QAD .NET User Interface 2013 SE Release Notes

June 2013

These release notes include information about QAD .NET UI 2.9.6 for QAD Enterprise Applications — Standard Edition 2013.

Review this document *before* proceeding with any phase of a QAD .NET UI implementation.

These release notes include the following sections:

Installation and Configuration Information 2

Application Changes 6

Reporting Framework Changes 17

Application Fixes 24

Programs in Terminal Mode Only 27

Installation and Configuration Information

The following summarizes installation and configuration changes for this version of the QAD .NET UI.

Cumulative Patch Information

Important Before installing the QAD .NET UI 2.9.6, be sure to go to the QAD Store (http://store.qad.com) to check for the most recent cumulative patch. You must install the most recent patch after installing the QAD .NET UI.

Release Summary

QAD .NET UI Version: 2.9.6

Product Versions: Limited to QAD Enterprise Applications 2013 – Standard Edition and QAD Enterprise Applications 2012 – Standard Edition.

Microsoft .NET Framework Version: 3.5 SP1

Tomcat Versions: 5.5.*x* and 6.0.*x*. If you are upgrading and have already installed Tomcat 5.5.*x*, you do not need to upgrade to Tomcat 6. Tomcat 5.5.*x* is fully supported for use with this version of the QAD .NET UI.

Operating System: The QAD .NET UI client runs on Windows XP SP3, Windows Vista, Windows 7, and Windows 8 (desktop mode; non-touch). It can also run on Windows 2008R2 Server. It can run on 64-bit Windows, but only in 32-bit mode.

Progress Version: OpenEdge 10.2B is required.

Note If upgrading from a previous version, be sure to review the release notes for the versions between your current version and this version.

For information on the QAD .NET UI release history, see the *Platform and Product Availability Guide*, available from the General Reference section of the QAD support site (http://support.qad.com).

Progress 10.2B Required

This version of the QAD NET UI requires Progress OpenEdge 10.2B.

Supported Languages

The user interface supports the following languages in this release:

Chinese (Simplified)	English (US)	Italian	Portuguese (Brazilian)
Chinese (Traditional)	French	Japanese	Spanish (Castilian)
Dutch	German	Polish	Spanish (Latin American)

The following languages have some support, but new terms added in this release may appear in English:

Bulgarian	Greek	Norwegian	Slovenian
Czech	Hungarian	Romanian	Swedish
Danish	Korean	Russian	Turkish
Finnish	Lithuanian	Slovak	Ukrainian

Favorites Storage and Automatic Migration

Previously, when upgrading to a new release of the QAD .NET UI, saved Favorites were not migrated automatically. In this release, Favorites have now been enhanced so that:

- All Favorites are now stored on the home server (in a `UserMenu.xml` file) rather than locally.
- All Favorites, including menus, commands, browses, and operational metrics, are saved as QAD Shell URL (`qadsh://`) links.
- Configuration settings can be referenced in `qadsh://` parameters.
- All favorites, starting with QAD .NET UI 2.7.1, are automatically migrated to the new format.

During migration, favorites previously stored locally (in the `UserMenu.dat` file) are converted to the `UserMenu.xml` file, which is stored on the home server. For backup, converted files are saved as `.bak` files.

Process Maps Installation

QAD Process Maps 3.1 is now available from the QAD Store (http://store.qad.com) for use with QAD Standard Edition 2013. The process maps have been updated and redesigned to include the following:

- *Easy On Boarding (EOB) maps* — Many new maps for QAD Easy On Boarding are now included.
- *Integrated Customization Toolkit (ICT) maps* — Many new maps for QAD Integrated Customization Toolkit are now included.
- *New Color Scheme* — The new color scheme has designated colors for all the supply chain processes.
- *Enhanced Navigation* — The navigation structure was flattened, and the process map footer makes navigation from map to map easier.
- *Updated Vertical Maps* — The new version features eight updated vertical maps with more granularity than ever before.
- *New End-to-End Maps* — The high-level end-to-end maps Quote to Cash, Procure-to-Pay, and Plan to Perform were added.
- *Improved Supply Chain Process View* — The supply chain process view was enhanced with the new categories Design, Enable, and Engage.
- *Linkage to the Document Library* — Each node allows you to search the QAD Document Library with a click of a button to find relevant user guides, installation guides, or training guides.

Note The new, redesigned process maps are not included with the QAD .NET UI release media. Please visit the QAD Store to download the latest process map package.

Process Maps and Internet Explorer

Note the following when editing and viewing process maps in Internet Explorer:

- With Internet Explorer 8 and 9, Print Preview is not supported for process maps and they do not print correctly.
- By default, the Process Viewer uses Silverlight rather than SVG.
- The Process Editor uses SVG.

Important Internet Explorer 8 and 9 do not include the Adobe SVG plug-in, which is required for using the QAD .NET UI's Process Editor. If using Internet Explorer 8 or 9, you must install the SVG plug-in. If you have not installed the SVG plug-in on your local machine, the Process Editor displays an error message when you try to edit a process map.

QAD includes the SVG plugin with QAD .NET UI in the client directory on the home server (in `HomeServerURL/client/SVGView.exe`) and includes it with the QAD .NET UI client when the client is installed. For example, you can find it here:
`C:\Program Files (x86)\QAD\QAD Enterprise Applications\SVGView.exe`

After installing SVG, restart the QAD .NET UI and open the Process Editor. After a moment, the system prompts you to verify the use of SVG, and then you can proceed to use the Process Editor.

Internet Explorer and QAD .NET UI Client Installation

Warning The 64-bit version of Internet Explorer does not install the QAD .NET UI client, even if you are running Internet Explorer as an administrator. You must use the 32-bit version of Internet Explorer (typically located in `C:\Program Files (x86)\Internet Explorer\iexplore.exe`) to install the QAD .NET UI client. A situation in which this is likely to occur is when a user inadvertently creates a shortcut to the 64-bit version of Internet Explorer rather than the 32-bit version, and then uses that shortcut to launch Internet Explorer.

QAD Document Library Access

The QAD Document Library (http://www.qad.com/documentlibrary/) offers a complete set of all QAD user guides, training guides, and other materials.

With all the user guides now available in the QAD Document Library, QAD Assist now includes a link to the QAD Document Library and only includes the program and field help as content.

QAD Assist Installation

QAD Assist is a QAD .NET UI application that hosts HTML versions of the QAD Enterprise Applications online help for programs and fields. With QAD Assist, you can search the online help to quickly find more information.

QAD Assist must be installed manually after the QAD .NET UI has been installed. The installation steps for QAD Assist for QAD 2012 SE are as follows.

File Delivery

The installation files include:

- Files for installing the QAD Assist application
- Files for installing the QAD Assist content

The QAD Assist application and content files are included in the QAD Enterprise Applications 2013 – Standard Edition Language CD for each supported language.

The application files are:

- `epub.war`
- `search.war`

The content files are named as follows:

```
<product>-<language>-se.zip
```

where `<product>` is erp for QAD Enterprise Applications.

For example, the English file for QAD Enterprise Applications help is:

erp-en-se.zip

Installation Steps

Use the following steps to install QAD Assist. (Note that the steps are based on using a Linux environment with JDK 1.6.)

1 Shut down Tomcat.

2 Copy epub.war and search.war into the /webapps directory.

3 Start Tomcat. With the application files in place, you next copy and unzip the content files.

4 Copy <product>-<language>-se.zip to the /webapps/epub directory.

5 For each .zip you have copied, unzip the content using the unzip command:

```
unzip <product>-<language>-se.zip
```

Unzipping creates a directory containing the content under the /epub directory. After you have unzipped the content, set up the search engine index.

6 Using a web browser, access the search administration page URL. Open http://<host>:<port>/search, where <host> and <port> are the host and port for the Tomcat instance under which you installed the epub and search Web applications.

7 Click the New Index button and in the field enter:

```
default
```

This creates a new index and directory in the following location:

```
search/WEB-INF/indexes/default
```

Next, you need to add index (links) content to the search engine by copying the links_*.xml files (which contain the default link information for the search engine index) under /epub to /search/WEBINF/indexes/default.

You can use the following step to copy all the index files (files that match 'links-*.xml') into the directory.

8 Using a command line, navigate to the /epub directory and enter:

```
cp `find . -name "links-*.xml"` ../search/WEB-INF/indexes/default
```

The search engine automatically imports these files and removes them upon completion.

The search administration page (http://<host>:<port>/search) updates the information about the default index, including the number of documents in the Documents column and the total size under the Size column.

Note that you can import the same content multiple times without affecting the number of documents loaded into the search engine, although that action will increase the allocated file size. In the Actions column, you can click Optimize to reclaim the excess disk space.

To load the default index, you must stop and start the search engine for that index:

a In the Actions column for default, click Stop.

b In the Actions column for default, click Start.

Finally, you need to update the client-session.xml file.

9 Edit the `client-session.xml` file (`<HomeServer>/configurations/<SysEnvName>/client-session.xml`) so that it includes the following settings:

```
<ContentIndexServer></ContentIndexServer>
<ContentIndex>default</ContentIndex>
<ePublisherServer></ePublisherServer>
```

QAD Assist is now ready for use. You can access it from the QAD .NET UI by choosing Help|Search or by pressing the F1 key.

Note If the search engine does not automatically load the index files, bounce (stop and then start) Tomcat. To do so, go to the `/bin` directory and enter `./shutdown.sh` and then `./startup.sh`.

Reporting Framework Sample Reports

When upgrading from a version of the QAD .NET UI before version 2.9.4, where the Reporting Framework included six sample reports, note that the six reports have been removed in the newer versions. If you keep the previous menu system data, and the AppServer has the upgraded version without the .p programs (proxies) for the sample reports, you get an error when you launch the reports from the menu. If you no longer need these reports, you can delete them from the menu system using Menu System Maintenance. If you would like to continue to use these sample reports, you can copy the six proxy programs from your previous system to the new system and compile them. Alternatively, delete them from the menu system, and then install the six sample reports included on the Reporting Framework Source CD, following the instructions included with the CD.

QAD Reporting Framework Service Installation

You should install and configure the QAD Reporting Framework Service on one or more Windows machines. This service continuously monitors a special report batch (QADSVC) for reports to be run immediately on the server. This service is necessary for several uses including report bursting and report integration with some maintenance programs. See the Service Mode section in chapter 6 (Administering Reports) of the *Reporting Framework User Guide* for more information.

GRS Approvals Support

This version of the QAD .NET UI supports the Global Requisition Approvals (GRS) function available from the QAD Store (http://store.qad.com). GRS Approvals provides an intuitive, .NET-based collection, Requisition Approval, to replace the menu-driven approval process.

Mobile GRS Support

This version of the QAD .NET UI supports QAD Mobile GRS, available from the QAD Store (http://store.qad.com). With QAD Mobile GRS, you can review, approve, reject, or route GRS requisitions from mobile devices. QAD Mobile GRS is available as a mobile application for Apple iOS devices (iPhone and iPad) and Android devices. The GRS requisitions display in an e-mail inbox format, organized by the domains on your QAD Enterprise Applications system.

Application Changes

If upgrading from a previous version of the QAD .NET UI, be sure to review the release notes for the versions in between your current version and this version.

The following summarizes application changes for this version of the QAD .NET UI.

Copying Links to Clipboard

You can now copy (and paste) QAD Shell URL (`qadsh://`) links to Desktop programs and browses by choosing Actions | Copy Link To Clipboard. You can then paste the URL into a browser to run the Desktop program or browse.

E-mail Action Options

The Action/E-mail feature in programs running in Desktop mode allows you to create an e-mail with a QAD Shell URI (`qadsh://`) to a Desktop program. There has been an inconsistency in this feature because different e-mail clients handle the QAD Shell URI differently, some recognizing it and allowing the e-mail recipient to launch the link and some not recognizing it and instead requiring the recipient to copy the link and paste it into a Web browser.

New options are now available to:

- Allow an administrator to set (using `client-session.xml`) whether they want the QAD Shell URI to be used directly (which is and has been the default) or if they want to wrap this QAD Shell URI in an HTTP URI (`http://`), which is more widely recognized by e-mail clients.
- Provide an option to turn on or off the inclusion of the full URI in the e-mail. (By default two links are put in the e-mail—the first is the program label that links to the URI and the second is the full URI. This option controls the second link.)
- Provide an option to create the link as text instead of HTML (for e-mail clients or settings that are text-based).

These options are controlled by the following settings, which can be added to `client-session.xml`:

```
<EmailAction.UseHTTP>true</EmailAction.UseHTTP>
```

When set to `true`, the HTTP URI is used in the e-mail. When `false`, the direct QAD Shell URI is used.

```
<EmailAction.IncludeURI>true</EmailAction.IncludeURI>
```

When set to `true`, the full URI is added as a link in the e-mail. When set to `false`, it is not included.

```
<EmailAction.UseText>true</EmailAction.UseText>
```

When set to `true`, the link is text. When set to `false`, the link is HTML.

Parameters in Terminal Script in User Option Telnet Maintenance

You can now specify the following parameters in the Script Value field in User Option Telnet Maintenance:

${d} – Domain

${u} – User ID

${e} – Entity

${c} – Code Page

Any number of these can be included in Script Value, with each separated by a space. For example:

```
/dr01/scripts/telnet.ksh ${d} ${u} ${e} ${c}
```

These will then be available in the telnet script as standard parameters (${1} ${2} ${3} ${4}).

Lookups Not Limited to Starting Point of Field Value

By default, the initial item on a field's lookup browse is the current value in the field. For example, on the Sales Order Maintenance program's Credit Terms field, if the current value is 30D (for 30 days after invoice date), the lookup browse for the field will list the terms codes for the field starting with 30D, the current value. Although this is the list that many would like to see, in some cases you might want the lookup to list all the possible options for the field rather than just the ones starting at the current value. For example, for the Credit Terms field, you might want to have all the term codes listed, not just the ones starting at 30D.

You can now have the lookup browses for specified fields list all the options for the field rather than just the ones starting at the current value. The configuration steps must be done by a system administrator with access to the QAD system files.

Note The ability to change the lookup browse listing only applies to programs that run in Desktop mode.

Changing the Lookup Browse Listing

To change a field's lookup browse to list all the options for a field, do the following:

1. Identify the program name (for example, for Sales Order Maintenance, the program name is `sosomt.p`).
2. Identify the field name (for example, for the Credit Terms field, the field name is `so_cr_terms`).
3. In your QAD installation, locate the `com/mfgpro/setting.dat` file and `com/qad/mfgpro/setting.dat` file.
4. Add the following line to the end of both `setting.dat` files:

   `bl:`*`program_name`*`:b:`*`field_name`*`=true`

   where:

   `bl` indicates "blank lookup".

   `program_name` specifies the program, but with no dot (".") before the `p`. For instance, `sosomtp` rather than `sosomt.p`.

   `b` indicates the current frame.

   `field_name` specifies the field. For instance, `so_cr_terms` specifies Sales Order Maintenance's Credit Terms field.

   For example, for Sales Order Maintenance's Credit Terms field, you add the following line to the end of both `setting.dat` files and make sure to leave an extra blank line below it:

   `bl:sosomtp:b:so_cr_terms=true`
5. Restart the Connection Manager.

Output to Text Lines Now Configurable

You can now configure the maximum number of lines displayed to the user when running a legacy report with output to text. To do so, use the `<QView>` ... `<TextReportLines>` setting in the `client-session.xml` file. The default is 100,000 lines:

```
<TextReportLines>100000</TextReportLines>
```

Browse Performance Checking

The system can now do a performance check on the index use of a new browse definition when you save it from Browse Maintenance. The performance check, Show Index Information, helps to avoid the creation of poorly performing browses with non-indexed fields in joins, filters, and sorts.

When a browse definition is saved from Browse Maintenance, the Progress Query Parser's INDEX-INFORMATION is examined. Checks are made to determine whether indexes can be used. Improperly defined query definitions are indicated as whole index scans and are displayed in red in the Index Information tab. For instance, the browse definition could result in a table scan that could cause performance issues and you might need to modify the definition so that no whole index scans occur. Tables with large numbers of records might negatively affect performance, so you might need to analyze the query string to identify possible causes. To do so, open the Query String tab to view the dynamically generated query string as determined by the Browse Engine.

The performance check is on by default, but can be changed from the Show Index Information setting Tools | Options or from the `config-session.xml` file, which now includes the following:

```
<DotNetBrowseMaintenanceShowIndexInformation>true</DotNetBrowseMaintenanceShow
IndexInformation>
```

The setting specifies whether the output of the Progress INDEX-INFORMATION attribute for a query is displayed when there is an issue.

Note The ability to examine what the Progress Query Parser determines as the indexes for a query is limited. The Browse Engine currently only exposes the dynamic query string before appending sorts, local variables, pre and post processor commands, and so on. This performance check helps eliminate most poorly performing browses that have been built from improperly constructed definitions. However, this check does not cover situations where users apply search conditions and sorts after the browse has been displayed in the user interface.

Browse Export and Import Identifies Language Mismatches

Previously, when a browse was exported using Browse Maintenance, the labels used in the browse were included for all the supported languages. However, when imported, the only the labels for the user importing the browse were included with the imported browse. Now, an imported browse includes all the labels for languages supported by the system, not just the ones for the user's current language. If the browse includes labels for languages that are not defined in the system, a warning message is included in the system log file ("WARNING: The Language *language* for the Label Term *label term* does not exist in the target language. Label not imported for this language").

Find Feature for Legacy Reports Output as Text

Any legacy report that is output to text now includes a Find box on the toolbar for searching the report. You can also activate the Find feature by entering Ctrl+F.

Active Directory Enhancements

The QAD .NET UI supports Microsoft's Active Directory authentication. With this release, Active Directory support has been enhanced so that the QAD .NET UI:

- Allows any domain to be specified at login.
- Allows the default domain to be specified on the home server.
- Enables a list of valid domains to be specified on the home server.

- Removes OS user ID restriction. Allows any domain and user ID combination to be entered, except local domain.
- Enables user ID mapping between Active Directory and QAD, which eliminates the eight-character user ID limitation.
- Eliminates blank QAD password vulnerability.
- Eliminates domain spoofing.

With these Active Directory enhancements, users are required to do the following:

- Enter a QAD user ID and password the first time they use Active Directory authentication.
- Re-encrypt the credentials store whenever their Active Directory password changes. They are prompted to enter the Active Directory password used during the original encryption.
- Re-enter their QAD credentials whenever they are unable to remember the Active Directory password used during the original encryption.

With Active Directory, QAD passwords are encrypted in a credentials file named `<domain>-<user>-credentials.xml`, located on the home server in a `/<environment>/storage/user-data/<user>` directory. Passwords are encrypted using AES with a 256-bit key generated at runtime using the password base key derivation algorithm (RFC 2898).

Active Directory Configuration Settings

The following settings in `client-session.xml`: configure Active Directory:

`<QAD.Authentication.ActiveDirectory.Enabled>`

This setting enables or disables Active Directory authentication, with `true` enabling Active Directory and `false` disabling Active Directory.

`<QAD.Authentication.ActiveDirectory.Domain>`

This setting specifies the default Active Directory domain. If a domain is not specified, the current PC domain is used. Domains are resolved in the following order:

1. Login form: users can specify a domain using the syntax `{domain}\(username)`.
2. Configuration setting in `<QAD.Authentication.ActiveDirectory.Domain>`
3. Current active PC domain.

`<QAD.Authentication.ActiveDirectory.ValidDomains>`

This setting specifies a comma-delimited list of valid domains used during Active Directory authentication.

Note In `client-session.xml`, the `<QAD.Authentication.ActiveDirectory>` setting has now been replaced by the `<QAD.Authentication.ActiveDirectory.Enabled>` setting.

Enabling Active Directory Authentication

To enable Active Directory authentication:

1 Define users so that the user IDs match the Windows user IDs. Assign temporary QAD passwords to new user IDs.

2 Locate the `client-session.xml` file on the home server. (By default, the file is located in the `*TomcatInstallDir*/webapps/qadhome/configurations/default` directory.)

3 In the `client-session.xml` file, set `<QAD.Authentication.ActiveDirectory.Enabled>` to `true`.

When a user first logs in to the QAD .NET UI, the system prompts the user to enter the temporary QAD password that was assigned to the user ID. Entering the temporary password then completes the Active Directory setup. The next time that the user logs in to the QAD .NET UI, the user must use their Windows user ID and password.

Note In previous releases, when setting up Active Directory, you had to enable the Enforce OS User ID option in Security Control (mgurpmmt.p). Additionally, the passwords for user IDs had to be sent to blank. Starting with QAD .NET UI 2.9.5, these steps are no longer necessary.

QAD Shell URL (qadsh://) Protocol Enhancements

The qadsh:// protocol has been enhanced as follows:

- The qadsh:// protocol is now registered on a user basis, allowing different users to access different versions of the QAD .NET UI client on the same machine.
- The qadsh:// protocol is now registered during the launch of the QAD .NET UI, ensuring that the protocol is defined correctly.
- The qadsh:// protocol is only registered if the registry setting for the currently running QAD .NET UI client is different than the one already registered.
- The qadsh:// protocol always points to the last QAD .NET UI version that was launched rather than the version most recently installed.
- The user registry settings do not require administrative permissions, enabling XCOPY installations.

Legacy Report Output and HTML Syntax

You can now configure specific legacy reports to display HTML syntax in output to “page”. The current default displays the HTML code instead of rendering the HTML itself. This default exists to overcome the problem in which the report data had special HTML characters such as `<` or `>`. If the data has such characters and output to “page” is used, then an error results and the report does not render. However, there are situations in which HTML (such as a link or a button) in the report output is useful, so you can now specify which report programs are allowed to display HTML.

Requirements

The report program specified to display HTML must not have the possibility of data in it that has special HTML characters that are not proper HTML syntax. For example, the item number `abc<1000>` has HTML brackets in it but is not proper HTML syntax and causes the report not to render.

The report cannot be on the list of reports in the enhanced format (`beautifyReports.lst`).

Setting Report Programs to Display HTML

1. Edit `com/mfgpro/setting.dat` and add a comma-delimited list of report programs to the `htmlReports` setting.
2. Make the same change to `com/qad/mfgpro/setting.dat`.
3. Restart the Connection Manager.

Note QAD does not provide support for HTML customizations of reports.

Allowing Changing of Legacy Report Output

Legacy reports can now be configured to output their report files to a directory other than the default working directory of the common Connection Manager user.

This feature is turned off by default but can be enabled as follows:

1. Locate `com/mfgpro/setting.dat`.
2. Follow the instructions in that file to set the `reportPath` setting.
3. Make the same change to `com/qad/mfgpro/setting.dat`.
4. Restart the Connection Manager.
5. Restart the QAD .NET UI client.

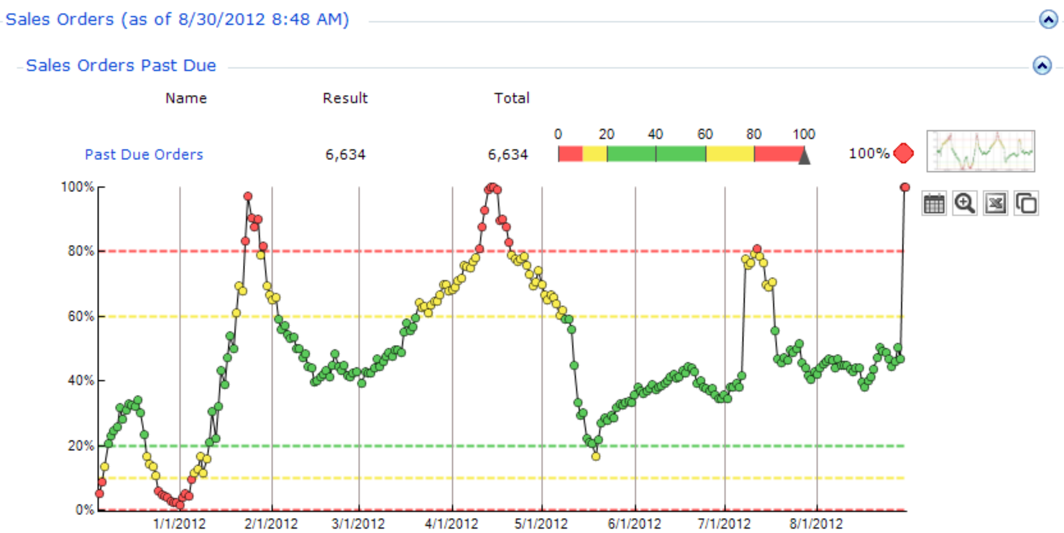
This only applies to Desktop reports run from the QAD .NET UI. It does not apply to:

- Terminal or CHUI mode.
- Reports that have two output fields (such as Invoice Post and Print).
- Batch reports (in any mode).

File system permissions must be taken into account when using this mechanism. Keep in mind that even though the report file can be redirected to a different location, it is still being written by the common Connection Manager user. As a result, that user must have the access to write the report files to whatever location is specified here.

Operational Metrics History

With the QAD Operational Metrics History, you can view changes in operational metrics over time. The system stores the history of operational metric activity and then generates charts of the data for you.



You can then explore the chart data further, change the time range, scroll right and left or zoom in and out of particular areas of interest, and export the chart data to Excel for further analysis.

When you open an operational metric page, the system uses the most recent history data to display the initial view of the metric page if the data is less than 24 hours old. This allows the page to be displayed more quickly than if the underlying metric browses were queried to retrieve the data.

The system saves history data whenever the browse queries for the metrics are run. In addition to the history data, a pie chart that summarizes the metric results is also saved so that the Operational Metrics View process map can show the most recently generated results.

The system queries the metric browses (and saves history data) in the following situations:

- When you click an operational metric's Refresh button.
- When you open an operational metric and the history data is more than 24 hours old. (Note that 24 hours is the default; the interval is configurable and applies to all metrics in the system.)
- When the QAD_OpMetricsAutoRun report is run. Typically, this report is run when metrics are scheduled for periodic running, but if a report administrator runs this report from the report designer, it also runs the metric and its processes.

The history data is never deleted from the system.

A new "as of" label next to the metric name indicates the date and time of the metric data being displayed. If the browse queries are currently running, "loading..." is displayed next to the metric name; when they finish running, the "as of" time shows the current time.

Metric history data contains at most one history record per day for a given metric. If the metric's browses run more than once in a given day, the history reflects the most recent run.

Configuring Operational Metrics History

Configuring Operational Metrics History includes the following:

- Operational Metrics History Update Interface
- Operational Metrics History and the QAD Reporting Framework

Operational Metrics History Update Interval

By default, if operational metric history data is more than 24 hours old, the system updates the data (by running the metric browses) when you launch a metric collection. Otherwise, the most recent history data is used to display the metric more quickly.

You can change the time interval by adding (and modifying) the following to the `client-session.xml` configuration file:

```
<Metrics>

...

      <StaleDataAllowedHours>24</StaleDataAllowedHours>

...

</Metrics>
```

The time interval applies to all metrics in the system.

Operational Metrics History and the QAD Reporting Framework

Operational Metrics History uses the QAD Reporting Framework report server's scheduled batch mode to auto-run a special report that runs the desired metric and generates and stores metric history data. The new QAD-supplied report, QAD_OpMetricsAutoRun, is used for auto-running the metrics in scheduled batch mode.

Your system must be configured to run scheduled reports in scheduled batch mode (see the Scheduled Batch Mode section in the *Reporting Framework User Guide*'s Administering Reports chapter).

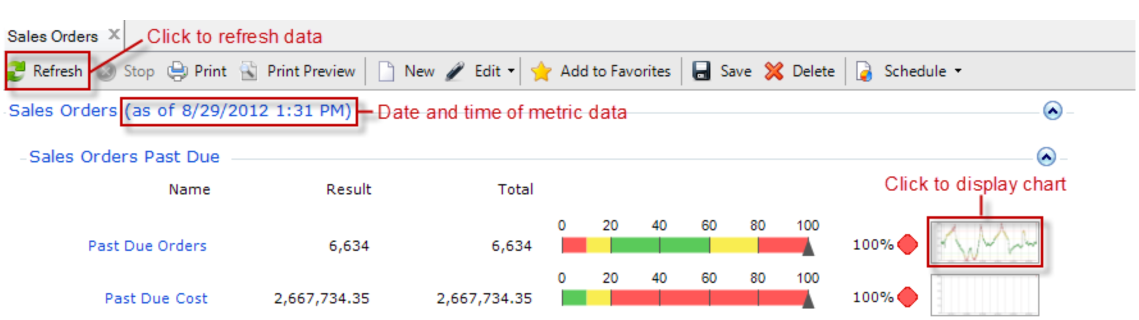
Additionally, the Set Up a Scheduled Batch section in the *Reporting Framework User Guide*'s Administering Reports chapter describes how to create a parameter file to contain command-line parameters with fixed values, using a params.pf file as an example. In that file, you must add the following line in order for the metric report to run properly:

```
-enable:qad.plugin.opmetrics
```

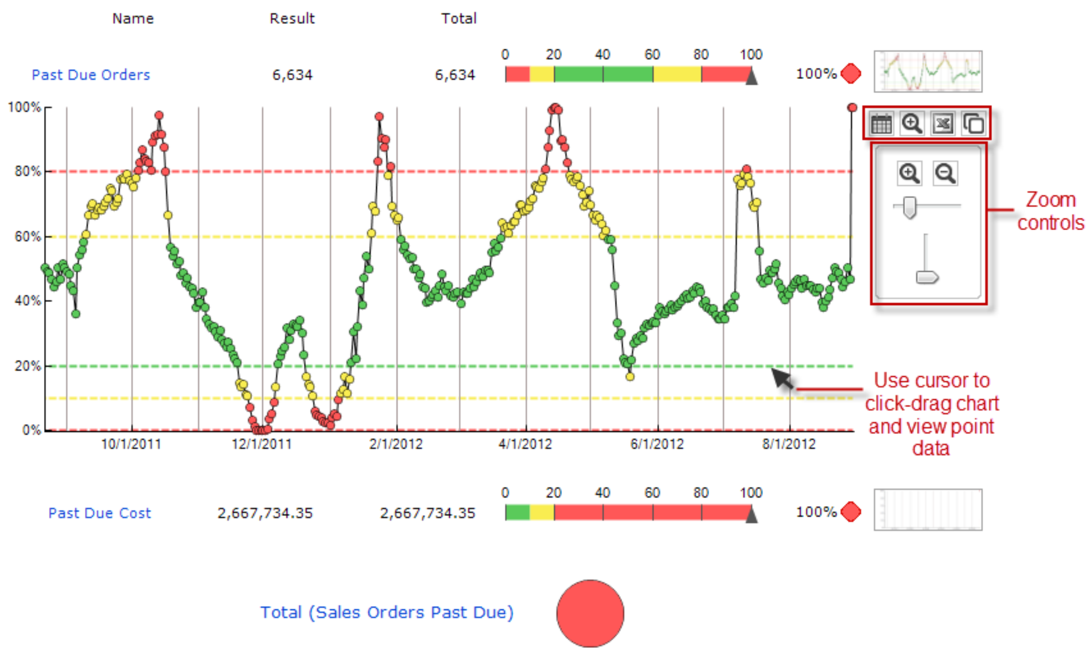
Using Operational Metrics History

With the QAD Operational Metrics History, you can view changes in operational metrics over time. The system stores the history of operational metric activity and then generates graphs of the data for you.

For example, in the Sales Orders metric collection, open the Sales Orders Past Due metric. Notice the thumbnail images to the right of the displays for Past Due Orders and Past Due Cost. Click the thumbnail image for Past Due Orders:



When you click on the chart thumbnail, a metric history chart displays:



Navigating the History Chart

Under the thumbnail image of the chart, click the icons that allow you to:

- Change the time range of the display (1 week, 1 month, 3 months, 6 months, 1 year, 2 years, 3 years).
- Toggle the Zoom control to:
  - Zoom in
  - Zoom out
  - Zoom horizontally
  - Zoom vertically
- Export the history data to Excel for further analysis.
- Detach the chart to a separate window to enlarge the view.

You can also click-drag to navigate the metric history chart.

If you mouse over a data point, it shows you its value. The color of the dot on a given day corresponds to the metric result for that day. Boundaries for the result ranges (where red indicates an error, yellow indicates a warning, and green indicates good) are also displayed on the chart as colored dotted lines.

Clicking the chart thumbnail again hides the metric history chart.

Scheduling Batch Processes for Operational Metrics History

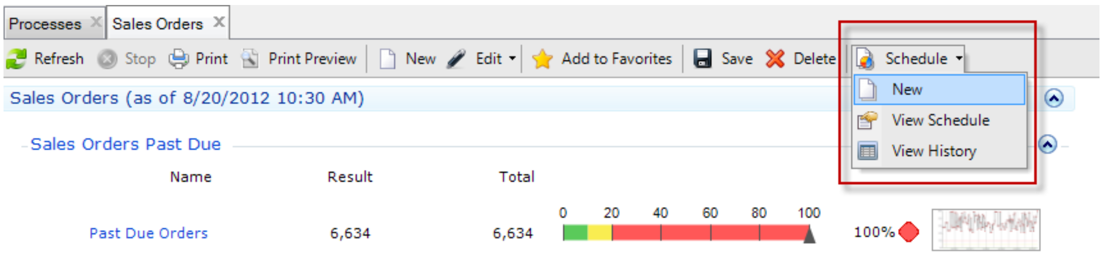
Although metric history gets generated whenever a user manually refreshes a metric (or opens a metric that does not have recent history data), you can schedule metrics to be run at regular intervals to guarantee the regular creation of history data. For example, you might want to schedule a certain metric to be auto-run daily and a different metric to be auto-run weekly.

Operational Metrics History uses the QAD Reporting Framework report server’s scheduled batch mode to auto-run a special report that runs the desired metric and generates and stores metric history data. This must be configured as described in “Operational Metrics History and the QAD Reporting Framework” on page 14.

Scheduling and Running Batch Processes

You can schedule and edit these batch processes directly from a metric display.

From the toolbar, choose Schedule to schedule batch processes:



The Schedule pull-down options include:

- New — schedule a new batch process. Enter a valid batch ID.

  Note Batch IDs must first be defined by an administrator using Batch ID Maintenance. It can be useful to name the batches according to the time interval at which the report server is configured to run that batch. For example, you might define a batch called “daily” that is configured to run every day and another batch called “weekly” that is configured to run once a week. When a batch ID is specified by the user, the metric auto-running only occurs if a report server is configured to process that batch ID.

- View Schedule — view currently scheduled batch processes in a browse. You can view further details and modify the batch process by right-clicking on the ID and choosing Scheduled Report History, Parameters, and Scheduled Report Maintenance. Use Scheduled Report Maintenance to modify batch details. (See the *Reporting Framework User Guide*’s Maintaining Scheduled Reports section for further information.)
- View History — view previously run batch processes in a browse that includes their status, such as New, Waiting, Running, Complete, or Error. (See the *Reporting Framework User Guide*’s Viewing Report History section for further information.)

Saving Operational Metrics as Favorites

To save a metric as a favorite, you can either:

- Drag the menu item for the metric from the Applications pane to the Favorites pane.
- When the metric is open, click the Add to Favorites button in the toolbar.

Important These two ways do not create the new favorite in the same way:

When you drag the metric from the Applications pane to the Favorites pane, the new item in the Favorites pane points to exactly the same metric with the same history data. Clicking on the favorite opens the same metric as clicking on the metric in the Applications pane.

When you click Add to Favorites, however, a new metric is created and the new item in the Favorites pane points to the new metric. The reason it creates a new metric is that you are free to make custom changes to it before saving it as a favorite. As with all favorites, the new favorite metric is only visible to the user that saved it. Although the new favorite can have the same name (by default) as the one on the Applications pane, clicking on the favorite opens the new metric. Although the new metric is based on the same browses, the history data saved for the new metric is different. Additionally, the new metric saved as a favorite by using Add to Favorites does not have the scheduling functionality.

Note If you want the metric saved as a favorite to be the same metric (with the same history data) as the one on the Applications pane, be sure to drag the menu item from the Applications pane to the Favorites pane.

Attaching Metrics History Manually

Metrics history is attached to specific metrics collections, which reside as XML files on the QAD home server. If these XML files are replaced by new or modified files (during an upgrade, for example), the system reconnects the existing history to the new XML files. However, in some cases, due to certain changes in the new (or old) XML files (changes in metric names, for example), the history might not get reconnected. To address this, a history connection screen can be enabled, allowing an administrator to manually connect the history to metrics. To enable this feature:

1. Edit the client-session.xml file, and find the `<Metrics>` element.
2. Inside the `<Metrics>` element, add the following:

   `<ManualAttachHistory>true</ManualAttachHistory>`
3. Launch the QAD .NET UI client.

Now, when an administrator (someone with access to create metric collections) runs a metric and right-clicks on the metric name, there will be a History menu item with the following options:

- Merge — this brings up a window in which the current history chart will be displayed along with a chart in which can be displayed one or more sets of history that are available to merge with the current history.
- Replace — this brings up the same window as above, only the selected history set completely replaces the current history, instead of merging with it.
- Unlink — this disconnects the metric from any history, allowing history to start fresh.

The changes done in all three cases only take effect if the collection is saved using the Replace option.

Reporting Framework Changes

The following summarizes Reporting Framework changes for this version of the QAD .NET UI.

Additional Bar Code Types (Including 2D)

Previously, the only bar code field supported for reports was limited to handling only nine types of 1D bar codes and no 2D bar codes. Furthermore, it had little support for parameters for these types. In this release, two new bar code fields have been added to the Report Resource Designer program:

- Linear Bar Code field
  - Supports 34 types of 1D bar codes
  - Exposes extensive sets of parameters to fully control the bar code settings
- 2D Barcode field
  - Supports 3 popular types of 2D bar codes (DataMatrix, PDF-417, and QR Code)
  - Exposes extensive sets of parameters to fully control the bar code settings

Note The original Bar Code field is still supported for back compatibility.

Dynamic Layout Selection by Data Source

You can now have a report dynamically determine which page layout to use. Optionally, the user can choose the layout.

If a report has more than one page layout design created for it (each giving different visualizations of the same data), you can have the data source program logic select a particular layout at run-time. For example, if a report needed to output one type of form for data where a customer is in Germany and another output form if the customer is in Brazil, then the data source logic could choose the proper form layout automatically.

In the normal case where the data source program does not attempt to control the layout selection, the list of available layouts (displayed when the user clicks the Layouts tool button in the report viewer) is still available for users to choose before running the report. However, when the data source program asserts control over the layout, the Layouts tool button is disabled to prevent users from overriding the layout selection. It is also possible for the data source logic to allow the user to choose any desired subset of the layouts, if a manual override is deemed allowable, by displaying those options as a search field with a list of allowed layouts.

Specifying Dynamically Selected Layouts

1. Create multiple layouts in the Report Resource Designer, all for the same report code (RRO code).
2. To have your data source program choose the layout, include a table in your business data set called DataSourceReportSettings, with a char field called sys_default_report_definition.
3. Put the choice of layout name into this field, and the QAD .NET UI client uses this for rendering. The layout name is the value entered in the Report Definition Name field when saving the definition from the Report Resource Designer (stored in rptresd_det.rptresd_name after being saved).
4. Specify metadata for the DataSourceReportSettings.sys_default_report_definition field. This causes the report viewer program to disable the Layouts tool button (which normally would be active and confusing due to the existence of multiple layouts).

   You have a choice of whether to make this field searchable. If you want to give the user no control over the layout, make this field non-searchable. If you want to allow the user some control over which layout to use, make it searchable. You can provide a value list for this field in the metadata, which controls the list of layouts that the user can choose from in the search panel. If you make this searchable, you should get the user-entered value from the filter conditions and use it when populating the DataSourceReportSettings.sys_default_report_definition field in the code described in step 2.

   Note When running this report from the menu, the above logic applies. However, when running the report from Report Resource Designer | Preview, the layout used is always the layout that is currently in memory in the designer; the data source's choice is always ignored. This is to keep true to the designer's underlying philosophy that the preview should always run what is in there, which might not even have been saved to the database yet. Therefore, to test the actual data source logic, it is necessary to run from the menu (perhaps requiring a temporary test menu item if the real menu item does not exist in the test system yet).

Dynamic Currency Formats

Currency Rounding functions are now available in the Report Resource Designer as part of the QAD_NumberUtil script object. These new VBScript functions provide rounding based on the data maintained by the Rounding Method menu items in the system. These functions can be invoked from within the Report Resource Designer program's VBScript hook points to provide standard rounding methods for any desired fields.

As described in the *Reporting Framework User Guide*'s section Using .NET Script Objects, .NET script objects make it possible to expand the functionality available in the report designer to go beyond VBScript logic. In this release, the following script objects have been included to support dynamic currency formats.

QAD_NumberUtil.RoundNumber(currency, number)

Rounds a number based on the given currency's rounding method (rounding unit and threshold).

Table 1
QAD_NumberUtil.RoundNumber(currency, number) Parameters

Name	Input/Output	Data Type	Description
currency	Input	String	Currency upon which to base the rounding method.
number	Input	Object	Number to be rounded.
	Return Value	Object	Returns the rounded amount.

QAD_NumberUtil.RoundNumberBaseCurrency(number)

Rounds a number based on the base currency's rounding method.

Table 2
QAD_NumberUtil.RoundNumberBaseCurrency(number) Parameters

Name	Input/Output	Data Type	Description
number	Input	Object	Number to be rounded.
	Return Value	Object	Returns the rounded amount.

QAD_NumberUtil.ConvertFormat(currency, format, useZeros)

Converts the given number format string to one which properly matches the rounding method of the given currency. The useZeros variable controls whether additional decimal places are formatted with zeros (.000) or pound signs (.###).

Table 3
QAD_NumberUtil.ConvertFormat(currency, format, useZeros) Parameters

Name	Input/Output	Data Type	Description
currency	Input	String	Currency upon which to base the conversion.
format	Input	String	Existing numeric field format.
useZeros	Input	Boolean	Specifies whether additional places are formatted with zeros or pound signs.
	Return Value	Object	Returns a format that properly matches the rounding method of the currency.

QAD_NumberUtil.ConvertFormatBaseCurrency(format, useZeros)

Converts the given number format string to one that properly matches the rounding method of the base currency.

Table 4
QAD_NumberUtil.ConvertFormatBaseCurrency(currency, format, useZeros) Parameters

Name	Input/Output	Data Type	Description
format	Input	String	Existing numeric field format.
useZeros	Input	Boolean	Specifies whether additional places are formatted with zeros or pound signs.
	Return Value	Object	Returns a format that properly matches the rounding method of the currency.

QAD_NumberUtil.GetThreshold(currency)

Gets the rounding method's threshold for the given currency.

Table 5
QAD_NumberUtil.GetThreshold(currency) Parameters

Name	Input/Output	Data Type	Description
currency	Input	String	Specifies the currency.
	Return Value	Object	Returns the rounding method's threshold for the specified currency.

QAD_NumberUtil.GetThresholdBaseCurrency()

Gets the rounding method's threshold for the base currency.

Table 6
QAD_NumberUtil.GetThresholdBaseCurrency() Parameters

Name	Input/Output	Data Type	Description
	Return Value	Object	Returns the rounding method's threshold for the base currency.

QAD_NumberUtil.GetRoundingUnit(currency)

Gets the rounding method's unit for the given currency.

Table 7
QAD_NumberUtil.GetRoundingUnit(currency) Parameters

Name	Input/Output	Data Type	Description
currency	Input	String	Specifies the currency.
	Return Value	Object	Returns the rounding method's unit for the specified currency.

QAD_NumberUtil.GetRoundingUnitBaseCurrency()

Gets the rounding method's unit for the base currency.

Table 8
QAD_NumberUtil.GetRoundingUnitBaseCurrency() Parameters

Name	Input/Output	Data Type	Description
	Return Value	Object	Returns the rounding method's unit for the base currency.

New Immediate Service Report Server Mode

The original report server operated in scheduled batch mode: at scheduled times the server process would start and process the desired batch of reports (for example, every night at midnight, or at end of month). A new, additional report server mode is now available: a continuously running process that runs reports as soon as they are scheduled with a special batch ID (a virtual batch named QADSVC, representing the QAD service).

This new service is called the QAD Reporting Framework Service. The service is especially useful to support cases where the application that needs to run a report is not running in a QAD .NET UI process (for example, a Progress program running on a Linux box, or an application running on a mobile device). This new service is also essential to the infrastructure of the new report bursting capability (see “Report Bursting with Dynamic Output Routing” on page 22).

The new immediate service mode runs as a Windows Service on one or more Windows computers. Its architecture is similar to that of the original batch server mode: multiple server processes can be run on any number of machines for scalability and failover.

Note Reports can be scheduled to the virtual QADSVC batch either from a program (using the Scheduled Report .NET or Progress APIs) or from the Report Viewer screen in the QAD .NET UI. By default, the Report Viewer screen does not list the QADSVC batch as one of the possible batch IDs; if this is desired, then define the QADSVC using Batch ID Maintenance.

Support for Progress Character Mode Programs to Launch Reports

Previously, there were limitations in the ability for a Progress program to be able to automatically launch a QAD Reporting Framework report. The fundamental issue was that the report must be rendered in a QAD .NET UI process on a Windows machine, and Progress programs are not run in this environment. The Scheduled Report API (introduced in the QAD 2010.1 EE release) first opened the door to this possibility, allowing the Progress program to call the API to allow the report to be scheduled to run on a (Windows) report server in batch. This approach still had major limitations: a time delay between the time at which the report is scheduled and when it later gets run on the server, and also a limited ability for the user of the Progress program to have access to the report output.

The new immediate report server mode (see “New Immediate Service Report Server Mode”) provides the basis for a solution of the time delay: by scheduling the report to be run in the virtual immediate batch ID, the report is run typically within a matter of seconds from the time it was scheduled.

Furthermore, a new mechanism was introduced into the QAD .NET UI such that if the Progress program is initiated from a .NET UI session, it can now invoke the launching of a new .NET UI tab containing a report viewer that displays the report output to the user. The viewer runs in a mode where it polls the report server for the output of the scheduled report. Once the report has completed on the server, the viewer then automatically displays it for the user.

Note If the Progress program is not launched from within the QAD .NET UI (for example, on a terminal), then the user can still launch the report but cannot view the output. However, the report output can still be saved on the web server and/or sent to printer.

Note This capability relies on the Scheduled Report Progress API, which requires a component called the Service Interface Layer. The Service Interface Layer is not included with QAD Standard Edition but can be acquired by contacting QAD Services.

Configurable Output File Naming and Location

Reports scheduled to be run on a report server previously had no flexibility regarding the file name and folder path of the output file stored on the server. This not only restricted the possibilities for organizing report output, but also reduced flexibility of implementing security authorization on the web repository in which these output files are stored.

In this release, it is now possible for administrators to configure flexible, dynamic routing rules to control report output file names and path. The rules can be set up with defaults to handle most general types of reports, as well as specific alternatives based on the report type and layout. For example, a certain type of report containing sensitive data could be funneled to a special folder that has web access disallowed.

In addition to configuring such report routing rules on a system-wide basis, administrators can also override the file name and path rules for any specific scheduling of a report. For example, for a certain report that gets run every month in batch, a special naming convention and folder path can be assigned for that per-month batch run of that report, overriding any general rules that may have been configured for the same report type.

Report Bursting with Dynamic Output Routing

This release contains new infrastructure to facilitate the mass-running and distribution of reports: report bursting. A report burst is a special way that a report can be run that involves the following aspects:

- A report burst can be configured to automatically split a large report into many smaller reports, relieving end users of the burden of manually running numerous reports. Any field in the top-level table of the report's data set can be chosen as the split field (for example, a report could be split to output one report per customer ID, or one report per item number).
- A report burst can be configured to dynamically route each of the split output reports to different e-mail, file, and printer destinations. The logic can be based on data values; for example, the customer ID in each of the output reports could be mapped to an e-mail address for that customer to send the report t..

The report bursting mechanism is a general capability that can be used with any report developed using the QAD Reporting Framework, but not for any other type of report. In addition to dynamic setting of output destination, the infrastructure allows for most of the report settings to be set dynamically based on the data; this includes such settings as language for translated labels, date and number formats for internationalization, output file type (PDF, Excel, RTF, and so on), and layout type (for example, different form page layouts of the same data).

Report bursts internally schedule each of the split output reports to be asynchronously (but immediately) run by a report server using the QAD Reporting Framework Service (see "New Immediate Service Report Server Mode" on page 20). This leverages the many benefits of the report server architecture such as robustness, scalability, and failover.

Because there are no Reporting Framework reports included with the QAD 2013 SE release there is no out-of-the-box scenario where this feature can be used. You can, however, create your own reports and use them in bursting scenarios using the following mechanisms:

- The Scheduled Report API can be used to write programs to schedule report bursts to be run on the server at desired times. Special burst settings are used to configure the burst run. These programs can be written in the Progress or .NET languages. They could be either simple script-like utility programs for administrators to run, or could be fronted by user-interface logic to expose the functionality to end users if desired.

  Note The Scheduled Report Progress API requires a component called the Service Interface Layer. The Service Interface Layer is not included with QAD Standard Edition but can be acquired by contacting QAD Services.
- Administrators can use a new Burst Settings tool button from the report viewer program to run an immediate ad-hoc burst of that report, and also to choose settings and then schedule the report to be run as a burst in batch on a report server.

The logic that controls the dynamic routing settings is completely configurable. However, this release contains no default routing logic. It is therefore necessary to first codify the desired rules using the Progress programming language in a special dynamic-routing program that is invoked during report bursts. Future QAD releases may contain out-of-the-box sets of configurable rules for dynamic settings.

If assistance is desired with creating report burst programs or setting up the desired routing rules, please consult QAD Services.

Report API Enhancements

Application Programming Interfaces (APIs) allow one program to invoke functionality in another. Before this release, the only API for the QAD Reporting Framework was the Scheduled Report API, which allows programs to schedule reports to be run asynchronously on a report server. This API is implemented as a Progress program that gets called on an application server and is callable from Progress and .NET programs.

Note The Scheduled Report Progress API requires a component called the Service Interface Layer. The Service Interface Layer is not included with QAD Standard Edition but can be acquired by contacting QAD Services. The .NET APIs do not require this and can be used in Standard Edition installations.

This release enhances the reporting framework APIs in several ways:

- A native .NET version of the Scheduled Report API has been added. This allows .NET applications to invoke the Scheduled Report API in a more simple fashion: a simple direct .NET object can be constructed and called to schedule a report. This encapsulates the inner details of the remote proxy networking, hiding it from the application programmer.
- A .NET Run Report API has been created. This allows any .NET program running under QAD .NET UI to be able to invoke a report to be run synchronously in the same process (instead of asynchronously on a server).
- A new capability has been added to the Scheduled Report API (both .NET and original Progress versions): the ability to pass the report data set into the request, instead of having the report run a data query at run-time. This is useful in scenarios where the data has already been queried and just needs to be passed to the report for rendering. For example, an application can use this if it needs to rerun a report with the exact same data as the previous run.

  Note This data input option is also available on the synchronous .NET Run Report API.

These API enhancements greatly increase the options and possibilities for leveraging the QAD Reporting Framework in custom programs and system automation.

Scheduled Report Default Printer

You can now choose the default printer for the Schedule Report screen from Tools | Options. The list of printers displayed in the Options window is the same as the list in the Schedule Report screen—the list specified in the `client-session.xml` file. If no default is chosen, the printer field is initially blank when you schedule a report; however, you can still manually choose a printer.

Administrators can also specify a default printer that applies for all users. This can be done by setting `default="true"` for one of the printers in the `client-session.xml` file, as shown in the example below:

```
<Printer default="true">

   <UNCPath>\\server_name\printer_name</UNCPath>

   <Description>My Default Printer</Description>
```

```
</Printer>
```

Note If a system-wide default printer is specified, users still are able to override this with their own choice of default printer (including no default) by using Tools | Options.

Application Fixes

The following lists application fixes included in this release.

Report Bursting: Data Set Needs Child Tables Split (UIG-8063)

Previously, when running a report burst, the data set splitting was only splitting the parent tables, which could lead to correctness and performance issues. This issue has been fixed with data set filtering that recursively filters child tables as well as the top-level parent table.

Browse Collection: Default Window Height Issue (UIG-8169)

Previously, in a browse collection with three levels, the default height of the middle level browse was too short and did not display any records. The window size has now been expanded to display at least two records.

Reporting Framework: Blank Report Issue (UIG-8309)

A previous memory leak fix was causing some reports to render blank output even though the reports had data. This issue has now been fixed.

New Datatypes (UIG-7975)

Browses and Browse Maintenance now support the INT64 datatype.

Sub-report Linking (UIG-7959)

Previously, when linking a subreport to join master-detail table data in a report, the linking did not pick up child records whose link-field case did not exactly match the case of the parent record's link-field. This issue has now been resolved.

Report Viewer: Commas in Search Conditions (UIG-7996)

In the Report Viewer, for search conditions with the Equals operator, when you enter commas as search values, the search condition splits the comma-separated values into multiple conditions. If you want to search for a comma, you can “escape” the comma by preceding it with the backslash character (example: `\,`). However, for reports whose data source is a proxy program, escaping the comma with a backslash did not work. This issue has now been fixed.

Menu Option Launch Clearing Dynamic Lookup Data (UIG-7957)

When registering dynamic browse lookup the qad_wkfl table is used to dynamically change a field’s browse using gpbranch.p. However, the qad_wkfl record was being deleted when another menu option was run. This issue has now been fixed.

Browse Maintenance Save Issue with Oracle Database (UIG-7982)

For implementations using the Oracle database, saving a browse from Browse Maintenance could result in an error pertaining to the retrieval of index information (`ERROR: The value for column 'indexName' in table 'ttIndexInformationResponse' is DBNull`). This issue has now been fixed.

Attachment Maintenance: Reattachment Correction (UIG-8008)

Previously, Attachment Maintenance exited unexpectedly when an attachment was attached again. This issue has now been fixed.

Browse Search Date Entry (UIG-8019)

Previously, the second date entry in the browse search panel would report an error if there was no value entered for the first date. This issue has been fixed.

Browse Timeout (UIG-8022)

Provides a mechanism to set the timeout on a browse "get all records" request to a single value with a `<TreatGetAllAsOneRequest>` setting in the `client-session.xml` configuration file. The "get all records" request is actually a series of requests to the server. Setting the parameter to false treats each request separately for timeout. Setting the parameter to true uses one timer for the set of requests. Suppose that the timeout value is 5 minutes and 3 calls are made, each taking 4 minutes. A false setting would not time out, as no single request exceeds 5 minutes. A true setting times out on the second request, as the 5 minutes is used up.

Create Option for Empty Browse (UIG-8067)

Previously, the Create button did not work on a browse that contained no records: the Maintenance frame did not appear when the Create button was clicked. This issue has now been fixed.

Browse Collection Performance Improvement (UIG-8206)

In a browse collection, when a browse returns no results, any child browses in the collection now have their results cleared automatically. Previously, the system would attempt to update child browses even if the parent browse had no results, which could cause a performance issue.

Cost Center Lookup Change (UIGS-194)

Cost Center lookups using swlucc.p now bring up the correct values as in the CHUI interface. Previously, they displayed all the records.

Browse Local Variable Issue (UIGS-390)

A browse with local variable functions now displays correct data. Previously, it was displaying blank results page with no data.

Clearer Indication of VBScript Errors in Reporting Framework Reports (UIGS-432)

Previously, if a report design had VBScript statements that caused a run-time error, and the report was run in batch mode on a report server, the server run appeared to succeed with no problems, and output was typically generated. However, since a VBScript error occurred, the output might be incorrect due to the error that occurred. Now, in batch mode, the system now logs the VBScript error message for troubleshooting and causes the report status to be ERROR instead of COMPLETE, with no output file produced. In user interface mode, the report displays the error status in a dialog box and cancels the rendering of the report output so that nothing is displayed.

Memory Leak in Custom Browses (UIGS-424)

The possible memory leaks on running the reports from the Actions menu of Custom Browses are now handled. Previously, performance was deteriorated due to memory leaks.

Browse Collection Maintenance Save Button Behavior (UIGS-449)

In Browse Collection Maintenance, the Save button is now active when the search condition is modified so that you can save a collection with a filter. Previously, the save button was disabled when the filter was modified.

Disabling Browse Searches Using Contains and Non-Indexed Fields (UIGS-509)

An administrator can now disable the “contains” search operator and the non-index field search for browses by changing the following settings in the client-session.xml configuration file:

```
<Browse>
...
   <!-- Disallow the browse "contains" operator to avoid excessive CPU
   usage that can occur as a result.
   Default is true, allow contains. -->
   <AllowContains>true</AllowContains>

   <!-- Disallow search on non indexed fields to avoid excessive CPU
   usage that can occur as a result.
   Default is true, allow non indexed searches. -->
   <AllowNonIndexedSearch>true</AllowNonIndexedSearch>
...
</Browse>
```

Additionally, the default refresh rate for a browse is now increased to 9999. Previously, it was 999.

Browse Maintenance: Menu Icon Change (UIGS-323)

Previously, after a browse was edited and saved using Browse Maintenance, the menu icon for the browse changed from a “browse” icon to a generic “other” icon. This issue has now been fixed.

Configurable Screens: Yes/No Pop-up Issue (UIGS-445)

Previously, in Design Mode, pop-up messages did not display correctly, preventing the design process from continuing. This issue has now been fixed.

Configurable Screens: UI Template Conflict Display (UIGS-474)

In Configurable Screens, UI Template conflicts are now displayed after setting `ConfigByDomain` in the `setting.dat` file. Previously, the conflicts were not displayed.

Reporting Framework: Unauthorized Design Access (UIGS-418)

Previously, unauthorized users (users not in the rptAdmin and rptDsgn groups) could open reports in design mode. This issue has now been fixed.

User Count Monitoring Improvements (UCA-524)

User count monitoring for AppServer calls has been improved. Previously, login / logout information for remote QAD .NET UI clients was not recorded.

Favorites: Unexpected Behavior After Migration (UIGS-542)

This change fixes an issue with favorites migration, which in some cases could cause unexpected behavior in the favorites pane such as duplicate favorites and difficulty with adding and deleting favorites.

Browse Filters BLANKS and NONBLANKS Now Translated (UIGS-269)

For all languages, browse filters (BLANKS and NONBLANKS) now display “IS NULL” and “IS NOT NULL.” This has been changed to make it consistent with browse search operators and it resolves the issue with the translation of these filters. Previously, for languages other than English, BLANKS and NONBLANKS filters were not translated and displayed in English only.

Favorites Now Visible After Second Login After Migration (UIGS-576)

Favorites are now visible after re-login . Previously, after the migration of favorites, they disappeared when the user logs in for the second time.

Display of Duplicate Items in Favorites (UIGS-578)

After migration of favorites from older versions to the QAD .NET UI 2.9.4, the favorite menus displayed duplicate menu items. This issue has now been fixed.

Programs in Terminal Mode Only

Some programs are only available in Terminal mode, which emulates the Character UI within the QAD .NET UI. You navigate the program in the same way as in the Character UI. The following programs are only available in Terminal mode:

- Accounts Not To Convert Maint
- AP Integrity Report
- Archive File Reload

- Call Queue Manager
- Change Deferred/Accrued Accounts
- CIM Data Load Process Monitor
- Combined Integrity Checks
- Compile Programs
- Convert Ship Qty in Ship UM
- Count Program
- Create Records for Printer Output
- Database Connect
- Database Disconnect
- Database Table Size Inquiry
- Debug CIM Document
- Dump Export/Import Doc for Edit
- End User Time Zone Change Util
- Escalation Monitor
- Exit to Operating System
- Export/Import Document Query
- Field Eligibility Maintenance
- Fixed Asset Maintenance
- Fixed Assets Integrity Report
- GL Integrity Report
- GLRW Mismatch A/C Code
- Initial Euro Exchange Rate Copy
- Inventory Integrity Report
- License Registration
- Multiple Time Zones Startup Util
- PO Integrity Report
- Process Import Documents
- Program Level
- Program/Text File Display
- Receive Import Documents
- Reload Edited Export/Import Doc
- Required Ship Schedule Update
- Send Export Documents
- Sequence Maintenance
- Server Time Zone Change Util
- Set Multiple BOL Print Utility
- Ship-From to AR
- Trading Partner Library Load
- Trading Partner Library Unload

- WIP Integrity Report