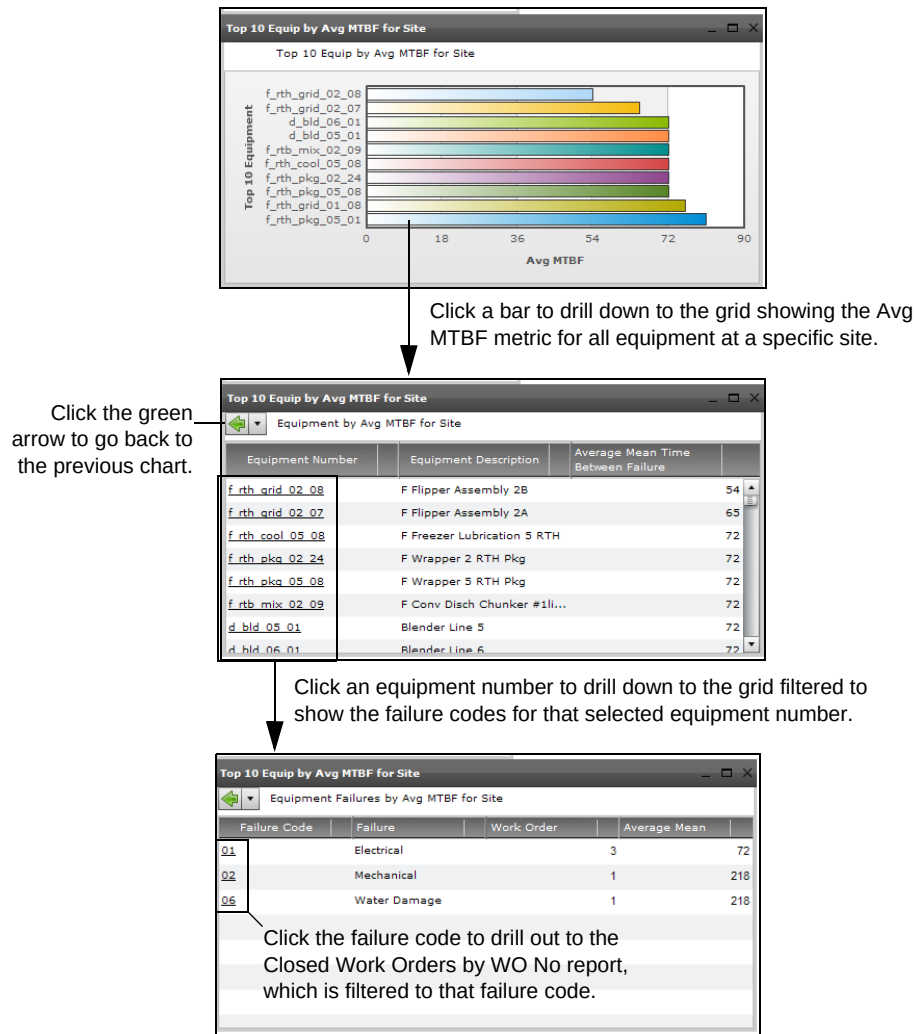
The Equipment by Avg MTBF for Site grid lists all the equipment for a selected site by the average MTBF. The grid can be sorted in ascending or descending order by any of the columns.

Equipment Failures by Avg MTBF for Site

The Equipment Failures by Avg MTBF for Site grid lists failure details for a selected equipment number. This grid contains the failure code, a description of the failure, the number of closed CM work orders, and the average MTBF (in days) for each failure code. The grid can be sorted in ascending or descending order by any of the columns.

Fig. 5.16

Navigation for the Top 10 Equipment by Avg MTBF for Site Graphs and Grids



Top Equipment by Average MTBF Reports

Access the Top Equipment by Average MTBF for Site reports from the Equipment Failures by Avg MTBF for Site grid.

Closed Work Orders for Equip No Failure Site Year by WO No

This report lists the work orders for a selected failure code, equipment number, site, and year. This report contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code

- Requestor First/Last Name
- Assigned First/Last Name

Work Order Cost Analysis Summary

This report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

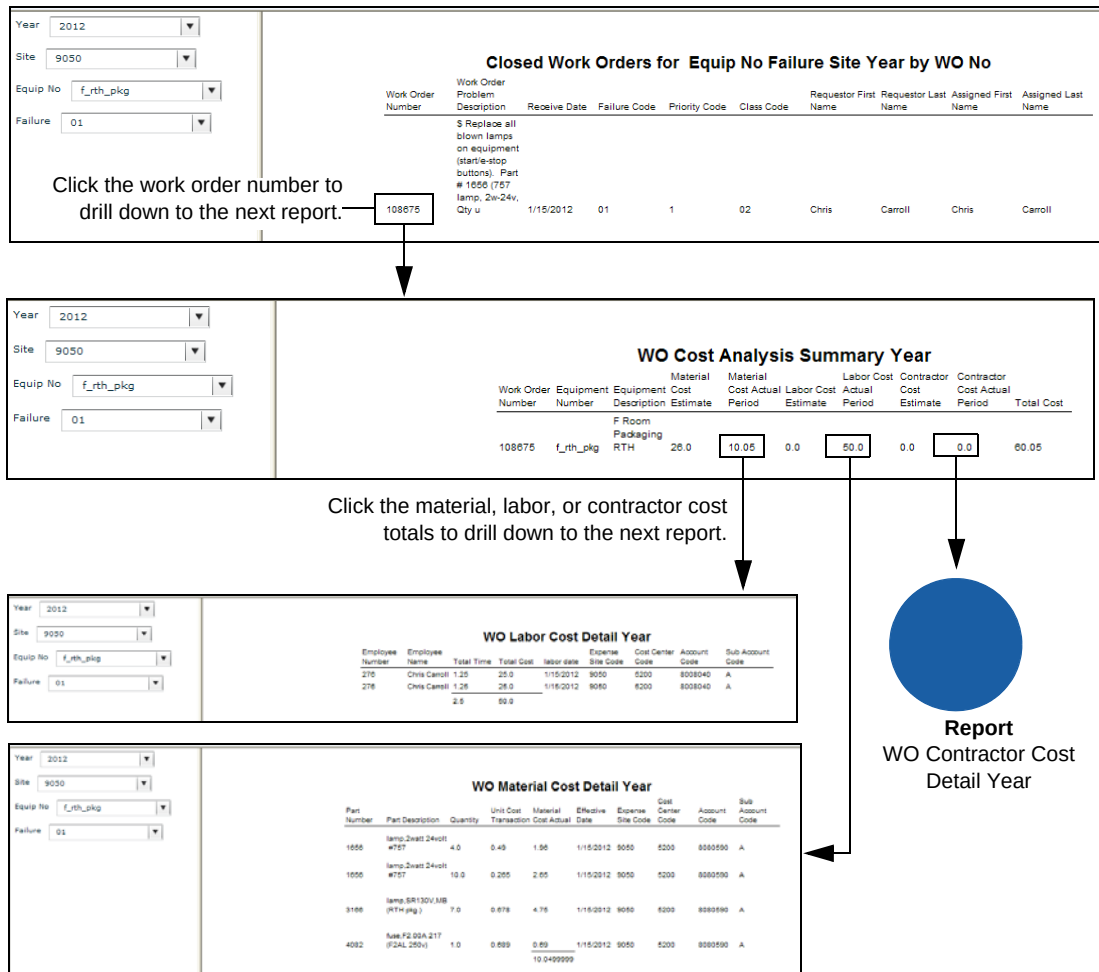
Work Order Labor/Material/Contract Cost Detail

The Work Order Cost Detail reports show transaction details for the material, labor, or contract cost totals. These reports contain the following columns:

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Employee Number	• Part Number	• Part Number
• Employee Name	• Part Description	• Part Description
• Total Time	• Quantity	• Quantity
• Total Time total (summary line)	• Unit Cost Transaction	• Unit Cost Transaction
• Total Cost	• Material Cost Actual	• Contractor Cost Actual
• Total Cost total (summary line)	• Material Cost Actual total (summary line)	• Contractor Cost Actual total (summary line)
• Labor Date	• Effective Date	• Effective Date
• Expense Site Code	• Expense Site Code	• Expense Site Code
• Cost Center Code	• Cost Center Code	• Cost Center Code
• Account Code	• Account Code	• Account Code
• Sub Account Code	• Sub Account Code	• Sub Account Code

Fig. 5.17

Report Navigation for Closed Work Order for Site by WO No

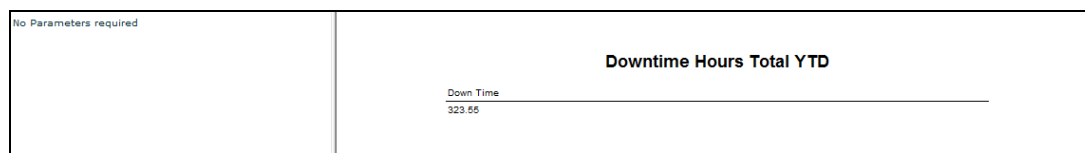


Downtime Hours Total YTD Report

Access the Downtime Hours Total YTD report from Equipment Availability Desktop. This report shows the sum of all downtime hours that occurred during the current year.

Fig. 5.18

Total Downtime Hours Report



Maintenance Backlog

Dashboard Overview

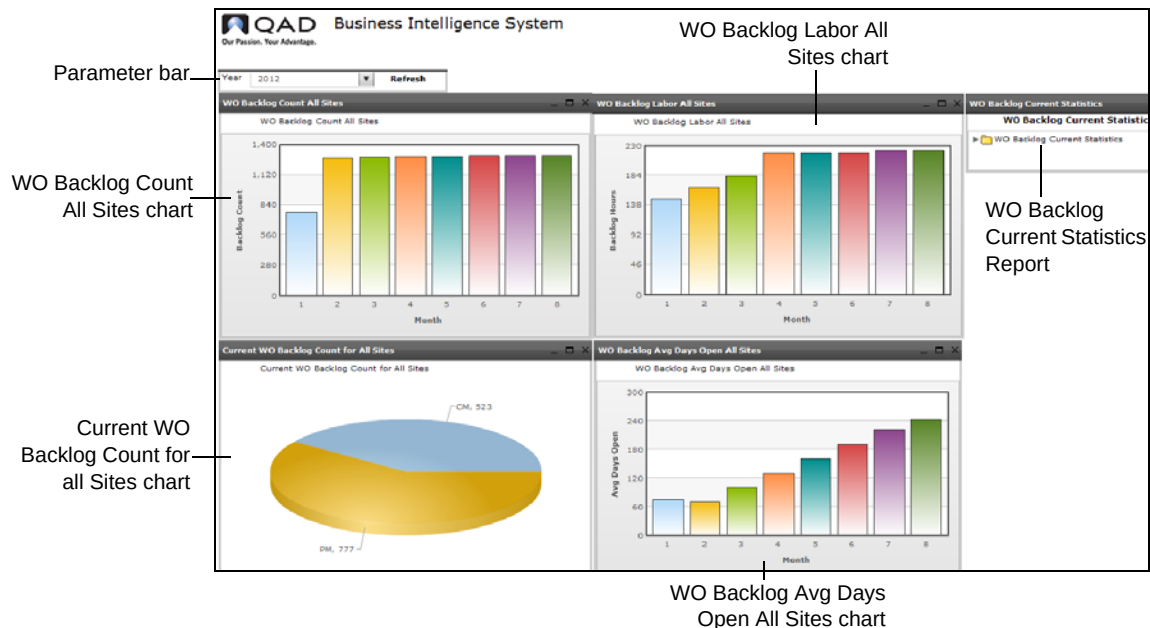
The Maintenance Backlog dashboard provides the following measures, which are snapshots of the backlog across months:

- Work order backlog measures for volume, labor, and average days open for maintenance
- Current backlog between PM (Preventive Maintenance) and CM (Corrective Maintenance) work orders

This dashboard provides the following KPIs:

- **Current Work Order Backlog.** See “Current Work Order Backlog Count” on page 93.
- **Work Order Backlog Count.** See “Work Order Backlog Count” on page 105.
- **Work Order Backlog Labor.** See “Work Order Backlog Labor” on page 116.
- **Work Order Backlog Average Days Open.** See “Work Order Backlog Average Days Open” on page 127.
- **Work Order Backlog Current Statistics.** See “Work Order Backlog Current Statistics Report” on page 138.

Fig. 5.19
Maintenance Backlog Dashboard



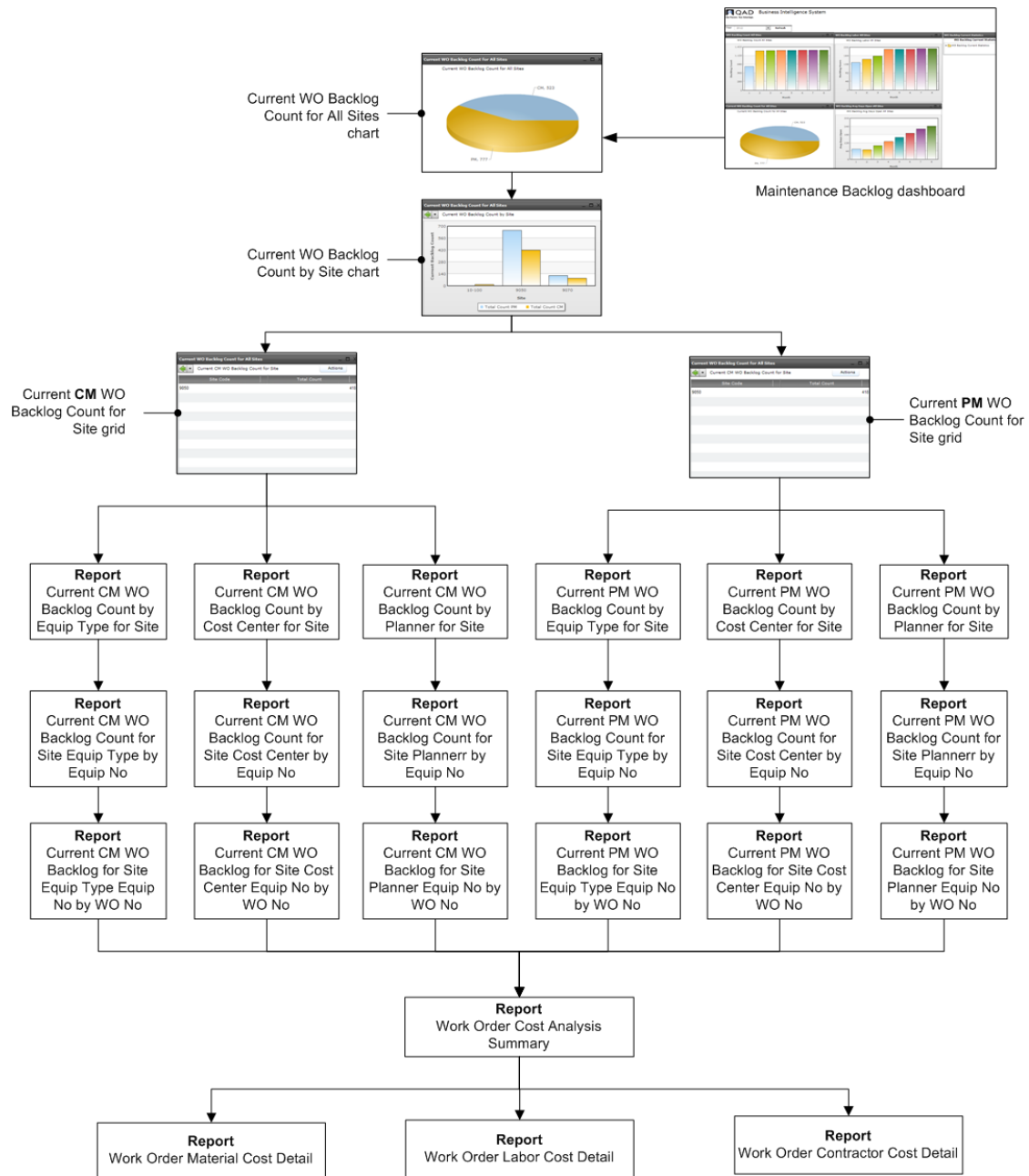
Current Work Order Backlog Count

The Current Work Order Backlog Count KPI allows you to monitor the current state of the backlog for proactive, reactive maintenance work. The reports that are included in this KPI provide a snapshot of the total number of open PM and CM work orders. Comparing PM vs. CM backlog can indicate if proactive or reactive work is loading the maintenance department. The list of open work orders excludes finished, canceled, and closed work orders.

From the Current Work Order Backlog Count chart, you can drill down and:

- Compare the backlog count for CM and PM work orders between sites and for a specific site.
- Access lists of all relevant equipment types, cost centers, or planners for CM or PM work orders.
- Access the current work order backlog count for a site and CM or PM work order type by equipment number, equipment type, cost center, or planner.
- Access a list of the backlog work orders by work order number for PM or CM and a specific site, equipment number, equipment type, cost center, or planner.
- Access the work order cost analysis summary and detail for a particular backlogged work order.

Fig. 5.20
Navigation Overview for Current Work Order Backlog Count KPI



Current Work Order Backlog Count Charts

The Current Work Order Backlog Count charts, which can be accessed from the Maintenance Backlog dashboard, show current metrics.

Current WO Backlog Count for All Sites

The Current WO Backlog Count All Sites chart shows the current count total and percentage of the backlog CM and PM work orders.

Current WO Backlog Count by Site

The Current WO Backlog Count by Site chart shows the current CM and PM work order backlog count for each site.

Current CM Work Order Backlog Count for Site

The Current CM WO Backlog Count for Site grid lists the current CM work order backlog count for a selected site. Access the following reports from the Actions menu:

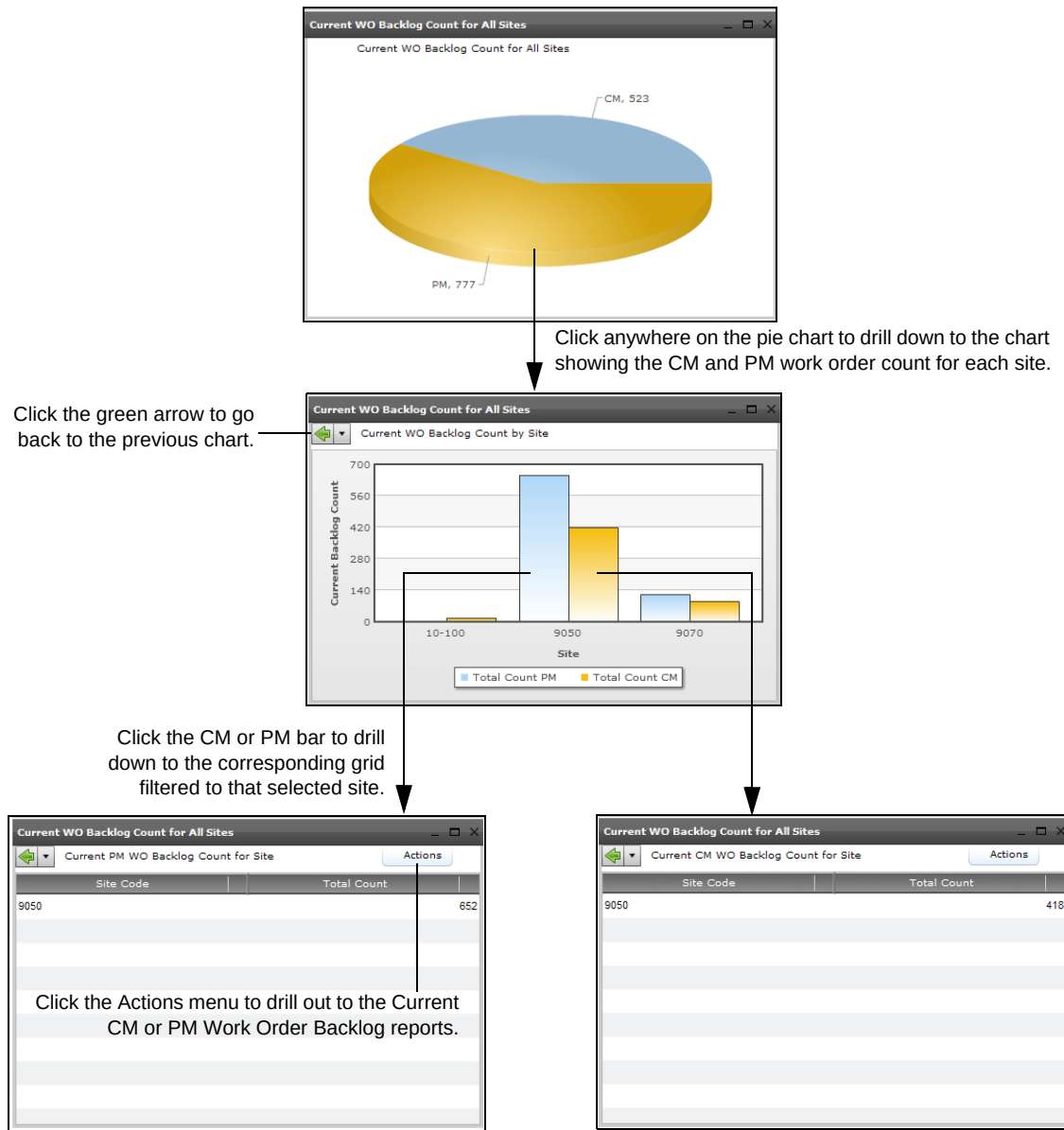
- Current CM WO Backlog Count for Site by Cost Center report
- Current CM WO Backlog Count for Site by Equip Type report
- Current CM WO Backlog Count for Site by Planner report

Current PM Work Order Backlog Count for Site

The Current PM WO Backlog Count for Site grid lists the current PM work order backlog count for a selected site. Access the following reports from the Actions menu:

- Current PM WO Backlog Count for Site by Cost Center report
- Current PM WO Backlog Count for Site by Equip Type report
- Current PM WO Backlog Count for Site by Planner report

Fig. 5.21
Navigation for Current WO Backlog Count All Sites Charts



Current PM/CM Work Order Backlog Count by Equip Type Reports

Access the PM/CM WO Backlog Count reports from the Actions menu in the Current CM/PM WO Backlog Count for Site grid. These reports show the metrics for a selected site.

Current PM/CM WO Backlog Count by Equip Type for Site

This report shows estimated labor hours and work order count for each equipment type in the work order backlog, filtered to site and PM or CM. This report contains the following columns:

- Equipment Type Code
- Equipment Type Description

- Labor Hours Estimate
- Labor Hours Estimate total (summary line)
- Total Count
- Total Count total (summary line)

Current PM/CM WO Backlog Count for Site Equip Type by Equip No

This report shows estimated labor hours and work order count for each equipment number on the PM/CM work order backlog for a selected equipment type. This report contains the following columns:

- Equipment Number
- Equipment Description
- Labor Hours Estimate
- Labor Hours Estimate total (summary line)
- Total Count
- Total Count total (summary line)

Current PM/CM Work Orders Backlog for Site Equip Type Equip No by WO No

This report lists the current PM/CM backlog work orders for a selected equipment number and equipment type. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.22

Report Navigation for Current PM /CM Work Order Backlog Count Reports by Equip Type

Site: 10-300

Current PM WO Backlog Count by Equip Type for Site

Equipment Type Code	Equipment Type Description	Labor Hours Estimate	Total Count
PROD	Production	0.0	17.0
EM	Electrical and Mechanical	0.0	15.0
MHAND	Material Handling	0.0	14.0
WELD	Welding	0.0	12.0
CONVEY	Conveyor	0.0	11.0
AHU	Air Handling Unit	0.0	10.0
P		0.0	8.0
LUBE	Lubrication	0.0	8.0
VIR	Virtual	0.0	8.0
CRHST	Cranes and Hoists	0.0	6.0
R		0.0	1.0
FAC		0.0	1.0
		0.0	111.0

Click the equipment type code to drill down to the next report.

Site: 10-300

Current PM WO Backlog Count for Site Equip Type by Equip No

Equipment Number	Equipment Description	Labor Hours Estimate	Total Count
CTK-CANN-002	Compression Tank standby	0.0	4.0
RSFA-FOOD-001	Room Sheeting Area Food	0.0	3.0
AVCE-BOTT-003	Air Valve Cage Exhaust 3	0.0	2.0
BP-FOOD-002	Boiler Feed Pump 2	0.0	1.0
CWP-BOTT-003	Chiller Condenser Water Pump 3	0.0	1.0
SG-BOTT-003	Clean Steam Generator 3	0.0	1.0
FFH-CANN-002	Final Filter Housing 2	0.0	1.0
MGV-CANN-001	Medical Gas/Vacuum Zone Valve Wall Box 1	0.0	1.0
PACU-CANN-002	Packaged Air Conditioning Unit Standby	0.0	1.0
RTF-FOOD-001	Room Tote Food	0.0	1.0
TN-BOTT-003	Transformer (Normal Power) 3	0.0	1.0
		0.0	17.0

Click the total count to drill down to the next report.

Site: 10-300

Current PM Work Order Backlog for Site Equip Type Equip No by WO No

Work Order Number	WO Status Code	Work Order Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Priority Code	Class Code	Assigned First Name	Assigned Last Name	Estimate
33133	O	Frozen Facility Fire Sprinkler PIV (5) Annual PM	Unknown	Unknown	1/21/2007	3	PM	JIMMY	KNIGHT	0.0
10541	O	Perform the weekly PM as per the instruction list.	MAX	HUNT	9/9/2004	3	PM	JIMMY	KNIGHT	0.0
10315	O	Perform the annual PM as per the instruction list.	Unknown	Unknown	8/29/2004	3	PM	FRANK	HARRIS	0.0
10250	O	Perform the weekly PM as per the instruction list.	MAX	HUNT	8/25/2004	3	PM	FRANK	HARRIS	0.0

Click the work order number to drill down to the Current Work Order Cost Analysis report.

Current PM/CM Work Order Backlog Count Reports by Cost Center

Access the PM/CM WO Backlog Count reports from the Actions menu in the Current CM/PM WO Backlog Count for Site grid. These reports show the metrics for a selected site.

Current PM/CM WO Backlog Count by Cost Center for Site

This report shows estimated labor hours and work order count for each cost center in the work order backlog, filtered to site and PM or CM. This report contains the following columns:

- Cost Center Code
- Cost Center Description

- Labor Hours Estimate
- Labor Hours Estimate total (summary line)
- Total Count
- Total Count total (summary line)

Current PM/CM WO Backlog Count for Site Cost Center by Equip No

This report shows estimated labor hours and work order count for each equipment number on the PM/CM work order backlog for a selected cost center. This report contains the following columns:

- Equipment Number
- Equipment Description
- Labor Hours Estimate
- Labor Hours Estimate total (summary line)
- Total Count
- Total Count total (summary line)

Current PM/CM Work Orders Backlog for Site Cost Center Equip No by WO No

This report lists the current PM/CM backlog work orders for a selected equipment number and cost center. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.23

Report Navigation for Current PM /CM Work Order Backlog Count Reports by Cost Center

Site: 9050

Current PM WO Backlog Count for Site by Cost Center

Click the cost center code to drill down to the next report.

Cost Center Code	Cost Center Description	Labor Hours Estimate	Total Count
5200	MAINTENANCE	6.73	652.0
		6.73	652.0

Site: 9050

Current PM WO Backlog Count for Site Cost Center by Equip No

Equipment Number	Equipment Description	Labor Hours Estimate	Total Count
f_rth_pkg	F Room Packaging RTH	0.0	19.0
f_fib	F Batteries Forktruck	0.0	15.0
f_fac_fs	F Froz Food Safety Repairs	0.0	9.0
f_rth_grid_01_06	F Griddle 1B	0.0	9.0
f_rth_grid_05_02	F Griddle 5	0.0	9.0
f_rth_grid_02_05	F Griddle 2A	0.0	8.0
f_rth_grid_02_06	F Griddle 2B	0.0	8.0
f_rth_grid_01_05	F Griddle 1A	0.0	8.0
f_rth_mfg_02_01	F Oven 2	0.0	5.0
f_fac	F Frozen Facility	0.0	5.0
f_ref_01_37_0	F Pump House/Sump Pump	0.0	5.0
f_fac_roof	F Roof Area	0.0	5.0

Click the total count to drill down to the next report.

Site: 9050

Current PM Work Order Backlog for Site Cost Center Equip No by WO No

Work Order Number	WO Status	Work Order Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Priority Code	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
110527	S	Frozen Facility Clean Orange Roll Up Doors Monthly Audit	Randall	Swift	2/19/2012	FS	FAC	Anthony	Mullins	0.0
110528	S	Frozen Facility Sanitize Floor Drains Weekly Procedure	Randall	Swift	2/19/2012	FS	FAC	Anthony	Mullins	0.0
110549	S	Frozen Facility Quarterly Drain Cleaning/Inspection	Jim	Doyle	2/15/2012	3	03	Jim	Doyle	0.0
109365	S	Frozen Facility Floor Fans Clean Weekly Audit	Jim	Doyle	1/24/2012	FS	FAC	Anthony	Mullins	0.0
105859	S	Frozen Facility Rapid Roll Up Doors Weekly PM Inspection	Jim	Doyle	11/23/2011	3	03	Donnie	Franklin	0.0

Click the work order number to drill down to the Current Work Order Cost Analysis report.

Current PM and CM Work Order Backlog Count Reports by Planner

Access the PM/CM WO Backlog Count reports from the Actions menu in the Current CM/PM WO Backlog Count for Site grid. These reports show the metrics for a selected site.

Current PM/CM WO Backlog Count by Planner for Site

This report shows estimated labor hours and work order count for each planner in the work order backlog, filtered to site and PM or CM work order number. This report contains the following columns:

- Cost Center Code
- Cost Center Description
- Labor Hours Estimate
- Labor Hours Estimate total (summary line)
- Total Count

- Total Count total (summary line)

Current PM/CM WO Backlog Count for Site Planner by Equip No

This report shows estimated labor hours and work order count for each equipment number on the PM/CM work order backlog for a selected planner. This report contains the following columns:

- Equipment Number
- Equipment Description
- Labor Hours Estimate
- Labor Hours Estimate total (summary line)
- Total Count
- Total Count total (summary line)

Current PM/CM Work Orders Backlog for Site Planner Equip No by WO No

This report lists the current PM/CM backlog work orders for a selected equipment number and planner. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.24

Report Navigation for Current PM /CM Work Order Backlog Count Reports by Planner

Site: 9050

Current PM WO Backlog Count for Site by Planner

Click the planner code to drill down to the next report.

Planner Code	Planner First Name	Planner Last Name	Labor Hours Estimate	Total Count
135	Glen	Stotts	0.52	132.0
136	Randall	Swift	6.21	516.0
144	Jim	Doyle	0.0	4.0
			6.73	652.0

Click the total count to drill down to the next report.

Site: 9050

Current PM WO Backlog Count for Site Planner by Equip No

Equipment Number	Equipment Description	Labor Hours Estimate	Total Count
f_rth_grid_01_06	F Griddle 1A	0.0	1.0
f_hvac_01_07	F Roof Top Unit 2 Sht	0.0	1.0
f_hvac_01_08	F Roof Top Unit 3 Sht	0.0	1.0
f_rtb_plg_03_14	F Tevopharm Wrapper 3	0.0	1.0
		0.0	4.0

Click the work order number to drill down to the Current Work Order Cost Analysis report.

Site: 9050

Current PM Work Order Backlog for Site Planner Equip No by WO No

Work Order Number	WO Status Code	Work Order Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Priority Code	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
110128	S	Need water flow indicators for battery area. Sent out two batteries for evaluation and repair. One not repairable, one is repairable.	Jim	Doyle	2/9/2012	3	14	Waddell	Battery	0.0
107599	O	WacoBat Send out (2) 48V batteries for repair.	Jim	Doyle	12/26/2011	3	08	Waddell	Battery	0.0
104123	S		Jim	Doyle	10/21/2011	4	08	Waddell	Battery	0.0

Current Work Order Cost Analysis Summary

The Current Work Order Cost Analysis Summary report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.25

Current Work Order Cost Analysis Summary Report

Site 9050		Current WO Cost Analysis Summary									
Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual	Labor Cost Estimate	Labor Cost Actual	Contractor Cost Estimate	Contractor Cost Actual	Total Cost		
107599	f_rtb	F Batteries Forktruck	0.0	526.26	0.0	0.0	0.0	0.0	526.26		

Click the material, labor, or contractor cost totals to drill down to the Backlog Work Order Material/Labor/Contract Cost Detail report.

Click the Material/Labor/Contractor Cost Actual Period to drill down to the following reports:

- Work Order Material Cost Detail report
- Work Order Labor Cost Detail report
- Work Order Contractor Cost Detail report

Current Work Order Material/ Labor/Contract Cost Detail

The Work Order Cost Detail reports show transaction details for the material, labor, or contract cost totals. These reports contain the following columns:

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Employee Number • Employee Name • Total Time • Total Time total (summary line) • Total Cost • Total Cost total (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.26

Current Work Order Material/Labor/Contract Cost Detail Report

Site 9050		Current WO Material Cost Detail									
Part Number	Part Description	Quantity	Unit Cost Transaction	Material Cost Actual	Effective Date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code		
Unknown	Unknown	1.0	100.0	100.0	12/31/2011	9050	5200	8080891	A		
Unknown	Unknown	1.0	400.0	400.0	12/31/2011	9050	5200	8080891	A		
Unknown	Unknown	1.0	10.0	10.0	12/31/2011	9050	5200	8080891	A		
Unknown	Unknown	1.0	16.26	16.26	12/31/2011	9050	5200	8080891	A		
				526.26							

Work Order Backlog Count

The Work Order Backlog Count KPI allows you to monitor how well the maintenance department is able to react to and complete incoming requests. This KPI analyzes the number of open work orders at the end of a period so that you can answer the following questions:

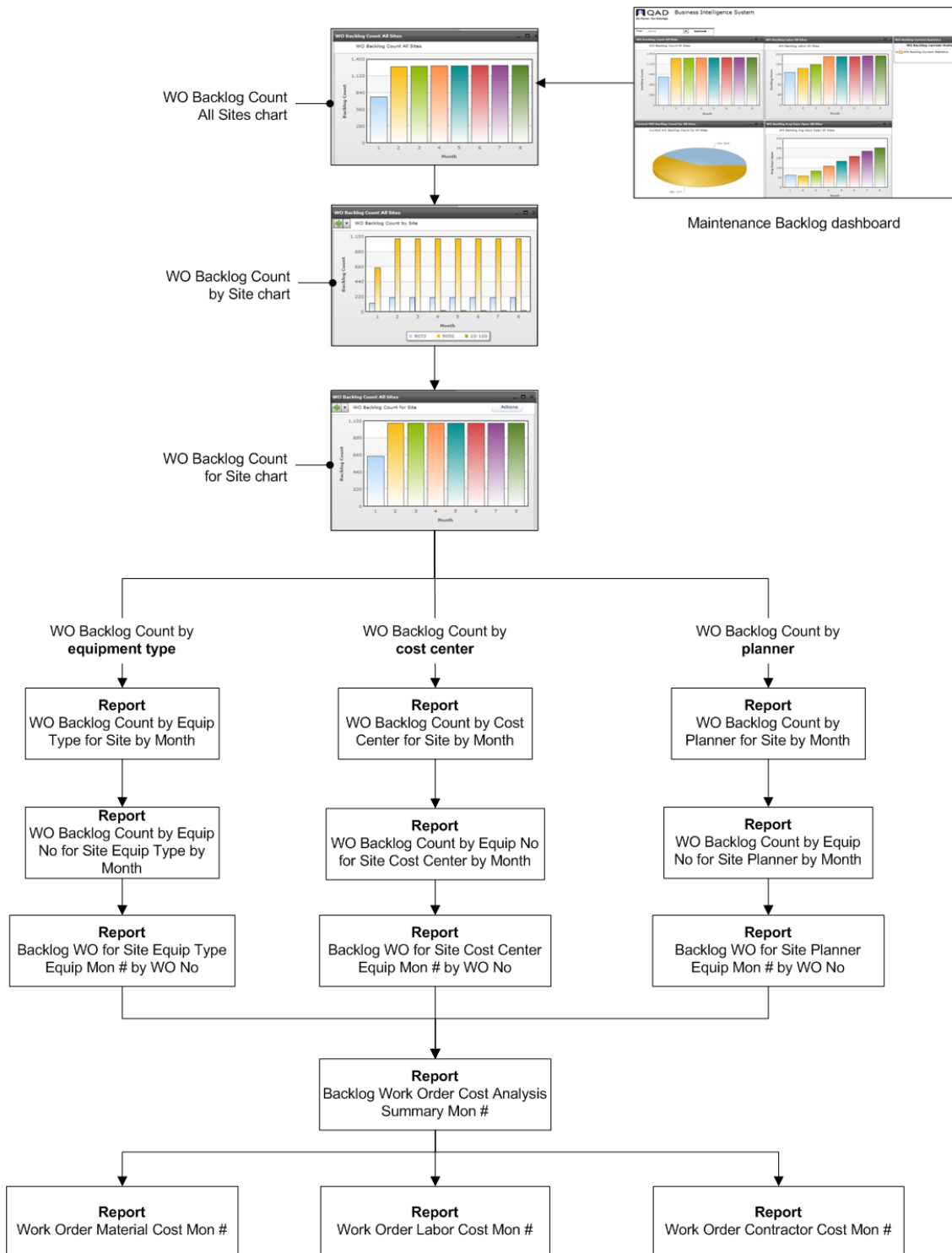
- Where is the backlog growing?
- Is there a specific cost center or type of equipment that seems to be getting more requests than others?

This KPI is an excellent way to identify problem areas and measure the maintenance department performance in responding to work requests.

From the Work Order Backlog Count chart, you can drill down and:

- Compare the monthly open work order backlog count between sites or for a specific site.
- Analyze the monthly work order backlog count by equipment type, cost center, or planner for the year.
- Analyze the work order backlog count by equipment number, for a specific equipment type, cost center, or planner for a particular site and year.
- Access a list of the backlog work orders by work order number for a specific equipment number.
- Access the work order cost analysis summary and detail for a specific work order.

Fig. 5.27
Navigation Overview for the Work Order Backlog Count KPI



Work Order Backlog Count Charts

Access the Work Order Backlog Count charts from the Maintenance Backlog dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Note Only the months with data are shown in the Work Order Backlog Count charts.

Work Order Backlog Count for All Sites

The WO Backlog Count for All Sites chart shows the work order backlog count for all sites. A work order is considered part of the backlog for a month if it was open as of the end of the month.

Work Order Backlog Count by Site

The WO Backlog Count by Site chart shows a comparison of backlog work order counts between sites. Each bar in the chart represents the different sites by month.

Work Order Backlog Count for Site

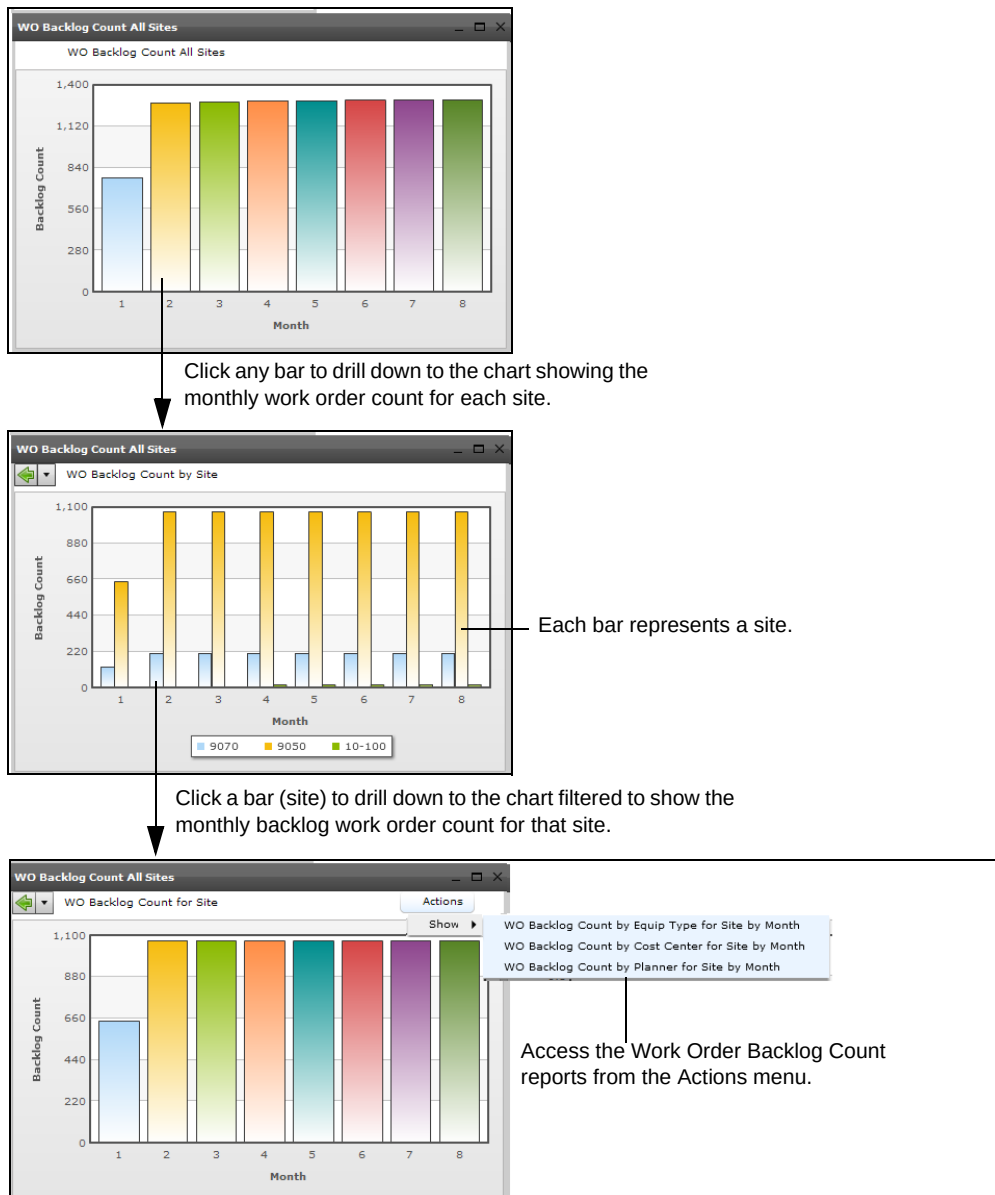
The Work Order Backlog Count for Site chart shows the work order backlog count for a selected site by month.

Click the Actions Menu to select the following reports:

- Work Order Backlog Count by Cost Center for Site by Month
- Work Order Backlog Count by Equip Type for Site by Month
- Work Order Backlog Count by Planner for Site by Month

Fig. 5.28

Navigation for the Work Order Backlog Count All Sites Charts



Work Order Backlog Count Reports by Equip Type

Access the WO Backlog Count reports from the Actions menu in the WO Backlog Count for Site grid. The following reports show the metrics for a selected site and year.

Work Order Backlog Count by Equip Type for Site by Month

This report shows the monthly totals and yearly average of backlog work orders for all equipment types. This report contains the following columns:

- Equipment Type Code

- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- 12 Month Average Count

Work Order Backlog Count by Equip No for Site Equip Type by Month

This report shows the monthly totals and yearly average of backlog work orders for all equipment for the selected equipment type. This report contains the following columns:

- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- 12 Month Average Count

Backlog Work Orders for Site Equip Type Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following column:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.29

Report Navigation for Backlog Work Orders by Equip Type

Year: 2012
Site: 9050

Work Order Backlog Count by Equip Type for Site by Month

Equipment Type Code	Total Count 1	Total Count 2	Total Count 3	Total Count 4	Total Count 5	Total Count 6	Total Count 7	Total Count 8	Total Count 9	Total Count 10	Total Count 11	Total Count 12	Average Count
FT	30.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	0.0	0.0	0.0	0.0	33.416666
PS	4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.0	0.0	0.0	0.0	3.833333
FAC	90.0	127.0	127.0	127.0	127.0	127.0	127.0	127.0	0.0	0.0	0.0	0.0	80.75
Maint	4.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	0.0	0.0	0.0	0.0	5.583333
FS	44.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	0.0	0.0	0.0	0.0	40.416666
HVAC	19.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	0.0	0.0	0.0	0.0	17.333333
Unknown	31.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	0.0	0.0	0.0	0.0	28.416666
R	43.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	0.0	0.0	0.0	0.0	31.583333
P	391.0	691.0	691.0	691.0	691.0	691.0	691.0	691.0	0.0	0.0	0.0	0.0	435.666666

Click the equipment type code to drill down to the next report.

Year: 2012
Site: 9050

Work Order Backlog Count by Equip No for Site Equip Type by Month

Equipment Number	Equipment Description	Total Count 1	Total Count 2	Total Count 3	Total Count 4	Total Count 5	Total Count 6	Total Count 7	Total Count 8	Total Count 9	Total Count 10	Total Count 11	Total Count 12	Average Count
F_FIRE_GEN	F Fire In General	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.583333
d_fac_sprinkler sys	Dry mix facility sprinkler	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.583333
f_fire	F Fire Suppression	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	0.0	0.0	0.0	0.0	2.666666
		4.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	0.0	0.0	0.0	0.0	

Click the total count # to drill down to the next report.

Year: 2012
Site: 9050

Backlog Work Orders for Site Equip Type Equip Mon 1 by WO No

Work Order Number	WO Status Code	Work Order Problem Type	Requestor First Name	Requestor Last Name	Receive Date	Total Days Open	Priority Code	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
107912	O	CM	Jeff	Saunders	12/31/2011	32.0	5	12	Unknown	Unknown	0.0
107890	O	CM	Jim	Doyle	12/29/2011	34.0	6	02	Jim	Doyle	1.53
106671	O	CM	Jim	Doyle	12/7/2011	56.0	6	08	Unknown	Unknown	0.0
105550	O	CM	Jim	Doyle	11/20/2011	73.0	5	08	Unknown	Unknown	0.0

Click the work order number to drill down to the Work Order Cost Analysis Summary report.

Work Order Backlog Count Reports by Cost Center

Access the WO Backlog Count reports from the Actions menu in the WO Backlog Count for Site grid. The following reports show the metrics for a selected site and year.

Work Order Backlog Count by Cost Center for Site by Month

This report shows the monthly totals and yearly average of backlog work orders for all cost centers. This report contains the following columns:

- Cost Center Code

- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- 12 Month Average Count

Work Order Backlog Count by Equip No for Site Cost Center by Month

This report shows the monthly totals and yearly average of backlog work orders for all equipment for the selected cost center. This report contains the following columns:

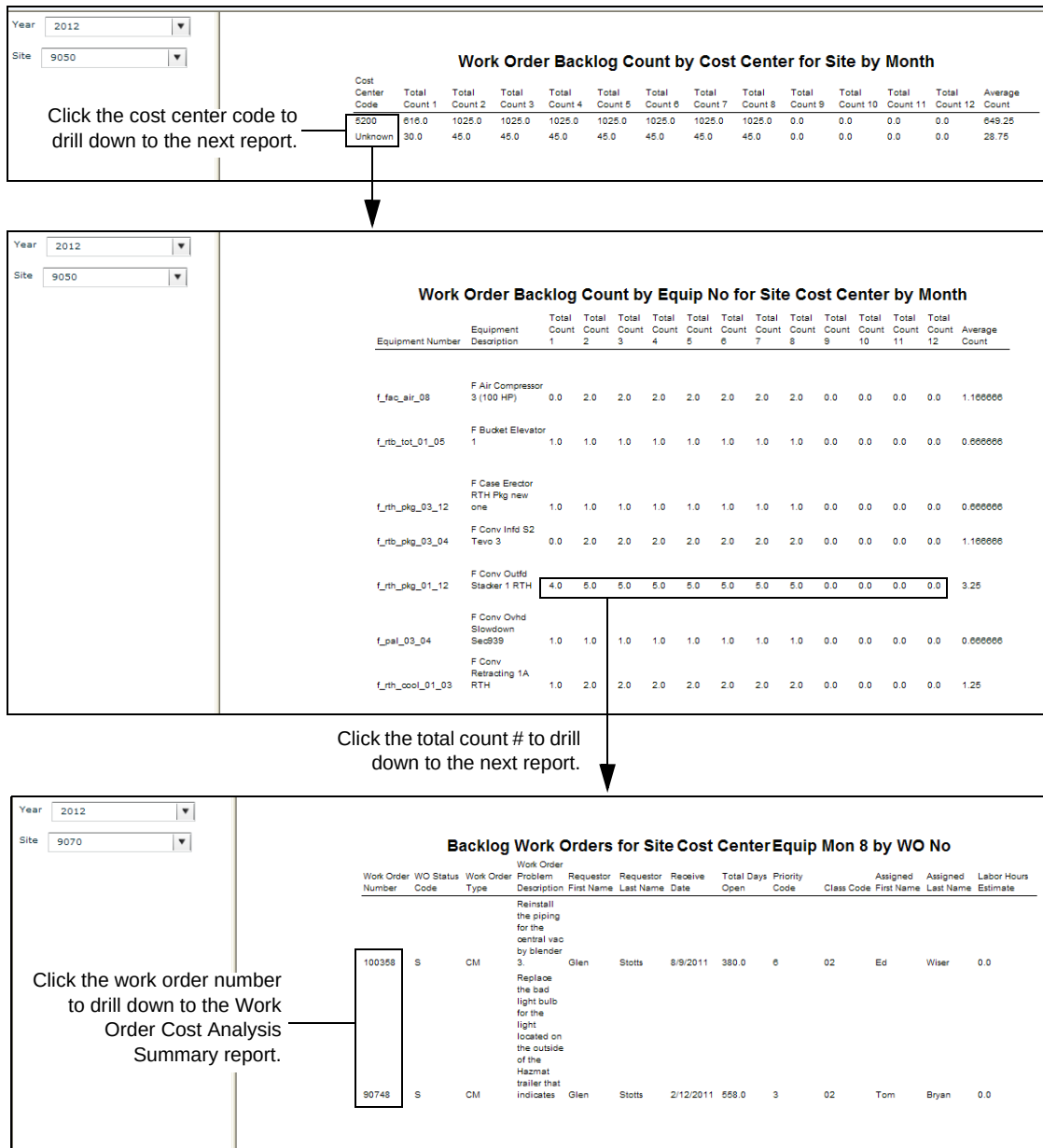
- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- 12 Month Average Count

Backlog Work Orders for Site Cost Center Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.30
Report Navigation for Backlog Work Orders by Cost Center



Work Order Backlog Count Reports by Planner

Access the WO Backlog Count reports from the Actions menu in the WO Backlog Count for Site grid. The following reports show the metrics for a selected site and year.

Work Order Backlog Count by Planner for Site by Month

This report shows the monthly totals and yearly average of backlog work orders for all planners. This report contains the following columns:

- Planner Code

- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average Count

Work Order Backlog Count by Equip No for Site Planner by Month

This report shows the monthly totals and yearly average of backlog work orders for all equipment for the selected planner. This report contains the following columns:

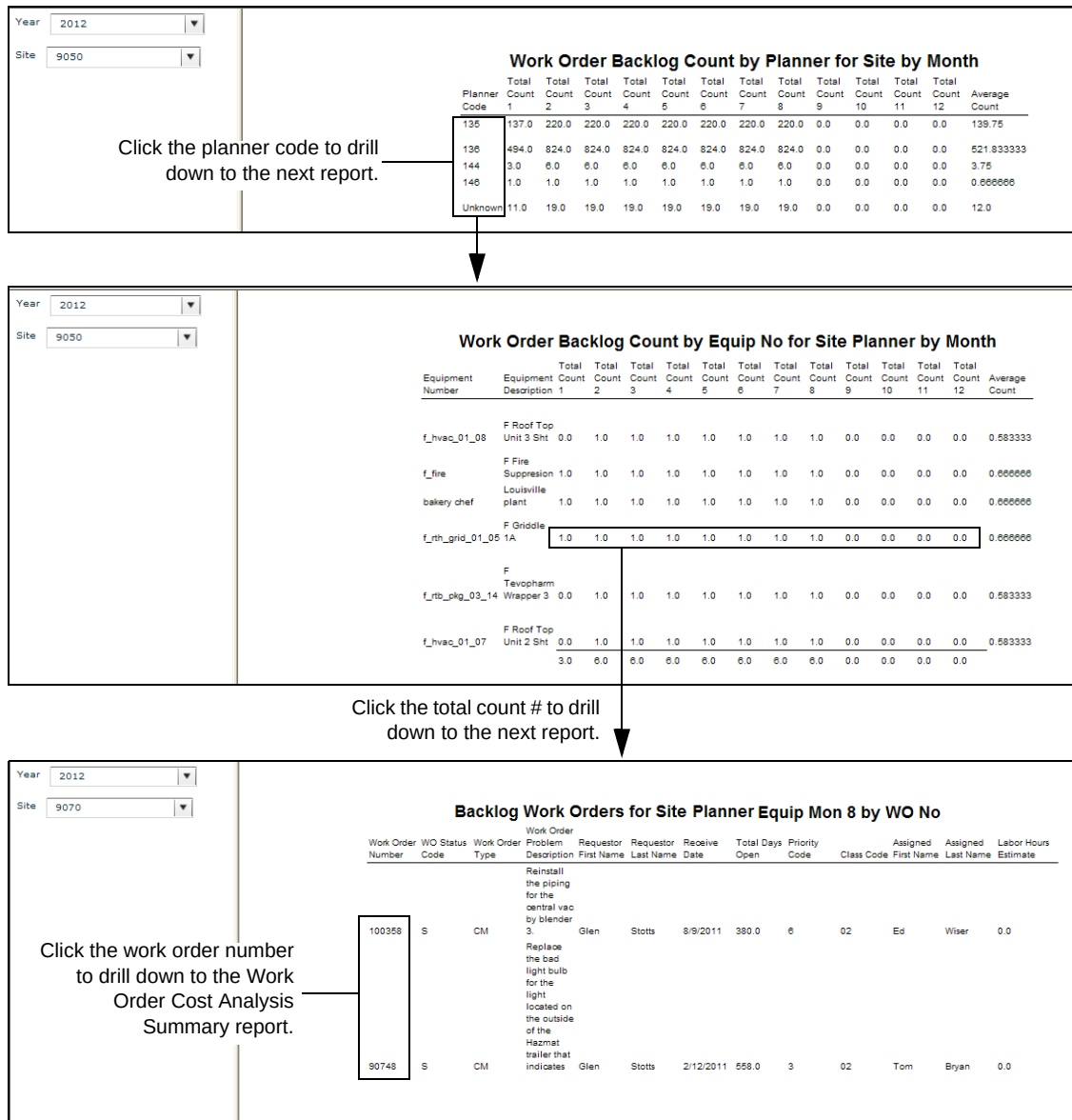
- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- 12 Month Average Count

Backlog Work Orders for Site Planner Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.31
Report Navigation for Backlog Work Orders by Planner



Backlog Work Order Cost Analysis Summary

The Backlog Work Order Cost Analysis Summary report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate

- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.32
Work Order Cost Analysis Summary Report

Year: 2012 Site: 9050		WO Cost Analysis Summary Mon 2									
Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost		
110428	f_rth_plg_01_12	RTH F Conv Outdr Stacker 1	0.0	181.42	0.0	0.0	0.0	0.0	181.42		

Click the material, labor, or contractor cost totals to drill down to the Backlog Work Order Material/Labor/Contract Cost Detail report.

Click the Material/Labor/Contractor Cost Actual Period to drill down to the following reports:

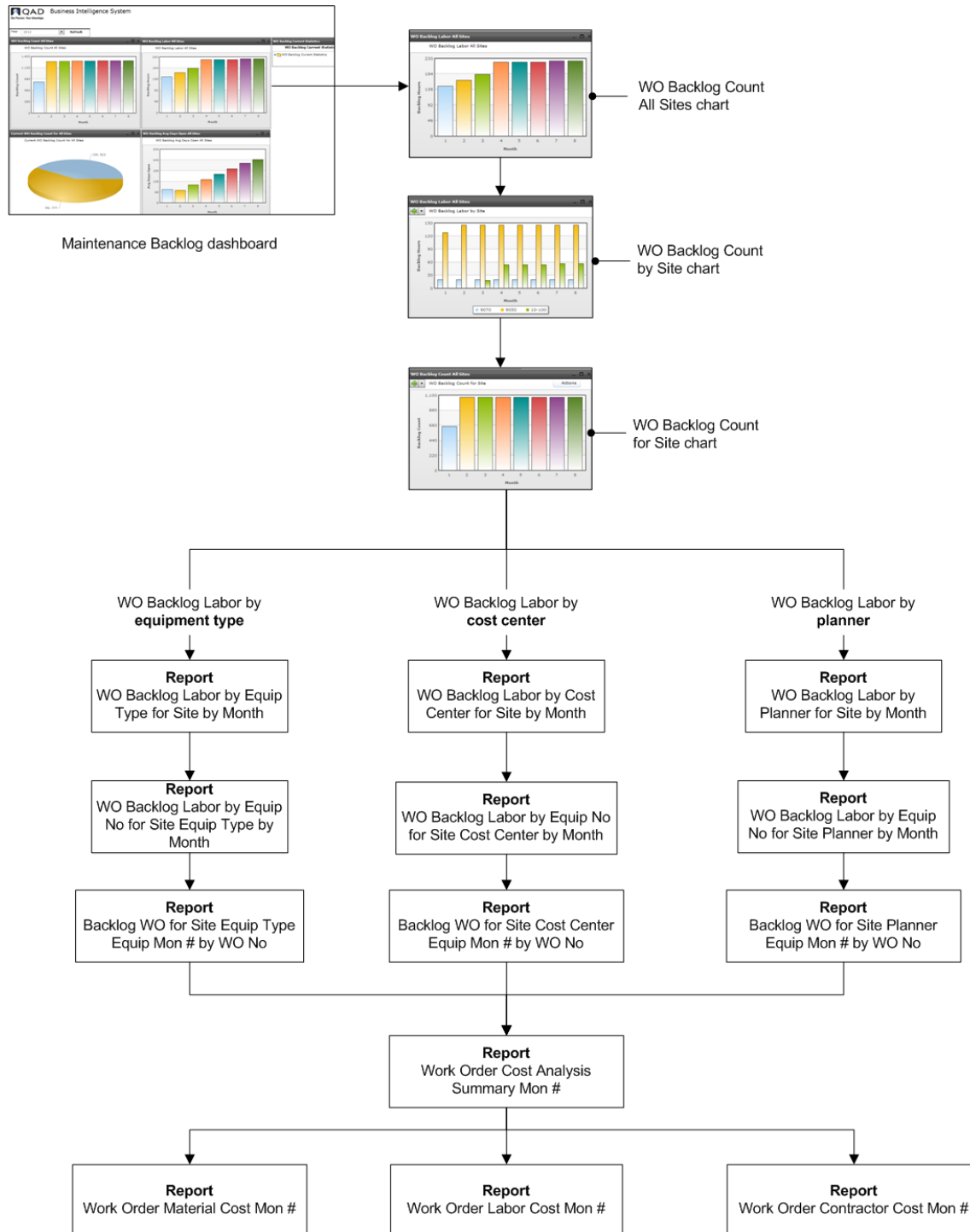
- Work Order Material Cost Detail report
- Work Order Labor Cost Detail report
- Work Order Contractor Cost Detail report

Backlog Work Order Material/Labor/Contract Cost Detail

The Work Order Cost Detail reports show transaction details for the material, labor, or contract cost totals. These reports contain the following columns:

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Employee Number • Employee Name • Total Time • Total Time total (summary line) • Total Cost • Total Cost total (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.34
Navigation Overview for the Work Order Backlog Count Navigation KPI



Work Order Backlog Labor Charts

Access the Work Order Backlog Count charts from the Maintenance Backlog dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Note Only the months with data are shown in the Work Order Backlog Labor charts.

Work Order Backlog Labor All Sites

The WO Backlog Labor All Sites chart shows the work order backlog estimated labor hours for all sites. A work order is considered part of the backlog for a month if it was open as of the end of the month.

Work Order Backlog Labor by Site

The WO Backlog Labor by Site report compares the work order backlog estimated labor hours between sites. Each bar in the chart represents the different sites by month.

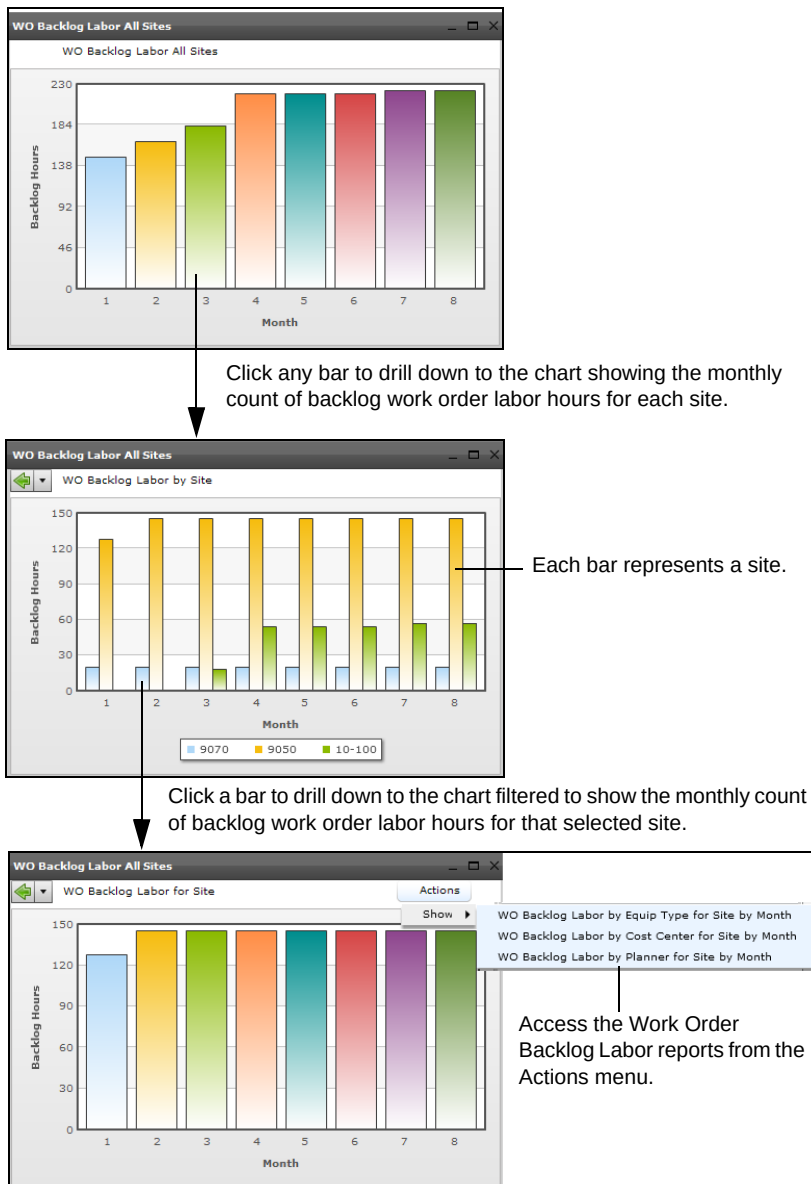
Work Order Backlog Labor for Site

The WO Backlog Labor for Site shows the work order backlog estimated labor hours for a selected site by month.

Click the Actions menu to select the following reports:

- Work Order Backlog Labor by Cost Center for Site by Month report
- Work Order Backlog Labor by Equip Type for Site by Month report
- Work Order Backlog Labor by Planner for Site by Month report

Fig. 5.35
Navigation for the Work Order Backlog Labor Charts



Work Order Backlog Labor by Equip Type Reports

Access the WO Backlog Labor reports from the Actions menu in the WO Backlog Labor for Site chart. These reports show metrics for a selected site and year.

Work Order Backlog Labor by Equip Type for Site by Month

This report shows the monthly totals and yearly average of the backlog of estimated labor hours for all equipment types. This report contains the following columns:

- Equipment Type Code
- Labor Hours Estimate 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.

- Labor Hours Estimate 1-12 totals (summary line)
- 12 Month Average

Work Order Backlog Labor by Equip No for Site Equip Type by Month

This report shows the monthly totals and yearly average of the backlog of estimated labor hours for all equipment numbers for a selected equipment type. This report contains the following columns:

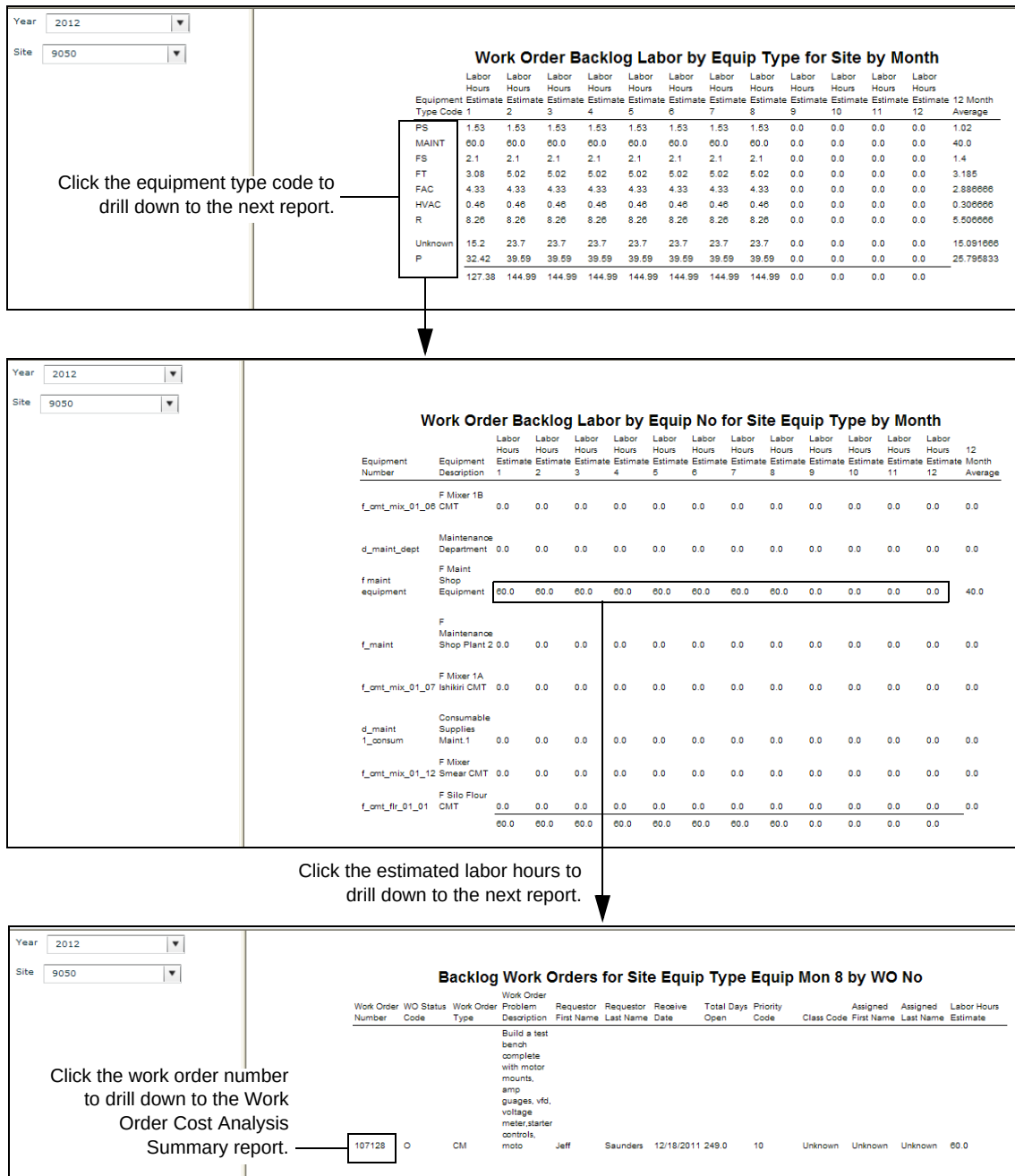
- Equipment Number
- Equipment Description
- Labor Hours Estimate 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Estimate 1-12 totals (summary line)
- 12 Month Average

Backlog Work Orders for Site Equip Type Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.36
Report Navigation for Backlog Labor Work Orders by Equip Type



Work Order Backlog Labor Reports by Cost Center

Access the WO Backlog Labor reports from the Actions menu in the WO Backlog Labor for Site chart. These reports show metrics for a selected site and year.

Work Order Backlog Labor by Cost Center for Site by Month

This report shows the monthly totals and yearly average of the backlog estimated labor hours for all cost centers. This report contains the following columns:

- Cost Center Code
- Labor Hours Estimate 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Estimate 1-12 totals (summary line)
- 12 Month Average

Work Order Backlog Labor by Equip No for Site Cost Center by Month

This report shows the monthly totals and yearly average of the backlog estimated labor hours for all equipment numbers in a selected cost center. This report contains the following columns:

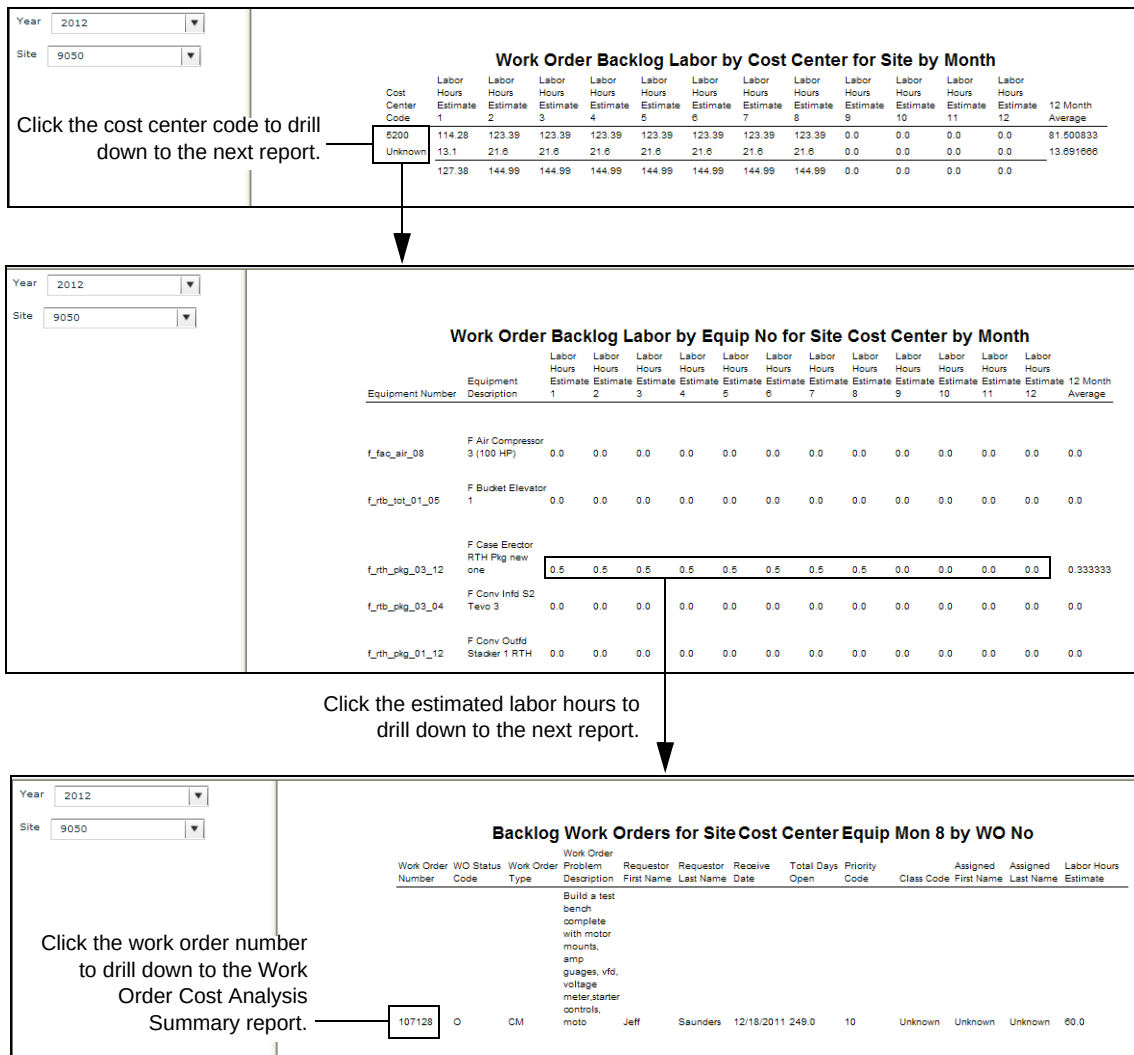
- Equipment Number
- Equipment Description
- Labor Hours Estimate 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Estimate 1-12 totals (summary line)
- 12 Month Average

Backlog Work Orders for Site Cost Center Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.37
Report Navigation for Backlog Labor Work Orders by Cost Center



Work Order Backlog Labor Reports by Planner

Access the WO Backlog Labor reports from the Actions menu in the WO Backlog Labor for Site chart. These reports show metrics for a selected site and year.

Work Order Backlog Labor by Planner for Site by Month

This report shows the monthly totals and yearly average of the backlog estimated labor hours for all planners. This report contains the following columns:

- Planner Code
- Labor Hours Estimate 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Estimate 1-12 totals (summary line)
- 12 Month Average

Work Order Backlog Labor by Equip No for Site Planner by Month

This report shows the monthly totals and yearly average of the backlog estimated labor hours for all equipment numbers for the selected planner. This report contains the following columns:

- Equipment Number
- Equipment Description
- Labor Hours Estimate 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Estimate 1-12 totals (summary line)
- 12 Month Average

Backlog Work Orders for Site Planner Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.38
Report Navigation for Backlog Labor Work Orders by Planner

Click the planner code to drill down to the next report.

Work Order Backlog Labor by Planner for Site by Month														
Planner Code	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	12 Month Average
135	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	0.0	0.0	0.0	0.0	0.0	1.38
136	125.31	142.92	142.92	142.92	142.92	142.92	142.92	142.92	0.0	0.0	0.0	0.0	0.0	93.8125
144	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	127.38	144.98	144.98	144.98	144.98	144.98	144.98	144.98	0.0	0.0	0.0	0.0	0.0	

Click the estimated labor hours to drill down to the next report.

Work Order Backlog Labor by Equip No for Site Planner by Month														
Equipment Number	Equipment Description	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	Labor Hours Estimate	12 Month Average
f_fac_a1r_03	F Air Dryer Kaiser	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rth_p1g_02_33	F Case Taper 2 RTH P1g	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rth_p1g_03_16	F Conv Accum 1 & 50" RTH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rth_p1g_05_27	F Conv Ovhd Top Infl 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rth_sh_02_10.5	F Conv Phoenix 2 Sht	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rth_p1g_04_18	F Conv Shuttleworth S3 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rth_fr_01_07	F Filter Receiver	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	0.0	0.0	0.0	1.4

Click the work order number to drill down to the Work Order Cost Analysis Summary report.

Backlog Work Orders for Site Planner Equip Mon 8 by WO No													
Work Order Number	WO Status	Work Order Type	Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Total Days Open	Priority Code	Assigned Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate	
107128	O	CM	Build a test bench complete with motor mounts, amp guages, vfd, voltage meter, starter controls, moto	Jeff	Saunders	12/18/2011	249.0	10	Unknown	Unknown	Unknown	60.0	

Backlog Work Order Cost Analysis Summary

The Backlog Work Order Cost Analysis Summary report shows a summary of labor, material, and contract cost totals.

Note Because these are backlog work orders, no cost occurs if work has not started.

This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate

- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.39

Work Order Cost Analysis Summary Report

Year: 2012

Site: 9070

WO Cost Analysis Summary Mon 8

Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost
		Facilities General Eq. Dry Mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90748	d_fac_gen								

Click the material, labor, or contractor cost totals to drill down to the Backlog Work Order Material/Labor/Contract Cost Detail report.

Click the Material/Labor/Contractor Cost Actual Period to drill down to the following reports:

- Work Order Material Cost Detail report
- Work Order Labor Cost Detail report
- Work Order Contractor Cost Detail report

Work Order Material/ Labor/Contract Cost Detail

The Work Order Cost Detail reports show transaction details for the material, labor, or contract cost totals.

Note Because these are backlog work orders, no cost occurs if work has not started.

These reports contains the following columns:

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Employee Number • Employee Name • Total Time • Total Time total (summary line) • Total Cost • Total Cost total (summary line) • Labor Date • Expense Site Code • Cost Center Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Account Code • Sub Account Code	• Account Code • Sub Account Code	• Account Code • Sub Account Code

Work Order Backlog Average Days Open

The Work Order Backlog Average Days Open KPI allows you to monitor how well the maintenance department is able to respond to monthly work order requests. This KPI helps you answer the following questions:

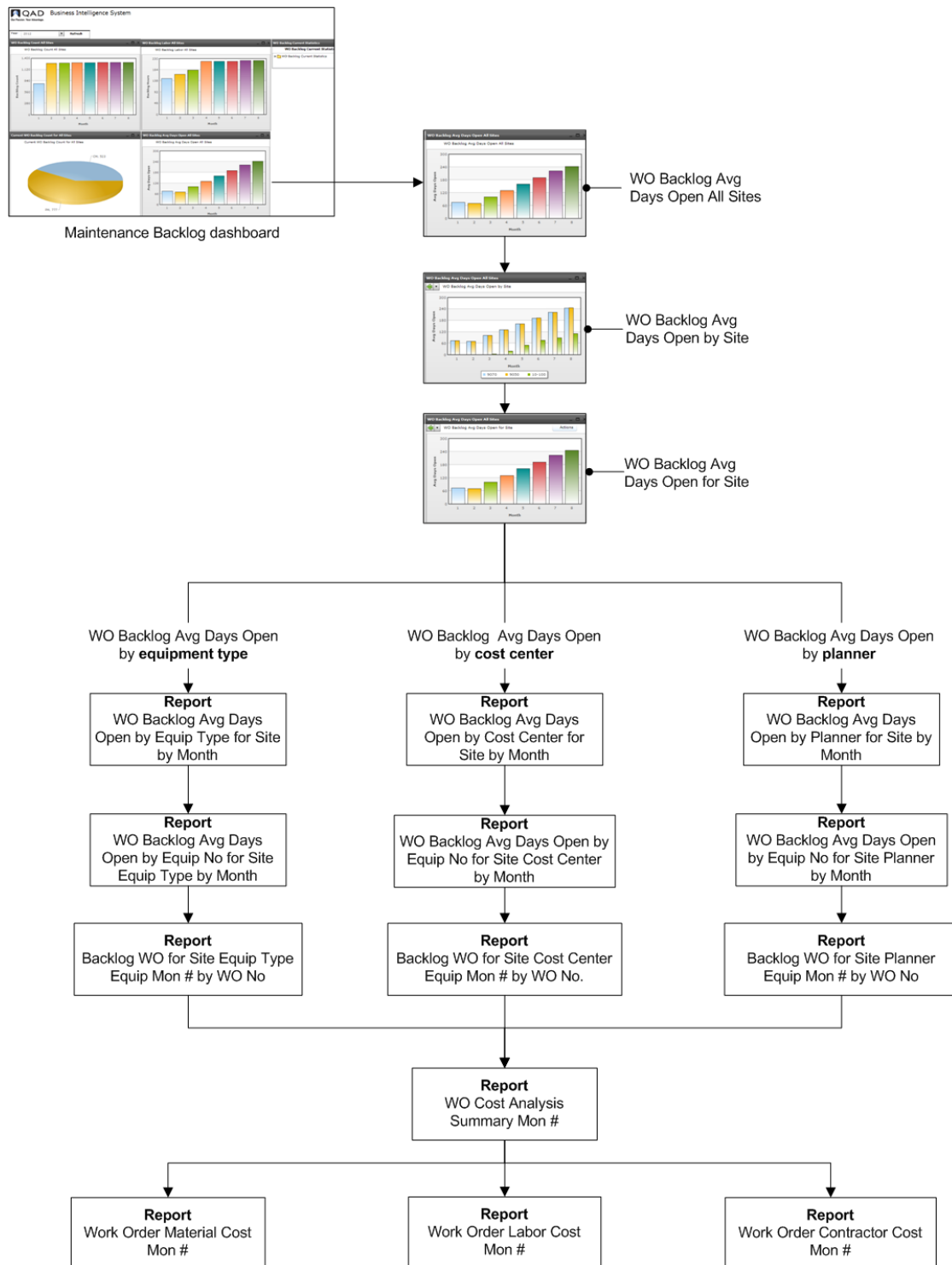
- How long does a request take to complete?
- For which cost centers or equipment is the average age of the backlog getting older?

This KPI provides another important metric for the maintenance department to determine if it is focusing on the most critical issues in the plant. Work orders are included in the Average Days Open calculation if they were open as of the end of the period.

From the Work Order Backlog Average Days Open graph, you can drill down and:

- Compare the monthly average days open metric between sites or for a specific site.
- Compare the average days open metric by equipment types, cost centers, or planners.
- Compare the average days open metric by equipment number.
- Access a list of backlog work orders by work order number for a specific equipment number.
- Access work order cost analysis summary and detail information for a specific backlog work order.

Fig. 5.40
Navigation Overview for the Work Order Backlog Count Navigation KPI



Work Order Backlog Avg Days Open Charts

Access the Work Order Backlog Avg Days Open charts from the Maintenance Backlog dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Note Only the months with data are shown in the Work Order Backlog Avg Days Open charts.

Work Order Backlog Avg Days Open All Sites

The WO Backlog Avg Days Open All Sites chart shows the average days open metric for the backlog work orders in all sites.

Work Order Backlog Avg Days Open by Site

The WO Backlog Avg Days Open by Site chart compares the average days open metric for the backlog work orders between sites. In this chart, each bar represents a site.

Work Order Backlog Avg Days Open for Site

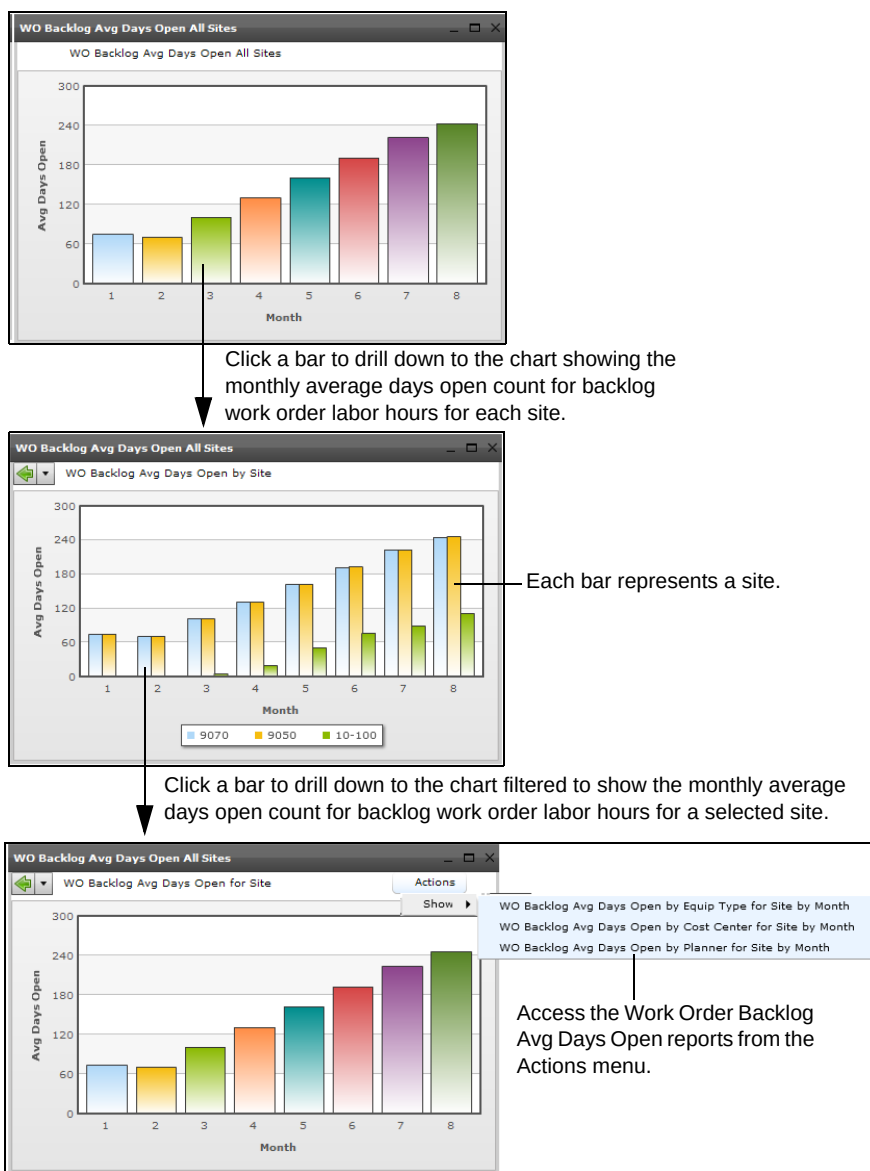
The WO Backlog Avg Days Open for Site chart shows the average days open metric for backlog work orders in a selected site.

Click the Actions menu to select the following reports:

- Work Order Backlog Avg Days Open by Cost Center for Site by Month report
- Work Order Backlog Avg Days Open by Equip Type for Site by Month report
- Work Order Backlog Avg Days Open by Planner for Site by Month report

Fig. 5.41

Navigation for the Work Order Backlog Avg Days Open Charts



Work Order Backlog Avg Days Open Reports by Equip Type

Access the WO Backlog Avg Days Open reports from the Actions menu in the WO Backlog Avg Days Open for Site chart. These reports show the backlog average days open metrics for a selected site and year.

Work Order Backlog Avg Days Open by Equip Type for Site by Month

This report shows the monthly and yearly average days open metric for all equipment types. This report contains the following columns:

- Equipment Type Code

- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Work Order Backlog Avg Days Open by Equip No for Site Equip Type by Month

This report shows the monthly and yearly average days open metric of all equipment numbers for the selected equipment type. This report contains the following columns:

- Equipment Number
- Equipment Description
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Backlog Work Orders for Site Equip Type Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.42

Report Navigation for Backlog Work Orders Avg Days Open by Equip Type

Year: 2012
Site: 9070

Work Order Backlog Avg Days Open by Equip Type for Site by Month

Equipment Type Code	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
FAC	11.206896	14.580459	18.87816	22.843878	26.741379	30.706896	34.804597	37.712643	0.0	0.0	0.0	0.0	16.422892
FS	7.192771	10.433734	14.542168	18.518072	22.626506	26.602409	30.710843	33.626506	0.0	0.0	0.0	0.0	13.687751
FT	3.382608	6.591304	10.634782	14.547826	18.591304	22.504347	26.547826	29.417391	0.0	0.0	0.0	0.0	11.018115
HVAC	12.416666	16.041666	19.916666	23.866666	27.541666	31.291666	35.166666	37.916666	0.0	0.0	0.0	0.0	16.996527
Maint	0.0	2.714285	7.142857	11.428571	15.857142	20.142857	24.571428	27.714285	0.0	0.0	0.0	0.0	9.130952
P	5.076923	8.371153	12.454807	16.40673	20.490384	24.442307	28.525961	31.424038	0.0	0.0	0.0	0.0	12.266025
PS	2.266666	5.466666	9.6	13.6	17.733333	21.733333	25.866666	28.8	0.0	0.0	0.0	0.0	10.422222
R	9.126582	12.620253	16.544303	20.341772	24.265822	28.063291	31.987341	34.772151	0.0	0.0	0.0	0.0	14.810126
Unknown	3.393442	6.688524	10.754098	14.688524	18.754098	22.688524	26.754098	29.639344	0.0	0.0	0.0	0.0	11.113387

Click the equipment type code to drill down to the next report.

Year: 2012
Site: 9070

Work Order Backlog Avg Days Open by Equip No for Site Equip Type by Month

Equipment Number	Equipment Description	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
f_fac_air_08	F Air Compressor 3 (100 HP)	0.0	2.142857	6.571428	10.857142	15.285714	19.571428	24.0	27.142857	0.0	0.0	0.0	0.0	8.797619
f_doc_levr_9005_L	F Dock Leveler 1Tote 1.25	4.875	8.75	12.5	16.375	20.125	24.0	26.75	0.0	0.0	0.0	0.0	9.552083	
d_fac_air_04	Air Dryer 1 KRD 300	2.0	5.625	9.5	13.25	17.125	20.875	24.75	27.5	0.0	0.0	0.0	10.052083	
f_rth_grid	F Griddles RTH Process	0.0	3.714285	8.142857	12.428571	16.857142	21.142857	25.571428	28.714285	0.0	0.0	0.0	9.714285	
d_dry_mix	Dry Mix Business	14.375	18.0	21.875	25.625	29.5	33.25	37.125	39.875	0.0	0.0	0.0	18.302083	

Click the average days open # to drill down to the next report.

Year: 2012
Site: 9070

Backlog Work Orders for Site Equip Type Equip Mon 8 by WO No

Work Order Number	WO Status	Work Order Type	Work Order Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Total Days Open	Priority	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
100358	S	CM	Reinstall the piping for the central vac by blender 3.	Glen	Stotts	8/9/2011	380.0	6	02	Ed	Wiser	0.0
90748	S	CM	Replace the bad light bulb for the light located on the outside of the Hazmat trailer that indicates	Glen	Stotts	2/12/2011	558.0	3	02	Tom	Bryan	0.0

Click the work order number to drill down to the Work Order Cost Analysis Summary report.

Work Order Backlog Avg Days Open by Cost Center Reports

Access the WO Backlog Avg Days Open reports from the Actions menu in the WO Backlog Avg Days Open for Site chart. These reports show the backlog average days open metrics for a selected site and year.

Work Order Backlog Avg Days Open by Cost Center for Site by Month

This report shows the monthly and yearly average days open metric for all cost centers. This report contains the following columns:

- Cost Center Code

- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Work Order Backlog Avg Days Open by Equip No for Site Cost Center by Month

This report shows the monthly and yearly average days open metric of all equipment numbers for the selected cost center. This report contains the following columns:

- Equipment Number
- Equipment Description
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

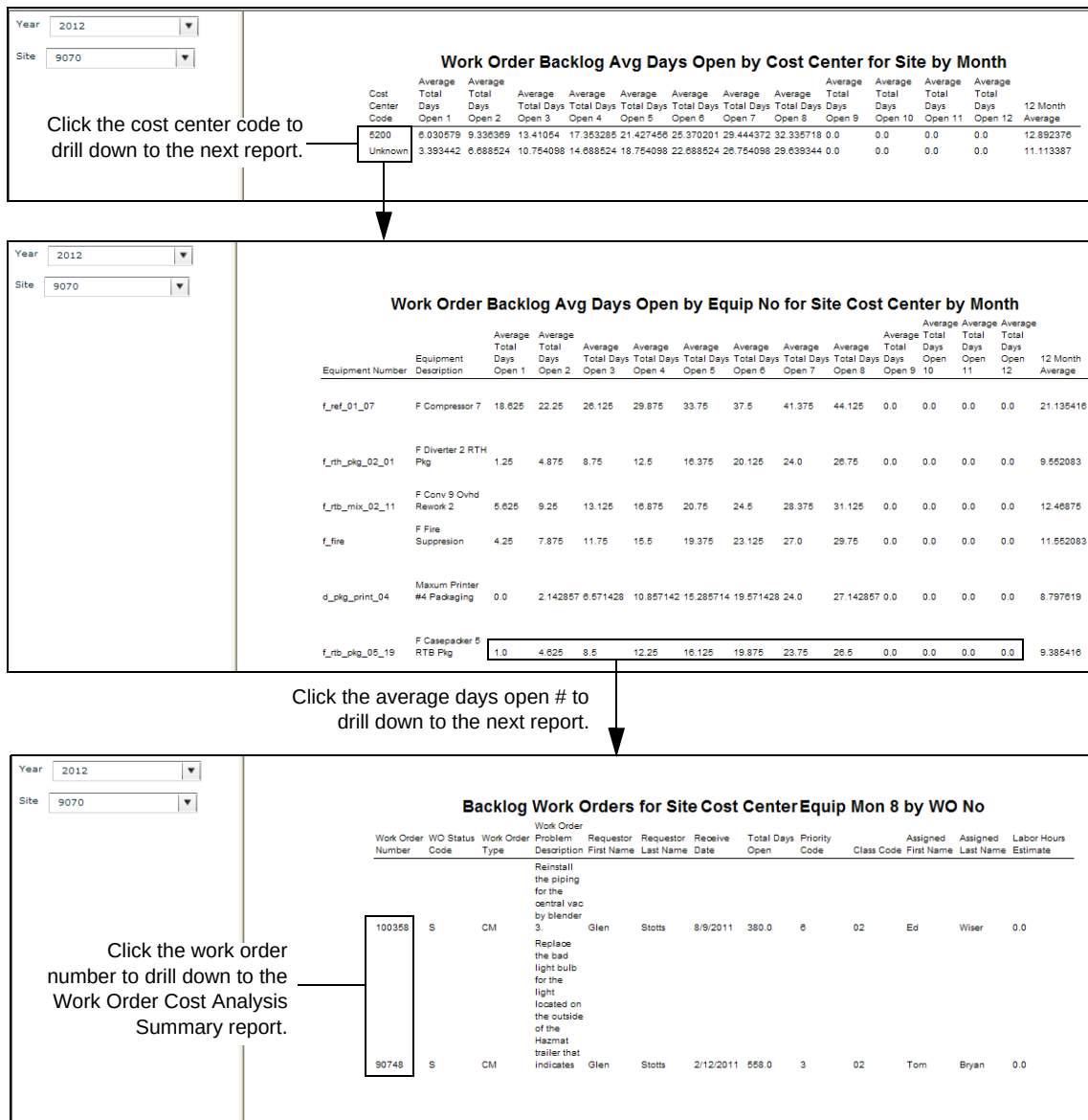
Backlog Work Orders for Site Cost Center Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.43

Report Navigation for Backlog Work Orders Avg Days Open by Cost Center



Work Order Backlog Avg Days Open by Planner Reports

Access the WO Backlog Avg Days Open reports from the Actions menu in the WO Backlog Avg Days Open for Site chart. These reports show the backlog average days open metrics for a selected site and year.

Work Order Backlog Avg Days Open by Planner for Site by Month

This report shows the monthly and yearly average days open metric for all planners. This report contains the following columns:

- Planner Code

- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Work Order Backlog Avg Days Open by Equip No for Site Planner by Month

This report shows the monthly and yearly average days open metric of all equipment numbers for the selected planner. This report contains the following columns:

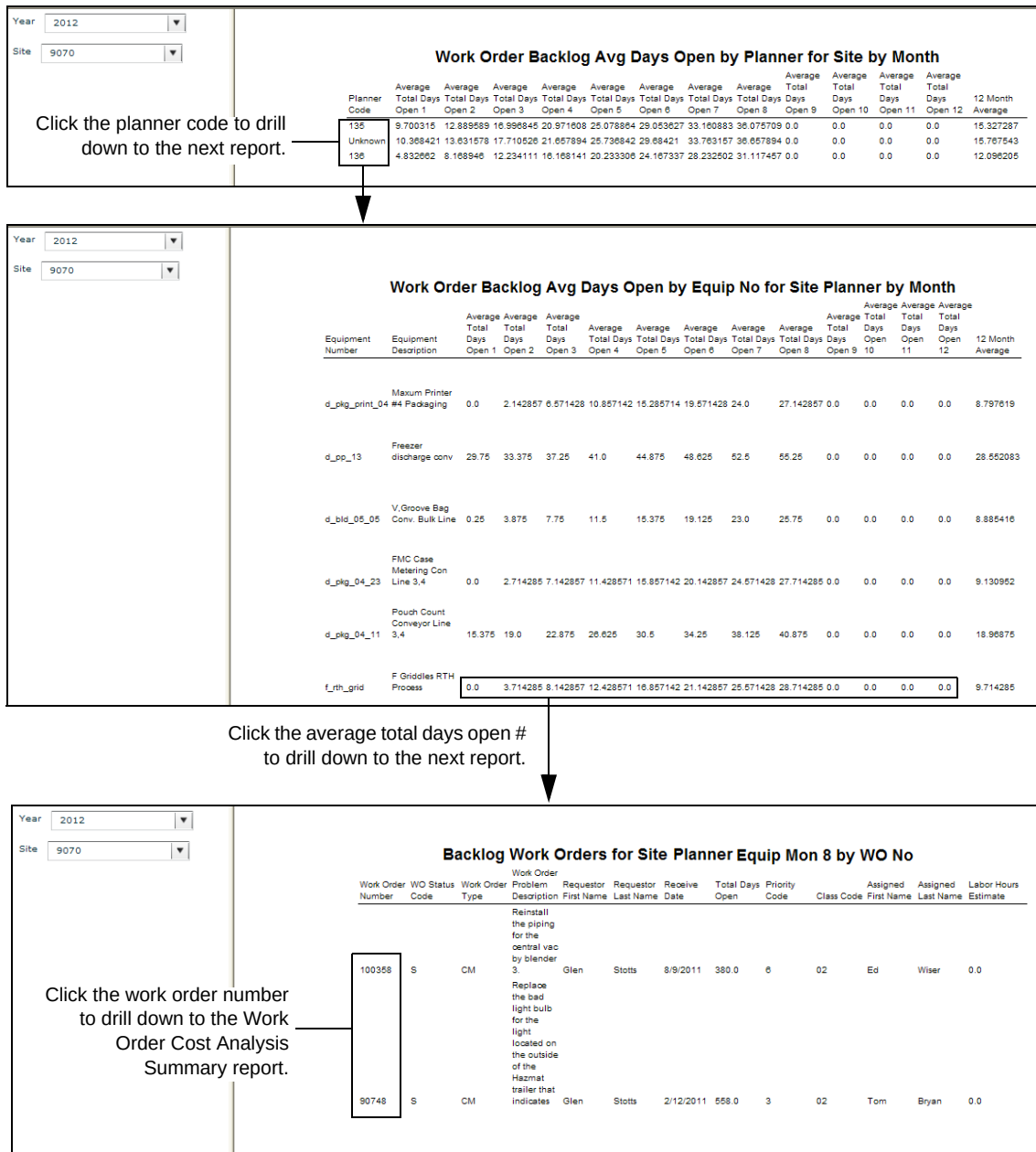
- Equipment Number
- Equipment Description
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Backlog Work Orders for Site Equip Type Equip Mon # by WO No

This report shows all work orders with details for the selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.44
Report Navigation for Backlog Avg Days Open Work Orders by Planner



Work Order Cost Analysis Summary

The Work Order Cost Analysis Summary report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate

- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.45

Work Order Cost Analysis Summary Report

Year: 2012										
Site: 9070										
WO Cost Analysis Summary Mon 8										
Work Order Number	Equipment Number	Equipment Description	Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost	
90748	d_fac_gen	Facilities General Eq. Dry Mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Click the material, labor, or contractor cost totals to drill down to the Backlog Work Order Material/Labor/Contract Cost Detail report.

Click the Material/Labor/Contractor Cost Actual Period to drill down to the following reports:

- Work Order Material Cost Detail report
- Work Order Labor Cost Detail report
- Work Order Contractor Cost Detail report

Work Order Material/ Labor/Contract Cost Detail

The Work Order Cost Detail reports show transaction details for the material, labor, or contract cost totals.

Note Because these are backlog work orders, no cost occurs if work has not started.

These reports contains the following columns:

Work Order Labor Cost Detail	Work Order Material Cost Detail	Work Order Contract Cost Detail
• Employee Number • Employee Name • Total Time • Total Time total (summary line) • Total Cost • Total Cost total (summary line) • Labor Date • Expense Site Code • Cost Center Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code

Work Order Labor Cost Detail

- Account Code
- Sub Account Code

Work Order Material Cost Detail

- Account Code
- Sub Account Code

Work Order Contract Cost Detail

- Account Code
- Sub Account Code

Work Order Backlog Current Statistics Report

Access this report from the Maintenance Backlog dashboard. This report shows the current total of backlog work orders and estimated labor hours for the selected year.

Fig. 5.46
WO Backlog Current Statistics Report

No Parameters required	
WO Backlog Current Statistics Total Count 36651.0 Labor Hours Estimate 6983.95	

Maintenance Cost

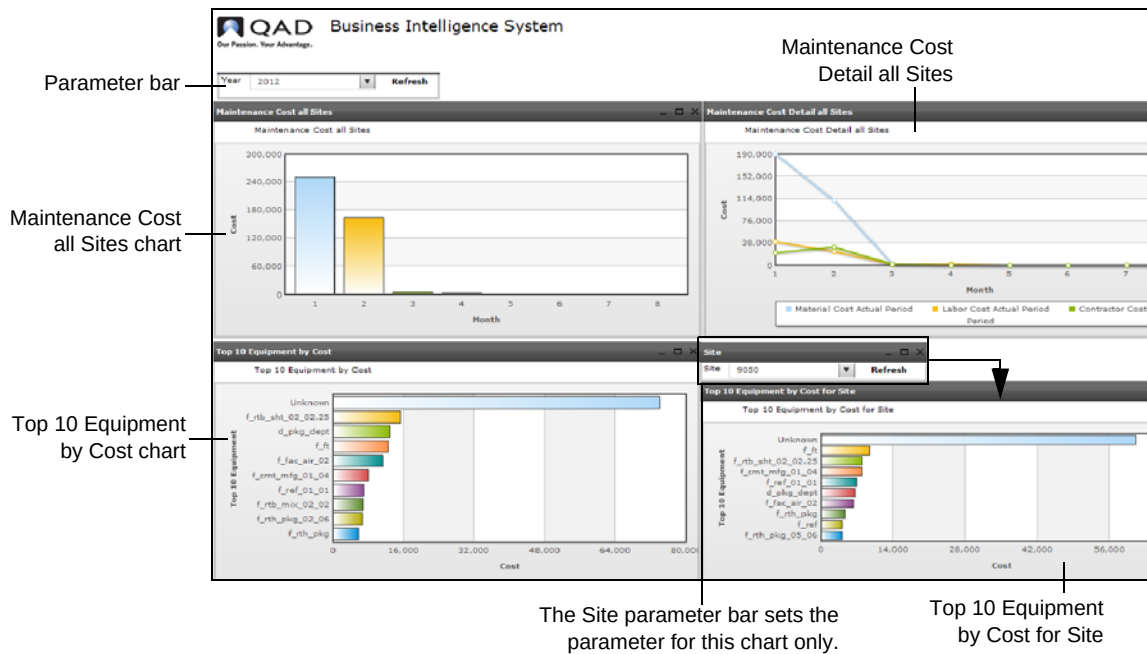
The Maintenance Cost dashboard contains the Maintenance Cost KPI and the Top 10 Equipment Cost KPI to monitor the total cost of maintenance. These KPIs allow you to do the following:

- Identify periods of unusually high or low maintenance cost.
- Monitor labor distribution, material issues, and contract cost.
- Identify pieces of equipment that have the highest maintenance costs.
- Monitor cost detail on those pieces of equipment across all sites or for a specific site.

This dashboard provides the following KPIs:

- **Maintenance Cost.** See “Maintenance Cost Detail All Sites” on page 139 and “Maintenance Cost All Sites” on page 139.
- **Top 10 Equipment by Cost all Sites.** See “Top 10 Equipment Cost” on page 148.
- **Top 10 Equipment by Cost for Site.** See “Top 10 Equipment Cost for Site” on page 151.

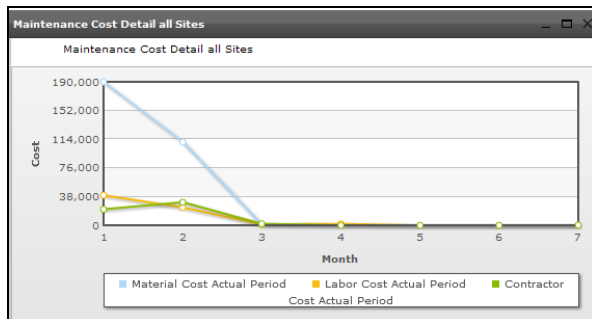
Fig. 5.47
Maintenance Cost Dashboard



Maintenance Cost Detail All Sites

The Maintenance Cost Detail All Sites line chart shows the monthly maintenance cost details for all sites in a selected year. Each line in the chart represents the material cost actual period, labor cost actual period, and the contractor actual cost period, which combined make up the maintenance cost.

Fig. 5.48
Maintenance Cost Detail All Sites Chart



Maintenance Cost All Sites

The Maintenance Cost All Sites KPI allows you to monitor the internal cost of maintenance. Reporting these expenses is useful in identifying periods of unusually high or low cost and monitoring labor distribution, material issues, and contract cost.

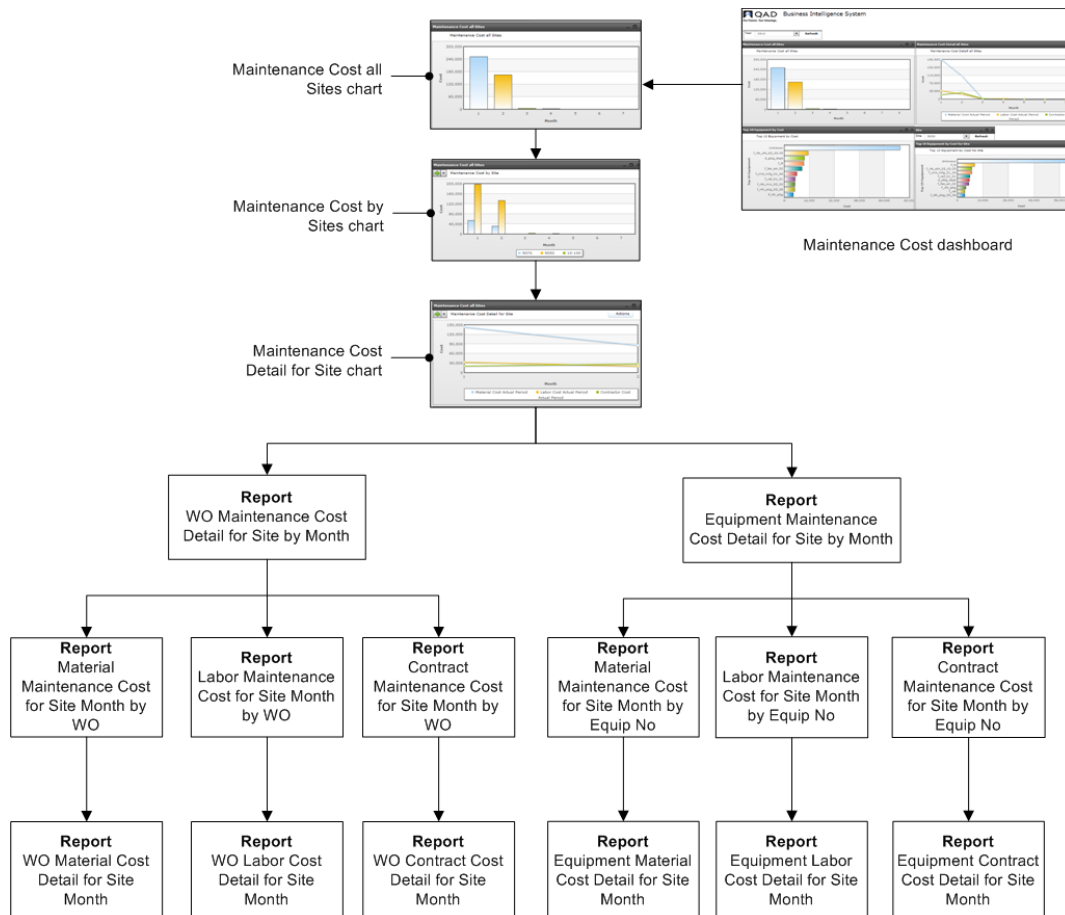
From the Maintenance Cost All Sites chart, you can drill down and:

- Analyze total maintenance cost per month for each site.

- Compare labor, material, and contract maintenance spending in a selected site.
- Analyze maintenance cost for a particular site by labor, material, and contract spending.
- Access the labor, material, and contract spending details.

Fig. 5.49

Navigation Overview for the Maintenance Cost KPI



Maintenance Cost Detail Charts

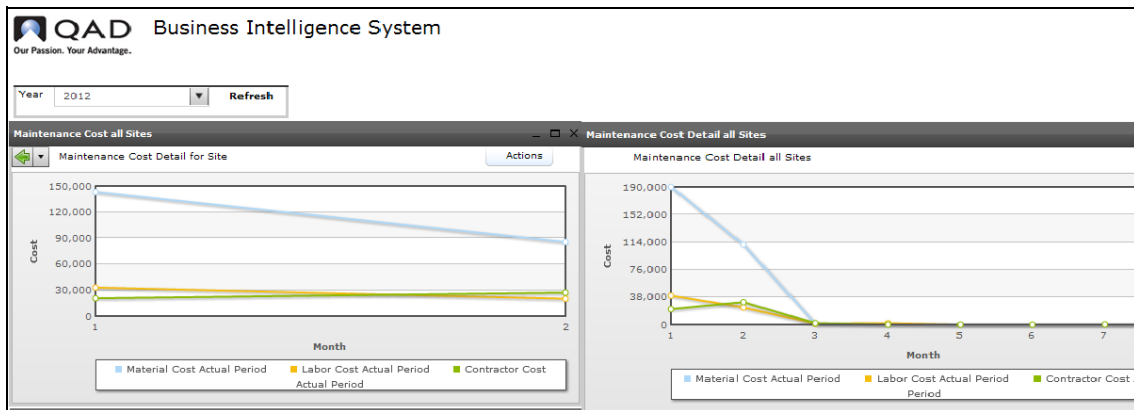
Access the Maintenance Cost Detail charts from the Maintenance Cost dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Note Only the months with data are shown in the Maintenance Cost Detail charts.

Maintenance Cost all Sites

The Maintenance Cost all Sites chart shows the total monthly maintenance cost in all sites. This chart is useful because it is next to the Maintenance Cost Detail all Sites chart. The juxtaposition of these two charts allows you to compare the aggregated maintenance costs for all sites with the maintenance cost breakdown by material, labor, contract cost for all sites.

Fig. 5.50
Maintenance Cost Detail Charts Comparison



Maintenance Cost by Site

The Maintenance Cost by Site chart compares the total monthly maintenance costs between the sites. In this chart, each bar represents a site.

Maintenance Cost Detail for Site

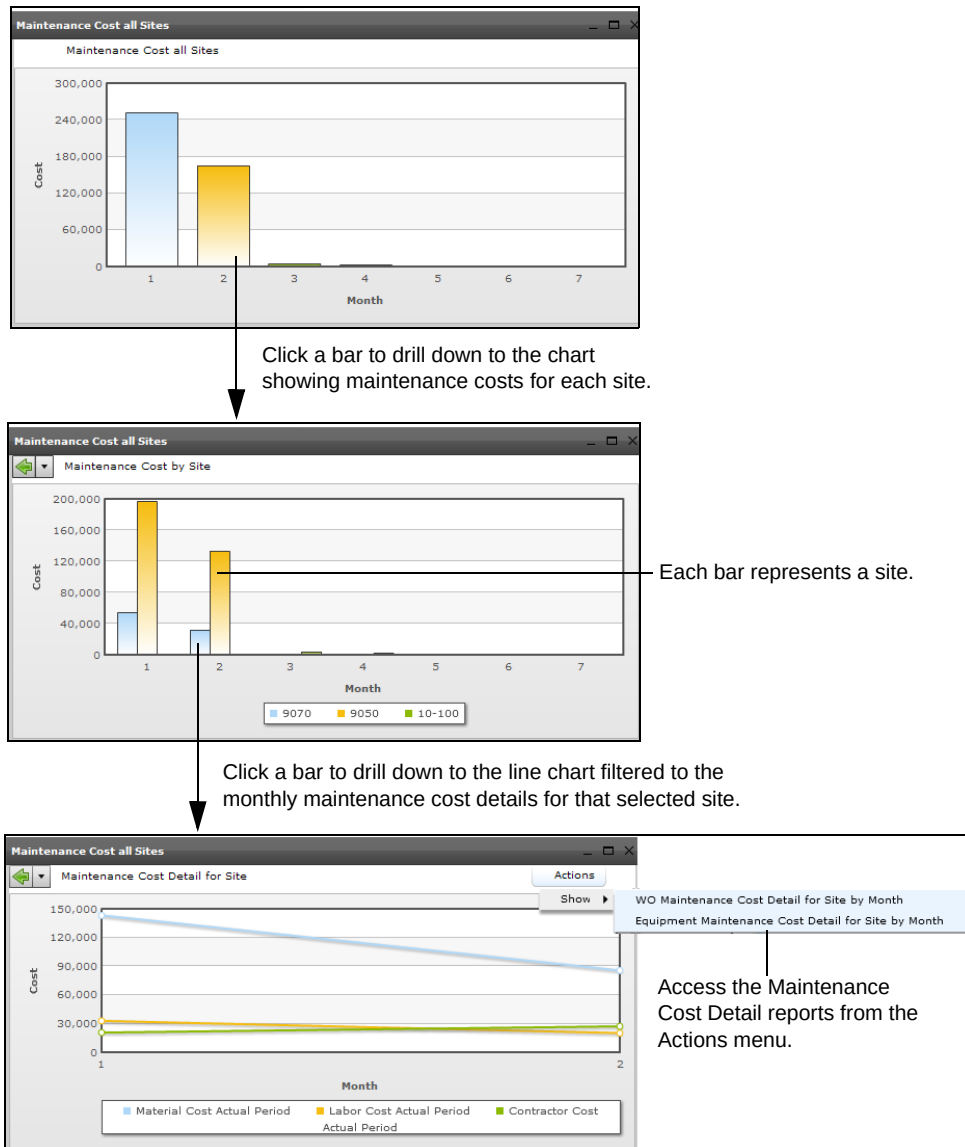
The Maintenance Cost Detail for Site line chart shows the monthly maintenance cost details for a selected site. Each line in the chart represents the material cost actual period, labor cost actual period, and the contractor actual cost period, which combined make up the maintenance cost.

This line chart is useful because it is next to the Maintenance Cost Detail all Sites chart. The juxtaposition of these two charts allows you to compare the maintenance cost details for a selected site with the maintenance cost details of all sites.

Click the Actions menu to access the following reports:

- WO Maintenance Cost Detail for Site by Month report
- Equipment Maintenance Cost Detail for Site by Month report

Fig. 5.51
Maintenance Cost All Sites



Work Order Maintenance Cost Detail by WO No Reports

Access the Work Order Maintenance Cost Detail reports from the Actions menu in the Maintenance Cost Detail for Site line chart. These reports show metrics for a selected site and year.

Maintenance Cost Detail for Site by Month

This report shows the monthly and yearly actual cost totals for material issues, labor distribution, and contractors. This report contains the following columns:

- Interval End Cal Month No. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on. Only months with data are reported.
- Material Cost Actual Period
- Material Cost Actual Period total (summary line)

- Labor Cost Actual Period
- Labor Cost Actual Period total (summary line)
- Contractor Cost Actual Period
- Contractor Cost Actual Period total (summary line)
- Total Cost Actual Period
- Total Cost Actual Period total (summary line)

Labor/Material/Contract Maintenance Cost by Work Order No

This report lists the total labor, material, or contract costs in all work orders for a selected month. This report contains the following columns:

Labor Maintenance Cost by Work Order Number	Material Maintenance Cost by Work Order Number	Contract Maintenance Cost by Work Order Number
• Work Order Number • Work Order Problem • Labor Cost Actual Period	• Work Order Number • Work Order Problem • Material Cost Actual Period	• Work Order Number • Work Order Problem • Contractor Cost Actual Period

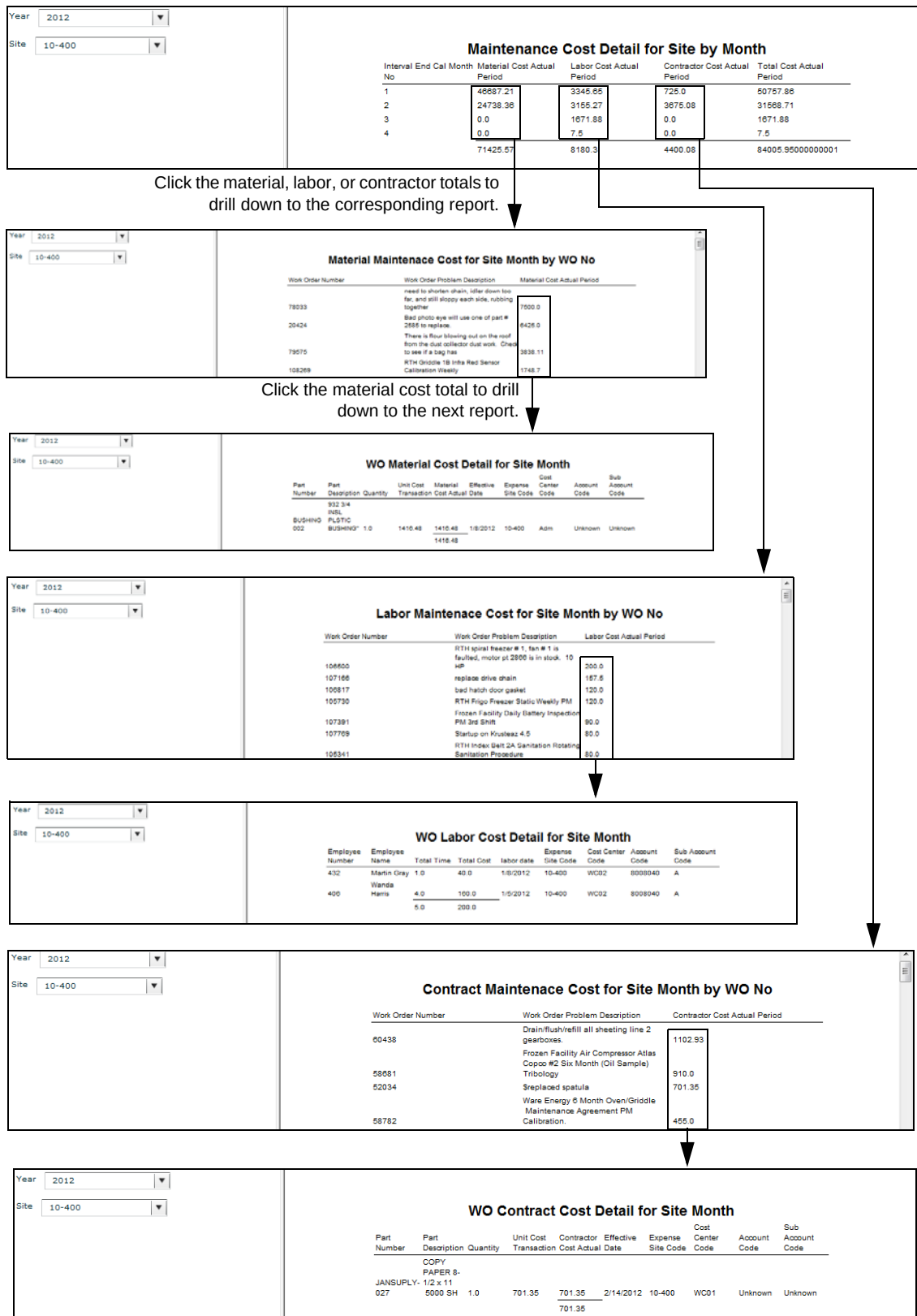
Work Order Labor/Material/Contract Cost Detail for Site Month

This report shows the labor, material, and contract transaction details. This report contains the following columns:

Work Order Labor Cost Detail for Site Month	Work Order Material Cost Detail for Site Month	Work Order Contract Cost Detail for Site Month
• Employee Number • Employee Name • Total Time • Total Time totals (summary line) • Total Cost • Total Cost totals (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.52

Report Navigation for Maintenance Cost Detail by WO No



Equipment Maintenance Cost Detail by Equip No Reports

Access the Equipment Maintenance Cost Detail reports from the Actions menu in the Maintenance Cost Detail for Site line chart. These reports show metrics for a selected site and year.

Maintenance Cost Detail for Site by Month

This report shows the monthly and yearly actual cost totals for material issues, labor distribution, and contractors. This report contains the following columns:

- Interval End Cal Month No. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on. Only months with data are reported.
- Material Cost Actual Period
- Material Cost Actual Period total (summary line)
- Labor Cost Actual Period
- Labor Cost Actual Period total (summary line)
- Contractor Cost Actual Period
- Contractor Cost Actual Period total (summary line)
- Total Cost Actual Period
- Total Cost Actual Period total (summary line)

Labor/Material/Contract Maintenance Cost by Equipment No

This report shows the total labor, material, or contract costs for all equipment numbers in a selected month. This report contains the following columns:

Labor Maintenance Cost by Equip No	Material Maintenance Cost by Equip No	Contract Maintenance Cost by Equip No
• Equipment Number • Equipment Description • Labor Cost Actual Period	• Equipment Number • Equipment Description • Material Cost Actual Period	• Equipment Number • Equipment Description • Contractor Cost Actual Period

Equipment Labor/Material/Contract Cost Detail for Site Month

This report shows the labor, material, and contract details. This report contains the following columns:

Equipment Labor Cost Detail for Site Month	Equipment Material Cost Detail for Site Month	Equipment Contract Cost Detail for Site Month
• Employee Number • Employee Name • Total Time • Total Time totals (summary line) • Total Cost	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual

Equipment Labor Cost Detail for Site Month	Equipment Material Cost Detail for Site Month	Equipment Contract Cost Detail for Site Month
• Total Cost totals (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.53

Report Navigation for Equipment Maintenance Cost Detail by Equip No

Year: 2012
Site: 10-400

Maintenance Cost Detail for Site by Month

Interval	End Cal Month	Material Cost Actual Period	Labor Cost Actual Period	Contractor Cost Actual Period	Total Cost Actual Period
1		46687.21	3345.65	725.0	50757.86
2		24738.36	3155.27	3675.08	31568.71
3		0.0	1671.88	0.0	1671.88
4		0.0	7.5	0.0	7.5
		71425.57	8180.3	4400.08	84005.95000000001

Click the material, labor, or contractor totals to drill down to the corresponding report.

Year: 2012
Site: 10-400

Material Maintenance Cost for Site Month by Equip No

Equipment Number	Equipment Description	Material Cost Actual Period
DAFOOD-001	Dewater Main	7778.48
HEX-BOTT-003	Steam to Water Heat Exchanger 3	6776.70
AMU-FOOD-003	Air Handling Unit Feed	3838.11
AVSE-CANN-002	Air Valve General Exhaust 2	2238.29
HWP-CANN-002	Hot Water Pump Standby	1914.29
CRWP-CANN-002	Primary or Chilled Water Pump 2	1195.68
KSEF-CANN-002	Kitchen Exhaust Fan Standby	937.46
HCANN-002	Humidifier 2	925.45

Click the material cost total to drill down to the next report.

Year: 2012
Site: 10-400

Equipment Material Cost Detail for Site Month

Part Number	Part Description	Quantity	Unit Cost	Material Transaction Cost Actual	Effective Date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
A4591 SUP	BLANK								
PEEN 005	PEEN	1.0	\$48.0	\$48.0	1/29/2012	10-400	MFG	Unknown	Unknown
				\$48.0					

Year: 2012
Site: 10-400

Labor Maintenance Cost for Site Month by Equip No

Equipment Number	Equipment Description	Labor Cost Actual Period
BF-C-CANN-002	Batteries Forklift Canning	289.0
ACHP-FOOD-003	Electric Heat Pump 3	200.0
ACHP-BOTT-002	Electric Heat Pump 2	105.0
DE-C-CANN-002	General Equipment Canning	145.0
ETH-FOOD-001	Expansion Tank 1	137.5
ACUBOTT-002	Air Conditioning Unit 2	120.0
FMCANN-002	Flow Meter 2	120.0

Year: 2012
Site: 10-400

Equipment Labor Cost Detail for Site Month

Employee Number	Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
408	Julia Carter	2.0	30.0	1/28/2012	10-400	WC02	8008040	A
419	Ryan Davis	0.75	22.5	1/18/2012	10-400	WC01	8008040	A
410	Theresa Sanders	1.5	45.0	1/18/2012	10-400	MFG	8008040	A
408	Julia Carter	1.0	40.0	1/5/2012	10-400	WC02	8008040	A
		5.25	137.5					

Year: 2012
Site: 10-400

Contract Maintenance Cost for Site Month by Equip No

Equipment Number	Equipment Description	Contractor Cost Actual Period
EUH-BOTT-003	Electric Unit Heater 3	700.0
CHWTP-CANN-002	Chilled Water Tertiary Pump Standby	25.0
CRAC-FOOD-001	Computer Room AC Units main	0.0
DHWRP-BOTT-002	Domestic Hot Water Recirculating 2	0.0
DWP-FOOD-003	Domestic Water Booster Pump 3	0.0
FB-CANN-001	Fan Powered VAV Terminal Unit 1	0.0
FD-BOTT-003	Fire Damper 3	0.0

Year: 2012
Site: 10-400

Equipment Contract Cost Detail for Site Month

Part Number	Part Description	Quantity	Unit Cost	Contractor Transaction Cost Actual	Effective Date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
750 SVS-4.00-4W	CYLINDER AMERICAN								
907-1	CYL.	1.0	25.0	25.0	1/11/2012	10-400	WC03	Unknown	Unknown
				25.0					

Top 10 Equipment Cost

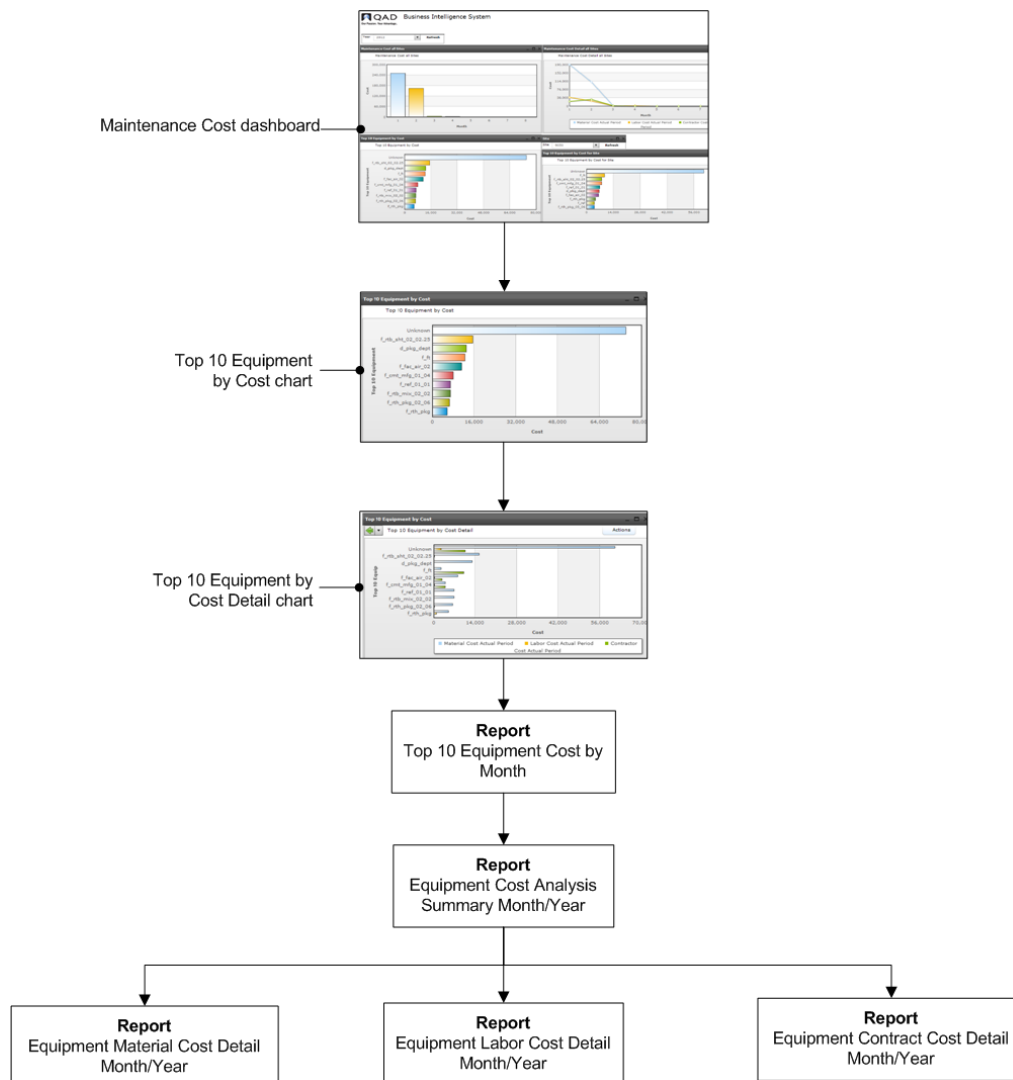
The Top 10 Equipment Cost KPI allows management to monitor equipment costs. This KPI allows you to identify the pieces of equipment with the highest maintenance costs and to monitor the labor, material, and contractor costs for those pieces of equipment.

From the Top 10 Equipment Cost chart, you can drill down and:

- Compare labor, material, and contract costs between the top 10 pieces of equipment.
- Analyze the month to month spending for the top 10 pieces of equipment with the highest maintenance costs.
- Access cost analysis summary and detail for a top 10 piece of equipment.

Fig. 5.54

Navigation Overview for the Top 10 Equipment by Cost KPI



Top 10 Equipment Cost Charts

Access the Top 10 Equipment Cost charts from the Maintenance Cost dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Top 10 Equipment by Cost

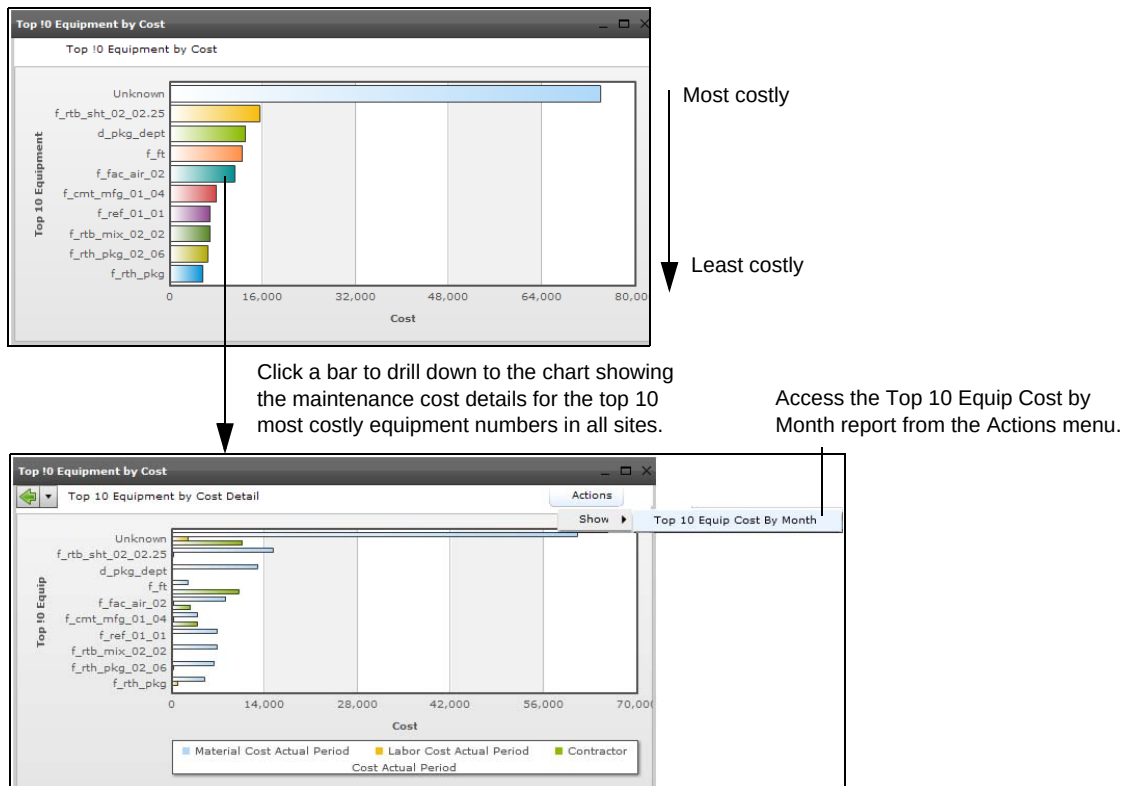
The Top 10 Equipment by Cost chart compares the top 10 equipment numbers with the highest total maintenance costs for all sites.

Top 10 Equipment by Cost Detail

The Top 10 Equipment by Cost Detail chart compares the labor, material, and contractor cost totals for the top 10 equipment numbers in all sites.

Fig. 5.55

Navigation for the Top 10 Equipment by Cost Charts



Top 10 Equipment Cost Reports

Access the Top 10 Equipment Cost reports from the Actions menu in the Top 10 Equipment by Cost Detail chart. These reports show metrics for all sites in a selected year.

Top 10 Equipment Cost by Month

This report shows the monthly and yearly actual cost totals for the top 10 equipment numbers. This report includes the following columns:

- Equipment Number

- Total Cost Actual Period 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Cost

Equipment Cost Analysis Summary for Equip No Month/Year

This report shows the labor, material, and contract actual cost totals for a selected top 10 equipment number. This report, which shows the monthly or yearly total, includes the following columns:

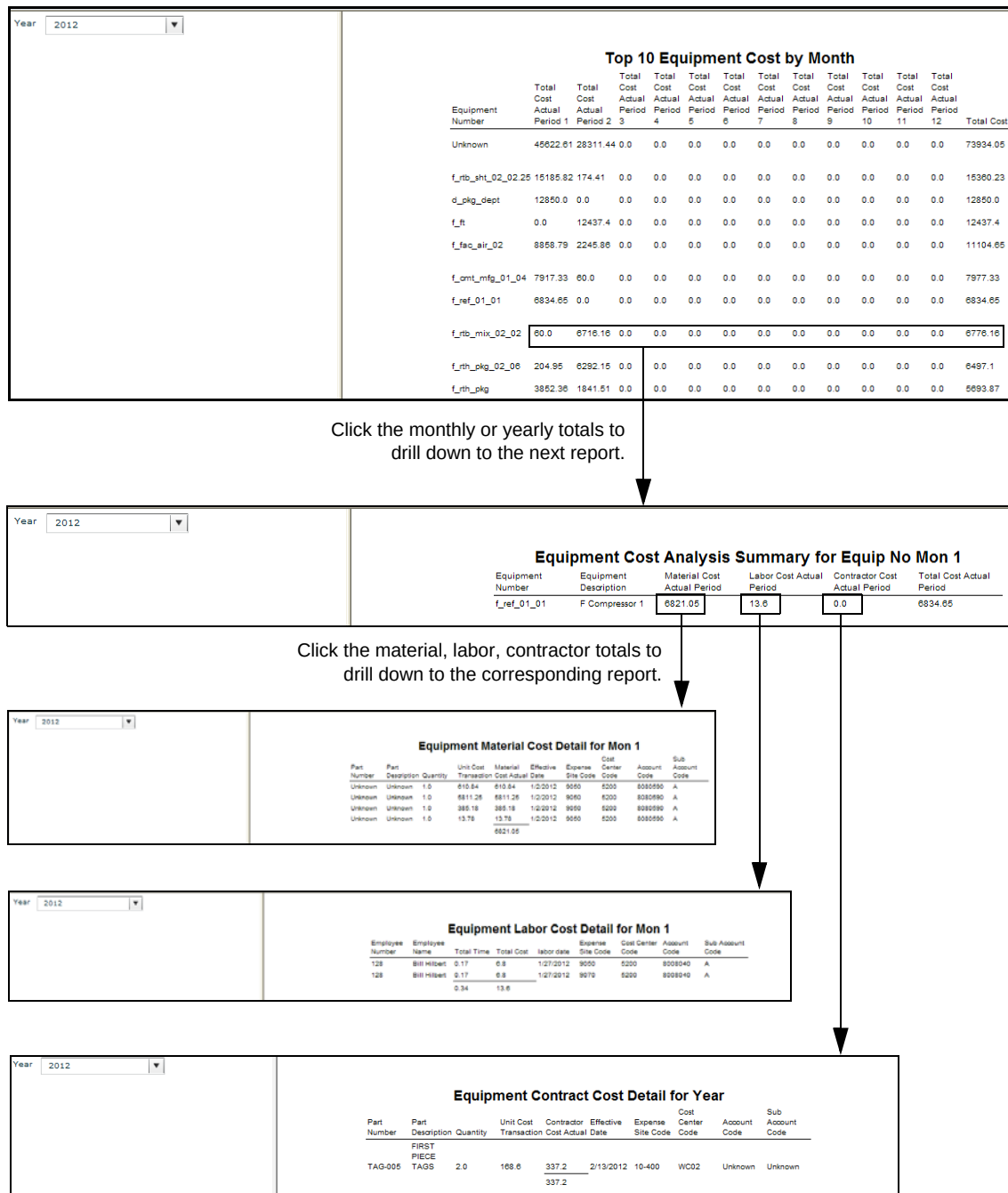
- Equipment Number
- Equipment Description
- Material Cost Actual Period
- Labor Cost Actual Period
- Contractor Cost Actual Period
- Total Cost Actual Period

Equipment Labor/Material/Contract Cost Detail for Month/Year

This report shows the monthly or yearly transaction details for the material, labor, or contractor costs. This report contains the following columns:

Equipment Labor Cost Detail for Month/Year	Equipment Material Cost Detail for Month/Year	Equipment Contract Cost Detail for Month/Year
• Employee Number • Employee Name • Total Time • Total Time totals (summary line) • Total Cost • Total Cost totals (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.56
Report Navigation for Top 10 Equipment Cost



Top 10 Equipment Cost for Site

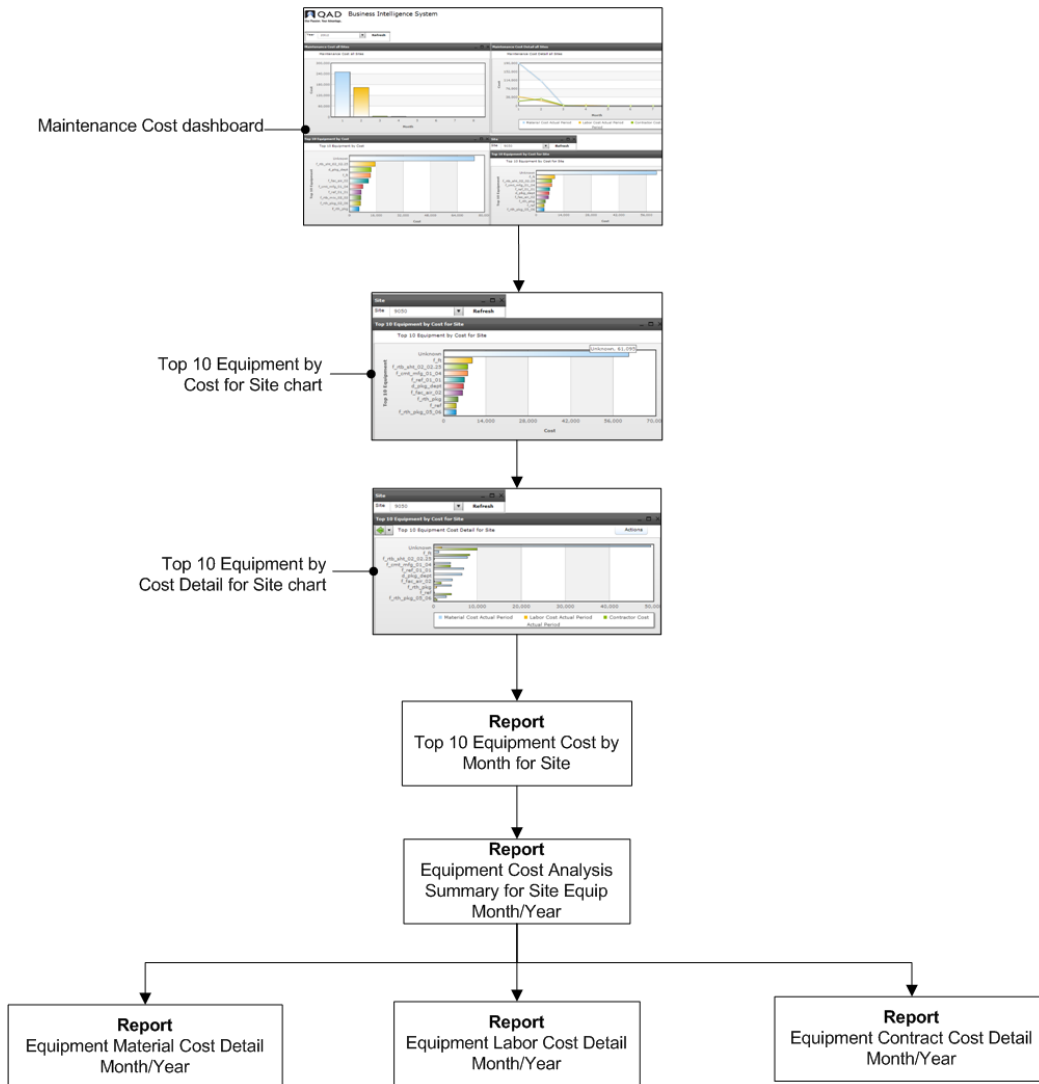
The Top 10 Equipment Cost for Site KPI allows management to monitor equipment costs for a specific site. This KPI allows you to identify the pieces of equipment with the highest maintenance costs and to monitor the labor, material, and contractor for those pieces of equipment at a specific site.

From the Top 10 Equipment Cost for Site chart, you can drill down and:

- Compare labor, material, and contract costs between top 10 pieces of equipment.
- Analyze the month-to-month spending for the top 10 pieces of equipment with the highest maintenance costs.
- Access cost analysis summary and detail for a top 10 piece of equipment.

Fig. 5.57

Navigation Overview for the Top 10 Equipment Cost for Site KPI



Top 10 Equipment Cost for Site Charts

Access the Top 10 Equipment Cost for Site charts from the Maintenance Cost dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

To view the Top 10 Equipment Cost metric for a specific site, use the parameter bar located above the chart. After you select a site, click Refresh to view the metric for that specific site.

Top 10 Equipment by Cost for Site

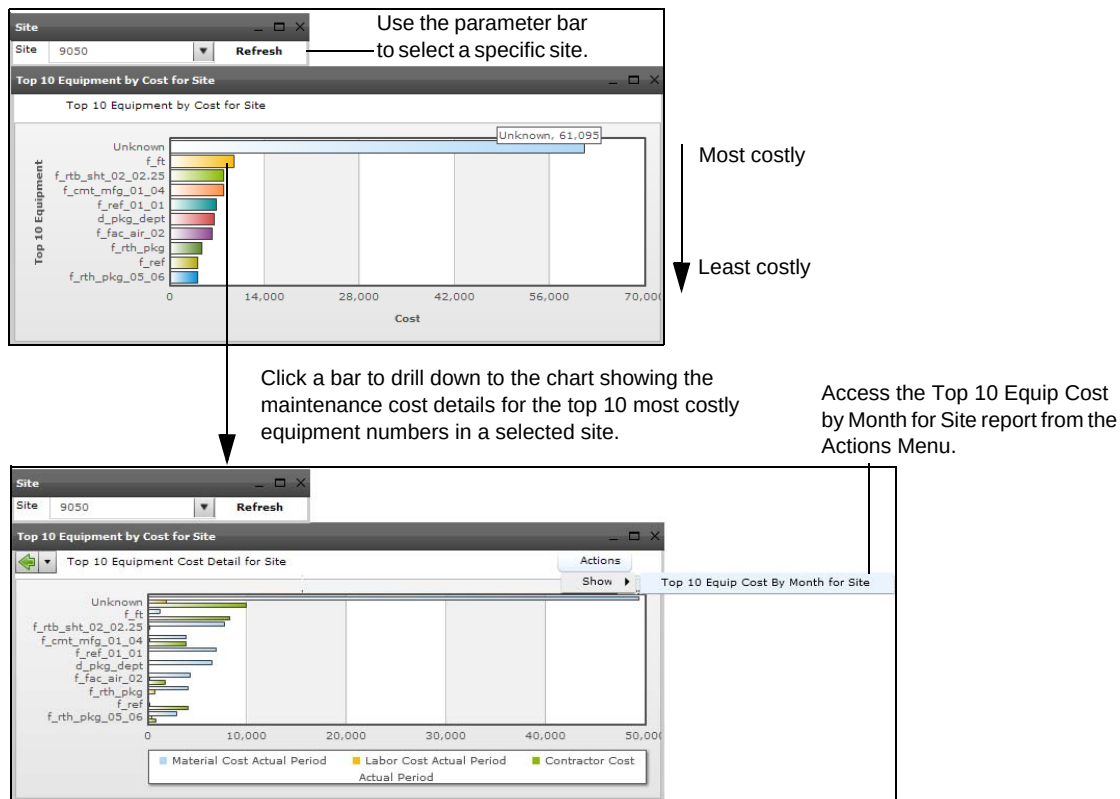
The Top 10 Equipment by Cost for Site chart compares the top 10 equipment numbers with the highest total maintenance costs for a specific site.

Top 10 Equipment by Cost Detail for Site

The Top 10 Equipment by Cost Detail for Site chart compares the labor, material, and contractor costs for the top 10 equipment numbers in a specific site.

Fig. 5.58

Navigation for the Top 10 Equipment by Cost for Site Charts



Top 10 Equipment Cost by Month for Site Reports

Access the Top 10 Equipment Cost for Site reports from the Actions menu in the Top 10 Equipment by Cost Detail for Site chart. These reports show metrics for a selected site and year.

Top 10 Equipment Cost by Month for Site

This report shows the monthly and yearly actual cost totals for the top 10 equipment numbers in a selected site. This report includes the following columns:

- Equipment Number
- Total Cost Actual Period 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Cost

Equipment Cost Analysis Summary for Site Equip No Month/Year

This report shows the labor, material, and contract actual cost totals for a selected top 10 equipment numbers in a selected site. This report includes the following columns:

- Equipment Number
- Equipment Description
- Material Cost Actual Period
- Labor Cost Actual Period
- Contractor Cost Actual Period
- Total Cost Actual Period

Equipment Labor/Material/Contract Cost Detail for Site Month/Year

These reports show the monthly or yearly transaction details for the material, labor, or contractor costs. They contain the following columns:

Equipment Labor Cost Detail for Site Mon #	Equipment Material Cost Detail for Site Mon #	Equipment Contract Cost Detail for Site Mon #
• Employee Number • Employee Name • Total Time • Total Time totals (summary line) • Total Cost • Total Cost totals (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.59
Report Navigation for Top 10 Equipment Cost for Site

Year: 2012	Top 10 Equipment Cost by Month for Site													
Site: 9050	Equipment Number	Total Cost Actual Period 1	Total Cost Actual Period 2	Total Cost Actual Period 3	Total Cost Actual Period 4	Total Cost Actual Period 5	Total Cost Actual Period 6	Total Cost Actual Period 7	Total Cost Actual Period 8	Total Cost Actual Period 9	Total Cost Actual Period 10	Total Cost Actual Period 11	Total Cost Actual Period 12	Total Cost
	Unknown	36780.5	24314.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61094.93
	f_ft	0.0	9396.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9396.6
	f_rtb_sht_02_02_25	7685.82	159.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7845.23
	f_cmt_mfg_01_04	7795.82	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7825.82
	f_ref_01_01	6827.85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6827.85
	d_pkg_dept	6425.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6425.0
	f_fac_air_02	4983.89	1132.93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6116.82
	f_rth_pkg	3056.68	1631.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4687.6
	f_ref	1146.0	2932.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4078.8
	f_rth_pkg_05_06	2389.04	1654.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4043.47

Click the monthly or yearly cost totals to drill down to the next report.

Year: 2012	Equipment Cost Analysis Summary for Site Equip No Mon 1					
Site: 9050	Equipment Number	Equipment Description	Material Cost Actual Period	Labor Cost Actual Period	Contractor Cost Actual Period	Total Cost Actual Period
	d_pkg_dept	Packaging Department Dry Mix	6425.0	0.0	0.0	6425.0

Click the material, labor, or contractor cost totals to drill down to the corresponding report.

Year: 2012	Equipment Material Cost Detail for Site Mon 1									
Site: 9050	Part Number	Part Description	Quantity	Unit Cost	Material Transaction Cost	Effective Date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
	8002	Belt-V. orange eqpt (Belt)	50.0	128.0	6425.0	1/18/2012	9050	5200	8080570	A
					6425.0					

Year: 2012	Equipment Contract Cost Detail for Site Year									
Site: 10-500	Part Number	Part Description	Quantity	Unit Cost	Contractor Transaction Cost	Effective Date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
	027	COPY PAPER 8-1/2 x 11 JANSUPPLY	1.0	701.35	701.35	2/14/2012	10-500	WC01	Unknown	Unknown
					701.35					

Year: 2012	Equipment Contract Cost Detail for Site Year									
Site: 10-500	Part Number	Part Description	Quantity	Unit Cost	Contractor Transaction Cost	Effective Date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
	027	COPY PAPER 8-1/2 x 11 JANSUPPLY	1.0	701.35	701.35	2/14/2012	10-500	WC01	Unknown	Unknown
					701.35					

Maintenance for Department

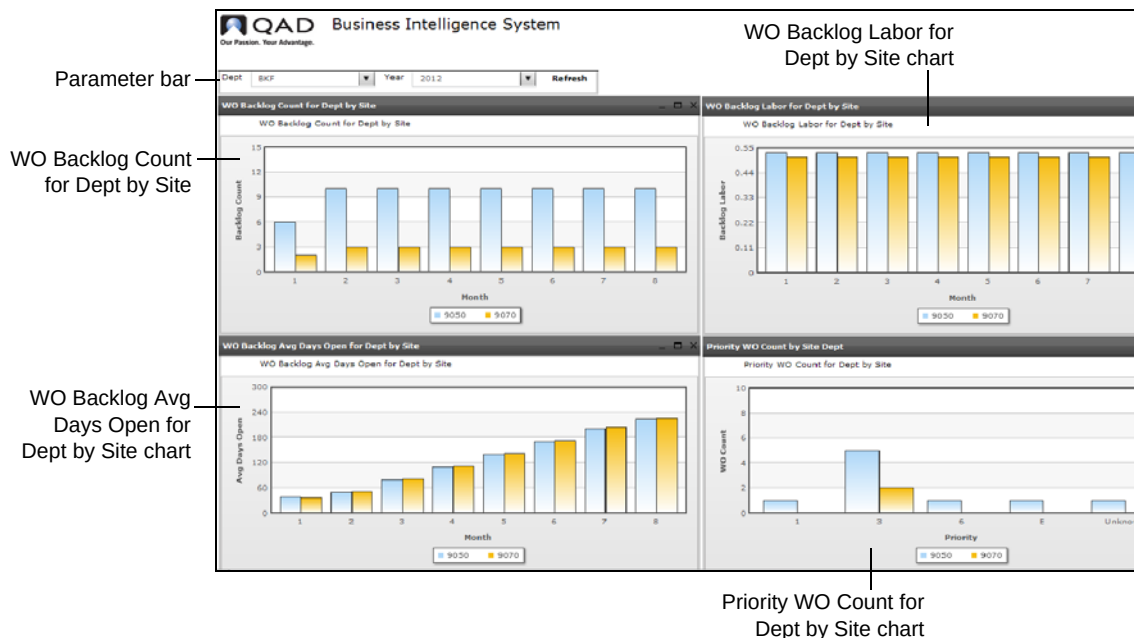
The Maintenance for Department dashboard allows management to focus on the impact of work order backlog and work order priorities for a specific department in a selected site.

This dashboard contains the following KPIs:

- **Work Order Count by Priority.** See “Priority Work Order Count for Department” on page 156.
- **Work Order Backlog Count.** See “Work Order Backlog Count for Department” on page 167.
- **Work Order Backlog Labor.** See “Work Order Backlog Labor for Department” on page 177.
- **Work Order Backlog Average Days Open.** See “Work Order Backlog Average Days Open for Department” on page 186.

Fig. 5.60

Maintenance for Department Dashboard



Priority Work Order Count for Department

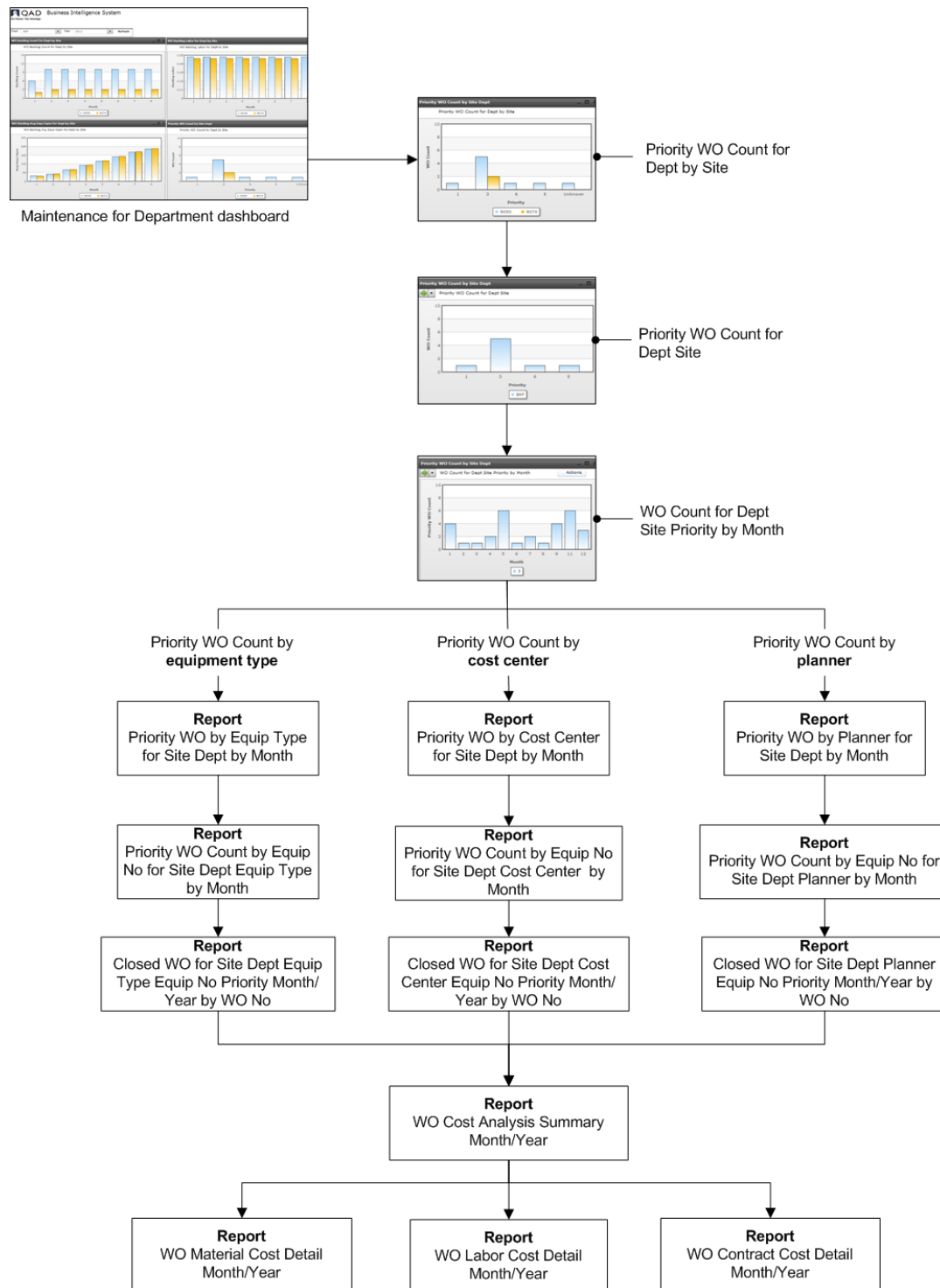
The Priority Work Order Count KPI allows you to monitor the use of priority codes on work orders, which can reveal maintenance trends. A high-frequency use of a particular priority code in a department can suggest the need to make management changes designed to reduce the frequency of that priority code.

From the Priority WO Count for Dept by Site chart, you can drill down and:

- Compare the number of closed work orders between sites for each priority code for the selected department.
- Compare the number of closed work orders for each priority code in a selected site and department.
- Compare the monthly count of closed work orders for each priority code in a selected site and department.

- Analyze work orders by equipment type, cost center, or planner for the selected priority, site and department.
- Access a breakdown of priority work orders by equipment number.
- Access details of closed work orders.
- Access work order summary and detail cost analysis.

Fig. 5.61
Navigation Overview for the Priority Work Order for Department KPI



Work Order Count by Priority for Department Charts

Access the Work Order Count by Priority for Department charts from the Maintenance for Department dashboard. These charts show the metrics for the department and year that you select from the dashboard parameter bar.

Work Order Count by Priority for Dept by Site

The Priority WO Count for Dept by Site chart compares the number of closed work orders for each site and each priority code.

Priority WO Count for Dept Site

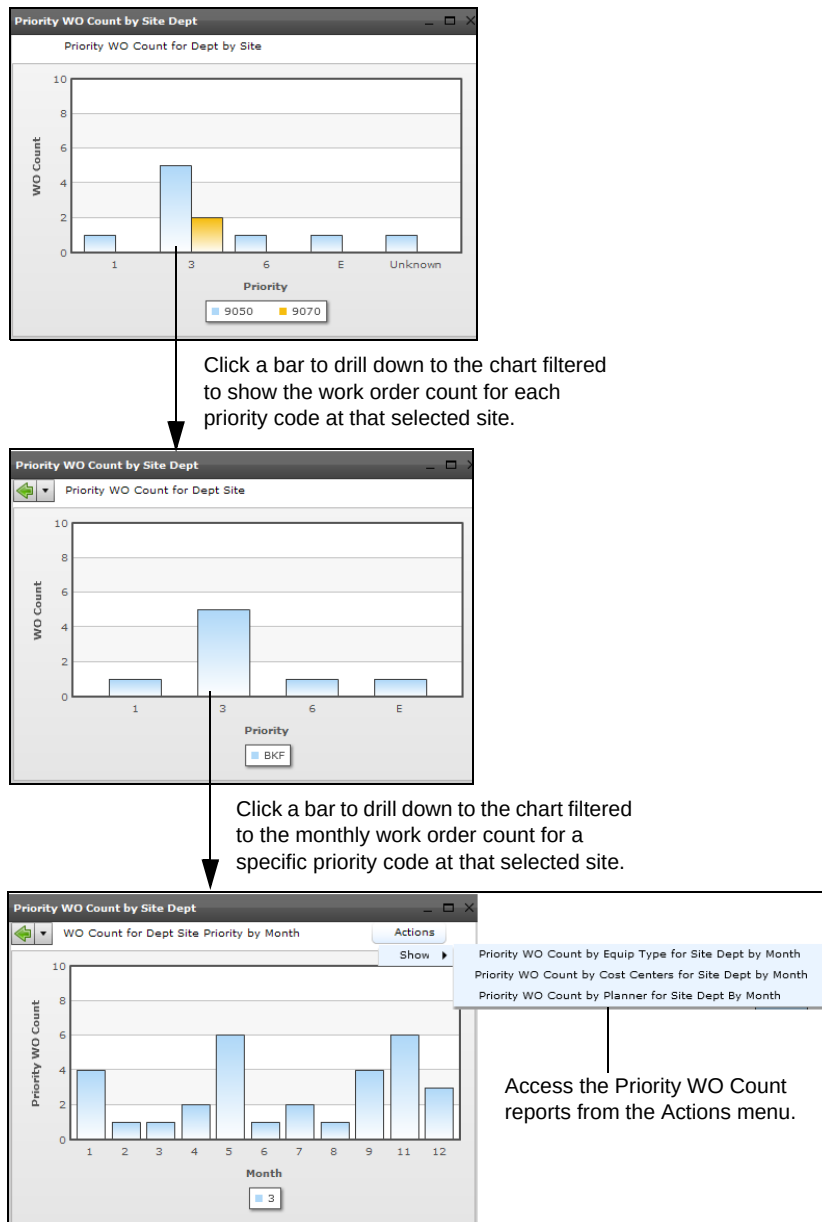
The Priority WO Count for Dept Site chart compares the number of closed work orders for each priority code at a selected site.

Priority WO Count for Dept Site Priority by Month

The WO Count for Dept Site Priority by Month chart compares the monthly count of closed work orders for each priority code in a selected site.

Fig. 5.62

Navigation for Priority Work Order Count for Department Charts



Priority Work Order Count for Department by Equip Type Reports

Access the Priority Work Order Count by Equip Type reports from the Actions menu in the WO Count for Dept Site Priority by Month chart. These reports show metrics for a selected priority code, department, site, and year.

Priority Work Orders by Equipment Type for Site Department by Month

This report shows the monthly and yearly work order counts for all equipment types and for a selected priority code. This report contains the following columns:

- Equipment Type Code

- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Priority WO
- Total Priority WO totals (summary line)

Priority Work Orders Count by Equip No. for Site Dept Equip Type by Month

This report shows the monthly and yearly work order count for all equipment numbers for a selected equipment type and priority code. This report contains the following columns:

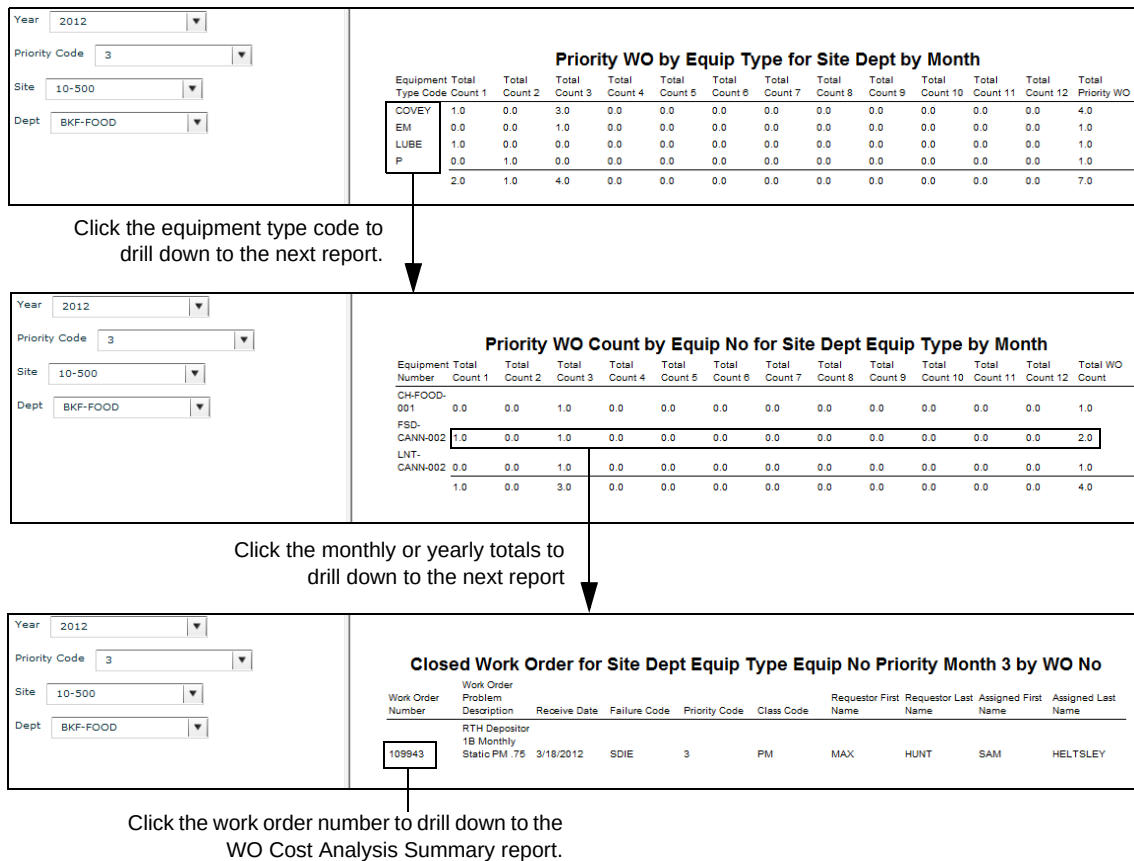
- Equipment Number
- Total Count 1-12
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Dept Equip Type Equip No Priority Month/Year by WO No

This report shows all the closed work orders with details for a selected equipment number in a selected month or year. This report contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.63
Report Navigation for Priority Work Order Count by Equip Type



Priority Work Order Count for Department by Cost Center Reports

Access the Priority Work Order Count for Department by Cost Center reports from the Actions menu in the WO Count for Dept Site Priority by Month chart. These reports show metrics for a selected priority code, department, site, and year.

Priority Work Orders by Cost Center for Site Department by Month

This report shows the monthly and yearly work order count for all cost centers for a selected priority code. This report contains the following columns:

- Cost Center Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Priority WO
- Total Priority WO totals (summary line)

Priority Work Orders Count by Equip No. for Site Dept Cost Center by Month

This report shows the monthly and yearly work order count for all equipment numbers for a selected cost center and priority code. This report contains the following columns:

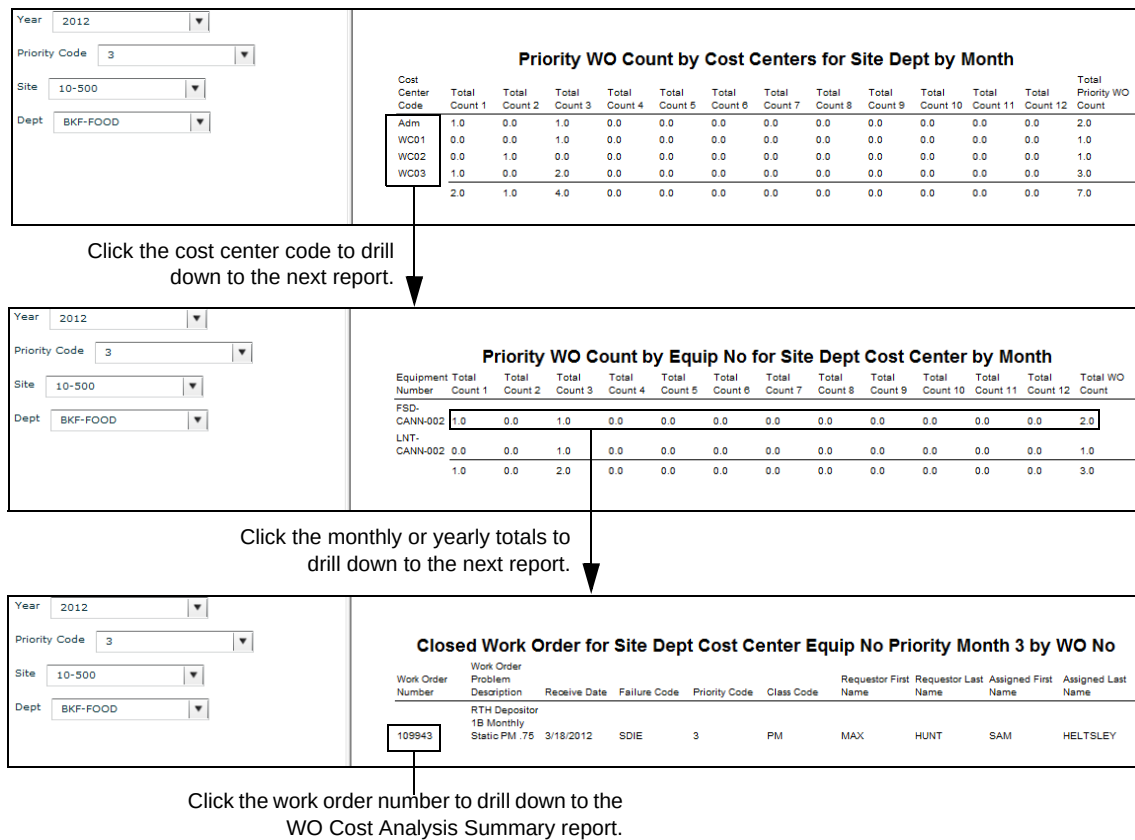
- Equipment Number
- Total Count 1-12
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Dept Cost Center Equip No Priority Month/Year by WO No

This report shows all the closed work orders for a selected equipment number in a selected month or year. This report contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.64
Report Navigation for Priority Work Order Count by Cost Center



Priority Work Order Count for Department by Planner Reports

Access the Priority Work Order Count for Department by Planner reports from the Actions menu in the WO Count for Dept Site Priority by Month chart. These reports show metrics for a selected priority code, department, site, and year.

Priority Work Orders by Planner for Site Department by Month

This report shows the monthly and yearly work order count for all planners for a selected priority code. This report contains the following columns:

- Planner Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Priority WO Count
- Total Priority WO Count totals (summary line)

Priority Work Orders Count by Equip No. for Site Dept Planner by Month

This report shows the monthly and yearly work order totals for each equipment number and for a selected planner and priority code. This report contains the following columns:

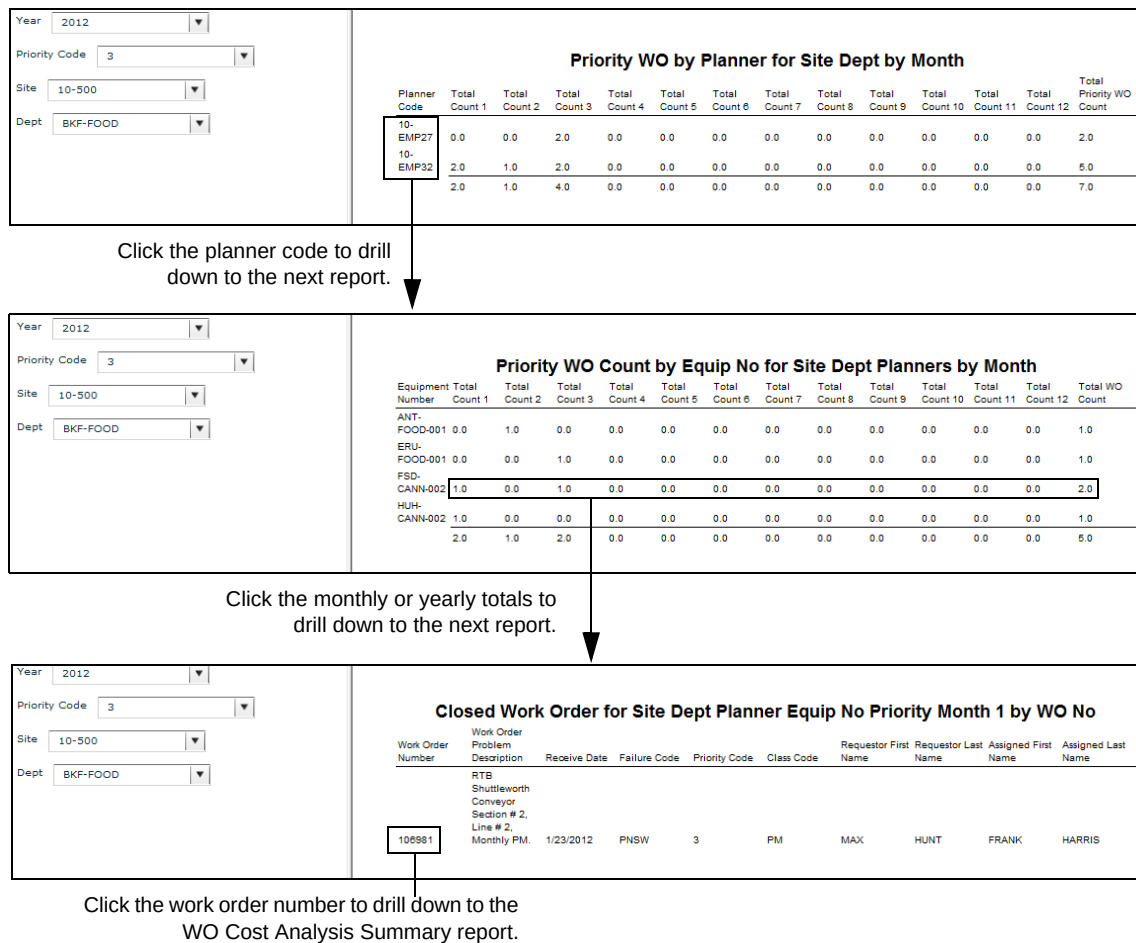
- Equipment Number
- Total Count 1-12
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Dept Planner Equip No Priority Month/Year by WO No

This report shows all the closed work orders with details for a selected equipment number in a selected month or year. This report contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.65
Report Navigation for Priority Work Order Count by Planner



Work Order Cost Analysis Summary Month/Year

The Work Order Cost Analysis Summary Month/Year report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.66
Work Order Cost Analysis Summary Report

Year: 2012	WO Cost Analysis Summary Mon 1									
Priority Code: 1	Work Order Number	Equipment Number	Equipment Description	Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost
Site: 9050	108116	d_facq_air_03	Air Compressor 2 Kaiser BS,60	0.0	810.19	0.0	120.0	0.0	0.0	930.19
Dept: FAC										

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail Month/Year

The WO Material/Labor/Contract Cost Detail Month/Year reports show the transaction details for the material, labor, or contractor costs. These reports contains the following columns:

Work Order Labor Cost Detail Month/Year	Work Order Material Cost Detail Month/Year	Work Order Contract Cost Detail Month/Year
- Employee Number - Employee Name - Total Time - Total Time totals (summary line) - Total Cost - Total Cost totals (summary line) - Labor Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Material Cost Actual - Material Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Contractor Cost Actual - Contractor Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code

Fig. 5.67
Work Order Material/Labor/Contract Cost Detail Report

Year: 2012	WO Labor Cost Detail Mon 1									
Priority Code: 1	Employee Number	Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code	
Site: 9050	115	Glenn Hedges	4.0	120.0	1/5/2012	9050	5200	8008040	A	
Dept: FAC			4.0	120.0						

Work Order Backlog Count for Department

The Work Order Backlog Count for Department KPI allows department managers to monitor how well the maintenance group is able to react to and complete incoming requests. This KPI analyzes the number of open work orders at the end of a period so that you can answer the following questions:

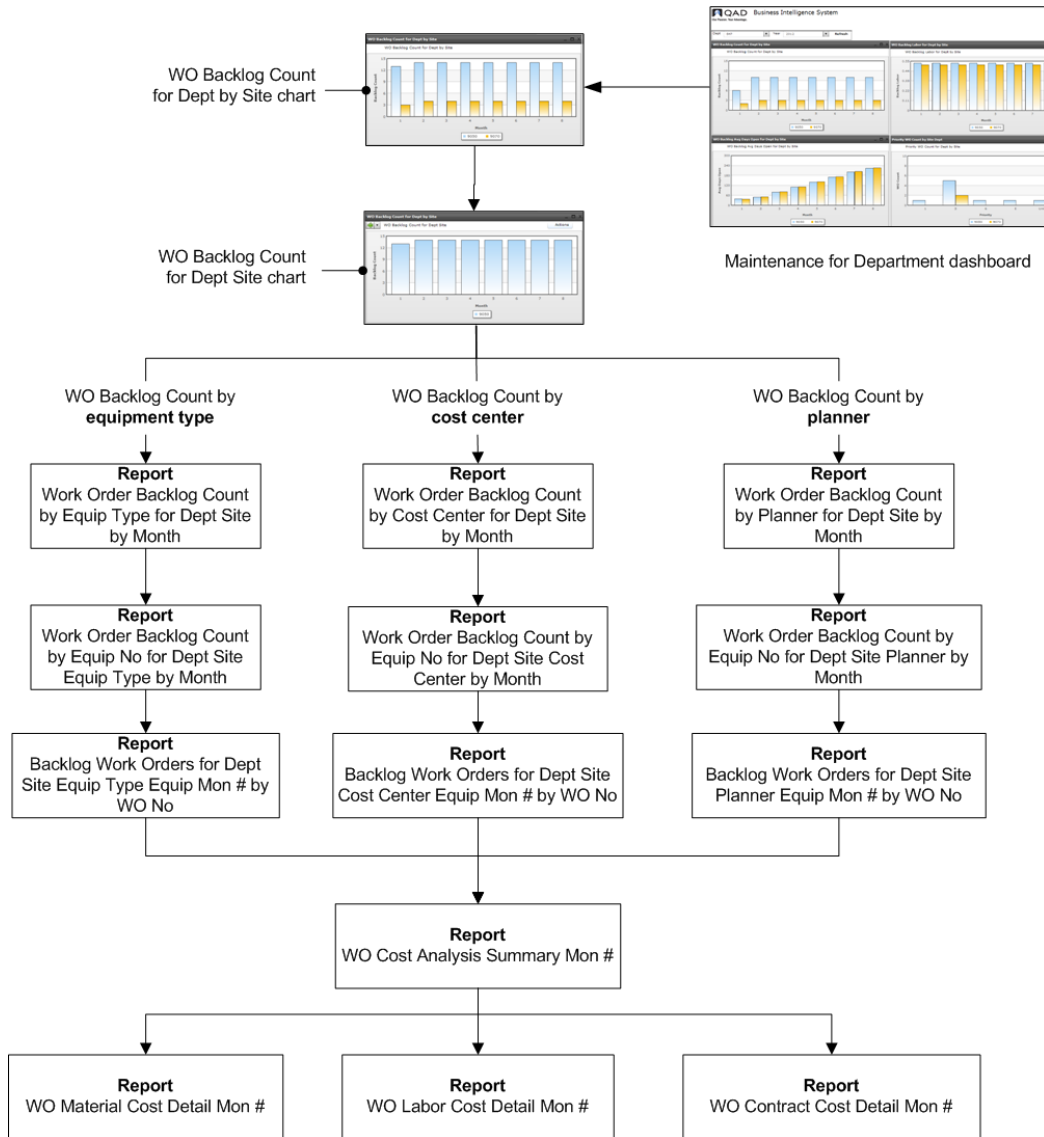
- Where is the backlog growing?
- Is there a specific cost center or type of equipment that seems to be getting more requests than others in the department?

This KPI is an excellent way to identify problem areas and measure the maintenance performance in responding to department work requests.

From the WO Backlog Count for Department chart, you can drill down and:

- Compare the monthly open work order backlog count between sites for the department.
- Compare the monthly open work order backlog count for a specific site and the department.
- Analyze the monthly and yearly work order backlog count by equipment type, cost center, or planner for the site and the department.
- Analyze the work order backlog count by the equipment number of a specific equipment type, cost center, or planner.
- Access a list of the backlog work orders by work order number for a specific equipment number.
- Access the work order cost analysis summary and detail for a specific work order.

Fig. 5.68
Navigation Overview for the WO Backlog Count for Department KPI



Work Order Backlog Count for Department Charts

Access the Work Order Backlog Count for Department charts from the Maintenance for Department dashboard. These charts show the metrics for the department and year that you select from the dashboard parameter bar.

Work Order Backlog Count for Department by Site

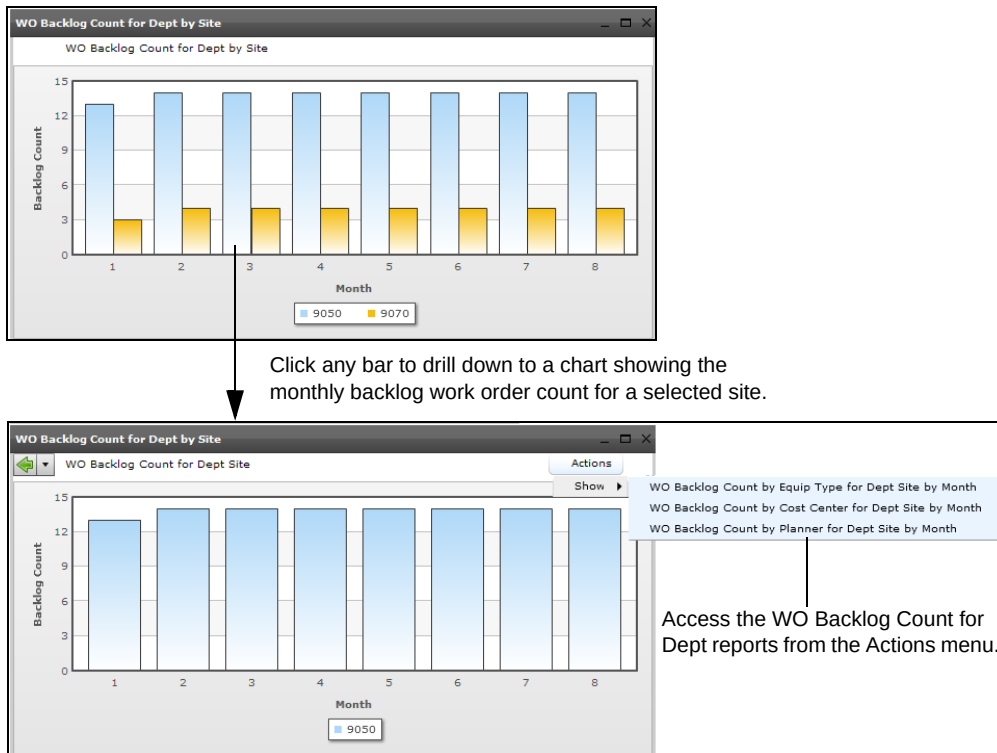
The WO Backlog Count for Dept by Site chart compares the monthly backlog work order count between sites.

Work Order Backlog Count for Dept Site

The WO Backlog Count for Dept Site chart shows the monthly backlog work order count for a selected site.

Fig. 5.69

Navigation for Backlog Work Order Count for Department Charts



Work Order Backlog Count for Department by Equipment Type Reports

Access the Work Order Backlog Count for Department by Equipment Type reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Count by Equip Type for Dept Site by Month

This report shows the monthly totals and the yearly average count of backlog work orders for all equipment types. This report contains the following columns:

- Equipment Type Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Average Count

Work Order Backlog Count by Equip No for Dept Site Equip Type by Month

This report shows the monthly totals and the yearly average count of backlog work orders for all equipment numbers for a selected equipment type. This report contains the following columns:

- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Average Count

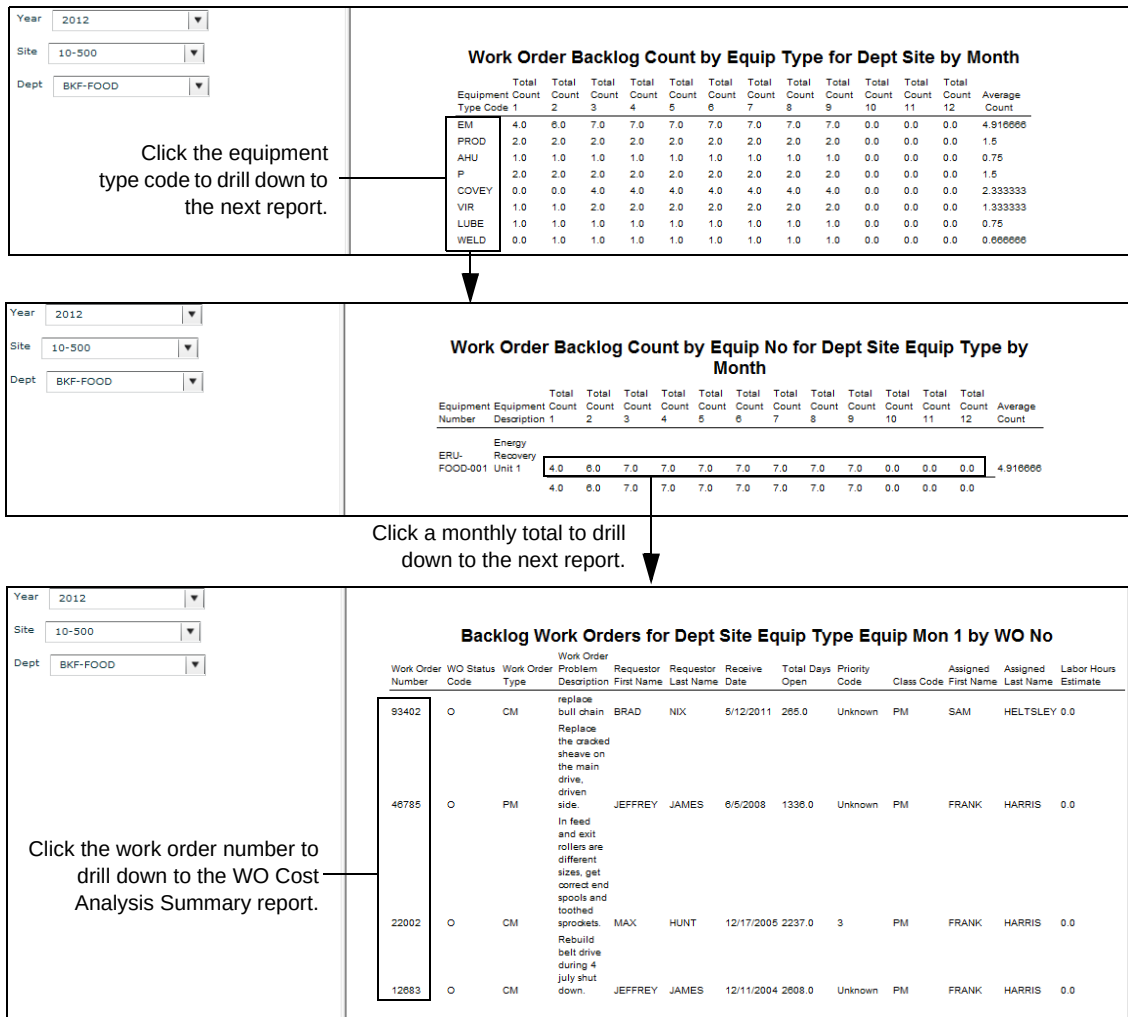
Backlog Work Orders for Dept Site Equip Type Equip Mon # by WO No

This report shows all the backlog work orders with details for a selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.70

Report Navigation for Work Order Backlog Count for Department by Equipment Type



Work Order Backlog Count for Department by Cost Center Reports

Access the Work Order Backlog Count for Department by Cost Center reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Count by Cost Center for Dept Site by Month

This report shows the monthly totals and the yearly average counts of backlog work orders for all cost centers. This report contains the following columns:

- Cost Center Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Average Count

Work Order Backlog Count by Equip No for Dept Site Cost Center by Month

This report shows the monthly totals and the yearly average count of backlog work orders for all equipment numbers for a selected cost center. This report contains the following columns:

- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Average Count

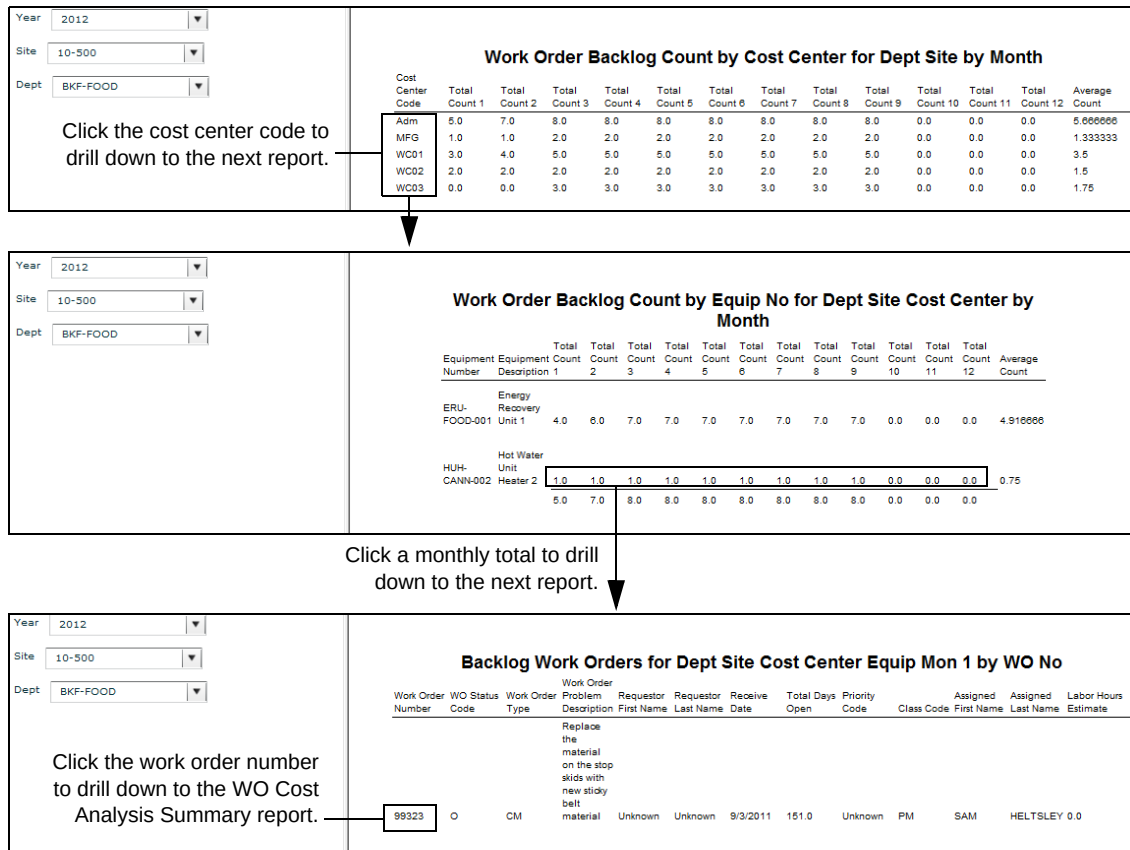
Backlog Work Orders for Dept Site Cost Center Equip Mon # by WO No

This report shows all the backlog work orders with details for a selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.71

Report Navigation for Work Order Backlog Count for Department by Cost Center



Work Order Backlog Count for Department by Planner Reports

Access the Work Order Backlog Count for Department by Planner reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Count by Planner for Dept Site by Month

This report shows the monthly totals and the yearly average count of backlog work orders for all planners. This report contains the following columns:

- Planner Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Average Count

Work Order Backlog Count by Equip No for Dept Site Planner by Month

This report shows the monthly totals and the yearly average count of backlog work orders for all equipment numbers for a selected planner. This report contains the following columns:

- Equipment Number
- Equipment Description

- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Average Count

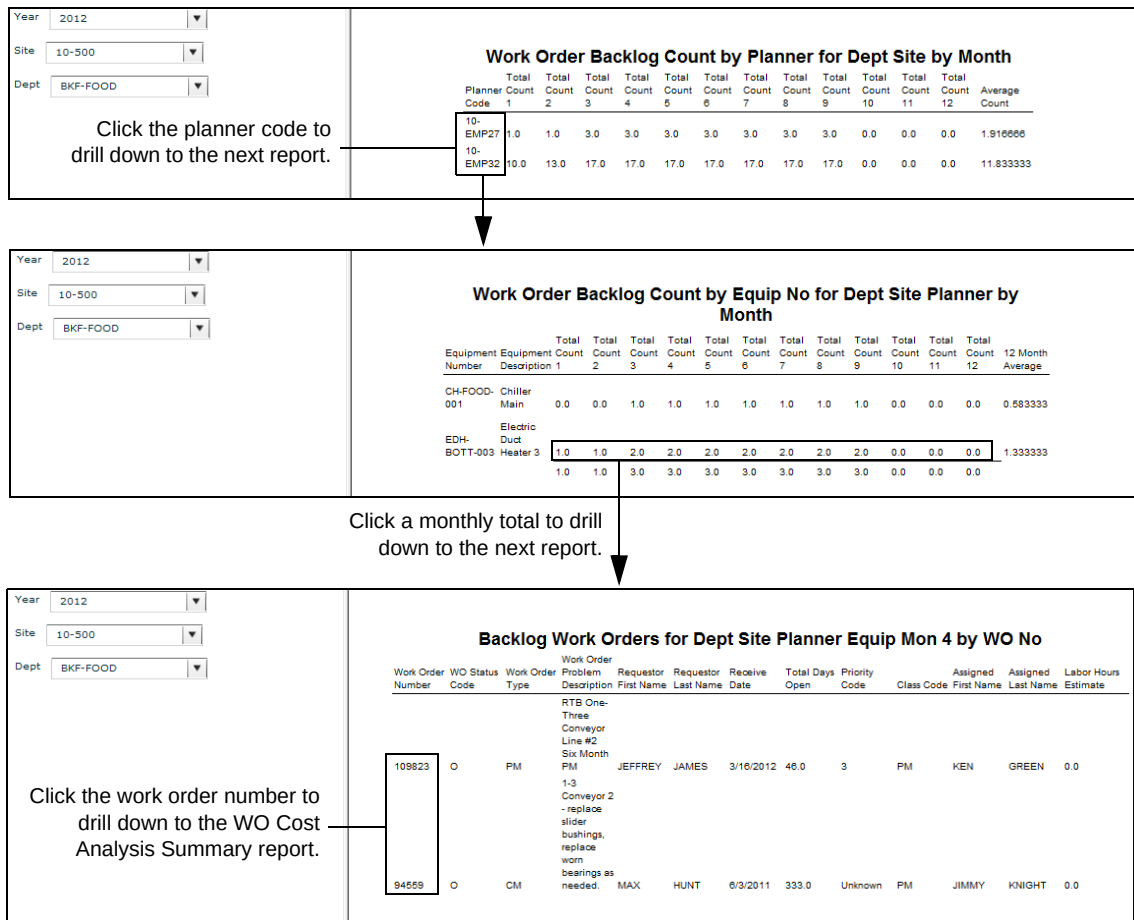
Backlog Work Orders for Dept Site Planner Equip Mon # by WO No

This report shows all the backlog work orders with details for a selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.72

Report Navigation for Work Order Backlog Count for Department by Planner

**Work Order Cost Analysis Summary Month #**

The Work Order Cost Analysis Summary Month # report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.73
Work Order Cost Analysis Summary Report

Year: 2012										
Site: 9050										
Dept: FAC										

WO Cost Analysis Summary Mon 1										
Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost	
108956	d_fac_gen	Facilities General Eq. Dry Mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail

The WO Material/Labor/Contract Cost Detail Mon # reports show the transaction details for the material, labor, or contractor costs.

Note Because these reports show the cost detail for backlog work orders, cost may not occur until work starts.

These reports contains the following columns:

Work Order Labor Cost Detail Mon #	Work Order Material Cost Detail Mon #	Work Order Contract Cost Detail Mon #
- Employee Number - Employee Name - Total Time - Total Time totals (summary line) - Total Cost - Total Cost totals (summary line) - Labor Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Material Cost Actual - Material Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Contractor Cost Actual - Contractor Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code

Work Order Backlog Labor for Department

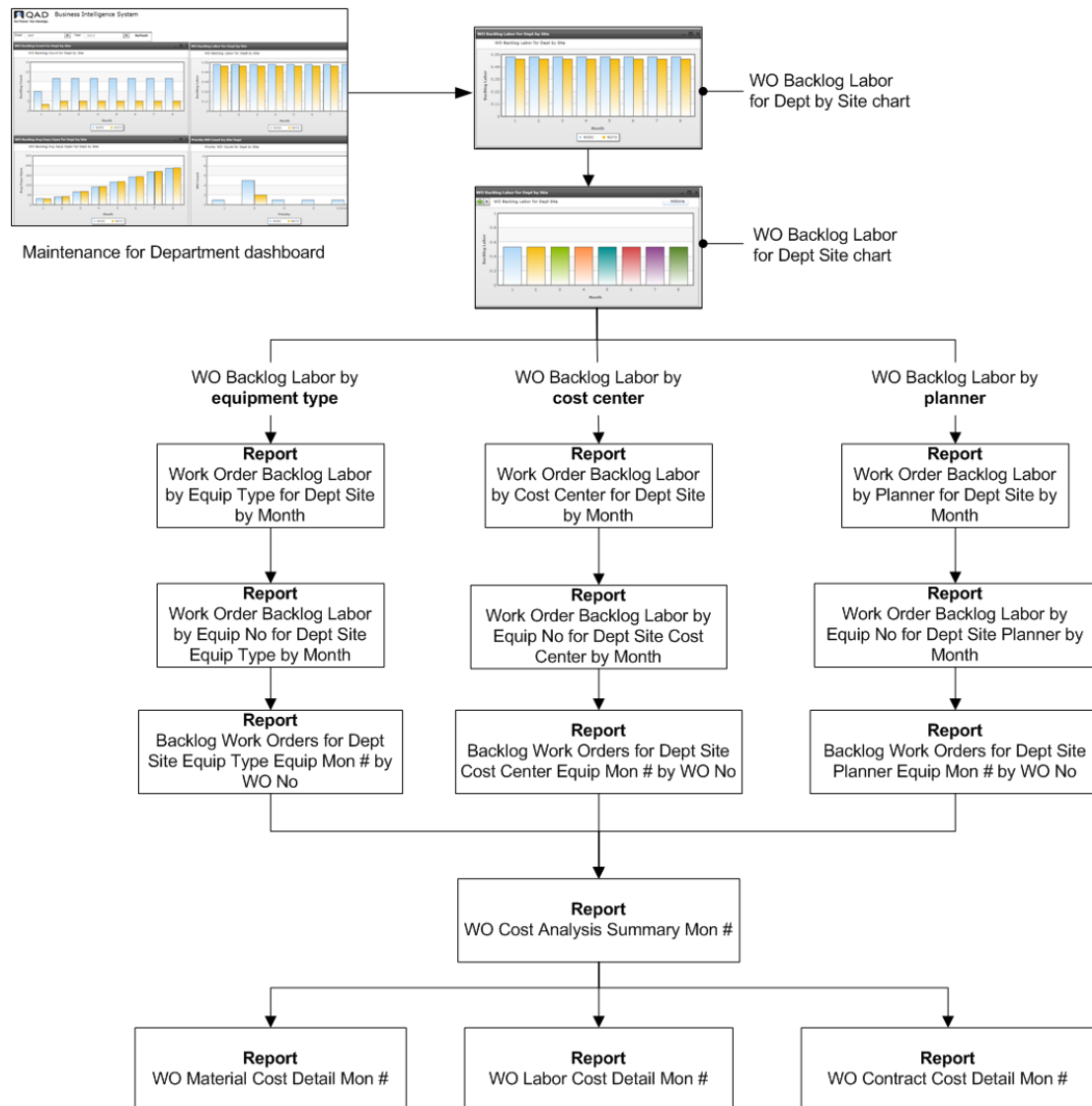
The Work Order Backlog Labor for Department KPI allows you to determine whether the maintenance group has the appropriate number of technicians to complete the current level of work order requests for the department. This KPI shows the number of outstanding labor hours required to complete the open work orders. The estimated work order labor hours are considered part of the backlog for a month if the work order is open at the end of the period.

From the Work Order Backlog Labor for Department chart, you can drill down and:

- Compare the monthly work order backlog labor hours between sites in the department for the year.
- Compare the monthly work order backlog labor hours for a specific site and the department for the year.
- Compare the monthly work order backlog labor hours by equipment type, cost center, or planner for a specific site and the department for the year.
- Compare the monthly work order backlog labor hours by equipment number.
- Access a list of backlog work orders by work order number for a specific equipment number.
- Access cost analysis summary and detail information for a specific backlog work order.

Fig. 5.74

Navigation Overview for the WO Backlog Labor for Department KPI



Work Order Backlog Labor for Department Charts

Access the Work Order Backlog Labor for Department charts from the Maintenance for Department dashboard. These charts show the metrics for the department and year that you select from the dashboard parameter bar.

Work Order Backlog Labor for Department by Site

The WO Backlog Labor for Dept by Site chart compares the monthly labor hours for backlog work orders between sites.

Work Order Backlog Labor for Dept Site

The WO Backlog Labor for Dept Site chart shows the monthly labor hours for backlog work orders in a specific site.

Fig. 5.75
Navigation for Backlog Work Order Labor Charts



Work Order Backlog Labor for Department by Equipment Type Reports

Access the Work Order Backlog Labor for Department reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Labor by Equip Type for Dept Site by Month

This report shows the monthly totals and yearly average of backlog work order labor hours for all equipment types. This report contains the following columns:

- Equipment Type Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count totals (summary line)
- Average Count

Work Order Backlog Labor by Equip No for Dept Site Equip Type by Month

This report shows the monthly totals and yearly average of backlog work order labor hours for all equipment numbers for a selected equipment type. This report contains the following columns:

- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Average Count

Backlog Work Orders for Dept Site Equip Type Equip Mon # by WO No

This report lists the backlog work orders with details for a selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.76

Report Navigation for Work Order Backlog Labor for Department by Equipment Type

Year: 2012
Site: 9050
Dept: BKF

Click the equipment type code to drill down to the next report.

Equipment Type	Code	Estimate	1	2	3	4	5	6	7	8	9	10	11	12	Average
FS		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P		0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.353333
		0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.0

Click a monthly total to drill down to the next report.

Year: 2012
Site: 9050
Dept: BKF

Equipment Number	Description	Estimate	1	2	3	4	5	6	7	8	9	10	11	12	Average
d_bkf_gen	Bulk Flour Dry Mix General Eq.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_bkf_silo_01	Silo #1 Bulk Flour	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.353333
d_bkf_silo_02	Silo #2 Bulk Flour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_bkf_unload_01	Unloading Station 1 Bulk Flour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_bkf_unload_02	Unloading Station 2 Bulk Flour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.0

Click the work order number to drill down to the WO Cost Analysis Summary report.

Year: 2012
Site: 9050
Dept: BKF

Work Order Number	WO Code	Status	Work Order Problem Description	Requestor First Name	Requestor Last Name	Request Date	Total Days Open	Priority	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
108968	S	CM	Bags need to be changed out. Drive belts need to be installed on system a airator motor-pump.	Phil	Smitha	1/19/2012	217.0	6	04	Phil	Smitha	0.0
108970	S	CM	Replace diaphragms in asco valves	Phil	Smitha	1/19/2012	217.0	6	02	Phil	Smitha	0.0
108460	S	CM		Glenn	Hedges	12/4/2011	263.0	E	01	Glenn	Hedges	0.53

Work Order Backlog Labor for Department by Cost Center Reports

Access the Work Order Backlog Labor for Department reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Labor by Cost Center for Dept Site by Month

This report shows the monthly totals and yearly average of backlog work order labor hours for all cost centers. This report contains the following columns:

- Cost Center Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.

- Total Count totals (summary line)
- Average Count

Work Order Backlog Labor by Equip No for Dept Site Cost Center by Month

This report shows the monthly totals and yearly average of backlog work order labor hours for all equipment numbers for a selected cost center. This report contains the following columns:

- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Average Count

Backlog Work Orders for Dept Site Equip Type Equip Mon # by WO No

This report lists the backlog work orders with details for a selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.77

Report Navigation for Work Order Backlog Labor for Department by Cost Center

Year: 2012
Site: 9050
Dept: BKF

Work Order Backlog Labor by Cost Center for Dept Site by Month

Click the cost center code to drill down to the next report.

Cost Center Code	Labor Hours Estimate 1	Labor Hours Estimate 2	Labor Hours Estimate 3	Labor Hours Estimate 4	Labor Hours Estimate 5	Labor Hours Estimate 6	Labor Hours Estimate 7	Labor Hours Estimate 8	Labor Hours Estimate 9	Labor Hours Estimate 10	Labor Hours Estimate 11	Labor Hours Estimate 12	12 Month Average
5200	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.0	0.0	0.0	0.0	0.353333

Year: 2012
Site: 9050
Dept: BKF

Work Order Backlog Labor by Equip No for Dept Site Cost Center by Month

Click a monthly total to drill down to the next report.

Equipment Number	Equipment Description	Labor Hours Estimate 1	Labor Hours Estimate 2	Labor Hours Estimate 3	Labor Hours Estimate 4	Labor Hours Estimate 5	Labor Hours Estimate 6	Labor Hours Estimate 7	Labor Hours Estimate 8	Labor Hours Estimate 9	Labor Hours Estimate 10	Labor Hours Estimate 11	Labor Hours Estimate 12	12 Month Average
d_bkf_gen	Bulk Flour Dry Mix General Eq.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_bkf_silo_01	Silo #1 Bulk Flour	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.0	0.0	0.0	0.0	0.353333
d_bkf_silo_02	Silo #2 Bulk Flour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
d_bkf_unload_01	Unloading Station 1 Bulk Flour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
d_bkf_unload_02	Unloading Station 2 Bulk Flour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Year: 2012
Site: 9050
Dept: BKF

Backlog Work Orders for Dept Site Cost Center Equip Mon 8 by WO No

Click the work order number to drill down to the WO Cost Analysis Summary report.

Work Order Number	WO Status	Work Order Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Total Days Open	Priority Code	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
108968	S	CM Bags need to be changed out.	Phil	Smitha	1/19/2012	217.0	6	04	Phil	Smitha	0.0
108970	S	CM Drive belts need to be installed on system a airator motor-pump	Phil	Smitha	1/19/2012	217.0	6	02	Phil	Smitha	0.0
106400	S	CM Replace diaphragms in asso valves	Glenn	Hedges	12/4/2011	263.0	E	01	Glenn	Hedges	0.53

Work Order Backlog Labor for Department by Planner Reports

Access the Work Order Backlog Labor for Department reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Labor by Planner for Dept Site by Month

This report shows the monthly totals and yearly average of backlog work order labor hours for all planners. This report contains the following columns:

- Planner Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count totals (summary line)

- Average Count

Work Order Backlog Labor by Equip No for Dept Site Planner by Month

This report shows the monthly totals and yearly average of backlog work order labor hours for all equipment numbers for a selected planner. This report contains the following columns:

- Equipment Number
- Equipment Description
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Average Count

Backlog Work Orders for Dept Site Planner Equip Mon # by WO No

This report lists the backlog work orders with details for a selected equipment number. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Report Navigation for Work Order Backlog Labor for Department by Planner



- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate

- Contractor Cost Actual Period
- Total Cost

Fig. 5.79

Work Order Cost Analysis Summary Report

Year2012

Site9050

DeptBKF

WO Cost Analysis Summary Mon 8

Work Order Number	Equipment Number	Equipment Description	Material Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost
Silo #1									
108968	d_bkf_silo_01	Bulk Flour	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail

The WO Material/Labor/Contract Cost Detail Mon # reports show the transaction details for the material, labor, or contractor costs.

Note Because this report shows the cost detail for backlog work orders, cost may not occur until work starts.

These reports contains the following columns:

Work Order Labor Cost Detail Mon #	Work Order Material Cost Detail Mon #	Work Order Contract Cost Detail Mon #
• Employee Number	• Part Number	• Part Number
• Employee Name	• Part Description	• Part Description
• Total Time	• Quantity	• Quantity
• Total Time totals (summary line)	• Unit Cost Transaction	• Unit Cost Transaction
• Total Cost	• Material Cost Actual	• Contractor Cost Actual
• Total Cost totals (summary line)	• Material Cost Actual total (summary line)	• Contractor Cost Actual total (summary line)
• Labor Date	• Effective Date	• Effective Date
• Expense Site Code	• Expense Site Code	• Expense Site Code
• Cost Center Code	• Cost Center Code	• Cost Center Code
• Account Code	• Account Code	• Account Code
• Sub Account Code	• Sub Account Code	• Sub Account Code

Work Order Backlog Average Days Open for Department

The Work Order Backlog Average Days Open for Department KPI allows you to monitor how well the maintenance group is able to respond to monthly work order requests for the department. This KPI allows you to answer the following:

- How long does it take to complete a maintenance request?

- Are there backlog work orders that are open longer for specific cost centers or equipment types?

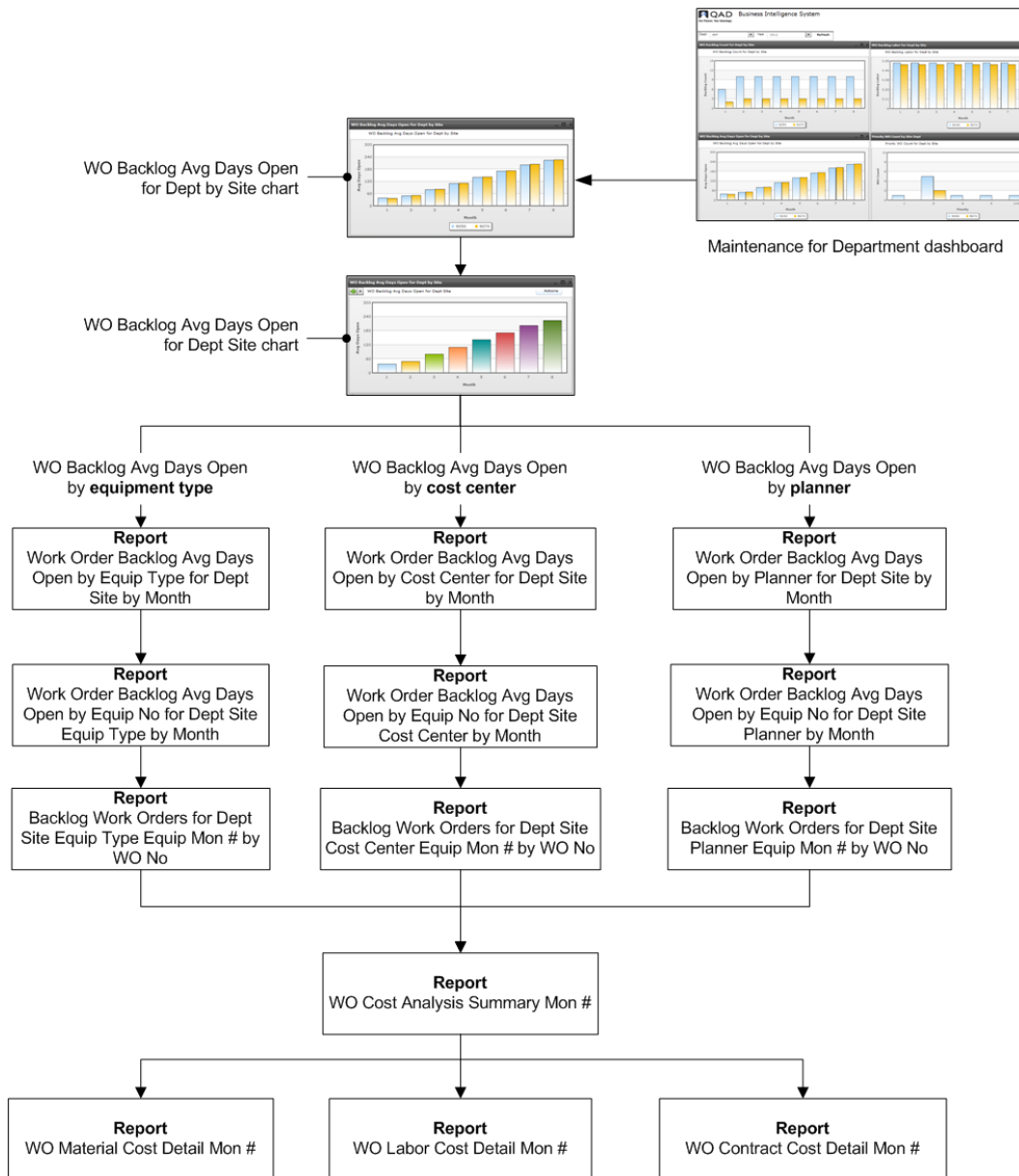
This KPI provides another important metric to determine if maintenance is focusing on the most critical issues in the department. Work Orders are included in the average days open calculation if they were open as of the end of the period.

From the Work Order Backlog Average Days Open for Department chart, you can drill down and:

- Compare the monthly average days open metric between sites for the department.
- Compare the monthly average days open metric for a department in a specific site.
- Compare the average days open metric by equipment type, cost center, or planner.
- Compare the average days open metric by equipment number.
- Access a list of backlog work orders for a specific equipment number.
- Access the cost analysis summary and detail information for a specific backlog work order.

Fig. 5.80

Navigation Overview for the WO Backlog Avg Days Open for Department KPI



Work Order Backlog Avg Days Open for Department Charts

Access the Work Order Backlog Avg Days Open for Department charts from the Maintenance for Department dashboard. These charts show the metrics for the department and year that you select from the dashboard parameter bar.

Work Order Backlog Avg Days Open for Department by Site

The Work Order Backlog Avg Days Open for Department by Site chart shows a monthly site comparison for the work order backlog average days open metric.

Work Order Backlog Avg Days Open for Dept Site

The Work Order Backlog Avg Days Open for Department Site chart shows the monthly work order backlog average days open metric for a specific site.

Fig. 5.81

Navigation for Backlog Work Order Avg Days Open for Department Charts



Reports for Work Order Backlog Avg Days Open for Department by Equipment Type

Access the Work Order Backlog Average Days Open for Department by Equipment Type reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Avg Days Open by Equip Type for Dept Site by Month

This report shows the monthly and the 12-month average days open metric for all equipment types. This report contains the following columns:

- Equipment Type Code
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Work Order Backlog Avg Days Open by Equip No for Dept Site Equip Type by Month

This report shows the monthly and the 12-month average days open metric for all the equipment numbers for a selected equipment type. This report contains the following columns:

- Equipment Number
- Equipment Description
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Backlog Work Orders for Dept Site Equip Type Equip Mon # by WO No

This report lists all the backlog work orders with details for a selected equipment number and month. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.82

Report Navigation for Work Order Backlog Avg Days Open for Department by Equipment Type

Year: 2012
Site: 9050
Dept: BKF

Click the equipment type code to drill down to the next report.

Work Order Backlog Avg Days Open by Equip Type for Dept Site by Month

Equipment Type Code	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
FS	0.0	2.571428	7.0	11.285714	15.714285	20.0	24.428571	27.571428	0.0	0.0	0.0	0.0	9.047619
P	3.376811	6.840579	10.884057	14.797101	18.840579	22.753623	26.797101	29.666666	0.0	0.0	0.0	0.0	11.163043

Click a monthly total to drill down to the next report.

Year: 2012
Site: 9050
Dept: BKF

Work Order Backlog Avg Days Open by Equip No for Dept Site Equip Type by Month

Equipment Number	Equipment Description	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
d_bkf_gen	Bulk Flour Dry Mix General Eq.	1.0	4.227272	6.454545	12.545454	16.772727	20.863636	25.090909	28.090909	0.0	0.0	0.0	0.0	9.753787
d_bkf_silo_01	Silo #1 Bulk Flour	3.541666	7.166666	11.041666	14.791666	18.666666	22.416666	26.291666	29.041666	0.0	0.0	0.0	0.0	11.079861
d_bkf_silo_02	Silo #2 Bulk Flour	0.0	3.285714	7.714285	12.0	16.428571	20.714285	25.142857	28.285714	0.0	0.0	0.0	0.0	9.464285
d_bkf_unload_01	Unloading Station 1 Bulk Flour	15.375	19.0	22.875	26.625	30.5	34.25	38.125	40.875	0.0	0.0	0.0	0.0	18.96875
d_bkf_unload_02	Unloading Station 2 Bulk Flour	0.375	4.0	7.875	11.625	15.5	19.25	23.125	25.875	0.0	0.0	0.0	0.0	8.96875

Click the work order number to drill down to the WO Cost Analysis Summary report.

Year: 2012
Site: 9050
Dept: BKF

Backlog Work Orders for Dept Site Equip Type Equip Mon 8 by WO No

Work Order Number	WO Status	Work Order Type	Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Total Days Open	Priority	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
110233	S	PM	A & B system bulk flour blowers, Monthly Inspection	Glen	Stotts	2/11/2012	194.0	3	03	Phil	Smitha	0.0
110075	S	CM	\$ replace gasket, nmc	Nikea	Conner	2/7/2012	198.0	Unknown	Unknown	Tom	Estes	0.0
108470	S	PM	Dry Mix Bulk Flour Blower A & B system, Quarterly PM.	Glen	Stotts	1/10/2012	226.0	3	03	Phil	Smitha	0.0

Reports for Work Order Backlog Avg Days Open for Department by Cost Center

Access the Work Order Backlog Average Days Open for Department by Cost Center reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Avg Days Open by Cost Center for Dept Site by Month

This report shows the monthly and the 12-month average days open metric for all cost centers. This report contains the following columns:

- Cost Center Code
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Work Order Backlog Avg Days Open by Equip No for Dept Site Cost Center by Month

This report shows the monthly and the 12-month average days open metric for all the equipment numbers for a selected cost center. This report contains the following columns:

- Equipment Number
- Equipment Description
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Backlog Work Orders for Dept Site Cost Center Equip Mon # by WO No

This report lists all the backlog work orders with details for a selected equipment number and month. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.83

Report Navigation for Work Order Backlog Avg Days Open for Department by Cost Center

Year: 2012
Site: 9050
Dept: BKF

Work Order Backlog Avg Days Open by Cost Center for Dept Site by Month

Cost Center Code	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
5200	3.065789	6.447368	10.526315	14.473684	18.552631	22.5	26.578947	29.473684	0.0	0.0	0.0	0.0	10.968201

Click the cost center code to drill down to the next report.

Year: 2012
Site: 9050
Dept: BKF

Work Order Backlog Avg Days Open by Equip No for Dept Site Cost Center by Month

Equipment Number	Equipment Description	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
d_bkf_gen	Bulk Flour Dry Mix General Eq.	1.0	4.227272	8.454545	12.545454	16.772727	20.893636	25.090909	28.090909	0.0	0.0	0.0	0.0	9.753787
d_bkf_silo_01	Silo #1 Bulk Flour	3.541666	7.166666	11.041666	14.791666	18.666666	22.416666	26.291666	29.041666	0.0	0.0	0.0	0.0	11.079881
d_bkf_silo_02	Silo #2 Bulk Flour	0.0	3.285714	7.714285	12.0	16.428571	20.714285	25.142857	28.285714	0.0	0.0	0.0	0.0	9.464285
d_bkf_unload_01	Unloading Station 1 Bulk Flour	15.375	19.0	22.875	26.625	30.5	34.25	38.125	40.875	0.0	0.0	0.0	0.0	18.96875
d_bkf_unload_02	Unloading Station 2 Bulk Flour	0.375	4.0	7.875	11.625	15.5	19.25	23.125	25.875	0.0	0.0	0.0	0.0	8.96875

Click the monthly total to drill down to the next report.

Year: 2012
Site: 9050
Dept: BKF

Backlog Work Orders for Dept Site Cost Center Equip Mon 8 by WO No

Work Order Number	WO Status	Work Order Code	Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Total Days Open	Priority	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
110233	S	PM	A & B system bulk flour blowers. Monthly inspection	Glen	Stotts	2/11/2012	194.0	3	03	Phil	Smitha	0.0
110075	S	CM	\$ replace gasket. nmc	Nikea	Conner	2/7/2012	198.0	Unknown	Unknown	Tom	Estes	0.0
108470	S	PM	Dry Mix Bulk Flour Blower A & B system. Quarterly PM.	Glen	Stotts	1/10/2012	226.0	3	03	Phil	Smitha	0.0

Click the work order number to drill down to the WO Cost Analysis Summary report.

Reports for Work Order Backlog Avg Days Open for Department by Planner

Access the Work Order Backlog Average Days Open for Department by Planner reports from the Actions menu in the WO Backlog Count for Dept Site chart. These reports show metrics for a selected department, site, and year.

Work Order Backlog Avg Days Open by Planner for Dept Site by Month

This report shows the monthly and the 12-month average days open metric for all planners. This report contains the following columns:

- Planner Code
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Work Order Backlog Avg Days Open by Equip No for Dept Site Planner by Month

This report shows the monthly and the 12-month average days open metric for all the equipment numbers for a selected planner. This report contains the following columns:

- Equipment Number
- Equipment Description
- Average Total Days Open 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- 12 Month Average

Backlog Work Orders for Dept Site Planner Equip Mon # by WO No

This report lists all the backlog work orders with details for a selected equipment number and month. This report contains the following columns:

- Work Order Number
- Work Order Status Code
- Work Order Type
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Total Days Open
- Priority Code
- Class Code
- Assigned First/Last Name
- Labor Hours Estimate

Fig. 5.84

Report Navigation for Work Order Backlog Avg Days Open for Department by Planner

Click the planner code to drill down to the next report.

Work Order Backlog Avg Days Open by Planner for Dept Site by Month

Planner Code	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
135	3.065789	6.447368	10.526315	14.473684	18.552631	22.5	26.578947	29.473684	0.0	0.0	0.0	0.0	10.968201

Click the monthly total to drill down to the next report.

Work Order Backlog Avg Days Open by Equip No for Dept Site Planner by Month

Equipment Number	Equipment Description	Average Total Days Open 1	Average Total Days Open 2	Average Total Days Open 3	Average Total Days Open 4	Average Total Days Open 5	Average Total Days Open 6	Average Total Days Open 7	Average Total Days Open 8	Average Total Days Open 9	Average Total Days Open 10	Average Total Days Open 11	Average Total Days Open 12	12 Month Average
d_bkf_gen	Bulk Flour Dry Mix General Eq.	1.0	4.227272	8.464545	12.545454	16.772727	20.863636	25.090909	28.090909	0.0	0.0	0.0	0.0	9.753787
d_bkf_silo_01	Silo #1 Bulk Flour	3.541666	7.106666	11.041666	14.791666	18.666666	22.416666	26.291666	29.041666	0.0	0.0	0.0	0.0	11.078861
d_bkf_silo_02	Silo #2 Bulk Flour	0.0	3.285714	7.714285	12.0	16.428571	20.714285	25.142857	28.285714	0.0	0.0	0.0	0.0	9.464285
d_bkf_unload_01	Unloading Station 1 Bulk Flour	15.375	19.0	22.875	26.625	30.5	34.25	38.125	40.875	0.0	0.0	0.0	0.0	18.96875
d_bkf_unload_02	Unloading Station 2 Bulk Flour	0.375	4.0	7.875	11.625	15.5	19.25	23.125	25.875	0.0	0.0	0.0	0.0	8.96875

Click the work order number to drill down to the WO Cost Analysis Summary report.

Backlog Work Orders for Dept Site Planner Equip Mon 8 by WO No

Work Order Number	WO Status	Work Order Problem Description	Requestor First Name	Requestor Last Name	Receive Date	Total Days Open	Priority	Class Code	Assigned First Name	Assigned Last Name	Labor Hours Estimate
110233	S	PM	Glen	Stotts	2/11/2012	194.0	3	03	Phil	Smitha	0.0
110075	S	CM	Nikea	Conner	2/7/2012	198.0	Unknown	Unknown	Tom	Estes	0.0
108470	S	PM	Glen	Stotts	1/10/2012	226.0	3	03	Phil	Smitha	0.0

Work Order Cost Analysis Summary Month

This report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate

- Contractor Cost Actual Period
- Total Cost

Fig. 5.85

Work Order Cost Analysis Summary Report

Year: 2012	WO Cost Analysis Summary Mon 8									
Site: 9050	Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost
Dept: BKF	108470	d_bkf_gen	Bulk Flour Dry Mix General Eq	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail

The WO Material/Labor/Contract Cost Detail Mon # reports show the transaction details for the material, labor, or contractor costs.

Note Because this report shows the cost detail for backlog work orders, cost may not occur until work starts.

These reports contains the following columns:

Work Order Labor Cost Detail Mon #	Work Order Material Cost Detail Mon #	Work Order Contract Cost Detail Mon #
• Employee Number • Employee Name • Total Time • Total Time totals (summary line) • Total Cost • Total Cost totals (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Maintenance Work Orders

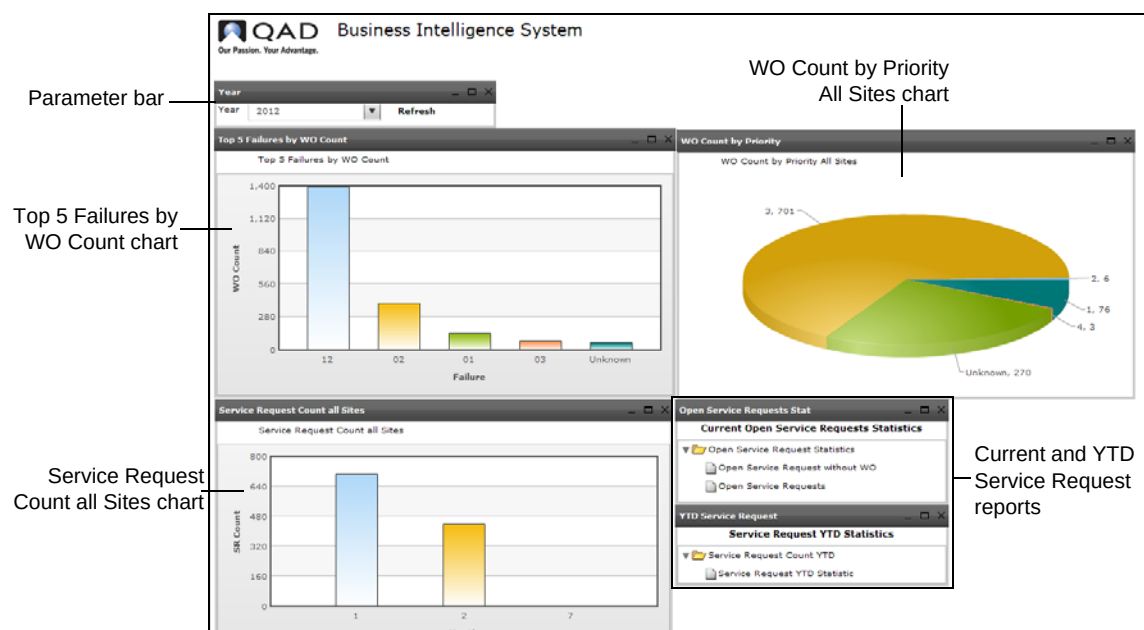
The Maintenance Work Orders dashboard provides measures to evaluate maintenance requests, priorities, and equipment failures driving the work load for the maintenance department.

The Maintenance Work Orders dashboard contains the following KPIs and reports:

- **Priority WO Count.** See “Work Order Count by Priority” on page 197.
- **Failures by WO Count.** See “Top 5 Failures by Work Order Count” on page 208.
- **Service Request Count.** See “Service Request Count” on page 218.

Fig. 5.86

Maintenance Work Orders Dashboard



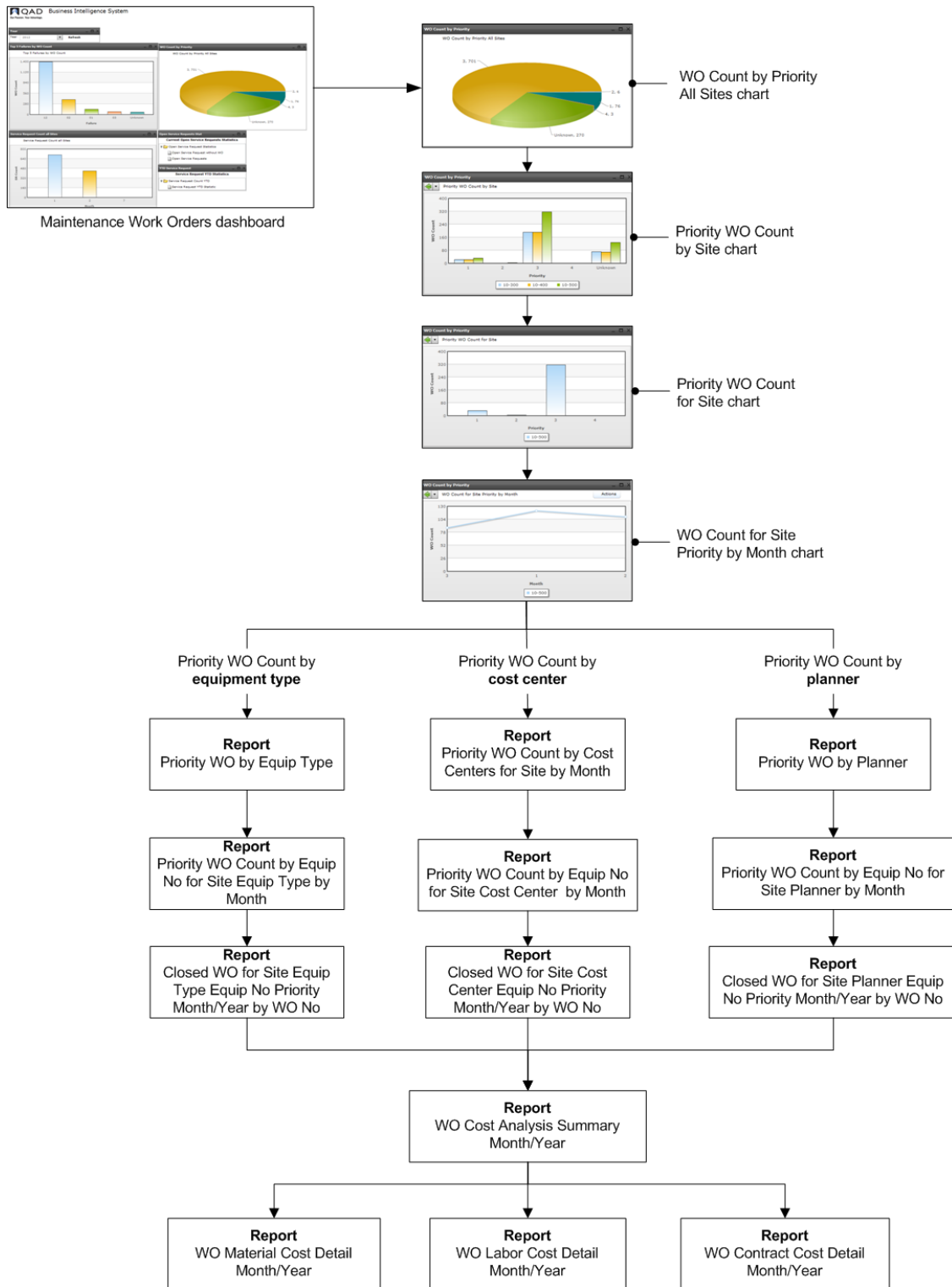
Work Order Count by Priority

The Work Order Count by Priority KPI allows you to monitor the use of priority codes on work orders so that you can reveal maintenance trends. A high-frequency use of a particular priority code may suggest the need to make management changes designed to reduce the frequency of that priority code. Closed work orders based on receipt date are included in the KPI.

From the Work Order Count by Priority All Sites chart, you can drill down and:

- Compare the number of closed work orders between sites for each priority code.
- Compare the number of closed work orders for each priority code in a selected site.
- Compare the monthly count of closed work orders for a specific priority code in a selected site.
- Analyze work orders by equipment type, cost center, or planner for the selected priority and site.
- Access a breakdown of priority work orders by equipment number.
- Access details of closed work orders.
- Access work order summary and detail cost analysis.

Fig. 5.87
Navigation Overview for the Work Order Count by Priority KPI



Priority Work Order Count Charts

Access the Priority Work Order Count charts from the Maintenance Work Orders dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

WO Count by Priority All Sites

The WO Count by Priority All Sites pie chart shows the closed work order count for each priority code. This chart, which shows all sites in a selected year, is useful because you can see the proportion of each priority code in relation to the whole.

Priority WO Count by Site

The Priority WO Count by Site chart shows a site comparison of the closed work order count for each priority code.

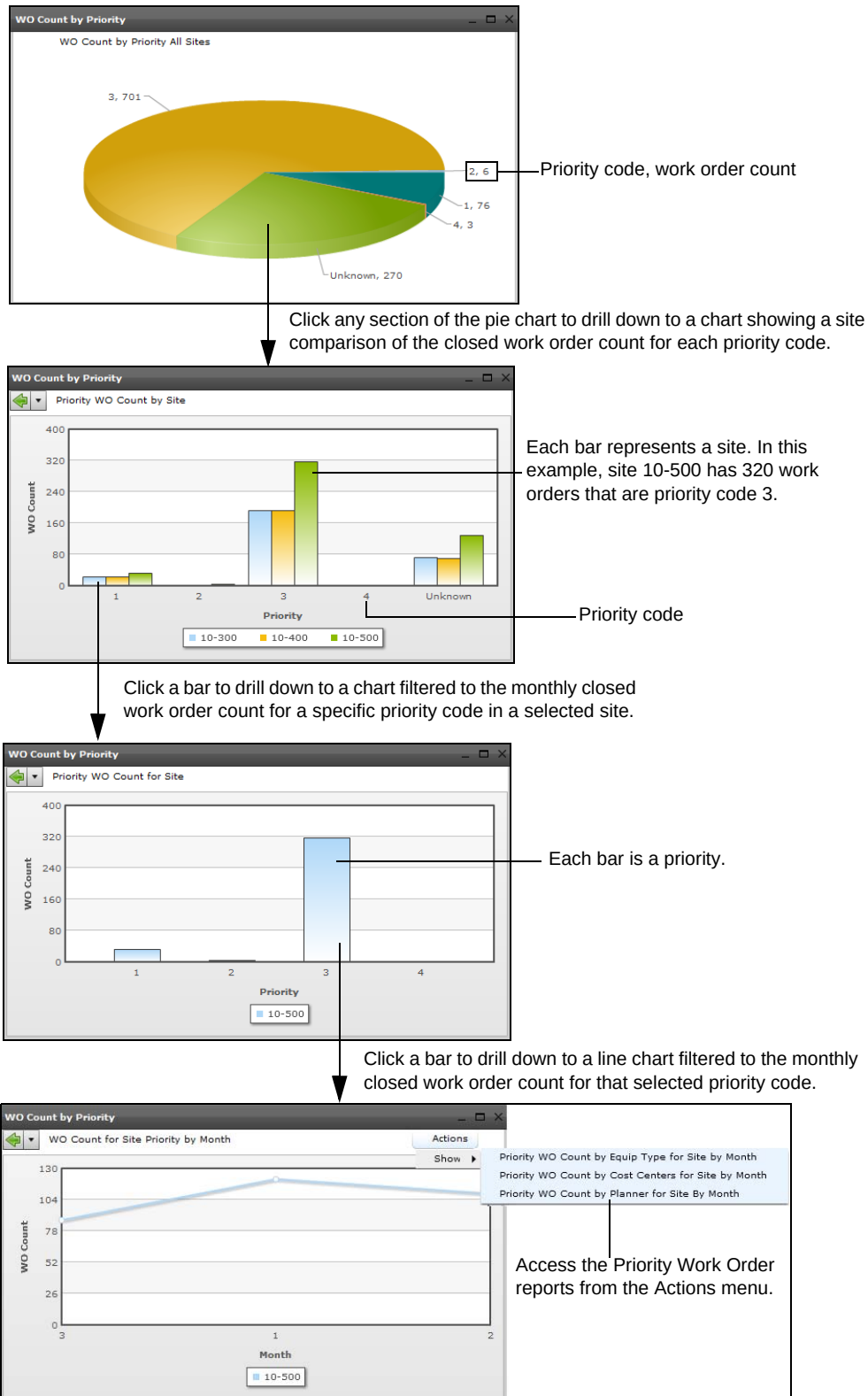
WO Count by Priority for Site

The WO Count by Priority for Site chart shows the closed work order count for each priority code in a selected site.

Priority WO Count for Site by Month

The Priority WO Count for Site by Month line chart shows the monthly closed work order count for a selected priority code. This chart is useful because you can easily see if the number of work orders for a specific priority code is increasing or decreasing from month to month.

Fig. 5.88
Navigation for the Priority Work Order Count Charts



Priority Work Order Count by Equipment Type Reports

Access the Priority Work Order Count reports from the Actions menu in the WO Count for Site Priority by Month chart. These reports show metrics for a selected priority code, site, and year.

Priority WO Count by Equip Type

This report shows the monthly and yearly closed work order totals for all equipment types and a selected priority code and site. It contains the following columns:

- Equipment Type Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Priority WO
- Total Priority WO totals (summary line)

Priority WO Count by Equip No for Site Equip Type by Month

This report shows the monthly and yearly closed work order totals of all equipment numbers for a selected equipment type, priority code, and site. It contains the following columns:

- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

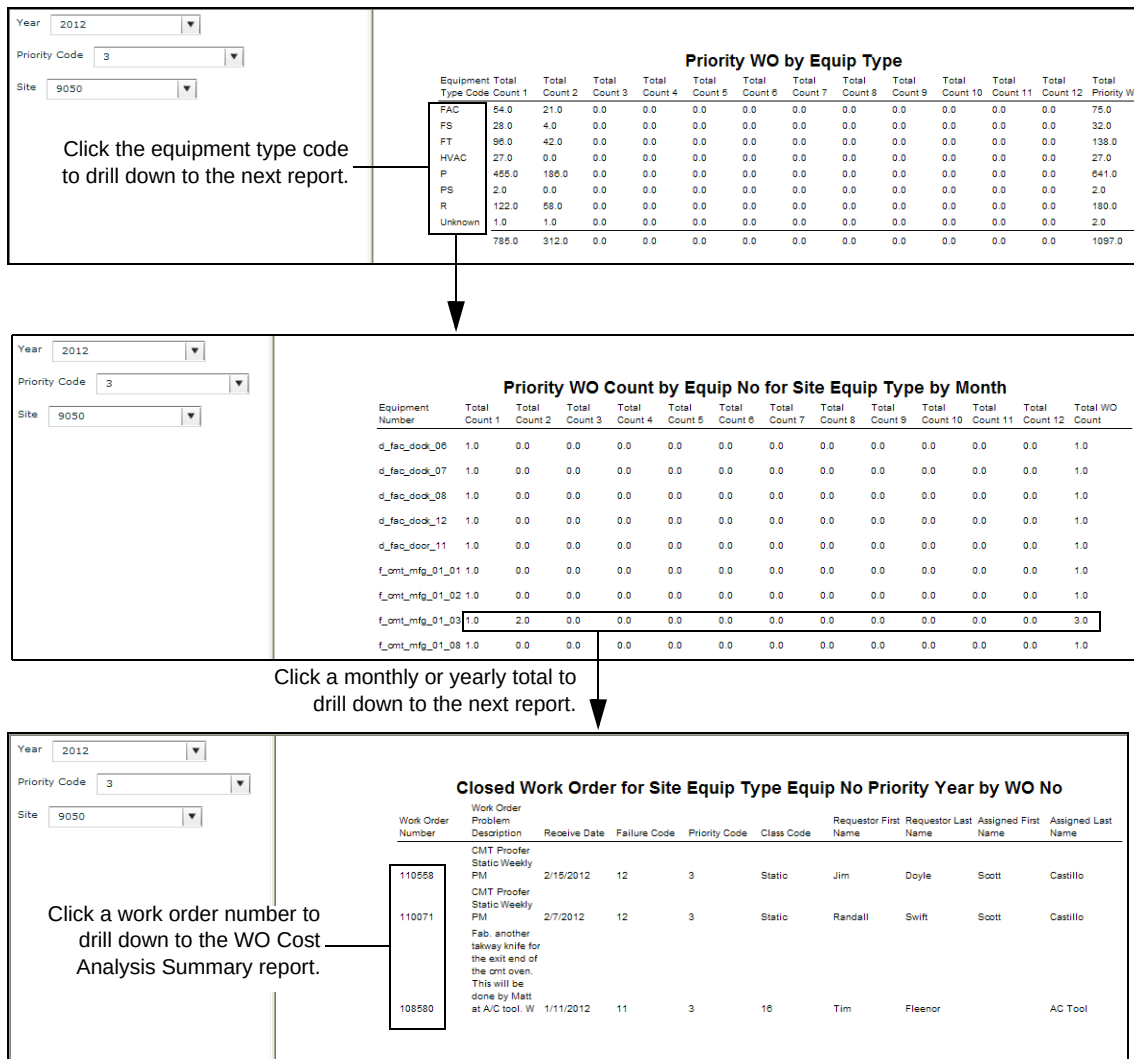
Closed Work Order for Site Equip Type Equip No Priority Month/Year by WO No

This report lists all the closed work orders for a selected equipment number, equipment type, and priority code. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.89

Report Navigation for Priority Work Orders Count by Equipment Type



Priority Work Order Count by Cost Center Reports

Access the Priority Work Order Count reports from the Actions menu in the WO Count for Site Priority by Month chart. These reports show metrics for a selected priority code, site, and year.

Priority WO Count by Cost Center

This report shows the monthly and yearly closed work order totals for all cost centers and selected priority code. It contains the following columns:

- Cost Center Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Priority WO

- Total Priority WO totals (summary line)

Priority WO Count by Equip No for Site Cost Center by Month

This report shows the monthly and yearly closed work order totals of all equipment numbers for a selected cost center and priority code. It contains the following columns:

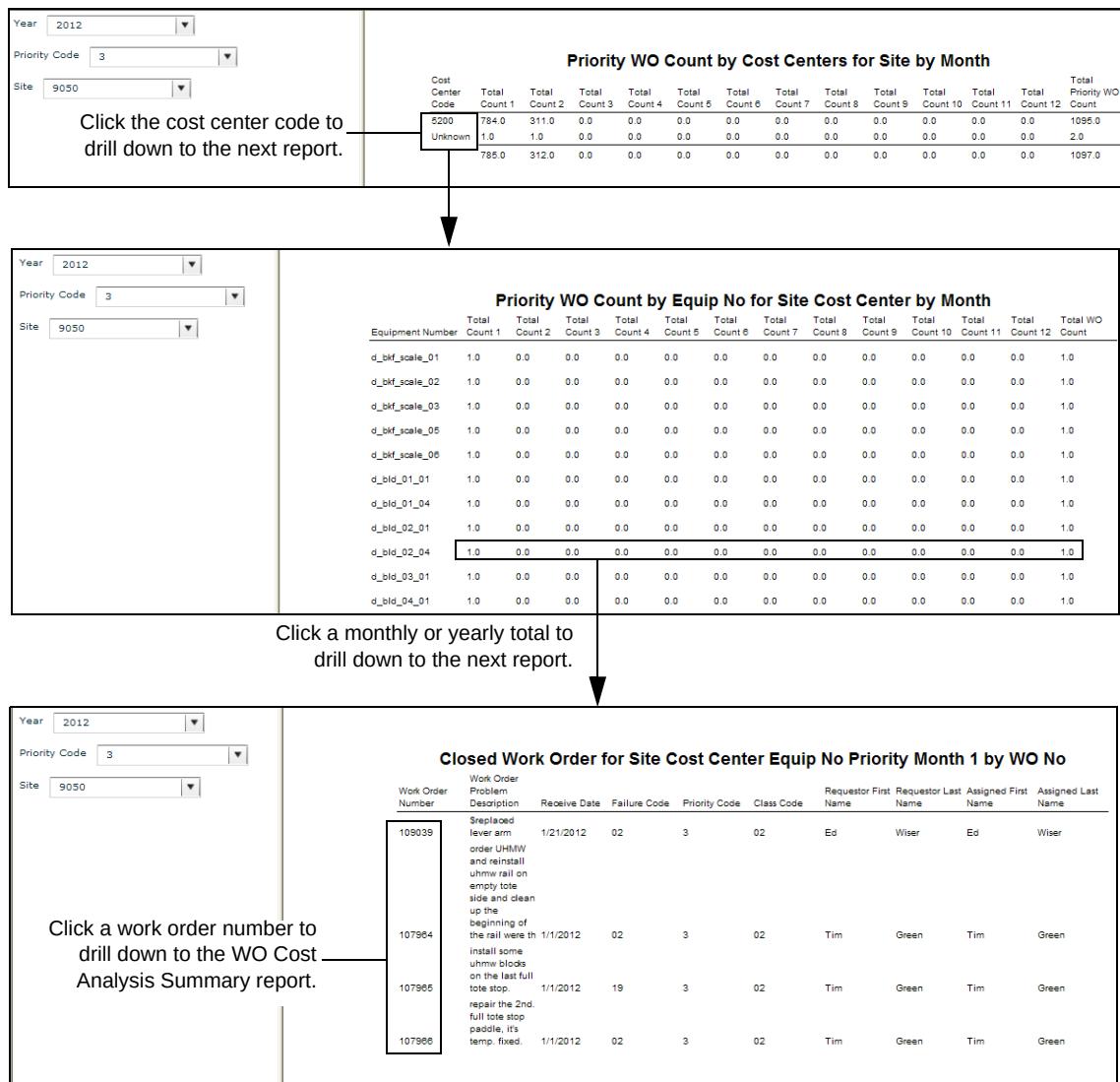
- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Cost Center Equip No Priority Month/Year by WO No

This report lists all the closed work orders for a selected equipment number, cost center, and priority code. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.90
Report Navigation for Priority Work Order Count by Cost Center



Priority Work Order Count by Planner Reports

Access the Priority Work Order Count reports from the Actions menu in the WO Count for Site Priority by Month chart. These reports show metrics for a selected priority code, site, and year.

Priority WO Count by Planner

This report shows the monthly and yearly closed work order totals for all planners and selected priority code. It contains the following columns:

- Planner Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Priority WO

- Total Priority WO totals (summary line)

Priority WO Count by Equip No for Site Planner by Month

This report shows the monthly and yearly closed work order totals of all equipment numbers for a selected planner and priority code. It contains the following columns:

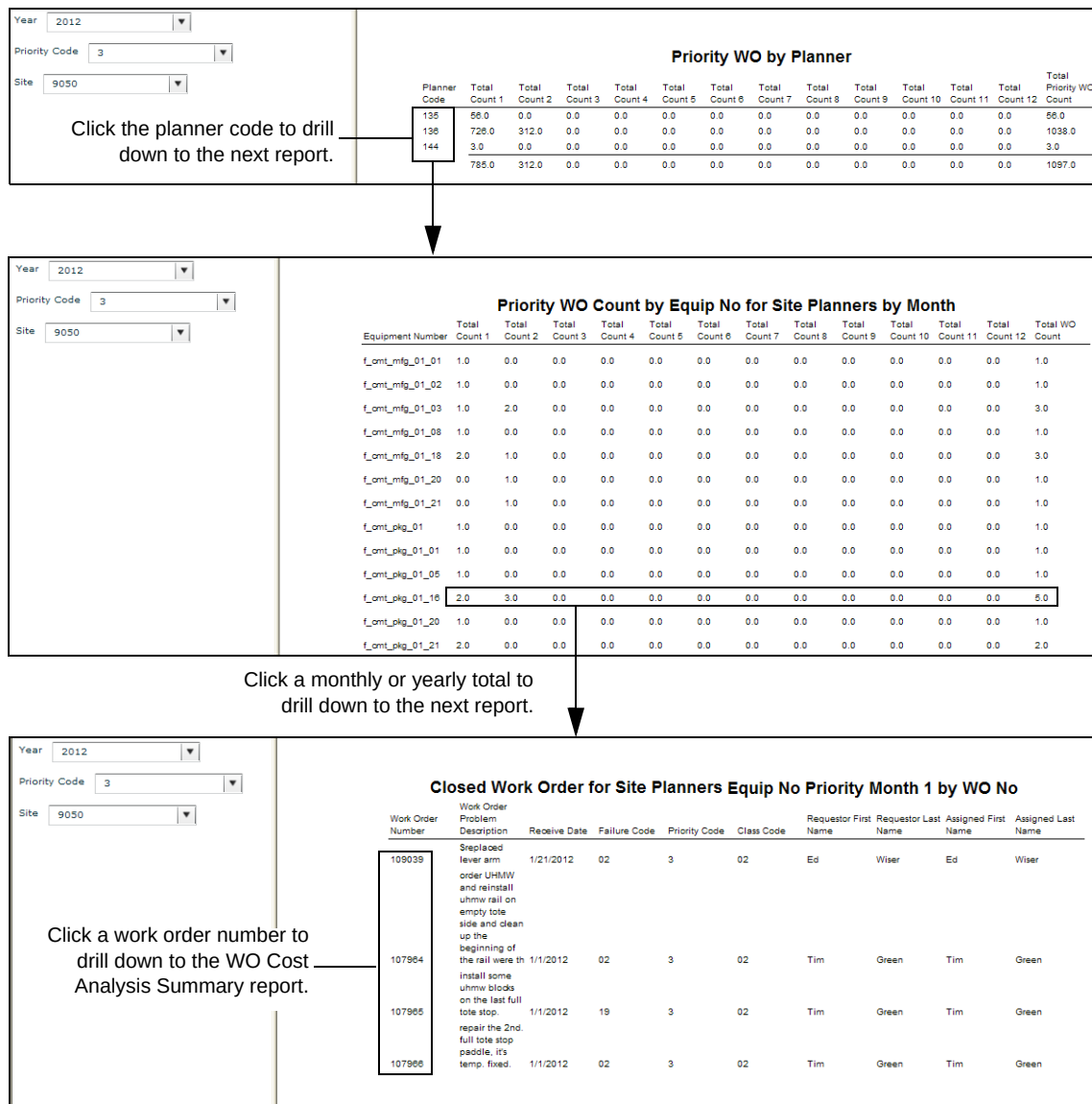
- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Planner Equip No Priority Month/Year by WO No

This report lists all the closed work orders for a selected equipment number, planner, and priority code. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.91
Report Navigation for Priority Work Order Count by Planner



Work Order Cost Analysis Summary Month/Year

The Work Order Cost Analysis Summary Month/Year report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period

- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.92
Work Order Cost Analysis Summary Report

Year: 2012 Priority Code: 3 Site: 9050	WO Cost Analysis Summary Mon 1 <table border="1"> <thead> <tr> <th>Work Order Number</th> <th>Equipment Number</th> <th>Equipment Description</th> <th>Material Cost Estimate</th> <th>Material Cost Actual Period</th> <th>Labor Cost Estimate</th> <th>Labor Cost Actual Period</th> <th>Contractor Cost Estimate</th> <th>Contractor Cost Actual Period</th> <th>Total Cost</th> </tr> </thead> <tbody> <tr> <td>107964</td> <td>d_pkg_tote_sys</td> <td>Tote Handling System Packaging</td> <td>0.0</td> <td>0.0</td> <td>30.0</td> <td>0.0</td> <td>0.0</td> <td>30.0</td> </tr> </tbody> </table>	Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost	107964	d_pkg_tote_sys	Tote Handling System Packaging	0.0	0.0	30.0	0.0	0.0	30.0
Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost											
107964	d_pkg_tote_sys	Tote Handling System Packaging	0.0	0.0	30.0	0.0	0.0	30.0												

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail Month/Year

The WO Material/Labor/Contract Cost Detail Month/Year reports show the transaction details for the material, labor, or contractor costs.

These reports contains the following columns:

Work Order Labor Cost Detail Month/Year	Work Order Material Cost Detail Month/Year	Work Order Contract Cost Detail Month/Year
• Employee Number • Employee Name • Total Time • Total Time totals (summary line) • Total Cost • Total Cost totals (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.93
Work Order Material/Labor/Contract Cost Detail Report

Year: 2012 Priority Code: 3 Site: 9050	WO Labor Cost Detail Mon 1 <table border="1"> <thead> <tr> <th>Employee Number</th> <th>Employee Name</th> <th>Total Time</th> <th>Total Cost</th> <th>Labor date</th> <th>Expense Site Code</th> <th>Cost Center Code</th> <th>Account Code</th> <th>Sub Account Code</th> </tr> </thead> <tbody> <tr> <td>249</td> <td>Tim Green</td> <td>2.0</td> <td>30.0</td> <td>1/30/2012</td> <td>9050</td> <td>5200</td> <td>8008040</td> <td>A</td> </tr> <tr> <td></td> <td></td> <td>2.0</td> <td>30.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Employee Number	Employee Name	Total Time	Total Cost	Labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code	249	Tim Green	2.0	30.0	1/30/2012	9050	5200	8008040	A			2.0	30.0					
Employee Number	Employee Name	Total Time	Total Cost	Labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code																				
249	Tim Green	2.0	30.0	1/30/2012	9050	5200	8008040	A																				
		2.0	30.0																									

Top 5 Failures by Work Order Count

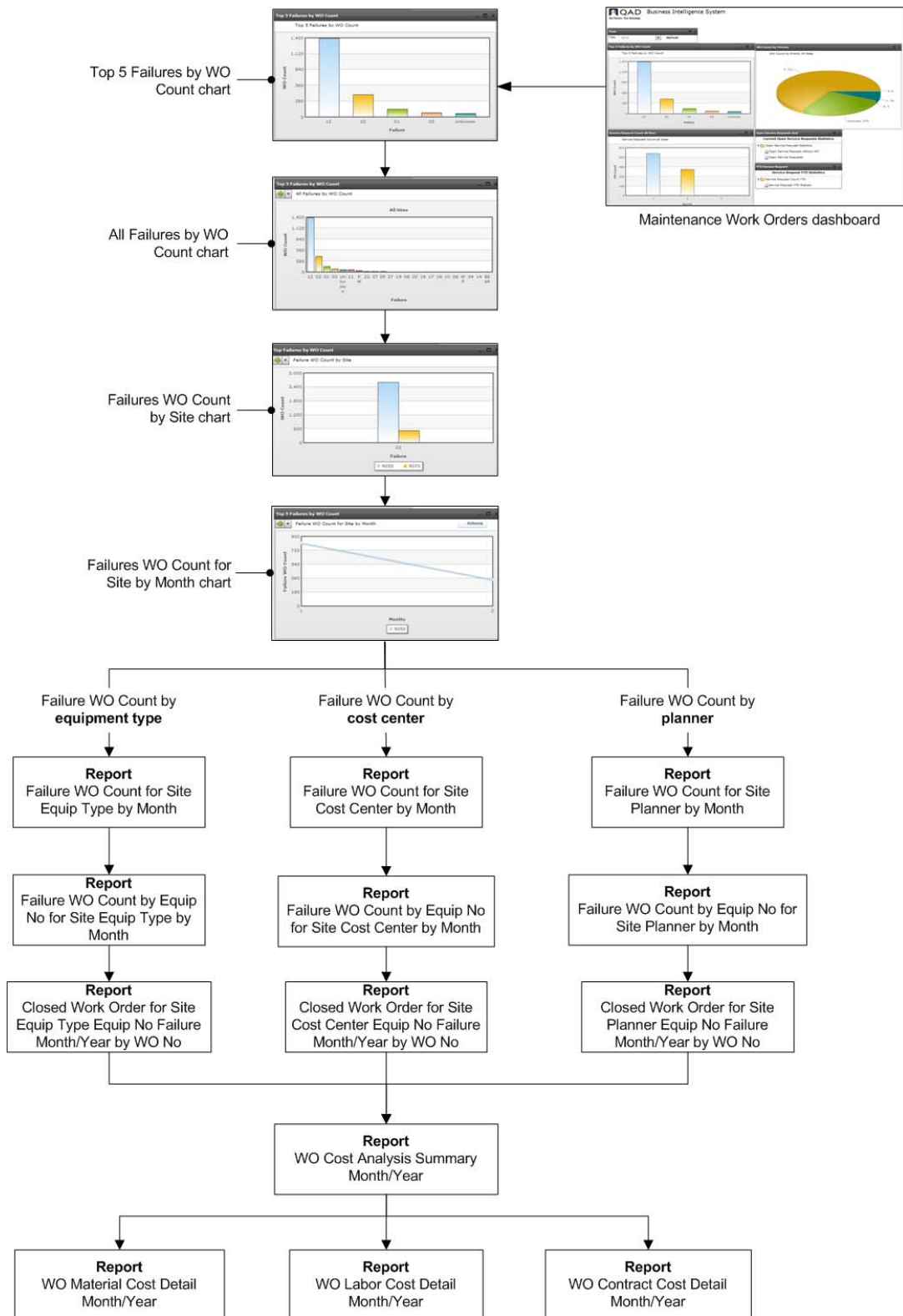
The Top 5 Failures by Work Order Count KPI allows you to monitor failure codes on work orders so that you can identify any failure trends. A high frequency of a particular failure code may suggest the need to make maintenance changes designed to address the frequently recurring failures. Closed work orders based on receipt date are included in the KPI.

From the Top 5 Failures by Work Order Count chart, you can drill down and:

- Compare the number of work orders by each failure code for all sites.
- Compare the number of work orders for a particular failure code between sites.
- Compare the number of work orders for a specific failure code and site by month.
- Analyze the number of work orders for a particular failure code by equipment type, cost center, or planner for a selected year and site.
- Analyze the number of work orders for a particular failure code by equipment number.
- Access details of closed work orders for a specific equipment number and failure code.
- Access cost analysis summary and detail for a particular work order.

Fig. 5.94

Navigation Overview for the Top 5 Failures by Work Order Count KPI



Top Failure by Work Order Count Charts

Access the Top Failure by Work Order Count charts from the Maintenance Work Orders dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Top 5 Failures by WO Count

The Top 5 Failures by WO Count chart shows the top five failure codes by work order count for all sites. The failure codes are listed in descending order.

All Failures by WO Count

The All Failures by WO Count chart shows all the failure codes by work order count for all sites. The failure codes are listed in descending order.

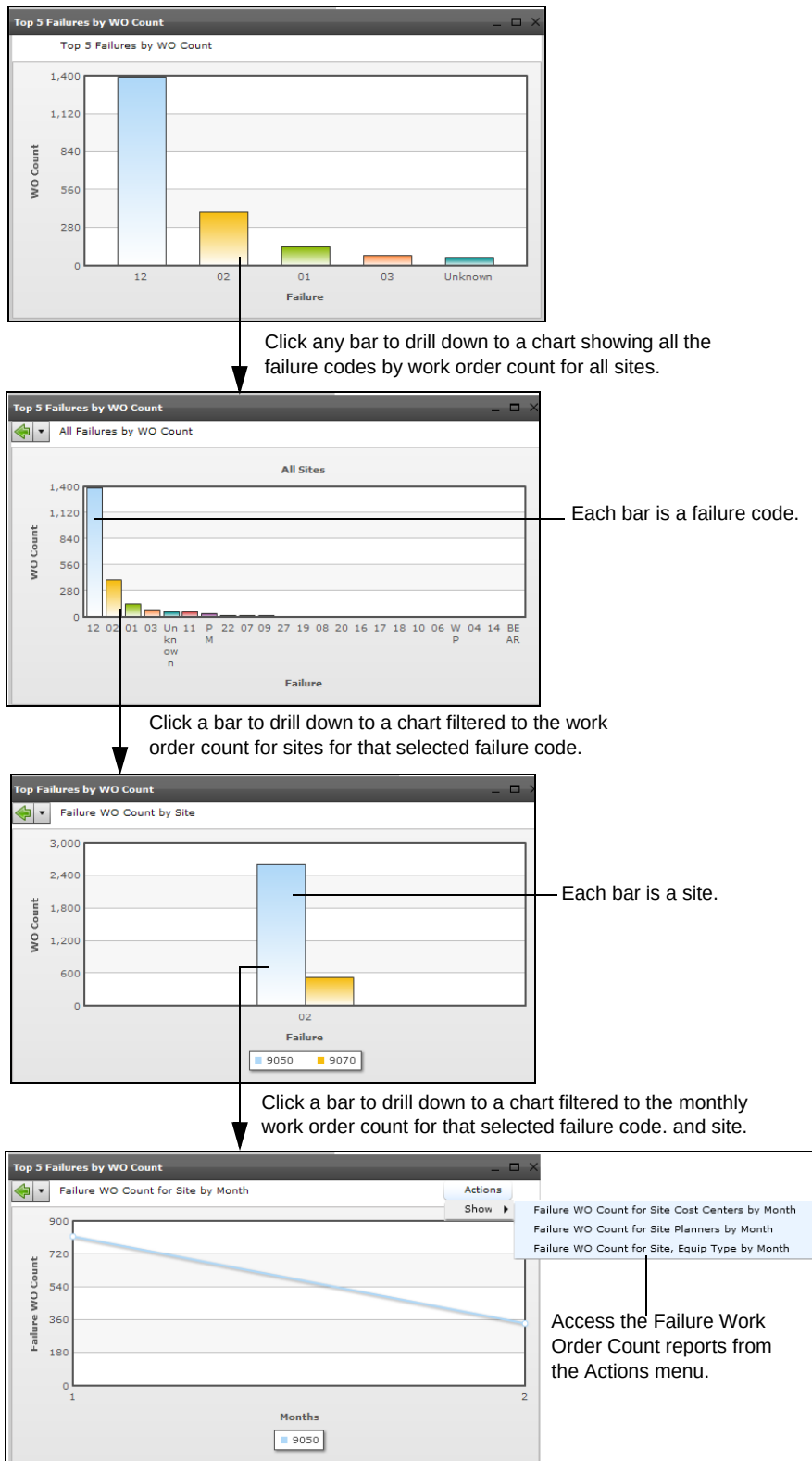
Failure WO Count by Site

The Failure WO Count by Site chart compares the work order count between sites for a selected failure code. In this chart, each bar represents a site.

Failure WO Count for Site by Month

The Failure WO Count for Site by Month line charts shows the monthly work order count for a selected failure code in a selected site. This chart is useful because you can easily see if the number of work orders for a specific failure code is increasing or decreasing from month to month.

Fig. 5.95
Navigation for the Top 5 Failures by Work Order Count Charts



Failure Work Order Count by Equipment Type Reports

Access the Failure Work Order Count reports from the Actions menu in the Failure WO Count for Site by Month chart. These reports show metrics for a selected failure code, site, and year.

Failure WO Count for Site Equip Type by Month

This report shows the monthly and yearly work order count totals by equipment type for a selected failure code. It contains the following columns:

- Equipment Type Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Failure WO Count by Equip No for Site Equip Type by Month

This report shows the monthly and yearly work order count totals by all equipment numbers for a selected equipment type and failure code. It contains the following columns:

- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Equip Type Equip No Failure Month/Year by WO No

This report lists all the closed work orders for a selected equipment number, equipment type, and failure code. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.96
Report Navigation for Failure Work Order Count by Equipment Type

Year: 2012
Site: 10-300
Failure: HYPRM

Click the equipment type code to drill down to the next report.

Equipment Type Code	Total Count 1	Total Count 2	Total Count 3	Total Count 4	Total Count 5	Total Count 6	Total Count 7	Total Count 8	Total Count 9	Total Count 10	Total Count 11	Total Count 12	Total WO Count
AHU	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
CRHST	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0

Click a monthly or yearly total to drill down to the next report.

Year: 2012
Site: 10-300
Failure: HYPRM

Equipment Number	Total Count 1	Total Count 2	Total Count 3	Total Count 4	Total Count 5	Total Count 6	Total Count 7	Total Count 8	Total Count 9	Total Count 10	Total Count 11	Total Count 12	Total WO Count
H-FOOD-001	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Click a work order number to drill down to the WO Cost Analysis Summary report.

Year: 2012
Site: 10-300
Failure: HYPRM

Work Order Number	Work Order Problem Description	Receive Date	Failure Code	Priority Code	Class Code	Requestor First Name	Requestor Last Name	Assigned First Name	Assigned Last Name
108552	RTH Griddle 2B Daily Inspection	1/11/2012	HYPRM	3	PM	Unknown	Unknown	FRANK	HARRIS

Failure Work Order Count by Cost Center Reports

Access the Failure Work Order Count reports from the Actions menu in the Failure WO Count for Site by Month chart. These reports show metrics for a selected failure code, site, and year.

Failure WO Count for Site Cost Center by Month

This report shows the monthly and yearly work order count totals by cost center for a selected failure code. It contains the following columns:

- Cost Center Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Failure WO Count by Equip No for Site Cost Center by Month

This report shows the monthly and yearly work order count totals by all equipment numbers for a selected cost center and failure code. It contains the following columns:

- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)

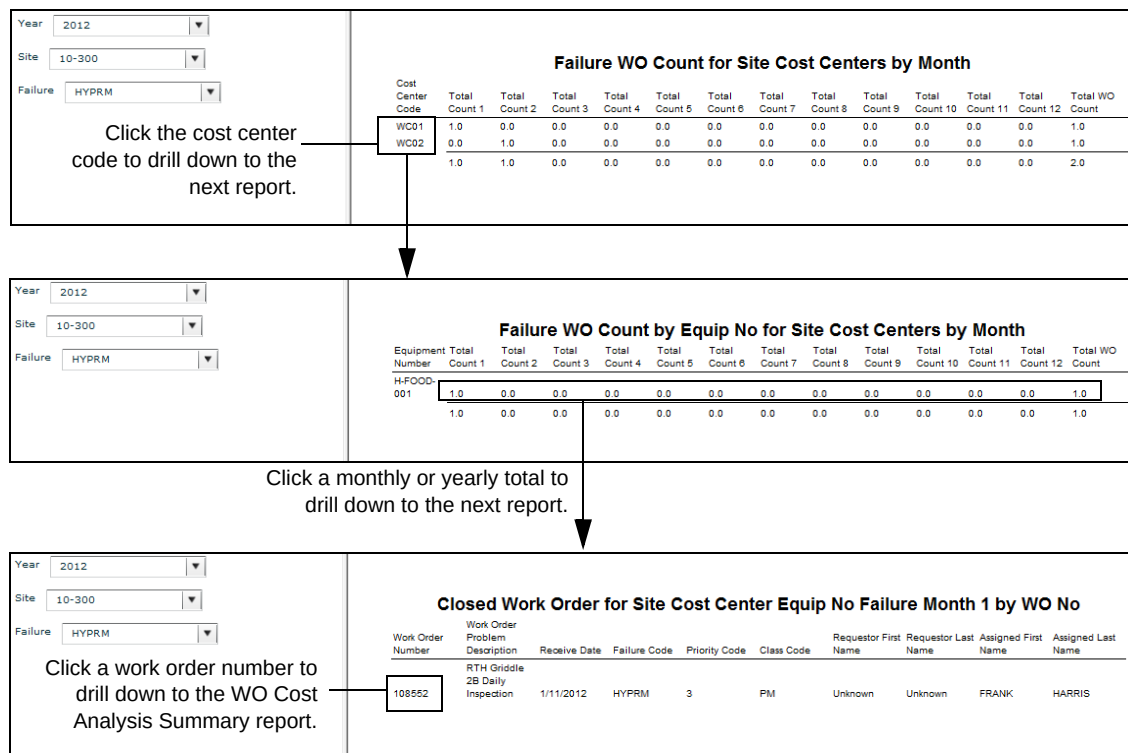
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Cost Center Equip No Failure Month/Year by WO No

This report lists all the closed work orders for a selected equipment number, cost center, and failure code. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.97
Report Navigation for Failure Work Order Count by Cost Center



Failure Work Order Count by Planner Reports

Access the Failure Work Order Count reports from the Actions menu in the Failure WO Count for Site by Month chart. These reports show metrics for a selected failure code, site, and year.

Failure WO Count for Site Planner by Month

This report shows the monthly and yearly work order count totals by planner for a selected failure code. It contains the following columns:

- Planner Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Failure WO Count by Equip No for Site Planner by Month

This report shows the monthly and yearly work order count totals by all equipment numbers for a selected planner and failure code. It contains the following columns:

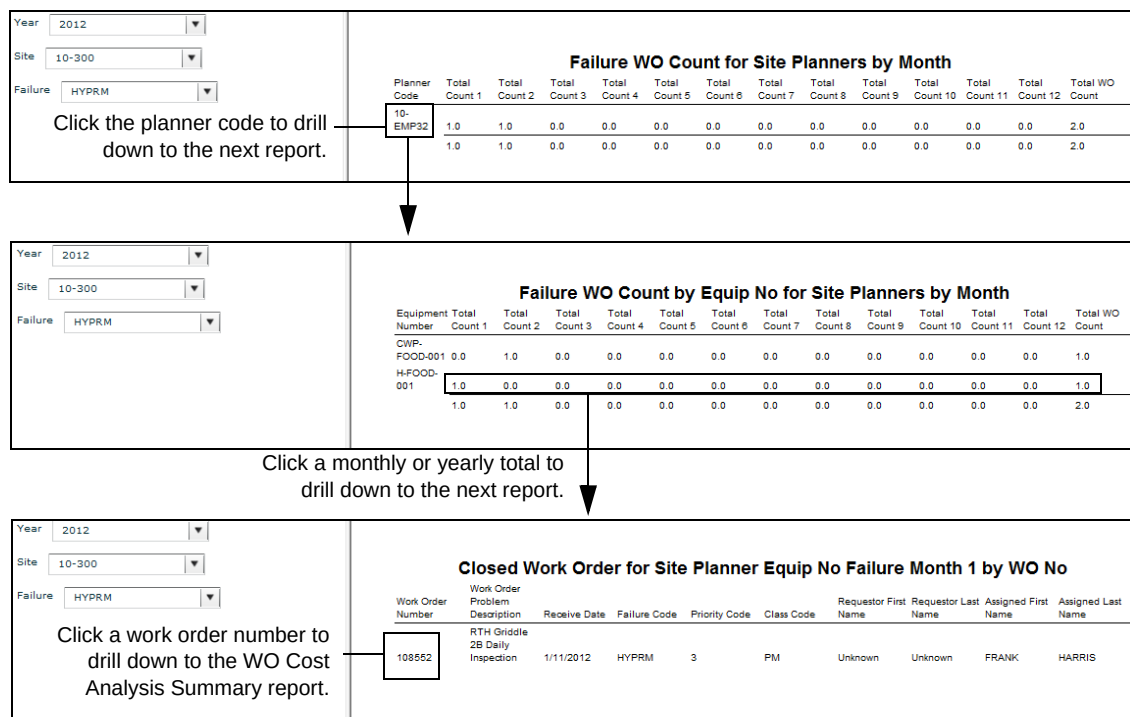
- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Order for Site Planner Equip No Failure Month/Year by WO No

This report lists all the closed work orders for a selected equipment number, planner, and failure code. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Receive Date
- Failure Code
- Priority Code
- Class Code
- Requestor First/Last Name
- Assigned First/Last Name

Fig. 5.98
Report Navigation for Failure Work Order Count by Planner



Work Order Cost Analysis Summary Month/Year

The Work Order Cost Analysis Summary Month/Year report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.99
Work Order Cost Analysis Summary Report

Year: 2012	WO Cost Analysis Summary Year <table border="1"> <thead> <tr> <th>Work Order Number</th> <th>Equipment Number</th> <th>Equipment Description</th> <th>Material Cost Estimate</th> <th>Material Cost Actual Period</th> <th>Labor Cost Estimate Period</th> <th>Labor Cost Actual Period</th> <th>Contractor Cost Estimate Period</th> <th>Contractor Cost Actual Period</th> <th>Total Cost</th> </tr> </thead> <tbody> <tr> <td>110390</td> <td>f_fac_air_01</td> <td>1 (100 HP) Compressor</td> <td>0.0</td> <td>0.0</td> <td>20.0</td> <td>0.0</td> <td>0.0</td> <td>20.0</td> </tr> </tbody> </table>	Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate Period	Labor Cost Actual Period	Contractor Cost Estimate Period	Contractor Cost Actual Period	Total Cost	110390	f_fac_air_01	1 (100 HP) Compressor	0.0	0.0	20.0	0.0	0.0	20.0
Work Order Number		Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate Period	Labor Cost Actual Period	Contractor Cost Estimate Period	Contractor Cost Actual Period	Total Cost										
110390		f_fac_air_01	1 (100 HP) Compressor	0.0	0.0	20.0	0.0	0.0	20.0											
Site: 9050																				
Failure: 12																				

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail Month/Year

The WO Material/Labor/Contract Cost Detail Month/Year reports show the transaction details for the material, labor, or contractor costs.

These reports contain the following columns:

Work Order Labor Cost Detail Month/Year	Work Order Material Cost Detail Month/Year	Work Order Contract Cost Detail Month/Year
- Employee Number - Employee Name - Total Time - Total Time totals (summary line) - Total Cost - Total Cost totals (summary line) - Labor Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Material Cost Actual - Material Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Contractor Cost Actual - Contractor Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code

Fig. 5.100
Work Order Material/Labor/Contract Cost Detail Report

Year: 2012	WO Labor Cost Detail Mon 1 <table border="1"> <thead> <tr> <th>Employee Number</th> <th>Employee Name</th> <th>Total Time</th> <th>Total Cost</th> <th>labor date</th> <th>Expense Site Code</th> <th>Cost Center Code</th> <th>Account Code</th> <th>Sub Account Code</th> </tr> </thead> <tbody> <tr> <td>224</td> <td>Anthony Mullins</td> <td>3.0</td> <td>36.0</td> <td>1/28/2012</td> <td>9050</td> <td>5200</td> <td>8008040</td> <td>A</td> </tr> <tr> <td></td> <td></td> <td>3.0</td> <td>36.0</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Employee Number	Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code	224	Anthony Mullins	3.0	36.0	1/28/2012	9050	5200	8008040	A			3.0	36.0					
Employee Number		Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code																			
224		Anthony Mullins	3.0	36.0	1/28/2012	9050	5200	8008040	A																			
		3.0	36.0																									
Site: 9050																												
Failure: 12																												

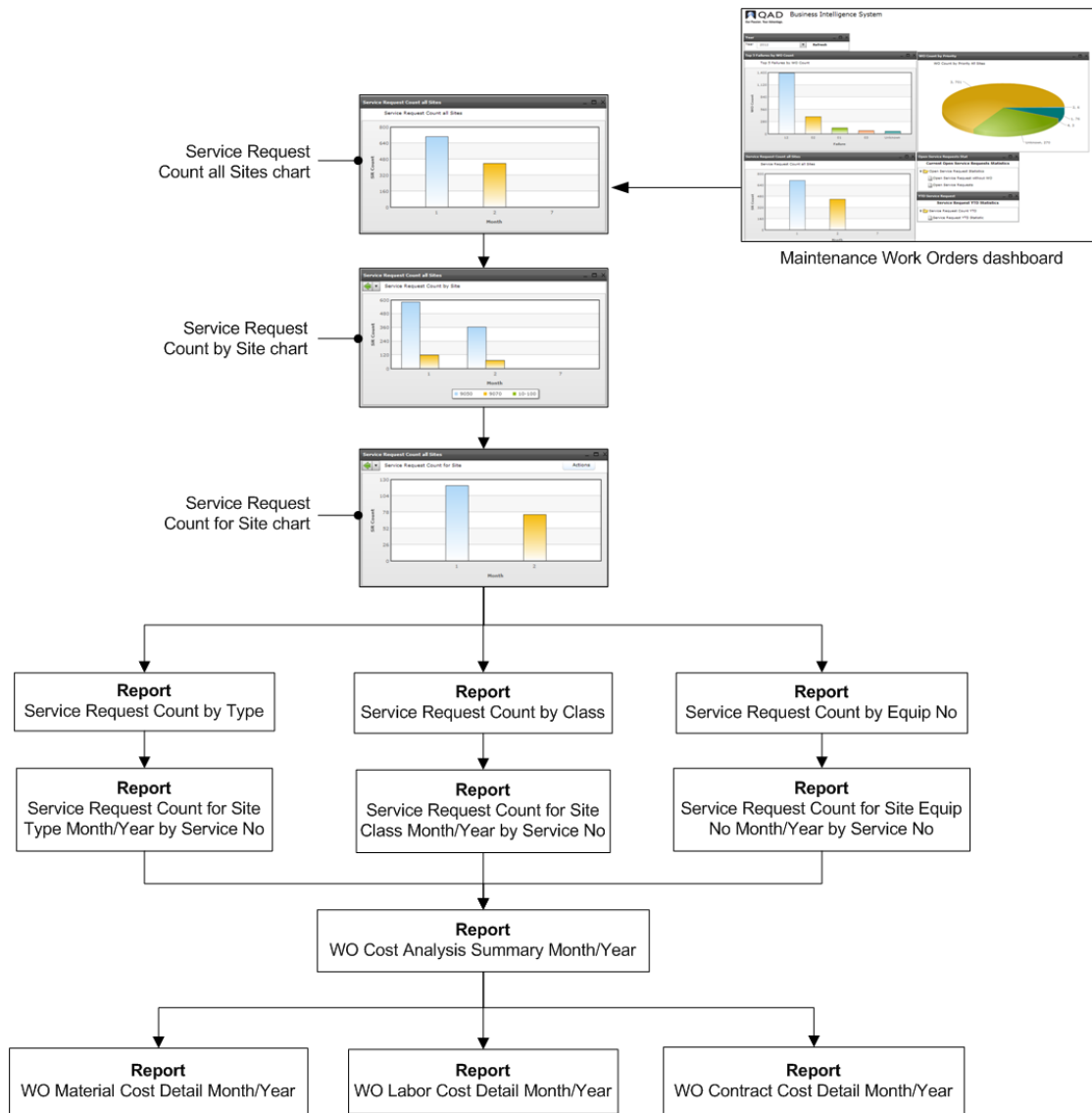
Service Request Count

The Service Request Count KPI allows you to monitor how many, what types, and which specific pieces of equipment drive work order requests in the plant. This information enables the maintenance department to more effectively focus their resources on trouble areas.

From the Service Request Count chart, you can drill down and:

- Compare the monthly count of service requests between sites.
- Compare the monthly count of service requests for a specific site and year.
- Analyze a monthly or yearly count of service request reports by type, class or equipment number for a specific site.
- Analyze a list of service requests with details for a specific type, class, or equipment number and site.
- Analyze cost analysis summary and details for work orders generated from service requests.

Fig. 5.101
Navigation Overview for the Service Request Count KPI



Service Request Count Charts

Access the Service Request Count charts from the Maintenance Work Orders dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Service Request Count All Sites

The Service Request Count All Sites chart shows the monthly count of service requests for all sites.

Service Request Count by Site

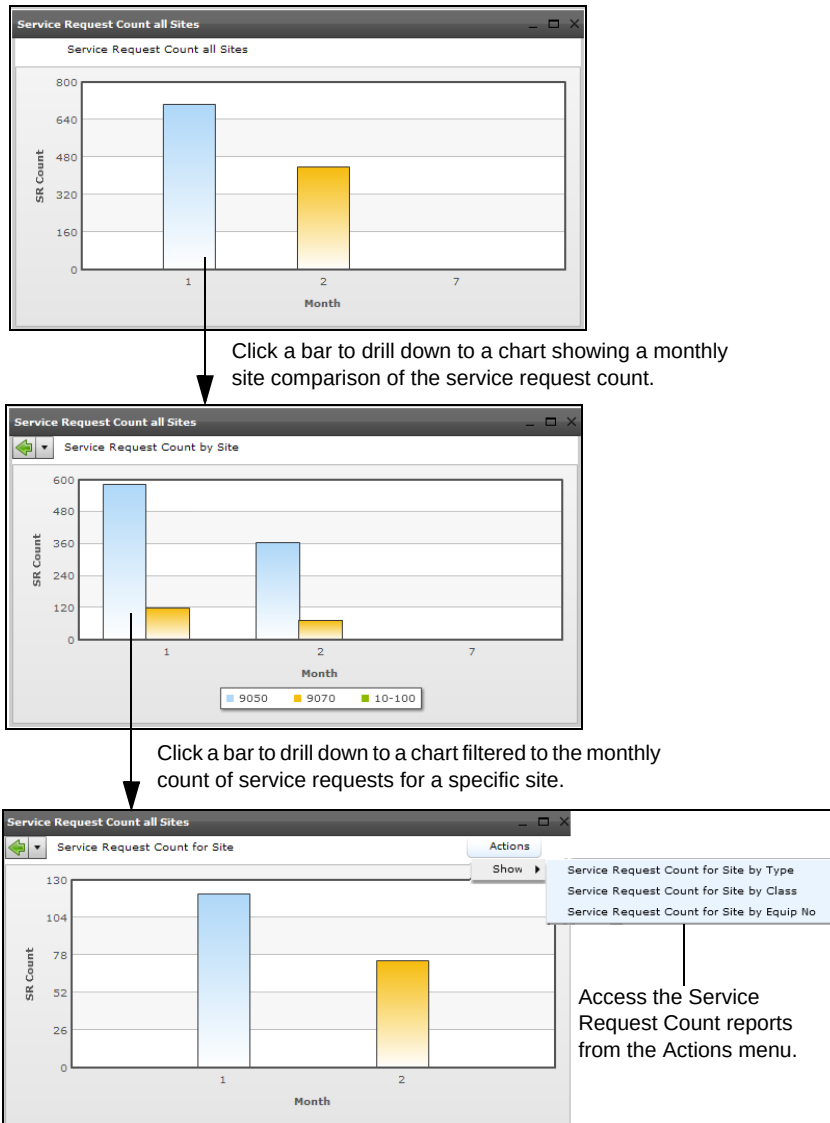
The Service Request Count by Site shows a monthly site comparison of the service request count.

Service Request Count for Site

The Service Request Count for Site chart shows the monthly count of service requests for a specific site.

Fig. 5.102

Navigation for the Service Request Count Charts



Service Request Count by Type Reports

Access the Service Request Count reports from the Actions menu in the Service Request Count for Site chart. These reports show metrics for a selected site and year.

Service Request Count for Site by Type

This report shows the monthly and yearly count of all types of service requests in a selected site. It contains the following columns:

- Service Request Type
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Count
- Total Count totals (summary line)

Service Request Count for Site Type Month/Year by Service No

This report lists all the service requests of a specific type in the month or year. It contains the following columns:

- Service Request Number
- Service Request Status Code
- Service Request Problem
- Originator First/Last Name
- Originated Date
- Equipment Number
- Class Code
- Work Order Number

Fig. 5.103

Report Navigation for Service Request Count by Type

Service Request Count for Site by Type

Service Request Type	Total Count 1	Total Count 2	Total Count 3	Total Count 4	Total Count 5	Total Count 6	Total Count 7	Total Count 8	Total Count 9	Total Count 10	Total Count 11	Total Count 12	Total Count
FT	583	364	0	0	0	0	0	0	0	0	0	0	947.0
	583	364	0	0	0	0	0	0	0	0	0	0	947.0

Click the monthly or yearly count to drill down to the next report.

Service Request Count for Site Type Mon 1 by Service No

Service Request Number	Service Request Status Code	Service Request Problem	Originator First Name	Originator Last Name	originated date	Equipment Number	Class Code	Work Order Number
11336	O	\$ Replace the filters they are clogged up part # 1820 it takes 21 bags for this job Loop FC1-H2	Unknown	Unknown	1/31/2012	f_rtb_ftr_01_07	Unknown	109530
11337	O	water leak on pipe feeding auto-purger and eye wash station	Unknown	Unknown	1/31/2012	f_fac	Unknown	109531
11338	O	Sight glass going to work bins needs to be cleaned so operators can see the flour moving in it.	Unknown	Unknown	1/31/2012	f_rtb_ftr_01_23	Unknown	109532
11694	O	heaters	Unknown	Unknown	1/31/2012	f_ref_01_32.1	Unknown	109578
11695	O	Remove and replace broken links 2 hours.	Unknown	Unknown	1/31/2012	f_rth_cool_05_03	Unknown	109582
11756	O	Remove and replace 19 pin female cable. new cable is on Ralph Knollenbergs toolbox.	Unknown	Unknown	1/31/2012	f_rth_grid_05_01	Unknown	109583

Click a work order number to drill down to the WO Cost Analysis Summary report.

Service Request Count by Class Reports

Access the Service Request Count reports from the Actions menu in the Service Request Count for Site chart. These reports show metrics for a selected site and year.

Service Request Count for Site by Class

This report shows the monthly and yearly count of all classes of service requests in a selected site. It contains the following columns:

- Class Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Count
- Total Count totals (summary line)

Service Request Count for Site Class Month/Year by Service No

This report lists all the service requests of a specific class in the month or year. It contains the following columns:

- Service Request Number
- Service Request Status Code
- Service Request Problem
- Originator First/Last Name
- Originated Date
- Equipment Number
- Type Code
- Work Order Number

Fig. 5.104

Report Navigation for Service Request Count by Class

Year:
 Site:

Service Request for Site by Class													
Class Code	Total Count 1	Total Count 2	Total Count 3	Total Count 4	Total Count 5	Total Count 6	Total Count 7	Total Count 8	Total Count 9	Total Count 10	Total Count 11	Total Count 12	Total Count
Unknown	583	364	0	0	0	0	0	0	0	0	0	0	947.0
	583	364	0	0	0	0	0	0	0	0	0	0	947.0

Click the monthly or yearly count to drill down to the next report.

Year:
 Site:

Service Request Count for Site Class Mon 2 by Service No									
Service Request Number	Service Request Status Code	Service Request Problem	Originator First Name	Originator Last Name	originated date	Equipment Number	Service Request Type	Work Order Number	
17147	O	belt	Unknown	Unknown	2/19/2012	d_ref_gen	FT	110633	
16922	O	\$ Replaced a shorted photo eye # 0165.	Unknown	Unknown	2/19/2012	f_pal_02_12	FT	110609	
16925	O	Order 200 feet of 3 wire SO Cord. This will be used to hard wire the fans. Fabricate, see RSwift for drawing. Need 6 total.	Unknown	Unknown	2/19/2012	f_rfb_sht	FT	110612	
17145	O	\$ Replaced a burnt motor contactor on line # 2 part# 0517.	Unknown	Unknown	2/19/2012	f_omt	FT	110630	
16921	O	Please change the motor. It is overheating and noisy at different times when running. Please check	Unknown	Unknown	2/19/2012	f_rfb_sht_02_13	FT	110607	
17146	O		Unknown	Unknown	2/19/2012	f_rfb_rtr_01_10	FT	110632	

Click a work order number to drill down to the WO Cost Analysis Summary report.

Service Request Count by Equip No Reports

Access the Service Request Count reports from the Actions menu in the Service Request Count for Site chart. These reports show metrics for a selected site and year.

Service Request Count for Site by Equip No

This report shows the monthly and yearly count of service requests for all equipment number in a selected site. It contains the following columns:

- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total Count
- Total Count totals (summary line)

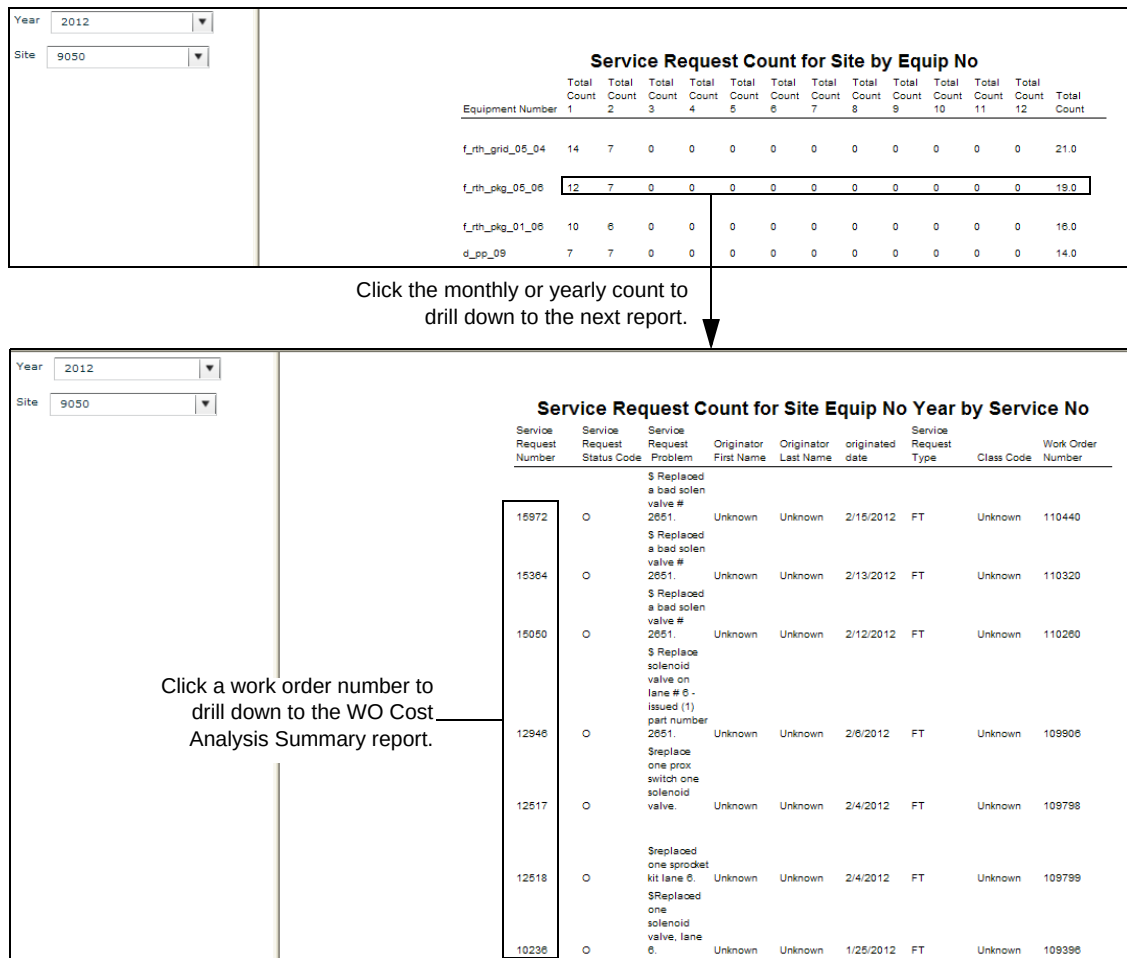
Service Request Count for Site Equip No Month/Year by Service No

This report lists all the service requests for a specific equipment number in the month or year. It contains the following columns:

- Service Request Number
- Service Request Status Code
- Service Request Problem

- Originator First/Last Name
- Originated Date
- Type Code
- Class Code
- Work Order Number

Fig. 5.105
Report Navigation for Service Request Count by Equip No



Work Order Cost Analysis Summary Month/Year

The Work Order Cost Analysis Summary Month/Year report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate

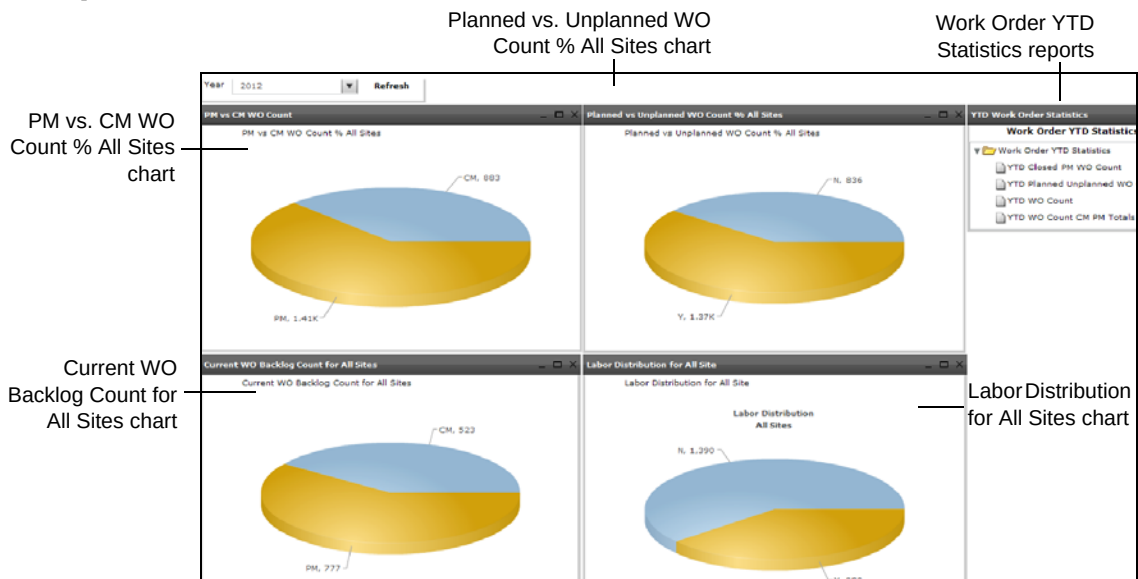
PM Compliance

The PM Compliance dashboard provides the measures to assess proactive activity in the maintenance department and compliance with PM goals. The PM vs. CM and Planned and Unplanned Work Order KPIs can be directly compared for all sites, showing that not all CM work orders are reactive. These individual KPIs, using closed work orders, can be used to drill in to more analysis of the areas to move to PM. You can use the associated Labor Distribution KPIs and the focused measure of unplanned labor to identify trends in labor distribution where unplanned labor can be reduced. You can also assess the proactive maintenance activity by using the Current WO Backlog snapshot of open PM and CM work orders.

The PM Compliance dashboard provides the following KPIs and reports:

- **Overall PM Compliance.** See “Overall PM Compliance” on page 228.
- **Labor Distribution All Sites.** See “Planned vs. Unplanned Labor” on page 228.
- **Planned vs. Unplanned WO Count % All Sites.** See “Planned vs. Unplanned Work Orders” on page 239.
- **PM vs. CM WO Count % All Sites.** See “PM vs. CM Work Orders” on page 249.
- **Current WO Backlog Count All Sites.** See “Current Work Order Backlog Count for All Sites” on page 259.
- **YTD Closed PM Work Order Report.** See “YTD Closed PM Work Order Count Report” on page 259.
- **YTD Planned and Unplanned WO Count Report.** See “YTD Planned and Unplanned WO Count Report” on page 260.
- **YTD Work Order Count Report.** See “YTD Work Order Count Report” on page 260.
- **YTD Work Order Count CM PM Totals Report.** See “YTD Work Order Count CM PM Totals Report” on page 260.

Fig. 5.111
PM Compliance Dashboard

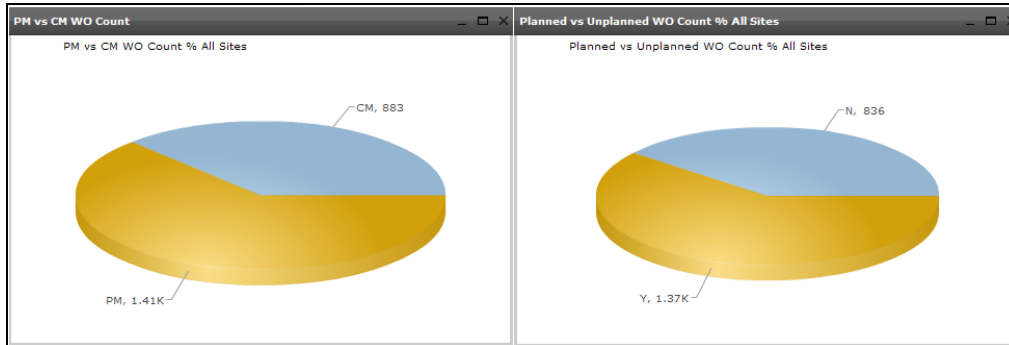


Overall PM Compliance

Compare the PM vs. CM KPI and the Planned vs. Unplanned WO KPIs charts. These charts allow you to compare the number of CM/PM work orders with planned/unplanned work orders. When there is a greater number of CM work orders than unplanned work orders, it shows that not all CM work orders are reactive to some type of breakdown or failure.

Fig. 5.112

Comparison of the PM vs. CM WO Count and the Planned vs. Unplanned WO Count Charts



Planned vs. Unplanned Labor

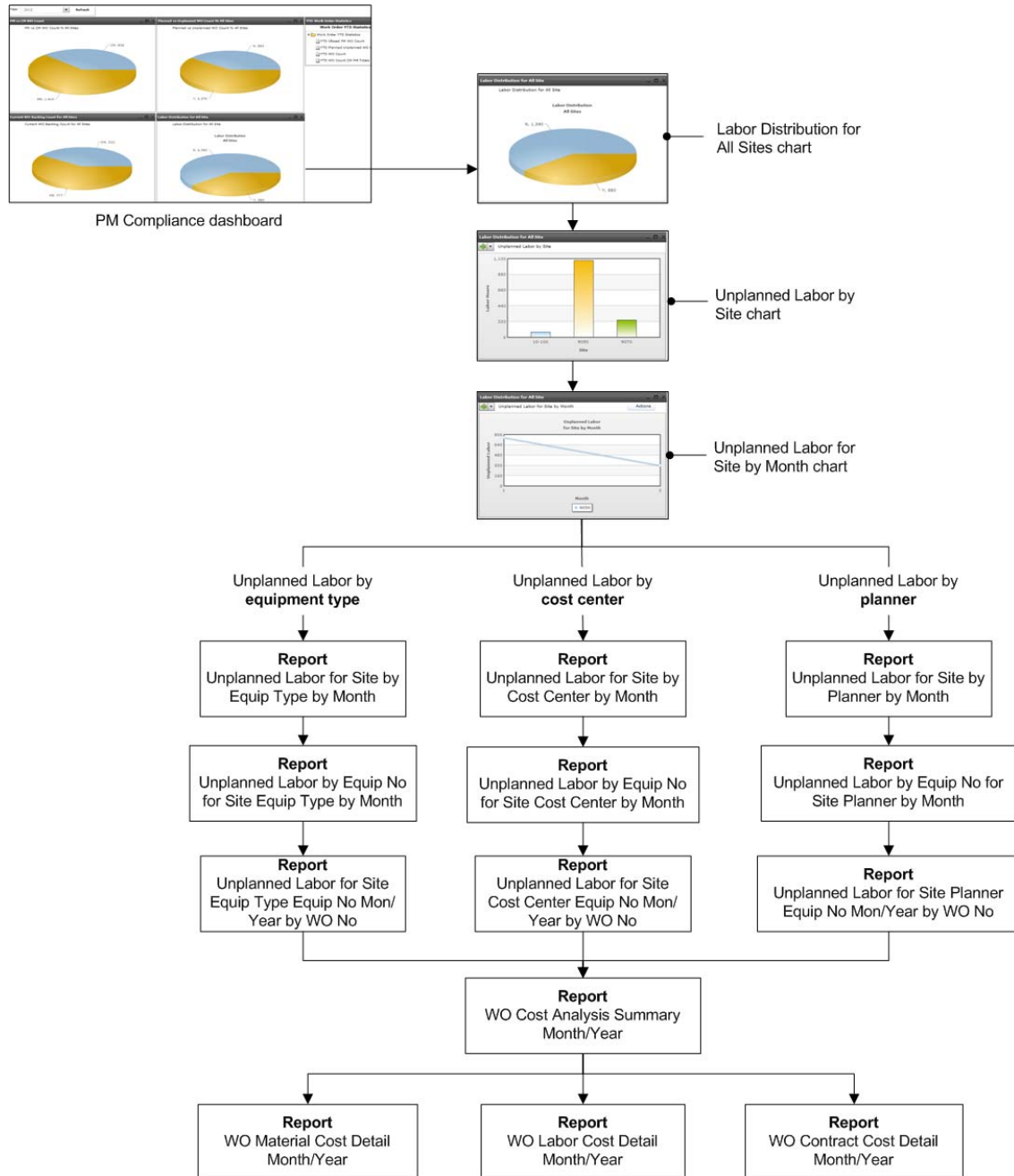
The Planned vs. Unplanned Labor KPI allows you to monitor labor costs. Reporting these expenses is useful in identifying trends in labor distribution and situations where unplanned labor could be reduced through improvements in planning and management. Closed work orders based on receipt date are included in the KPI.

From the Labor Distribution for All Sites chart, you can drill down and:

- Compare the total number of unplanned actual labor hours between sites.
- Analyze the monthly fluctuations of actual unplanned labor hours for a specific site.
- Access a list of all equipment types, cost centers, or planners with unplanned actual labor hours for a particular site.
- Access the details of actual unplanned labor hours for individual pieces of equipment filtered by equipment type, cost centers, planners, site, and year.
- Access a list of closed work orders for a specific equipment type, cost center, or planner and piece of equipment in a selected site.
- Access work order summary and detail cost analysis.

Fig. 5.113

Navigation Overview for the Planned vs. Unplanned Labor KPI



Labor Distribution All Sites Charts

Access the Labor Distribution All Sites charts from the PM Compliance dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Labor Distribution for All Sites

The Labor Distribution for All Sites pie chart shows the total count and percentage of planned and unplanned labor hours for all sites. In this chart, N represents unplanned labor hours and Y represents planned labor hours.

Unplanned Labor by Site

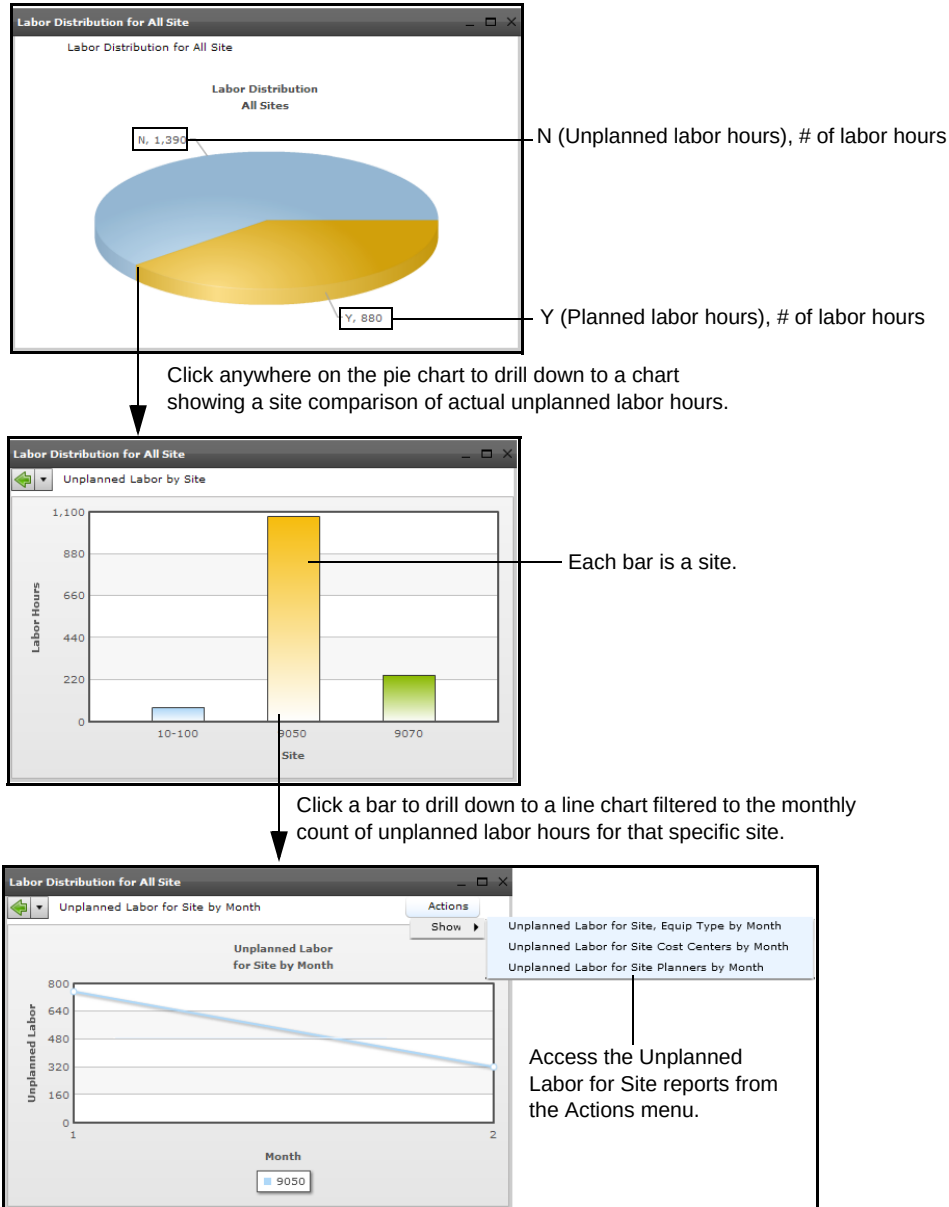
The Unplanned Labor by Site shows a site comparison of actual unplanned labor hours.

Unplanned Labor for Site by Month

The Unplanned Labor for Site by Month line graph shows the monthly count of unplanned labor hours for a specific site. This chart is useful because you can easily see if the number of unplanned labor hours is increasing or decreasing from month to month.

Fig. 5.114

Navigation for the Labor Distribution All Sites Charts



Unplanned Labor for Site by Equip Type Reports

Access the Unplanned Labor for Site reports from the Actions menu in the Unplanned Labor for Site by Month chart. These reports show metrics for a selected site and year.

Unplanned Labor for Site by Equip Type by Month

This report shows the monthly and yearly totals of unplanned labor hours for all equipment types. It contains the following columns:

- Equipment Type Code

- Labor Hours Actual 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Actual 1-12 totals (summary line)
- Total Labor Hrs
- Total Labor Hrs totals (summary line)

Unplanned Labor by Equip No for Site Equip Type by Month

This report shows the monthly and yearly totals of unplanned labor hours for all equipment numbers for a specific equipment type. It contains the following columns:

- Equipment Number
- Labor Hours Actual 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Actual 1-12 totals (summary line)
- Total Labor Hrs
- Total Labor Hrs totals (summary line)

Unplanned Labor for Site Equip Type Equip No Month/Year by WO No

This report lists all the work orders with details for a specific equipment number in a selected month or year. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Failure Description
- Requestor First/Last Name
- Receive Date
- Labor Hours Actual
- Labor Cost Actual

Fig. 5.115
Report Navigation for Unplanned Labor for Site by Equipment Type

Year: 2012
Site: 9050

Unplanned Labor for 2012 - Site 9050 by Equip Types by Month

Equipment Type Code	Labor Hours Actual 1	Labor Hours Actual 2	Labor Hours Actual 3	Labor Hours Actual 4	Labor Hours Actual 5	Labor Hours Actual 6	Labor Hours Actual 7	Labor Hours Actual 8	Labor Hours Actual 9	Labor Hours Actual 10	Labor Hours Actual 11	Labor Hours Actual 12	Total Labor Hrs
FAC	88.58	30.41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	118.99
FS	22.92	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.92
FT	18.83	6.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.08
HVAC	12.75	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.75
Maint	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P	533.43	261.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	794.92
Print	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
PS	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
R	28.59	9.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.76
Unknown	46.37	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.37
	753.47	320.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1073.79

Click the equipment type code to drill down to the next report.

Year: 2012
Site: 9050

Unplanned Labor by Equip No for Site, Equip Type by Month

Equipment Number	Labor Hours Actual 1	Labor Hours Actual 2	Labor Hours Actual 3	Labor Hours Actual 4	Labor Hours Actual 5	Labor Hours Actual 6	Labor Hours Actual 7	Labor Hours Actual 8	Labor Hours Actual 9	Labor Hours Actual 10	Labor Hours Actual 11	Labor Hours Actual 12	Total Labor Hrs
f_omt_skg_01_13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_fac_air_03	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
f_omt_mfg_01_04	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
f_omt_sht_01_27	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
f_omt_sht_01_03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_omt_skg_01_14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_fac_air_08	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
f_omt_skg_01_04	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0

Click a monthly or yearly total to drill down to the next report.

Year: 2012
Site: 9050

Unplanned Labor for Site Equip Type Equip No Mon 1 by WO No

Work Order Number	Work Order Problem Description	Failure Description	Requestor First Name	Requestor Last Name	Receive Date	Labor Hours Actual	Labor Cost Actual
109135	Beltting has some broken links. Replace broken links with new ones. This conveyor has a new upgrade	Mechanical	Jim	Short	1/22/2012	3.0	90.0
108861	\$ Line 2 A conveyor faulted out VFD overcurrent, checked motor, ohmed out everything-- OK, reset a	Electrical	Steve	Schneid	1/17/2012	2.0	40.0
108794	\$ Line 2 A conveyor faulted out VFD overcurrent, checked motor, ohmed out everything-- OK, reset a	Electrical	Mark	Justice	1/16/2012	13.0	260.0

Click a work order number to drill down to the WO Cost Analysis Summary report.

Unplanned Labor for Site by Cost Center Reports

Access the Unplanned Labor for Site reports from the Actions menu in the Unplanned Labor for Site by Month chart. These reports show metrics for a selected site and year.

Unplanned Labor for Site by Cost Center by Month

This report shows the monthly and yearly totals of unplanned labor hours for all cost center. It contains the following columns:

- Cost Center Code

- Labor Hours Actual 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Actual 1-12 totals (summary line)
- Total Labor Hrs
- Total Labor Hrs totals (summary line)

Unplanned Labor by Equip No for Site Cost Center by Month

This report shows the monthly and yearly totals of unplanned labor hours for all equipment numbers for a specific cost center. It contains the following columns:

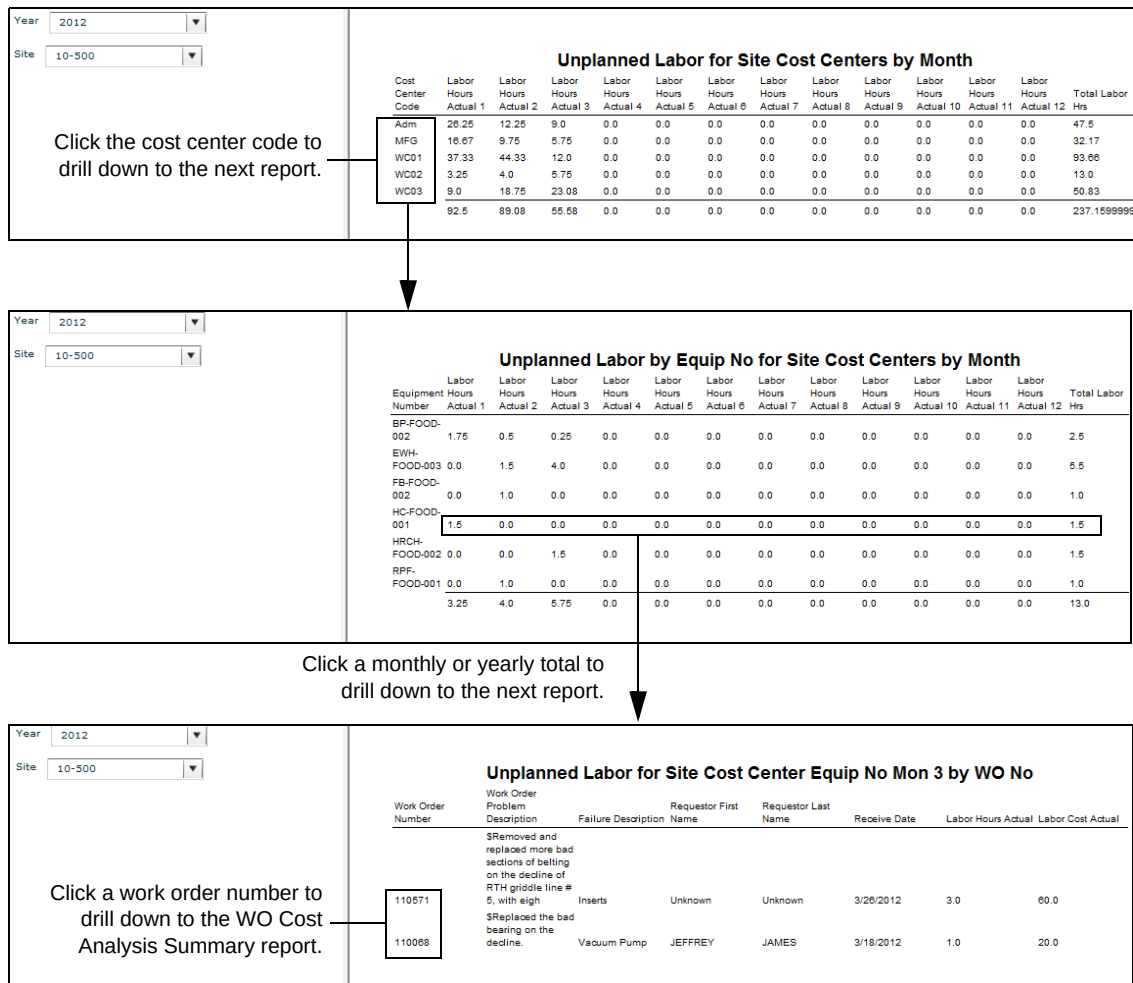
- Equipment Number
- Labor Hours Actual 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Actual 1-12 totals (summary line)
- Total Labor Hrs
- Total Labor Hrs totals (summary line)

Unplanned Labor for Site Cost Center Equip No Month/Year by WO No

This report lists all the work orders with details for a specific equipment number in a selected month or year. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Failure Description
- Requestor First/Last Name
- Receive Date
- Labor Hours Actual
- Labor Cost Actual

Fig. 5.116
Report Navigation for Unplanned Labor for Site by Cost Center



Unplanned Labor for Site by Planner Reports

Access the Unplanned Labor for Site reports from the Actions menu in the Unplanned Labor for Site by Month chart. These reports show metrics for a selected site and year.

Unplanned Labor for Site by Planner by Month

This report shows the monthly and yearly totals of unplanned labor hours for all planners. It contains the following columns:

- Planner Code
- Labor Hours Actual 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Actual 1-12 totals (summary line)
- Total Labor Hrs
- Total Labor Hrs totals (summary line)

Unplanned Labor by Equip No for Site Planner by Month

This report shows the monthly and yearly totals of unplanned labor hours for all equipment numbers for a specific planner. It contains the following columns:

- Equipment Number
- Labor Hours Actual 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Labor Hours Actual 1-12 totals (summary line)
- Total Labor Hrs
- Total Labor Hrs totals (summary line)

Unplanned Labor for Site Planner Equip No Month/Year by WO No

This report lists all the work orders with details for a specific equipment number in a selected month or year. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Failure Description
- Requestor First/Last Name
- Receive Date
- Labor Hours Actual
- Labor Cost Actual

Fig. 5.117

Report Navigation for Unplanned Labor for Site by Planner

Year: 2012
Site: 10-500

Click the planner code to drill down to the next report.

Planner Code	Labor Hours Actual 1	Labor Hours Actual 2	Labor Hours Actual 3	Labor Hours Actual 4	Labor Hours Actual 5	Labor Hours Actual 6	Labor Hours Actual 7	Labor Hours Actual 8	Labor Hours Actual 9	Labor Hours Actual 10	Labor Hours Actual 11	Labor Hours Actual 12	Total Labor Hrs
10-EMP27	42.0	26.25	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	89.25
10-EMP32	50.5	62.83	34.58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	147.91
	92.5	89.08	55.58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	237.16

Click a monthly or yearly total to drill down to the next report.

Year: 2012
Site: 10-500

Equipment Number	Labor Hours Actual 1	Labor Hours Actual 2	Labor Hours Actual 3	Labor Hours Actual 4	Labor Hours Actual 5	Labor Hours Actual 6	Labor Hours Actual 7	Labor Hours Actual 8	Labor Hours Actual 9	Labor Hours Actual 10	Labor Hours Actual 11	Labor Hours Actual 12	Total Labor Hrs
CHHEX-FOOD-002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HEF-CANN-001	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
CH-FOOD-001	3.5	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
FFH-BOTT-001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Click a work order number to drill down to the WO Cost Analysis Summary report.

Year: 2012
Site: 10-500

Work Order Number	Work Order Problem Description	Failure Description	Requestor First Name	Requestor Last Name	Receive Date	Labor Hours Actual	Labor Cost Actual
110560	Replaced knife retainer parts and RTD probe.	I/O's	JEFFREY	JAMES	3/26/2012	0.0	0.0
107126	Replaced platen cylinder	Trim Burns	MAX	HUNT	1/27/2012	2.0	40.0
106672	retainer not holding knife in place.	Heater Band	BRAD	NIX	1/16/2012	2.0	40.0

Work Order Cost Analysis Summary Month/Year

The Work Order Cost Analysis Summary Month/Year report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period
- Total Cost

Fig. 5.118
Work Order Cost Analysis Summary Report

Year: 2012

Site: 9050

WO Cost Analysis Summary Mon 1

Work Order Number	Equipment Number	Material Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost
F Conveyor									
109135	f_rh_cool_02_06	2 RTH	0.0	0.0	0.0	90.0	0.0	0.0	90.0

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail Month/Year

The WO Material/Labor/Contract Cost Detail Month/Year reports show the transaction details for the material, labor, or contractor costs.

Note Because this report shows the cost detail for backlog work orders, cost does not occur until work starts.

These reports contains the following columns:

Work Order Labor Cost Detail Month/Year	Work Order Material Cost Detail Month/Year	Work Order Contract Cost Detail Month/Year
- Employee Number - Employee Name - Total Time - Total Time totals (summary line) - Total Cost - Total Cost totals (summary line) - Labor Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Material Cost Actual - Material Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code	- Part Number - Part Description - Quantity - Unit Cost Transaction - Contractor Cost Actual - Contractor Cost Actual total (summary line) - Effective Date - Expense Site Code - Cost Center Code - Account Code - Sub Account Code

Fig. 5.119
Work Order Material/Labor/Contract Cost Detail Report

Year

2012

Site

9050

WO Labor Cost Detail Mon 1

Employee Number	Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
143	Rod Rhine	3.0	90.0	1/26/2012	9050	5200	8008040	A
		3.0	90.0					

Planned vs. Unplanned Work Orders

The Planned vs. Unplanned Work Orders KPI allows you to determine if the maintenance department is performing proactively. While the Planned vs. Unplanned Work Orders KPI is similar to the PM vs. CM Work Orders KPI, it takes into account that not all CM work orders are reactive in nature and that it is possible that planned work orders fall into the CM category. Depending on how the maintenance department classifies work orders, planned vs. unplanned work order reports can provide a more accurate measure of reactive vs. proactive work. Closed work orders based on receipt date for the year are included in the KPIs.

From the Planned vs. Unplanned WO Count % All Sites chart, you can drill down and:

- Compare the number of unplanned work orders between sites.
- Analyze the number of unplanned work orders for a specific site.
- Access the monthly unplanned work order count for a specific site, broken down by equipment type, cost center, or planner.
- Access the monthly unplanned work order count for individual pieces of equipment filtered by equipment type, cost centers, planners, site, and year.
- Access a list of closed unplanned work orders with details for the specific equipment type, cost center, or planner and piece of equipment in a selected site.
- Access work order summary and detail cost analysis.

Fig. 5.120

Navigation Overview for the Planned vs. Unplanned WO KPI



Planned vs. Unplanned WO Count All Sites Charts

Access the Planned vs. Unplanned WO Count All Sites charts from the PM Compliance dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

Planned vs. Unplanned WO Count % All Sites

The Planned vs. Unplanned WO Count % All Sites chart shows the total count and percentage of planned and unplanned work orders for all sites.

Unplanned WO Count by Site

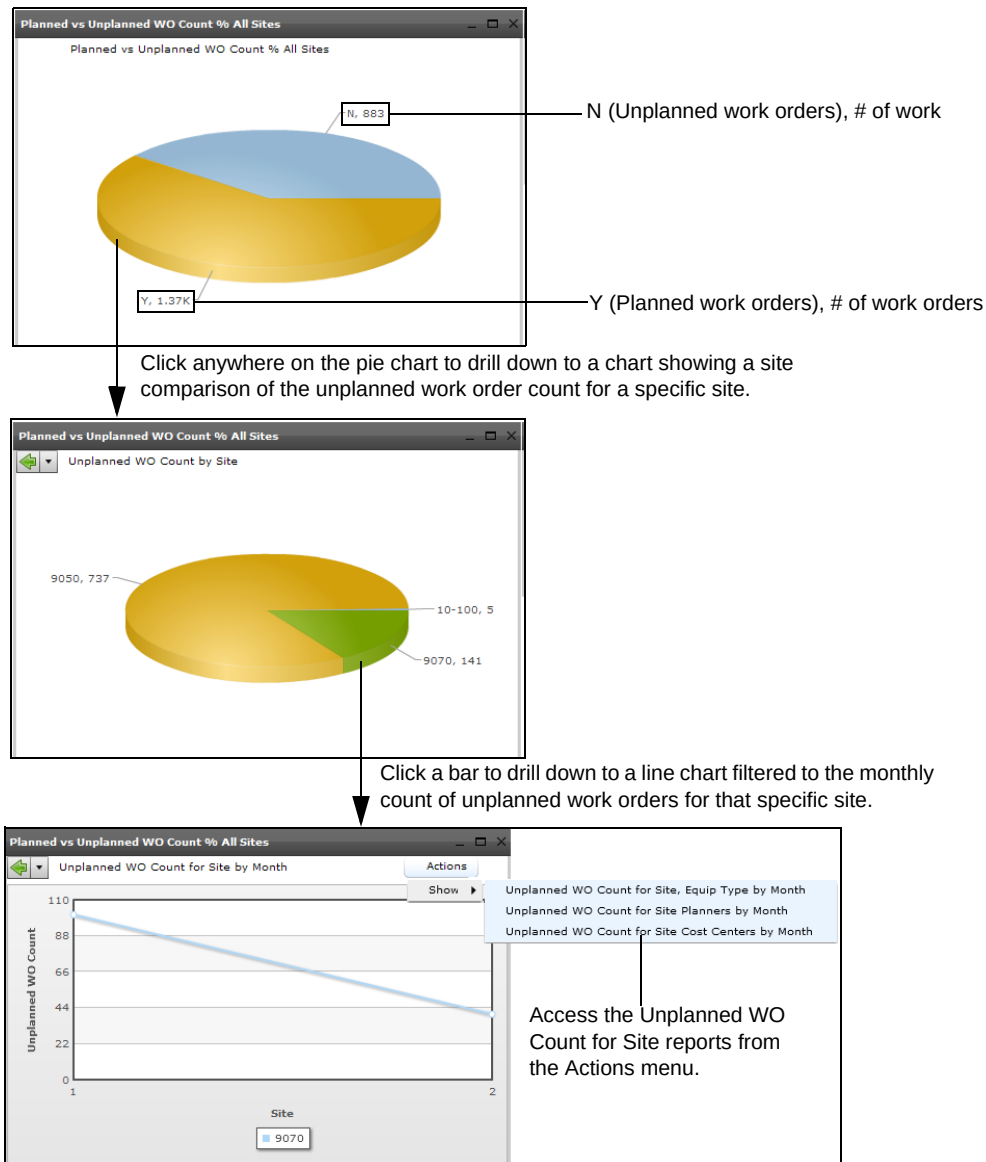
The Unplanned WO Count by Site pie chart shows a site comparison of the unplanned work order count for a specific site.

Unplanned WO Count for Site by Month

The Unplanned WO Count for Site by Month line chart shows the monthly count of unplanned work orders for a specific site.

Fig. 5.121

Navigation for the Planned vs. Unplanned WO Count All Sites Charts



Unplanned WO Count for Site by Equip Type Reports

Access the Unplanned WO Count for Site reports from the Actions menu in the WO Count for Site by Month chart. These reports show metrics for a selected site and year.

Unplanned WO Count for Site by Equip Type by Month

This report shows the monthly and yearly count of unplanned work orders for all equipment types. It contains the following columns:

- Equipment Type Code
- Unplanned Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Unplanned Count 1-12 totals (summary line)
- Total Unplanned WO Count
- Total Unplanned WO Count totals (summary line)

Unplanned WO Count by Equip No for Site Equip Type by Month

This report shows the monthly and yearly count of unplanned work orders for all equipment numbers of a specific equipment type. It contains the following columns:

- Equipment Number
- Unplanned Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Unplanned Count 1-12 totals (summary line)
- Total Unplanned WO Count
- Total Unplanned WO Count totals (summary line)

Closed Unplanned WO for Site Equip Type Equip No Month/Year by WO No

This report lists all the work orders with details for a specific equipment number in a selected month or year. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Failure Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name

Fig. 5.122

Report Navigation for Unplanned WO Count for Site by Equip Type

Year: 2012
Site: 9070

Unplanned WO Count for 2012 - Site 9070 by Equip Types by Month

Click the equipment type code to drill down to the next report.

Equipment Type Code	Unplanned Count 1	Unplanned Count 2	Unplanned Count 3	Unplanned Count 4	Unplanned Count 5	Unplanned Count 6	Unplanned Count 7	Unplanned Count 8	Unplanned Count 9	Unplanned Count 10	Unplanned Count 11	Unplanned Count 12	Total Unplanned WO Count
FAIC	15.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
FS	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
FT	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
HVAC	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
Maint	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
P	67.0	34.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	101.0
R	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
Unknown	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
Total	101.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	141.0

Year: 2012
Site: 9070

Unplanned WO Count by Equip No for Site, Equip Type by Month

Click a monthly or yearly total to drill down to the next report.

Equipment Number	Unplanned Count 1	Unplanned Count 2	Unplanned Count 3	Unplanned Count 4	Unplanned Count 5	Unplanned Count 6	Unplanned Count 7	Unplanned Count 8	Unplanned Count 9	Unplanned Count 10	Unplanned Count 11	Unplanned Count 12	Total Unplanned WO Count
f_omt_pkg_01_16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_omt_mfg_01_04	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_omt_mfg_01_08	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
d_fac_dock_07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_omt_sht_01_24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rtb_sht	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_omt_mfg_01_18	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_omt_pkg_01_31	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
f_omt_pkg_01_39	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_omt_sht_01_23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_frozen facility	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_omt_pkg_01_23	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_fac	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_omt_sht_01_22	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_fac_door_9000_01	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_psl	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_rtb_pkg	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_omt	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
f_rth_mix	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_fac_air_01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
f_rtb_dp	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
d_fac_door_23	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
f_fac_air_02	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Total	15.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0

Year: 2012
Site: 9070

Closed Unplanned WO for Site Equip Type Equip No Month 1 by WO No

Click a work order number to drill down to the WO Cost Analysis Summary report.

Work Order Number	Work Order Problem Description	Failure Description	Requestor First Name	Requestor Last Name	Receive Date	Priority Code	Class Code	Assigned First Name	Assigned Last Name
109042	Tig welded two turnbuckle nuts on the infeed frame to the wrapper for 7/16" all thread		Andrew	Offutt	1/21/2012	Unknown	Unknown	Unknown	Unknown
107431	adjustable st loose position guides will add set screw.	Mechanical	Rod	White	1/15/2012	4	06	Mark	Justice
108582	Infeed to wrapper, there are a set of guides for the clam shells, these guides need to be modified i		Tim	Fleenor	1/11/2012	Unknown	Unknown	Unknown	Unknown

Unplanned WO Count for Site by Cost Center Reports

Access the Unplanned WO Count for Site reports from the Actions menu in the WO Count for Site by Month chart. These reports show metrics for a selected site and year.

Unplanned WO Count for Site by Cost Center by Month

This report shows the monthly and yearly count of unplanned work orders for all cost centers. It contains the following columns:

- Cost Center Code
- Unplanned Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Unplanned Count 1-12 totals (summary line)
- Total Unplanned WO Count
- Total Unplanned WO Count totals (summary line)

Unplanned WO Count by Equip No for Site Cost Center by Month

This report shows the monthly and yearly count of unplanned work orders for all equipment numbers in a specific cost center. It contains the following columns:

- Equipment Number
- Unplanned Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Unplanned Count 1-12 totals (summary line)
- Total Unplanned WO Count
- Total Unplanned WO Count totals (summary line)

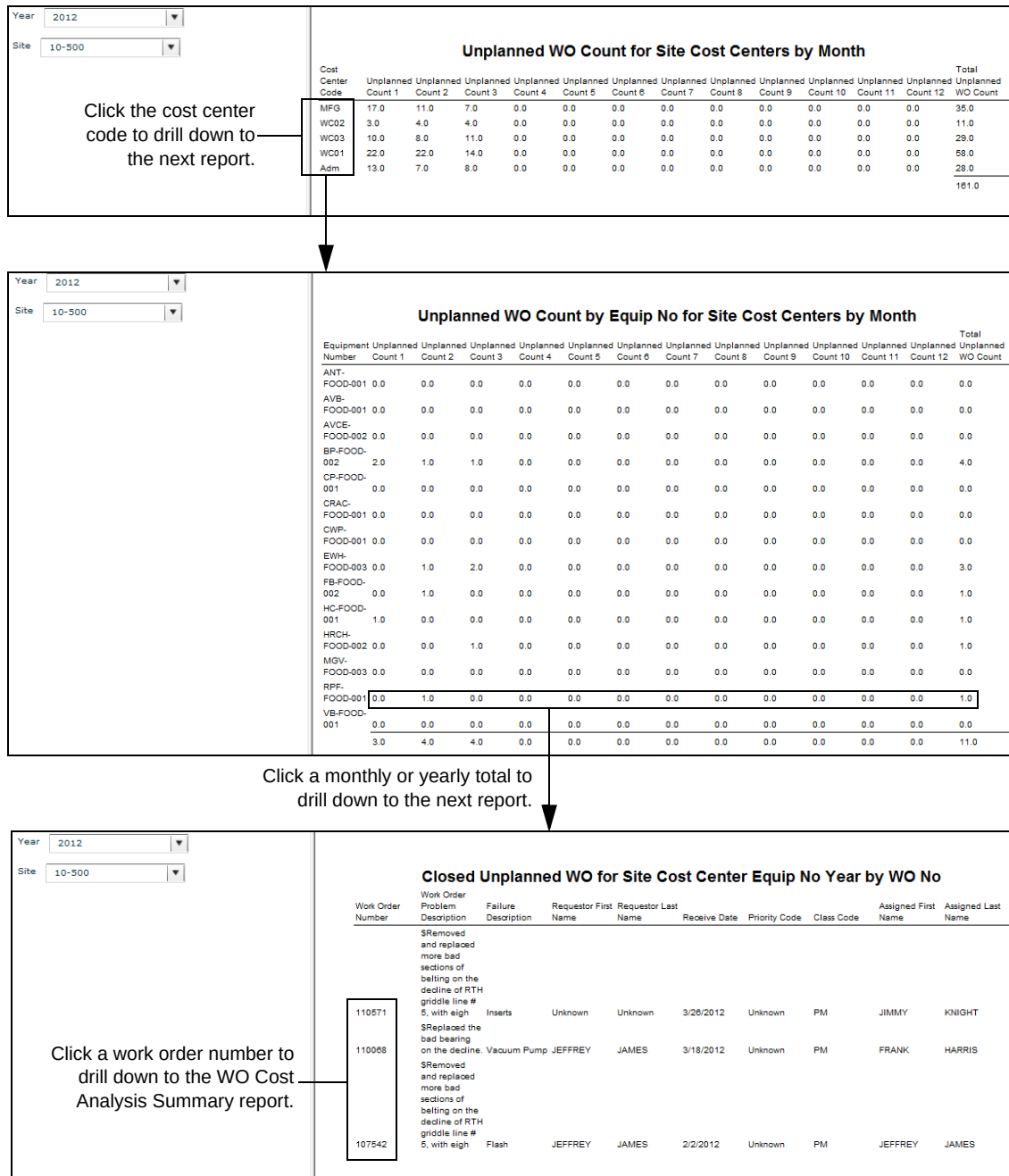
Closed Unplanned WO for Site Cost Center Equip No Month/Year by WO No

This report lists all the work orders with details for a specific equipment number in a selected month or year. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Failure Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name

Fig. 5.123

Report Navigation for Unplanned WO Count for Site by Cost Center



Unplanned WO Count for Site by Planner Reports

Access the Unplanned WO Count for Site reports from the Actions menu in the WO Count for Site by Month chart. These reports show metrics for a selected site and year.

Unplanned WO Count for Site by Planner by Month

This report shows the monthly and yearly count of unplanned work orders for all planners. It contains the following columns:

- Planner Code
- Unplanned Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Unplanned Count 1-12 totals (summary line)
- Total Unplanned WO Count
- Total Unplanned WO Count totals (summary line)

Unplanned WO Count by Equip No for Site Planner by Month

This report shows the monthly and yearly count of unplanned work orders for all equipment numbers of a specific planner. It contains the following columns:

- Equipment Number
- Unplanned Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Unplanned Count 1-12 totals (summary line)
- Total Unplanned WO Count
- Total Unplanned WO Count totals (summary line)

Closed Unplanned WO for Site Planner Equip No Month/Year by WO No

This report lists all the work orders with details for a specific equipment number in a selected month or year. It contains the following columns:

- Work Order Number
- Work Order Problem Description
- Failure Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name

Fig. 5.124

Report Navigation for Unplanned WO Count for Site by Planner

Year: 2012
Site: 9070

Unplanned WO Count for Site Planners by Month

Click the planner code to drill down to the next report.

Planner Code	Unplanned Count 1	Unplanned Count 2	Unplanned Count 3	Unplanned Count 4	Unplanned Count 5	Unplanned Count 6	Unplanned Count 7	Unplanned Count 8	Unplanned Count 9	Unplanned Count 10	Unplanned Count 11	Unplanned Count 12	Unplanned WO Count	Total
135	26.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	29.0
144	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unknown	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
136	74.0	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	111.0	111.0
	101.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	141.0	141.0

Year: 2012
Site: 9070

Unplanned WO Count by Equip No for Site Planners by Month

Click a monthly or yearly total to drill down to the next report.

Equipment Number	Unplanned Count 1	Unplanned Count 2	Unplanned Count 3	Unplanned Count 4	Unplanned Count 5	Unplanned Count 6	Unplanned Count 7	Unplanned Count 8	Unplanned Count 9	Unplanned Count 10	Unplanned Count 11	Unplanned Count 12	Unplanned WO Count	Total
d_bkf_scale_02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_bkf_scale_03	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
d_bld_01_04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_bld_04_01	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0
d_fac_door_07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
d_fac_door_23	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0

Year: 2012
Site: 9070

Closed Unplanned WO for Site Planner Equip No Year by WO No

Click a work order number to drill down to the WO Cost Analysis Summary report.

Work Order Number	Work Order Problem Description	Failure Description	Requestor First Name	Requestor Last Name	Receive Date	Priority Code	Class Code	Assigned First Name	Assigned Last Name
110124	\$ Replaced (1) #2051 solenoid valve	Mechanical	Chris	Carroll	2/9/2012	E	01	Chris	Carroll
109801	\$ replace prox switch	Electrical	Jim	Short	2/4/2012	E	Unknown	Jim	Short
109022	\$Replaced one solenoid valve, lane #3.	Pneumatic	Kevin	Hendrick	1/21/2012	1	02	Melissa	Hendrick
108744	\$ Replaced the red & blue lens covers # 0455 and # 0366 they was Rusted & Corroded .	Electrical	Chris	Carroll	1/16/2012	DG	02	Chris	Carroll
108883	Check and replace all bad lamps. Qty used 3, Part # 3166 (120mb. lamp, sr130v.mb).	Electrical	Chris	Carroll	1/15/2012	E	02	Chrissy	Gittings

Work Order Cost Analysis Summary Month/Year

The Work Order Cost Analysis Summary Month/Year report shows a summary of labor, material, and contract cost totals. This report contains the following columns:

- Work Order Number
- Equipment Number
- Equipment Description
- Material Cost Estimate
- Material Cost Actual Period
- Labor Cost Estimate
- Labor Cost Actual Period
- Contractor Cost Estimate
- Contractor Cost Actual Period

- Total Cost

Fig. 5.125

Work Order Cost Analysis Summary Report

Year

2012

Site

9070

WO Cost Analysis Summary Year

Work Order Number	Equipment Number	Equipment Description	Material Cost Estimate	Material Cost Actual Period	Labor Cost Estimate	Labor Cost Actual Period	Contractor Cost Estimate	Contractor Cost Actual Period	Total Cost
F Stacker Boxes 1									
109801	f_rth_pkg_01_06	RTH Pkg	0.0	121.64	0.0	10.0	0.0	0.0	131.64

Click the material, labor, or contractor cost totals to drill down to the Work Order Material/Labor/Contract Cost Detail reports.

Work Order Material/ Labor/Contract Cost Detail Month/Year

The WO Material/Labor/Contract Cost Detail Month/Year reports show the transaction details for the material, labor, or contractor costs.

Note Because this report shows the cost detail for backlog work orders, cost does not occur until work starts.

These reports contain the following columns:

Work Order Labor Cost Detail Month/Year	Work Order Material Cost Detail Month/Year	Work Order Contract Cost Detail Month/Year
• Employee Number • Employee Name • Total Time • Total Time totals (summary line) • Total Cost • Total Cost totals (summary line) • Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Material Cost Actual • Material Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Part Number • Part Description • Quantity • Unit Cost Transaction • Contractor Cost Actual • Contractor Cost Actual total (summary line) • Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.126

Work Order Material/Labor/Contract Cost Detail Report

Year

2012

Site

9070

WO Labor Cost Detail Year

Employee Number	Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
133	Jim Short	0.5	10.0	2/12/2012	9070	5200	8008040	A
		0.5	10.0					

PM vs. CM Work Orders

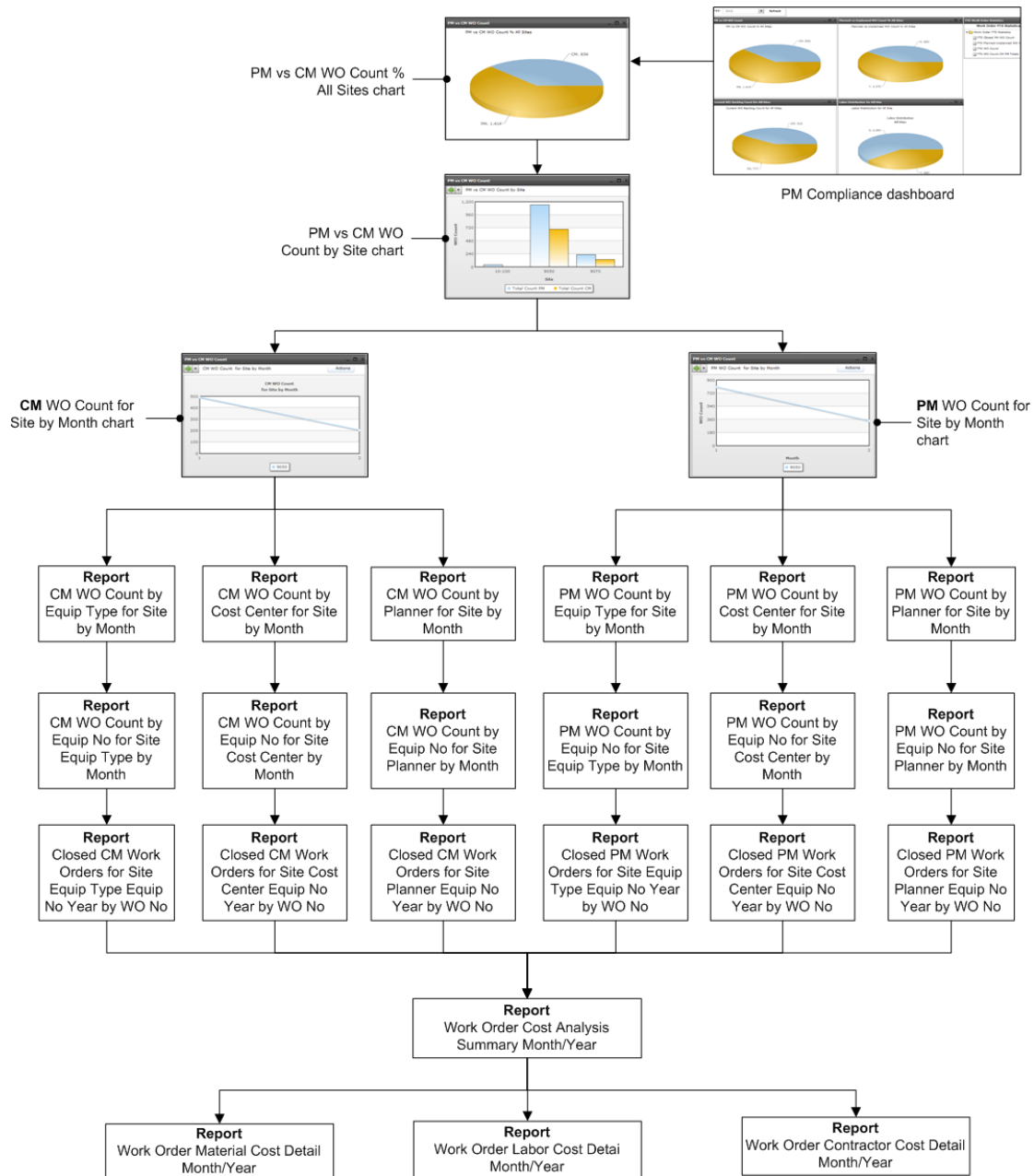
The PM vs. CM Work Orders KPI allows you to monitor how proactively the maintenance department is performing. While the PM vs. CM Work Order KPI is similar to Planned vs. Unplanned Work Order KPI, it focuses on the ratio between the CM and PM work orders. A high percentage of PM work orders is an indication that the maintenance department is proactive. Closed work orders based on receipt date are included in the KPI.

From the PM vs. CM WO Count % All Sites chart, you can drill down and:

- Compare the total count of CM and PM work orders between sites.
- Compare the total count of CM or PM work orders for a specific site.
- Analyze fluctuations in the monthly count of CM or PM work order count for a site.
- Analyze the total monthly count of PM or CM work orders by equipment type, cost center, or planner for a specific site and year.
- Analyze the monthly and yearly count of PM or CM work orders for all equipment numbers by equipment type, cost center, or planner and for a selected site and year.
- Access a list of closed work orders for a specific equipment number.
- Access work order cost analysis for a specific closed work order.

Fig. 5.127

Navigation Overview for the PM vs. CM Work Order KPI



PM vs. CM Work Order Count Charts

Access the PM vs. CM WO Count % All Sites charts from the PM Compliance dashboard. These charts show the metrics for the year that you select from the dashboard parameter bar.

PM vs. CM Work Order Count % All Sites

The PM vs. CM Work Order Count % All Sites chart provides the total count and percentage of CM and PM work orders for all sites.

PM vs. CM WO Count by Site

The PM and CM WO Count by Site chart compares the count of CM and PM work orders between sites. In this chart, each bar represents the count of CM or PM work orders for a specific site.

CM WO Count for Site by Month

The CM WO Count for Site by Month chart shows the monthly count of CM work orders for a selected site. This chart is helpful because you can easily see if the count of CM work orders is increasing or decreasing from month to month. Click the Actions menu to access the following reports:

- CM WO Count by Equip Type for Site by Month
- CM WO Count by Cost Center for Site by Month
- CM WO Count by Planner for Site by Month

PM WO Count for Site by Month

The PM WO Count for Site by Month chart shows the monthly count of PM work orders for a selected site. This chart is helpful because you can easily see if the count of PM work orders is increasing or decreasing from month to month. Click the Actions menu to access the following reports:

- PM WO Count by Equip Type for Site by Month
- PM WO Count by Cost Center for Site by Month
- PM WO Count by Planner for Site by Month

Fig. 5.128

Navigation for the PM vs. CM Work Order Count All Sites Charts



PM or CM WO Count by Equip Type Reports

Access the PM or CM WO Count reports from the Actions menu in the PM/CM WO Count for Site by Month chart. These reports show metrics for PM or CM for a selected site and year.

PM or CM WO Count by Equip Type for Site by Month

This report shows the monthly and yearly count of PM or CM work orders for all equipment types in a specific site. The PM and CM reports contain the following columns:

- Equipment Type Code

- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

PM or CM WO Count by Equip No for Site Equip Type by Month

This report shows the monthly and yearly count of PM or CM work orders for all equipment numbers for the selected equipment type. The PM and CM reports contain the following columns:

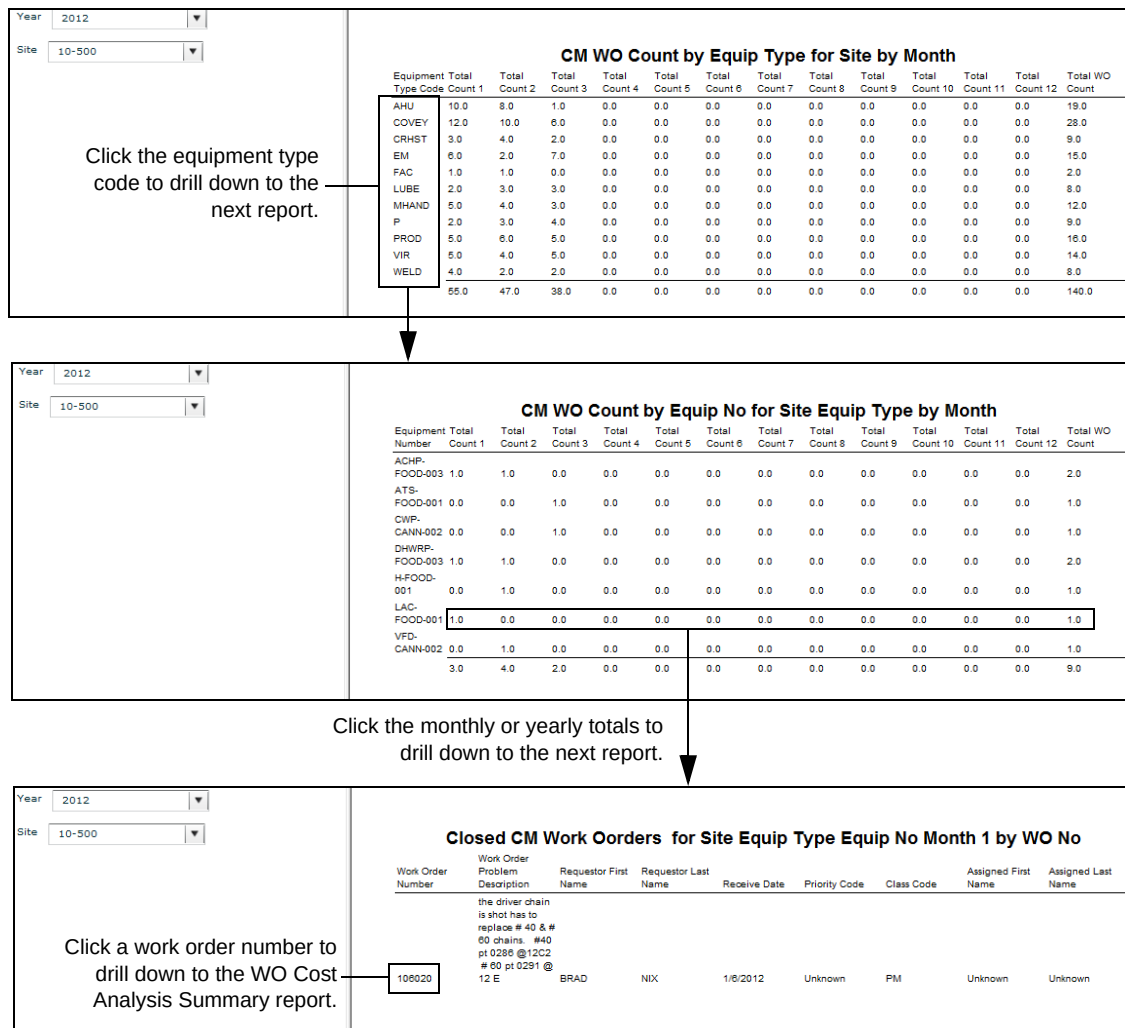
- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Orders for Site Equip Type by WO No

This report lists all the closed CM or PM work orders with details for a selected equipment number. The PM and CM reports contain the following columns:

- Work Order Number
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name

Fig. 5.129
Report Navigation for CM/PM WO Count by Equip Type



PM or CM WO Count by Cost Center Reports

Access the PM or CM WO Count reports from the Actions menu in the PM or CM WO Count for Site by Month chart. These reports show metrics for a selected site and year.

PM or CM WO Count by Cost Center for Site by Month

This report shows the monthly and yearly count of PM or CM work orders for all cost centers in a specific site. The PM and CM reports contain the following columns:

- Cost Center Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

PM or CM WO Count by Equip No for Site Cost Center by Month

This report shows the monthly and yearly count of PM or CM work orders for all equipment numbers for the selected cost center. The PM and CM reports contain the following columns:

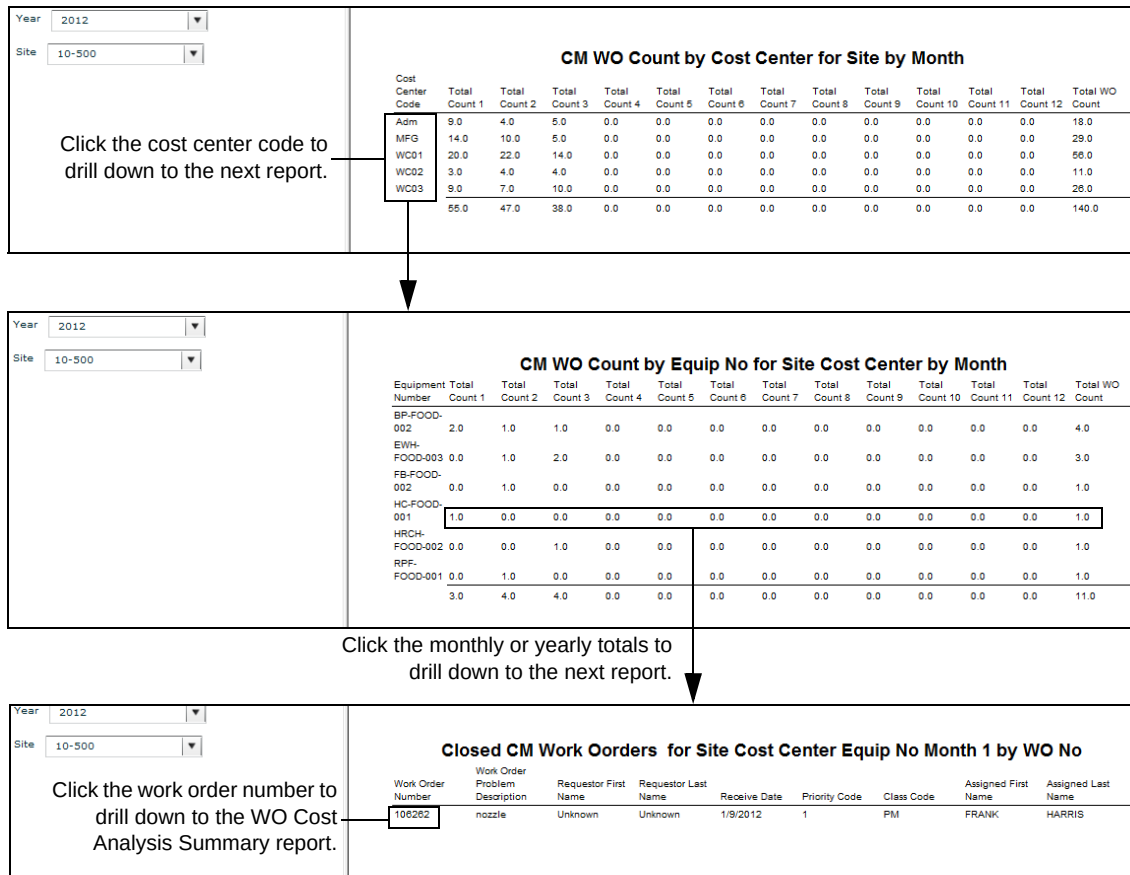
- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Orders for Site Cost Center by WO No

This report lists all the closed CM or PM work orders with details for a selected equipment number. The PM and CM reports contain the following columns:

- Work Order Number
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name

Fig. 5.130
Report Navigation for CM WO Count by Cost Center



PM or CM WO Count by Planner Reports

Access the PM or CM WO Count reports from the Actions menu in the PM or CM WO Count for Site by Month chart. These reports show metrics for a selected site and year.

PM or CM WO Count by Planner for Site by Month

This report shows the monthly and yearly count of PM or CM work orders for all planners in a specific site. The PM and CM reports contain the following columns:

- Planner Code
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

PM or CM WO Count by Equip No for Site Planner by Month

This report shows the monthly and yearly count of PM or CM work orders for all equipment numbers for the selected planner. The PM and CM reports contain the following columns:

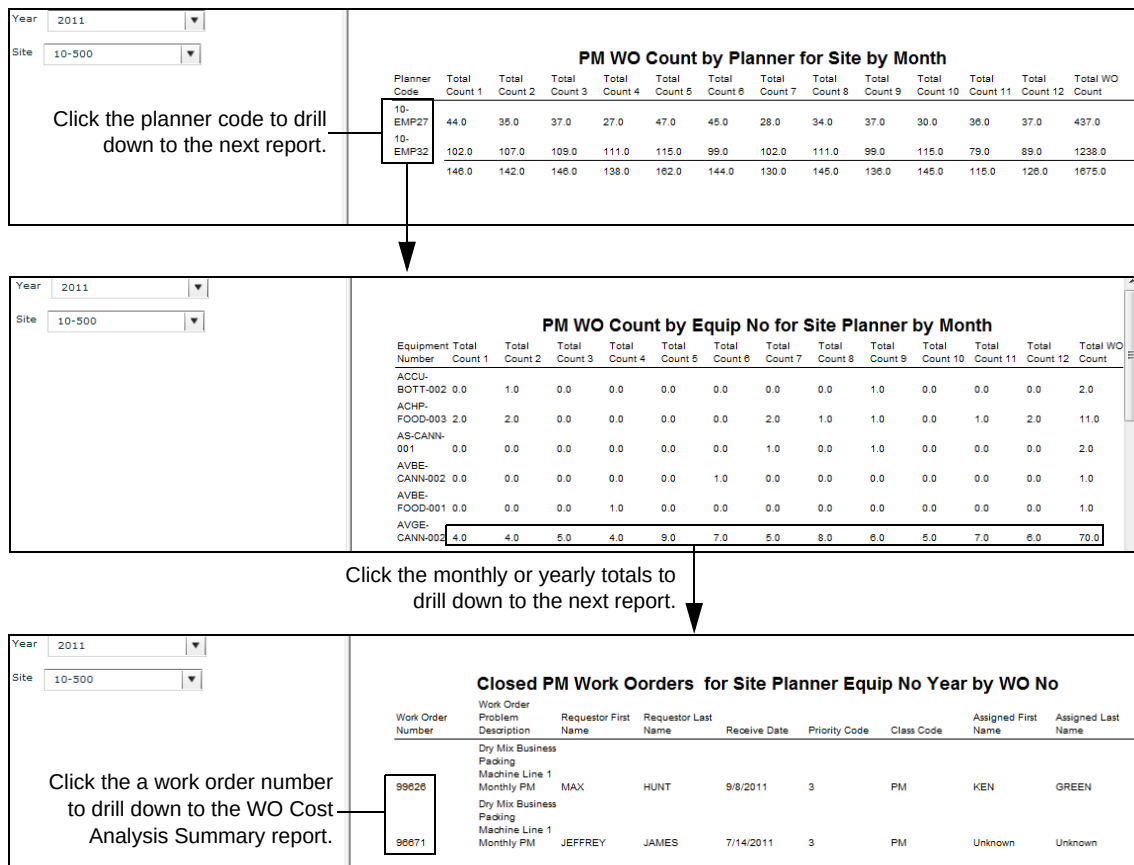
- Equipment Number
- Total Count 1-12. The number corresponds with the month in the year; for instance, 1 is January, 2 is February, 3 is March, and so on.
- Total Count 1-12 totals (summary line)
- Total WO Count
- Total WO Count totals (summary line)

Closed Work Orders for Site Planner by WO No

This report lists all the closed CM or PM work orders with details for a selected equipment number. The PM and CM reports contain the following columns:

- Work Order Number
- Work Order Problem Description
- Requestor First/Last Name
- Receive Date
- Priority Code
- Class Code
- Assigned First/Last Name

Fig. 5.131
Report Navigation for PM WO Count by Planner



Work Order Labor Cost Detail Month/Year	Work Order Material Cost Detail Month/Year	Work Order Contract Cost Detail Month/Year
• Labor Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code	• Effective Date • Expense Site Code • Cost Center Code • Account Code • Sub Account Code

Fig. 5.133

Work Order Material/Labor/Contract Cost Detail Report

Year

2012

Site

9070

WO Labor Cost Detail Year

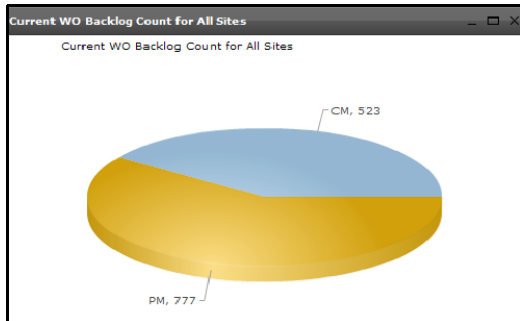
Employee Number	Employee Name	Total Time	Total Cost	labor date	Expense Site Code	Cost Center Code	Account Code	Sub Account Code
133	Jim Short	0.5	10.0	2/12/2012	9070	5200	8008040	A
		0.5	10.0					

Current Work Order Backlog Count for All Sites

The Current WO Backlog Count for all Sites KPI is the same as the one used on the Maintenance Backlog dashboard. For detailed information on the charts, reports, and navigation flow see “Current Work Order Backlog Count” on page 93.

Fig. 5.134

Current Work Order Backlog Count Chart



YTD Closed PM Work Order Count Report

Access this report from the PM Compliance dashboard. This report shows the count of all PM work orders that were closed during the current year.

Fig. 5.135

YTD Closed PM Work Order Count Report

No Parameters required	
YTD Closed PM WO Count	
Work Order Type	Total Count
PM	963.0

YTD Planned and Unplanned WO Count Report

Access this report from the PM Compliance dashboard. This report shows the count of all planned and unplanned work orders, excluding canceled, that were created during the current year.

Fig. 5.136
YTD CM and PM Work Order Totals Report

Year 2012 ▼	YTD Planned and Unplanned WO Count	
	Planned Count	Unplanned Count
	837.0	449.0

YTD Work Order Count Report

Access this report from the PM Compliance dashboard. This report shows the count of all work orders, excluding canceled, that were created during the current year.

Fig. 5.137
YTD CM and PM Work Order Totals Report

No Parameters required	YTD WO Count	
	Total Count	
	1286.0	

YTD Work Order Count CM PM Totals Report

Access this report from the PM Compliance dashboard. This report shows the count of all CM and PM work orders, excluding canceled, that were created during the current year.

Fig. 5.138
YTD CM and PM Work Order Totals Report

Year 2012 ▼	YTD WO Count CM PM Totals	
	Work Order Type	Total Count
	CM	403.0
	PM	883.0
		1286.0

Current and YTD Reports

Current Statistic Reports

Managers need the ability to display current statistics for work orders backlog and open service requests. The Current Statistics reports provide a snapshot of the current standing of work order backlog and open service requests. Based on this information, management may need to investigate the causes of high backlog counts and/or high numbers of open service requests. High numbers in these areas may indicate increases in the risk of excessive downtime for equipment.

Work Order Backlog Current Statistics

Access this report from the Maintenance Backlog dashboard. This report shows the current total of backlog work orders and backlog labor hours for the selected year. See “Work Order Backlog Current Statistics Report” on page 138.

Open Service Request without Work Orders

Access this report from the Maintenance Work Order dashboard. This report shows the total count for all open service requests that do not have work orders. See “Open Service Request without Work Orders” on page 226.

Open Service Requests

Access this report from the Maintenance Work Order dashboard. This report shows the total count for all open service requests. See “Open Service Requests” on page 226.

YTD Statistic Reports

Managers need the ability to display year-to-date statistics for work orders, service requests, and downtime hours for equipment. This information can be used to track the effectiveness of maintenance procedures.

Downtime Hours Total YTD

Access the Downtime Hours Total YTD report from the Equipment Availability dashboard. This report shows the total downtime hours for the selected year. See “Downtime Hours Total YTD Report” on page 92.

Service Request Count YTD

Access this report from the Maintenance Work Order dashboard. This report shows the year-to-date service request count. See “Service Request Count YTD” on page 226.

YTD Closed PM Work Order Count

Access this report from the PM Compliance dashboard. This report shows the count of all PM work orders that were closed during the current year. See “YTD Closed PM Work Order Count Report” on page 259.

YTD Planned and Unplanned WO Count

Access this report from the PM Compliance dashboard. This report shows the count of all planned work orders, excluding canceled, that were created during the current year. See “YTD Planned and Unplanned WO Count Report” on page 260.

YTD Work Order Count

Access this report from the PM Compliance dashboard. This report shows the count of all work orders, excluding canceled, that were created during the current year. See “YTD Work Order Count Report” on page 260.

YTD Work Order Count CM PM Totals

Access this report from the PM Compliance dashboard. This report shows the count of all CM and PM work orders, excluding canceled, that were created during the current year. See “YTD Work Order Count CM PM Totals Report” on page 260.

QAD Transportation Management

This chapter provides detailed information about metrics associated with shipping execution and carrier tracking of shipments and packages. It includes the following topics:

***Introduction* 264**

Provides an overview of how QAD BI works with QAD's Transportation Management and Package Exception Management functionality.

***Shipment Volume Summary Dashboard* 267**

This dashboard includes measures of shipping volumes, weights, origins, and destinations. Use these statistics to analyze trends and volume metrics—for example, how many packages you shipped with a particular carrier and to what regions.

***Shipment Costs Summary Dashboard* 274**

This dashboard includes measures of shipping and delivery costs. Use these statistics to analyze estimated freight spend, including overall profit/loss on freight, which can provide subsequent opportunities to change carriers or negotiate carrier rates.

***Delivery Performance Dashboard* 283**

This dashboard includes measures of carrier performance. Use these statistics to evaluate and improve your company's effectiveness in meeting customer delivery expectations.

***Package Exceptions Summary Dashboard* 293**

This dashboard includes measures of delivery exceptions and delays. Use these statistics to evaluate the effectiveness of your carriers in meeting customer delivery expectations.

***Reports Menu* 301**

The Reports Menu for Transportation Management provides an additional access point for reports as drill-down items from the dashboards.

Introduction

The PRECISION BI module is part of QAD BI and is being introduced in the QAD BI 3.7 release. The PRECISION modules that QAD BI supports for this release are Transportation Management (TMS), used for shipping execution, and Package Exception Management (PEM), used for carrier tracking of shipments and packages.

Note This document assumes an understanding of the TMS and PEM modules and functionality.

QAD BI-TMS includes metrics focused on shipping performance, including:

- Measures of volumes and package weights of deliveries
- Top shipping origin sites and top destination countries
- Measures of freight spend and overall profit/loss on freight
- Measures of a carrier's delivery performance, including analysis of exceptions or delays occurring in the delivery cycle of product to the end customer

Appropriate reports and drill-downs to the support data are included in QAD BI-TMS, where data from PRECISION TMS and PEM can be extracted daily to the BI data warehouse. You can then perform analysis using the BI Collaborative Portal. TMS shipment transactions must be unique within the PRECISION database so that the system can extract them into the BI data warehouse. Any shipment transactions with duplicate database keys cause the extraction to fail.

BI-TMS includes the following dashboards:

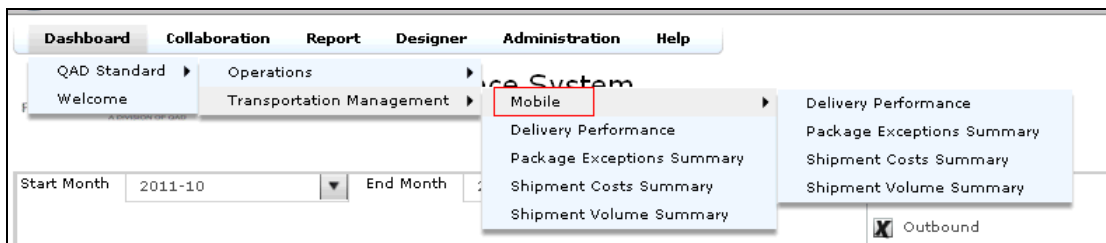
- Shipment Volume Summary
- Shipment Costs Summary
- Delivery Performance
- Package Exception Summary

Each dashboard and the visual items contained in each, as well as appropriate drill-downs and reports, are discussed in more detail in the following sections.

Each dashboard includes a selection parameter of date range. The Shipment Volume, Shipment Costs, and Delivery Performance dashboards also include a Shipment Direction parameter, allowing analysis to be performed on Outbound shipments, Inbound/Returns shipments, or both. The Package Exception Summary includes an Alert Type parameter, allowing for filtering on one or many specific Exception/Alert Types supported in the PEM module.

Note When you access the collaborative portal through a native application on the Apple iPad, these dashboards do not contain parameter selections as of release 3.7. These alternative versions are located under the Mobile dashboard.

Fig. 6.1
Mobile Dashboard



QAD BI-TMS allows top management and logistics/transportation management personnel to monitor high-level shipping metrics, including analysis of freight spend and overall profit/loss on freight. The information can help them reduce costs and achieve gross margin targets. QAD BI-TMS also provides an understanding of the cost of delivery of product to end customers as well as information on the level of delivery and pickup failures.

- Plant managers, supply chain managers, and operations managers can use QAD BI-TMS to evaluate and improve the effectiveness of meeting customer delivery expectations.
- Sales management can evaluate channels and territories for volume and delivery performance expectations.
- Sales analysts can spot anomalies and exceptions in a company's shipping history to discover opportunities for improved delivery performance and customer retention.
- Salespersons can view historical and trended shipping for their customers. They can prepare for customer reviews and contract negotiations using facts including actual sales, delivery performance, and returns history.

The shipping, costing, delivery performance, and exception and delays metrics included in QAD BI-TMS help answer these questions:

- What is our freight spend (and its impact on the overall cost of sales)? Can we use this information for negotiating contracts with carriers? Who are our top carriers and how much do we spend with them?
- What is our profit/loss on freight?
- What is the average freight cost per unit (for example, package weight) shipped?
- What percentage of our shipments are delivered on time (in full)?
- What sites or customers are experiencing substandard OTD%?
- What percentage of our shipments are not successfully delivered (that is, damaged, lost, returned)? What is the level of delivery failures and pickup failures?
- Is the root cause of unsuccessful deliveries the shipping department? Carriers? Particular service lanes?
- Analyze trends and volume metrics (for example, how many packages shipped with a particular carrier/service and to what regions?)
- How can I determine if a carrier is meeting their Service Level Agreements (SLAs) for the services that I purchase? (analysis of best performing lanes, overall carrier performance, and so on)
- What poor shipping habits must we address? (For example, shipping with a priority service when a lower-cost service could be used instead.) Can we reduce the level of service chosen for particular lanes? (For example, would a Ground service achieve similar performance to an Air service?)
- Analysis of shipping conditions (for example, volume of Hazmat or dry ice parcels) and the associated accessorial costs. Can some of these costs be avoided? How much cost is incurred through additional accessorial costs?
- Have accessorial costs been increasing over time? Is there a trend?
- Are we using particular carriers less or more frequently to some regions?
- What is the cost of doing business when shipping to particular regions?

To answer these questions, QAD BI-TMS provides a set of predefined analytics by function in the form of graphs, grids, and detailed reports. Dashboards are set up to monitor standard KPIs for each functional area.

The following is the list of KPIs for the TMS module and associated visual items. Each is described in the subsequent sections. These provide analysis of shipping volumes and shipping costs, and where applicable there are drill-down capabilities.

- Shipping Volumes by Carrier
 - Shipment Volume by Service for Carrier and Month
 - Package Weight by Service for Carrier and Month
 - Top 10 Countries by Volume
 - Top 10 Locations by Volume
- Estimated Freight Cost per Unit Shipped
 - Average Cost per LB shipped
- Estimated Accessorial Costs as Percentage of Total Freight
 - Accessorial Cost Percentage
- Estimated Shipping Profit (or Loss)
 - Estimated Shipping Profit or Loss

The following is the list of KPIs for PEM module and associated visual items. Each is described in the subsequent sections. These provide analysis of carrier performance, and where applicable there are drill-down capabilities.

- Carrier On-Time Delivery Performance
 - On Time Performance by Service for Carrier and Month
- % of Agreed Delivery Times Reached
 - On-Time Performance by Month
- % of Packages that are Not Delivered
 - Unsuccessful Deliveries by Month
- % of Total estimated carrier shipping charges for packages that are not delivered
 - Cost of Unsuccessful Deliveries by Month
- % of Lost and Damaged Packages
 - Exceptions for Current Month
 - Exceptions by Month
 - Exceptions by Carrier Service for Month
- % of Packages that had an Address Correction problem
 - Deliveries with Address Corrections
- % of correctly addressed packages that are not delivered correctly first time
 - Deliveries with multiple Delivery Attempts to correct address
- % of Collections that are not collected correctly first time
 - Deliveries with multiple Collection Attempts

Shipment Volume Summary Dashboard

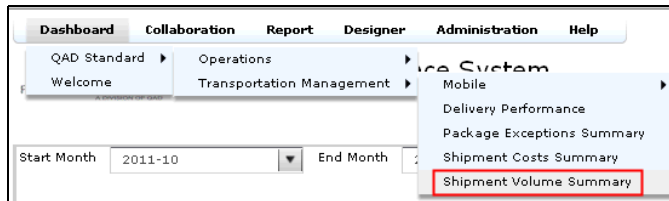
The Shipment Volume Summary dashboard organizes common measures of Shipping Volumes, Weights, Origins, and Destinations. It shows statistics that you can use to analyze trends and volume metrics. (For example, how many packages shipped with a particular carrier/service and to what regions?)

The visual items on the Shipment Volume Summary dashboard (each of which is discussed in more detail in this section) include:

- Shipment Volume by Carrier
- Package Weight by Carrier
- Top 10 Countries by Shipment Volume
- Top 10 Packing Locations by Shipment Volume

To access this dashboard, log in to QAD BI using your user ID and password. QAD BI automatically redisplay the last used dashboard for a given user ID. If the Shipment Volume Summary dashboard does not appear immediately after login, use the Dashboard Menu at the top of the window. Select QAD Standard|Transportation Management|Shipment Volume Summary.

Fig. 6.2
Accessing the Shipment Volume Summary Dashboard



A parameter selection bar allows you to specify:

- The from/to date period for the statistics
- The Shipment Direction for the shipment transactions included in the statistics

Fig. 6.3
Parameter Selection Bar



Click in any of the date range selection boxes and type an appropriate value directly, or you can use the drop-down list and select the appropriate period date.

Click the Shipment Direction – Inbound and/or Shipment Direction – Outbound check boxes to select or clear your choices.

After making your selections, click Refresh to update the statistics to match the appropriate selections.

Shipping transactions of an Outbound shipment direction are those shipments with a Shipment Type that is flagged as either Export or Domestic Outbound.

Shipping transactions of an Inbound shipment direction are those shipments with a Shipment Type that is flagged as either Import or Domestic Inbound.

The date range chosen in the selection bar is matched against the Despatch Date of the shipping transaction. It is the date that the shipment is despatched from the warehouse (when the carrier picks up the shipment).

For Outbound shipments, the Despatch Date is either:

- Date of Manifested (MAN) event on the shipment's shipping plan
- OR
- If no shipping plan yet or no MAN event on plan, the Shipment Header Despatch Date

For Inbound shipments, the Despatch Date is either:

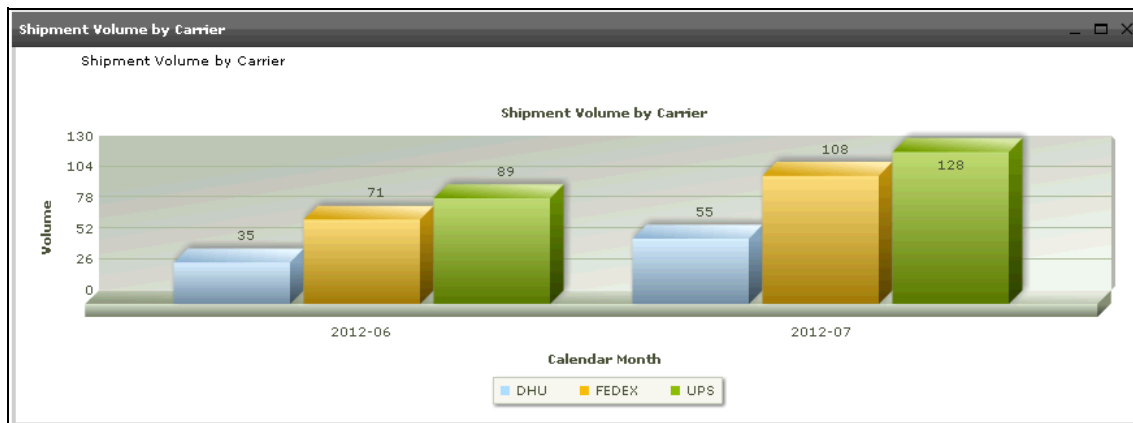
- Date of Manifested (MAN) event on the shipment's shipping plan
- OR
- Date of In Transit (TRN) event on the shipment's shipping plan

Shipment Volume by Carrier

After you select the date range and shipment direction, the first visual item on this dashboard is a Shipment Volume by Carrier bar chart. This graph shows the total count of shipments per carrier and month, for the selected period and shipment directions.

Note Only shipments that have been successfully rated in TMS are included in the visual items on the Shipment Volume Summary dashboard.

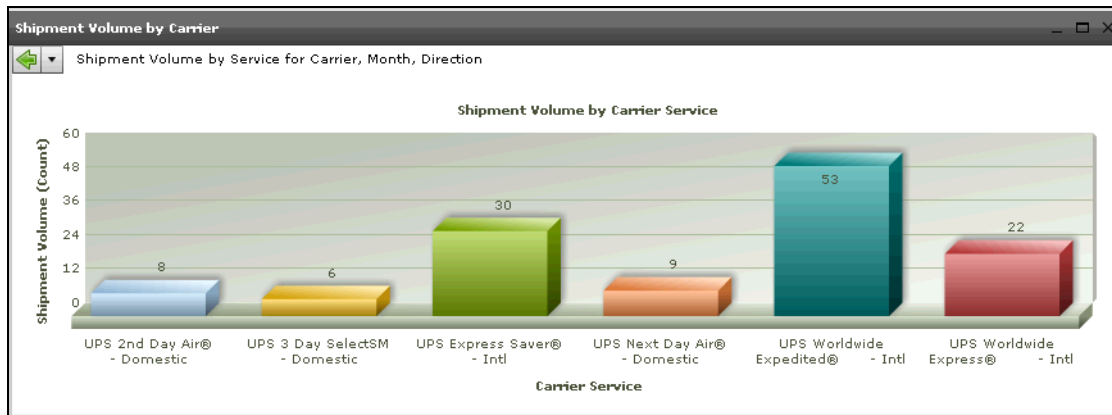
Fig. 6.4
Shipment Volume By Carrier



Select a specific carrier-month combination by clicking the relevant color-coded bar. There is a drill-down available to another bar chart titled Shipment Volume by Carrier Service.

This chart shows the division of the total count/volume of shipments per Carrier Service, for the selected carrier and month. This analysis can assist logistics and transportation managers to assess how many packages are being shipped with a particular carrier/service. The analysis can also identify any poor shipping habits that must be addressed (for example, shipping with a priority service when a lower-cost service could be used instead).

Fig. 6.5
Shipment Volume By Carrier Service

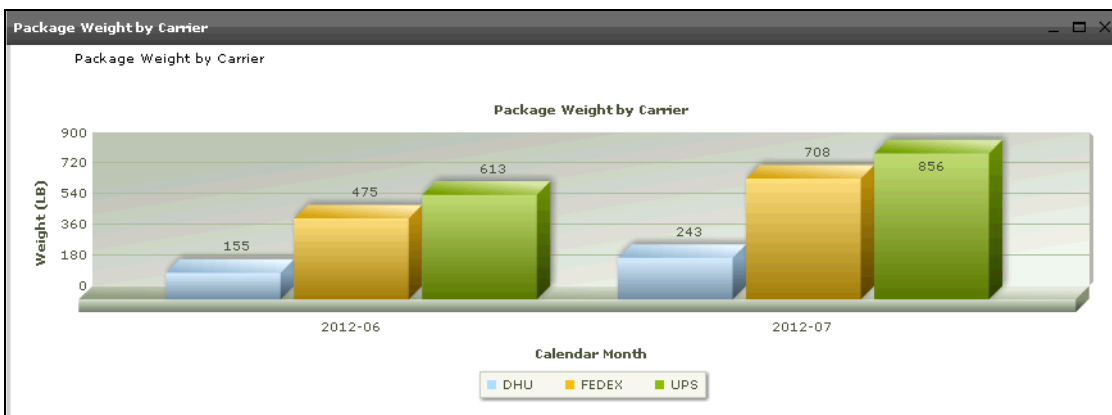


Package Weight by Carrier

The next visual item on this dashboard is a bar chart called Package Weight by Carrier. This graph shows the total gross weight (in pounds) of packages by carrier and month. Each shipment in TMS includes one or multiple packages. This graph shows combined total gross weight of all packages in all shipments of selected directions, for the selected period.

Note The predefined analytics provided in QAD BI-TMS 3.7 uses LB weight unit of measure on this visual item. However, package weight in KGs is also an available dimension, and if necessary an equivalent visual item based on KGs can be developed during the implementation process.

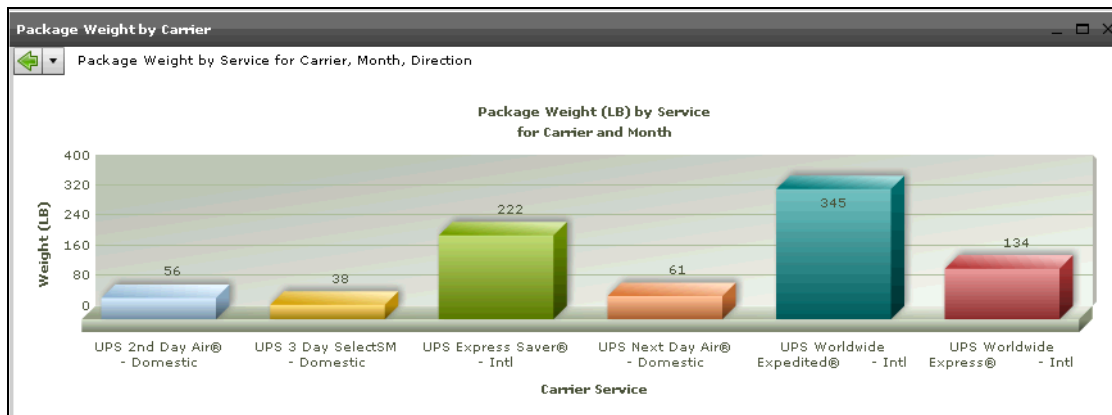
Fig. 6.6
Package Weight by Carrier



Click the relevant color-coded bar to select a specific carrier-month combination. There is a drill-down available to another bar chart titled Package Weight (LB) by Service for Carrier and Month.

This chart shows the division of the total weight of all packages by carrier service, for the selected carrier and month. This analysis can assist logistics and transportation managers to assess the total gross weight of packages that are being shipped with a particular carrier/service.

Fig. 6.7
Package Weight by Service



Top 10 Countries by Shipment Volume

The next visual item on this dashboard is a pie chart called Top 10 Countries by Shipment Volume. This chart displays the ranked highest volume of shipments, based on destination (for Outbound shipments) or origin (for Inbound shipments). Sales management can use this analysis to:

- Evaluate channels and territories for volume expectations.
- Identify regions where sales are not performing as expected.
- Leverage particular patterns to determine if they can zone-skip (or country-skip) based on large volumes of packages being shipped to the same or similar destination.

The Shipment Direction parameter in the selection bar determines whether these countries are ship-to or ship-from countries, or a combination of both.

- If the Shipment Direction is Outbound only, the pie chart represents Destination (ship-to) countries.
- If the Shipment Direction is Inbound only, the pie chart represents Origin (ship-from) countries.
- If both Outbound and Inbound directions are selected, the pie chart represents both Destination (Ship-To) and Origin (Ship-From) countries.

Example If both directions are selected, the count of shipments for the United States represents the sum of all Outbound shipments from the United States plus all Inbound shipments to the United States.

Fig. 6.8
Top 10 Countries by Shipment Volume



A pie slice represents each of the Top 10 countries, with the total count of shipments to/from that country for the selected period displayed beside the country name.

Example If both Inbound and Outbound shipment directions are selected, the United States, 70 highlighted in Figure 6.9 represents all Inbound and Outbound shipments involving the USA for the selected period.

Fig. 6.9
Total Shipment Count by Country



Hover over that pie slice to display the count of shipments to/from a country as a percentage of the overall count of shipments sent to/from all the Top 10 countries. That is, the system shows the percentage of shipment volumes being shipped to/from each of the Top 10 countries.

Fig. 6.10

Country as Percentage of Overall Shipment Count



Click a pie slice to see an analysis of the breakdown of Shipment Volume by Region within a Country. If the Top 10 country selected is either United States (US) or Canada (CA), this analysis is broken down by state.

Fig. 6.11

US or Canada Shipment Count

The table displays the breakdown of shipment volume by state for the United States. The table has three columns: Country Name, Locality, and Shipment Count.

Country Name	Locality	Shipment Count
UNITED STATES	CA	20
UNITED STATES	IL	13
UNITED STATES	FL	12
UNITED STATES	OH	8
UNITED STATES	KS	7
UNITED STATES	TX	6
UNITED STATES	AZ	4

If the Top 10 country selected is a country other than United States (US) or Canada (CA), the system breaks down the analysis by city.

Fig. 6.12

Other Countries Shipment Count

The table displays the breakdown of shipment volume by city for the United Kingdom. The table has three columns: Country Name, Locality, and Shipment Count.

Country Name	Locality	Shipment Count
UNITED KINGDOM	BIRMINGHAM	8
UNITED KINGDOM	BRISTOL	7
UNITED KINGDOM	LIVERPOOL	7
UNITED KINGDOM	LONDON	7
UNITED KINGDOM	NEWCASTLE	7
UNITED KINGDOM	LEEDS	6
UNITED KINGDOM	COVENTRY	4
UNITED KINGDOM	DURHAM	3
UNITED KINGDOM	PRESTON	3
UNITED KINGDOM	SHEFFIELD	3

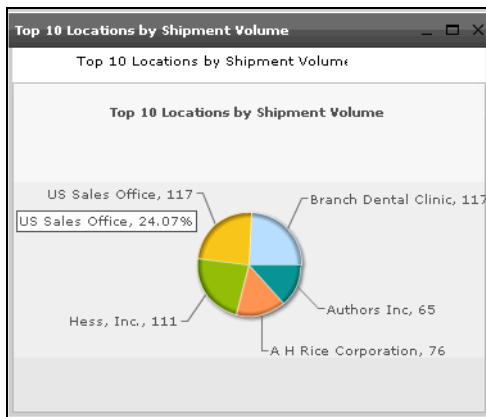
Top 10 Locations by Shipment Volume

The next visual item on this dashboard is a pie chart titled Top 10 Locations by Shipment Volume. This chart shows the Top 10 Packing Locations on either or both Outbound shipments and Inbound/Return Shipments, depending on Shipment Directions selected.

Within TMS, a Packing Location is the logical area from which you ship your TMS packages. It is not necessarily a physical location, although for most situations it is a physical location. The packing location is related to the Internal ID, to determine the shipper carrier accounts for that logical location. Packing Location in TMS is viewed as being the grouping of packages for carriers that are picked up together and travel together with the carriers who pick them up.

This analysis allows identification of top-performing business units, allowing for TMS configuration where there are separate business franchises (Packing Locations) at the same shipping address.

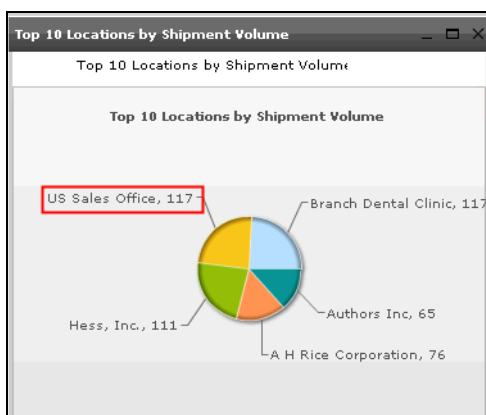
Fig. 6.13
Top 10 Locations by Shipment Volume



A pie slice represents each of the Top 10 locations, with the total count of shipments to/from that Packing Location for the selected period displayed beside the Packing Location name.

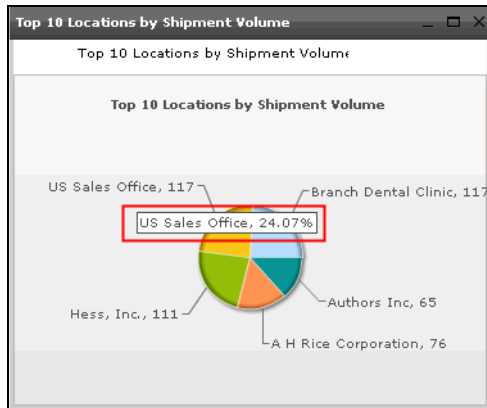
Example If both Inbound and Outbound shipment directions are selected, the US Sales Office, 117 highlighted in Figure 6.14 represents all Inbound and Outbound shipments to/from the US Sales office packing location for the selected period.

Fig. 6.14
Total Shipments from Packing Location



When you hover over that pie slice, the display shows the count of shipments to/from a packing location as a percentage of the overall count of shipments sent to/from all the Top 10 packing locations. That is, the system shows the percentage of shipment volumes being shipped to/from each of the Top 10 packing locations.

Fig. 6.15
Percentage of Overall Shipments Involving Packing Location



Shipment Costs Summary Dashboard

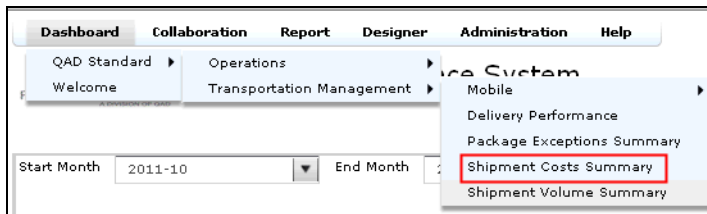
The Shipment Costs Summary dashboard organizes common measures of Shipping and Delivery Costs showing statistics that you can use to analyze Estimated Freight Spend. Statistics include overall Profit/Loss on Freight, which can provide subsequent opportunities to change carriers or negotiate carrier rates. You can use these metrics to reduce your cost of sales by understanding the cost of delivery of product to end customers. You can also analyze shipping conditions (for example, volume of Hazmat or dry ice parcels) and the associated accessorial costs. Use this data to determine if some of these costs can be avoided in future shipping.

The visual items on the Shipment Costs Summary dashboard, which are discussed in more detail in this section, include:

- Carrier Costs by Month
- Average Cost per Unit Shipped
- Accessorial Cost as Percentage of Total Cost
- Charges for Unsuccessful Deliveries
- Estimated Shipping Profit / Loss

To access this dashboard, log in to QAD BI using your user ID and password. QAD BI automatically redisplay the last-used dashboard. If the Shipment Costs Summary dashboard does not appear immediately after login, pull down the Dashboard Menu at the top of the window. Select QAD Standard|Transportation Management|Shipment Costs Summary, as shown below.

Fig. 6.16
Accessing the Shipment Costs Summary Dashboard



A parameter selection bar allows you to specify:

- The from/to date period for the statistics
- The shipment direction for the shipment transactions included in the statistics

You can click in any of the date range selection boxes and type an appropriate value directly, or you can use the drop-down list and select the appropriate period date.

You can click in the Shipment Direction – Inbound and/or Shipment Direction – Outbound check boxes to select or clear choice.

See “Shipment Volume Summary Dashboard” on page 267 for definitions of Shipment Direction and Dispatch Date.

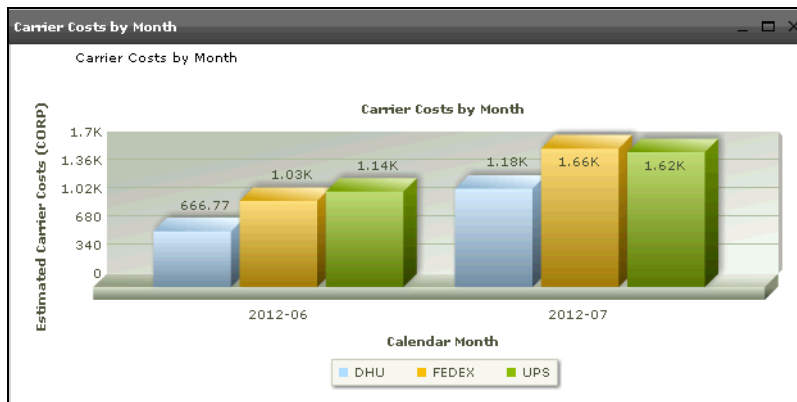
After making your selections, click Refresh to update the statistics to match the appropriate selections.

Note Only shipments that have been successfully “Rated” in TMS are included in the visual items on the Shipment Costs Summary dashboard.

Carrier Costs by Month

Once selection of Date range and Shipment Direction is made, the first visual item on this dashboard is a bar chart called Carrier Costs by Month. Use this graph to assess the total estimated amounts spent on Carrier Charges for shipments processed by the carriers per month. Details include a breakdown of the total Estimated Carrier Costs across each of the possible TMS charge types (Freight, Fuel, other Accessorial costs), for a selected carrier and month combination.

Fig. 6.17
Carrier Costs by Month



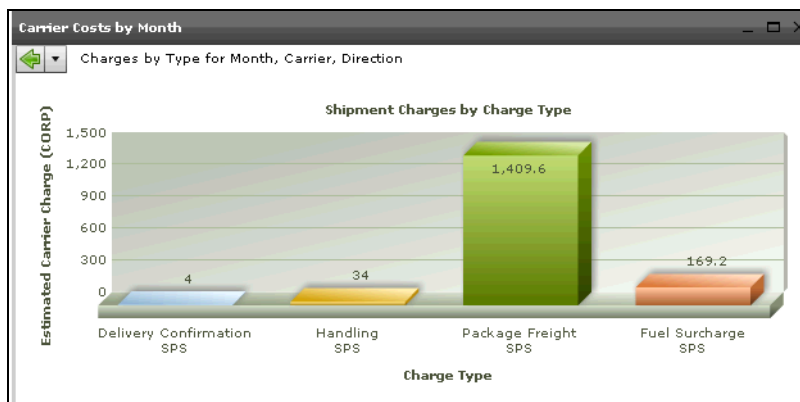
Note The predefined analytics provided in QAD BI-TMS 3.7 uses CORP (Corporate) currency on this visual item. However, Estimated Carrier Shipping Charges are also available in other currency dimensions (for example, Rate Currency, Shipment Currency, Base Currency). If necessary, an equivalent visual item based on another currency can be developed during the implementation process.

Click the relevant color-coded bar to select a specific carrier-month combination. A drill-down is available to another bar chart titled Shipment Charges by Charge Type.

This chart shows the division of the total Estimated Carrier Costs per Charge Type, for the selected carrier and month, where any Estimated Accessorial charges are identified per individual accessorial. These individual accessorial costs vary from carrier to carrier, because not all carriers utilize the same types of accessorial costs.

This analysis can assist logistics and transportation managers to assess their freight spend and how can they use this information for negotiating contracts with carriers. This data can be used to identify their top carriers and how they spend with them. The information also provides analysis of shipping conditions (for example, Hazmat or dry ice parcels) and the associated accessorial costs. Review of historic data over time can provide information on whether accessorial costs have been increasing over time and, if so, whether the increase indicates a trend.

Fig. 6.18
Shipment Charges by Charge Type



Average Cost per Unit Shipped

The next visual item on this dashboard is a line chart titled Average Cost per LB Shipped.

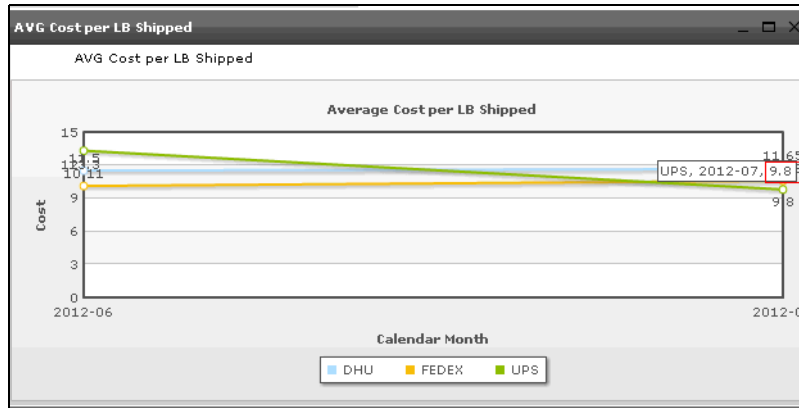
This cost is calculated as a division of the overall Estimated Carrier Cost (freight + fuel + accessorial costs) across a standard Weight unit of measure.

That is, Average Cost per LB is calculated for each carrier and month combination as $((\text{Total Estimated Carrier Costs} / \text{Total Shipment Package Gross Weight in Lbs}) \times 100)$.

The Carrier Charge of shipping goods to customers is part of the overall operating cost related to the sale. A shipper typically tries to keep this figure low to ensure that it does not cost too much to deliver products to end customers.

Note The predefined analytics provided in QAD BI-TMS 3.7 uses LB weight unit of measure on this visual item. However, package gross weight in KGs is also an available dimension. If necessary, an equivalent visual item based on Avg Cost per KG can be developed during the implementation process.

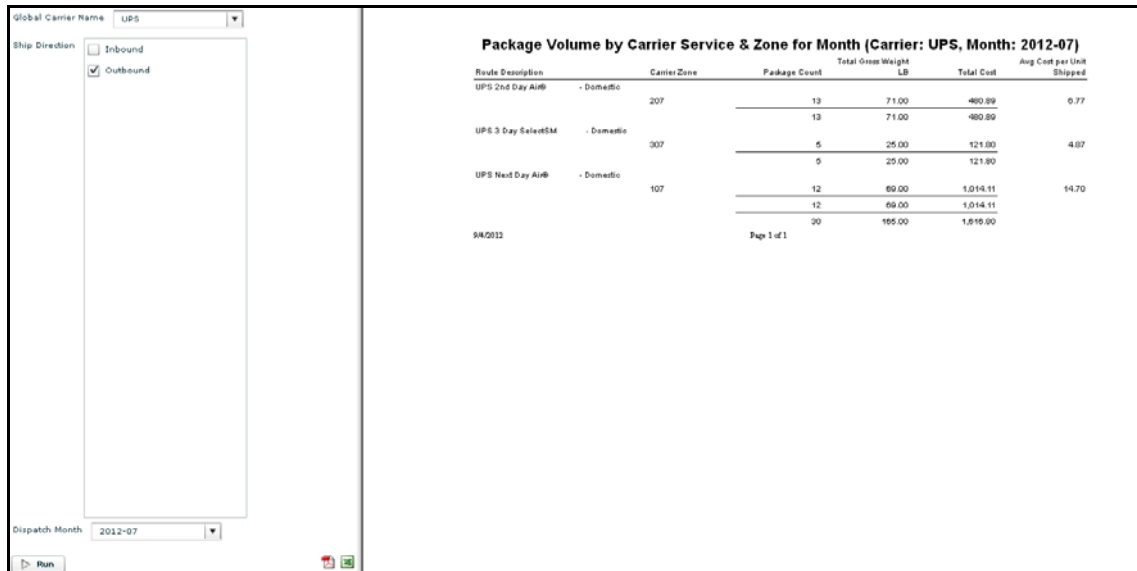
Fig. 6.19
Average Cost per Weight Unit Shipped



Click the relevant graphical point to select a specific carrier-month combination. A drill-down is available to a report titled Package Volume by Service, Zone for Month, Carrier, Direction.

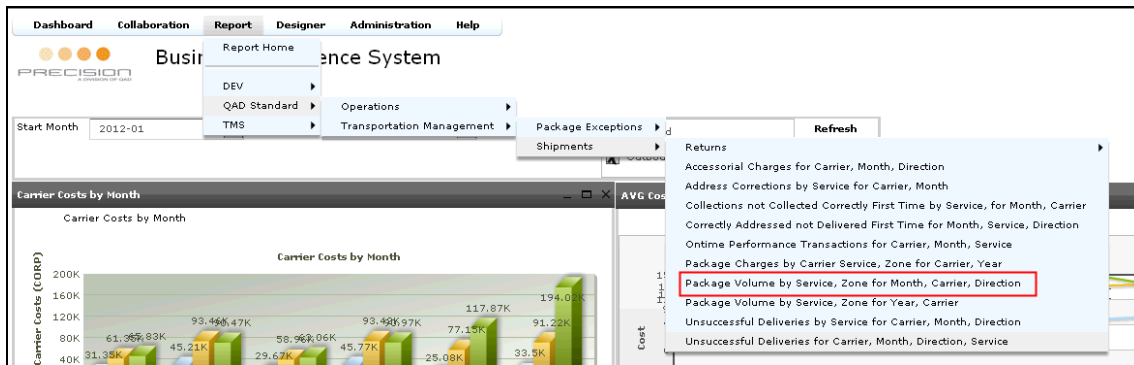
This report shows the Package Count, Total Gross Weight, Total Cost, and Avg Cost per Unit broken down per Carrier Service, for the selected carrier, month, and shipment direction. This analysis can show the trend of the freight cost per Weight UM shipped, and assist identification of trends within the context of different carriers/services.

Fig. 6.20
Package Volume Report



This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Shipments|Package Volume by Service, Zone for Month, Carrier, Direction.

Fig. 6.21
Accessing the Package Volume Report



Accessorial Cost Percentage

The next visual item on this dashboard is a line chart called Accessorial Cost as Percentage of Total Cost. Use this graph to assess what percentage of the overall Estimated Carrier Freight Spend is incurred by Accessorial charges (excluding Fuel Surcharges). Data reporting details include the breakdown of both Carrier charge and Customer charge for individual Accessorial charge types for a selected carrier-month combination.

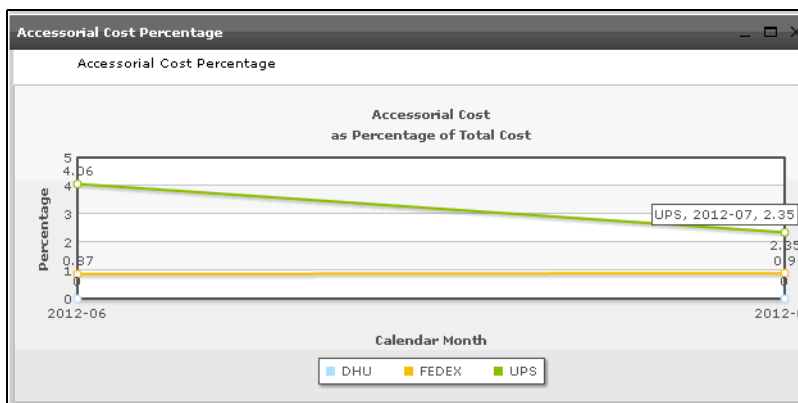
Carrier charge is the amount a shipper must pay a carrier for providing services.

Customer charge is the amount a shipper may charge their end customer for shipping charges, possibly including an uplift (increase) over the amount the shipper pays the carrier.

This metric can be used to identify the less-visible estimated accessorial costs and their impact on overall cost of shipping. Many freight carriers charge extra fees for trailer detention/demurrage, and other expenses or extra services. Often, these extra costs result from inefficient processes. This information can identify areas where you may have to negotiate accessorial costs with the carrier, or eliminate the costs by selecting an appropriate alternative service.

Note This analysis is based on estimated charges and not on the final actual carrier freight bill.

Fig. 6.22
Accessorial Cost Percentage



Select a specific carrier-month combination by clicking the relevant graphical point. A drill-down is available to the report called Accessorial Charges for Carrier, Month, Direction.

This report shows the details of the individual types of Accessorial costs incurred per Carrier Service, for the selected carrier, month, and shipment direction. It provides details of both Estimated Carrier Charge and Estimated Customer Charge.

Fig. 6.23
Accessorial Charges Report

Charges for Unsuccessful Deliveries

The next visual item on this dashboard is a bar chart called Charges for Unsuccessful Deliveries. This chart identifies total Estimated Shipping Charges that the shipper may pay the carrier for packages that are not identified as successfully delivered to the end recipient at all. (It does not include packages that were delivered to the wrong end recipient.) This information can identify excessive carrier charges for unfulfilled deliveries.

Unsuccessful deliveries include Failed Deliveries or Anticipated to have Failed Deliveries.

Packages shipping Outbound are identified as Failed Delivery when the shipping plan associated with the package has been closed without a completed delivered event occurring.

Packages shipping Inbound are identified as Failed Delivery when the shipping plan associated with the package has been closed without a completed delivered event occurring and where another anticipated event has occurred.

Packages (shipping either Outbound or Inbound) are identified as Anticipated to have Failed Delivery when:

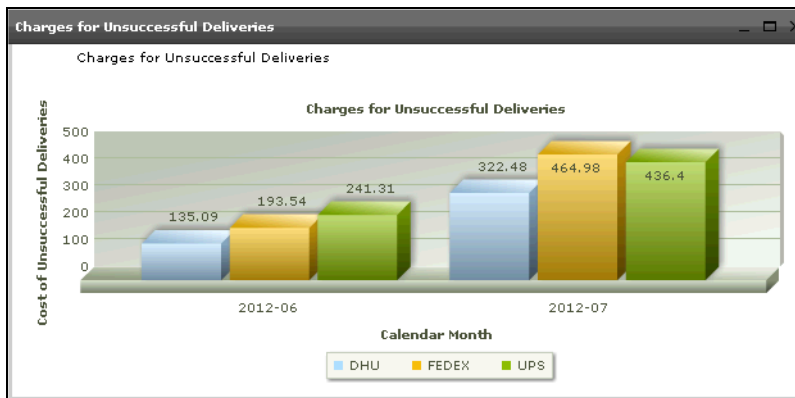
- The shipping plan associated with the package is Open with Anticipated Expected Failed Cutoff Date before today.

AND

- One of these Alerts exists: Lost/Damaged or Tracer Request.

Fig. 6.25

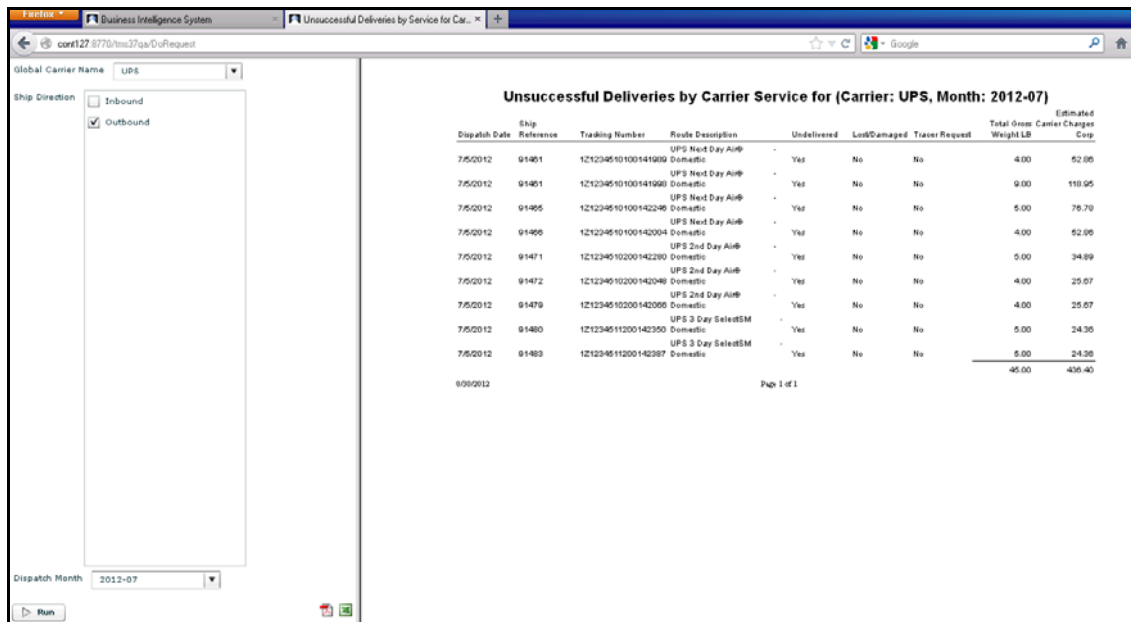
Charges for Unsuccessful Deliveries



Note The predefined analytics provided in QAD BI-TMS 3.7 uses CORP (Corporate) currency on this visual item. However, Charges for Unsuccessful Deliveries are also available in other currency dimensions (for example, Rate Currency, Shipment Currency, Base Currency). If necessary, an equivalent visual item based on another currency can be developed during implementation.

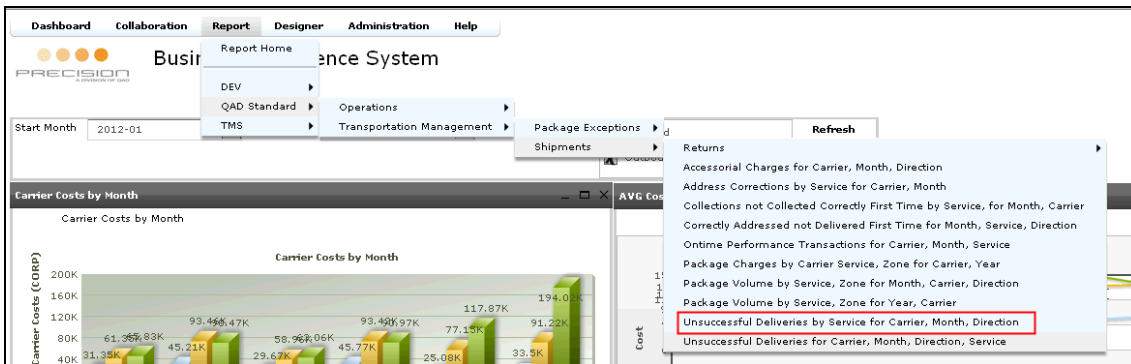
Select a specific carrier-month combination by clicking the relevant color-coded bar. A drill-down is available to a report titled Unsuccessful Deliveries by Service for Carrier, Month, Direction. This report provides details of the individual package tracking numbers that are considered to be Undeliverable. For packages considered to be Anticipated to have Failed Delivery, the report details which packages have raised alerts of Lost/Damaged or Tracer Request. The Estimated Carrier Charge for each Unsuccessful Delivery or Anticipated Failed Delivery is also displayed.

Fig. 6.26
Unsuccessful Deliveries Report



This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Shipments|Unsuccessful Deliveries by Service for Carrier, Month, Direction.

Fig. 6.27
Accessing the Unsuccessful Deliveries Report



Estimated Shipping Profit/Loss

The next visual item on this dashboard is a bar chart called Estimated Shipping Profit / Loss. This chart identifies the difference between the following two amounts:

- Estimated cost of freight, fuel, and accessorial costs the shipper charges to the end-recipient (Estimated Customer Charges)
- Estimated cost of freight, fuel, and accessorial costs the shipper pays the carrier for their service (Estimated Carrier Charges)

This KPI would apply to shipment transactions of Freight Payment Methods excluding Collect or 3rd Party. (Estimated charges are unlikely to be calculated, or the shipper eventually pays the actual charges to the carrier for these freight payment methods.)

Shipping charges are considered as Profit when the Estimated Customer Charges are higher than Estimated Carrier Charges. Otherwise, the charges are Loss and are shown as negative values below the 0 Zero baseline.

This initial visual item is representative of the overall Profit or Loss, across all Carrier Services, for the selected period and shipment direction. Some individual services can sometimes show a loss while other services for the same carrier show a profit. Breakdown detail per Service is accessible through a drill-down; see Figure 6.29 on page 283.

Fig. 6.28
Estimated Shipping Profits



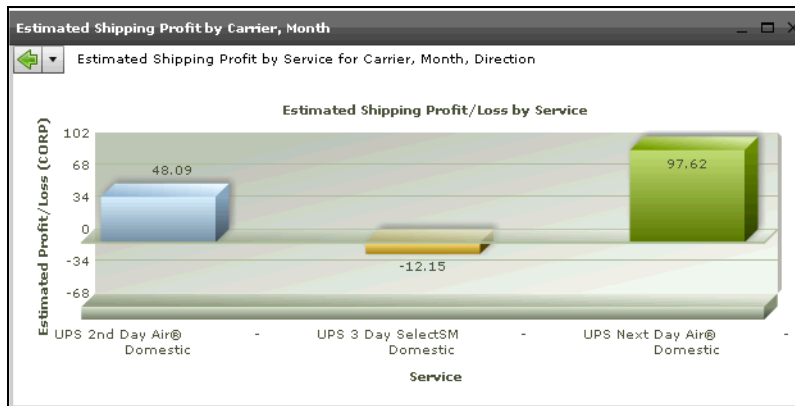
Note The predefined analytics provided in QAD BI-TMS 3.7 use CORP (Corporate) currency on this visual item. However, the estimated shipping charges that are used to determine Estimated Shipping Profit/Loss are also available in other currency dimensions (for example, Rate Currency, Shipment Currency, Base Currency). If necessary, an equivalent visual item based on another currency can be developed during implementation.

Select a specific carrier-month combination by clicking the relevant color-coded bar. A drill-down is available to another bar chart titled Estimated Shipping Profit / Loss by Service.

This chart shows the division of the Estimated Profit or Loss per Carrier Service, for the selected carrier and month.

This analysis can provide top management and logistics and transportation managers with high-level shipping metrics with an eye toward reducing costs and achieving gross margin targets.

Fig. 6.29
Estimated Shipping Profit by Service



Delivery Performance Dashboard

The Delivery Performance dashboard organizes common measures of Carrier Performance showing statistics that can be used to evaluate and improve the effectiveness of meeting customer delivery expectations. Sales analysts can use this data to:

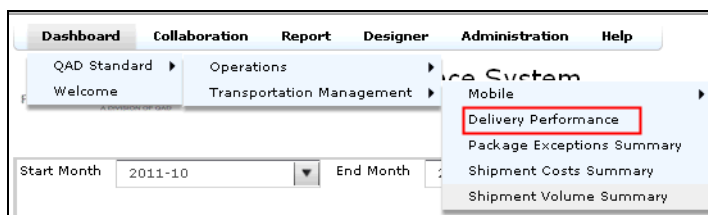
- Spot anomalies and exceptions in shipping history.
- Discover opportunities for improved delivery performance and customer retention.
- Analyze the level of delivery and pickup failures.

The visual items on the Delivery Performance dashboard (each of which is discussed in more detail) include:

- On Time Performance by Month
- Unsuccessful Deliveries by Month
- Correctly Addressed Packages not Delivered First Time
- Address Corrections by Month
- Collections not Collected correctly First Time

To access this dashboard, log in to QAD BI system using your user ID and password. The system automatically redisplay the last used dashboard for a given user ID. If the Delivery Performance dashboard does not appear immediately after login, use the Dashboard Menu at the top of the window. Select QAD Standard|Transportation Management|Delivery Performance.

Fig. 6.30
Accessing the Delivery Performance Dashboard



A parameter selection bar allows you to specify:

- The from/to date period for the statistics

- The Shipment Direction for the shipment transactions included in the statistics

Fig. 6.31
Parameter Selection Bar

The image shows a 'Parameter Selection Bar' with the following elements:

- 'Start Month' dropdown menu set to '2011-10'.
- 'End Month' dropdown menu set to '2012-09'.
- 'Shipment Direction' section with two checkboxes: 'Inbound' (checked) and 'Outbound' (checked).
- A 'Refresh' button on the right.
- A small vertical menu icon on the far right.

Click in any of the date range selection boxes and type an appropriate value directly, or use the drop-down list and select the appropriate period date.

Click in the Shipment Direction – Inbound and/or Shipment Direction – Outbound check boxes to select or clear choices.

After making your selections, click Refresh to update the statistics to match the appropriate selections.

See “Shipment Volume Summary Dashboard” on page 267 for definitions of Shipment Direction and Despatch Date.

On Time Performance by Month

The metric of % of Agreed Delivery Times Reached can be used to assess carriers’ ability to meet their service level agreements (on-time delivery performance). This information could be used to renegotiate carrier rates, switch to an alternative service, or even switch to an alternative carrier.

Deliveries are considered to be on-time if:

- 1st Attempted Delivery Date/Time is less than Initial ETA Date/Time on closed shipping plans.
- OR
- Open shipping plans exist where Initial ETA dates are in the past.

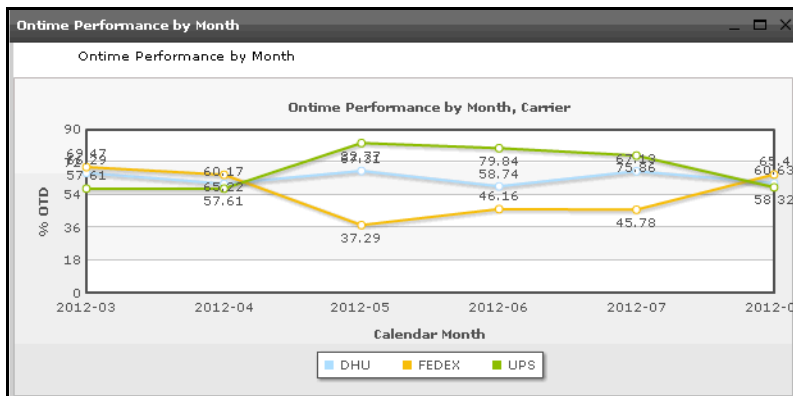
Packages are considered to be successfully delivered when the shipment plan associated with package is Closed and has a Delivered Event (DTD) flagged as Completed.

$$\text{Carrier On Time Delivery Percent} = ((\text{Carrier On Time number of packs} / \text{total Number of Packs}) * 100).$$

Note Only shipping transactions that have PEM shipping plans attached are available for use on the Delivery Performance dashboard.

This line chart displays details of %OTD (percentage On Time Deliveries) per carrier, for the selected date range and shipment direction.

Fig. 6.32
On Time Performance by Month



Select a specific carrier-month combination by clicking the relevant graphical point. There is a drill-down available to the grid titled On-Time Performance by Service for Carrier and Month.

This grid provides information on the count of Packages, the number of Successful Deliveries, and number of On Time Deliveries, per Carrier Service. It includes a breakdown of %OTD for each individual service.

Fig. 6.33
On Time Performance Report

On Time Performance by Month							
On Time Performance by Service for Carrier, Month							
Dispatch Cal Year Month	Global Carrier Name	Route Description	Package Count	Successful Delivery	Carrier OnTime	OnTime Delivery Pct	
2012-06	UPS	UPS 2nd Da...	284	170	165	58.10	
2012-06	UPS	UPS 3 Day S...	130	70	70	53.85	
2012-06	UPS	UPS Express...	108	40	40	37.04	
2012-06	UPS	UPS Next Da...	1,778	1,617	1,622	91.23	
2012-06	UPS	UPS Worldwi...	58	0	0	0.00	
2012-06	UPS	UPS Worldwi...	18	0	0	0.00	

A package shipping Outbound is considered a Failed Delivery when the shipping plan associated with the package has been Closed without a Completed Delivered Event occurring.

A package shipping Inbound is considered a Failed Delivery when:

- The shipping plan associated with the package has been Closed without a Completed Delivered Event occurring.

AND

- Another Anticipated Event has occurred.

A package (shipping either Outbound or Inbound) is considered Anticipated to have Failed Delivery when:

- The shipping plan associated with the package is Open with Anticipated Expected Failed Cutoff Date before today.

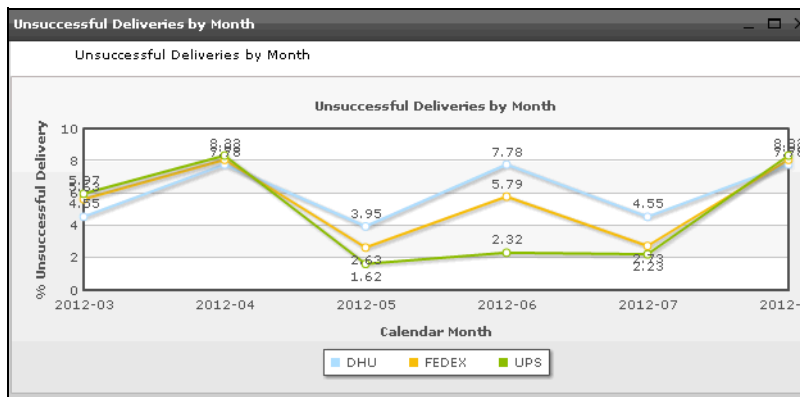
AND

- One of these Alerts exists: Lost/Damaged or Tracer Request.

Successfully Delivered packages have shipment plans that are Closed and have a Delivered Event (DTD) flagged as Completed.

$$\% \text{ of Unsuccessful Deliveries} = (\text{Count of Unsuccessful Delivery Packages} / \text{Total Expected to Have Been Delivered Packages (Successfully Delivered + Failed Delivered + Anticipated Failed Delivered)}) * 100$$

Fig. 6.36
Unsuccessful Deliveries by Month



Select a specific carrier-month combination by clicking the relevant graphical point. There is a drill-down available to the grid titled Unsuccessful Deliveries by Service for Carrier, Month, Direction.

This grid provides information on the count of packages, and the number of Unsuccessful Deliveries, per individual carrier service, for the selected period and carrier.

Fig. 6.37
Unsuccessful Deliveries Summary

Dispatch Cal Year...	Global Carrier Name	Route Description	Package Count	Unsuccessful Delivery
2012-06	UPS	UPS Next Day Air@...	1,778	20
2012-06	UPS	UPS 2nd Day Air@ ...	284	15
2012-06	UPS	UPS 3 Day SelectS...	130	10

Select a row on the grid for a particular carrier service to drill down to a report called Unsuccessful Deliveries for Carrier, Month, Direction, Service.

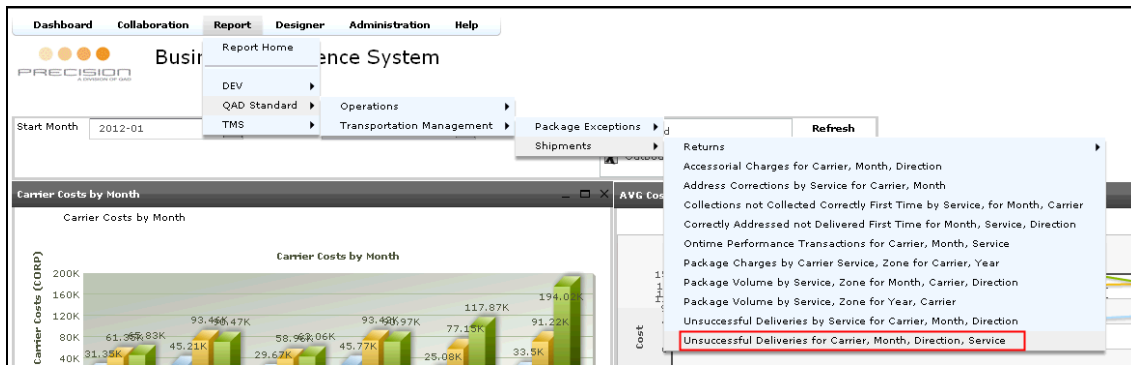
This report provides details of the individual package Tracking Numbers that are considered to be Undeliverable. Also, for those packages considered to be Anticipated to have Failed Delivery, the report details which packages have Raised Alerts of Lost/Damaged or Tracer Request. The Estimated Carrier Charge for each Unsuccessful Delivery or Anticipated Failed Delivery is also displayed.

Fig. 6.38
Unsuccessful Deliveries Detail

Dispatch Date	Reference	Tracking Number	Route Description	Undelivered	Lost/Damaged	Tracer Request	Total Gross Weight LB	Estimated Carrier Charges
6/22/2012	mj02914610	121234610100213044	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914610	121234610100213052	UPS Next Day Air® Domestic	-	Yes	No	9.00	\$18.95
6/22/2012	mj02914611	121234610100213062	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914611	121234610100213071	UPS Next Day Air® Domestic	-	Yes	No	9.00	\$18.95
6/22/2012	mj02914612	121234610100213080	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914612	121234610100213090	UPS Next Day Air® Domestic	-	Yes	No	9.00	\$18.95
6/22/2012	mj02914613	121234610100213106	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914613	121234610100213115	UPS Next Day Air® Domestic	-	Yes	No	9.00	\$18.95
6/22/2012	mj02914614	121234610100213124	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914614	121234610100213133	UPS Next Day Air® Domestic	-	Yes	No	9.00	\$18.95
6/22/2012	mj02914650	121234610100220545	UPS Next Day Air® Domestic	-	Yes	No	5.00	\$5.79
6/22/2012	mj02914651	121234610100220554	UPS Next Day Air® Domestic	-	Yes	No	5.00	\$5.79
6/22/2012	mj02914652	121234610100220562	UPS Next Day Air® Domestic	-	Yes	No	5.00	\$5.79
6/22/2012	mj02914653	121234610100220572	UPS Next Day Air® Domestic	-	Yes	No	5.00	\$5.79
6/22/2012	mj02914654	121234610100220581	UPS Next Day Air® Domestic	-	Yes	No	5.00	\$5.79
6/22/2012	mj02914660	121234610100213142	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914661	121234610100213160	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914662	121234610100213188	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914663	121234610100213204	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88
6/22/2012	mj02914664	121234610100213222	UPS Next Day Air® Domestic	-	Yes	No	4.00	\$2.88

This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Shipments|Unsuccessful Deliveries for Carrier, Month, Direction, Service.

Fig. 6.39
Accessing the Unsuccessful Deliveries Report



Correctly Addressed Packages Not Delivered First Time

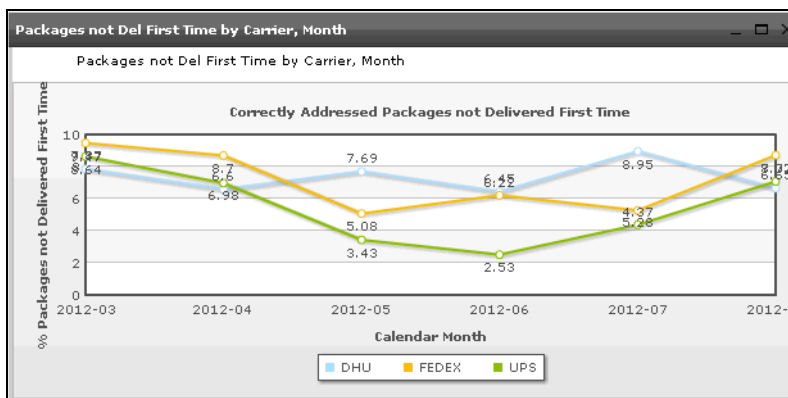
The next visual item on this dashboard is a line chart called Correctly Addressed Packages not Delivered First Time. This report identifies the percentage of packages that required multiple delivery attempts even though the delivery address was correct. This information can be used to identify special instruction requirements for delivery during particular hours or where the shipper had the wrong contact name for the ship-to party.

Deliveries are considered to be Correctly Addressed Packages not Delivered First Time when the shipping plan associated with the package has:

- A Raised Alert of type Delivery_Attempted
- AND
- No Raised Alerts of types Address_Problem or Change_in_Delivery

The line chart shows % of correctly addressed packages that are not delivered correctly first time, for the selected period and shipment directions.

Fig. 6.40
Correctly Addressed Packages Not Delivered



Select a specific carrier-month combination by clicking the relevant graphical point. There is a drill-down available to a report titled Correctly Addressed not Delivered First Time for Month, Service, Direction.

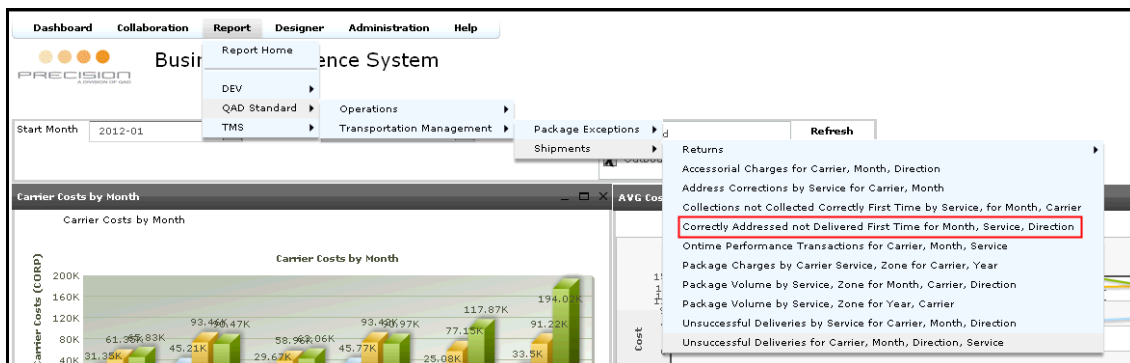
This report provides details of the individual package Tracking Numbers for each of the packages considered correctly addressed but not delivered correctly the first time.

Fig. 6.41
Correctly Addressed Not Delivered Detail

Dispatch Date	Ship Reference	Tracking Number	Route Description	Attempted Delivery
6/20/2012	mj0180300	1Z1234510100179494	UPS Next Day Air® - Domestic	Yes
6/20/2012	mj0180301	1Z1234510100179510	UPS Next Day Air® - Domestic	Yes
6/20/2012	mj0180302	1Z1234510100179538	UPS Next Day Air® - Domestic	Yes
6/20/2012	mj0180303	1Z1234510100179555	UPS Next Day Air® - Domestic	Yes
6/20/2012	mj0180304	1Z1234510100179574	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500900	1Z1234510100244225	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500901	1Z1234510100244234	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500902	1Z1234510100244243	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500903	1Z1234510100244252	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500904	1Z1234510100244261	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500910	1Z1234510100237105	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500910	1Z1234510100237177	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500911	1Z1234510100237105	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500911	1Z1234510100237102	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500912	1Z1234510100237120	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500912	1Z1234510100237111	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500913	1Z1234510100237148	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500913	1Z1234510100237136	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500914	1Z1234510100237167	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500914	1Z1234510100237165	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500920	1Z1234510100244270	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500921	1Z1234510100244209	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500922	1Z1234510100244208	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500923	1Z1234510100244305	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500924	1Z1234510100244314	UPS Next Day Air® - Domestic	Yes
6/23/2012	mj0500950	1Z1234510200244409	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500951	1Z1234510200244420	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500952	1Z1234510200244447	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500953	1Z1234510200244456	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500954	1Z1234510200244465	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500950	1Z1234510200237173	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500951	1Z1234510200237161	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500952	1Z1234510200237185	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500953	1Z1234510200235034	UPS 2nd Day Air® - Domestic	Yes
6/23/2012	mj0500954	1Z1234510200235052	UPS 2nd Day Air® - Domestic	Yes

This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Shipments|Correctly Addressed not Delivered First Time for Month, Service, Direction.

Fig. 6.42
Accessing the Correctly Addressed Not Delivered Report



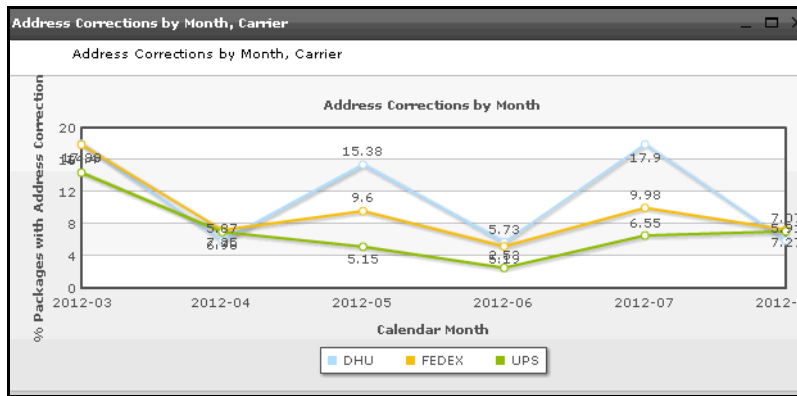
Address Corrections by Month

The next visual item on this dashboard is a line chart titled Address Corrections by Month. This chart identifies packages where there was an address difficulty delivering the package. This information can identify master address information that is incorrect, changes to the order after it has been placed, and other reasons for address problems.

Deliveries are considered to have an Address Correction problem when the shipping plan associated with the package has a Raised Alert of type Address_Problem or Change_in_Delivery.

The line chart shows % of Packages with Address Corrections, for the selected period and shipment direction.

Fig. 6.43
Address Corrections by Month



Select a specific carrier-month combination by clicking the relevant graphical point. There is a drill-down available to a report titled Address Corrections by Service for Carrier, Month.

This report provides details of the individual package Tracking Numbers for each of the packages considered to have Address Corrections. It identifies whether the cause of the Address Correction was a Raised Alert of type Address_Problem or Change_in_Delivery.

Fig. 6.44
Address Corrections Detail

Ship Direction

☐ Inbound

☒ Outbound

Dispatch Month: 2012-06

Global Carrier Name: UPS

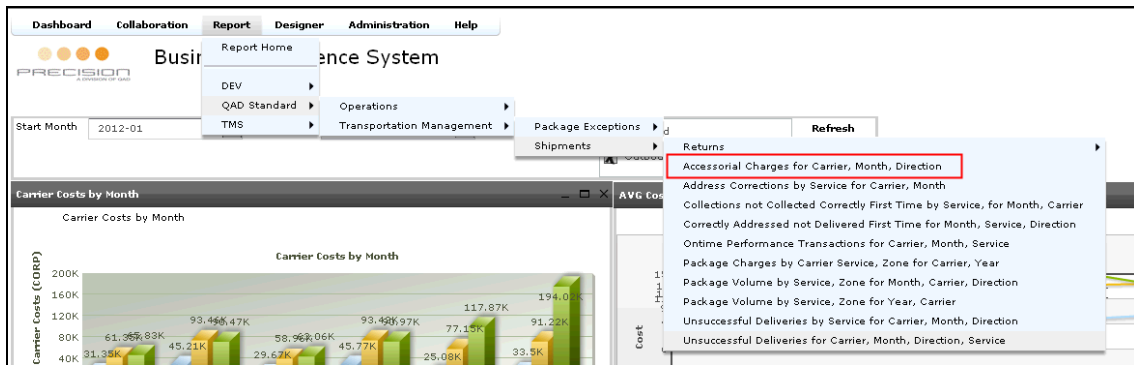
Run

Address Corrections by Carrier Service for (Carrier: UPS, Month: 2012-06)

Dispatch Date	Ship Reference	Tracking Number	Route Description	Address Correction Problem
6/23/2012	mj05909041	1Z1234510200244085	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05909041	1Z1234510200238007	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05909042	1Z1234510200238025	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05909040	1Z1234510200244070	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05909044	1Z1234510200244410	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011810	1Z1234510200228052	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011702	1Z1234510200223728	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011700	1Z1234510200228068	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011702	1Z1234510200228058	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011703	1Z1234510200228046	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011701	1Z1234510200228074	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011814	1Z1234510200228705	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011700	1Z1234510200228058	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05000663	1Z1234510200228043	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011703	1Z1234510200228002	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05000660	1Z1234510200237082	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011700	1Z1234510200228064	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011703	1Z1234510200223746	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011702	1Z1234510200228043	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011701	1Z1234510200228027	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011812	1Z1234510200228069	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05000643	1Z1234510200244401	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011811	1Z1234510200228070	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05000664	1Z1234510200238001	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011704	1Z1234510200223764	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011701	1Z1234510200223700	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011704	1Z1234510200228054	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011912	1Z1234510200228059	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011704	1Z1234510200228059	UPS 2nd Day Air®	- Domestic
6/23/2012	mj05000642	1Z1234510200244094	UPS 2nd Day Air®	- Domestic
6/23/2012	mj04011823	1Z1234511200223941	UPS 3 Day SelectSM	- Domestic
6/23/2012	mj04011820	1Z1234511200223989	UPS 3 Day SelectSM	- Domestic
6/23/2012	mj04011821	1Z1234511200223905	UPS 3 Day SelectSM	- Domestic
6/23/2012	mj04011824	1Z1234511200223969	UPS 3 Day SelectSM	- Domestic
6/23/2012	mj04011822	1Z1234511200223923	UPS 3 Day SelectSM	- Domestic
6/23/2012	mj04011704	1Z1234510100228305	UPS Next Day Air®	- Domestic

This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Shipments|Address Corrections by Service for Carrier, Month.

Fig. 6.45
Accessing the Address Corrections Report



Collections Not Collected Correctly First Time

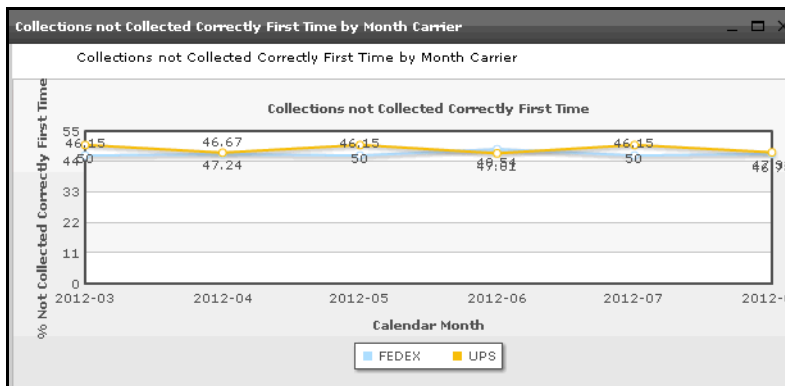
The next visual item on this dashboard is a line chart called Collections not Collected Correctly First Time. This chart identifies packages that required multiple collection attempts, even though the pick-up address was correct.

Collections are considered to be Correctly Addressed but not Collected Correctly First Time when the shipping plan associated with package has:

- A Raised Alert of type Collection_Attempt or Collection_Failed
- AND
- **No** Raised Alerts of types Address_Problem or Change_in_Delivery

The line chart shows % of Packages not Collected Correctly First Time, for the selected period. As Collections are appropriate only to Inbound shipments, the Shipment Direction parameter in the selection bar has no impact on this visual item.

Fig. 6.46
Collections Not Collected Correctly



Select a specific carrier-month combination by clicking the relevant graphical point. There is a drill-down available to a report titled Collections not Collected Correctly First Time by Service, for Month, Carrier.

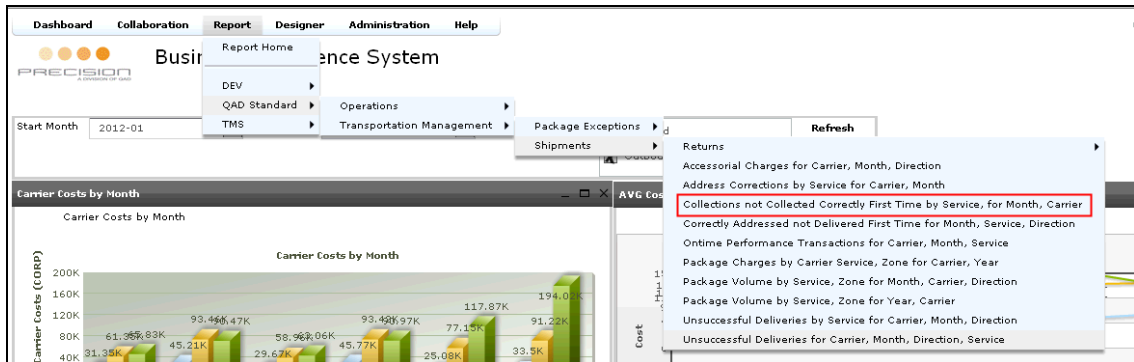
This report provides details of the individual package Tracking Numbers for each of the packages requiring multiple collection attempts.

Fig. 6.47
Collections Not Collected Correctly Detail

Calendar Month: 2012-06		Collections not Collected Correct First Time, by Carrier Service for (Carrier: UPS, Month: 2012-06)				
Global Carrier Name: UPS		Dispatch Date	Ship Reference	Tracking Number	Route Description	Collection Failed
		6/05/0012	my06910700	1Z1234510400202032	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910701	1Z1234510400202041	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910702	1Z1234510400202050	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910703	1Z1234510400202069	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910704	1Z1234510400202078	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910710	1Z1234510400204774	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910716	1Z12345104002054783	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910711	1Z12345104002064009	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910711	1Z12345104002064702	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910712	1Z12345104002064818	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910712	1Z12345104002064827	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910713	1Z12345104002064846	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910713	1Z12345104002064836	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910714	1Z12345104002064854	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910714	1Z12345104002064863	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910720	1Z12345104002062087	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910721	1Z12345104002062096	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910722	1Z12345104002062103	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910723	1Z12345104002062112	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910724	1Z12345104002062121	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910760	1Z12345104002062238	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910761	1Z12345104002062247	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910762	1Z12345104002062256	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910763	1Z12345104002062265	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910764	1Z12345104002062274	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910760	1Z1234510400206272	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910761	1Z12345104002062800	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910762	1Z12345104002062816	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910763	1Z12345104002062834	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910764	1Z12345104002062852	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910760	1Z12345104002062883	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910761	1Z12345104002062922	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910762	1Z12345104002062939	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910763	1Z12345104002062918	UPS Next Day Air®	- Domestic Yes
		6/05/0012	my06910764	1Z12345104002062927	UPS Next Day Air®	- Domestic Yes

This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Shipments|Collections not Collected Correctly First Time by Service, for Month, Carrier.

Fig. 6.48
Accessing the Collections Not Collected Correctly Report



Package Exceptions Summary Dashboard

The Package Exceptions Summary dashboard organizes common measures of delivery exceptions and delays. The dashboard shows statistics that can be used to evaluate and improve the effectiveness of meeting customer delivery expectations, and evaluate carrier delivery effectiveness. Sales analysts can use this data to evaluate exceptions and delays in shipping history. The information can help them prepare for customer reviews and carrier contract negotiations using facts including actual delays and causes of delivery exceptions. Logistics and transportation managers can use this data to report on packages that were lost or damaged or delayed during transit. They can identify the cause of delays/exceptions during transit (carrier pickup/delivery delays, attempted deliveries, customs issues, and so on).

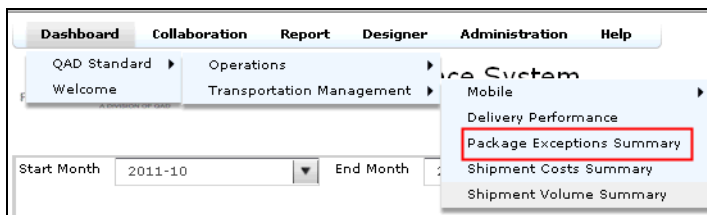
The visual items on the Package Exceptions Summary dashboard (each of which is discussed in more detail) include:

- Exceptions by Month
- Exceptions for Current Month
- Delays by Month

To access this dashboard, log in to QAD BI using your user ID and password. The system automatically redisplay the last used dashboard for a given user ID. If the Package Exceptions Summary dashboard does not appear immediately after login, pull down the Dashboard Menu at the top of the window. Select QAD Standard|Transportation Management|Package Exceptions Summary.

Fig. 6.49

Accessing the Package Exceptions Summary Dashboard



A parameter selection bar allows you to specify:

- The from/to date period for the statistics
- The Alert/Exception Types to be included in the statistics

Fig. 6.50

Parameter Selection Bars

 The image contains two screenshots of the 'Parameter Selection Bar' interface. The top screenshot shows the 'Start Month' as 2011-10 and 'End Month' as 2012-09. Under 'Alert Type', the following options are listed with checkboxes: 'Address Problem' (checked), 'Change in Delivery' (checked), 'COLLECTION_ATTEMPT' (unchecked), and 'COLLECTION_FAILED' (unchecked). A 'Refresh' button is on the right. The bottom screenshot shows the same date range, but the 'Alert Type' options are: 'Customs Issue' (checked), 'Delay Expected' (unchecked), and 'Delivery Attempted' (checked). It also has a 'Refresh' button.

You can click in any of the date range selection boxes and type an appropriate value directly, or you can use the drop-down list and select the appropriate period date.

The list of available Alert Types is determined by the selection of Raised Alerts/Exceptions on PEM shipping plans. You can select one or several Alert Types on which to conduct your analysis. For example, you may wish to analyze how many of your international shipments have encountered customs issues over the past number of months.

The Alert Types selected as initial defaults are:

- Shipment Returned
- Lost/Damaged
- Delivery Attempted

- Customs Issue
- Address Problem

if any of these Alert Types are raised on shipping plans. You can change or add to this default selection.

After making your selections, click Refresh to update the statistics to match the appropriate selections.

Exceptions by Month

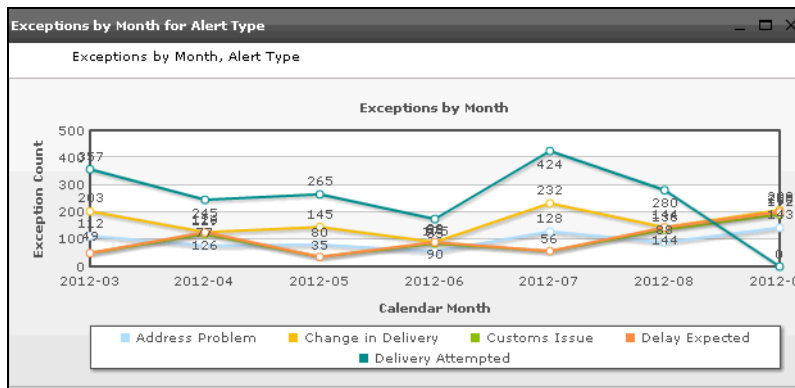
This metric of Exception Count by Month per Alert Type can be used to assess carriers' delivery performance. It identifies the number of Alert/Exceptions encountered in the delivery journey of a package to the end recipient.

The possible range of Alert/Exception types currently processed by PEM includes:

- Lost_damaged = Lost/Damaged
- Delivery_attempted = Attempted Delivery
- Address_problem = Address Problem
- Collection_failed = Collection Failed
- Collection_Attempt = Collection Attempted
- Customs_issue = Customs Issue
- Delivery_failed = Delivery Failed
- Change_in_delivery = Change in Delivery
- Delay_expected = Delay Expected
- Event_variance = Event Variance
- Late_delivery_expd = Late Delivery Expected
- Missed_delvry_date = Missed Delivery Date
- No_carrier_activty = No Carrier Activity
- Shipment_returned = Shipment Returned
- Tracer_request = Tracer Request

This line chart displays Count of Exceptions per month, for selected date range and choice of Alert Types. (The variety of Alert Types differs depending on the selections made in the Alert Type parameter of the selection bar; Figure 6.51 shows an example selection.)

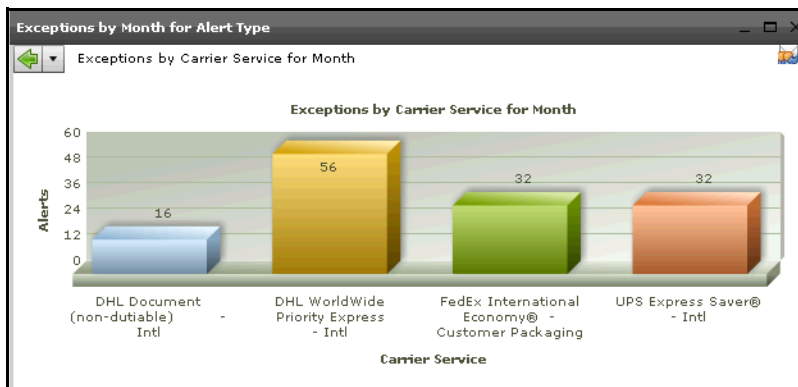
Fig. 6.51
Exceptions by Month



Select a specific alert type–month combination by clicking the relevant graphical point (for example, Customs Issues for August 2012). There is a drill-down available to a bar chart titled Exceptions by Carrier Service for Month.

This chart shows the division of the total count of Alert Type across all of the Carrier’s Services. This analysis can assist logistics and transportation managers to prepare for carrier contract negotiations using facts including number of, and causes of, delivery/pickup exceptions.

Fig. 6.52
Exceptions by Carrier Service



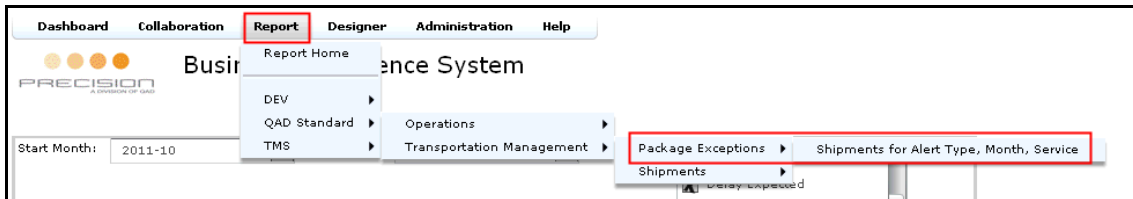
Select a particular Carrier Service to drill down to a report titled Shipments for Alert Type, Month, Service. The report displays additional details of Shipment Reference and Tracking Number and Ship-To address details, for each of the packages that has incurred the selected Alert Type for the selected month and service.

Fig. 6.53
Exceptions by Carrier Service Detail

Dispatch Date	Ship To Party Name	Ship To Address Line 1	Ship To City Name	Ship To Country Name	Ship Reference	Tracking Number
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013500	8110390413
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013501	8110390424
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013502	8110390435
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013503	8110390446
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013504	8110390450
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013505	8110390461
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013506	8110390472
8/20/2012	Test Consignee	123 Somewhere Lane	DUBLIN	IRELAND	ja10013507	8110390483
8/20/2012	Test Consignee	651 W Washington Blvd	DUBLIN	IRELAND	ja10013510	8110390504
8/20/2012	Test Consignee	651 W Washington Blvd	DUBLIN	IRELAND	ja10013511	8110390515
8/20/2012	Test Consignee	651 W Washington Blvd	DUBLIN	IRELAND	ja10013512	8110390526

This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Package Exceptions|Shipments for Alert Type, Month, Service.

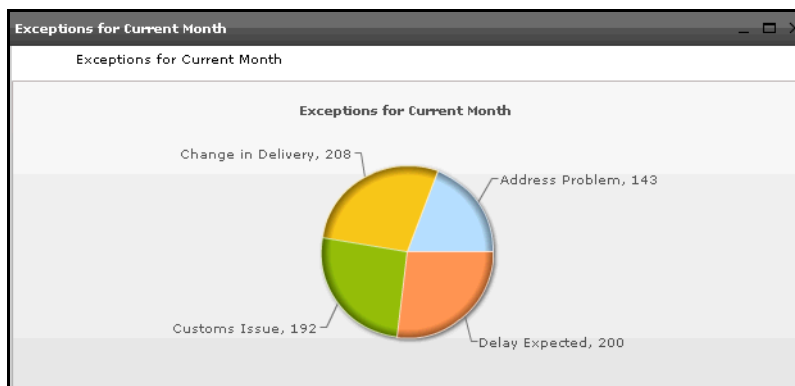
Fig. 6.54
Accessing the Package Exceptions Summary Report



Exceptions for Current Month

The next visual item on this dashboard is a pie chart titled Exceptions for Current Month. This chart identifies the Alert Types that are raised for the current month. That is, it shows the most recent instances of Alerts/Exceptions.

Fig. 6.55
Exceptions for Current Month

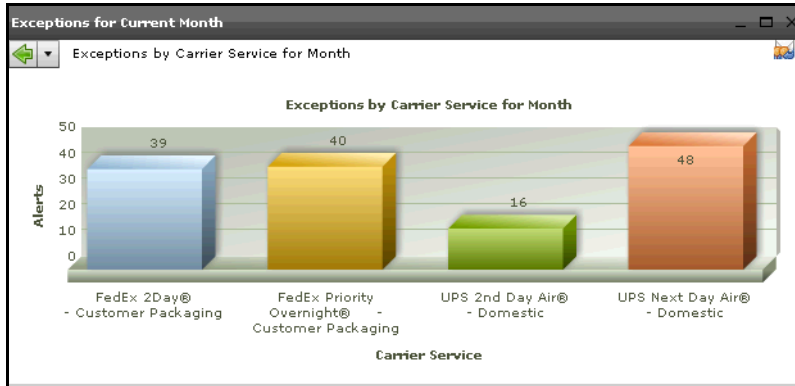


Select a specific Alert Type by clicking the relevant pie slice (for example, Address Problem). There is a drill-down available to a bar chart titled Exceptions by Carrier Service for Month.

This chart shows the division of the total count of Alert Type across all of the Carrier's Services. This analysis can assist logistics and transportation managers to prepare for carrier contract negotiations using facts including number of, and causes of, delivery/pickup exceptions.

Fig. 6.56

Exceptions by Carrier Service



Select a particular Carrier Service to drill down to a report titled Shipments for Alert Type, Month, Service. The report displays additional details of Shipment Reference and Tracking Number and Ship-To address details, for each of the packages that has incurred selected Alert Type for the selected month and service.

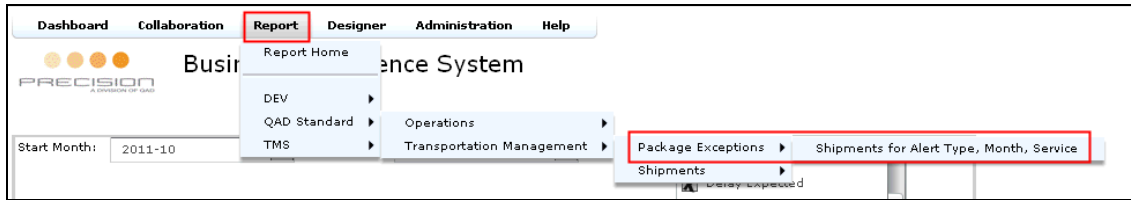
Fig. 6.57

Exceptions by Carrier Service Detail

Alert Type: Address Problem Route: UPS 2nd Day Air@ Dispatch Month: 2012-09		Shipments For (Service: UPS 2nd Day Air@) - Domestic, Month: 2012-09, Alert: Address Problem)					
Dispatch Date	Ship To Party Name	Ship To Address Line 1	Ship To City Name	Ship To Postal Code	Ship To Country Name	Ship Reference	Tracking Number
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011700	1Z1234510200411999
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011701	1Z1234510200412014
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011702	1Z1234510200412032
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011703	1Z1234510200412050
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011704	1Z1234510200412078
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011705	1Z1234510200412096
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011706	1Z1234510200412112
9/13/2012	Test Consignee	651 W Washington Blvd	LOS ANGELOS	90210	UNITED STATES	un04011707	1Z1234510200412130
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011810	1Z1234510200413818
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011811	1Z1234510200413824
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011812	1Z1234510200413933
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011813	1Z1234510200413942
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011814	1Z1234510200413951
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011815	1Z1234510200413960
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011816	1Z1234510200413979
9/13/2012	Test Consignee	123 Somewhere Lane	LOS ANGELOS	90210	UNITED STATES	un04011817	1Z1234510200413988

This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Package Exceptions|Shipments for Alert Type, Month, Service.

Fig. 6.58
Accessing the Package Exceptions by Current Month Report



Delays by Month

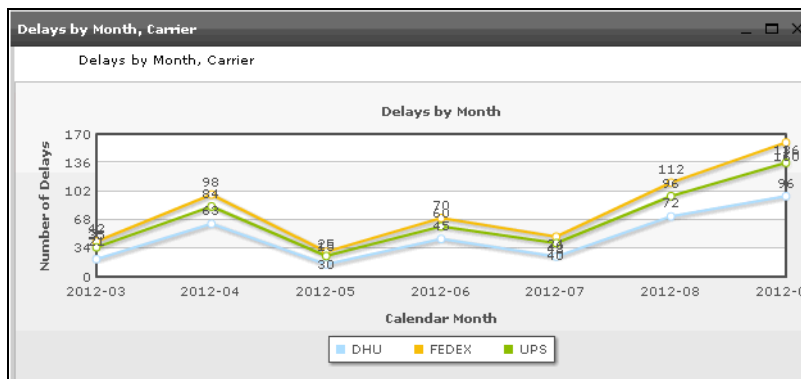
The next visual item on this dashboard is a line chart titled Delays by Month. This metric is used to identify packages where there was a delay during transit in delivering the package.

Packages are considered to have a Delay when the shipping plan associated with package has a Raised Alert of type Delay_Expected or Customs_Issue.

Note Since Delay indicates only these two types of Alerts/Exceptions, the Alert Type parameter in the Selection bar is not relevant to this visual item. Alert Type has no impact; that is, the Delays by Month graph always includes only alerts of these two specific types.

This line chart displays Count of Delays per carrier and month, for the selected date.

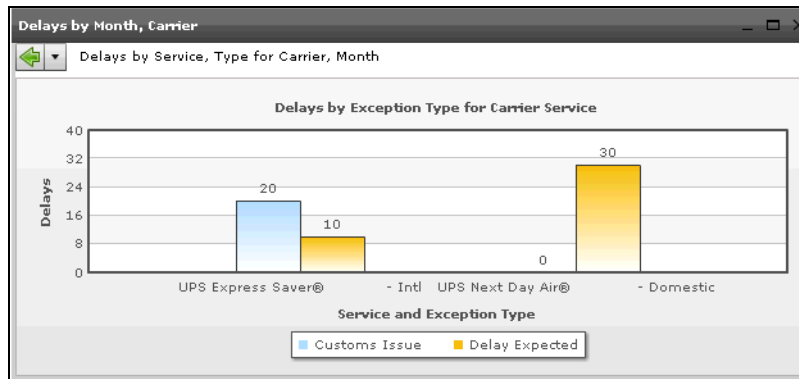
Fig. 6.59
Delays by Month



Select a specific carrier-month combination by clicking the relevant graphical point. There is a drill-down available to a bar chart titled Delays by Exception Type for Carrier Service.

This chart shows the division of the total count of Delays across all of the Services for the selected carriers. It also identifies how many of these Delays are the result of Customs Issues and how many are the result of Delay Expected. This analysis can assist logistics and transportation managers to prepare for carrier contract negotiations using facts including number of and causes of delays.

Fig. 6.60
Delays by Exception Type



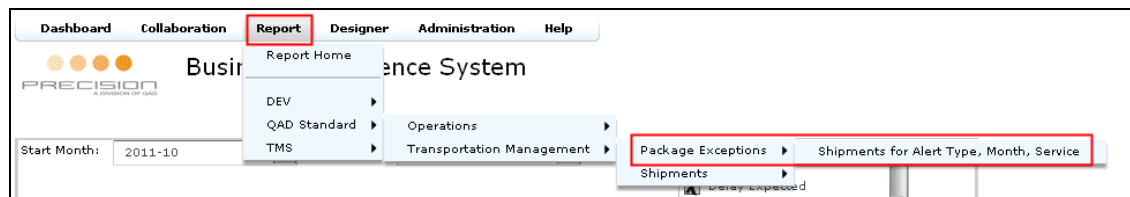
Select a particular Carrier Service and Alert Type of Customs Issue or Delay Expected to drill down to a report titled Shipments for Alert Type, Month, Service. This report displays additional details of Shipment Reference and Tracking Number and Ship-To address details for each package that has incurred the selected Alert Type for the selected month and service.

Fig. 6.61
Delays by Exception Type Detail

Alert Type: Customs Issue Route: UPS Express Saver® Dispatch Month: 2012-06		Shipments For (Service: UPS Express Saver® - Intl, Month: 2012-06, Alert: Customs Issue)					
Dispatch Date	Ship To Party Name	Ship To Address Line 1	Ship To City Name	Ship To Postal Code	Ship To Country Name	Ship Reference	Tracking Number
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913010	121234510400007616
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913011	121234510400007625
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913012	121234510400007634
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913013	121234510400007643
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913014	121234510400007652
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913020	121234510400296468
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913021	121234510400296476
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913022	121234510400296484
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913023	121234510400296492
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913024	121234510400296500
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913160	121234510400308160
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913161	121234510400308179
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913162	121234510400308187
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913163	121234510400308195
6/25/2012	Test Consignee	123 Somewhere Lane	VANCOUVER	V5C 2W6	CANADA	mj16913164	121234510400308204
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913170	121234510400308550
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913171	121234510400308558
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913172	121234510400308566
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913173	121234510400308574
6/25/2012	Test Consignee	851 W Washington Blvd	VANCOUVER	V5C 2W6	CANADA	mj16913174	121234510400308582

This report can also be run directly from the menu. Pull down the Reports Menu at the top of the window. Select QAD Standard|Transportation Management|Package Exceptions|Shipments for Alert Type, Month, Service.

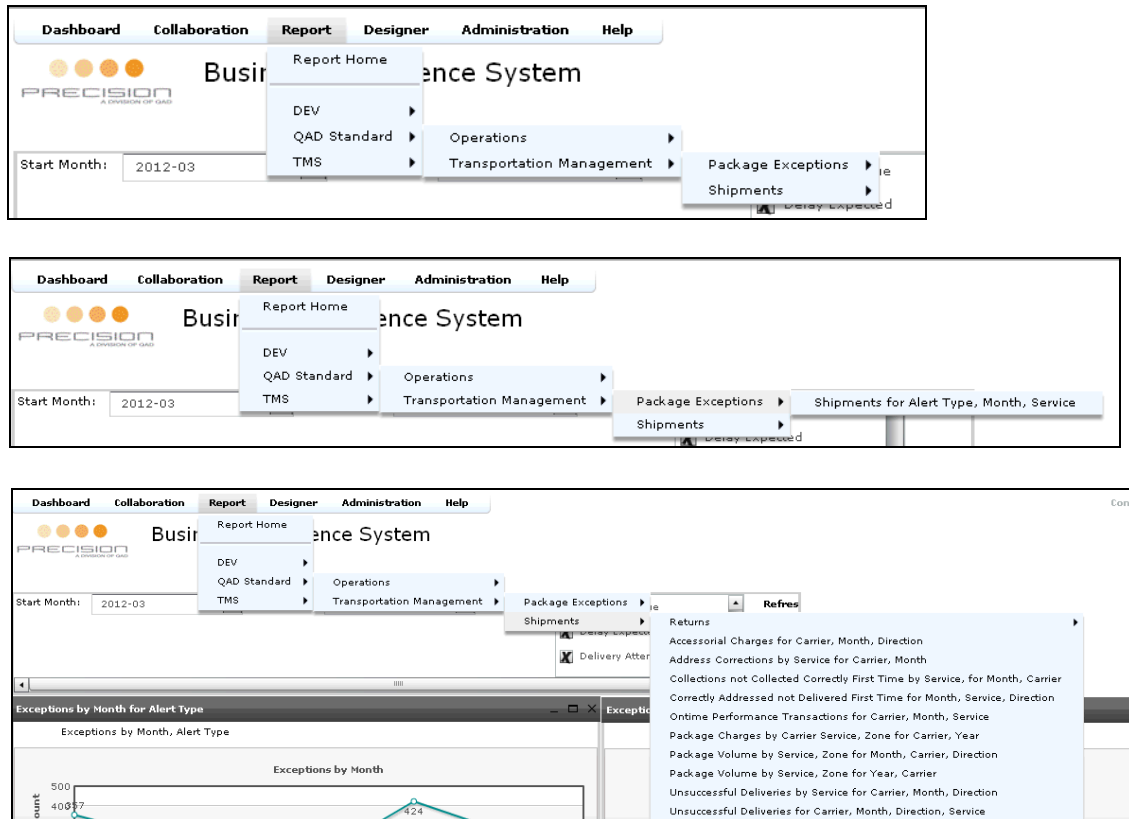
Fig. 6.62
Accessing the Delays by Month Report



Reports Menu

The Reports Menu for Transportation Management includes a listing of reports under the Package Exceptions and Shipments menus. Each of the individual reports on these menus can be accessed either directly from this Report tab or by drilling down from visual items. All of these reports have already been discussed in previous sections that describe how they are accessed with a drill-down from visual item graphs. The exception is one report under the Returns menu, which is discussed in this section.

Fig. 6.63
Navigating to a Report



Returns Report

Under the Reports|QAD Standard|Transportation Management|Shipments menu tree, an entry for Returns leads to a specific report titled Returns In Transit or Awaiting Collection. This report is only available from this report menu tree—that is, it is not accessed using a drill-down from a visual item.

Fig. 6.64
Accessing the Returns Report



The Returns in Transit or Awaiting Collection report covers Inbound (returns) transactions still pending delivery. It identifies transactions that are either in-transit or still awaiting collection by the carrier. These may be returns labels that were generated for potential use, or returns labels that were generated for definite use.

Packages are considered to be Returns in Transit if the Shipping Plan associated with the package has either MAN (Manifested) or TRN (In Transit) event occurred but no DTD (Delivered) event. That is, the carrier has picked up the goods but has not delivered them.

Packages are considered to be Awaiting Collection when the Shipping Plan associated with the package has no events at all (no MAN or TRN or DTD events).

Fig. 6.65
Returns in Transit Report Detail

Returns In Transit or Awaiting Collection							
Dispatch Date	Global Carrier Name	Route Description	Shipment Reference	Tracking Number	Awaiting Collection	Returns in Transit	
	UPS	UPS Next Day Air® - Domestic	91000	1Z1234518400175332	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91001	1Z1234518400175341	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91002	1Z1234518400175327	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91005	1Z1234518400175378	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91006	1Z1234518400175387	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91009	1Z1234518400175306	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91009	1Z1234518400175403	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91011	1Z1234518400175421	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91020	541020997090	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91022	541020997302	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91024	541020997024	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91026	541020997670	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91029	541020997081	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91029	541020997057	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91040	1Z1234518400175430	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91041	1Z1234518400175130	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91041	1Z1234518400175146	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91042	1Z1234518400175640	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91046	1Z1234518400175163	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91048	1Z1234518400175485	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91052	1Z1234518400175207	Yes	No	
	UPS	UPS Next Day Air® - Domestic	91053	1Z1234518400175529	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91071	541020996077	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91072	541020996088	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91073	541020996028	Yes	No	
	FEDEX	FedEx Priority Overnight® Customer Packaging	91075	541020996103	Yes	No	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91090	1Z1234518400170475	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91081	1Z1234518400170484	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91092	1Z1234518400176206	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91094	1Z1234518400178500	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91095	1Z1234518400176519	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91096	1Z1234518400176520	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91098	1Z1234518400176537	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91099	1Z1234518400176546	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91061	1Z1234518400176564	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91062	1Z1234518400176673	No	Yes	
6/19/2012	UPS	UPS Next Day Air® - Domestic	91063	1Z1234518400176682	No	Yes	
6/19/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91730	541020999130	No	Yes	
6/19/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91732	541020999147	No	Yes	
6/19/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91734	5410209990471	No	Yes	
6/19/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91736	541020998860	No	Yes	
6/19/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91736	5410209990091	No	Yes	
6/19/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91739	541020998508	No	Yes	
6/19/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91741	5410209990520	No	Yes	
7/17/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91710	5410209986552	No	Yes	
7/17/2012	FEDEX	FedEx Priority Overnight® Customer Packaging	91714	5410209990596	No	Yes	

The definition of Despatch Date for Inbound transactions is:

- Date of Manifested (MAN) event on the shipment's shipping plan

OR

- Date of In Transit (TRN) event on the shipment's shipping plan

Therefore, for Inbound transactions considered to be Awaiting Collection (that is, no events have yet occurred on shipping plan), there is no despatch date. The Despatch Date column can be blank for some entries on this report.

Financials: EE Accounts Payable

This chapter provides detailed information about the Financials - EE Accounts Payable dashboard. It includes the following topics:

Introduction **306**

An introduction to the EE Accounts Payable dashboard.

EE Accounts Payable Dashboard **306**

A detailed overview of the KPIs on the EE Accounts Payable dashboard.

Introduction

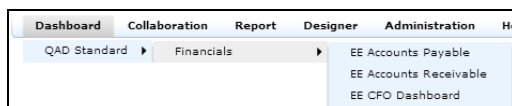
The EE Accounts Payable dashboard in the Financials module helps answer the following questions:

- How much supplier credit is taken and what is the evolution over time?
- Who are my most important suppliers, and are there any overdue amounts owed to those suppliers?
- What is the evolution of Accounts Payable over time?

EE Accounts Payable Dashboard

To access the EE Accounts Payable dashboard, select Dashboard|QAD Standard|Financials|EE Accounts Payable.

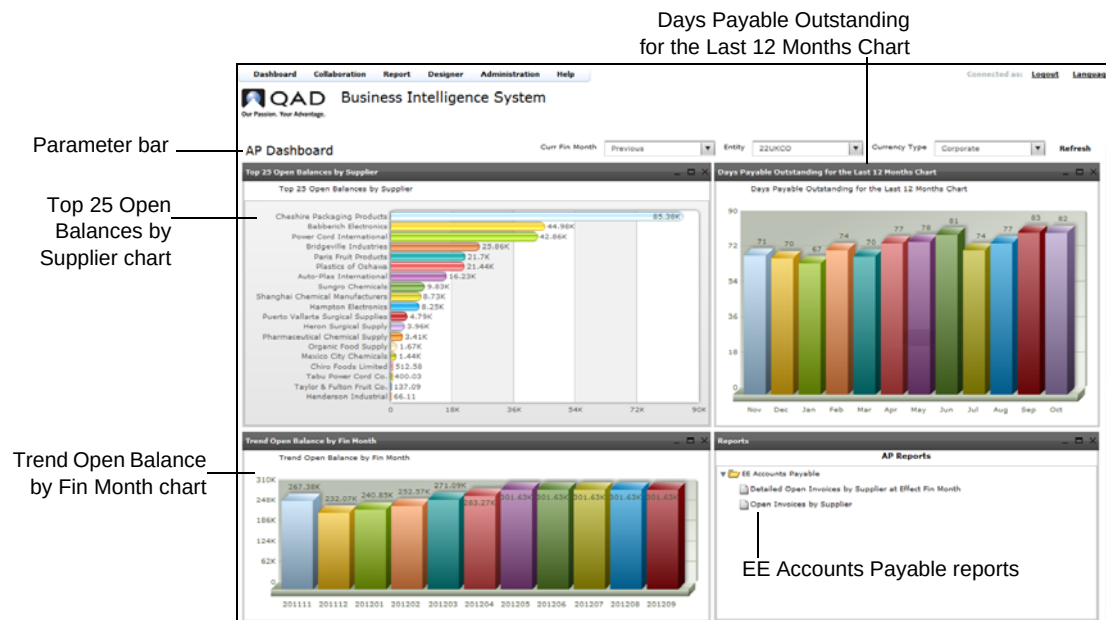
Fig. 7.1
Financial Dashboards



This dashboard contains the following KPIs and reports:

- **Days Payable Outstanding.** See “Days Payable Outstanding for the Last 12 Months” on page 308.
- **Top 25 Outstanding Suppliers.** See “Top 25 Outstanding Suppliers” on page 310.
- **Trend Open Balance by Fin Month.** See “Trend Open Balance by Fin Month” on page 312.
- **Detailed Open Invoice by Supplier at Effect Fin Month report.** See “Detailed Open Invoices by Supplier at Effect Fin Month Report” on page 314.
- **Open Invoices by Supplier report.** See “Open Invoice by Supplier Report” on page 312.

Fig. 7.2
EE Accounts Payable Dashboard



The parameter bar on the dashboard contains the following selections:

- **Curr Fin Month.** To indicate the month that you want to see the data for, select Current, Last Year, Previous, or Next. Select Current to see the data for the current month. Select Last Year to see the data for last year's corresponding month. Select Previous to see the data from the previous month and Next to see the data from the next month.
- **Entity.** Select the entity you want to see data for. Choose % to view the data for all entities combined.
- **Currency Type.** To indicate the currency type, select Base Currency or Corporate Currency. Base Currency is the currency of the selected entity as set up in Enterprise Edition. Corporate Currency is the common reporting currency for all entities in the BI data warehouse. It is defined during the setup of the BI data warehouse.

Note Corporate currency amounts are calculated based on the base currency of each entity. If the current month is chosen, the system uses the accounting exchange rate that is valid at the period end or on the current date.

The calculation algorithm is as follows:

If the CC (corporate currency) equals the BC (base currency), then the BC value is taken as the CC value.

If the CC is not equal to the BC and the CC is equal to the TC (transaction currency), then the TC value is taken as the CC value.

If the CC is not equal to the BC and the CC is not equal to the TC, then the CC value is calculated by multiplying the BC amount by the CC/BC accounting exchange rate. If the CC/BC rate is not found, then the system searches for the BC/CC accounting exchange rate. The accounting exchange rate is a mandatory rate in the ERP system and hence is always available.

Days Payable Outstanding for the Last 12 Months

Days payable outstanding (DPO) is an activity ratio that measures how well a business is managing its accounts payable. The lower the ratio, the quicker the business pays its liabilities. It also shows the average payment terms granted to a company by its suppliers. The higher the ratio, the better credit terms a company gets from its suppliers. From a company's perspective, an increase in DPO is an improvement and a decrease is deterioration.

The DPO is calculated as follows:

$$DPO = (\text{Accounts Payable} / \text{Purchases}) * 365$$

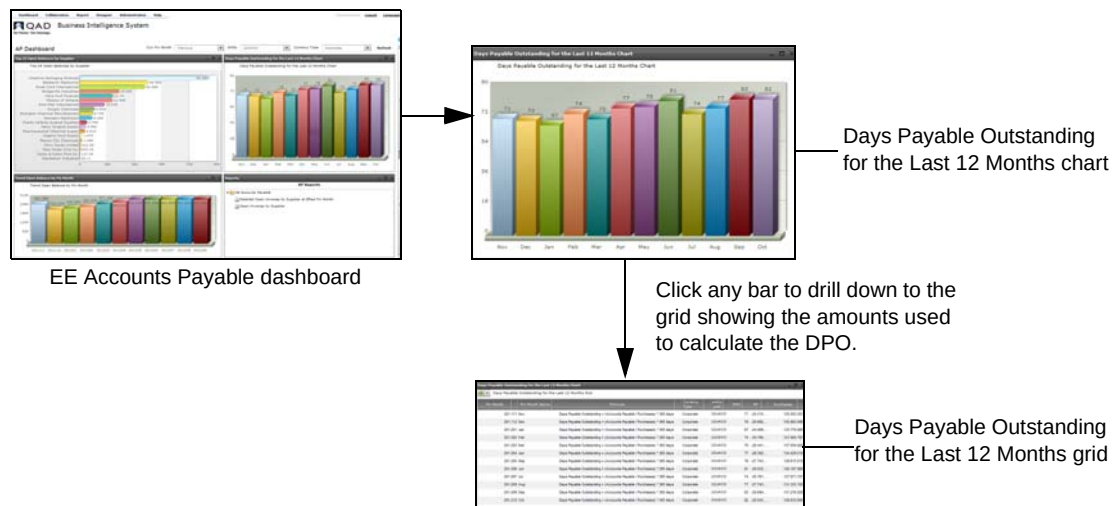
Note The data source is the GL Report Line fact table, which retrieves data from the EE GL Balance fact table. An Excel spreadsheet is used to define the GL account ranges for each reporting line such as Accounts Payable or Total Purchases. For further details, see Chapter 9, "Financials: EE CFO Dashboard," on page 329.

Navigation

The Days Payable Outstanding chart is linked to a grid that shows the amounts used to calculate the DPO ratio.

Fig. 7.3

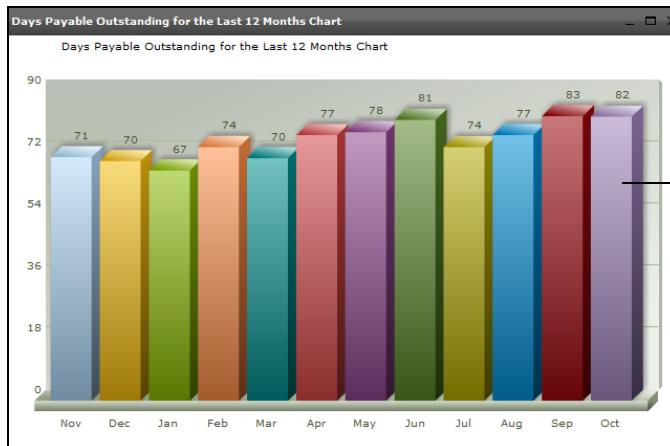
Navigation Overview for the Days Payable Outstanding for the Last 12 Months KPI



Days Payable Outstanding for the Last 12 Months Chart

This chart shows the DPO ratio for the last 12 months.

Fig. 7.4
Days Payable Outstanding for the Last 12 Months Chart



Click any bar to drill down to the grid showing the amounts used to calculate the DPO.

Days Payable Outstanding for the Last 12 Months Grid

This grid shows the amounts used to calculate the DPO ratio in the previous chart. This grid contains the following columns:

- Fin Month.
- Fin Month Name.
- Formula.
- Currency Type.
- Entity Code
- DPO. The Days Payable Outstanding ratio.
- AP. The accounts payable amount.
- Purchases.

Click the green back arrow to return to previous chart.

Fig. 7.5
Days Payable Outstanding for the Last 12 Months Grid

Fin Month	Fin Month Name	Formula	Currency Type	entity cod.	DPO	AP	Purchases
201.111 Nov		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	71	-24.315....	125.563.303
201.112 Dec		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	70	-29.692....	155.883.096
201.201 Jan		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	67	-24.489....	133.778.995
201.202 Feb		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	74	-25.790....	127.905.787
201.203 Mar		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	70	-26.441....	137.050.928
201.204 Apr		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	77	-28.392....	134.429.518
201.205 May		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	78	-27.743....	129.915.819
201.206 Jun		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	81	-26.832....	120.197.889
201.207 Jul		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	74	-25.791....	127.971.727
201.208 Aug		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	77	-27.743....	131.333.105
201.209 Sep		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	83	-29.694....	131.216.029
201.210 Oct		Days Payable Outstanding = (Accounts Payable / Purchases) * 365 days	Corporate	22UKCO	82	-29.043....	128.633.856

Top 25 Outstanding Suppliers

According to the Pareto principle, 80% of the outstanding accounts payable come from 20% of the suppliers. It is vital to know these 20% suppliers because they are the suppliers that have the highest impact on outstanding accounts payable. The Top 25 Outstanding Suppliers KPI is a best practice that focuses on these important suppliers.

Navigation

The Top 25 Outstanding Suppliers chart is linked to a grid that shows the aging buckets for the top 25 suppliers. The grid is linked to a report that shows the open items for a selected supplier.

Fig. 7.6

Navigation Overview for the Top 25 Outstanding Suppliers KPI

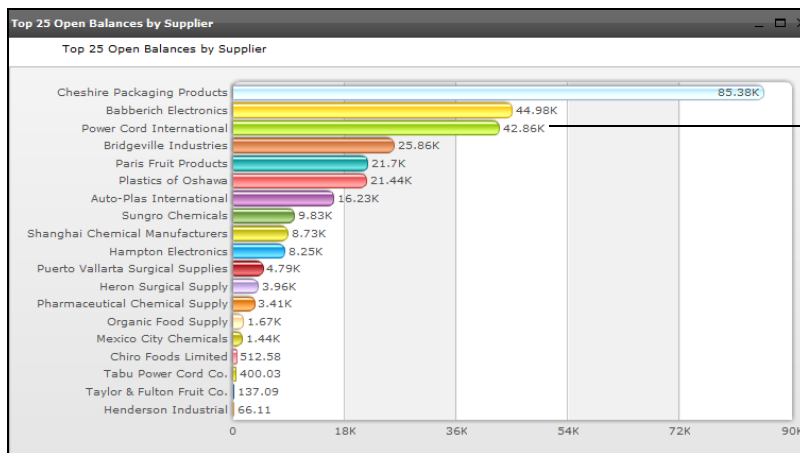


Top 25 Open Balances by Supplier Chart

This chart shows the top 25 suppliers based on the net outstanding balance in descending order by balance.

Click any bar in the chart to drill down to the Aged Top 25 Suppliers grid, which shows the aging buckets for the top 25 suppliers.

Fig. 7.7
Top 25 Outstanding Suppliers Chart



Click any bar to drill down to the grid showing aging buckets for the top 25 suppliers.

Aged Top 25 Suppliers Grid

This grid, which shows the aging buckets for the top 25 suppliers, contains the following columns:

- Supplier Name
- Open Amount
- Open Amount 1-30
- Open Amount 31-60
- Open Amount 61-90
- Open Amount > 90

Fig. 7.8
Aged Top 25 Suppliers Grid

Top 25 Open Balances by Supplier						
Aged Top 25 Suppliers						
SupplierName	OpenAmount	OpenAmount Current	OpenAmount 1_30	OpenAmount 31_60	OpenAmount 61_90	OpenAmount 90_over
Cheshire Packagin...	85.383	0	0	0	0	85.383
Babberich Electro...	44.982	0	0	0	0	44.982
Power Cord Intern...	42.862	0	0	0	3.961	38.901
Bridgeville Industries	25.856	0	0	0	0	25.856
Paris Fruit Products	21.698	0	0	0	0	21.698
Plastics of Oshawa	21.435	0	0	0	0	21.435
Auto-Plas Internati...	16.226	0	0	0	0	16.226
Sungro Chemicals	9.829	0	0	0	0	9.829
Shanghai Chemica...	8.733	0	0	0	0	8.733
Hampton Electronics	8.248	0	0	0	0	8.248
Puerto Vallarta Su...	4.791	0	0	0	0	4.791
Heron Surgical Su...	3.955	0	0	0	0	3.955
Pharmaceutical Ch...	3.409	0	0	0	0	3.409
Organic Food Sup...	1.668	0	0	0	0	1.668

Click the supplier name to drill out to the report showing the open items for that selected supplier.

Click the green back arrow to return to the previous chart. Click the supplier name to drill out to the Open Invoice by Supplier report that shows the open items for that supplier.

Open Invoice by Supplier Report

This report shows the open items—invoices, credit notes, prepayments, adjustments—for a selected supplier. This report contains the following columns:

- Supplier Name
- Invoice Number
- Invoice Text
- Effective Date
- Due Date
- Invoice Amount
- Open Amount
- Currency Code

Click the green back arrow to return to the previous grid.

Fig. 7.9
Open Invoice by Supplier Report

Eff Curr Fin Month

Previous

Entity Code

22UKCO

Source System

QMI_EE_LOCAL

Currency Type

Corporate

Supplier Name

Cheshire Packaging Prd

Open Invoice by Supplier

EntityCode	SupplierName	InvoiceVoucher	InvoiceReference	InvoiceAmount	EffectiveDate	DueDate	OpenAmount	CurrencyType
22UKCO	Cheshire Packaging Products	138	PS HO2	-1,622.60	30/09/2012	14/12/2011	-1,622.60	Corporate
22UKCO	Cheshire Packaging Products	139	PS HO3	-3,245.20	30/09/2012	18/11/2011	-3,245.20	Corporate
22UKCO	Cheshire Packaging Products	364	PO111116	-53,676.47	30/09/2012	14/01/2012	-53,676.47	Corporate
22UKCO	Cheshire Packaging Products	391	PO121116	-26,838.23	30/09/2012	13/02/2012	-26,838.23	Corporate
				-85,382.50			-85,382.50	

30/10/2012

Page 1 of 1

Trend Open Balance by Fin Month

Trend analysis is often used to analyze accounts payable figures to identify significant changes in the company's operations and financial accounts. Using trend analysis in accounts payable over time provides information that is useful in evaluating operating performance. This function allows you to assess the expected condition of a company's accounts payable in the current year.

Accounts payable is a current liability account on the balance sheet. The account represents the company's short-term financial obligations to creditors and suppliers—goods and services the company has already received but not yet paid for. It is considered a short-term liabilities account because the payables are due within one year or one operating cycle.

Money in accounts payable is essentially an interest-free loan from suppliers. Often, suppliers offer a discount for early payment. When you decide whether to pay early to get the discount, it is necessary to compare the value of the discount to the company's borrowing costs.

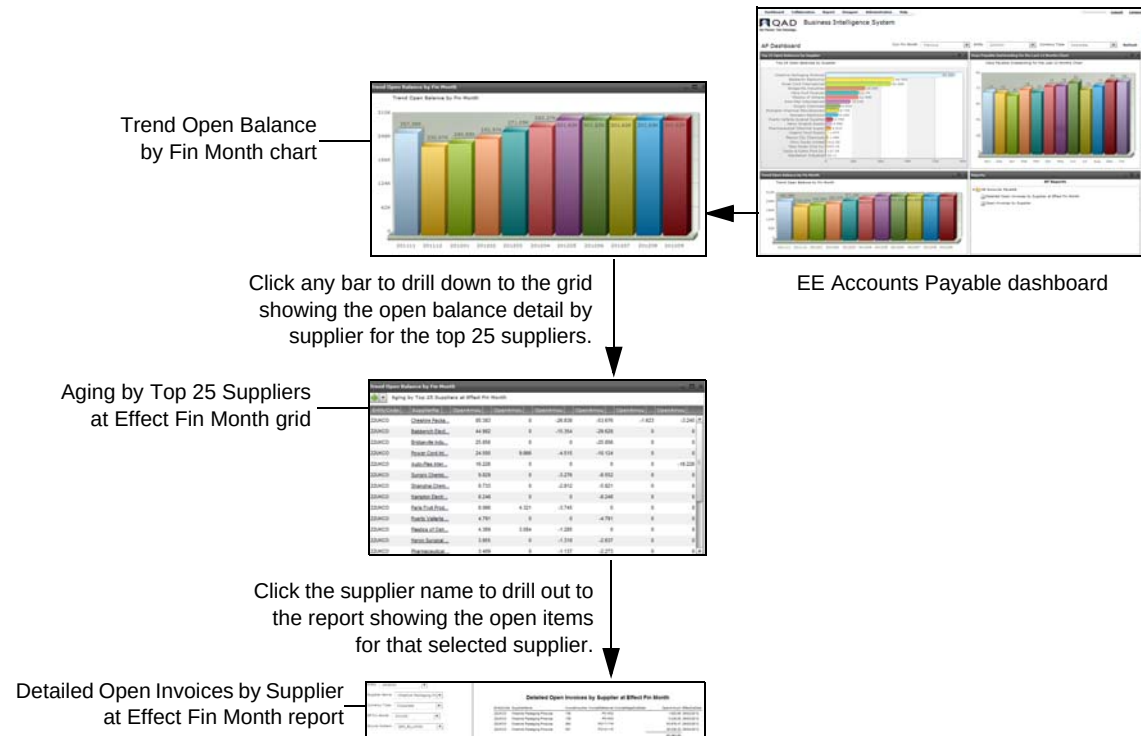
If the benefit of the discount exceeds the cost of borrowing, the company is better off making the early payment. If the benefit of the discount is less than the cost of borrowing, the company is better off waiting until the payable is due.

Navigation

The Trend Open Balance by Fin Month chart is linked to a grid that shows the detail open balance by supplier for the top 25 suppliers. The grid is linked to a report that shows the details about the open items for any individual supplier.

Fig. 7.10

Navigation Overview for the Trend Chart Open Amount by Fin Month KPI

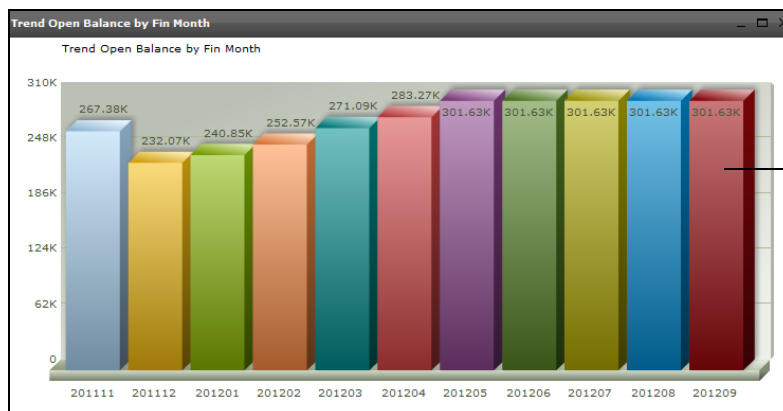


Trend Open Balance by Fin Month Chart

This chart shows the outstanding balance for each month over the past 12 months. Click any bar to drill down to the Aging by Top 25 Suppliers at Effect Fin Month grid, which shows the open balance details by supplier for the top 25 suppliers.

Fig. 7.11

Trend Open Balance by Fin Month Chart



Click any bar to drill down to the grid showing the open balance details by supplier for the top 25 suppliers.

Aging by Top 25 Suppliers at Effect Fin Month Grid

This grid, which shows the open balance details by supplier for the top 25 suppliers, contains the following columns:

- Currency Type
- Entity Code
- Effective Year Period
- Effective Month
- Supplier Name
- Open Amount
- Open Amount 1-30
- Open Amount 31-60
- Open Amount 61-90
- Open Amount > 90

Click the green back arrow to return to the previous chart. Click the supplier name to drill out to the report showing the open items for that selected supplier.

Fig. 7.12
Aging by Top 25 Suppliers at Effect Fin Month Grid

Aging by Top 25 Suppliers at Effect Fin Month							
EntityCode	SupplierNa	OpenAmou	OpenAmou	OpenAmou	OpenAmou	OpenAmou	OpenAmou
22UKCO	Cheshire Packa...	85.383	0	-26.838	-53.676	-1.623	-3.245
22UKCO	Babberich Elect...	44.982	0	-15.354	-29.628	0	0
22UKCO	Bridgeville Indu...	25.856	0	0	-25.856	0	0
22UKCO	Power Cord Int...	24.505	9.866	-4.515	-10.124	0	0
22UKCO	Auto-Plas Inter...	16.226	0	0	0	0	-16.226
22UKCO	Sungro Chemic...	9.829	0	-3.276	-6.552	0	0
22UKCO	Shanghai Chem...	8.733	0	-2.912	-5.821	0	0
22UKCO	Hampton Electr...	8.248	0	0	-8.248	0	0
22UKCO	Paris Fruit Prod...	8.066	4.321	-3.745	0	0	0
22UKCO	Puerto Vallarta...	4.791	0	0	-4.791	0	0
22UKCO	Plastics of Osh...	4.369	3.084	-1.285	0	0	0
22UKCO	Heron Surgical ...	3.955	0	-1.318	-2.637	0	0
22UKCO	Pharmaceutical ...	3.409	0	-1.137	-2.273	0	0

Click the supplier name to drill out to the report showing the open items for that selected supplier.

Detailed Open Invoices by Supplier at Effect Fin Month Report

This report shows the open items—invoices, credit notes, prepayments, adjustments—for the selected supplier. This report contains the following columns:

- Entity Code
- Supplier Name
- Invoice Voucher

- Invoice Reference
- Invoice Stage Due Date
- Open Amount
- Open Amount (summary line)
- Effective Date

Fig. 7.13

Detailed Open Invoices by Supplier at Effect Fin Month Report

Entity

22UKCO

Supplier Name

Cheshire Packaging Pro

Currency Type

Corporate

Eff Fin Month

201202

Source System

QMI_EE_LOCAL

Detailed Open Invoices by Supplier at Effect Fin Month

EntityCode	SupplierName	InvoiceVoucher	InvoiceReference	InvoiceStageDueDate	OpenAmount	EffectiveDate
22UKCO	Cheshire Packaging Products	138	PS HO2		1,622.60	29/02/2012
22UKCO	Cheshire Packaging Products	139	PS HO3		3,245.20	29/02/2012
22UKCO	Cheshire Packaging Products	364	PO111116		53,676.47	29/02/2012
22UKCO	Cheshire Packaging Products	391	PO121116		26,838.23	29/02/2012
					85,382.50	

EE Accounts Payable Reports

The EE Accounts Payable dashboard contains the following reports:

- **Detailed Open Invoices by Supplier at Effect Fin Month.** Shows the open items—invoices, credit notes, prepayments, adjustments—for the selected supplier. See “Detailed Open Invoices by Supplier at Effect Fin Month Report” on page 314.
- **Open Invoice by Supplier.** Shows the open items—invoices, credit notes, prepayments, adjustments—for a selected supplier. See “Open Invoice by Supplier Report” on page 312.

Financials: EE Accounts Receivable

This chapter provides detailed information about the Financials - EE Accounts Receivable dashboard. It includes the following topics:

Introduction 318

An introduction to the EE Accounts Receivable dashboard.

EE Accounts Receivable Dashboard 318

A detailed overview of the KPIs on the EE Accounts Receivable dashboard.

Introduction

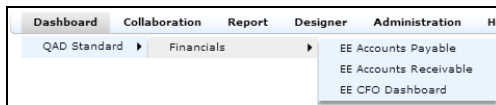
The EE Accounts Receivable dashboard in the Financials module helps answer the following questions:

- How quickly are receivables turned into cash?
- Who are my most important customers and do they owe any overdue amounts?
- What is the evolution of Accounts Receivable over time?
- What is the evolution of the bad debt expense as a % of sales?

EE Accounts Receivable Dashboard

To access the EE Accounts Receivable dashboard, select Dashboard|QAD Standard|Financials|EE Accounts Receivable.

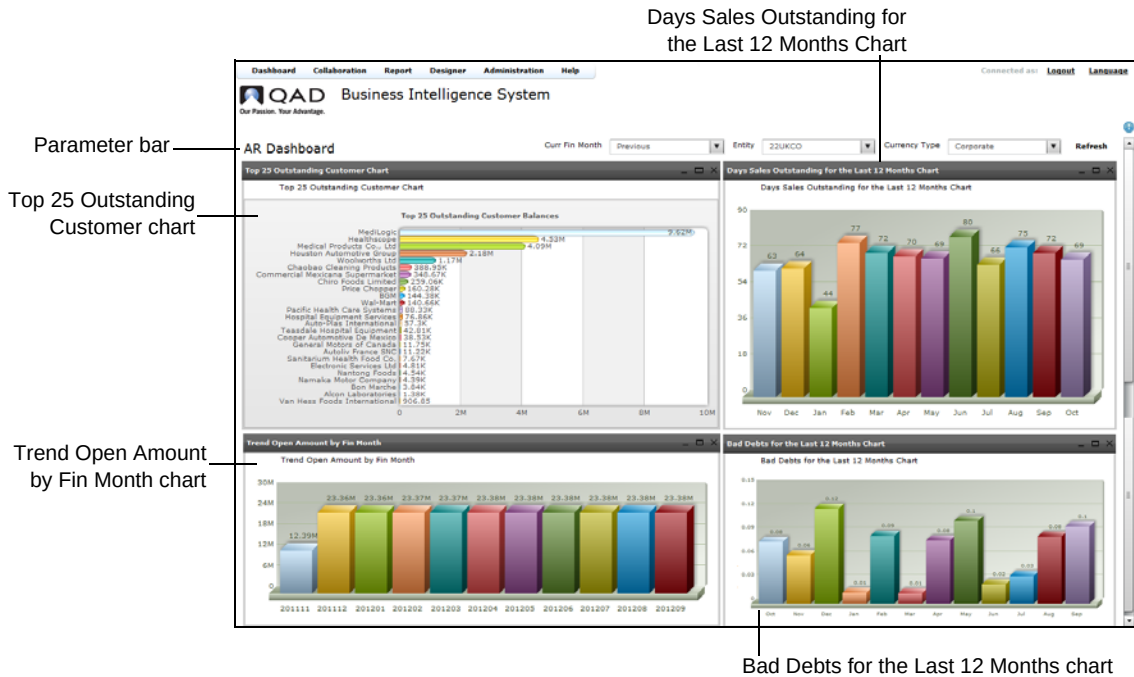
Fig. 8.1
Financial Dashboards



This dashboard contains the following KPIs:

- **Day Sales Outstanding.** See “Days Sales Outstanding for the Last 12 Months” on page 320.
- **Top 25 Outstanding Customers.** See “Top 25 Outstanding Customers” on page 322.
- **Trend Chart Open Amount by Fin Month.** See “AR Trend Chart Open Amount by Fin Month” on page 324.
- **Bad Debts for the Last 12 Months.** See “Bad Debt for the Last 12 Months” on page 326.

Fig. 8.2
EE Accounts Receivable Dashboard



The parameter bar on the dashboard contains the following selections:

- **Curr Fin Month.** To indicate the month that you want to see the data for, select Current, Last Year, Previous, or Next. Select Current to see the data for the current month. Select Last Year to see the data for last year's corresponding month. Select Previous to see the data from the previous month and Next to see the data from the next month.
- **Entity.** Select the entity you want to see data for. Choose % to view the data for all entities combined.
- **Currency Type.** To indicate the currency type, select Base Currency or Corporate Currency. Base Currency is the currency of the selected entity as set up in Enterprise Edition. Corporate Currency is the common reporting currency for all entities in the BI data warehouse. It is defined during the setup of the BI data warehouse.

Note Corporate currency amounts are calculated based on the base currency of each entity. If the current month is chosen, the system uses the accounting exchange rate that is valid at the period end or on the current date.

The calculation algorithm is as follows:

If the CC (corporate currency) equals the BC (base currency), then the BC value is taken as the CC value.

If the CC is not equal to the BC and the CC is equal to the TC (transaction currency), then the TC value is taken as the CC value.

If the CC is not equal to the BC and the CC is not equal to the TC, then the CC value is calculated by multiplying the BC amount by the CC/BC accounting exchange rate. If the CC/BC rate is not found, then the system searches for the BC/CC accounting exchange rate. The accounting exchange rate is a mandatory rate in the ERP system and hence is always available.

Days Sales Outstanding for the Last 12 Months

Because cash is important in running a business, it is in a company's best interest to collect outstanding receivables as quickly as possible. When a company quickly turns sales into cash, it has the chance to put the cash to use again; for example, to reinvest and make more sales. The Days Sales Outstanding (DSO) metric is a measure of the average number of days that a company takes to collect revenue after a sale has been made. The DSO can be used to determine whether a company is trying to disguise weak sales or is generally being ineffective at bringing in money. A low DSO metric means that it takes a company fewer days to collect its accounts receivable. A high DSO metric shows that a company is selling its product to customers on credit and taking longer to collect money.

The DSO metric is calculated as:

$$DSO = (Accounts\ Receivable / Total\ Credit\ Sales) * Number\ of\ Days$$

or

$$DSO = Accounts\ Receivable / (Total\ Credit\ Sales / Number\ of\ Days)$$

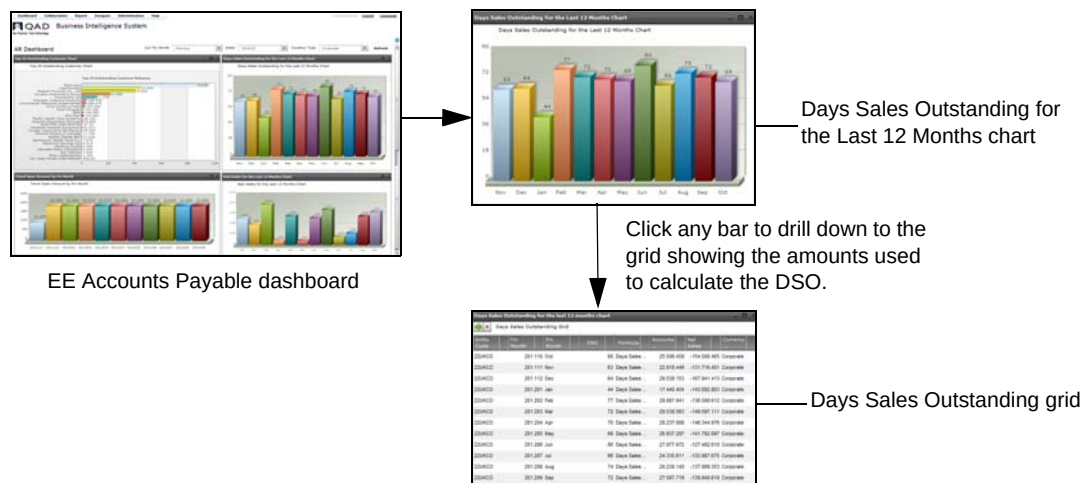
Note The date source is the GL Report Line Fact fact table, which retrieves data from the EE GL Balance fact table. An Excel spreadsheet is used to define the GL account ranges for each reporting line such as Accounts Receivable or Total Credit Sales. For further details, see the user documentation on the CFO dashboard.

Navigation

The Days Sales Outstanding chart is linked to a grid that shows the amounts used to calculate the DSO metric.

Fig. 8.3

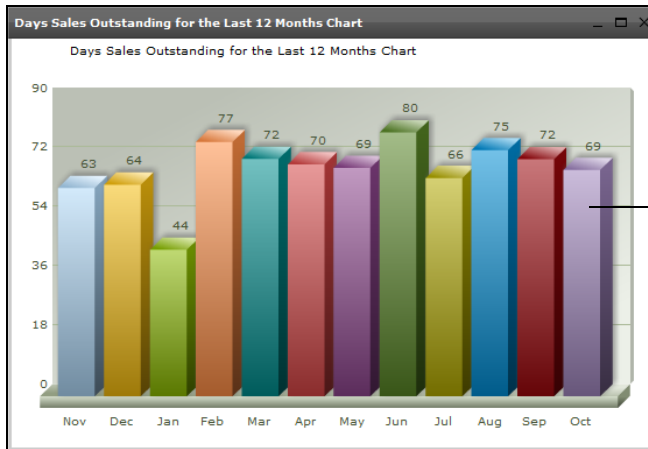
Navigation Overview for the Days Sales Outstanding for the Last 12 Months KPI



Days Sales Outstanding for the Last 12 Months Chart

This chart shows the DSO ratio for the last 12 months.

Fig. 8.4
Days Sales Outstanding for the Last 12 Months Chart



Click any bar to drill down to the grid showing the amounts used to calculate the DSO.

Days Sales Outstanding Grid

This grid shows the amounts used to calculate the DSO ratio in the previous chart. This grid contains the following columns:

- Entity Code
- Fin Year Period
- Fin Month
- DSO
- Formula.
- Accounts Receivable
- Net Sales
- Currency Type

Click the green back arrow to return to the previous chart.

Fig. 8.5
Days Sales Outstanding Grid

Days Sales Outstanding for the last 12 months chart							
Days Sales Outstanding Grid							
Entity Code	Fin Month	Fin Month	DSO	Formula	Accounts	Net Sales	Currency
22UKCO	201.110	Oct	60	Days Sales ...	25,506,458	-154,580,465	Corporate
22UKCO	201.111	Nov	63	Days Sales ...	22,818,449	-131,716,401	Corporate
22UKCO	201.112	Dec	64	Days Sales ...	29,538,153	-167,841,413	Corporate
22UKCO	201.201	Jan	44	Days Sales ...	17,440,404	-143,092,803	Corporate
22UKCO	201.202	Feb	77	Days Sales ...	26,887,941	-136,588,612	Corporate
22UKCO	201.203	Mar	72	Days Sales ...	29,538,563	-149,597,111	Corporate
22UKCO	201.204	Apr	70	Days Sales ...	28,237,888	-146,344,976	Corporate
22UKCO	201.205	May	69	Days Sales ...	26,937,297	-141,792,097	Corporate
22UKCO	201.206	Jun	80	Days Sales ...	27,977,972	-127,482,610	Corporate
22UKCO	201.207	Jul	66	Days Sales ...	24,335,611	-133,987,675	Corporate
22UKCO	201.208	Aug	74	Days Sales ...	28,238,140	-137,889,353	Corporate
22UKCO	201.209	Sep	72	Days Sales ...	27,587,719	-139,840,618	Corporate

Top 25 Outstanding Customers

According to the Pareto principle, 80% of the outstanding accounts receivable come from 20% of the customers. It is vital to know the customers that make up the 20% because they have the highest impact on outstanding accounts receivable. The Top 25 Outstanding Customers chart is a best practice that focuses on these 20%.

Navigation

The Top 25 Outstanding Customers chart is linked to a grid that shows the aging buckets for the top 25 customers. The grid is linked to a report that shows the open items for any individual customer.

Fig. 8.6
Navigation Overview for the Top 25 Outstanding Customers KPI

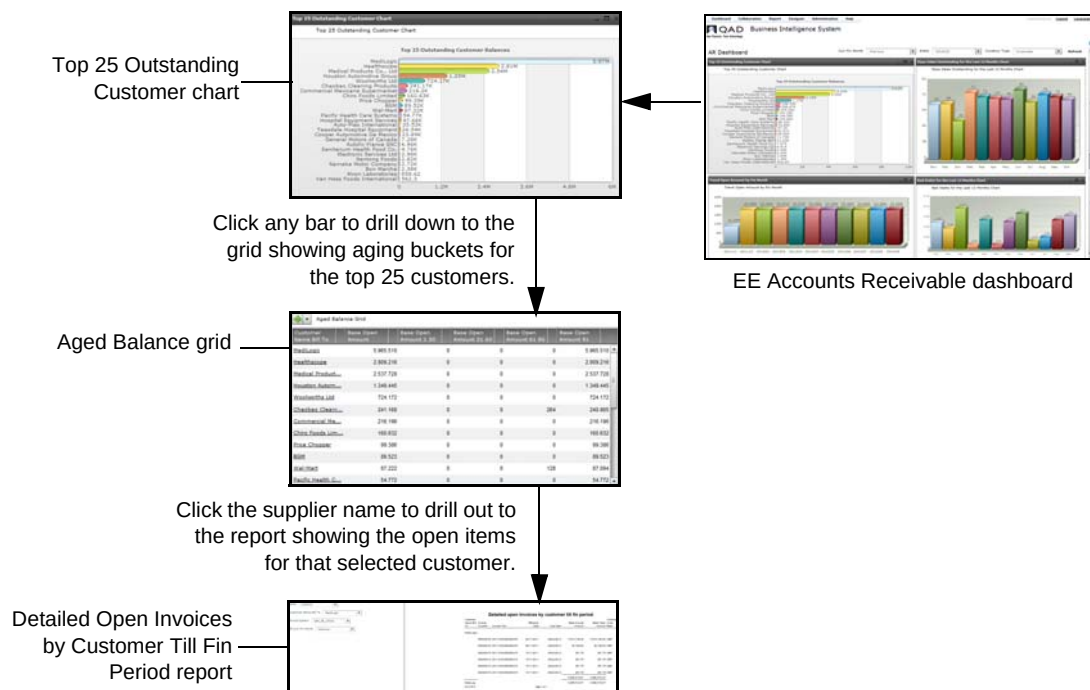
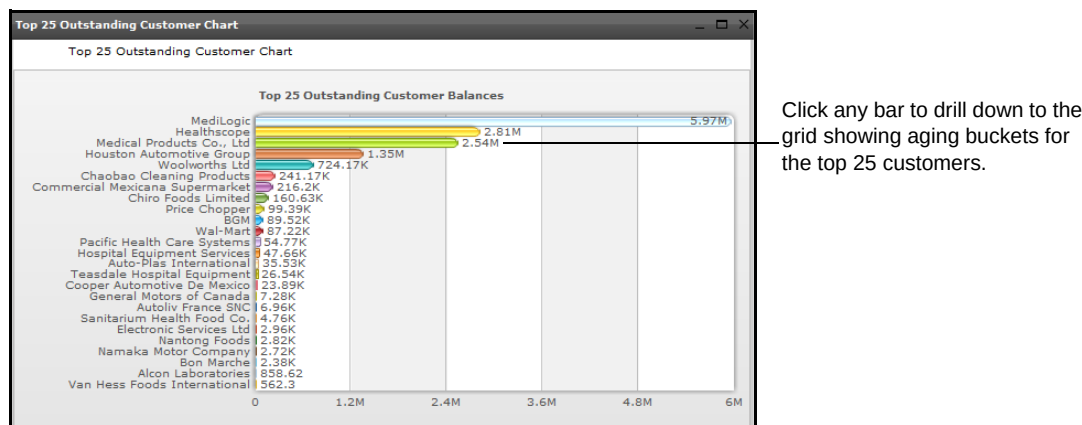


Fig. 8.7
Top 25 Outstanding Customers Chart



Aged Balance Grid

This grid, which shows the aging buckets for the top 25 customers, contains the following columns:

- Customer Name Bill To
- Open Amount
- Open Amount 1-30
- Open Amount 31-60
- Open Amount 61-90
- Open Amount > 90

Fig. 8.8
Aged Balance Grid

Aged Balance Grid						
Customer Name Bill To	Base Open Amount	Base Open Amount 1 30	Base Open Amount 31 60	Base Open Amount 61 90	Base Open Amount 91	
MediLogic	5.965.510	0	0	0	5.965.510	
Healthscope	2.809.216	0	0	0	2.809.216	
Medical Product...	2.537.728	0	0	0	2.537.728	
Houston Autom...	1.349.445	0	0	0	1.349.445	
Woolworths Ltd	724.172	0	0	0	724.172	
Chaobao Cleani...	241.168	0	0	264	240.905	
Commercial Me...	216.196	0	0	0	216.196	
Chiro Foods Lim...	160.632	0	0	0	160.632	
Price Chopper	99.386	0	0	0	99.386	
BGM	89.523	0	0	0	89.523	
Wal-Mart	87.222	0	0	128	87.094	
Pacific Health C...	54.772	0	0	0	54.772	

Click the customer name to drill out to the report showing the open items for that selected customer.

Click the green back arrow to return to the previous chart. Click the customer name to drill out to the Detailed Open Invoices by Customer report that shows the open items for that customer.

Detailed Open Invoices by Customer till Fin Period Report

This report shows the open items—invoices, credit notes, prepayments, adjustments—for a selected customer. This report contains the following columns:

- Customer Name Bill To
- Invoice Voucher
- Invoice Text
- Effective Date
- Due Date
- Invoice Amount
- Open Amount
- Currency Code

Click the green back arrow to return to the previous grid.

Fig. 8.9

Detailed Open Invoices by Customer till Fin Period Report

Entity: SZUKCO Customer Name Bill To: MediLogic Source System: QM1_EE_LOCAL Eff Curr Fin Month: Previous				Detailed open invoices by customer till fin period					
Customer Name Bill To	Invoice Voucher	Invoice Text	Effective Date	Due Date	Base Invoice Amount	Base Open Amount	Base	Currency Code	
MediLogic									
000000446	2011/CINV000000446		26/11/2011	29/02/2012	6,916,736.20	6,916,736.20	GBP		
000000444	2011/CINV000000444		26/11/2011	29/02/2012	48,726.83	48,726.83	GBP		
000000475	2011/CINV000000475		15/11/2011	29/02/2012	261.76	261.76	GBP		
000000474	2011/CINV000000474		15/11/2011	29/02/2012	261.76	261.76	GBP		
000000473	2011/CINV000000473		15/11/2011	29/02/2012	261.76	261.76	GBP		
000000472	2011/CINV000000472		15/11/2011	29/02/2012	261.76	261.76	GBP		
					5,905,510.07	5,905,510.07			
MediLog					5,966,510.07	5,966,510.07			
18/10/2012									
					Page 1 of 1				

AR Trend Chart Open Amount by Fin Month

Trend analysis is often used to analyze accounts receivable figures to identify significant changes in the company's operations and financial accounts. Trend analysis in accounts receivable over time provides information that is useful for the following:

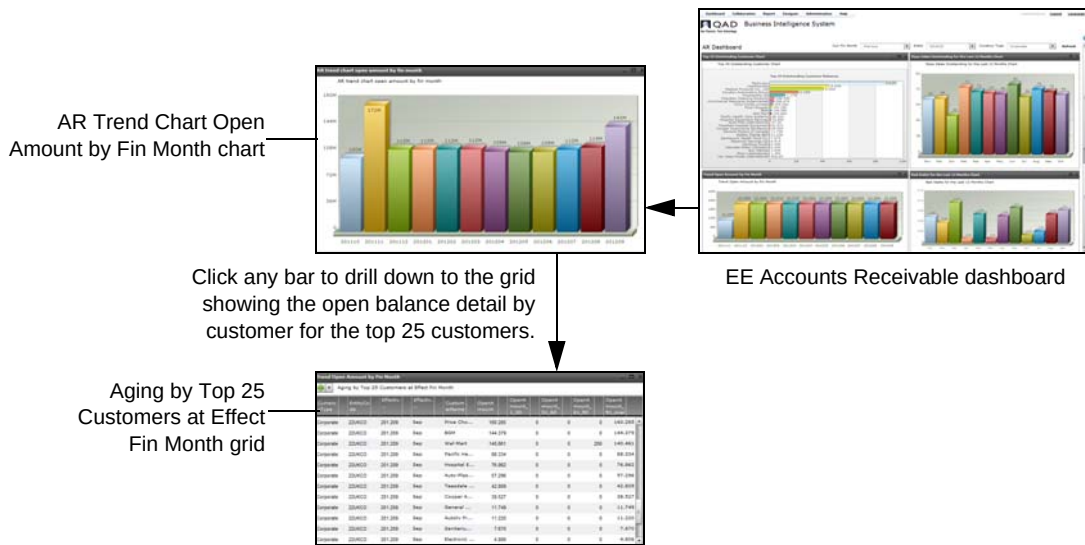
- Evaluating operating performance
- Assessing the current year's expected condition of a company's accounts receivable
- Determining the efficiency of debt collection

Navigation

The AR Trend Chart Open Amount by Fin Month chart is linked to a grid that shows the detail open balance by customer for the top 25 customers.

Fig. 8.10

Navigation Overview for the Trend Chart Open Amount by Fin Month

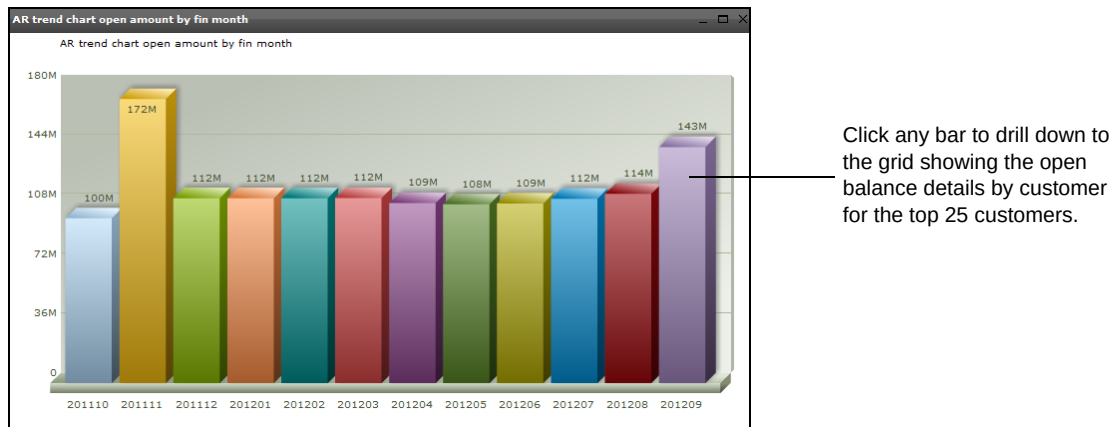


AR Trend Chart Open Amount by Fin Month

This chart shows the outstanding balance month by month over the last 12 months. Click any bar to drill down to the Aging by Top 25 Customers at Effect Fin Month grid, which shows the open balance details by customers for the top 25 customers.

Fig. 8.11

AR Trend Chart Open Amount by Fin Month



Aging by Top 25 Customers at Effect Fin Month Grid

This grid, which shows the open balance details by customer for the top 25 customers, contains the following columns:

- Currency Type
- Entity Code
- Effective Year Period
- Effective Month

- Customer Name Bill To
- Open Amount
- Open Amount 1-30
- Open Amount 31-60
- Open Amount 61-90
- Open Amount > 90

Click the green back arrow to return to the previous chart.

Fig. 8.12
Aging by Top 25 Customers at Effect Fin Month Grid

Currenc yType	EntityCo de	Effectiv. ..	Effectiv. ..	Custom erName	OpenA mount	OpenA mount_ 1_30	OpenA mount_ 31_60	OpenA mount_ 61_90	OpenA mount_ 91_over
Corporate	22UKCO	201.209	Sep	Price Cho...	160.285	0	0	0	160.285
Corporate	22UKCO	201.209	Sep	BGM	144.379	0	0	0	144.379
Corporate	22UKCO	201.209	Sep	Wal-Mart	140.661	0	0	200	140.461
Corporate	22UKCO	201.209	Sep	Pacific He...	88.334	0	0	0	88.334
Corporate	22UKCO	201.209	Sep	Hospital E...	76.862	0	0	0	76.862
Corporate	22UKCO	201.209	Sep	Auto-Plas...	57.296	0	0	0	57.296
Corporate	22UKCO	201.209	Sep	Teesdale ...	42.809	0	0	0	42.809
Corporate	22UKCO	201.209	Sep	Cooper A...	38.527	0	0	0	38.527
Corporate	22UKCO	201.209	Sep	General ...	11.749	0	0	0	11.749
Corporate	22UKCO	201.209	Sep	Autoliv Fr...	11.220	0	0	0	11.220
Corporate	22UKCO	201.209	Sep	Sanitariu...	7.670	0	0	0	7.670
Corporate	22UKCO	201.209	Sep	Electronic ...	4.806	0	0	0	4.806

Bad Debt for the Last 12 Months

Bad debt expense, which is the amount that is written off in the income statement, represents the amount of non-collectible accounts receivable that occurs in a given period. Bad debt expenses occur as a result of a customer being unable to fulfill its obligation to pay an outstanding debt, due to bankruptcy or other financial problems. The impact on net income can be considerable, and therefore it is important to have a metric to follow up the evolution of the bad debt expenses. The goal can vary by industry, but the ultimate goal is to have no or as little as possible write-offs on receivables. Actions to remedy this situation include the following:

- Better customer approvals processes
- Credit policies
- Credit control

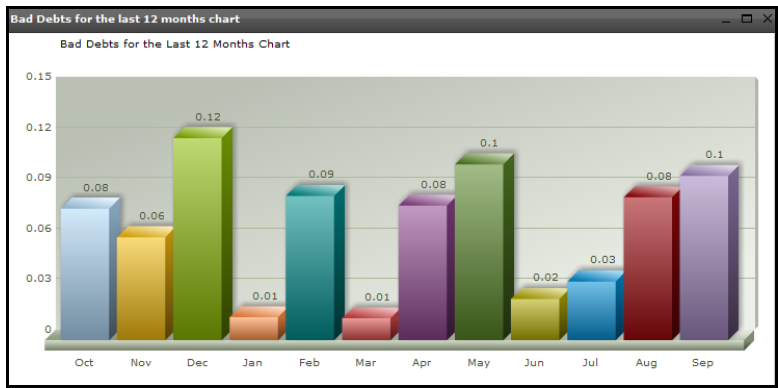
The calculation of the percentage of net sales is:

$$(\text{Bad Debt Expenses} / \text{Net Sales}) * 100$$

Note The data source is the GL Report Line Fact fact table, which retrieves data from the EE GL Balance fact table. An Excel spreadsheet is used to define the GL account ranges for each reporting line such as bad debt expenses or net sales. For further details, see the user documentation on the CFO dashboard.

The Bad Debt for the Last 12 Months chart shows the bad debt expenses as a percentage of net sales, month by month, over the last 12 months.

Fig. 8.13
Bad Debts for the Last 12 Months Chart



Financials: EE CFO Dashboard

This chapter provides detailed information about the Financials - EE CFO dashboard. It includes the following topics:

***Introduction* 330**

An introduction to the EE CFO dashboard.

***EE CFO Dashboard* 330**

A detailed overview of the KPIs on the EE CFO dashboard.

***Setting up the CFO Dashboard* 353**

Instructions to create customized reports for the EE CFO dashboard.

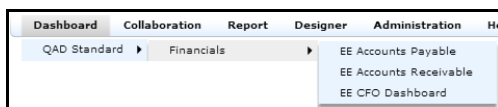
Introduction

The EE CFO Dashboard in the Financials module includes KPIs that reflect the overall financial status of a business. This tool helps Chief Financial Officers (CFOs) share information easily and delivers at-a-glance access to metrics, to drive improvements in financial processes and to identify potential areas for change in the business.

EE CFO Dashboard

To access the EE CFO dashboard, select Dashboard|QAD Standard|Financials|EE CFO Dashboard.

Fig. 9.1
Operations Dashboards



This dashboard contains the following KPIs:

- **Income Statement.** See “Income Statement” on page 332.
- **Balance Sheet.** See “Balance Sheet” on page 334.
- **Metric Summary.** See “Metric Summary” on page 335.
- **Days Sales Outstanding.** See “Days Sales Outstanding” on page 336.
- **Return on Capital Employed.** See “Return on Capital Employed” on page 336.
- **Quick Ratio.** See “Quick Ratio” on page 338.
- **Working Capital Turnover.** See “Working Capital Turnover” on page 340.
- **ICT Expense.** See “ICT Expense” on page 342.
- **Current Ratio.** See “Current Ratio” on page 344.
- **Return on Working Capital.** See “Return on Working Capital” on page 346.
- **Inventory Turns.** See “Inventory Turns” on page 349.
- **Days Payable Outstanding.** See “Days Payable Outstanding” on page 351.
- **Return on Investment.** See “Return on Investment” on page 351.

Fig. 9.2
EE CFO Dashboard



The parameter bar on the dashboard contains the following selections:

- **Curr Fin Month.** To indicate the month that you want to see the data for, select Current, Last Year, Previous, or Next. Select Current to see the data for the current month. Select Last Year to see the data for last year's corresponding month. Select Previous to see the data from the previous month and Next to see the data from the next month.
- **Entity.** Select the entity you want to see data for. Choose % to view the data for all entities combined.

- **Currency Type.** To indicate the currency type, select Base Currency or Corporate Currency. Base Currency is the currency of the selected entity as set up in the ERP system. Corporate Currency is the common reporting currency for all entities in the BI data warehouse. It is defined during the setup of the BI data warehouse.

Note Corporate currency amounts are calculated based on the base currency of each entity. If the current month is chosen, the system uses the accounting exchange rate that is valid at the period end or on the current date.

The calculation algorithm is as follows:

If the CC (corporate currency) equals the BC (base currency), then the BC value is taken as the CC value.

If the CC is not equal to the BC and the CC is equal to the TC (transaction currency), then the TC value is taken as the CC value.

If the CC is not equal to the BC and the CC is not equal to the TC, then the CC value is calculated by multiplying the BC amount by the CC/BC accounting exchange rate. If the CC/BC rate is not found, then the system searches for the BC/CC accounting exchange rate. The accounting exchange rate is a mandatory rate in the ERP system and hence is always available.

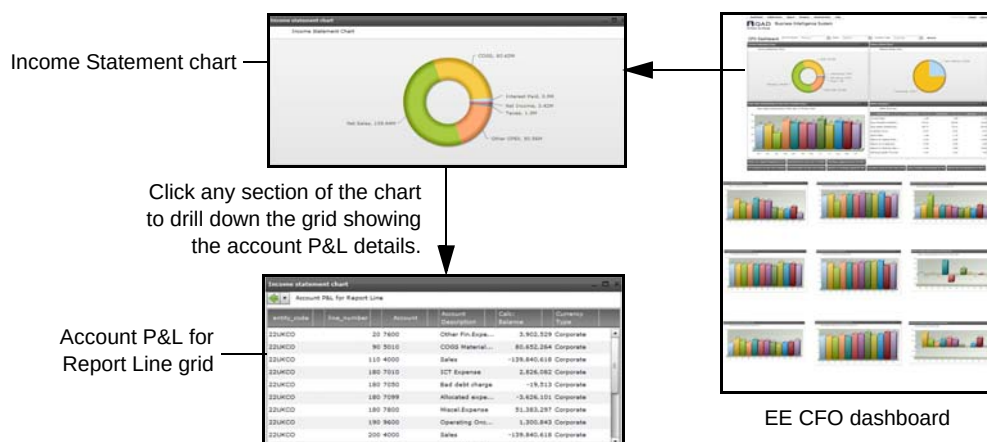
Income Statement

The Income Statement allows you to evaluate the success of a business by showing you the revenues and expenses for a business. This statement, which is prepared monthly, shows if revenues are greater than the expenses—in the black or profit—or if the expenses are greater than the revenue—in the red or loss.

Navigation

The Income Statement chart is linked to a grid that shows the account P&L (profit and loss) details.

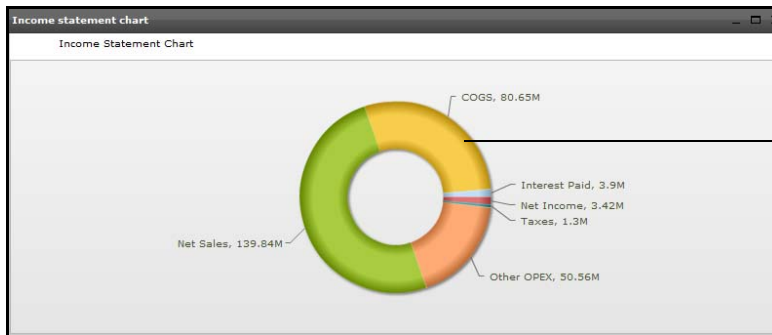
Fig. 9.3
Navigation Overview for the Income Statement



Income Statement Chart

The income statement chart shows the net income, the net sales, and the main categories of expenses—COGS, Other OPEX, interest paid, and taxes.

Fig. 9.4
Income Statement Chart



Click any section of the chart to drill down the grid showing the account P&L details.

Account P&L for Report Line Grid

This grid shows the account P&L details. This grid contains the following columns:

- Entity Code
- Line Number
- Account Number
- Account Description
- Calc Balance
- Currency Type

Click the green back arrow to return to the previous chart.

Fig. 9.5
Account P&L for Report Line Grid

entity_code	line_number	Account	Account Description	Calc Balance	Currency Type
22UKCO	20 7600	Other Fin.Expe...		3,902,529	Corporate
22UKCO	90 5010	COGS Material...		80,652,264	Corporate
22UKCO	110 4000	Sales		-139,840,618	Corporate
22UKCO	180 7010	ICT Expense		2,826,082	Corporate
22UKCO	180 7050	Bad debt charge		-19,513	Corporate
22UKCO	180 7099	Allocated expe...		-3,626,101	Corporate
22UKCO	180 7800	Miscel.Expense		51,383,297	Corporate
22UKCO	190 9600	Operating Onc...		1,300,843	Corporate
22UKCO	200 4000	Sales		-139,840,618	Corporate

Balance Sheet

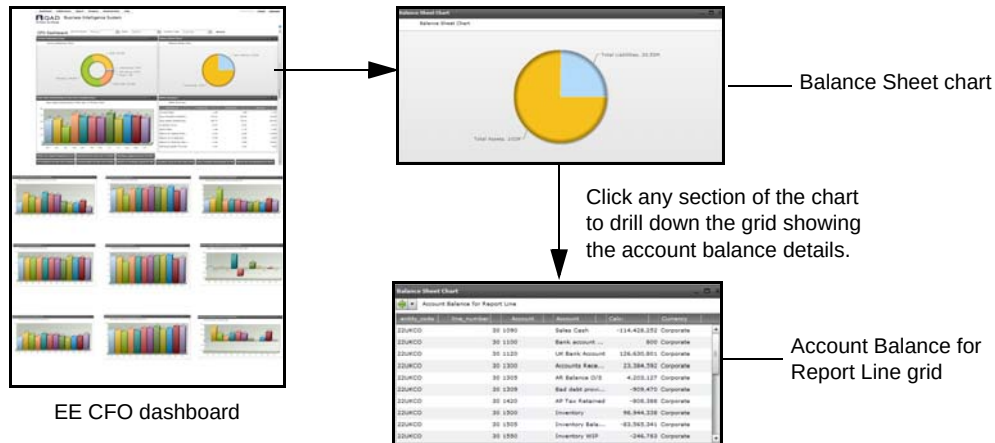
The Balance Sheet shows the business's total assets and liabilities. Assets are anything that the business owns and liabilities are what the company owes against those assets. The difference between the assets and the liabilities is the net worth of the business. This measurement is important because it shows how long the business is expected to stay in financial power.

Navigation

The Balance Sheet chart is linked to a grid showing the account balance details.

Fig. 9.6

Navigation Overview for the Balance Sheet

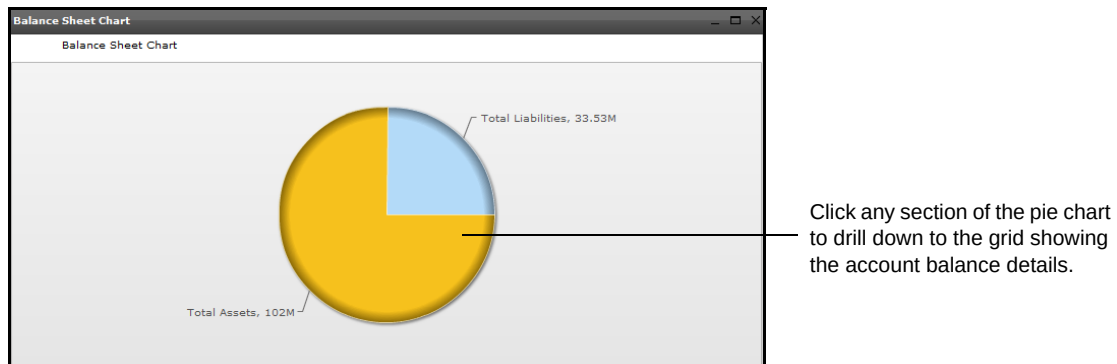


Balance Sheet Chart

This chart shows the total assets and liabilities. The difference between the assets and liabilities is a company's net worth.

Fig. 9.7

Balance Sheet Chart



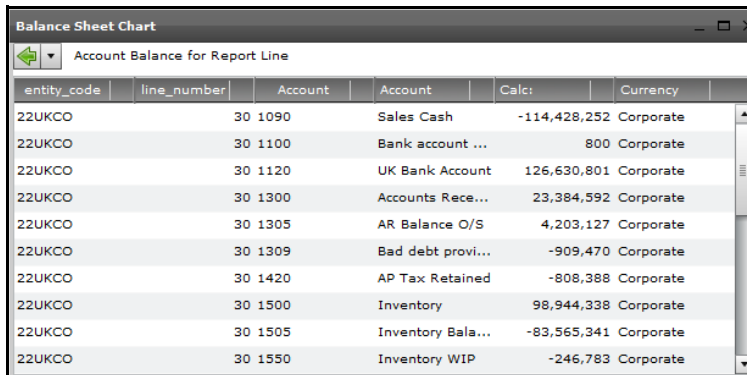
Account Balance for Report Line Grid

This grid, which shows the account balance details, contains the following columns:

- Entity Code

- Line Number
- Account Number
- Account Description
- Calc Balance
- Currency Type

Fig. 9.8
Account Balance for Report Line Grid



entity_code	line_number	Account	Account	Calc	Currency
22UKCO	30 1090	Sales Cash		-114,428,252	Corporate
22UKCO	30 1100	Bank account ...		800	Corporate
22UKCO	30 1120	UK Bank Account		126,630,801	Corporate
22UKCO	30 1300	Accounts Rece...		23,384,592	Corporate
22UKCO	30 1305	AR Balance O/S		4,203,127	Corporate
22UKCO	30 1309	Bad debt provi...		-909,470	Corporate
22UKCO	30 1420	AP Tax Retained		-808,388	Corporate
22UKCO	30 1500	Inventory		98,944,338	Corporate
22UKCO	30 1505	Inventory Bala...		-83,565,341	Corporate
22UKCO	30 1550	Inventory WIP		-246,783	Corporate

Click the green back arrow to return to the previous chart.

Metric Summary

The Metric Summary grid, which shows all the metrics for the EE CFO dashboard, allows you to identify any KPIs that need further investigation.

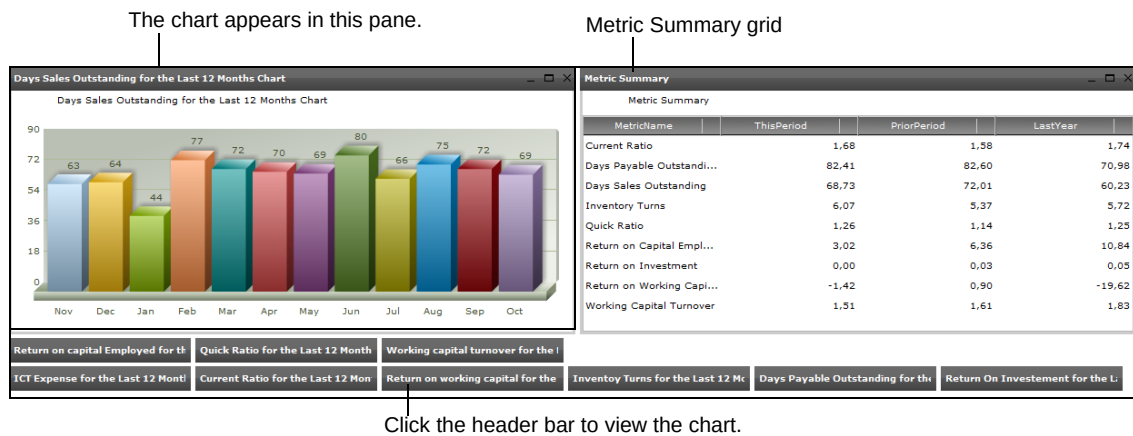
Click the header bar for the desired KPI and the chart appears to the left of the Metric Summary grid.

Note The data source is the GL Report Line fact table, which retrieves data from the EE GL Balance fact table. An Excel spreadsheet is used to define the GL account ranges for each reporting line such as Accounts Payable or Total Purchases.

The Metric Summary grid contains the following columns:

- Metric Name
- This Period
- Prior Period
- Last Year

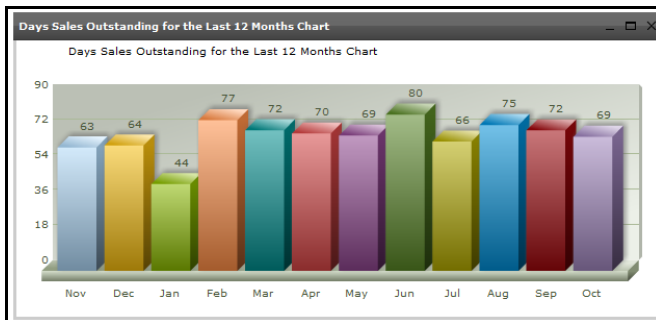
Fig. 9.9
Metric Summary Grid



Days Sales Outstanding

For details on this KPI, see Chapter 8, “Days Sales Outstanding for the Last 12 Months,” on page 320.

Fig. 9.10
Days Sales Outstanding for the Last 12 Months Chart



Return on Capital Employed

The Return on Capital Employed (ROCE) KPI indicates the efficiency and profitability of a company’s capital investments. If the ROCE metric is not higher than the rate at which the company borrows, then any increase in borrowing reduces shareholders’ earnings. A variation of the ROCE metric is the Return on Average Capital Employed (ROACE) metric, which takes the average of opening and closing capital employed for the time period.

The ROCE metric is calculated as follows:

$$ROCE = EBIT / (Total Assets - Current Liabilities)$$

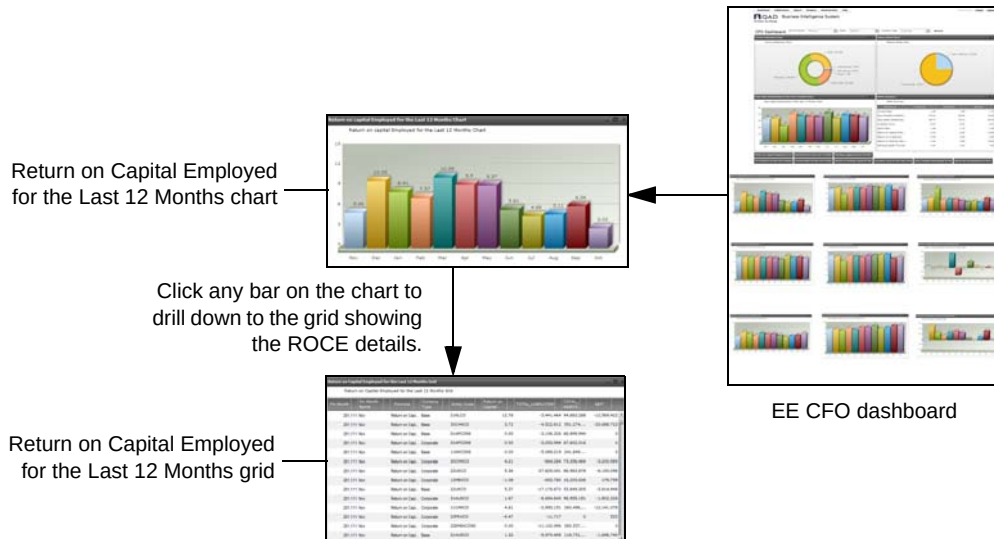
Note The Earnings Before Interest and Taxes (EBIT) metric is an indicator of a company’s profitability, calculated as revenue minus expenses, excluding tax and interest. EBIT, which is also known as Profit Before Interest & Taxes (PBIT), equals net income with interest and taxes. EBIT can also be referred to as operating earnings, operating profit, and operating income, because it equals revenue minus operating expenses.

Navigation

The Return on Capital Employed for the Last 12 Months chart is linked to a grid that shows the ROCE details.

Fig. 9.11

Navigation Overview for the Return on Capital Employed for the Last 12 Months



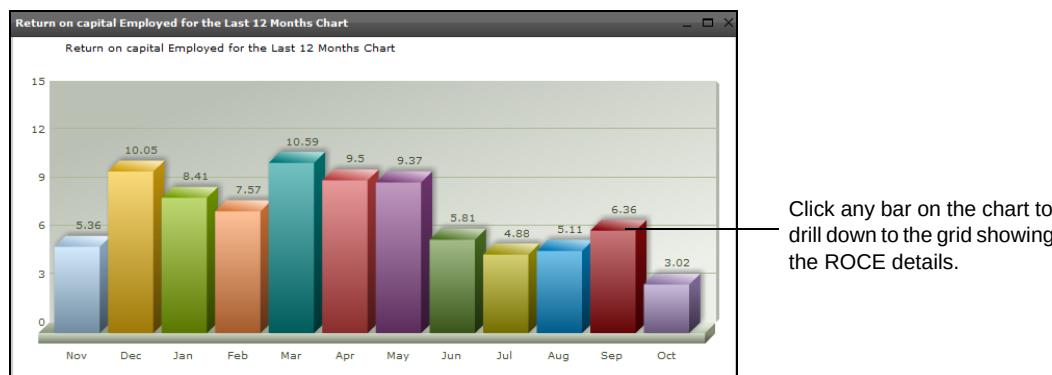
Return on Capital Employed for the Last 12 Months Chart

This chart shows the ROCE metric for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line fact table.

Fig. 9.12

Return on Capital Employed for the Last 12 Months Chart



Return on Capital Employed for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the ROCE ratio, contains the following columns:

- Fin Month

- Fin Month Name
- Formula
- Currency Type
- Entity Code
- Return on Capital Employed ratio
- Total Liabilities
- Total Assets
- EBIT

Fig. 9.13

Return on Capital Employed for the Last 12 Months Grid

Fin Month	Fin Month Name	Formula	Currency Type	Entity Code	Return on Capital	TOTAL_LIABILITIES	TOTAL_ASSETS	EBIT
201,111 Nov		Return on Capi...	Base	21NLCO	12.78	-3,441,464	94,883,288	-12,569,422
201,111 Nov		Return on Capi...	Base	30CHNCO	3.72	-4,522,812	551,274,...	-20,688,723
201,111 Nov		Return on Capi...	Base	31APCONS	0.00	-3,106,326	66,899,944	0
201,111 Nov		Return on Capi...	Corporate	31APCONS	0.00	-3,003,994	67,602,016	0
201,111 Nov		Return on Capi...	Base	11NACONS	0.00	-5,089,219	241,849,...	0
201,111 Nov		Return on Capi...	Corporate	30CHNCO	4.21	-664,284	75,356,484	-3,200,589
201,111 Nov		Return on Capi...	Corporate	22UKCO	5.36	-27,829,041	86,983,878	-6,153,098
201,111 Nov		Return on Capi...	Corporate	12MEXCO	-1.08	-433,780	16,203,628	179,759
201,111 Nov		Return on Capi...	Base	22UKCO	5.37	-17,178,670	53,849,305	-3,814,948
201,111 Nov		Return on Capi...	Corporate	31AUSCO	1.67	-8,654,843	98,955,191	-1,802,326
201,111 Nov		Return on Capi...	Corporate	11CANCO	4.61	-2,993,151	260,496,...	-12,141,078
201,111 Nov		Return on Capi...	Corporate	20FRACO	-4.47	-11,717	0	523
201,111 Nov		Return on Capi...	Corporate	22EMEACONS	0.00	-11,102,496	280,537,...	0
201,111 Nov		Return on Capi...	Base	31AUSCO	1.32	-9,575,459	118,731,...	-1,696,740

Quick Ratio

The Quick Ratio, which is also known as the acid-test ratio or the quick assets ratio, is an indicator of a company's short-term liquidity. This ratio measures a company's ability to meet its short-term obligations with its liquid assets. The higher the Quick Ratio, the better the position the company is in.

The Quick Ratio is more conservative than the Current Ratio, a more well-known liquidity measure, because it excludes inventory from current assets. Inventory is excluded because some companies have difficulty turning their inventory into cash. There are situations when short-term obligations must be paid off immediately that the current ratio would overestimate a company's short-term financial strength.

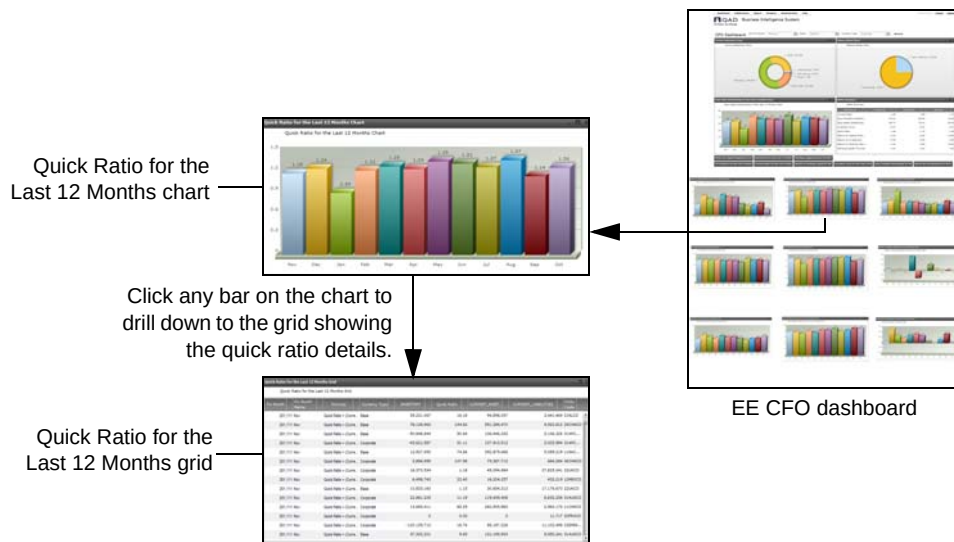
The quick ratio is calculated as:

$$\text{Quick Ratio} = (\text{Current Assets} - \text{Inventories}) / \text{Current Liabilities}$$

Navigation

The Quick Ratio for the Last 12 Months chart is linked to a grid that shows the quick ratio details.

Fig. 9.14
Navigation Overview for the Quick Ratio

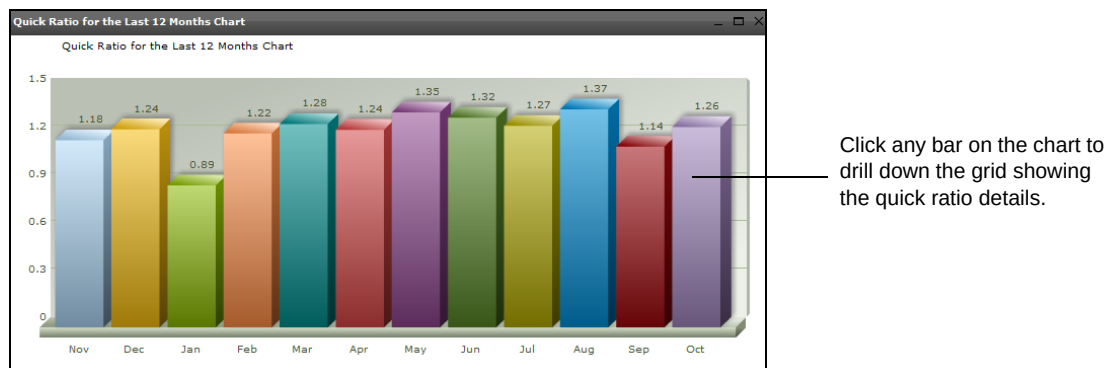


Quick Ratio for the Last 12 Months Chart

This chart shows the quick ratio for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line Fact table.

Fig. 9.15
Quick Ratio for the Last 12 Months Chart



Quick Ratio for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the quick ratio, contains the following columns:

- Fin Month
- Fin Month Name
- Formula
- Currency Type
- Inventory

- Quick Ratio
- Current Assets
- Current Liabilities
- Entity Code

Fig. 9.16
Quick Ratio for the Last 12 Months Grid

Fin Month	Fin Month Name	Formula	Currency Type	INVENTORY	Quick Ratio	CURRENT_ASSET	CURRENT_LIABILITIES	Entity Code
201,111	Nov	Quick Ratio = (Curre... Base		39,231,067	16.18	94,898,057	3,441,464	21NLCO
201,111	Nov	Quick Ratio = (Curre... Base		78,128,963	104.62	551,289,470	4,522,812	30CHNCO
201,111	Nov	Quick Ratio = (Curre... Base		-50,848,844	50.64	106,446,332	3,106,326	31APC...
201,111	Nov	Quick Ratio = (Curre... Corporate		-45,621,587	51.11	107,913,513	3,003,994	31APC...
201,111	Nov	Quick Ratio = (Curre... Base		12,927,450	74.66	392,879,466	5,089,219	11NAC...
201,111	Nov	Quick Ratio = (Curre... Corporate		3,894,559	107.58	75,357,713	664,284	30CHNCO
201,111	Nov	Quick Ratio = (Curre... Corporate		16,370,534	1.18	49,094,984	27,829,041	22UKCO
201,111	Nov	Quick Ratio = (Curre... Corporate		6,498,743	22.40	16,204,257	433,219	12MEXCO
201,111	Nov	Quick Ratio = (Curre... Base		10,833,160	1.15	30,654,313	17,178,670	22UKCO
201,111	Nov	Quick Ratio = (Curre... Corporate		22,881,225	11.19	119,439,408	8,632,236	31AUSCO
201,111	Nov	Quick Ratio = (Curre... Corporate		13,693,411	83.29	260,505,960	2,963,173	11CANCO
201,111	Nov	Quick Ratio = (Curre... Corporate		0	0.00	0	11,717	20FRACO
201,111	Nov	Quick Ratio = (Curre... Corporate		-120,139,713	18.76	88,187,226	11,102,496	22EMEA...
201,111	Nov	Quick Ratio = (Curre... Base		37,302,201	9.83	131,195,933	9,550,241	31AUSCO

Working Capital Turnover

The Working Capital Turnover KPI is a measurement comparing the depletion of working capital to the generation of sales over a given period. The working capital turnover ratio provides useful information as to how effectively a company is using its working capital to generate sales. The ratio is calculated as:

$$\text{Working Capital Turnover} = \text{Sales} / \text{Working Capital}$$

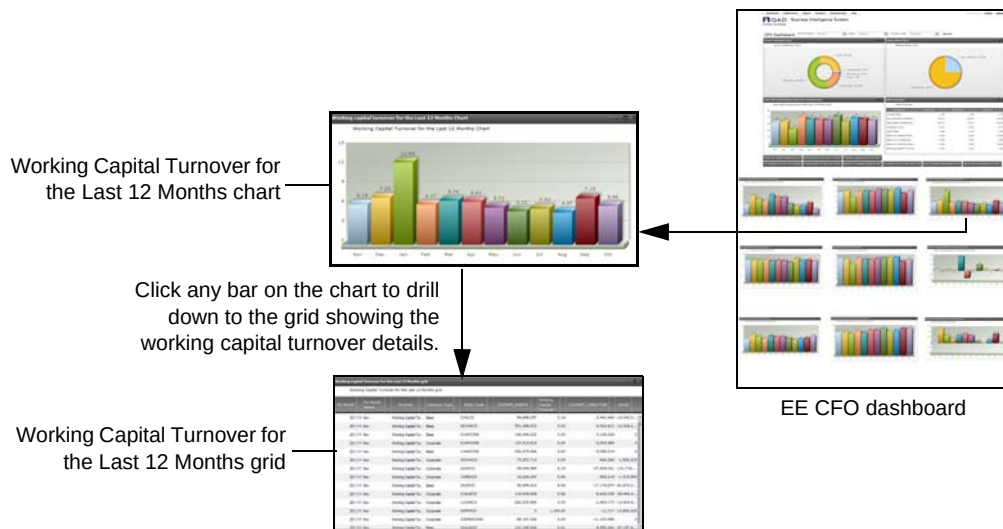
Companies use working capital, calculated as the current assets minus current liabilities, to fund operations and purchase inventory. Operations and inventory are then converted into sales revenue for the company. The working capital turnover ratio helps you analyze the relationship between the money used to fund operations and the sales generated from these operations. In general, it is better if the ratio is higher because it means that the company is generating more money from sales compared to the money it uses to fund the sales.

Example If a company has current assets of \$10 million and current liabilities of \$9 million, its working capital is \$1 million. When compared to sales of \$15 million, the working capital turnover ratio for the period is 15 (\$15M/\$1M). When used in fundamental analysis, this ratio can be compared to that of similar companies or to the company's own historical working capital turnover ratios.

Navigation

The Working Capital Turnover for the Last 12 Months chart is linked to a grid that shows the working capital turnover details.

Fig. 9.17
Navigation Overview for the Working Capital Turnover KPI

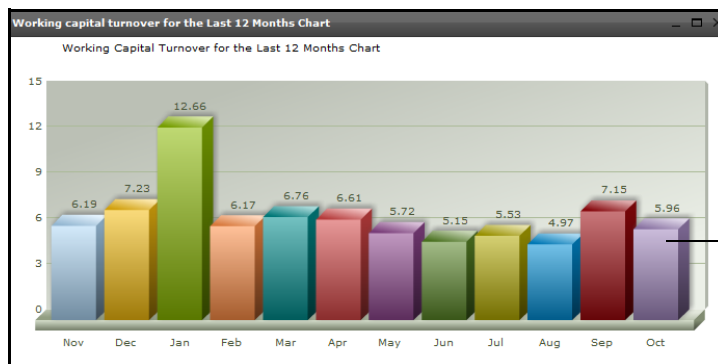


Working Capital Turnover for the Last 12 Months Chart

This chart shows the working capital turnover for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line Fact table.

Fig. 9.18
Working Capital Turnover for the Last 12 Months Chart



Click any bar on the chart to drill down the grid showing the working capital turnover details.

Working Capital Turnover for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the working capital turnover ratio, contains the following columns:

- Fin Month
- Fin Month Name
- Formula
- Currency Type
- Entity Code

- Current Assets
- Working Capital Turnover ratio
- Current Liabilities
- Sales

Fig. 9.19
Working Capital Turnover for the Last 12 Months Grid

Fin Month	Fin Month Name	Formula	Currency Type	Entity Code	CURRENT_ASSETS	Working Capital Turnover	CURRENT_LIABILITIES	SALES
201,111 Nov	Nov	Working Capital Tur...	Base	21NLCO	94,898,057	0.14	-3,441,464	-13,042,2...
201,111 Nov	Nov	Working Capital Tur...	Base	30CHNCO	551,289,470	0.02	-4,522,812	-12,528,2...
201,111 Nov	Nov	Working Capital Tur...	Base	31APCONS	106,446,332	0.00	-3,106,326	0
201,111 Nov	Nov	Working Capital Tur...	Corporate	31APCONS	107,913,513	0.00	-3,003,994	0
201,111 Nov	Nov	Working Capital Tur...	Base	11NACONS	392,879,466	0.00	-5,089,219	0
201,111 Nov	Nov	Working Capital Tur...	Corporate	30CHNCO	75,357,713	0.03	-664,284	-1,938,325
201,111 Nov	Nov	Working Capital Tur...	Corporate	22UKCO	49,094,984	6.19	-27,829,041	-131,716,...
201,111 Nov	Nov	Working Capital Tur...	Corporate	12MEXCO	16,204,257	0.06	-433,219	-1,015,593
201,111 Nov	Nov	Working Capital Tur...	Base	22UKCO	30,654,313	6.06	-17,178,670	-81,672,0...
201,111 Nov	Nov	Working Capital Tur...	Corporate	31AUSCO	119,439,408	0.36	-8,632,236	-39,442,4...
201,111 Nov	Nov	Working Capital Tur...	Corporate	11CANCO	260,505,960	0.05	-2,963,173	-12,609,8...
201,111 Nov	Nov	Working Capital Tur...	Corporate	20FRACO	0	1,185.00	-11,717	13,885,023
201,111 Nov	Nov	Working Capital Tur...	Corporate	22EMEACONS	88,187,226	0.00	-11,102,496	0
201,111 Nov	Nov	Working Capital Tur...	Base	31AUSCO	131,195,933	0.31	-9,550,241	-37,157,6...

ICT Expense

The ICT Expense KPI measures the ratio of IT growth to business growth. When IT growth is less than business growth, it can indicate economies of scale, improved efficiencies, or underinvestment. The ICT Expense ratio is calculated as:

$$ICT = Total\ ICT\ Expenses / Net\ Sales$$

Navigation

The ICT Expense for the Last 12 Months chart is linked to a grid that shows the ICT expense details.

Fig. 9.20
Navigation Overview for the Working Capital Turnover KPI



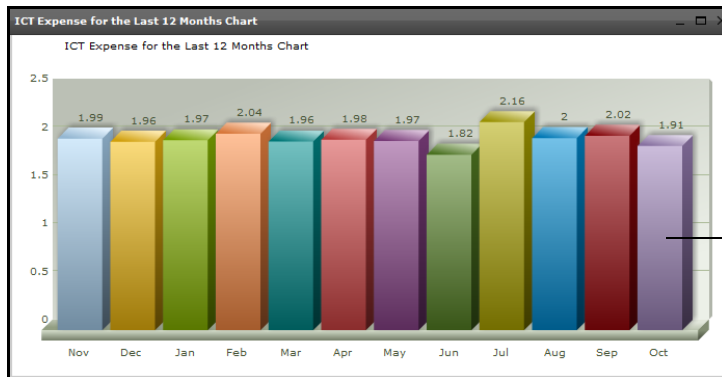
ICT Expense for the Last 12 Months Chart

This chart shows the ICT expense metric for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line Fact table.

Fig. 9.21

ICT Expense for the Last 12 Months Chart



Click any bar on the chart to drill down to the grid showing the ICT expense details.

ICT Expense for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the ICT expense ratio, contains the following columns:

- Entity Code
- Fin Month
- Fin Month Name
- Formula
- Accounts Receivable
- Net Sales
- Currency Type
- ICT Expense
- ICT ratio

Fig. 9.22
ICT Expense for the Last 12 Months Grid

Entity Code	Fin Month	Fin Month	Formula	Accounts	Net Sales	Currency	ICT Expense	ICT
21NLCO	201,111	Nov	ICT Expense =ICT /...	22,427,085	-13,042,288	Base	0	0.00
30CHNCO	201,111	Nov	ICT Expense =ICT /...	119,858,990	-12,528,286	Base	0	0.00
31APCONS	201,111	Nov	ICT Expense =ICT /...	27,495,773	0	Base	0	0.00
31APCONS	201,111	Nov	ICT Expense =ICT /...	24,943,391	0	Corporate	0	0.00
11NACONS	201,111	Nov	ICT Expense =ICT /...	-3,773,079	0	Base	0	0.00
30CHNCO	201,111	Nov	ICT Expense =ICT /...	17,768,035	-1,938,325	Corporate	0	0.00
22UKCO	201,111	Nov	ICT Expense =ICT /...	22,818,449	-131,716,401	Corporate	2,624,044	1.99
31MEXCO	201,111	Nov	ICT Expense =ICT /...	1,798,161	-1,015,593	Corporate	0	0.00
22UKCO	201,111	Nov	ICT Expense =ICT /...	14,166,440	-81,672,036	Base	1,627,057	1.99
31AUSCO	201,111	Nov	ICT Expense =ICT /...	6,332,042	-39,442,426	Corporate	928,677	2.35
11CANCO	201,111	Nov	ICT Expense =ICT /...	21,592,338	-12,609,685	Corporate	0	0.00
20FRACO	201,111	Nov	ICT Expense =ICT /...	0	13,885,023	Corporate	0	0.00
22MEACONS	201,111	Nov	ICT Expense =ICT /...	6,642,791	0	Corporate	0	0.00
31AUSCO	201,111	Nov	ICT Expense =ICT /...	3,788,636	-37,157,679	Base	874,912	2.35
10USACO	201,111	Nov	ICT Expense =ICT /...	17,257,758	-128,882,740	Base	2,801,227	2.17

Current Ratio

The Current Ratio represents the company's ability to pay back its short-term liabilities with its short-term assets. Short-term liabilities consist of debt and payables while short-term assets consist of cash, inventory, and receivables. The higher the current ratio is, the more capable the company is of paying its obligations. If the current ratio is under 1, a company cannot pay off its obligations if they came due at that point. While this ratio shows that a company is not in good financial health, it does not necessarily mean that it is going bankrupt because there are many ways to access financing.

The current ratio can give you a sense of the efficiency of a company's operating cycle or its ability to turn its product into cash. Companies that have trouble getting paid on their receivables or have long inventory turnover can run into liquidity problems because they are unable to alleviate their obligations. Because business operations differ in each industry, it is always more useful to compare companies within the same industry.

The current ratio is also known as the liquidity ratio, the cash asset ratio, and the cash ratio. It is similar to the acid-test ratio except that the acid-test ratio does not include inventory and prepaid assets that can be liquidated. The components of current ratio, which consist of current assets and current liabilities, can be used to derive working capital, which is the difference between current assets and current liabilities. Working capital is frequently used to derive the working capital ratio, which is working capital as a ratio of sales.

The Current Ratio is calculated as:

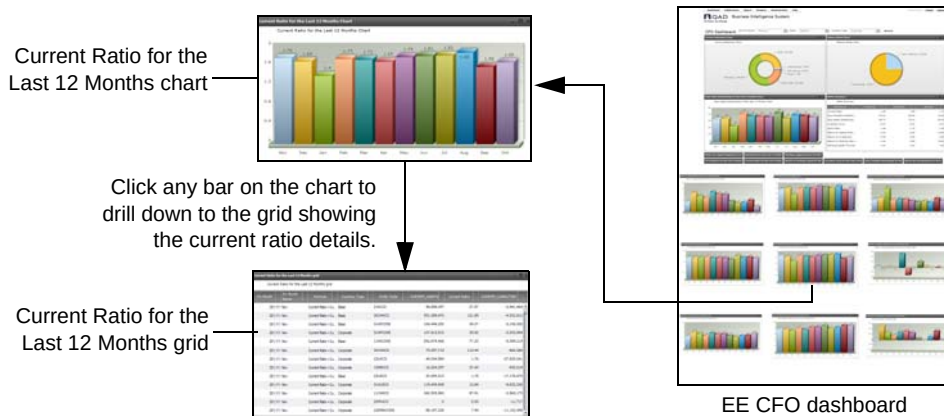
$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

Navigation

The Current Ratio for the Last 12 Months chart is linked to a grid that shows the current ratio details.

Fig. 9.23

Navigation Overview for the Current Ratio



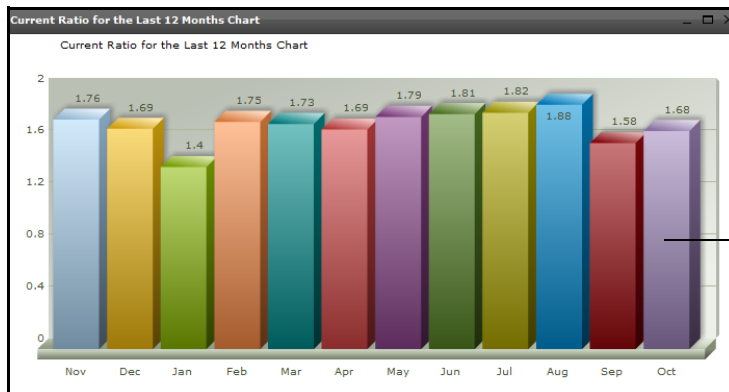
Current Ratio for the Last 12 Months Chart

This chart shows the current ratio for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line Fact table.

Fig. 9.24

Current Ratio for the Last 12 Months Chart



Click any bar on the chart to drill down to the grid showing the current ratio details.

Current Ratio for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the current ratio, contains the following columns:

- Fin Month
- Fin Month Name
- Formula
- Currency Type
- Entity Code
- Current Assets
- Current Ratio

- Current Liabilities

Fig. 9.25

Current Ratio for the Last 12 Months Grid

Fin Month	Fin Month Name	Formula	Currency Type	Entity Code	CURRENT_ASSETS	Current Ratio	CURRENT_LIABILITIES
201,111	Nov	Current Ratio = Cu...	Base	21NLCO	94,898,057	27.57	-3,441,464
201,111	Nov	Current Ratio = Cu...	Base	30CHNCO	551,289,470	121.89	-4,522,812
201,111	Nov	Current Ratio = Cu...	Base	31APCONS	106,446,332	34.27	-3,106,326
201,111	Nov	Current Ratio = Cu...	Corporate	31APCONS	107,913,513	35.92	-3,003,994
201,111	Nov	Current Ratio = Cu...	Base	11NACONS	392,879,466	77.20	-5,089,219
201,111	Nov	Current Ratio = Cu...	Corporate	30CHNCO	75,357,713	113.44	-664,284
201,111	Nov	Current Ratio = Cu...	Corporate	22UKCO	49,094,984	1.76	-27,829,041
201,111	Nov	Current Ratio = Cu...	Corporate	12MEXCO	16,204,257	37.40	-433,219
201,111	Nov	Current Ratio = Cu...	Base	22UKCO	30,654,313	1.78	-17,178,670
201,111	Nov	Current Ratio = Cu...	Corporate	31AUSCO	119,439,408	13.84	-8,632,236
201,111	Nov	Current Ratio = Cu...	Corporate	11CANCO	260,505,960	87.91	-2,963,173
201,111	Nov	Current Ratio = Cu...	Corporate	20FRACO	0	0.00	-11,717
201,111	Nov	Current Ratio = Cu...	Corporate	22EMEACONS	88,187,226	7.94	-11,102,496

Return on Working Capital

The Return on Working Capital (ROWC) KPI is a measure of profit on the amount of cash consumed. It is a method of increasing enterprise value by maximizing efficiency of working capital. Every dollar of EBITDA added to the bottom line is worth five or more dollars to investors in enterprise value. Because working capital efficiency has direct effect on EBITDA, having a maximum return on working capital is a key lever to increasing enterprise value.

Note EBITDA, which is an indicator of a company's financial performance, is net income before interest, taxes, depreciation, and amortization. It can be used to analyze and compare profitability between companies and industries because it eliminates the effects of financing and accounting decisions.

EBITDA is calculated as follows:

$$EBITDA = \text{Revenue} - \text{Expenses (excluding tax, interest, depreciation, and amortization)}$$

The ROWC ratio is calculated as follows:

$$\text{Return on Working Capital (ROWC)} = \text{NOPAT} / \text{Working Capital}$$

$$\text{Net Operating Profit After Tax (NOPAT)} = \text{EBIT} - \text{Operating Income Tax}$$

$$\text{Earnings Before Interest and Tax (EBIT)} = \text{Net Sales} - \text{COGS} - \text{Other OPEX}$$

$$\text{COGS} = \text{Cost Of Goods Sold}$$

$$\text{OPEX} = \text{Operating Expenditures}$$

Working capital, also known as net working capital or working capital ratio, is a measure of both a company's efficiency and its short-term financial health. The working capital ratio is calculated as:

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Positive working capital means that the company is able to pay off its short-term liabilities. Negative working capital means that a company currently is unable to meet its short-term liabilities with its current assets, which consist of cash, accounts receivable, and inventory.

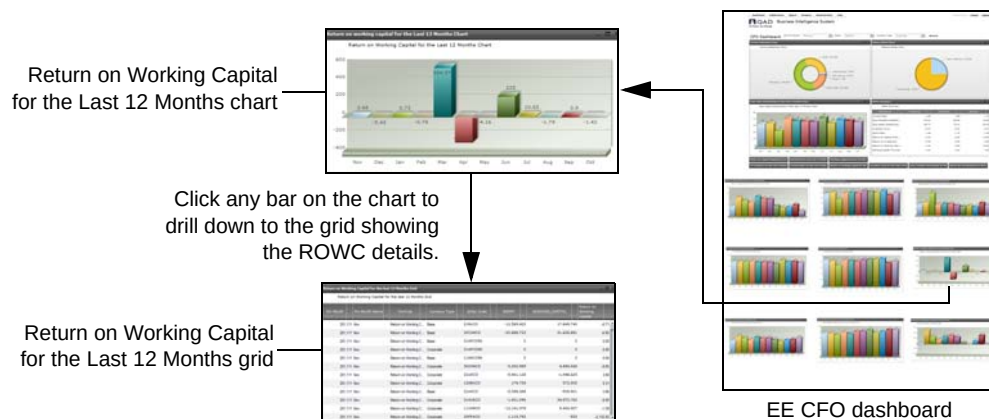
If a company's current assets do not exceed its current liabilities, then it can run into trouble paying back creditors in the short term. The worst-case scenario is bankruptcy. A declining working capital ratio over a longer period could also be a red flag that warrants further analysis. For example, a declining working capital ratio could be caused by declining sales volumes and, as a result, causes the accounts receivables number to continue to get smaller.

Working capital also gives investors an idea of the company's underlying operational efficiency. Money that is tied up in inventory or money that customers still owe to the company cannot be used to pay off any of the company's obligations. If a company is not operating in the most efficient manner, also known as slow collection, the working capital increases. Slow collection, which can be seen by comparing the working capital from one period to another, can signal an underlying problem in the company's operations.

Navigation

The Return on Working Capital for the Last 12 Months chart is linked to a grid that shows the return on working capital details.

Fig. 9.26
Navigation Overview for the Return on Working Capital KPI



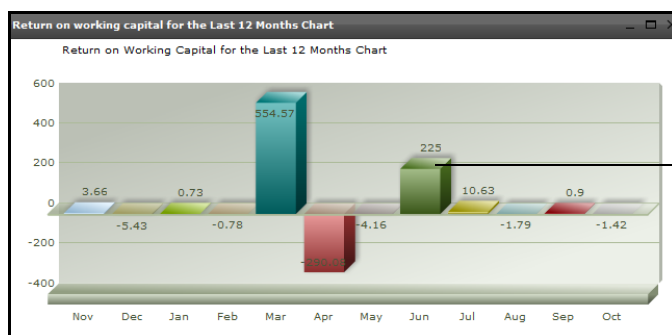
Return on Working Capital for the Last 12 Months Chart

This chart shows the ROWC metric for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line Fact table.

Fig. 9.27

Return on Working Capital for the Last 12 Months Chart



Click any bar on the chart to drill down to the grid showing the ROWC details.

Return on Working Capital for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the ROWC ratio, contains the following columns:

- Fin Month
- Fin Month Name
- Formula
- Currency Type
- Entity Code
- NOPAT
- Working Capital
- Return on Working Capital ratio

Fig. 9.28

Return on Working Capital for the Last 12 Months Grid

Return on Working Capital for the last 12 Months Grid								
Fin Month	Fin Month Name	Formula	Currency Type	Entity Code	NOPAT	WORKING_CAPITAL	Return on Working Capital	
201,111 Nov		Return on Working C...	Base	21NLCO	-12,569,422	17,649,740	-0.71	
201,111 Nov		Return on Working C...	Base	30CHNCO	-20,688,723	31,628,881	-0.65	
201,111 Nov		Return on Working C...	Base	31APCONS	0	0	0.00	
201,111 Nov		Return on Working C...	Corporate	31APCONS	0	0	0.00	
201,111 Nov		Return on Working C...	Base	11NACONS	0	0	0.00	
201,111 Nov		Return on Working C...	Corporate	30CHNCO	-3,200,589	4,893,426	-0.65	
201,111 Nov		Return on Working C...	Corporate	22UKCO	-5,481,128	-1,498,625	3.66	
201,111 Nov		Return on Working C...	Corporate	12MEXCO	179,759	573,505	0.31	
201,111 Nov		Return on Working C...	Base	22UKCO	-3,398,288	-928,801	3.66	
201,111 Nov		Return on Working C...	Corporate	31AUSCO	-1,601,096	34,872,762	-0.05	
201,111 Nov		Return on Working C...	Corporate	11CANCO	-12,141,078	9,443,407	-1.29	
201,111 Nov		Return on Working C...	Corporate	20FRACO	1,115,792	-523	-2,132.02	

Inventory Turns

The Inventory Turns KPI indicates if a business is efficiently managing and selling its inventory. The inventory turns ratio, which must be compared against industry averages, shows how many times a company's inventory is sold and replaced over a period. Divide the days in the period by the inventory turnover formula to calculate the days it takes to sell the inventory on hand—also known as the inventory turnover days. The inventory turns ratio is calculated as:

$$\text{Inventory Turnover Ratio} = \text{Sales} / \text{Inventory}$$

or

$$\text{Inventory Turnover Ratio} = \text{Cost of Goods Sold} / \text{Average Inventory}$$

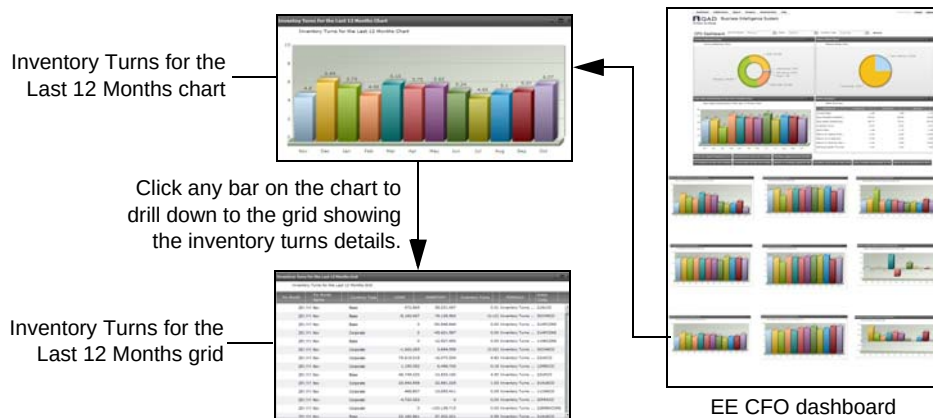
A low turnover ratio implies poor sales and, therefore, excess inventory. A high turnover ratio implies either strong sales or ineffective buying. High inventory levels are not only unhealthy because they represent an investment with a zero rate of return, but they also open the company up to trouble if prices begin to fall.

Navigation

The Inventory Turns for the Last 12 Months chart is linked to a grid that shows the return on inventory turns details.

Fig. 9.29

Navigation Overview for the Inventory Turns KPI

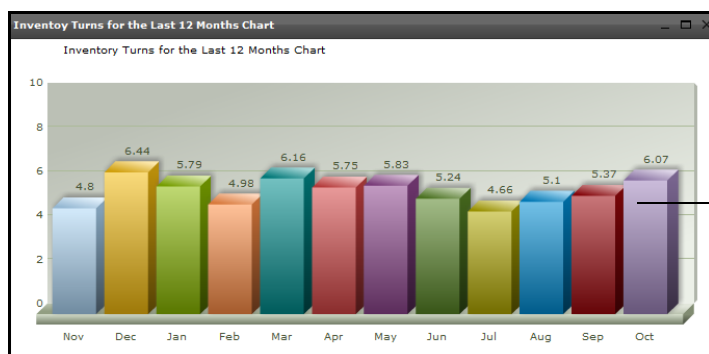


Inventory Turns for the Last 12 Months Chart

This chart displays the inventory turns metric for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line Fact table.

Fig. 9.30
Inventory Turns for the Last 12 Months Chart



Click any bar on the chart to drill down to the grid showing the inventory turns details.

Inventory Turns for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the inventory turns ratio, contains the following columns:

- Fin Month
- Fin Month Name
- Currency Type
- COGS
- Inventory
- Inventory Turns
- Formula
- Entity Code

Fig. 9.31
Inventory Turns for the Last 12 Months Grid

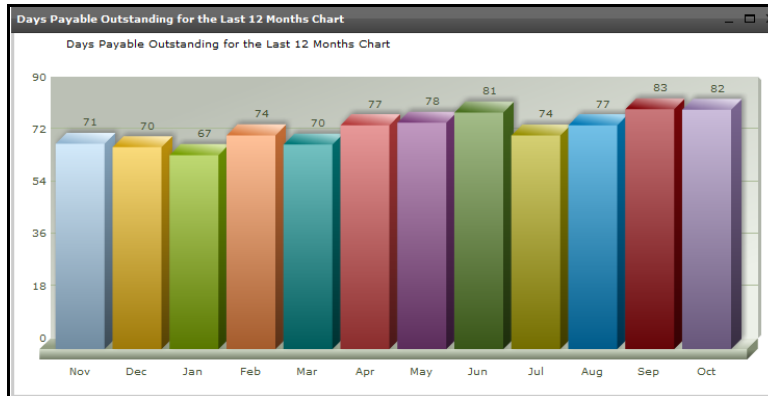
Inventory Turns for the Last 12 Months Grid							
Fin Month	Fin Month Name	Currency Type	COGS	INVENTORY	Inventory Turns	FORMULA	Entity Code
201,111 Nov	Nov	Base	472,865	39,231,067	0.01	Inventory Turns ...	21NLCO
201,111 Nov	Nov	Base	-8,160,437	78,128,963	(0.10)	Inventory Turns ...	30CHNCO
201,111 Nov	Nov	Base	0	-50,848,844	0.00	Inventory Turns ...	31APCONS
201,111 Nov	Nov	Corporate	0	-45,621,587	0.00	Inventory Turns ...	31APCONS
201,111 Nov	Nov	Base	0	12,927,450	0.00	Inventory Turns ...	11NACONS
201,111 Nov	Nov	Corporate	-1,262,265	3,894,559	(0.32)	Inventory Turns ...	30CHNCO
201,111 Nov	Nov	Corporate	78,619,316	16,370,534	4.80	Inventory Turns ...	22UKCO
201,111 Nov	Nov	Corporate	1,195,352	6,498,743	0.18	Inventory Turns ...	12MEXCO
201,111 Nov	Nov	Base	48,749,220	10,833,160	4.50	Inventory Turns ...	22UKCO
201,111 Nov	Nov	Corporate	23,543,938	22,881,225	1.03	Inventory Turns ...	31AUSCO
201,111 Nov	Nov	Corporate	468,807	13,693,411	0.03	Inventory Turns ...	11CANCO
201,111 Nov	Nov	Corporate	4,722,323	0	0.00	Inventory Turns ...	20FRACO
201,111 Nov	Nov	Corporate	0	-120,139,713	0.00	Inventory Turns ...	22EMEACONS
201,111 Nov	Nov	Base	22,180,861	37,302,201	0.59	Inventory Turns ...	31AUSCO

Days Payable Outstanding

For details on this chart, see “Days Payable Outstanding for the Last 12 Months” on page 308.

Fig. 9.32

Days Payable Outstanding for the Last 12 Months Chart



Return on Investment

The Return on Investment (ROI) KPI answers the following questions:

- How do investment returns compare to investment costs?
- Do expected returns outweigh the costs?
- Do the investment returns justify the costs?
- Do some investments use funds more efficiently than others?

Most forms of ROI analysis compare investment returns and costs by constructing a ratio or percentage. In most ROI methods, if the ROI ratio is greater than 0.00 or the percentage greater than 0%, the investment returns more than it costs. When potential investments compete for funds, and when other factors between the choices are truly equal, the investment or business case scenario with the higher ROI is considered the better business decision.

The return on investment ratio is calculated as:

$$ROI = (NOPAT + \text{Interest Paid}) / \text{Total Assets}$$

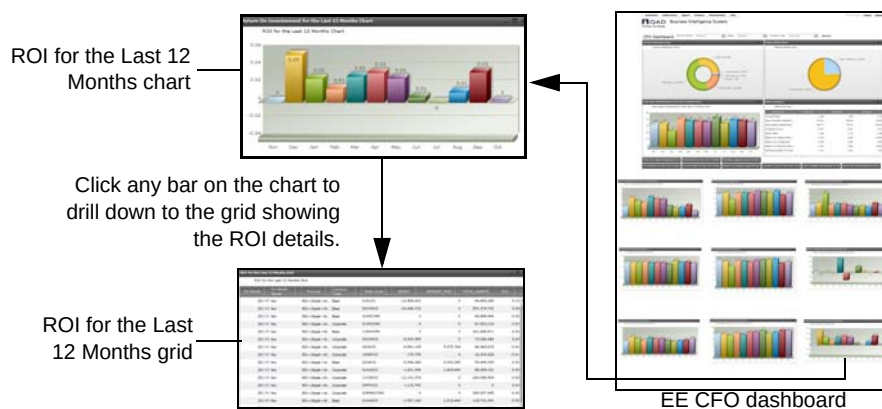
$$NOPAT = \text{Net Operating Profit After Tax}$$

Navigation

The ROI for the Last 12 Months chart is linked to a grid that shows the ROI details.

Fig. 9.33

Navigation Overview for the ROI KPI



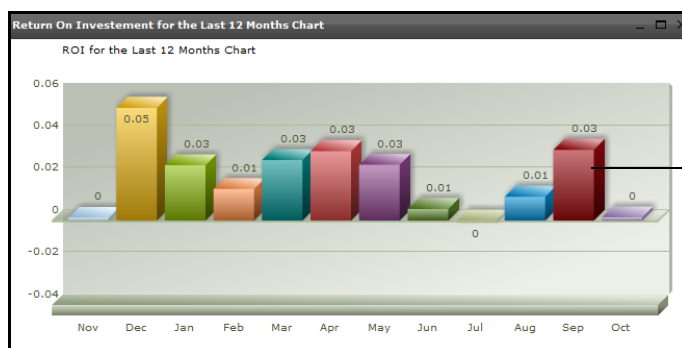
ROI for the Last 12 Months Chart

This chart shows the ROI metric for the last 12 months for the entity and currency type that you select from the parameter bar.

Note The source for this chart is the GL Report Line Fact table.

Fig. 9.34

ROI for the Last 12 Months Chart



Click any bar on the chart to drill down to the grid showing the ROI details.

ROI for the Last 12 Months Grid

This grid, which shows the amounts used to calculate the ROI ratio, contains the following columns:

- Fin Month
- Fin Month Name
- Formula
- Currency Type
- Entity Code
- NOPAT
- Interest Pain
- Total Assets
- ROI

Fig. 9.35
ROI for the Last 12 Months Grid

Fin Month	Fin Month Name	Formula	Currency Type	Entity Code	NOPAT	INTEREST_PAID	TOTAL_ASSETS	ROI
201,111	Nov	ROI = (Nopat + Int...	Base	21NLCO	-12,569,422	0	94,883,288	0.13
201,111	Nov	ROI = (Nopat + Int...	Base	30CHNCO	-20,688,723	0	551,274,702	0.04
201,111	Nov	ROI = (Nopat + Int...	Base	31APCONS	0	0	66,899,944	0.00
201,111	Nov	ROI = (Nopat + Int...	Corporate	31APCONS	0	0	67,602,016	0.00
201,111	Nov	ROI = (Nopat + Int...	Base	11NACONS	0	0	241,849,671	0.00
201,111	Nov	ROI = (Nopat + Int...	Corporate	30CHNCO	-3,200,589	0	75,356,484	0.04
201,111	Nov	ROI = (Nopat + Int...	Corporate	22UKCO	-5,481,128	5,375,764	86,983,878	0.00
201,111	Nov	ROI = (Nopat + Int...	Corporate	12MEXCO	179,759	0	16,203,628	-0.01
201,111	Nov	ROI = (Nopat + Int...	Base	22UKCO	-3,398,288	3,333,280	53,849,305	0.00
201,111	Nov	ROI = (Nopat + Int...	Corporate	31AUSCO	-1,601,096	1,609,840	98,955,191	0.00
201,111	Nov	ROI = (Nopat + Int...	Corporate	11CANCO	-12,141,078	0	260,496,905	0.05
201,111	Nov	ROI = (Nopat + Int...	Corporate	20FRACO	1,115,792	0	0	0.00
201,111	Nov	ROI = (Nopat + Int...	Corporate	22EMEACONS	0	0	280,537,695	0.00
201,111	Nov	ROI = (Nopat + Int...	Base	31AUSCO	-1,507,160	1,516,640	118,731,061	0.00

Setting up the CFO Dashboard

Financial reports for high-level executives involve complex calculations on ranges of general ledger account numbers. For example, if you want to know the return on investment (ROI) metric for a range of financial periods, add up the net operating profit after tax (NOPAT) metric and any interest paid and then divide by the value of total assets. Each of these calculations can involve one or more ranges of general ledger accounts that you identify by account number, sub-account number, entity, or various identifying factors. In some countries, businesses have the freedom to choose their own chart of accounts because there is no mandatory chart of accounts. In such a case, you can customize reports so that every customer has their own numbering system for general ledger codes by importing the custom GL Account information through the CFO Dashboard spreadsheet.

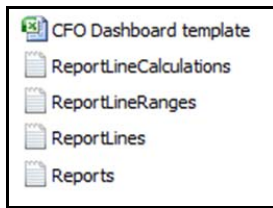
The CFO dashboard contains the following Excel template and text files to customize reports:

- **CFO Dashboard Template.xlsx**. The CFO Dashboard template consists of five worksheets:
 - Reports
 - Report Lines
 - Report Line Ranges
 - Report Line Calculations
 - Financial Metric Example

The data in the first four worksheets is saved as .txt (text) files. The .txt files are read and their data imported into the BI data warehouse.

- ReportLineCalculations.txt
- ReportLineRanges.txt
- ReportLines.txt
- Reports.txt

Fig. 9.36
CFO Dashboard Excel Template and Text Files



The CFO dashboard uses the data that is stored in the GL balance fact table. The GL balance data is grouped by reporting lines. The reporting lines are based on data, which can be a range of GL accounts you refine by sub-account, cost center, and so on, or calculated based on other reporting lines.

Reports

In the reports worksheet, you define the different sets of reports to set up in the CFO dashboard and the reports to create the parameters in the worksheet for—reporting lines, ranges, and calculations.

The standard setup has only one set called CFO_Metrics.

Fig. 9.37
CFO Report Worksheet

	A	B	C	D
1	1. ENTER DATA IN THE BLUE CELLS AND CONTINUE DOWN UNTIL ALL IS ENTERED			2. DRAG THE FORMULA UP OR DOWN TO MATCH THE ENTERED DATA
2				3. COPY THE YELLOW DATA TO A TEXT FILE CALLED Reports.txt
3				
4	report_name		file contents:	report_name
5	CFO_METRICS			CFO_METRICS
6				
7				
8				
9				
10				

Report Lines

In the Report Lines worksheet, you define the different reporting lines you want to use in the KPIs such as inventory or total assets. For each of these reporting lines, indicate the type as calc or data:

- **Calc.** The value of the reporting line is calculated based on other reporting lines.
- **Data.** The value of the reporting line is based on retrieved data such as a range of GL accounts or a range of GL accounts in combination with sub-accounts and cost centers.

The following parameters are available:

- **Indent Level Parameter.** Builds a hierarchy.
- **Visible Parameter.** Uses reporting lines for calculation only but does not show them in the dashboard.
- **Change Sign Parameter.** Displays all positive values.

Fig. 9.38
CFO Report Lines Worksheet

1	1. ENTER DATA IN THE BLUE CELLS AND CONTINUE DOWN UNTIL ALL IS ENTERED										2. DRAG THE FORMULA UP OR DOWN TO MATCH THE ENTERED DATA										
2											3. COPY THE YELLOW DATA TO A TEXT FILE CALLED ReportLines.txt										
3																					
4	report_name	line_number	line_type	line_text	indent_level	visible	change_sign	file_contents	report_name line_number line_type line_text indent_level visible change_sign												
5	CFO_METRICS	10	calc	NOPAT	1	Y	N		CFO_METRICS 10 calc NOPAT 1 Y N												
6	CFO_METRICS	20	data	Interest Paid	1	Y	N		CFO_METRICS 20 data Interest Paid 1 Y N												
7	CFO_METRICS	30	calc	Total Assets	1	Y	N		CFO_METRICS 30 calc Total Assets 1 Y N												
8	CFO_METRICS	40	calc	Working Capital	1	Y	N		CFO_METRICS 40 calc Working Capital 1 Y N												
9	CFO_METRICS	41	calc	Current Assets	1	Y	N		CFO_METRICS 41 calc Current Assets 1 Y N												
10	CFO_METRICS	42	calc	Current Liabilities	1	Y	N		CFO_METRICS 42 calc Current Liabilities 1 Y N												
11	CFO_METRICS	45	data	Fixed Assets	1	Y	N		CFO_METRICS 45 data Fixed Assets 1 Y N												
12	CFO_METRICS	60	data	Other Current Assets	1	Y	N		CFO_METRICS 60 data Other Current Assets 1 Y N												
13	CFO_METRICS	70	data	Inventory	1	Y	N		CFO_METRICS 70 data Inventory 1 Y N												
14	CFO_METRICS	75	data	Cash and Banks	1	Y	N		CFO_METRICS 75 data Cash and Banks 1 Y N												
15	CFO_METRICS	80	data	Investments	1	Y	N		CFO_METRICS 80 data Investments 1 Y N												

Here is the full list of report lines used in the standard setup:

Line Number	Line Type	Line Text
10	calc	NOPAT
20	data	Interest Paid
30	calc	Total Assets
40	calc	Working Capital
41	calc	Current Assets
42	calc	Current Liabilities
45	data	Fixed Assets
60	data	Other Current Assets
70	data	Inventory
75	data	Cash and Banks
80	data	Investments
90	data	COGS
100	data	AR
101	data	Provision Bad Debt
110	data	Net Sales
120	data	AP
130	calc	EBIT
140	calc	Total Liabilities
142	data	LT Liabilities
145	data	Other Current Liabilities
170	data	Total Equity
180	calc	Other OPEX
181	data	Other Operating expenses
185	data	Bad Debt expense
188	data	ICT expense
190	data	Taxes
200	calc	Net Income
210	calc	Purchases

Report Line Ranges

In the Report Line Ranges worksheet, enter the range values for the data type report lines.

Enter a value to filter on that value. If no value is entered, the system includes all values.

Fig. 9.39
CFO Report Line Ranges Worksheet

	A	B	C	D	E	F	G	H	I	J	K
1	1. ENTER DATA IN THE BLUE CELLS AND CONTINUE DOWN UNTIL ALL IS ENTERED										
2	NOTE: columns marked (*) can use SQL wildcards * and _										
3					(*)	(*)	(*)	(*)	(*)	(*)	(*)
4	report_name	line_number	range_type	source_system_code	from_entity	from_account	from_subaccount	from_department	from_project	from_layer	from_interco_business_relation_code
5	CFO_METRICS	20	include	SELOCAL	1000	9999					
6	CFO_METRICS	20	include	QMI_EE_LOCAL3	10USACO	7600					
7	CFO_METRICS	45	include	QMI_EE_LOCAL3	10USACO	3000					
8	CFO_METRICS	45	exclude	QMI_EE_LOCAL3	10USACO	3200					
9	CFO_METRICS	60	include	SELOCAL	1000	1000					
10	CFO_METRICS	60	include	QMI_EE_LOCAL3	10USACO	1399					

Here is the list of all the columns.

First Parameter (From)	Second Parameter (To)	Parameter That You Need To Fill In
report_name		Report Name as defined in "Report"
line_number		Report line number as defined in "Report Lines"
range_type		include/exclude
source_system_code		source system code
from_entity	to_entity	Entity code
from_account	to_account	GL account code
from_subaccount	to_subaccount	Sub Account code
from_costcenter	to_costcenter	Cost center code
from_project	to_project	Project code
from_layer	to_layer	GL layer code
from_interco_business_relation_code	to_interco_business_relation_code	Intercompany code
from_gl1_saf_concept_code	to_gl1_saf_concept_code	SAF1 concept code (SAF linked to GL account)
from_gl1_saf_code	to_gl1_saf_code	SAF1 code (SAF linked to GL account)
from_gl2_saf_concept_code	to_gl2_saf_concept_code	SAF2 concept code (SAF linked to GL account)
from_gl2_saf_code	to_gl2_saf_code	SAF2 code (SAF linked to GL account)
from_gl3_saf_concept_code	to_gl3_saf_concept_code	SAF3 concept code (SAF linked to GL account)
from_gl3_saf_code	to_gl3_saf_code	SAF3 code (SAF linked to GL account)
from_gl4_saf_concept_code	to_gl4_saf_concept_code	SAF4 concept code (SAF linked to GL account)
from_gl4_saf_code	to_gl4_saf_code	SAF4 code (SAF linked to GL account)
from_gl5_saf_concept_code	to_gl5_saf_concept_code	SAF5 concept code (SAF linked to GL account)
from_gl5_saf_code	to_gl5_saf_code	SAF5 code (SAF linked to GL account)

First Parameter (From)	Second Parameter (To)	Parameter That You Need To Fill In
from_cost_center1_saf_concept_code	to_cost_center1_saf_concept_code	SAF1 concept code (SAF linked to cost center)
from_cost_center1_saf_code	to_cost_center1_saf_code	SAF1 code (SAF linked to cost center)
from_cost_center2_saf_concept_code	to_cost_center2_saf_concept_code	SAF2 concept code (SAF linked to cost center)
from_cost_center2_saf_code	to_cost_center2_saf_code	SAF2 code (SAF linked to cost center)
from_cost_center3_saf_concept_code	to_cost_center3_saf_concept_code	SAF3 concept code (SAF linked to cost center)
from_cost_center3_saf_code	to_cost_center3_saf_code	SAF3 code (SAF linked to cost center)
from_cost_center4_saf_concept_code	to_cost_center4_saf_concept_code	SAF4 concept code (SAF linked to cost center)
from_cost_center4_saf_code	to_cost_center4_saf_code	SAF4 code (SAF linked to cost center)
from_cost_center5_saf_concept_code	to_cost_center5_saf_concept_code	SAF5 concept code (SAF linked to cost center)
from_cost_center5_saf_code	to_cost_center5_saf_code	SAF5 code (SAF linked to cost center)
from_project1_saf_concept_code	to_project1_saf_concept_code	SAF1 concept code (SAF linked to project)
from_project1_saf_code	to_project1_saf_code	SAF1 code (SAF linked to project)
from_project2_saf_concept_code	to_project2_saf_concept_code	SAF2 concept code (SAF linked to project)
from_project2_saf_code	to_project2_saf_code	SAF2 code (SAF linked to project)
from_project3_saf_concept_code	to_project3_saf_concept_code	SAF3 concept code (SAF linked to project)
from_project3_saf_code	to_project3_saf_code	SAF3 code (SAF linked to project)
from_project4_saf_concept_code	to_project4_saf_concept_code	SAF4 concept code (SAF linked to project)
from_project4_saf_code	to_project4_saf_code	SAF4 code (SAF linked to project)
from_project5_saf_concept_code	to_project5_saf_concept_code	SAF5 concept code (SAF linked to project)
from_project5_saf_code	to_project5_saf_code	SAF5 code (SAF linked to project)

Report Line Calculations

In the Report Line Calculations worksheet, define which report lines compose this particular report line for Calc type report lines.

Note Currently the only supported operator is “add.”

Fig. 9.40
CFO Report Line Calculation Worksheet

	A	B	C	D	E	F	G
1	1. ENTER DATA IN THE BLUE CELLS AND CONTINUE DOWN UNTIL ALL IS ENTERED						2. DRAG THE FORMULA UP OR DOWN TO MATCH THE ENTERED DATA
2							3. COPY THE YELLOW DATA TO A TEXT FILE CALLED ReportLineCalculations.txt
3							
4	report_name	line_number	calc_seq	operator	source_line	file contents:	report_name line_number calc_seq operator source_line
5	CFO_METRICS	40	100	add	41		CFO_METRICS 40 100 add 41
6	CFO_METRICS	40	110	add	42		CFO_METRICS 40 110 add 42
7	CFO_METRICS	41	10	add	60		CFO_METRICS 41 10 add 60
8	CFO_METRICS	41	20	add	70		CFO_METRICS 41 20 add 70
9	CFO_METRICS	41	30	add	75		CFO_METRICS 41 30 add 75
10	CFO_METRICS	41	40	add	100		CFO_METRICS 41 40 add 100

Full list of report line calculations used in the standard setup:

Line Number	Calc Seq	Operator	Source Line
40	100	add	41
40	110	add	42
41	10	add	60
41	20	add	70
41	30	add	75
41	40	add	100
41	41	add	101
42	50	add	120
42	60	add	145
30	70	add	41
30	80	add	45
30	90	add	80
140	120	add	170
140	130	add	42
140	140	add	142
10	200	add	130
10	210	add	190
130	220	add	110
130	230	add	90
130	240	add	180
200	250	add	110
200	260	add	90
200	270	add	180
200	280	add	20
200	290	add	190
210	300	add	90
210	310	add	180
180	320	add	181
180	330	add	185
180	340	add	188

Financial Metric Example

The Financial Metrics Examples worksheet contains lists of formulas that show how the report lines are calculated by using the report line text.

Fig. 9.41

CFO Financial Metrics Example Worksheet

	A	B
1		Suggested Formulas:
2		NOPAT = EBIT - Operating Income Tax
3		
4		Working Capital = Current Assets - Current Liabilities
5		
6		EBIT = Net Sales - COGS - Other OPEX
7		
8		Net Income = Net Sales - COGS - Other OPEX - Interest Paid - Taxes
9		
10		ROI = (NOPAT + Interest Paid) / Total Assets

Order Management

This chapter provides detailed information about the Order Management (OM) dashboards. It includes the following topics:

Introduction **362**

Bookings Dashboard **362**

Sales Dashboard **368**

Shipments Dashboard **376**

Introduction

The Order Management (OM) module includes the Bookings, Shipments, and Sales dashboards. Bookings, shipments, and sales are major steps in the sales order process flow. Each of the OM dashboards contains:

- Visual items that display information at both the company level and for a specific domain.
- A year and domain parameter bar you can use to view information for the domain and financial year of your choice.
- In the top left corner of each dashboard, a visual item displays data from all domains and a selected year. To make the data easy to compare, a visual item below it displays the same data but for a selected domain.

The OM module correctly supports customer scheduled orders by displaying scheduled and non-scheduled orders in all OM dashboards.

The OM module answers the following questions:

- Is the value of orders taken increasing or decreasing, compared with the same period of previous years?
- What are my best customers and highest turning items? How did this change over past time?
- Did I improve shipment performance according to the customer's requirements?

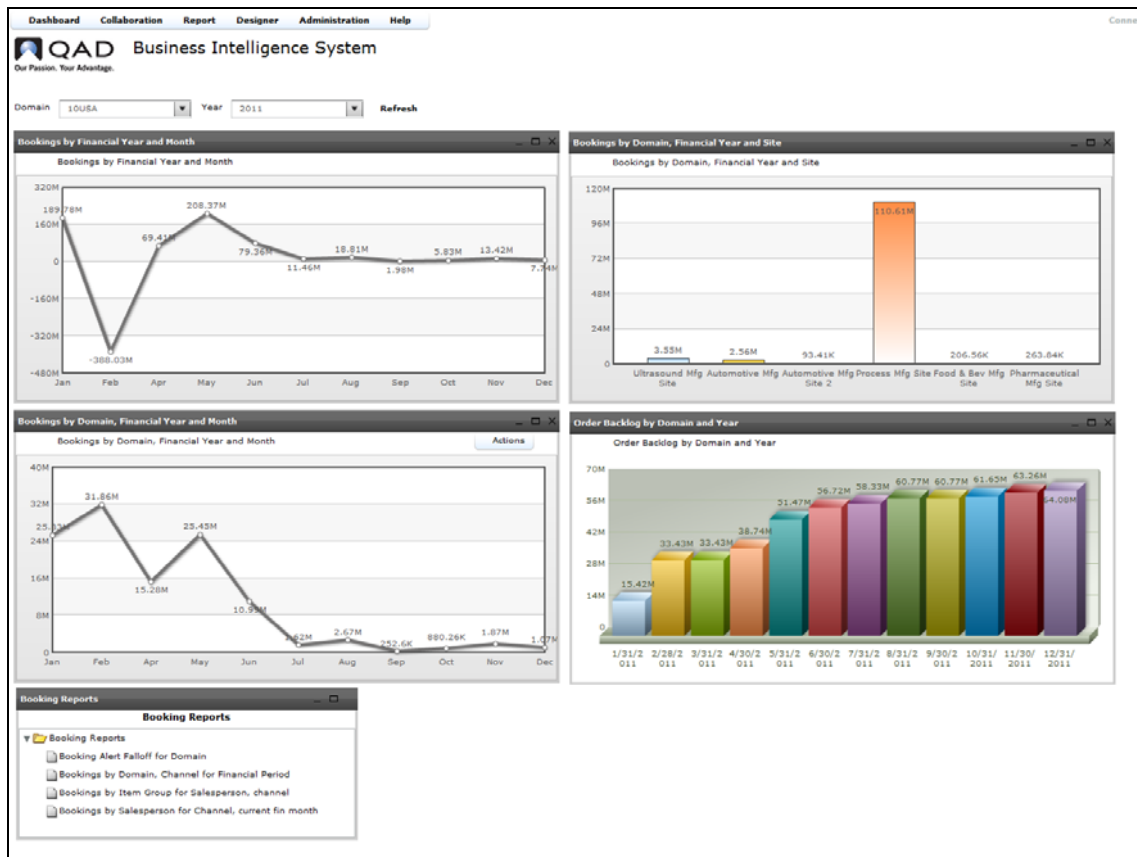
Bookings Dashboard

The Bookings dashboard displays the customer sales orders that are booked in the system, including the backlog, which is the total amount of orders booked that have not shipped.

This dashboard contains the following KPIs and reports:

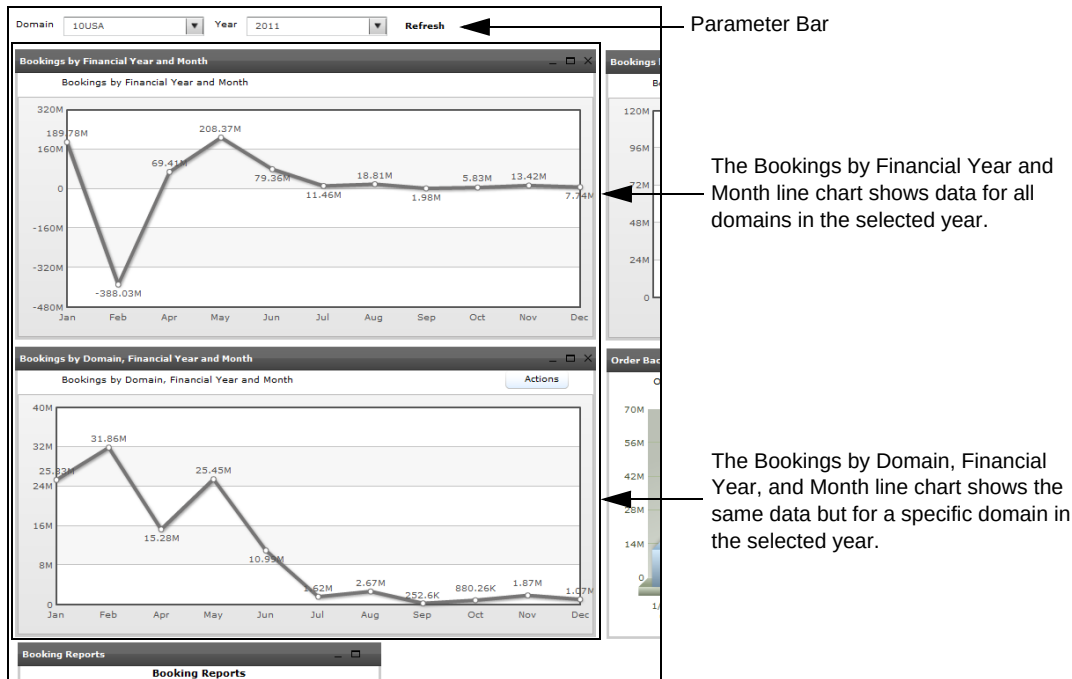
- Bookings by Financial Year and Month
- Bookings by Domain, Financial Year, and Month
- Bookings by Domain, Financial Year, and Site
- Order Backlog by Domain and Year
- Booking Reports

Fig. 10.1
OM: Bookings Dashboard



This dashboard contains a domain and month parameter bar for filtering the data displayed in the visual items. In the top left corner, the Bookings by Financial Year and Month line chart shows data for all domains in a selected year. To make the data easy to compare, the Bookings by Domain, Financial Year, and Month line chart is below it, showing the same data but for the selected domain and year.

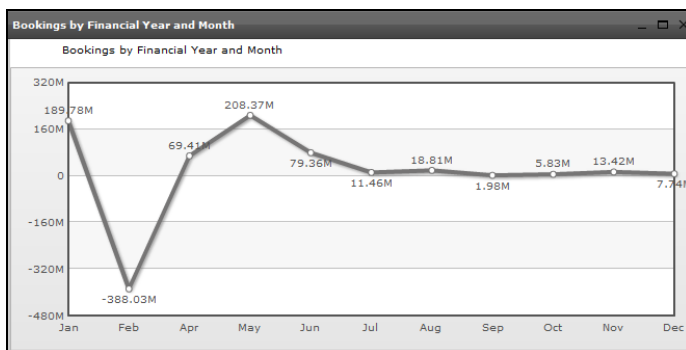
Fig. 10.2
Compare Bookings for All Domains and a Selected Domain



Bookings by Financial Year and Month

The Bookings by Financial Year and Month chart shows the total value, in corporate currency, of the orders booked in each month of the selected financial year. This chart includes data from all domains.

Fig. 10.3
Bookings by Financial Year and Month Chart

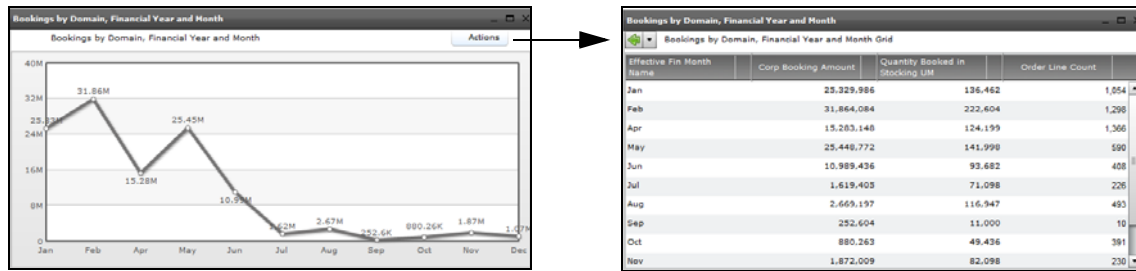


Bookings by Domain, Financial Year, and Month

The Bookings by Domain, Financial Year, and Month chart shows the value, in corporate currency, of the orders booked in each month of the selected financial year in the selected domain.

Click the Actions menu to access the Bookings by Domain, Financial Year, and Month Grid, which displays more detailed booking information.

Fig. 10.4
Bookings by Domain, Financial Year, and Month KPI

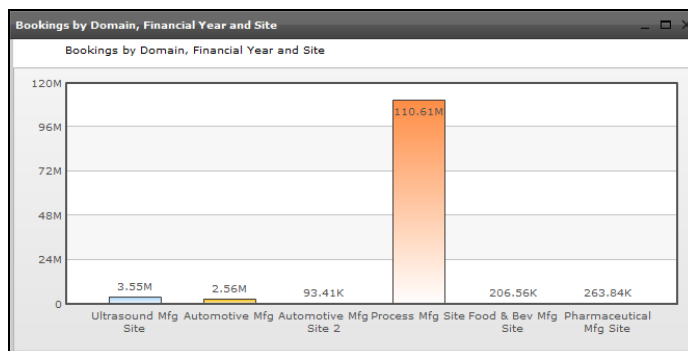


Click the Actions menu to view the Bookings by Domain, Financial Year, and Month grid.

Bookings by Domain, Financial Year, and Site

The Bookings by Domain, Financial Year, and Site chart shows the value, in corporate currency, of the orders booked in each site in the selected domain during the selected financial year.

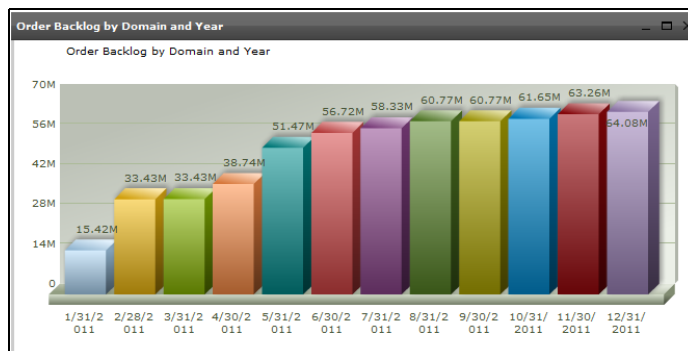
Fig. 10.5
Bookings by Domain, Financial Year, and Site Chart



Order Backlog by Domain and Year

The Order Backlog by Domain and Year chart shows the total value, in corporate currency, of all open orders relative to the last day of each calendar month of the selected year. This chart displays data from the selected domain.

Fig. 10.6
Order Backlog by Domain and Year Chart



Booking Reports

The Booking dashboard contains the following reports:

- Booking Alert Falloff for Domain Report
- Bookings by Domain, Channel for Financial Period Report
- Bookings by Salesperson for Channel Report
- Bookings by Item Group for Salesperson and Channel Report

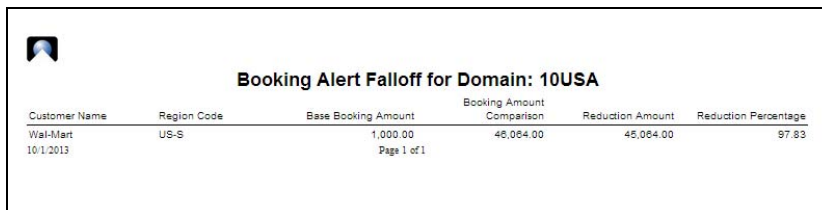
Booking Alert Falloff for Domain Report

The Booking Alert Falloff for Domain report compares the total booking amount of orders by customer in the selected and comparison financial periods of the selected domain. The report contains the following columns:

- Customer Name
- Region Code
- Base Booking Amount. Booking amount in base currency in the selected financial period.
- Booking Amount Comparison. Booking amount in base currency in the selected comparison period.
- Reduction Amount
- Reduction Percentage

Fig. 10.7

Booking Alert Falloff for Domain Report



Booking Alert Falloff for Domain: 10USA					
Customer Name	Region Code	Base Booking Amount	Booking Amount Comparison	Reduction Amount	Reduction Percentage
Wal-Mart	US-S	1,000.00	45,064.00	45,064.00	97.83

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Bookings by Domain, Channel for Financial Period Report

The Bookings for Domain, Channel for Financial Period report shows the value of orders booked through each channel in the selected domain during the selected financial period. The booking amount, discount amount, and gross margin are in base currency. This report contains the following columns:

- Channel
- Base Currency Code
- Base Booking Amount
- Base Booking Amount total (summary line)
- Base Discount Amount
- Base Discount Amount total (summary line)
- Base Gross Margin

Bookings by Salesperson for Channel Report

The Bookings by Salesperson for Channel report shows the value of orders booked through each channel in the selected domain during the selected financial period. The booking and discount amounts are in base currency. This report, which shows the bookings by salesperson, contains the following columns:

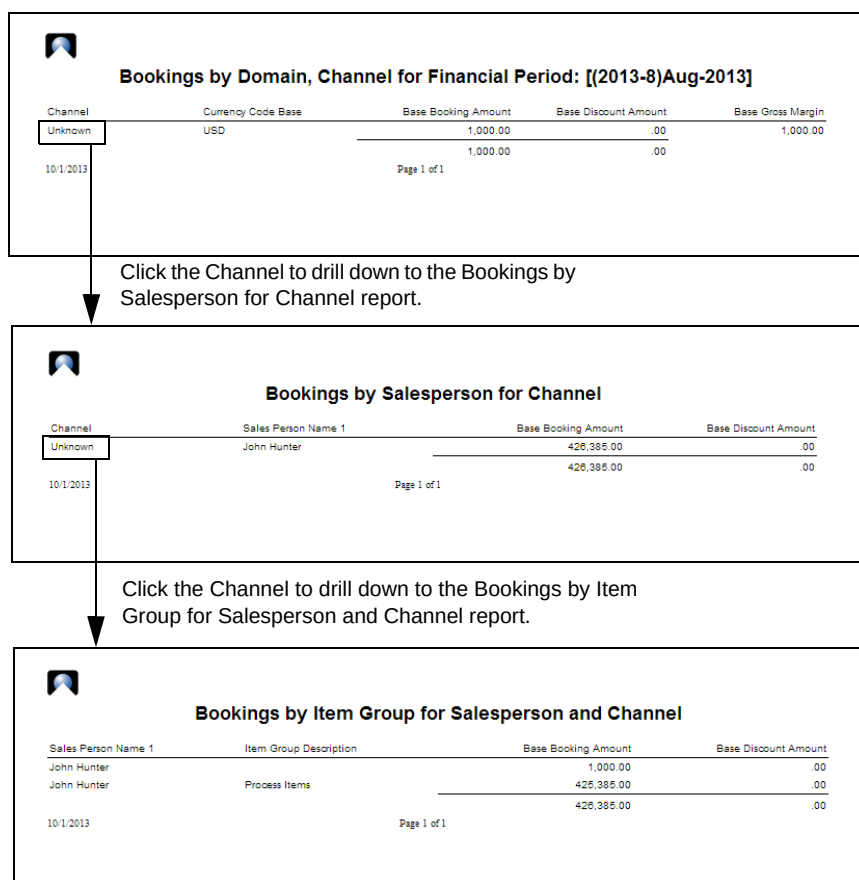
- Channel
- Salesperson Name
- Base Booking Amount
- Base Booking Amount total (summary line)
- Base Discount Amount
- Base Discount Amount total (summary line)

Bookings by Item Group for Salesperson and Channel Report

The Bookings by Item Group for Salesperson and Channel report shows the value of orders booked through each channel in the selected domain during the selected financial period. The booking and discount amounts are in base currency. This report, which shows the bookings by item group, contains the following columns:

- Salesperson Name
- Item Group Description
- Base Booking Amount
- Base Booking Amount total (summary line)
- Base Discount Amount
- Base Discount Amount total (summary line)

Fig. 10.8
Booking Reports



Sales Dashboard

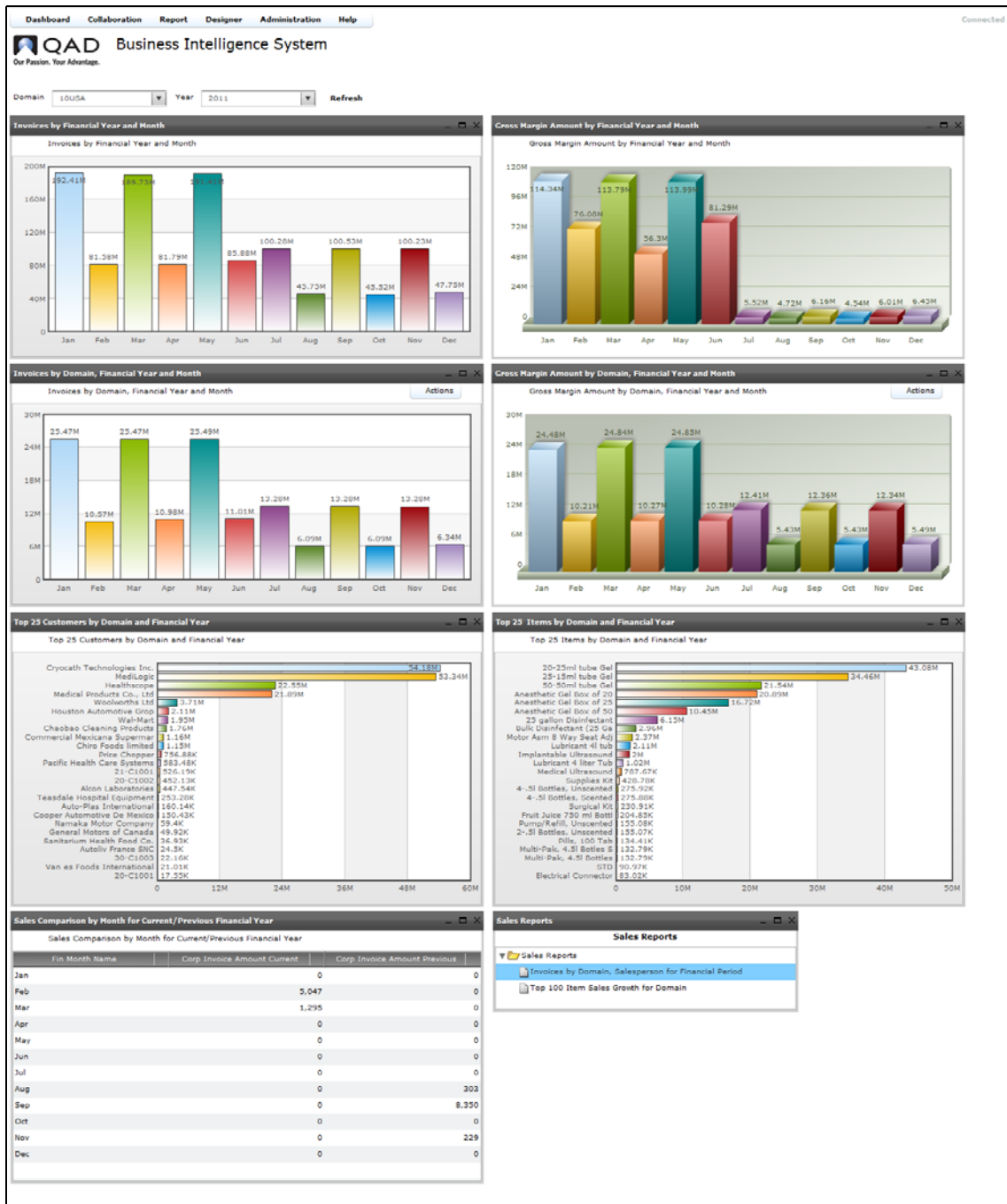
The Sales dashboard, which represents sales as invoiced orders invoices, displays invoice and gross margin amounts, the top 25 customers and items, and a sales comparison of the current and previous year. Gross margin is calculated as:

$$\text{Gross margin} = \text{gross revenue} - \text{cost of goods sold}$$

This dashboard contains the following KPIs and reports:

- Invoices by Financial Year and Month
- Invoices by Domain, Financial Year, and Month
- Gross Margin Amount by Financial Year and Month
- Gross Margin Amount by Domain, Financial Year, and Month
- Top 25 Customers by Domain and Financial Year
- Top 25 Items by Domain and Financial Year
- Sales Comparison by Month for Current/Previous Financial Year
- Sales Reports

Fig. 10.9
OM: Sales Dashboard



This dashboard contains a domain and month parameter bar for filtering the data displayed in the visual items.

In the top left corner, the Invoices by Financial Year and Month charts shows data for all domains in a selected year. To make the data easy to compare, the Invoices by Domain, Financial Year, and Month chart is below it, showing the same data but for the selected domain and year.

In the top right corner, the Gross Margin Amount by Financial Year and Month charts shows data for all domains in a selected year. To make the data easy to compare, the Gross Margin Amount by Domain, Financial Year, and Month chart is below it, showing the same data but for the selected domain and year.

Fig. 10.10

Compare Invoices for all Domains and a Selected Domain

The Invoices by Financial Year and Month chart shows data for all domains in the selected year.

The Gross Margin Amount by Financial Year and Month chart shows data for all domains in the selected year.



Invoices by Domain, Financial Year, and Month chart shows the same data but for a specific domain in the selected year.

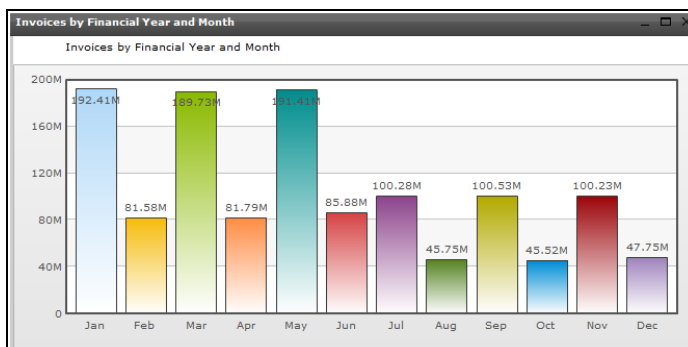
The Gross Margin Amount by Domain, Financial Year, and Month chart shows the same data but for a specific domain in the selected year.

Invoices by Financial Year and Month

The Invoices by Financial Year and Month chart displays the total invoice amount, in corporate currency, for each month of the selected financial year. This chart includes data from all domains.

Fig. 10.11

Invoices by Financial Year and Month Chart



Invoices by Domain, Financial Year, and Month

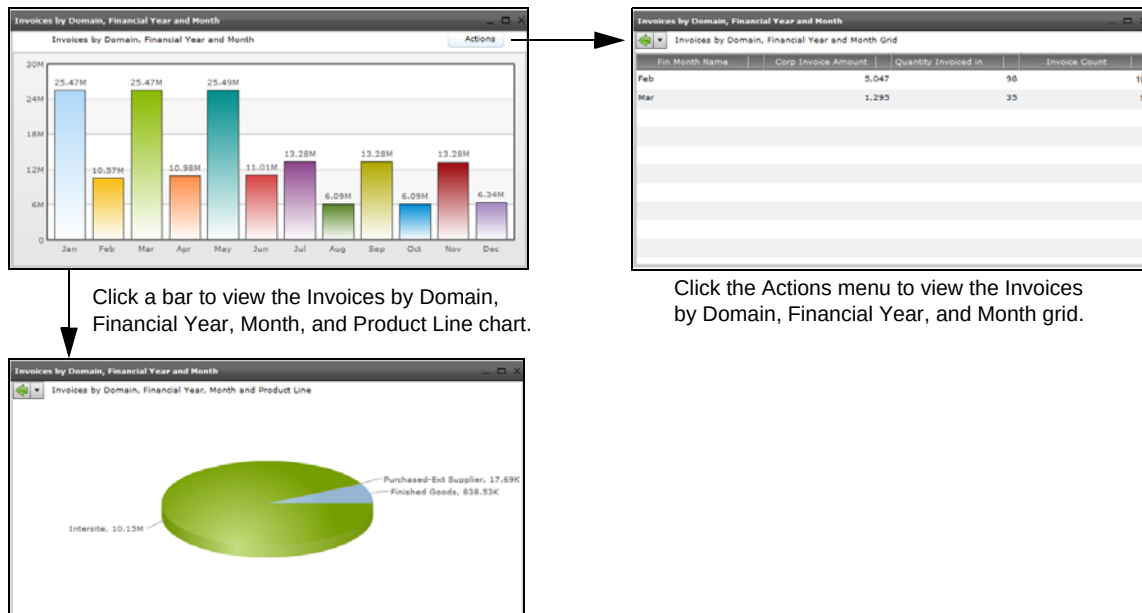
The Invoices by Domain, Financial Year, and Month chart shows the total invoice amount, in corporate currency, for each month of the selected financial year in the selected domain.

Click the Actions menu to access the Invoices by Domain, Financial Year, and Month grid, which shows more detailed invoice information.

Click a bar on the Invoices by Domain, Financial Year, and Month chart to drill down to the Invoices by Domain, Financial Year, Month, and Product Line chart, which displays the sales by product line for the selected month.

Fig. 10.12

Invoices by Domain, Financial Year, and Month KPI

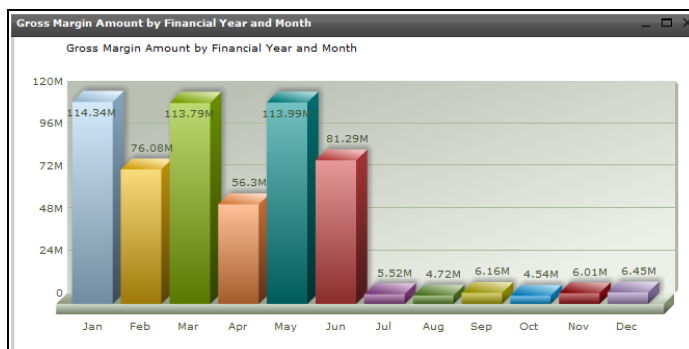


Gross Margin Amount by Financial Year and Month

The Gross Margin Amount by Financial Year and Month chart shows the gross margin amount, in corporate currency, for each month of the selected financial year. This chart includes data from all domains.

Fig. 10.13

Gross Margin Amount by Financial Year and Month Chart



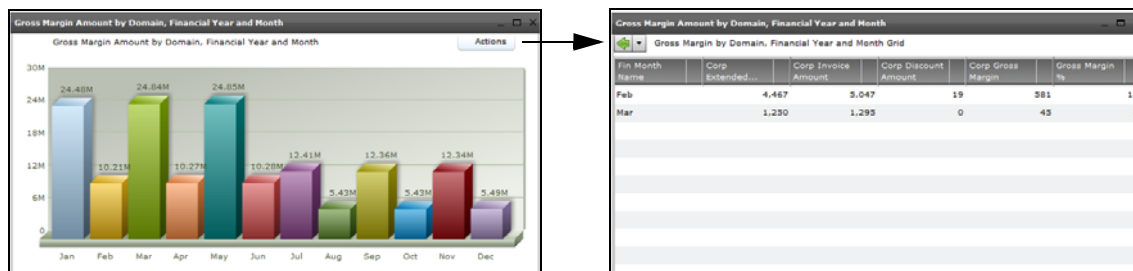
Gross Margin Amount by Domain, Financial Year, and Month

The Gross Margin Amount by Domain, Financial Year, and Month chart shows the gross margin amount, in corporate currency, for each month of the selected financial year and domain.

Click the Actions menu to access the Gross Margin Amount by Domain, Financial Year, and Month grid, which displays more detailed information.

Fig. 10.14

Gross Margin Amount by Domain, Financial Year, and Month KPI



Click the Actions menu to view the Gross Margin Amount by Domain, Financial Year, and Month grid.

Top 25 Customers by Domain and Financial Year

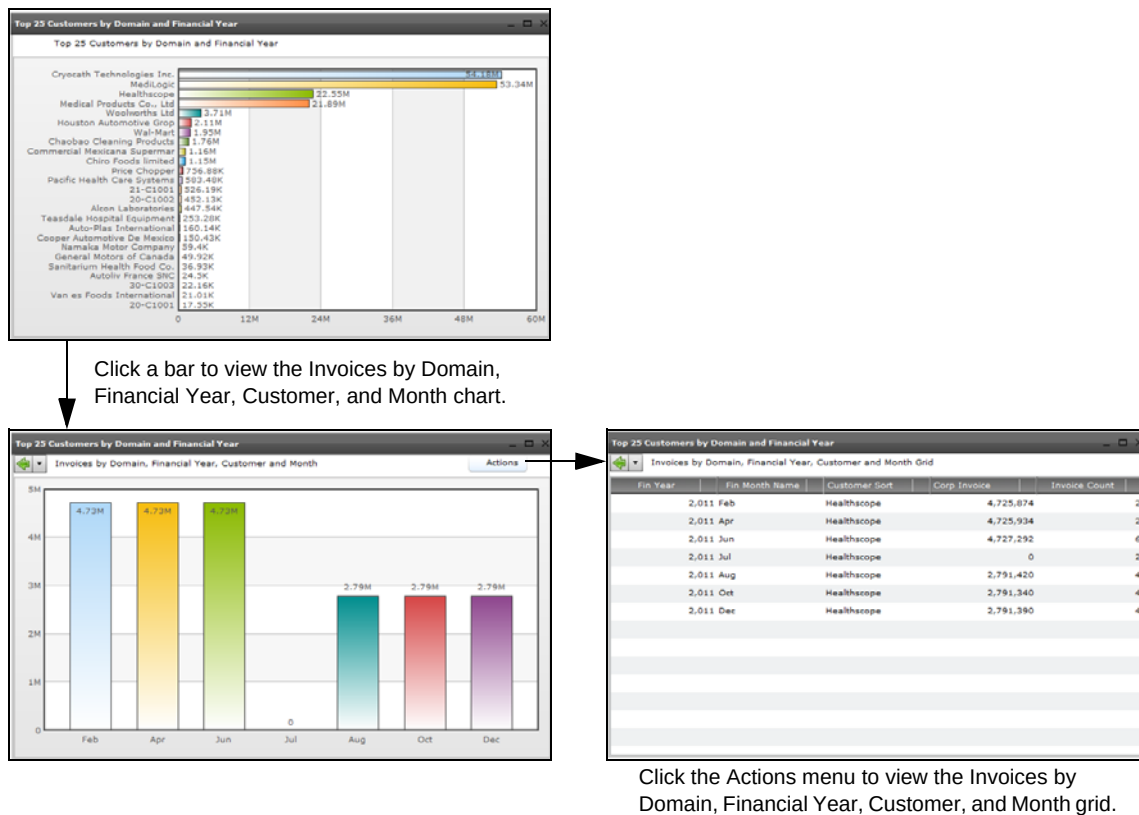
The Top 25 Customers by Domain and Financial Year chart displays in descending order the cumulative sales amount, in corporate currency, of each of the top 25 customers.

Click a bar to drill down to the Invoices by Domain, Financial Year, Customer, and Month chart, which shows the monthly sales for a selected customer.

Click the Actions menu to access the Invoices by Domain, Financial Year, Customer, and Month grid, which displays more detailed invoice information.

All these charts show data from the selected domain and financial year.

Fig. 10.15
Top 25 Customers by Domain and Financial Year KPI



Top 25 Items by Domain and Financial Year

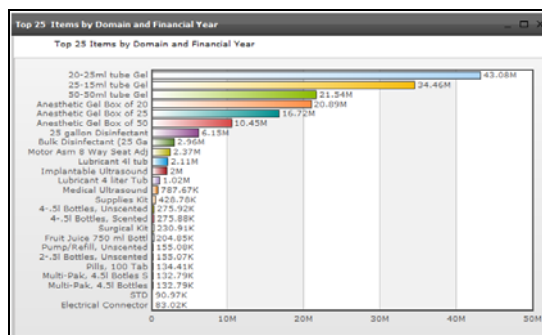
The Top 25 items by Domain and Financial Year chart displays in descending order the cumulative sales amount, in corporate currency, of each of the top 25 items.

Click a bar to drill down to the Invoices by Domain, Financial Year, Item, and Month chart, which shows the monthly sales for a selected item.

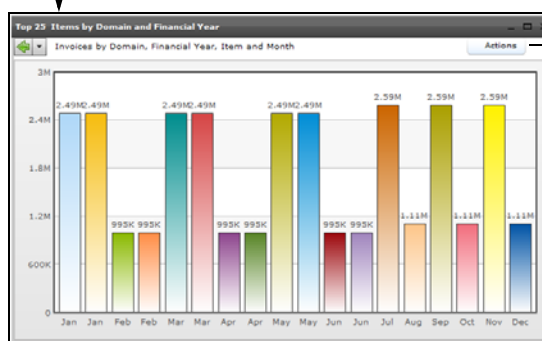
Click the Actions menu to access the Invoices by Domain, Financial Year, Item, and Month grid, which displays more detailed invoice information.

All these charts show data from the selected domain and financial year.

Fig. 10.16
Top 25 Items by Domain and Financial Year KPI



Click a bar to view the Invoices by Domain, Financial Year, Item, and Month chart.



Fin Year	Fin Month Name	Item Description	Corp Invoice	Invoice Count
2,011	Jan	30-30ml tube Gel	2,487,500	2
2,011	Jan	Anesthetic Gel Box ...	2,487,500	2
2,011	Feb	50-50ml tube Gel	995,000	2
2,011	Feb	Anesthetic Gel Box ...	995,000	2
2,011	Mar	50-50ml tube Gel	2,487,500	2
2,011	Mar	Anesthetic Gel Box ...	2,487,500	2
2,011	Apr	50-50ml tube Gel	995,000	2
2,011	Apr	Anesthetic Gel Box ...	995,000	2
2,011	May	30-30ml tube Gel	2,487,500	2
2,011	May	Anesthetic Gel Box ...	2,487,500	2
2,011	Jun	50-50ml tube Gel	995,000	2
2,011	Jun	Anesthetic Gel Box ...	995,000	2
2,011	Jul	50-50ml tube Gel	2,585,848	3
2,011	Aug	50-50ml tube Gel	1,111,512	2

Click the Actions menu to view the Invoices by Domain, Financial Year, Item, and Month grid.

Sales Comparison by Month for Current/Previous Financial Year

The Sales Comparison by Month for Current/Previous Financial Year grid shows the total sales amount for each month of the current financial year and the corresponding months for the previous financial year. This chart displays data from the selected domain.

Fig. 10.17
Sales Comparison by Month for Current/Previous Financial Year Grid

Fin Month Name	Corp Invoice Amount Current	Corp Invoice Amount Previous
Jan	0	0
Feb	5,047	0
Mar	1,295	0
Apr	0	0
May	0	0
Jun	0	0
Jul	0	0
Aug	0	303
Sep	0	8,350
Oct	0	0
Nov	0	229
Dec	0	0

Sales Reports

The Sales dashboard contains the following reports:

- Invoices by Salesperson, Customer for Financial Period Report
- Top 100 Item Sales Growth for Domain Report

Invoices by Salesperson, Customer for Financial Period Report

The Invoices by Salesperson, Customer for Financial Period report shows the invoice amount for each salesperson by customer in the selected domain and financial period. The extended list price, discount amount, invoice amount, extended cost, and gross margin are in base currency. The report contains the following columns:

- Sales Person Name
- Customer Sort Name
- Base Currency Code
- Base Extended List Price
- Base Extended List Price *sales person subtotal* (summary line)
- Base Extended List Price *total for all sales people* (summary line)
- Base Discount Amount. The discount amount in base currency.
- Base Discount Amount *sales person subtotal* (summary line)
- Base Discount Amount *total for all sales people* (summary line)
- Base Invoice Amount. The invoice amount in base currency
- Base Invoice Amount *sales person subtotal* (summary line)
- Base Invoice Amount *total for all sales people* (summary line)
- Base Extended Cost
- Base Gross Margin

Fig. 10.18

Invoices by Salesperson, Customer for Financial Period Report

Domain

10USA

Financial Period

(2013-2)Feb-2013



Invoices by Salesperson, Customer for Financial Period: [(2013-2)Feb-2013]

Sales Person Name 1	Customer Sort Name	Currency Code Base	Base List Price Extended	Base Discount Amount	Base Invoice Amount	Base Extended Cost	Base Gross Margin		
John Hunter	Wal-Mart	USD	4,526.00	18.30	4,507.70	4,129.14	378.56		
			4,526.00	18.30	4,507.70				
Tim Michaels	MediLogic	USD	540.00	39	539.61	337.50	202.11		
			540.00	39	539.61				
						5,066.00	18.69	5,047.31	

10-3-2013

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Top 100 Item Sales Growth for Domain Report

The Top 100 Item Sales Growth for Domain Report shows the sales amount of the top 100 items in the two selected periods and compares the difference as an amount and a percent. This report, which displays data from the selected domain, contains the following columns:

- Item Number

- Item Description
- Product Line Code
- Base Invoice Amount. The invoice amount in base currency in the selected financial period.
- Invoice Amount Comparison. Invoice amount in base currency in the selected comparison period.
- Invoice Amount Comparison (summary line). Invoice amount in base currency in the selected comparison period.
- Growth Amount
- Growth Percentage

Fig. 10.19
Top 100 Item Sales Growth for Domain Report

Financial Period	(2012-9)Sep-2012
Comparison Financial Period	(2011-9)Sep-2011
Domain	10USA

Top 100 Product Sales Growth for Domain: 10USA						
Item Number	Item Description	Product Line Code	Base Invoice Amount	Invoice Amount Comparison	Growth Amount	Growth Percentage
03023	4- Fl Bottles, Unopened	22	00	31,881.16	-31,881.16	00
03080	28 gallon Distributor	22	00	716,229.88	-716,229.88	00
02002	Electrical Connector	10	00	5,722.24	-5,722.24	00
06003	Pills, 100 Tab	10	00	10,097.89	-10,097.89	00
06001	Pills, Blister of 12	10	00	4,335.81	-4,335.81	00
03042	25-15ml tube Gel	22	00	4,137,366.24	-4,137,366.24	00
04001	Flut Juice 750 ml	10	00	16,716.34	-16,716.34	00
01010	Medical Ultrasound	10	00	65,200.11	-65,200.11	00
03033	4- Fl Bottles, Sealed	22	00	31,881.16	-31,881.16	00
02001	Automotive Connector	10	00	858.34	-858.34	00
01011	Supplies Kit	10	00	33,488.37	-33,488.37	00
03041	60-60ml tube Gel	22	00	2,686,847.66	-2,686,847.66	00
02004	Laptop Connector	22	00	2,678.01	-2,678.01	00
06002	Pills, 60 Tab	10	00	6,776.26	-6,776.26	00
03022	2- Fl Bottles, Unopened	22	00	17,800.85	-17,800.85	00
03040	Lubricant 4l tub	22	00	235,629.31	-235,629.31	00
03043	20-25ml tube Gel	22	00	5,171,695.30	-5,171,695.30	00
03021	Pump/Refill, Unopened	22	00	17,800.85	-17,800.85	00
02005	Valve Connector	10	00	778.22	-778.22	00
01020	Implantable Ultrasound	10	00	143,289.08	-143,289.08	00
03013	4- Fl Bottles, Medical	22	00	4,935.27	-4,935.27	00
03011	Pump/Refill, Medical	22	00	3,185.84	-3,185.84	00
02000	Seal Adj	10	00	28,811.20	-28,811.20	00
02003	Standard Connector	22	00	2,678.01	-2,678.01	00
03012	2- Fl Bottles, Medical	22	00	2,604.63	-2,604.63	00
01021	Surgical Kit	20	00	17,342.19	-17,342.19	00
				13,283,116.29		

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Shipments Dashboard

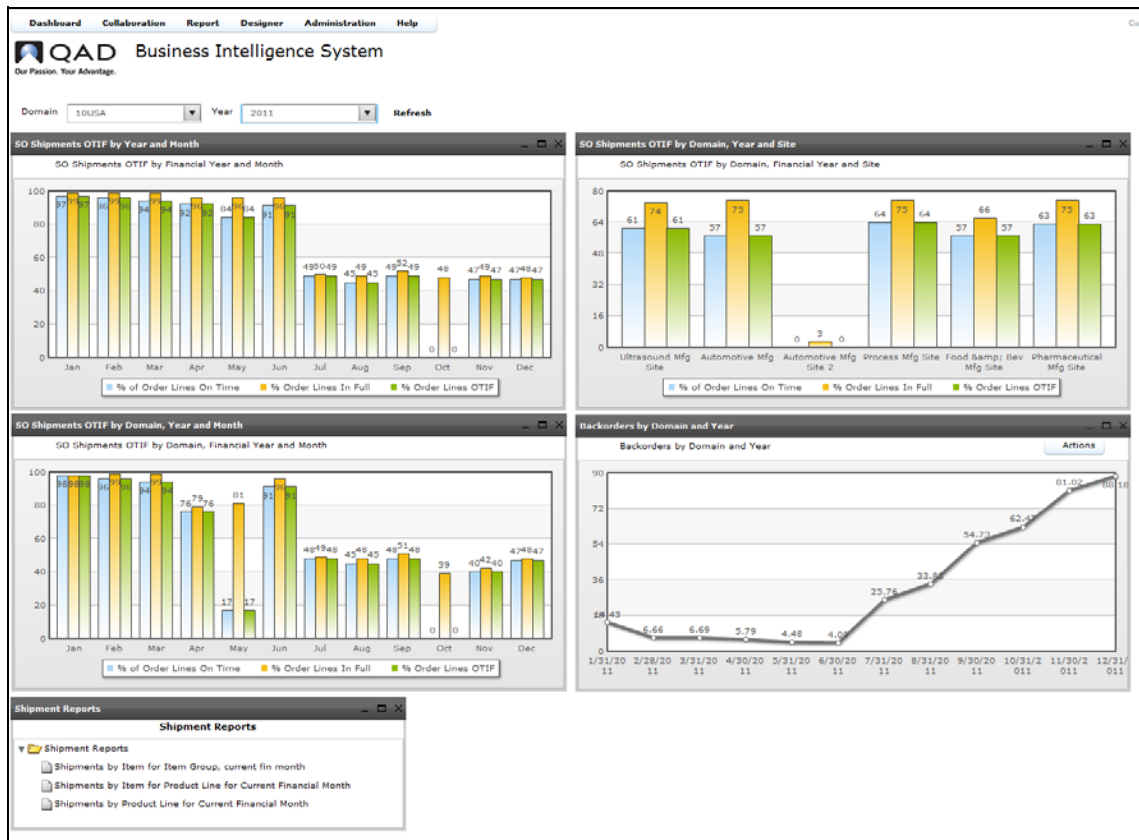
The Shipments dashboard displays detailed information for shipments that are made to fulfill customer sales orders. This dashboard, which provides a domain and month parameter bar for filtering the data displayed in the visual items, uses the following metrics:

- **On Time in Full (OTIF).** Measures the performance of the order management process from the time the order is taken through to the time the product is shipped to the customer.
- **Backorders.** The total amount of orders booked, which cannot be shipped in time according to the customer's required date.

This dashboard contains the following KPIs and reports:

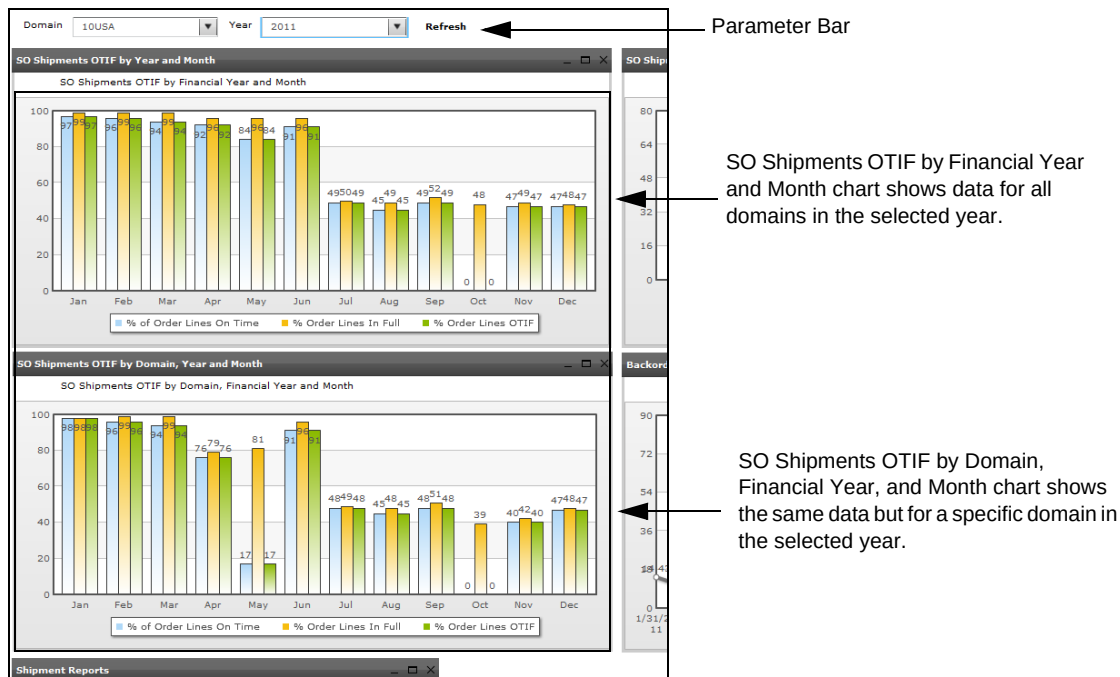
- SO Shipments OTIF by Financial Year and Month
- SO Shipments OTIF by Domain, Financial Year, and Site
- SO Shipments OTIF by Domain, Financial Year, and Month
- Backorders by Domain and Year
- Shipment Reports

Fig. 10.20
OM: Shipments Dashboard



This dashboard contains a domain and month parameter bar for filtering the data displayed in the visual items. In the top left corner, the SO Shipments OTIF by Financial Year and Month chart shows data for all domains in a selected year. To make the data easy to compare, the SO Shipments OTIF by Domain, Financial Year, and Month chart is below it, showing the same data but for the selected domain and year.

Fig. 10.21
Compare Shipments for all Domains and a Selected Domain

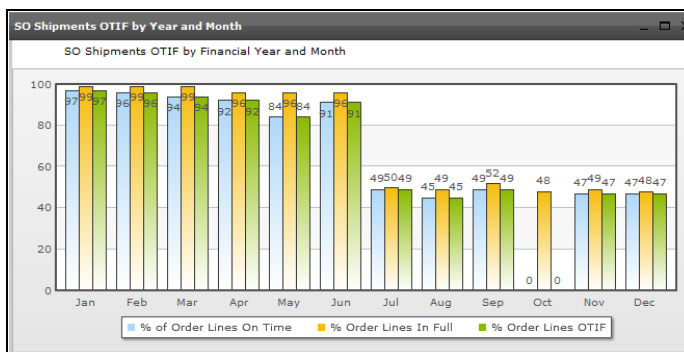


SO Shipments OTIF by Financial Year and Month

The SO Shipments OTIF by Financial Year and Month chart shows the following order shipment performance metrics by month for all domains in the selected financial year:

- Percentage of order lines shipped on time
- Percentage of order lines shipped in full
- Percentage of order lines shipped OTIF

Fig. 10.22
SO Shipments OTIF by Financial Year and Month Chart



SO Shipments OTIF by Domain, Financial Year, and Site

The SO Shipments OTIF by Domain, Financial Year, and Site chart shows the following order shipment performance metrics by site for the selected domain and financial year:

- Percentage of order lines shipped on time

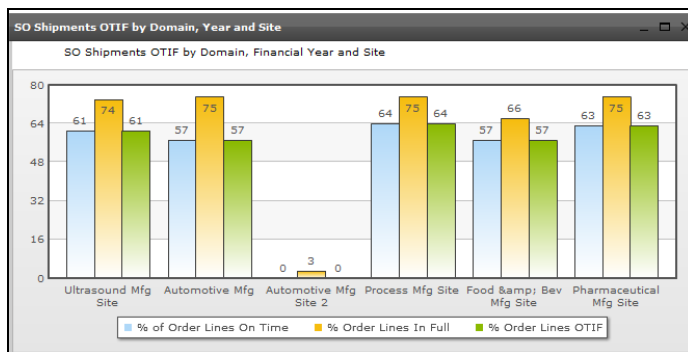
- Percentage of order lines shipped in full
- Percentage of order lines shipped OTIF

Click a bar to drill down to the SO Shipments OTIF by Domain, Financial Year, Site, and Month chart, which displays shipment performance metrics by month for the selected site.

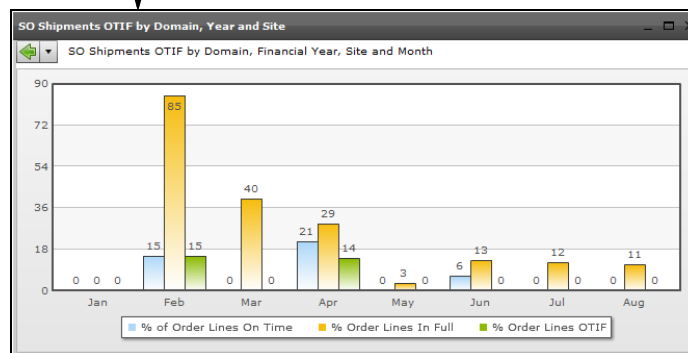
Click a bar to drill out to the SO Shipments OTIF by Domain, Financial Year, Site, and Month report, which provides more shipment performance details for the selected site and month. This report contains the following columns:

- Fin Year
- Fin Month
- Site Description
- Order Line Count
- Order Lines On Time
- % of Order Lines On Time
- Order Line In Full
- % Order Lines In Full
- Order Lines OTIF
- % Order Lines OTIF

Fig. 10.23
SO Shipments OTIF by Domain, Financial Year, and Site KPI



Click a bar to view the SO Shipments OTIF by Domain, Financial Year, Site, and Month chart.



Click a bar to drill out to the SO Shipments OTIF by Domain, Financial Year, Site, and Month report.

Domain: 10USA Year: 2013 Site: 10-100 Month: 201302				SO Shipments OTIF by Domain, Financial Year, Site and Month					
Fin Year	Fin Month	Site Description	Order Line Count	Order Lines On Time	% of Order Lines On Time	Order Lines In Full	% Order Lines In Full	Order Lines OTIF	% Order Lines OTIF
2013	Feb	Ultrasound Mfg Site	13.0	2.0	15.0	11.0	85.0	2.0	15.0
10/2/2013				Page 1 of 1					

SO Shipments OTIF by Domain, Financial Year, and Month

The SO Shipments OTIF by Domain, Financial Year, and Month chart shows the following order shipment performance metrics by month for selected domain and financial year:

- Percentage of order lines shipped on time
- Percentage of order lines shipped in full
- Percentage of order lines shipped OTIF

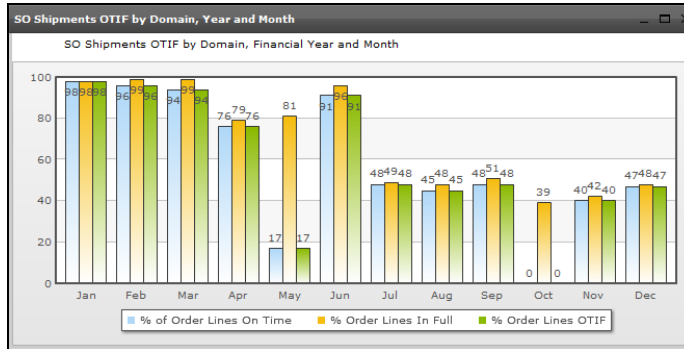
Click a bar to drill out to the SO Shipments by Domain, Financial Year, and Month report, which provides more shipment performance details for the selected month. This report contains the following columns:

- Fin Year
- Fin Month
- Order Line Count

- Order Lines On Time
- % of Order Lines On Time
- Order Lines In Full
- % Order Lines In Full
- Order Lines OTIF
- % Order Lines OTIF

Fig. 10.24

SO Shipments OTIF by Domain, Financial Year, and Month KPI



Click a bar to view the SO Shipments OTIF by Domain, Financial Year, and Month chart.



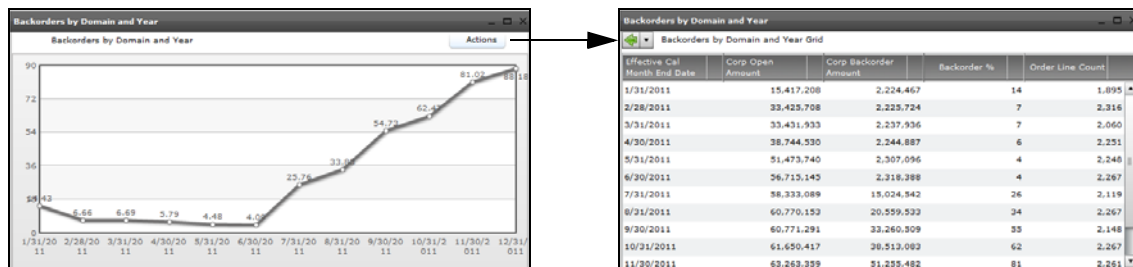
Backorders by Domain and Year

The Backorders by Domain and Year chart shows the total value of all overdue orders expressed as a percentage of the total value of all open orders relative to the last day of each calendar month of the selected year. This chart displays data from the selected domain.

Click the Actions menu to view the Backorders by Domain and Year grid, which shows more detailed backorder information.

Fig. 10.25

Order Backlog by Domain and Year Chart



Click the Actions menu to view the Backorders by Domain and Year grid.

Shipment Reports

The Shipments dashboard contains the following reports:

- Shipments by Item for Item Group for Current Financial Month Report
- Shipments by Item for Product Line for Current Financial Month Report
- Shipments by Product Line for Current Financial Month Report

Shipments by Item for Item Group for Current Financial Month Report

The Shipments by Item for Item Group for Current Financial Month report shows the value of shipments by item for the selected item group. The report includes all domains and displays the following columns:

- Item Group
- Item Description
- Item number
- Base Ship Amount. The amount shipped in base currency.
- Base Gross Margin. The gross margin in base currency.

Fig. 10.26

Shipments by Item for Item Group for Current Financial Month Report

Shipments by Item for Item Group: DISCRETE				
Item Group	Item Description	Item Number	Base Ship Amount	Base Gross Margin
DISCRETE	Assembled Pen	04-0009	10.0	10.0
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Shipments by Item for Product Line for Current Financial Month Report

The Shipments by Item for Product Line for Current Financial Month report shows the value of shipments by item for the selected product line. The report includes all domains and displays the following columns:

- Fin Month Name
- Product Line
- Product Line Description
- Item Number
- Item Description
- Corporate Currency Code
- Corp Ship Amount. The amount shipped in corporate currency.
- Corp Gross Margin. The gross margin amount in corporate currency.

Fig. 10.27

Shipments by Item for Product Line for Current Financial Month Report



Shipments by Item for Product Line: Tooling

Fin Month Name	Product Line Description	Item Number	Item Description	Corporate Currency Code	Corp Ship Amount	Corp Gross Margin
Aug 10/1/2013	99 Tooling	testitem	test item	USD	4,100.00	4,100.00

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Shipments by Product Line for Current Financial Month Report

The Shipments by Product Line for Current Financial Month report shows the value of shipments by product line during the current financial month. The report covers all domains and displays the following columns:

- Fin Month Name
- Product Line Description
- Corporate Currency Code
- Corp Ship Amount. The amount shipped in corporate currency.
- Corp Gross Margin. The gross margin amount in corporate currency.

Fig. 10.28

Shipments by Product Line for Current Financial Month Report



Shipments by Product Line for Current Financial Month

Fin Month Name	Product Line Description	Corporate Currency Code	Corp Ship Amount	Corp Gross Margin
Aug	Comprado-Prov externo	USD	10,515.00	10,515.00
Aug	Miscellaneous	USD	4,200.00	1,900.00
Aug	Tooling	USD	4,100.00	4,100.00
Aug	6000	USD	10.00	10.00

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Product Information Resources

QAD offers a number of online resources to help you get more information about using QAD products.

[QAD Forums \(community.qad.com\)](https://community.qad.com)

Ask questions and share information with other members of the user community, including QAD experts.

[QAD Knowledgebase \(knowledgebase.qad.com\)*](https://knowledgebase.qad.com)

Search for answers, tips, or solutions related to any QAD product or topic.

[QAD Document Library \(www.qad.com/documentlibrary\)](https://www.qad.com/documentlibrary)

Get browser-based access to user guides, release notes, training guides, and so on; use powerful search features to find the document you want, then read online, or download and print PDF.

[QAD Learning Center \(learning.qad.com\)*](https://learning.qad.com)

Visit QAD's one-stop destination for all courses and training materials.

*Log-in required

