MFG/PRO® eB

WIP Lot Trace

TRAINING GUIDE

QAD

70-2793A
MFG/PRO eB
Database: Train
April 2001

70-2793A

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Contents

QAD

About This Course

Course Description

QAD designed this course to cover the basics of preparing to implement the WIP Lot Trace (WLT) module of MFG/PRO. The course includes:

- An introduction to the WLT module
- An overview of key business considerations
- Setting up the WLT module
- Operating the WLT module
- Activities and exercises throughout the course
  - Students practice key concepts and processes in the WLT module

Students learn how to:

- Analyze some key business decisions before setting up the WLT module
- Set up and operate the WLT module

Who Should Attend This Course

- Implementation consultants
- Members of implementation teams
- Key users

Prerequisites

- *Initial MFG/PRO Setup* training course
- *Advanced Repetitive* training course
- *Inventory Control* training course
- *Purchase Order Management* training course
- *Shop Floor Control* training course
- *Work Orders* training course
- Basic knowledge of how MFG/PRO is used in the business
- Working knowledge of the manufacturing industry in general

Note It is recommended that students unfamiliar with MFG/PRO work through the User Interface Guide before attending this class.

Approximate Length of Course

- This course is designed to be taught in one day

Topics Covered

Set Up

– Set up WLT

Operation

– Process WLT

– WLT with Work Orders/SFC

– WLT with Advanced Repetitive

– WLT with Repetitive

Certification Preparation

This course is one of several courses designed to assist students in preparing for QAD certification examinations. However, QAD does not guarantee anyone a passing grade as a result of having taken this course.

Students preparing for certification examinations should study all available materials (user guides, training guides, on-line help, for example) and acquire industry and field experience.

Using This Training Guide

Implementation consultants, members of implementation teams, and operators can use this guide in instructor-led classes, while knowledgeable consultants who want to learn about the WLT module can use this guide for self-study.

This training guide provides a road map for instruction and learning. It contains:

- Annotated PowerPoint slides for instructors
- MFG/PRO screens annotated for instructors to demonstrate the module’s functionality
- References to other sections of this training guide and related training courses
- Exercises

Cross-Reference Icons

Additional Information


Directs students to another section of the current training guide


Cross-references another MFG/PRO training guide

Note Students may want to consult *User Guides* or on-line help during class, but this generally is not necessary.

Notes to Instructors

PowerPoint Slides

QAD created the slides using Microsoft® PowerPoint® 97. Instructors may want to animate text, graphics, and other objects on the slides to

- Focus on important points
- Control the flow of information
- Add interest and variety to the presentation

Clicking on *Animation Preview* on the *Slide Show* menu previews animation of text and objects. To customize slides, click on *Custom Animation* on the *Slide Show* menu.

PowerPoint Slide Icons

Informs instructors that another slide follows.

Directs students to training exercises.

Announces that a lesson is complete; there are no more slides in the section.

Class Kit

Kit for Students

- WIP Lot Trace Training Guide, 70-2793A
- MFG/PRO eB US GUI demo CD, 10-0631
  - Install the Database: Train for the exercises in this training course

Kit for Instructors

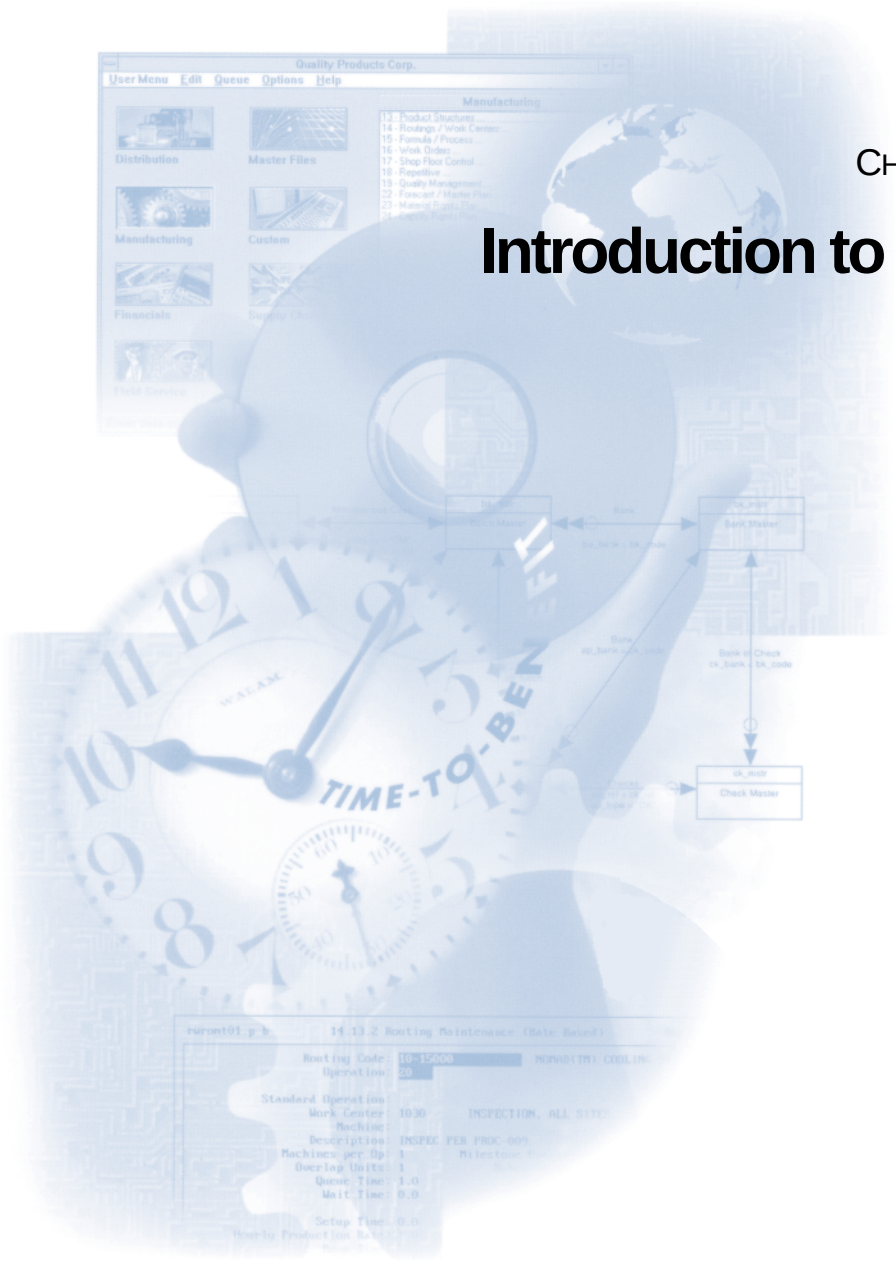
The instructor kit is the same as the student kit with the addition of the PowerPoint slides.

Configuration and Setup for This Course

For hardware requirements, refer to the Readme files on the MFG/PRO demo CDs.

General Training Facilities Information

- Telephone or fax
- Messages
- Restrooms
- Class hours: start and finish times, and punctuality
- Breaks: frequency, approximate times
- Parking considerations; carpooling
- Emergency procedures: location of first aid, contact person for assistance
- Exit locations, building hours
- Location of approved smoking area



CHAPTER 1

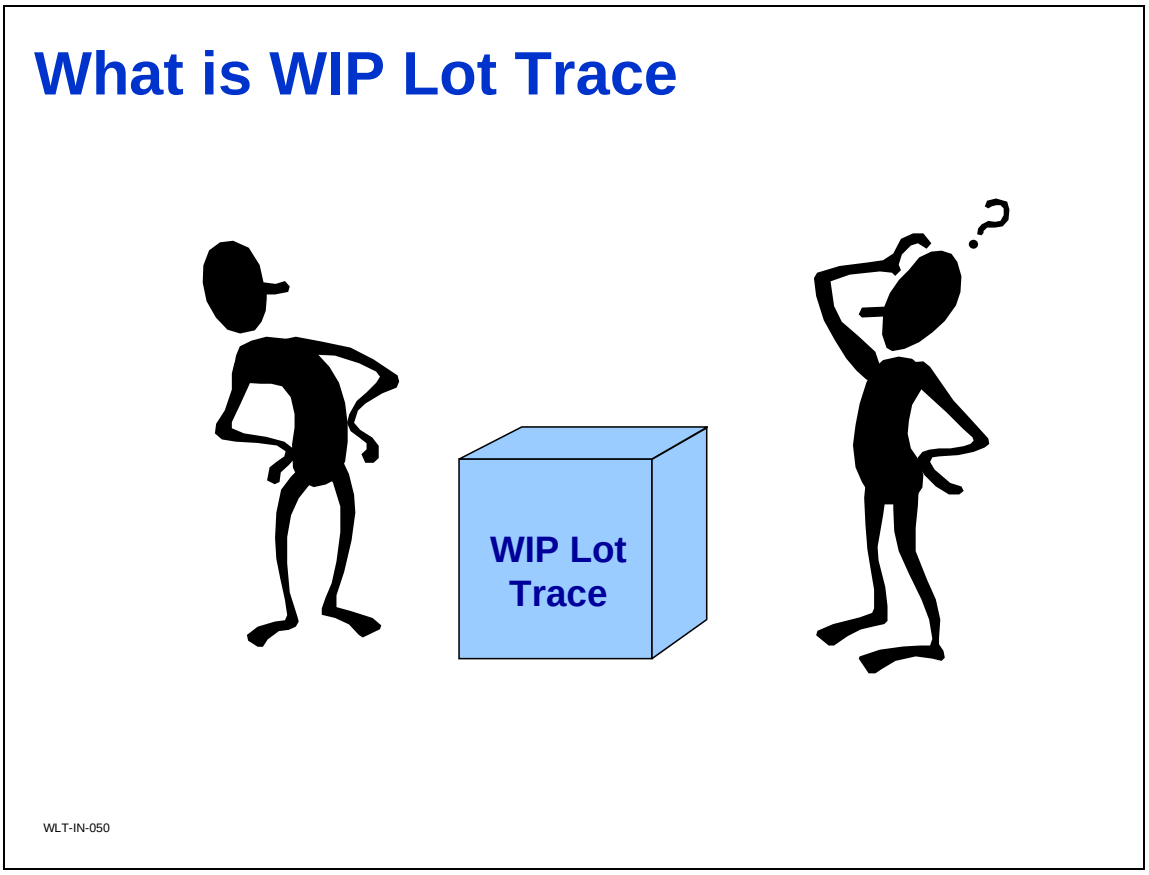
Introduction to WLT

Course Overview

- Introduction to WLT
- Business Considerations
- Set up WLT
- Process WLT
- WLT with Work Orders/SFC
- WLT with Advanced Repetitive
- WLT with Repetitive

WLT-IN-040

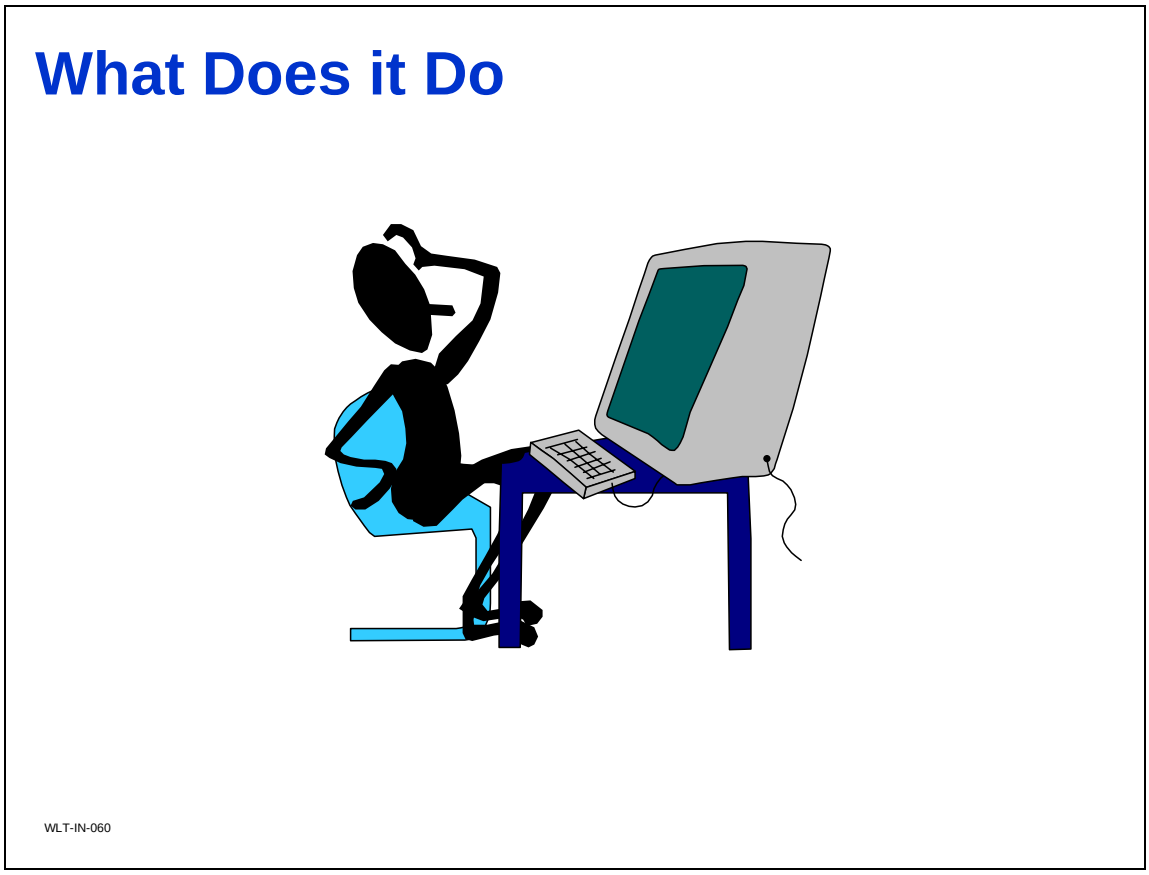
Overview



What is WIP Lot Trace

WLT is new functionality in MFG/PRO that adds work-in-process (WIP) lot and serial tracing and reporting to several modules.

- Tracing records are created at the operation level whenever registered resources are consumed or produced
- Use to trace component, WIP material, and finished goods based on parent items, product structures, and routings



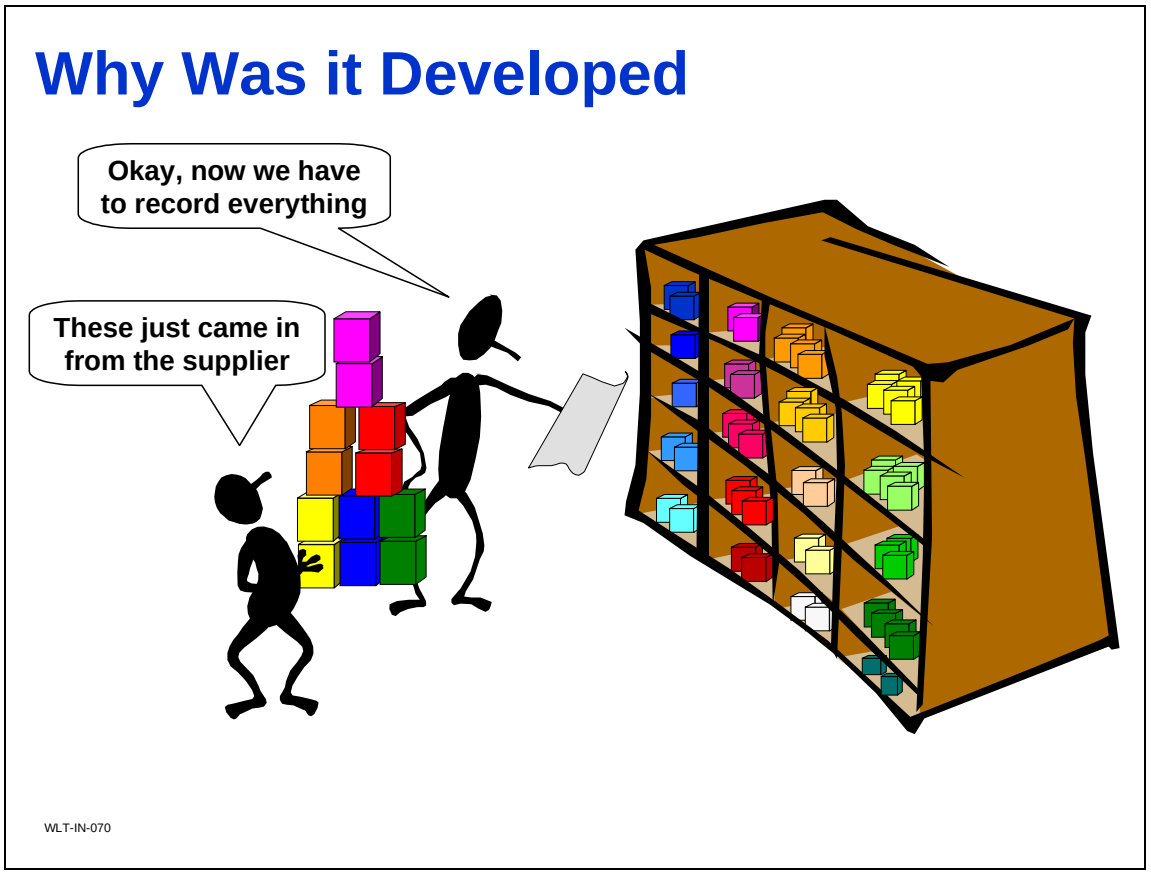
What Does it Do

- Assigns lot and serial tracing numbers to WIP
- Creates flexible registration to activate or deactivate WIP lot/serial tracking for all or specific:
  - Bill of Materials (BOMs)
  - Routing Codes
  - Parent Items
  - Component Items
  - Routings
  - Routing Operations

- Renumbers lot/serials from one operation to the next or retains the same numbers throughout all operations
- Determines the constituent WIP or component material lots of finished or WIP material lots
- Traces:
  - WIP lot/serial numbers throughout the manufacturing process and into finished material inventory (including WIP material processed by multiple subcontractors)
  - Component material lots consumed at any operation in a routing to WIP or finished material lots
  - WIP material lots from operation to operation
- Maintains:
  - Complete WIP tracing history
  - Up-to-date cumulative scrapped, consumed, and produced quantities for traced WIP lot/serial numbers at the operations level
  - Quantity-on-hand (QOH) balances at the operation level for traced WIP lot serials
- Generates
  - Reports providing visibility or WIP lot/serial numbers and quantities
  - Can assign WIP lot/serial numbers automatically using Number Range Management (NRM) features
- Controls
  - Lot sizes for all traced material
  - Combining and splitting of lot and component material being traced
  - WIP inventory QOH balances for WIP material lot/serials being traced

Subcontract Processing Features

- Captures WIP lot/serial information and maintains QOH balances for WIP material sent to multiple subcontractors
- Moves WIP lots to subcontract operations during shipper confirm
- Backflushes subcontracted WIP lots as part of the purchase order (PO) receipts process
- Prints:
  - WIP lot numbers in subcontract shippers
  - WIP lot numbers on subcontract POs



Why Was it Developed

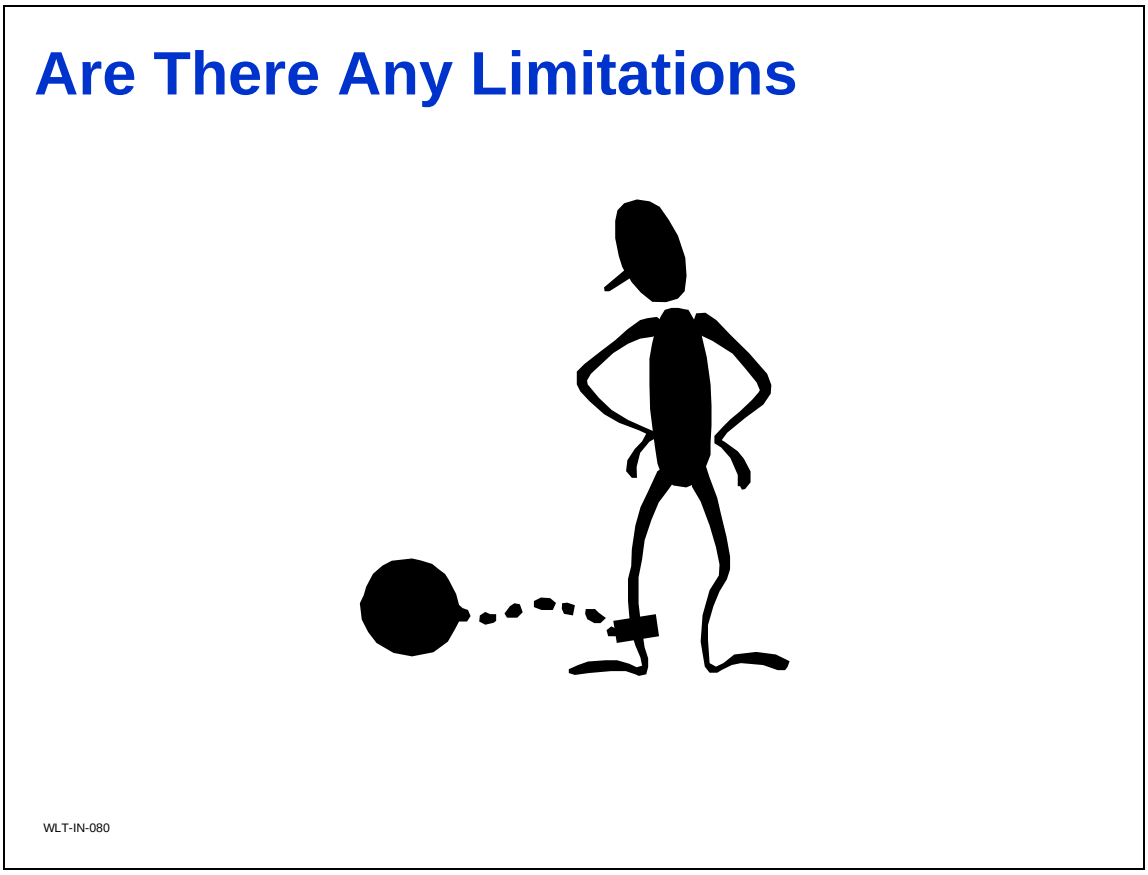
Many companies need to keep detailed records of the:

- Raw materials they receive from their suppliers
- WIP that consumes those raw materials
- Finished items produced from WIP

Additionally, they must be able to track any WIP material sent for subcontract processing.

Some manufacturing environments require the ability to trace WIP to comply with government and customer safety requirements and regulations.

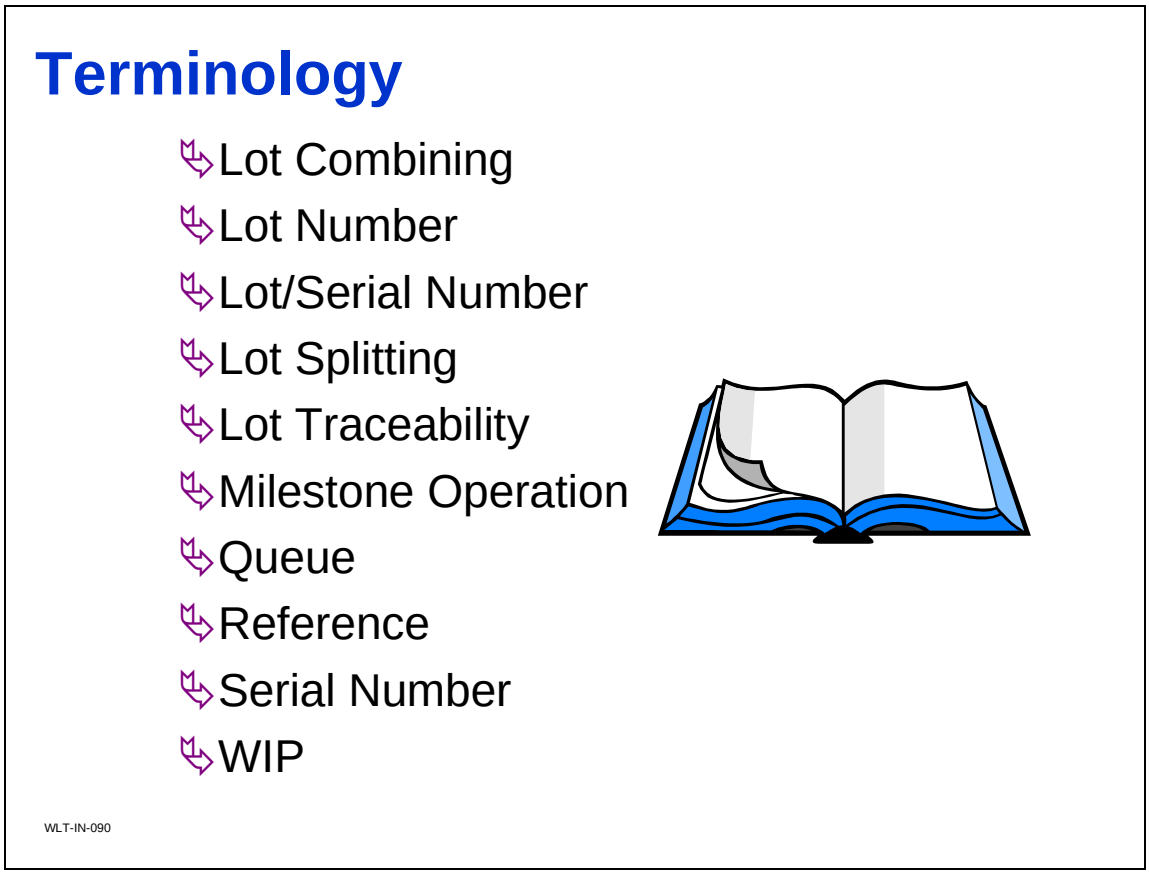
- ADG customers needed it
- Legal requirements



Are There Any Limitations

WLT

- Cannot be used to trace WIP material at non-milestone operations
  - WIP lot/serials are produced only by milestone operations
- Does not capture tracing information for the following transactions:
  - Inventory backflush
  - Work order receipt backflush
  - Sales order shipments of final assembly work orders
  - Transactions created by the Service/Support Management (SSM) module



Terminology

Lot Combining

Creating one lot of processed material from several lots of input material.

Lot Number

A unique combination of letters and/or numbers identifying a discrete group of items in an inventory location.

Lot/Serial Number

Indicates it can be either a lot number or a serial number.

Lot Splitting

Creating several lots of processed material from one input lot.

Lot Traceability

Lot consumption and production information sufficient to trace material lots through the manufacturing and distribution process.

Milestone Operation

An operation, defined in Routing Maintenance 14.13.1, that is used to report completions.

Queue

A factory location containing material processed by an operation.

Reference

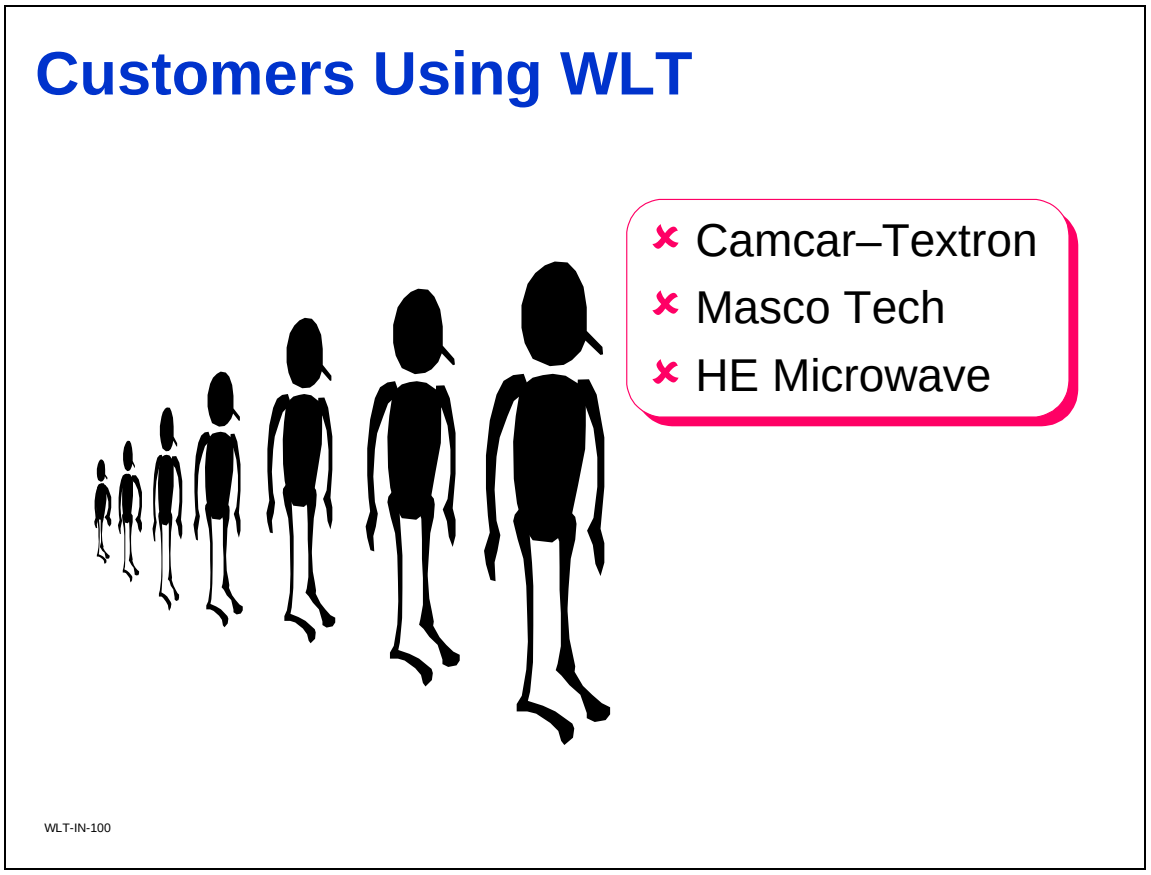
An additional, optional identifier that can be assigned to lot-controlled material.

Serial Number

A unique ID assigned to a discrete, single piece of material.

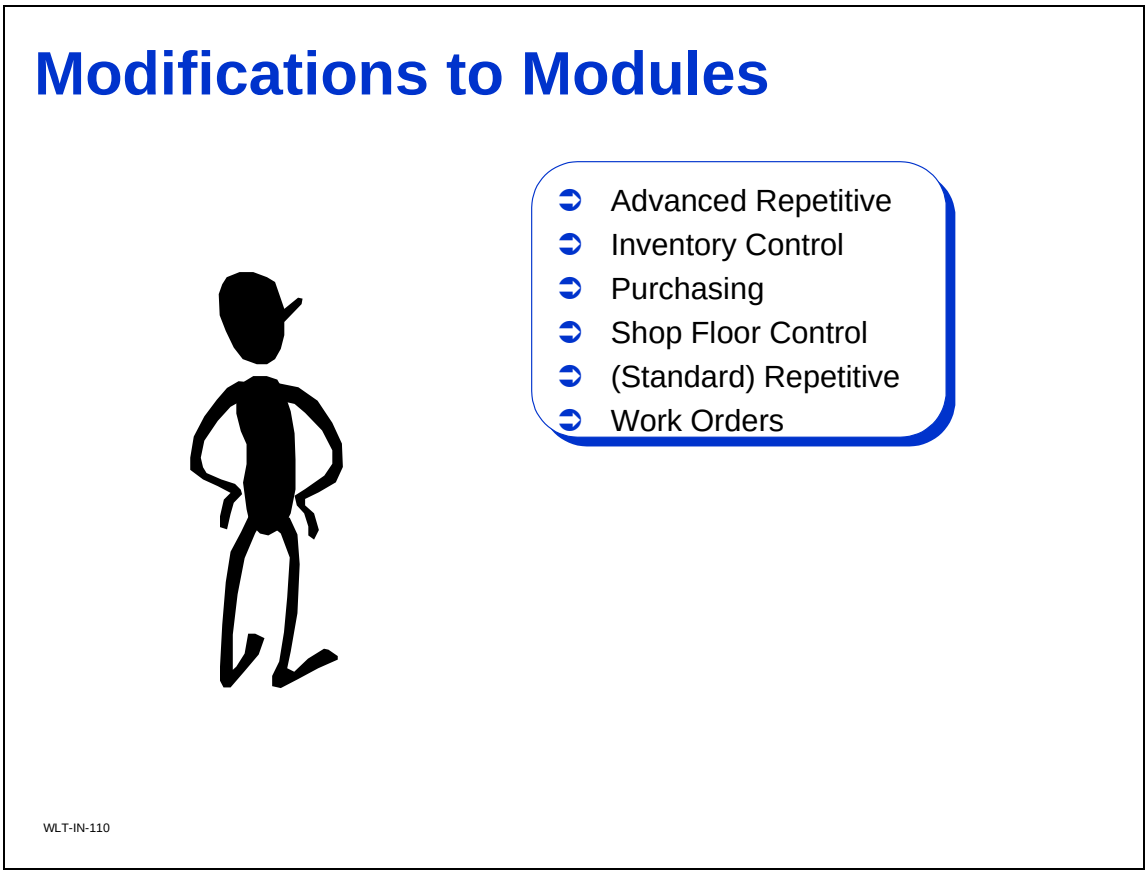
WIP

Work In Process. Indicates a product in various stages of completion throughout the plant. Stages include raw material released for manufacturing, up to completely processed material awaiting final inspection and acceptance as finished product.



Customers Using WLT

- Camcar–Textron
  - Fasteners for automotive, etc.
- Masco Tech
  - Medical devices
- HE Microwave
  - Defense and automotive electronics



Modifications to Modules

Several modules have been modified to use the WLT functionality.

Advanced Repetitive

- Operation Transaction Detail Inquiry 18.22.4.2
- WIP Status Report 18.22.4.11
- Sub Container Maintenance 18.22.5.4
- Sub Shipper Maintenance 18.22.5.5
- Sub Shipper Print 18.22.5.9
- Sub Shipper Issue 18.22.5.11

- Cumulative Order Close 18.22.10
- WIP Status Inquiry 18.22.12
- Backflush Transaction 18.22.13
- Run Labor Transaction 18.22.14
- Setup Labor Transaction 18.22.15
- Reject Transaction 18.22.16
- Rework Transaction 18.22.17
- Scrap Transaction 18.22.18
- Move Transaction 18.22.19
- WIP Adjust Transaction 18.22.21

Inventory Control

- Transfer with Lot/Serial Change 3.4.3
- Batchload Transfer with Lot/Serial Change 3.4.4
- Transaction Detail Inquiry 3.21.1

Purchasing

- Purchase Order Maintenance 5.7
- Purchase Order Print 5.10
- Purchase Order Receipts 5.13.1
- Purchase Order Returns 5.13.7
- PO Container Maintenance 5.13.13
- PO Shipper Maintenance 5.13.14
- PO Shipper Receipt 5.13.20

Shop Floor Control

- Labor Feedback By Work Order 17.1
- Labor Feedback By Employee 17.2
- Labor Feedback By Work Center 17.3
- Operation Move Transaction 17.6
- Operation Scrap Transaction 17.7

- Operation Transaction Browse 17.8
- Operation Transaction Detail Inquiry 17.9
- Operation by Work Center Report 17.13
- Operation by Work Order Report 17.14
- Operation by Employee Report 17.15

(Standard) Repetitive

- Repetitive Transaction Detail Inquiry 18.4.2
- Repetitive Setup Transaction 18.13
- Repetitive Labor Transaction 18.14
- Repetitive Rework Transaction 18.16
- Repetitive Reject Transaction 18.17
- Repetitive Scrap Transaction 18.18

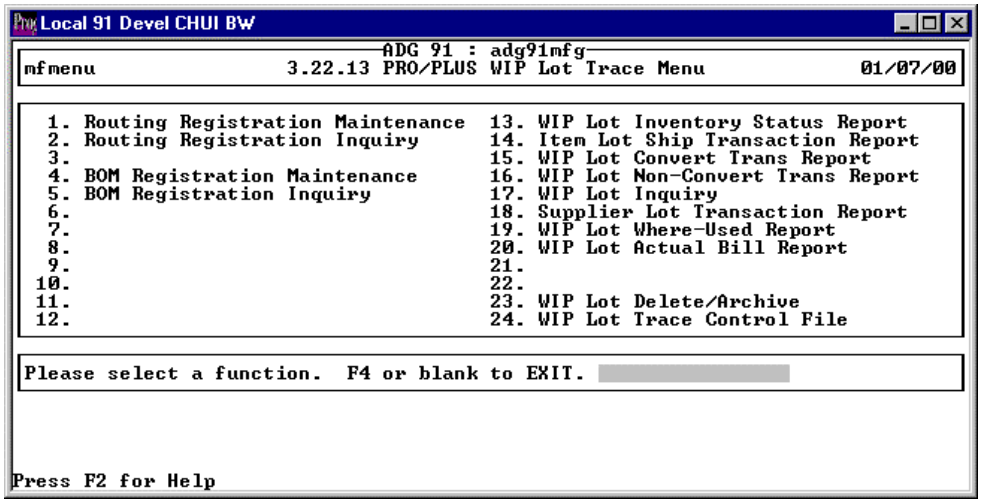
Work Orders

- Work Order Split 16.9
- Work Order Component Issue 16.10
- Work Order Receipt 16.11
- Work Order Receipt Backflush 16.12
- Work Order Operation Backflush 16.19

When using WLT in a work order manufacturing environment, you should be aware of the following:

- Work Order Receipt Backflush 16.12 is disabled because it does not let you report production on an operation per operation basis
- You must specify an operation when processing a receipt, issue, or labor transaction for a WLT controlled work order

3.22.13 – PRO/PLUS WIP Lot Trace Menu



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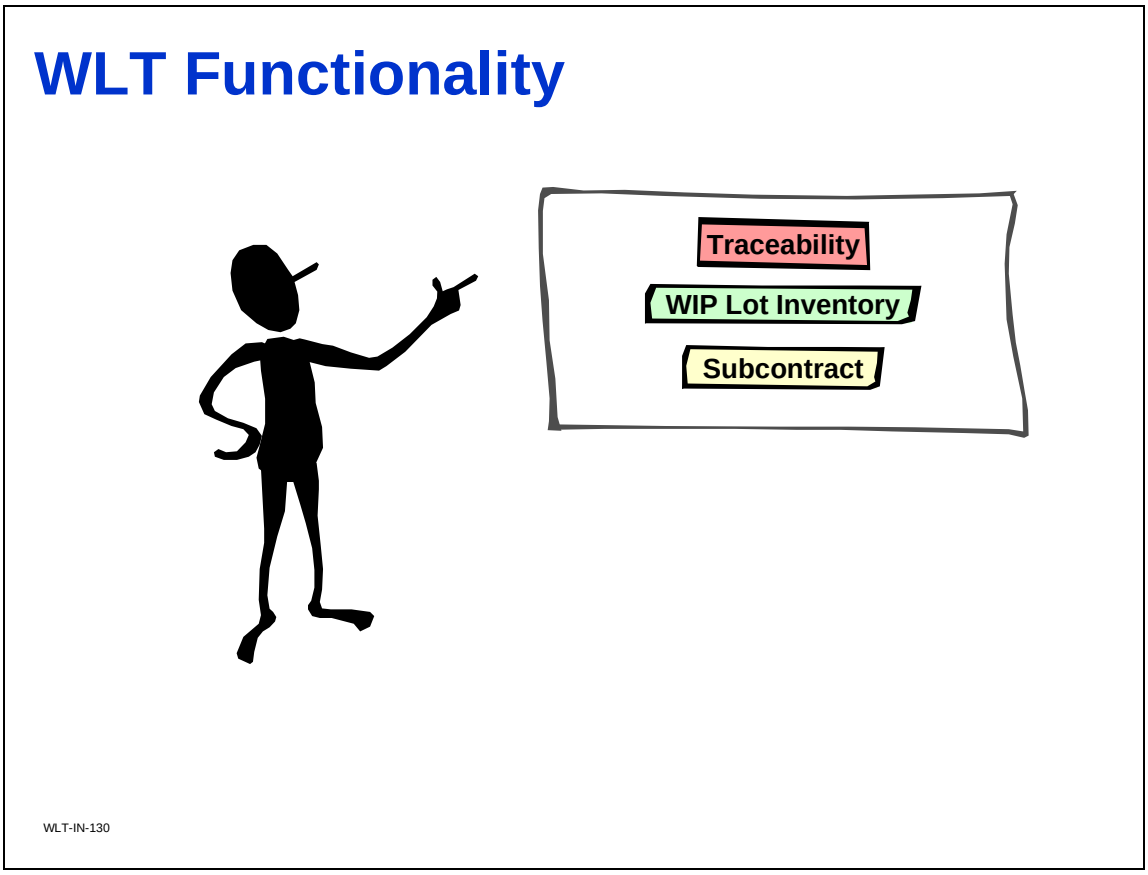
PRO/PLUS WIP Lot Trace Menu

Menu Number 3.22.13

Use the PRO/PLUS WIP Lot Trace Menu to access specific WLT functions. You turn on WLT by setting the Enable WIP Lot Trace field to Yes in WIP Lot Trace Control File 3.22.13.24.



Functionality

Traceability

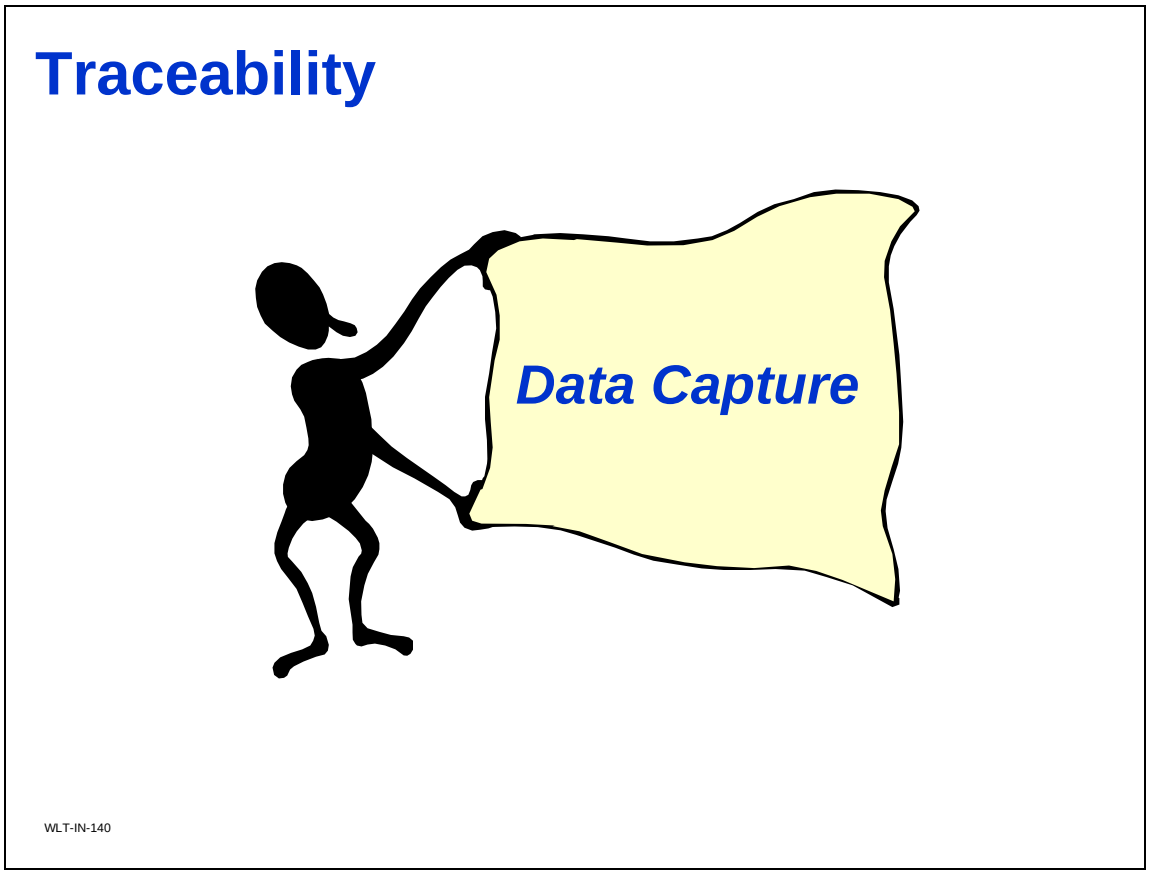
- Capture and reporting of as-built data

WIP Lot Inventory

- Maintenance and reporting of QOH balances for WIP lot/serials

Subcontract

- Handling of WIP lot/serials for subcontract processing



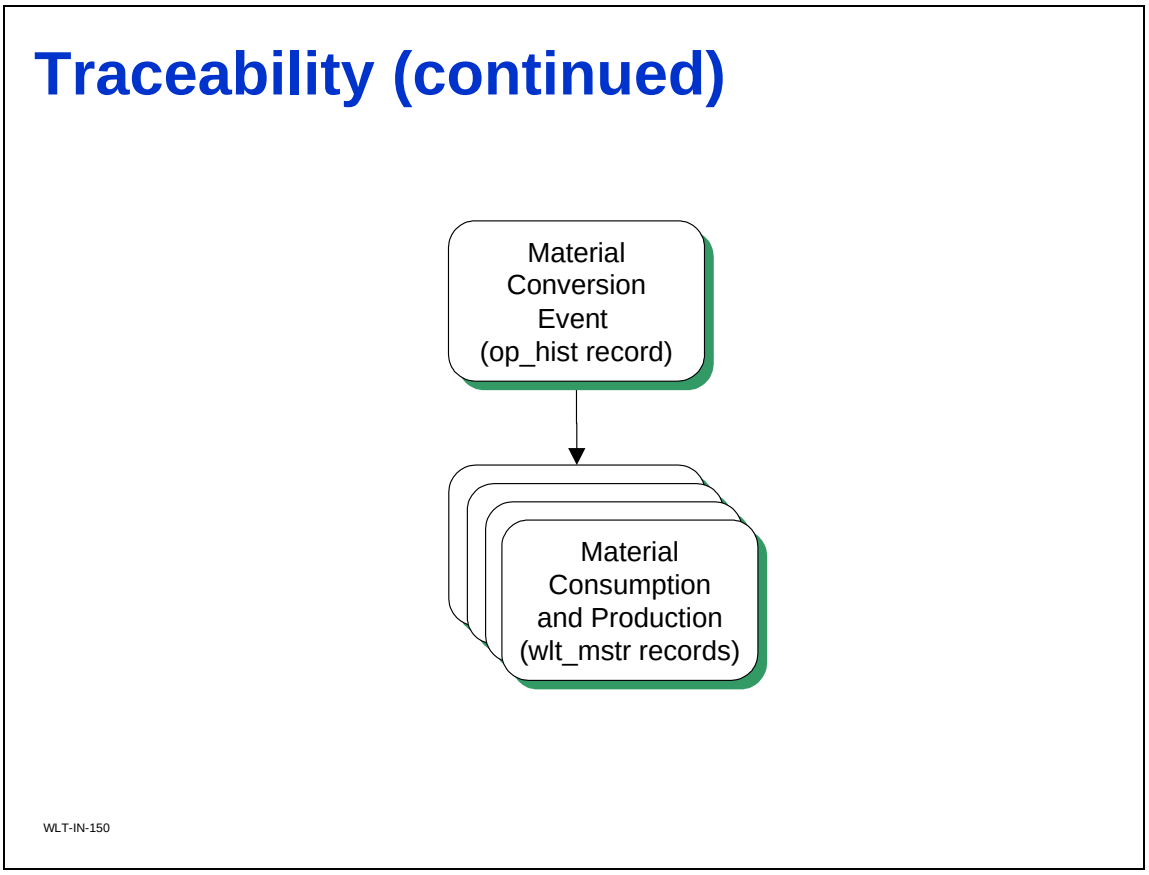
Traceability

Data Capture

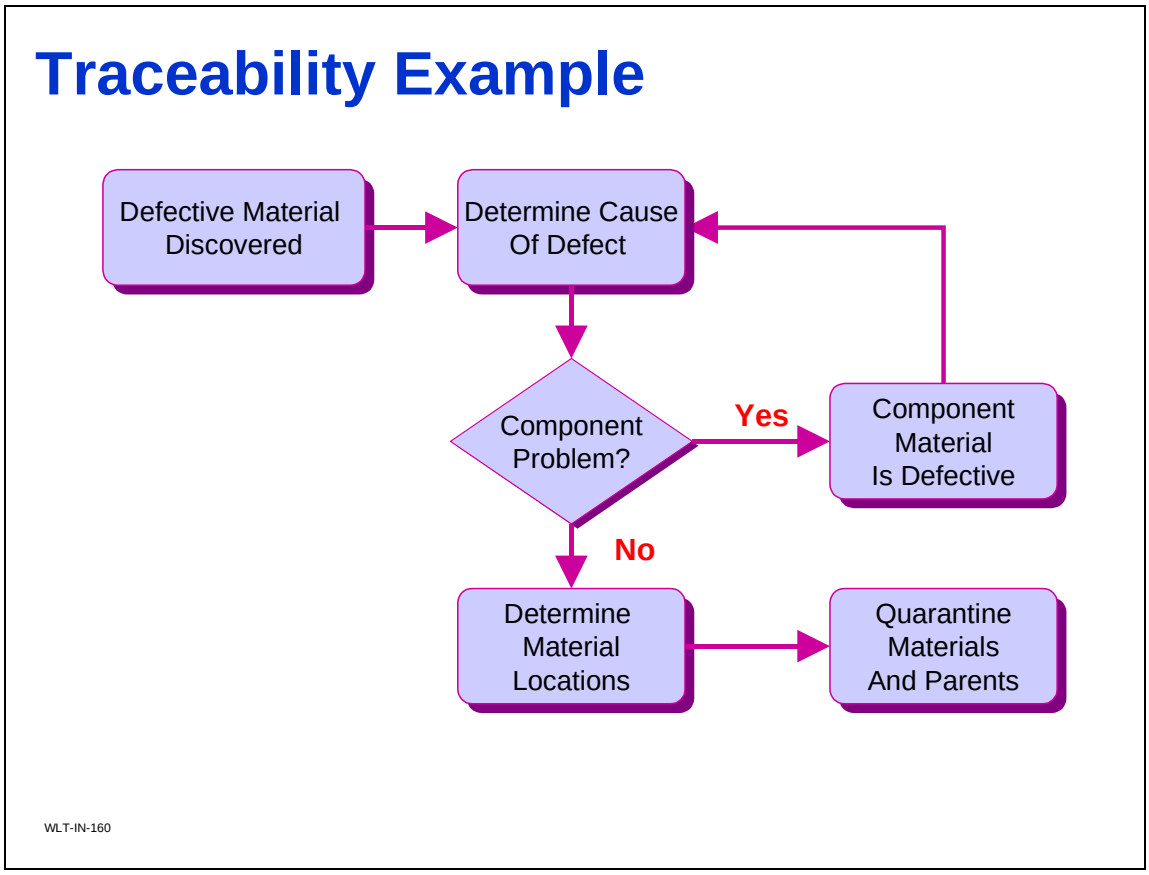
- By functions that record material conversion events

Data captured:

- Material conversion event record
  - Operation History (op_hist)
- Material consumption and production records
  - WIP Lot Trace Master (wlt_mstr) (new table)



The above graphic shows an example of captured data.



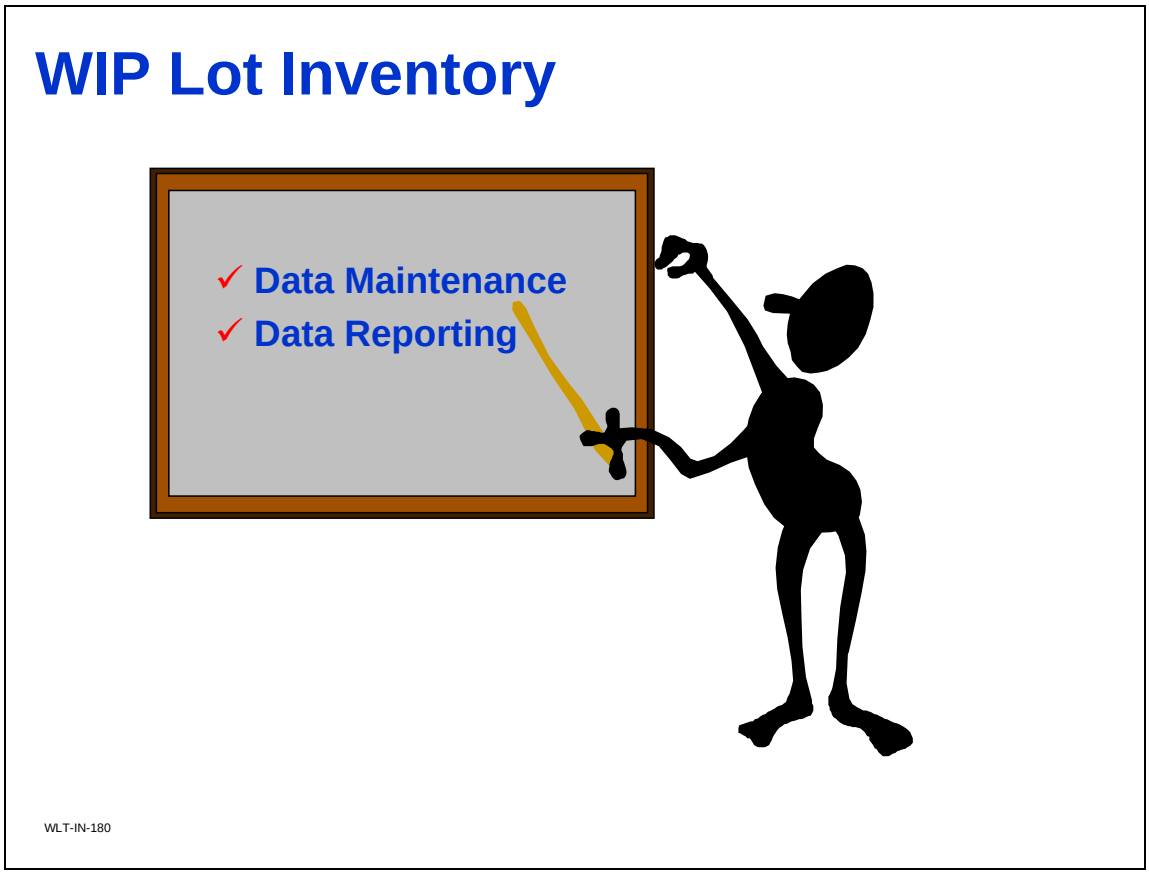
Traceability Example

Traceability (continued)

WLT-IN-170

Data Reporting

- WIP Lot Where-Used Report 3.22.13.19
- Lot Actual Bill Report 3.22.13.20
- Transaction detail reports
- Transaction detail inquiries



WIP Lot Inventory

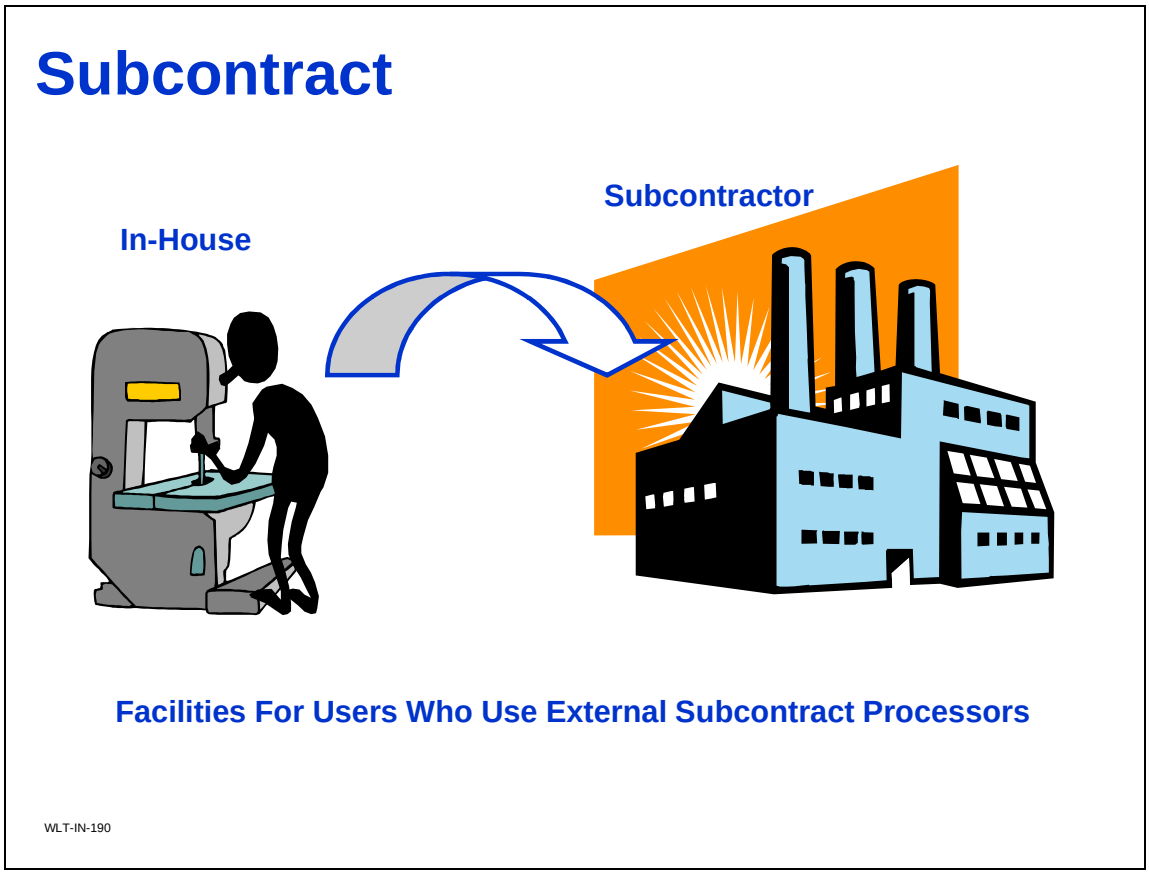
Data Maintenance

- QOH balances maintained by:
  - WIP lot/serial
  - Operation
  - Queue
  - Work center
  - Machine
- Similar to inventory QOH balances

- Updated by material conversion functions (e.g., Backflush) and other functions (e.g., Scrap, Reject, Rework, Adjust)

Data Reporting

- WIP Lot Inventory Status Report 3.22.13.13
- Advanced Repetitive WIP Status Inquiry/Report

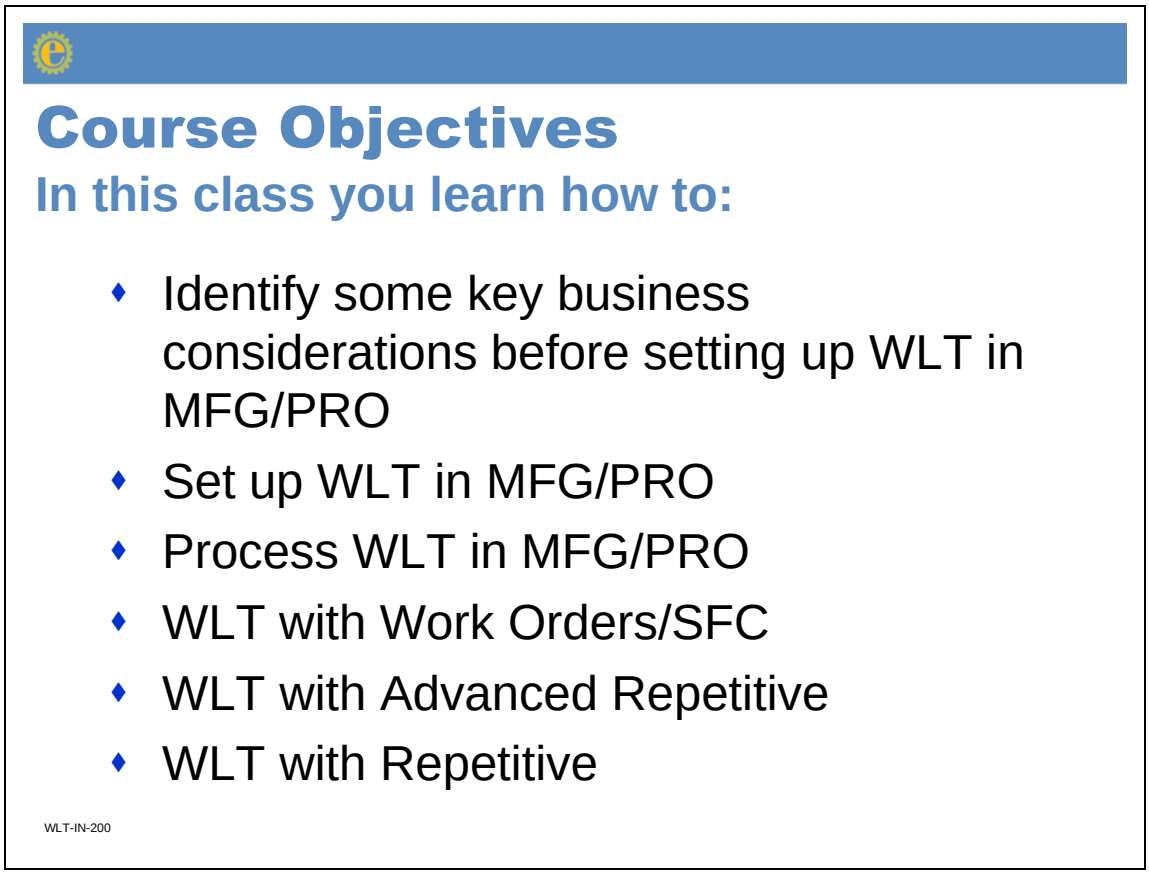


Subcontract

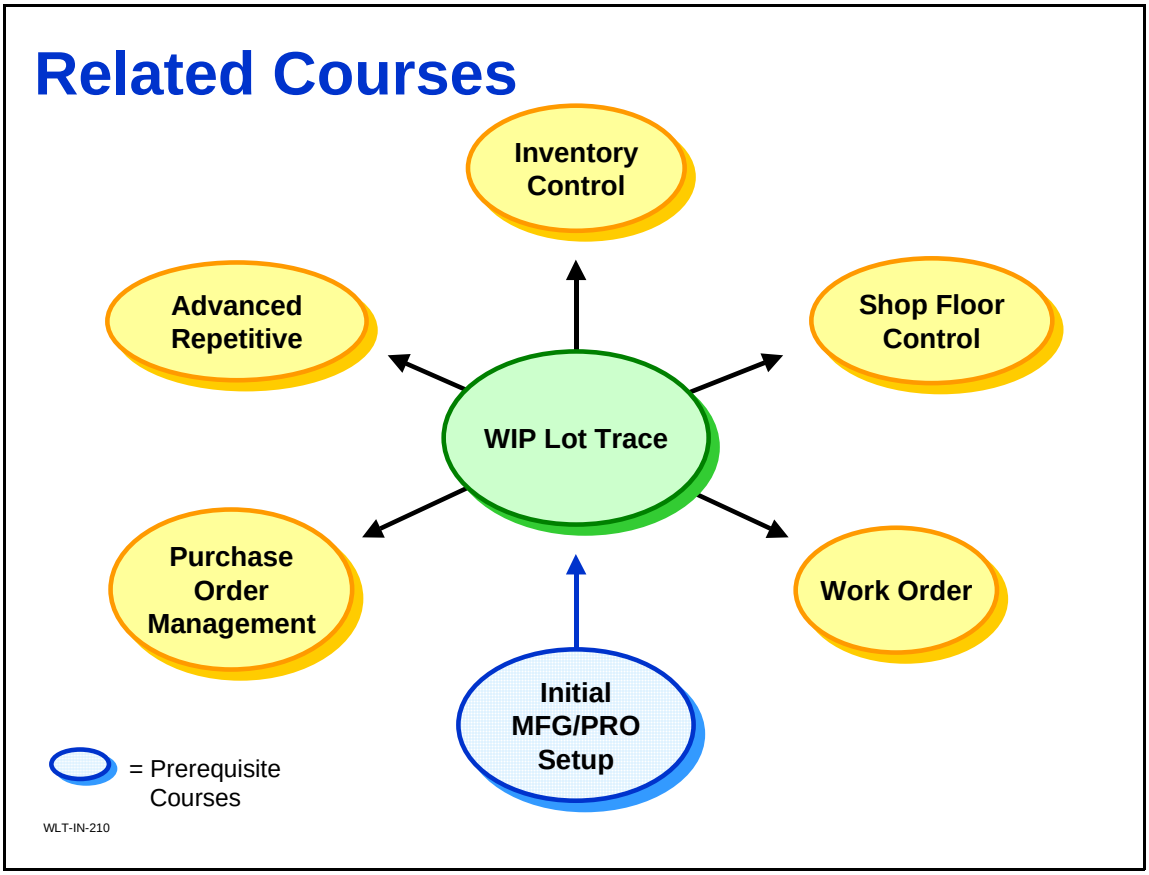
Traceability data captured/WIP lot QOHs maintained.

- Purchase Order Maintenance 5.7
  - Entry of a WIP lot/serial on each subcontract-type line
- Purchase Order Print 5.10
  - Print entered WIP lot/serial
- Sub Container Maintenance 18.22.5.4 and Sub Shipper Maintenance 18.22.5.5
  - Entry of a list of WIP lot/serials to ship
- Sub Shipper Print 18.22.5.9
  - Print WIP lot/serials entered

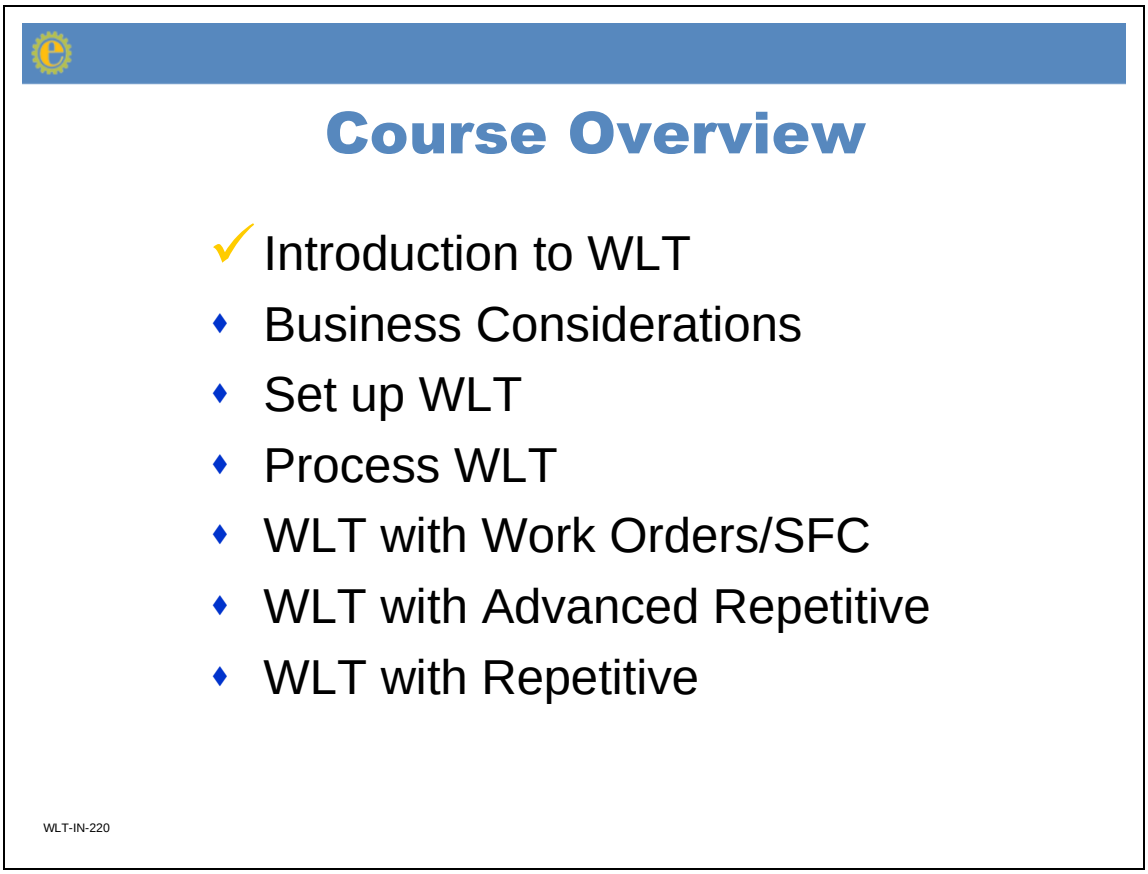
- Advanced Repetitive Sub Shipper Confirm
  - Moves WIP lot/serials to next operation
- Purchase Order Receipts 5.13.1
  - Backflushes the referenced operation
  - Entry of WIP lot/serials consumed and produced



Course Objectives



Related Courses

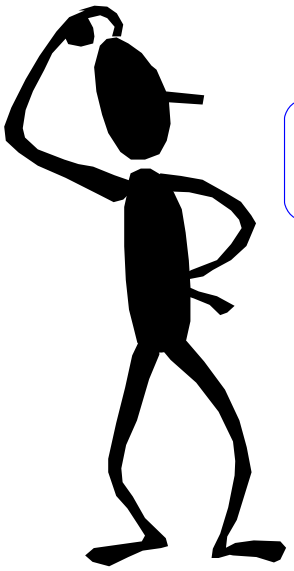


CHAPTER 2

Business Considerations

Business Considerations

Business Considerations



- Tracing Requirements
- Subcontracted Tracing Requirements

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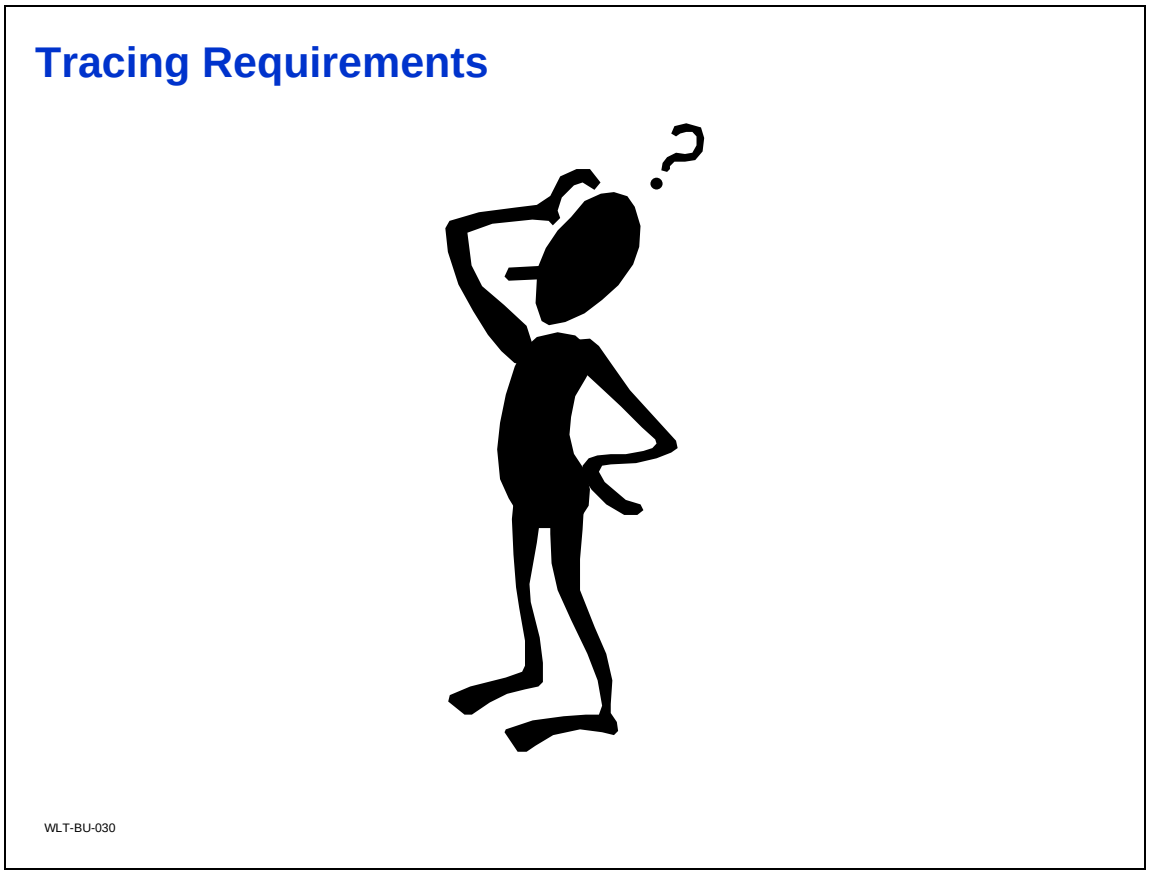
There are several business considerations to look at before setting up MFG/PRO. This section does not discuss all potential considerations, but presents several to generate thought and discussion.



Tracing Requirements

Definition

WLT allows you to create WIP lot and serial tracing records at the operation level whenever registered resources are consumed or produced. However, exactly what tracing records are created is determined by how you define your tracing requirements. In other words, you need to determine exactly how much tracing your manufacturing environment requires. Once you determine that, you can set up or define your individual tracing requirements.

What to Consider?

- Decide which material to trace (i.e., which routings and BOMs consume components), and create the WIP material you need to trace
- Know the milestone operations
- If there are any lot-sizing restrictions in your manufacturing environment, list these restrictions, organized by routing, operation, and work center
- If there are any inventory lot quantities issuing restrictions, create records in Routing Registration Maintenance 3.22.13.1 that prevent or allow WIP lot overissuing based on the routing or routing operation
- If inventory reference tracing is required, set up naming and usage standards for references
- Determine if lot splitting or combining is an issue, and if so, clearly defined the requirements then use the information to create records in Routing Registration Maintenance 3.22.13.1 and BOM Registration Maintenance 3.22.13.4
- If you have specific lot/serial number format requirements, create NRM sequence IDs using Number Range Maintenance 36.2.21.1

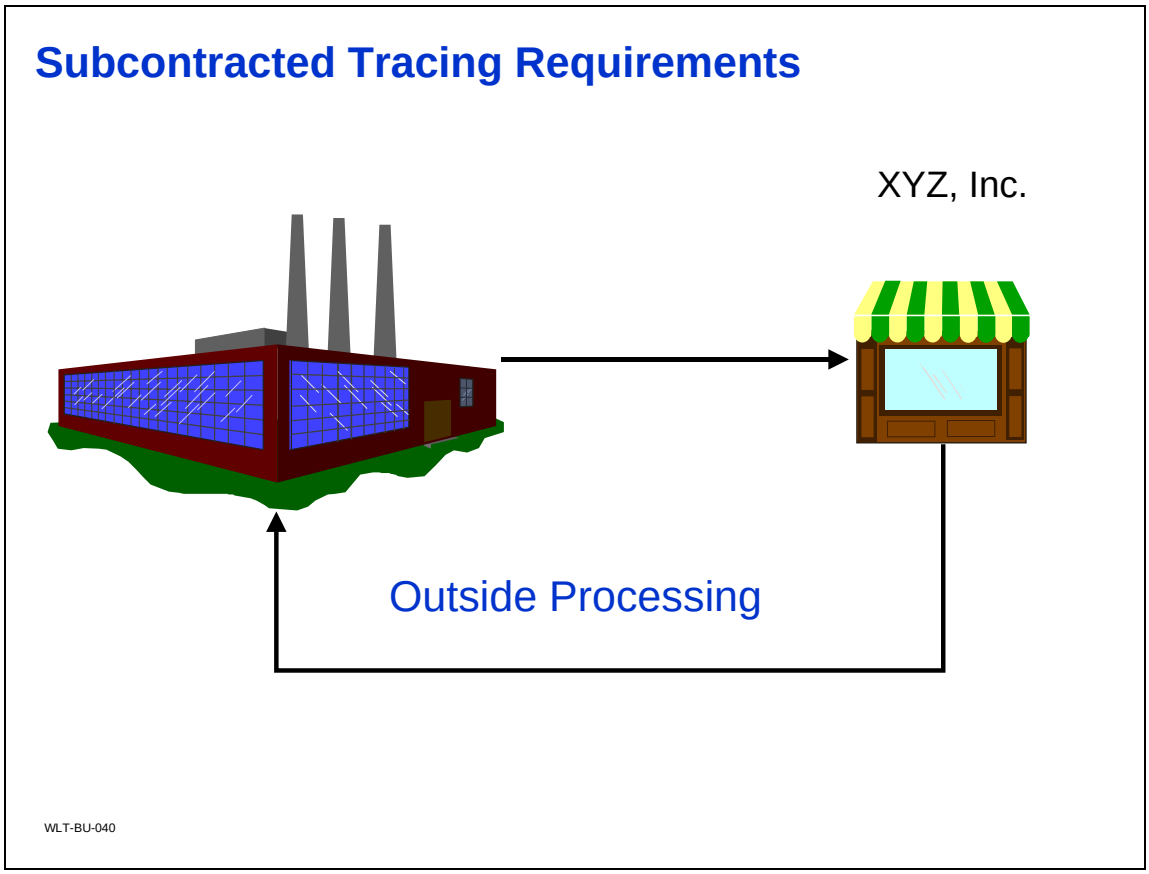
Functionality in MFG/PRO

- Trace specific items throughout the manufacturing process
- Trace component and WIP material consumed in the manufacturing of parent items
- Trace component, WIP material, and finished goods based on parent items, product structures, and routings

Setup Implications

- WLT functionality needs to be turned on by setting the Enable WIP Lot Trace field to Yes in WIP Lot Trace Control File. 3.22.13.24

See in this training guide: *WIP Lot Trace Control File* on page 57



Subcontracted Tracing Requirements

Definition

You can use WLT to create tracing records of all subcontracted WIP material.

Why Consider?

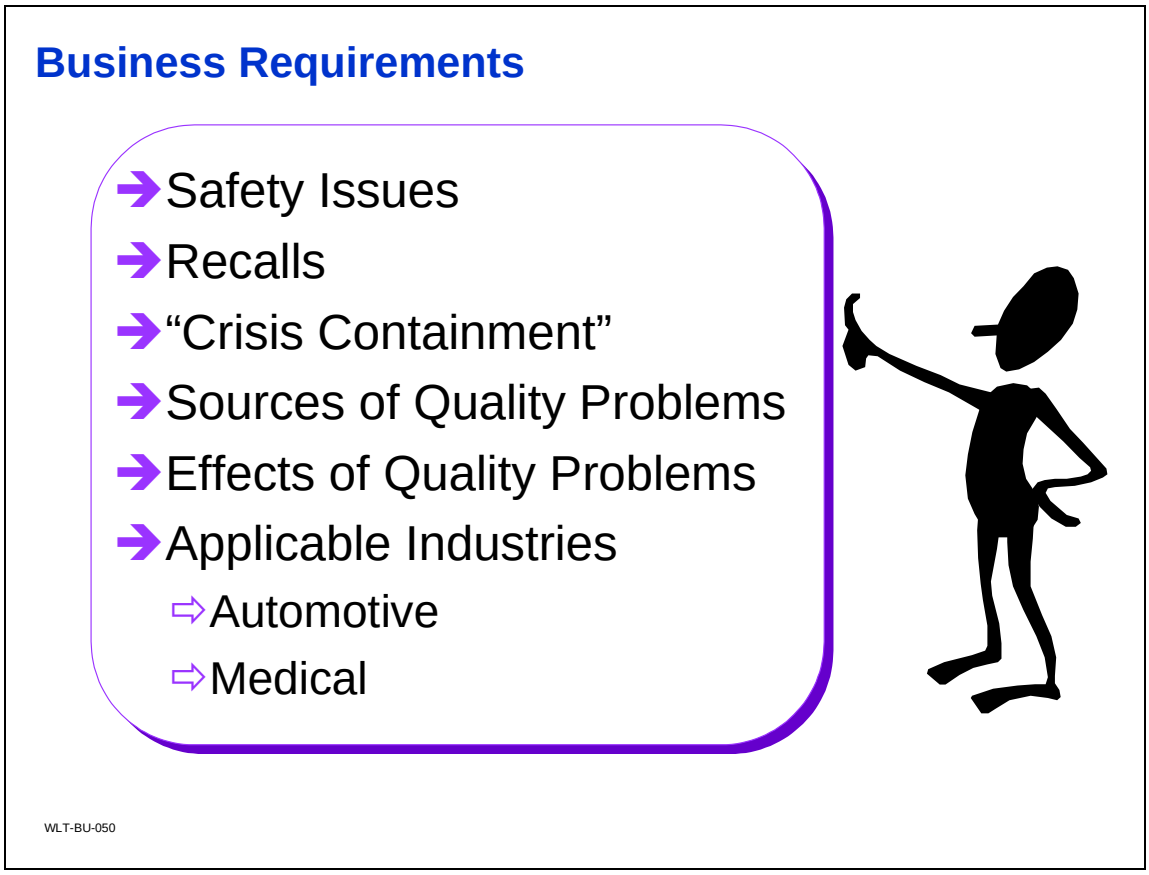
- You can create and plan to maintain detailed records of subcontractors qualified to perform each operation, noting whether they maintain the WIP lot/serial numbers you assign or if they assign new ones for the material they process for you

Functionality in MFG/PRO

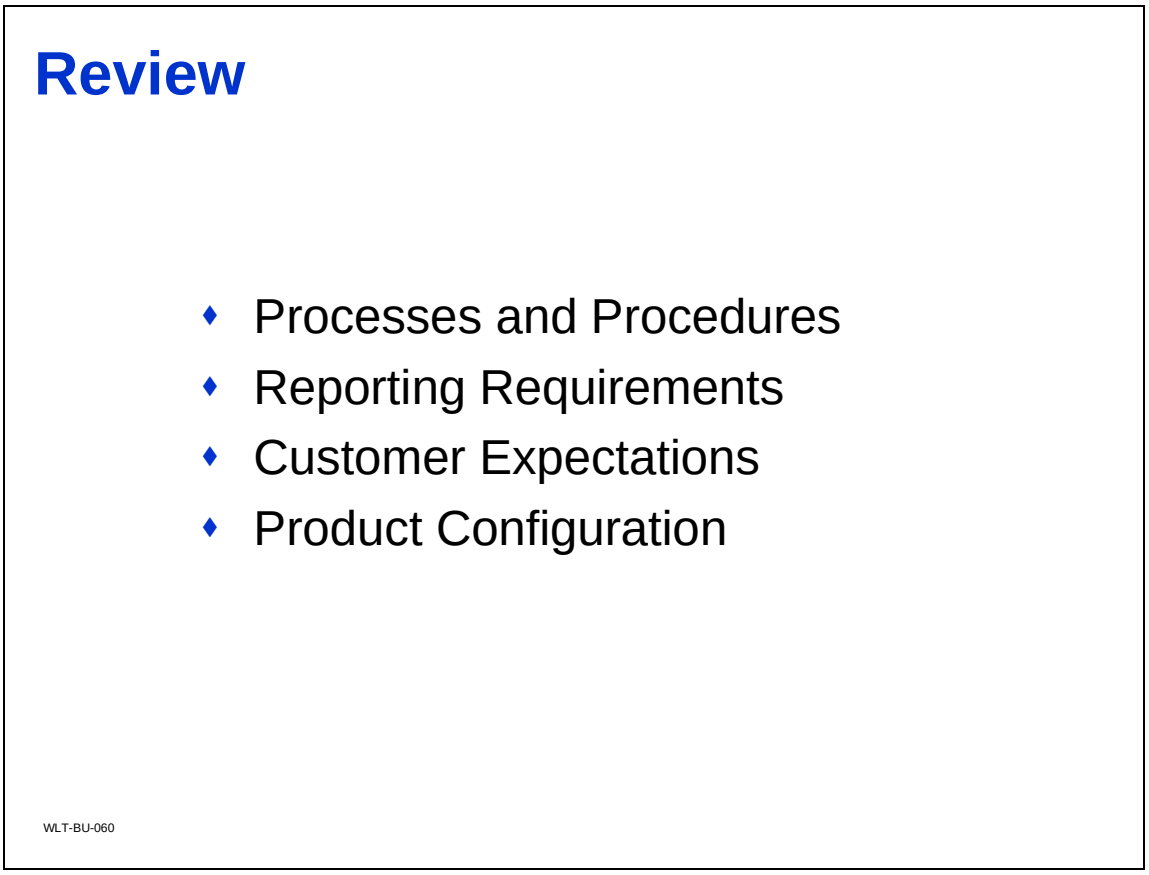
- Can trace WIP lot/serial numbers of material processed by multiple subcontractors

Setup Implications

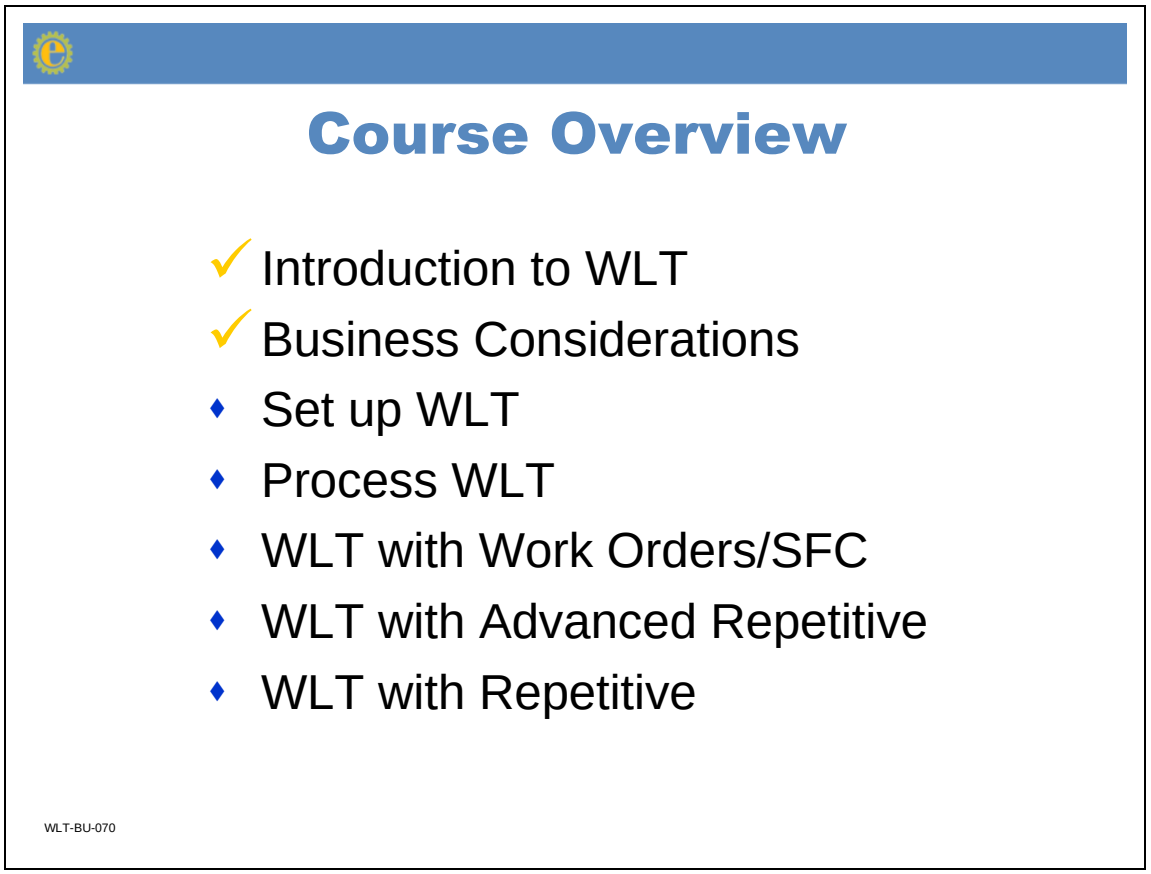
- WLT functionality needs to be turned on by setting the Enable WIP Lot Trace field to Yes in WIP Lot Trace Control File. 3.22.13.24
- Use Work Center Maintenance 14.5 to create a work center for each subcontractor
- Use Routing Maintenance 14.13.1 to create or modify existing routing codes that have subcontracted operations



Business Requirements



Review

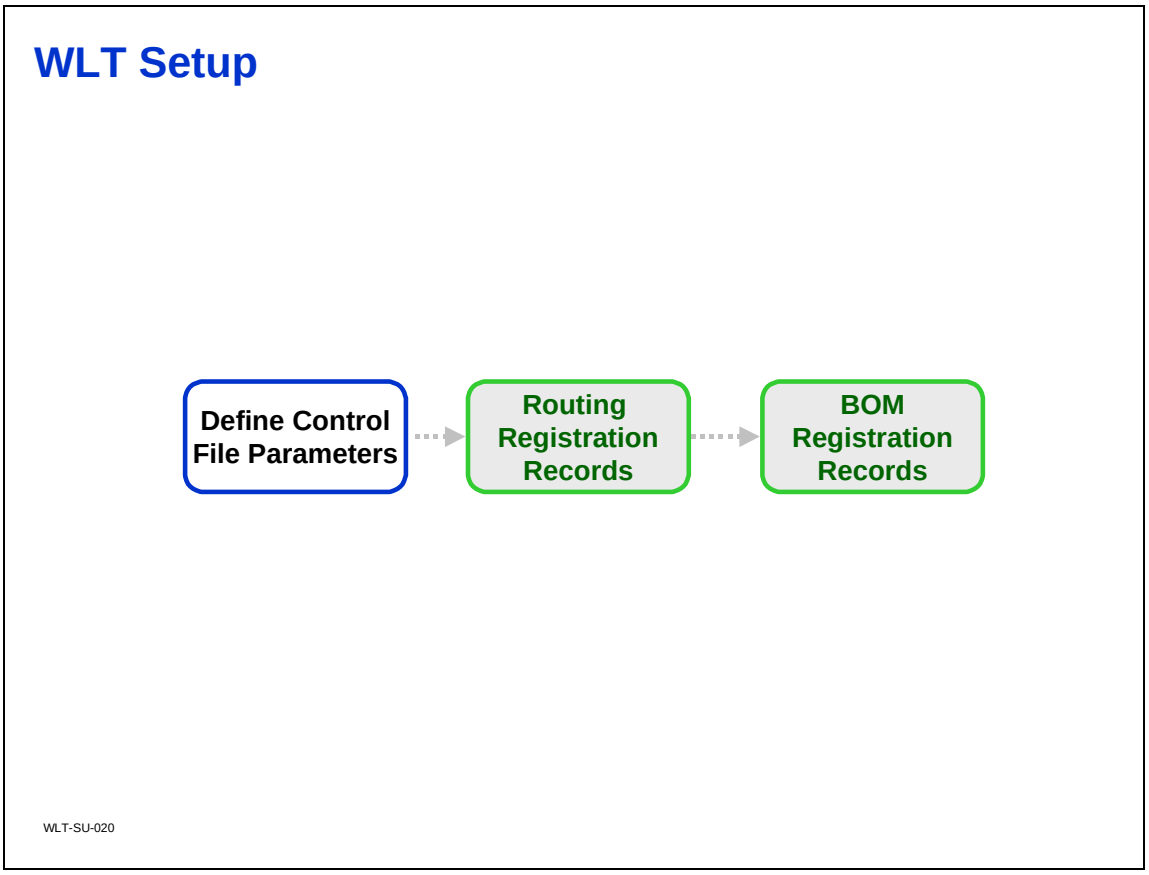


Course Overview

CHAPTER 3

Set Up WLT

Set up WLT

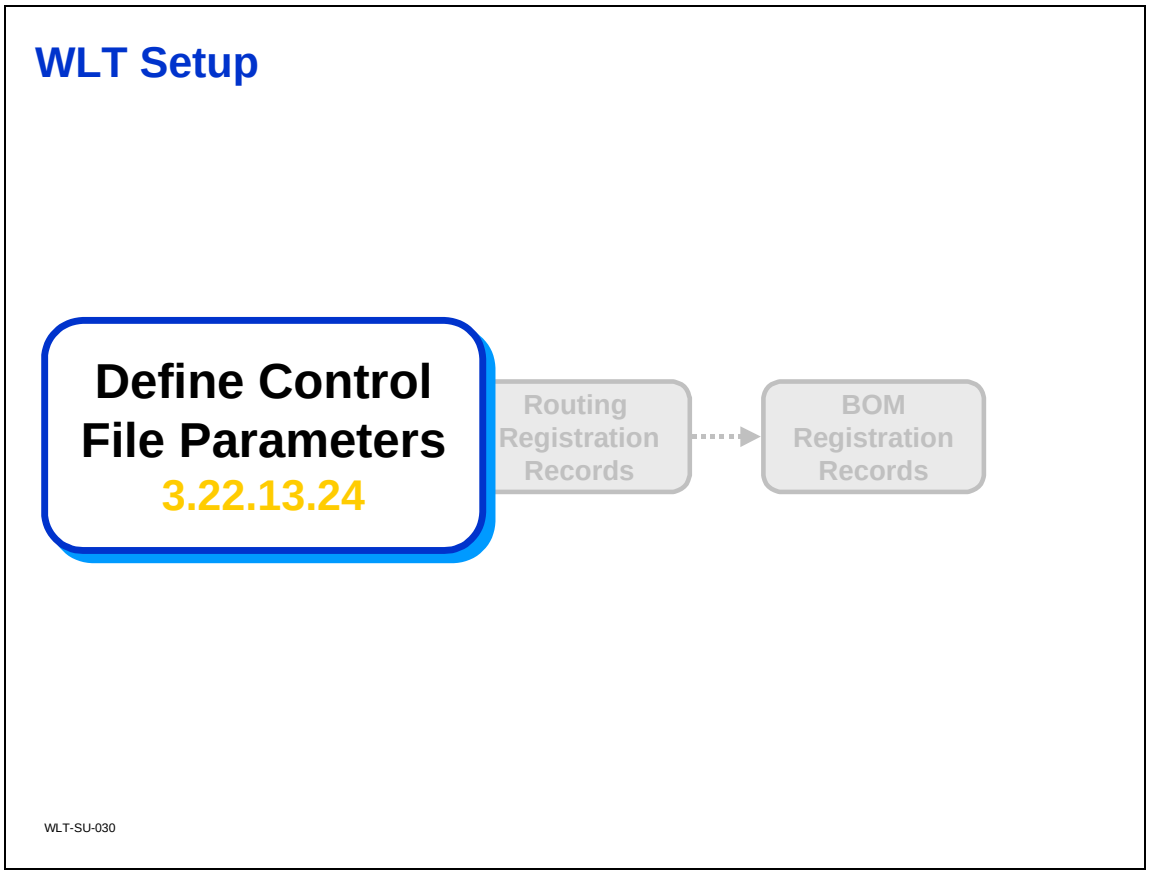


WLT Setup

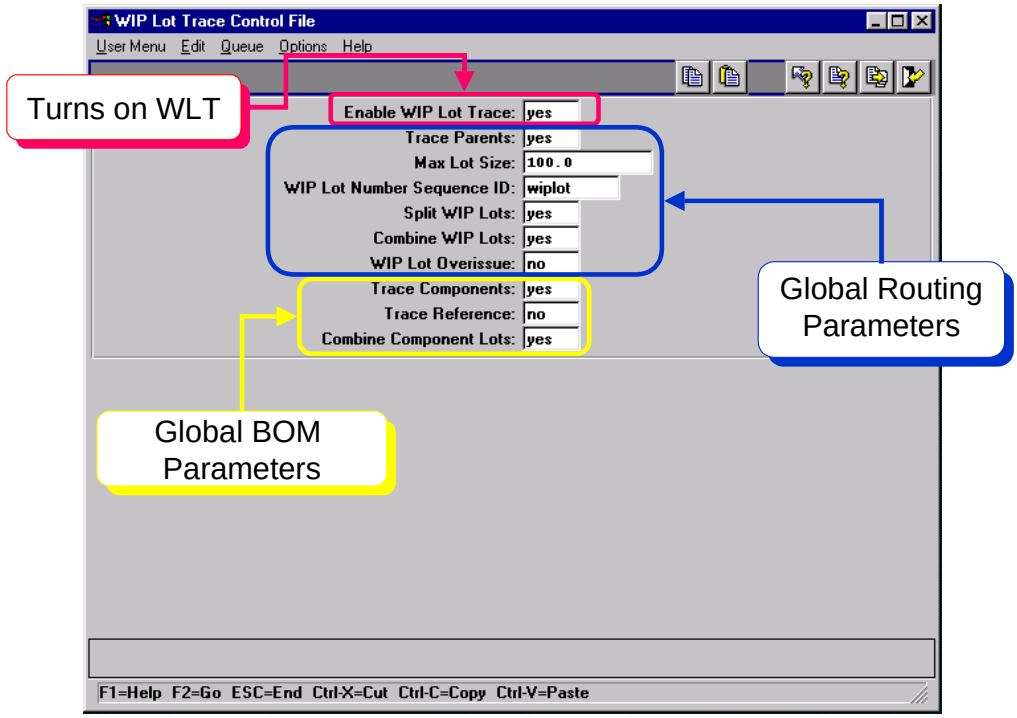
This illustration is a suggested setup sequence of master files for the WLT module which is based on information that flows from one master file to another and prerequisites that need to be accomplished before setting up a file. Reading the illustration:

Boxes with solid lines are required to set up WLT and are covered in this course.

Shaded boxes reflect optional steps, but are covered in this course.



3.22.13.24 – WIP Lot Trace Control File



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WIP Lot Trace Control File

Menu Number 3.22.13.24

Use WIP Lot Trace Control File to enable the WLT module and to set the parameters which will apply to all routings and BOMs using WLT in your manufacturing environment.

- When WLT is activated, new fields and WLT data collection frames display in programs such as backflush transactions, rework transactions, and reject transactions
  - You use the new fields and WLT data collection frames to enter tracing information
  - Appear in existing (Standard) Repetitive, Advanced Repetitive, Work Orders, Shop Floor Control, and Purchasing programs

Field Definitions

Enable WIP Lot Trace

Determines if WIP Lot Trace is activated.

- If Yes, tracing records are created
  - New fields and WLT data collection frames display in certain functions
- If No, tracing records are not created

Trace Parents

Determines if all parent items are traced.

- If Yes, system traces all parent items
- If No, no tracing is done

Note You must set this field to Yes if you want to trace components or references.

Max Lot Size

Determines the largest (maximum) size for WIP lots produced at any operation.

- If 0 (zero), lot size will not be restricted
- If not 0, when the cumulative WIP lot size exceeds the specified value, a warning message displays

WIP Lot Numbr Sequence ID

Determines the sequence the system will use to generate output WIP lot/serial numbers.

- The number entered must be defined with Number Range Maintenance 36.2.21.1
- Number cannot exceed 18 characters
- Optional

Split WIP Lots

Determines if an input WIP lot can be divided (i.e., split) into multiple output WIP lots.

- If Yes, the input WIP lot can be split
- If No, lot splitting is not allowed

Combine WIP Lots

Determines if multiple input WIP lots can be combined into a single output WIP lot.

- If Yes, the input WIP lots can be combined

- If No, the input WIP lots cannot be combined

WIP Lot Overissue

Determines if you can issue a quantity for a WIP lot even if that issue will result in a negative WIP lot QOH.

- If Yes, you can
  - A warning message displays if the issue results in a negative QOH balance
- If No, you cannot
  - An error message displays if the issue results in a negative QOH balance

Trace Components

Determines if system traces component lots consumed in manufacturing operations.

- If Yes components lots will be traced
- If No, they will not

Note To trace component lot/serials, you must also trace their corresponding parent items.

Trace Reference

Determines if system traces references assigned to component item inventory.

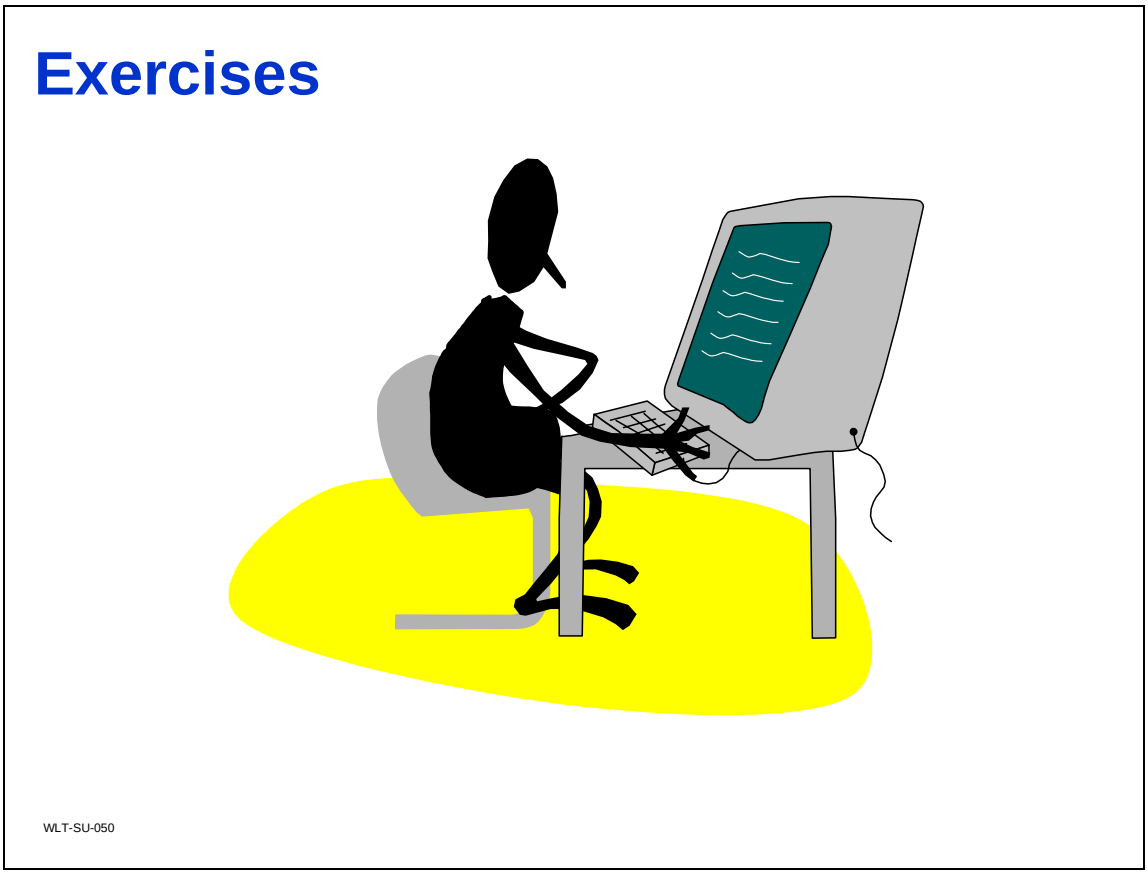
- If Yes, references will be traced
  - Recorded in tracing history
  - Displays in transaction detail reports and inquiries
- If No, they will not

Note To trace inventory references, you must also trace their corresponding component and parent items.

Combine Component Lots

Determines if multiple lots of the same component or raw material can be consumed into a single WIP lot/serial.

- If Yes, they can be consumed
- If No, they cannot



Exercises

Important The data used in these exercises may not be the same as the data shown in the screen captures in this lesson. In an exercise, if a field is not listed, you can accept the default value or leave it blank.

WIP Lot Trace Control File

Description: Before you can use the WIP Lot Trace module you must enable it by turning on global control variables.

1 Make sure the control settings are set as follows:

Field	Data
Enable WIP Lot Trace	Yes
Trace Parents	Yes
Split WIP Lots	Yes
Combine WIP Lots	Yes
WIP Lot Overissue	Yes
Trace Components	Yes
Trace Reference	Yes
Combine Component Lots	Yes

Use WIP Lot Trace Control File 3.22.13.24

Enable Advanced Repetitive

Description: The following activity requires Advanced Repetitive be enabled.

1 Check the setting of the Enable New Repetitive field. If it is set to No, set to Yes.

Use Repetitive Control File 18.22.24

If you get the message “You must run rewocl.p before using this module. Please re-enter.” do the following:

a Run Cumulative Ord Accounting Close 18.9, accepting the defaults.

b Run Cumulative Order Maintenance 18.6. Using your Arrow keys, locate all cumulative orders and delete them.

c Change the Enable New Repetitive field to Yes.

Use Repetitive Control File 18.22.24

Set Up Items

Description: This item data will be used in the following activities.

1 Create a parent item and four component items, using the following settings for each item.

Field	Data
Item Number	<your entry>
Description	<e.g., Parent Item, Component 1 etc.>
Prod Line	<Press the Lookup key to display a list of product lines. Use your Down Arrow to select the first record.>
Promo Group	<Press the Lookup key to display a list of product lines. Use your Down Arrow to select the first record.>
Lot/Serial Control	L

Use Item Master Maintenance 1.4.1

2 Repeat step 1 for each of the four component items.

Set Up Routings

Description: This routing data will be used in the following activities.

1 Create a routing for the parent item using the following settings:

Field	Data
Routing Code	<your parent item>
Operation	10
Work Center	<Press the Lookup key to display a list of work centers. Use your Down Arrow to select the first record.>
Machine	<Press the Lookup key to display a list of machines. Use your Down Arrow to select the first record.>
Description	Operation 10
Milestone Operation	Yes
Move Next Op	Yes

Use Routing Maintenance 14.13.1

Using the same routing code, add a second operation with the following settings:

Field	Data
Operation	20
Work Center	<Press the Lookup key to display a list of work centers. Use your Down Arrow to select the first record.>
Machine	<Press the Lookup key to display a list of machines. Use your Down Arrow to select the first record.>
Description	Operation 20
Milestone Operation	Yes
Move Next Op	Yes

Add the third operation using the following settings:

Field	Data
Operation	30
Work Center	<Press the Lookup key to display a list of work centers. Use your Down Arrow to select the first record.>
Machine	<Press the Lookup key to display a list of machines. Use your Down Arrow to select the first record.>
Description	Operation 30
Milestone Operation	Yes
Move Next Op	Yes

Add the fourth and last operation using the following settings:

Field	Data
Operation	40
Work Center	<Press the Lookup key to display a list of work centers. Use your Down Arrow to select the first record.>
Machine	<Press the Lookup key to display a list of machines. Use your Down Arrow to select the first record.>
Description	Operation 40
Milestone Operation	Yes
Move Next Op	Yes

Set Up Product Structure

Description: This product structure data will be used in the following activities.

1 Create a product structure for the parent item using the following settings:

Field	Data
Parent Item	<your parent item number>
Component Item	<component item 1>
Qty Per	1
Op	10

Use Product Structure Maintenance 13.5

Add the second component item using the following settings:

Field	Data
Component Item	<component item 2>
Qty Per	1
Op	20

Add the third component item using the following settings:

Field	Data
Component Item	<component item 3>
Qty Per	1
Op	30

Add the fourth and last component item using the following settings:

Field	Data
Component Item	<component item 4>
Qty Per	1
Op	40

Set Up Production Line

Description: This production line data will be used in the following activities.

1 Create an entry using the following settings:

Field	Data
Production Line	1000
Site	10000
Item Number	<your parent item number>
Start Date	01/01/01
Units/Hour	1.00

Use Production Line Maintenance 18.22.1.1

Create A Work Order

Description: This work order will be used in the following activities.

1 Create a work order using the following settings:

Field	Data
Work Order	<leave blank>
ID	<leave blank>
Item Number	<your parent item number>
Type	<leave blank>
Site	10000
Qty Ordered	100

Record the work order number: _____

Use Work Order Maintenance 16.1

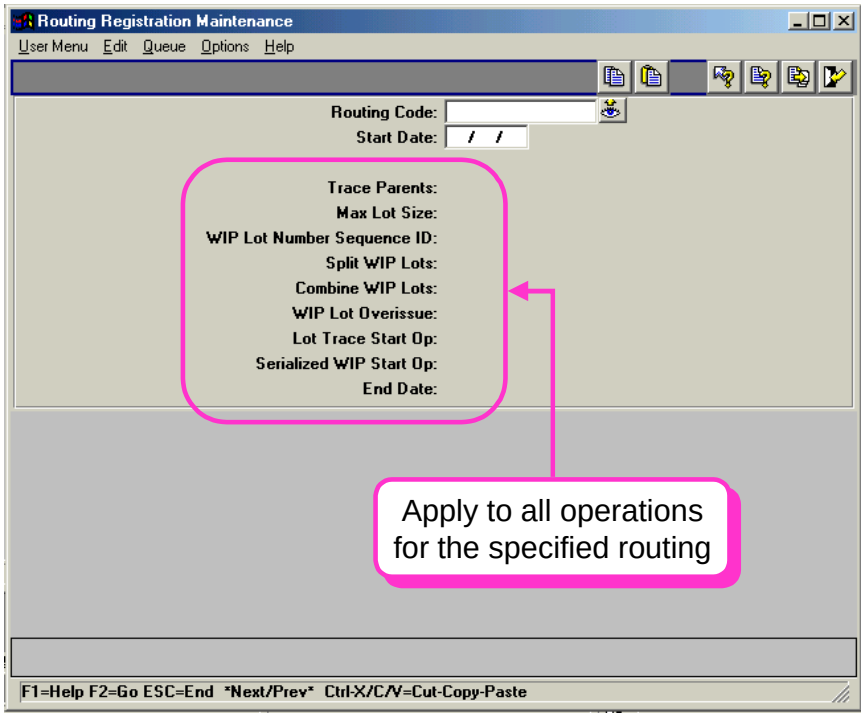
2 Using the work order number you just created, print the release.

Use Work Order Release/Print 16.6

WLT Setup

WLT-SU-060

3.22.13.1 – Routing Registration Maintenance



WLT-SU-070

Routing Registration Maintenance

Menu Number 3.22.13.1

Use Routing Registration Maintenance to define control parameter exceptions for an individual routing code. You do this by creating new settings for parent item routings. Additionally, you can define settings for individual routing operations.

- Settings defined here override WIP Lot Trace Control File settings

Routing Registration Maintenance consists of two frames. In the first frame you enter control information for the routing code. These settings will be used for all operations of the specified routing. However, you can use the second frame to enter control information specific to an

operation within the routing. This information overrides the global routing information entered in the first frame.

First Frame – Field Definitions

Routing Code

The routine code identifying the routing for which you are creating the routing registration record.

Start Date

The first date this routing registration record is effective.

- If a start date is not specified, the routing registration record becomes effective immediately

Note If multiple routing registration records have overlapping effective dates, the system uses the routing registration with the start date closest to the transaction effective date.

Trace Parents

Determines if system traces parent items that reference this routing code.

- Defaults from the WIP Lot Trace Control File
- If Yes, tracing occurs
- If No, tracing does not occur

Note In the WIP Lot Trace Control File if the Trace Parents flag is set to Yes, but this field is set to No, tracing does not occur for parent items produced with this routing code.

Max Lot Size

Determines the maximum size for WIP lots produced at any operation in this routing.

- Defaults from the WIP Lot Trace Control File

WIP Lot Number Sequence ID

The sequence number ID for the system to use when generating output WIP lot/serial numbers for operations in this routing.

- Defaults from the WIP Lot Trace Control File

Split WIP Lots

Determines if an input WIP lot can be divided into multiple output WIP lots for operations on this routing.

- Defaults from the WIP Lot Trace Control File

Combine WIP Lots

Determines if multiple input WIP lots can be combined into a single output WIP lot for operations in this routing.

- Defaults from the WIP Lot Trace Control File

WIP Lot Overissue

Determines if a quantity can be issued for a WIP lot even when that issue would result in a negative WIP lot QOH.

- Defaults from the WIP Lot Trace Control File

Lot Trace Start Op

The operation where the WIP lot tracing should begin for the specified routing code.

- Defaults to 0 (zero)
  - Starts at routing's first operation

Note Any component material consumed at operations prior to the operation specified here is not traced. The system does not prompt for input WIP lots at this operation. It prompts for input and output WIP lots at the following operation.

Serialized WIP Start Op

The operation where serial tracing should begin.

- Defaults to 99999
  - Indicates that serial tracing should not be done
- Must be an operation number that is the same or after than the operation specified in Lot Trace Start Op
  - WIP serial tracing cannot begin before WIP lot tracing

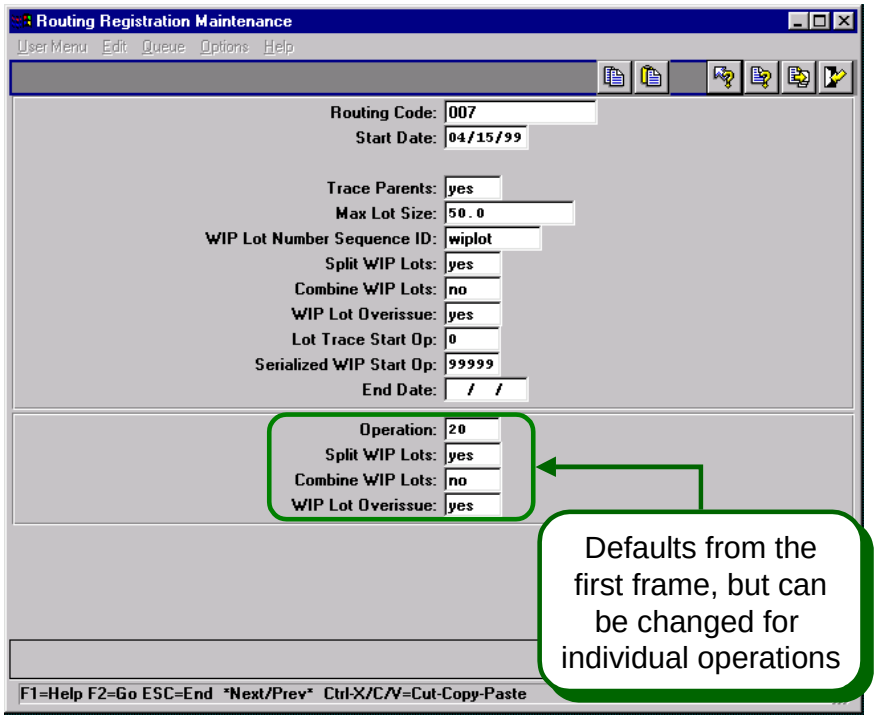
Note For WIP lots to be serial traced, transaction quantities can only be –1, 0, or 1. WIP lot QOH balances must be 0 or 1.

End Date

The last date this routing registration is effective.

- If <blank>, routing registration is effective indefinitely

3.22.13.1 – Routing Registration Maintenance: Second Frame



WLT-SU-080

Second Frame

You can use the fields in the second frame to further define whether to allow lot splitting, combining, and overissuing for a specific operation in the routing.

Field Definitions

Operation

The operation for which you are creating the routing operation registration record.

Split WIP Lots

Determines if WIP lots produced by this operation can be divided into multiple lots by the next operation.

- Defaults from the first frame
- If Yes, they can be divided
- If No, they cannot

Note This only affects WIP material produced by this operation.

Combine WIP Lots

Determines if multiple input WIP lots for this operation can be combined into a single WIP output lot before being processed by the next operation

- Defaults from the first frame
- If Yes, they can be combined
- If No, they cannot

Note This only affects WIP material produced by this operation.

WIP Lot Overissue

Determines if you can issue a quantity for a WIP lot that will result in a negative WIP lot QOH at this operation. This only affects WIP material produced by this operation.

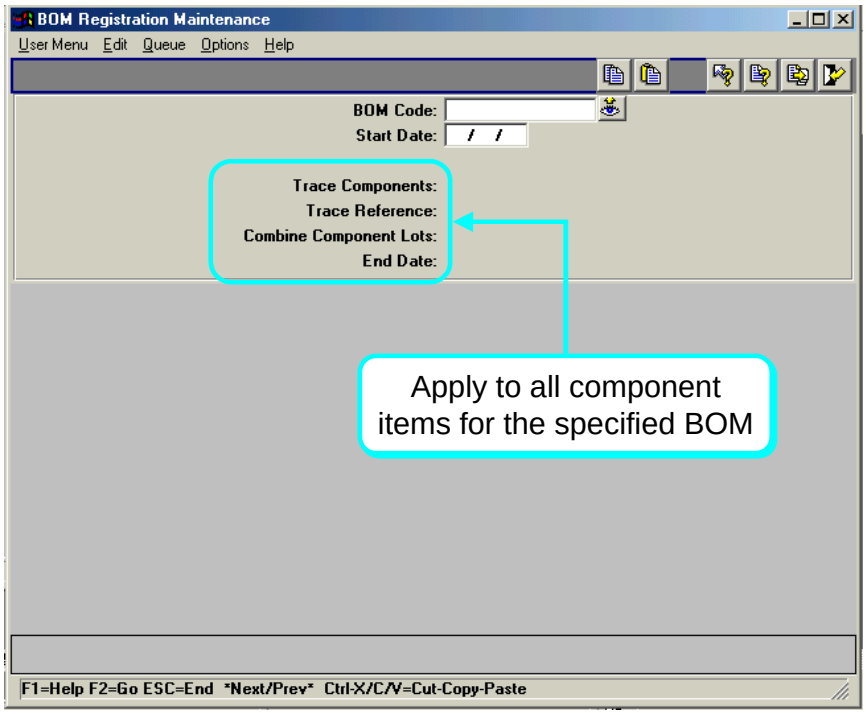
- Defaults from the first frame
- If Yes, you can
- If No, you cannot

Note This value affects the output queue of this operation and the input queue of the following operation. When the output queue of the current operation is driven negative by a backflush at the following operation, the system must also allow for the input queue of the following operation to be driven negative.

WLT Setup

WLT-SU-090

3.22.13.4 – BOM Registration Maintenance



WLT-SU-100

BOM Registration Maintenance

Menu Number 3.22.13.4

Use BOM Registration Maintenance to define control parameter exceptions for an individual BOM. You can also define settings for individual BOM component items.

- Settings defined here override WIP Lot Trace Control File settings

BOM Registration Maintenance consists of two frames. In the first frame you enter control information for the BOM. These settings will be used for all component items for the specific BOM code. However, you can use the second frame to enter control information for a component of the BOM.

First Frame – Field Definitions

BOM Code

The BOM code for which you are creating a registration record.

Start Date

The first date this BOM registration record is effective.

- If a start date is not specified, the BOM registration record becomes effective immediately

Note If multiple BOM registration records have overlapping effective dates, the system uses the BOM registration with the start date closest to the transaction effective date.

Trace Components

Determines if system traces component lots consumed in manufacturing operations.

- Defaults from the WIP Lot Trace Control File

Note To trace components, you must also trace their corresponding parent items.

Trace Reference

Determines if system traces references assigned to component item inventory.

- Defaults from the WIP Lot Trace Control File

Note To trace inventory references, you must also trace their corresponding component and parent items.

Combine Component Lots

Determines if multiple lots of the same component or raw material can be consumed into a single WIP lot/serial.

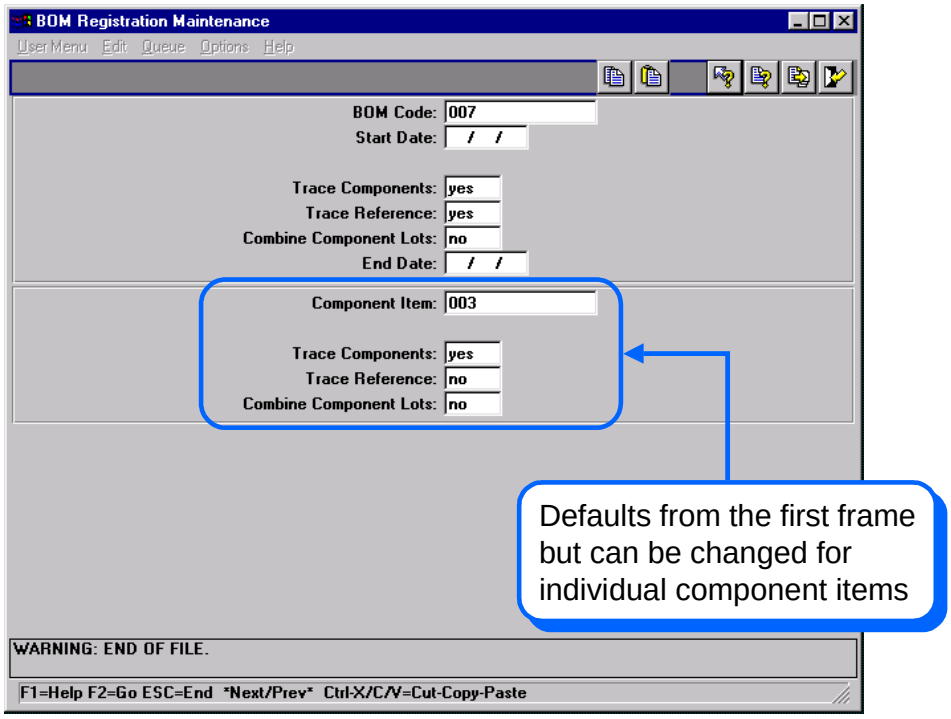
- Defaults from the WIP Lot Trace Control File

End Date

The last date this BOM registration record is effective.

- If <blank>, BOM registration is effective indefinitely

3.22.13.4 – BOM Registration Maintenance: Second Frame



WLT-SU-110

Second Frame

In the second frame you can override the BOM registration controls for a specific component item.

- Changes you make here override the controls set in the first frame for this component in this BOM code only

You also have the option of further defining whether to:

- Trace components or references
- Allow combining of component lots for specific component in the BOM

Field Definitions

Component Item

The component item number for which you are creating the detail BOM registration record.

Trace Components

Determines if system traces lots of this component consumed in manufacturing operations.

- Defaults from the first frame
- If Yes, tracing takes place
  - To trace component, you must also trace their corresponding parent item
- If No, tracing does not take place

Note If in the WIP Lot Trace Control File the Trace Components field is set to Yes, but you set this field to No, tracing does not occur when this component is consumed under this BOM code.

Trace References

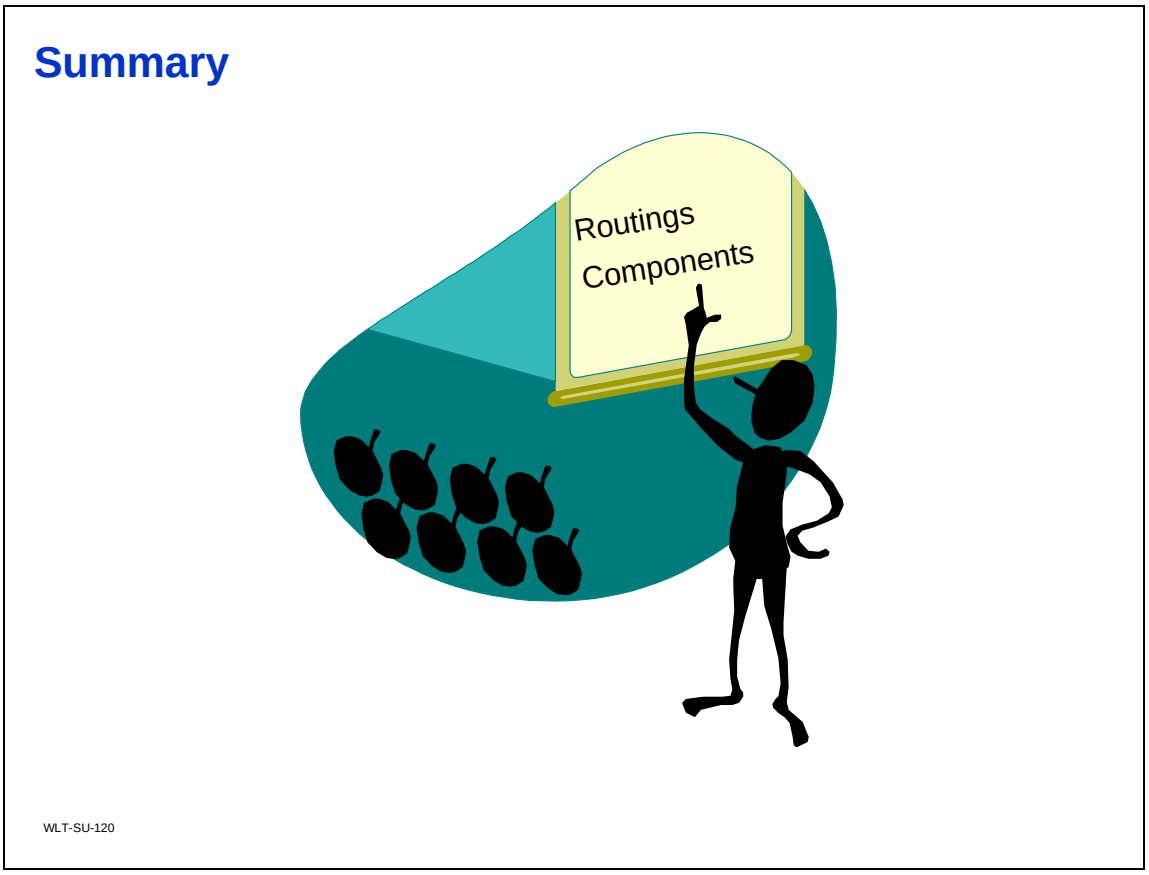
Determines if system traces references assigned to lots of this component item

- Defaults from the first frame
- If Yes, tracing takes place
  - To trace references, you must also trace corresponding parent and component items
- If No, tracing does not take place

Combine Component Lots

Determines if multiple lots of this component can be consumed into a single WIP lot/serial.

- Defaults from the first frame
- If Yes, they can
- If No, they cannot



Summary

Routings and Routing Operations

Routing and routing operations become WLT controlled when:

- Trace Parents is set to Yes in WIP Lot Trace Control File 3.22.13.24 and a routing registration does not exist for the routing being used (set up in Routing Registration Maintenance 3.22.13.1)
  - All operations for that routing become WLT controlled
- A WLT routing registration is active for the routing

– WLT control begins at the start operation (Operation field) specified in the registration record

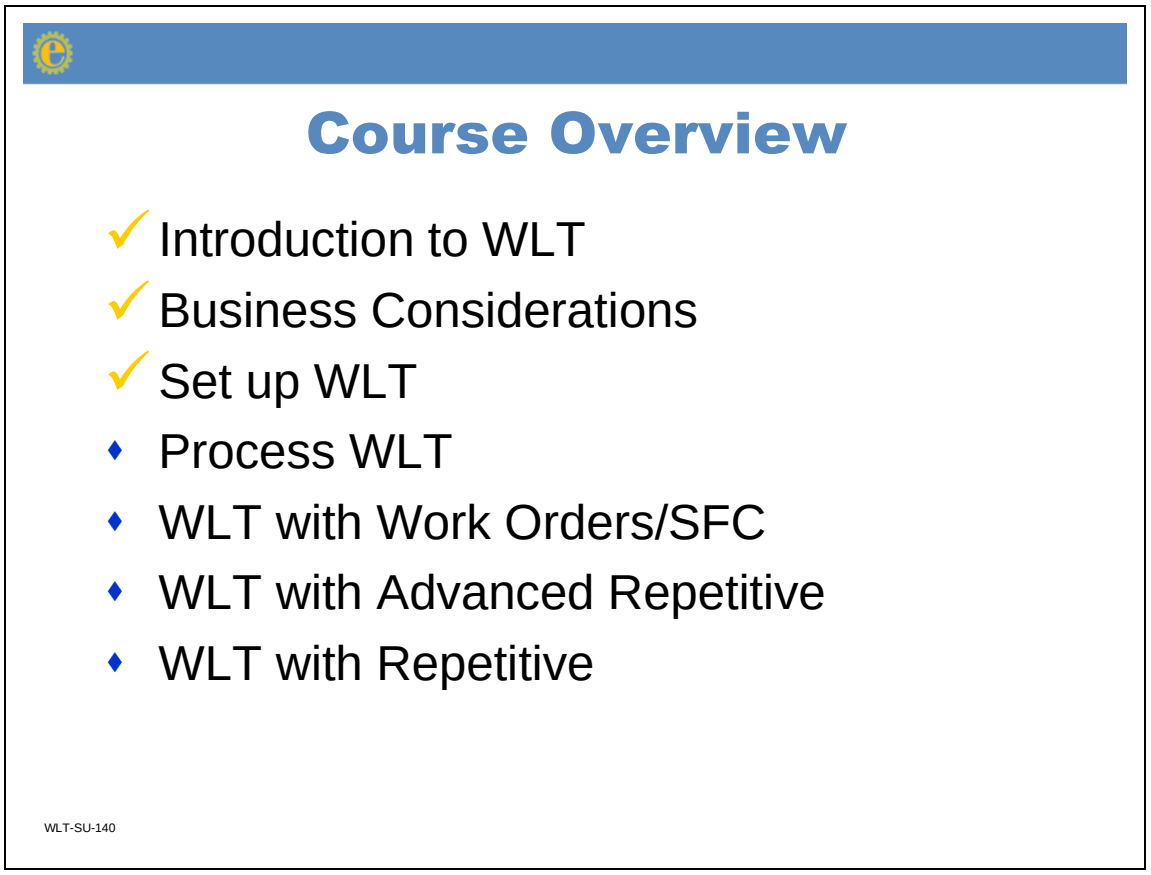
Components

A component item becomes WLT controlled when it is consumed at a WLT controlled operation and either of the following is true:

- Trace Components is set to Yes in WIP Lot Trace Control File
- Trace Components is Yes in BOM Registration Maintenance 3.22.13.4 for any BOMs that use the component

WLT Setup Summary

WLT-SU-130



CHAPTER 4

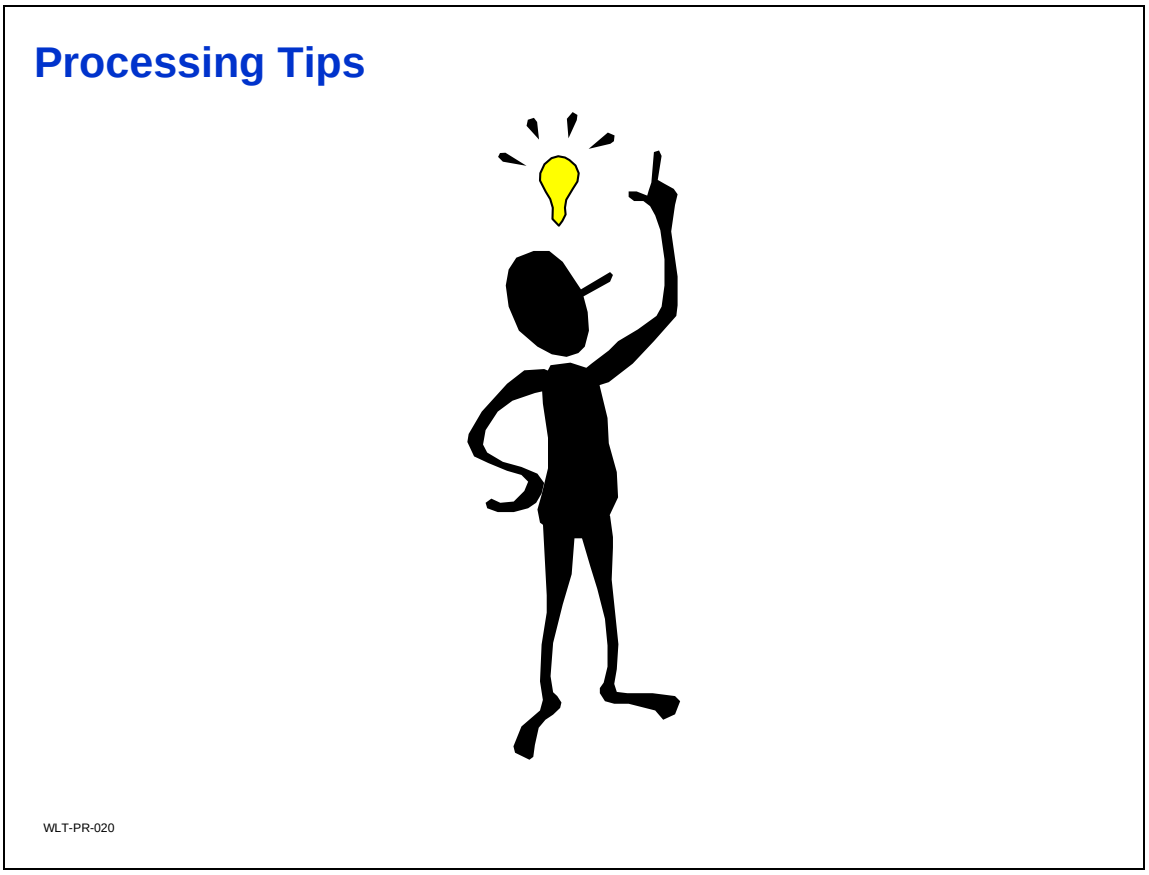
Process WLT

Process WLT

In this section you learn how to:

- ✓ Identify some key business considerations before setting up WLT in MFG/PRO
- ✓ Set up WLT in MFG/PRO
- ✓ **Process WLT in MFG/PRO**
  - ♦ WLT with Work Orders/SFC
  - ♦ WLT with Advanced Repetitive
  - ♦ WLT with Repetitive

WLT-PR-010

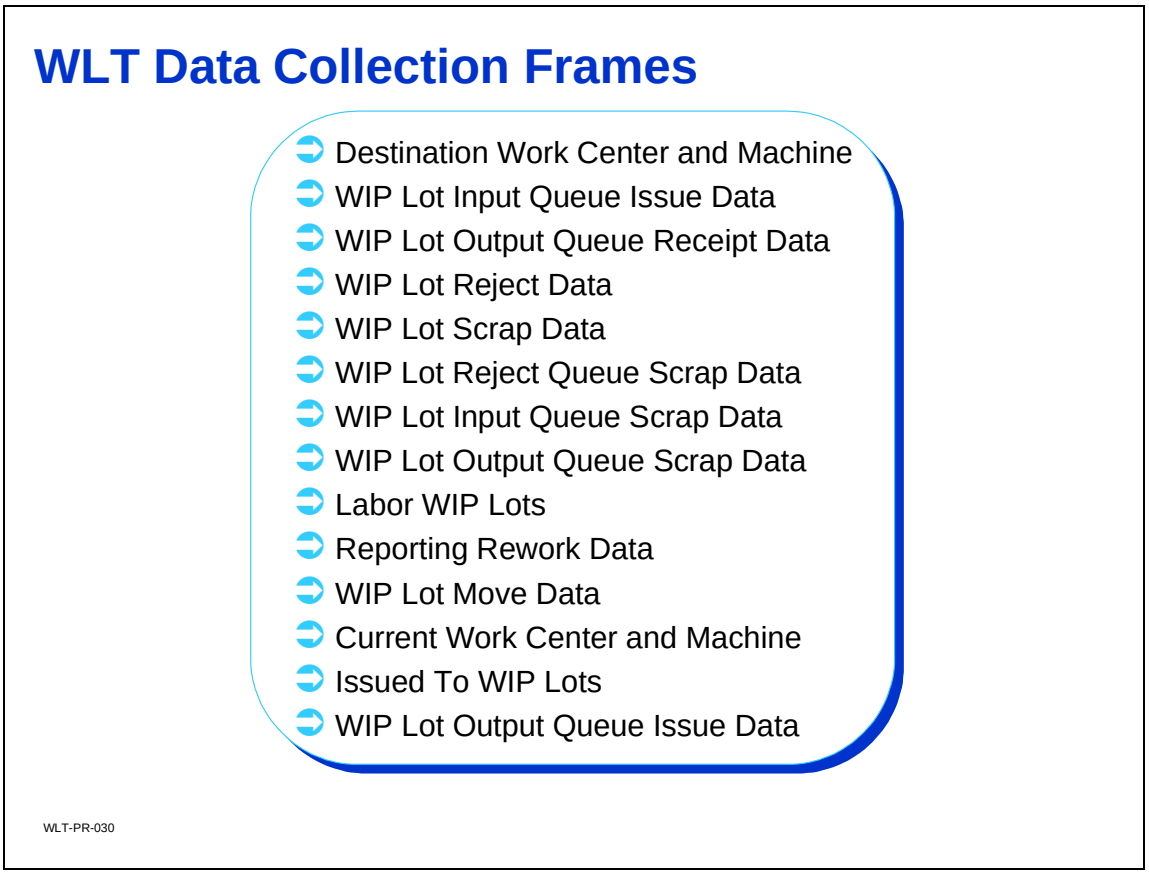


Processing Tips

Before you begin using WLT, be aware that:

- WIP material cannot be traced at non-milestone operations
- WIP lot/serial balances can reside only at milestone operations
- Some normally editable fields are not editable
  - WLT data collection frames are used to record the information
- WIP QOH balances cannot reside in the input queue of the first milestone operation, even if the first milestone operation is not the first operation
- Any information entered in WLT data collection frames is used to update QOH balances and WLT history records

- Before processing any WLT modified transactions, the system checks for associated WLT routing or BOM registrations that include lot splitting, combining, and size restrictions
  - If there are none, the system then looks for related restrictions in the WIP Lot Trace Control File 3.22.13.24

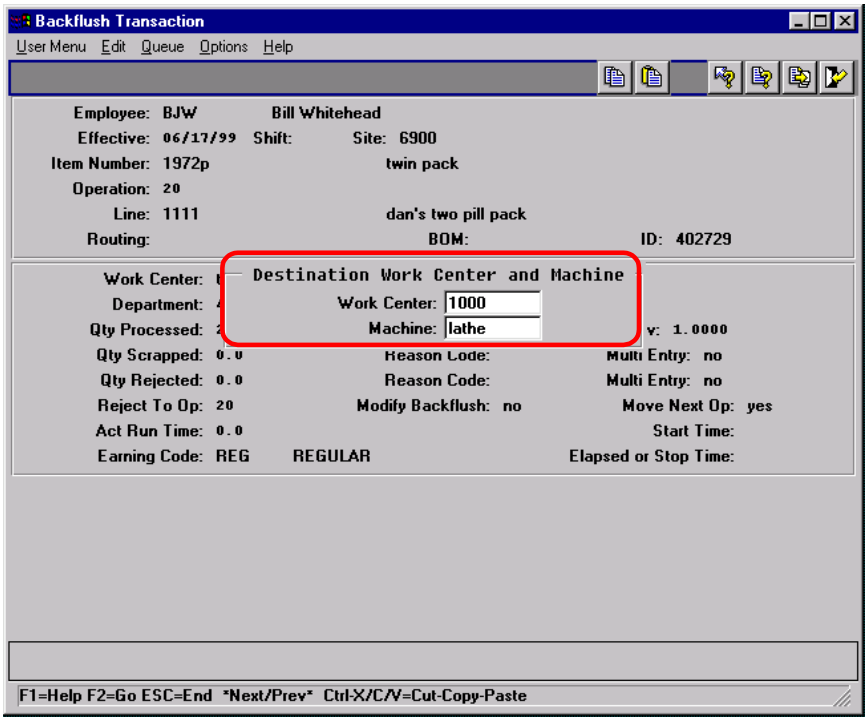


WLT Data Collection Frames

During processing, the system uses WLT data collection frames to collect, record, and update tracing records. Depending on how you have set up your tracing control parameters, these frames appear in various programs in the following modules:

- Repetitive
- Advance Repetitive
- Work Orders
- Shop Floor Control
- Purchasing

Destination Work Center and Machine Frame



WLT-PR-040

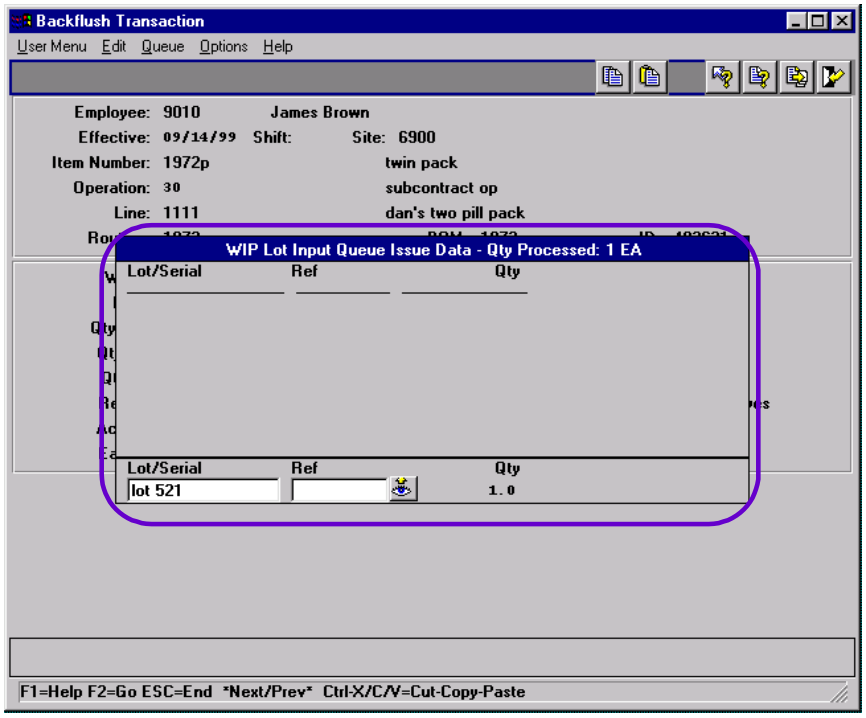
Destination Work Center and Machine Frame

Use the Destination Work Center and Machine frame to specify where to move the WIP material produced at the current operation.

- System uses the information to update QOH balances for the affected queues
- Appears in:
  - Labor Feedback by Work Order 17.1
  - Labor Feedback by Employee 17.2
  - Labor Feedback by Work Center 17.3
  - Work Order Operation Backflush 16.19
  - Repetitive Labor Transaction 18.14

- Repetitive Rework Transaction 18.16
- Backflush Transaction 18.22.13
- Reject Transaction 18.22.16
- Rework Transaction 18.22.17
- Move Transaction 18.22.19

WIP Lot Input Queue Issue Data Frame



WLT-PR-050

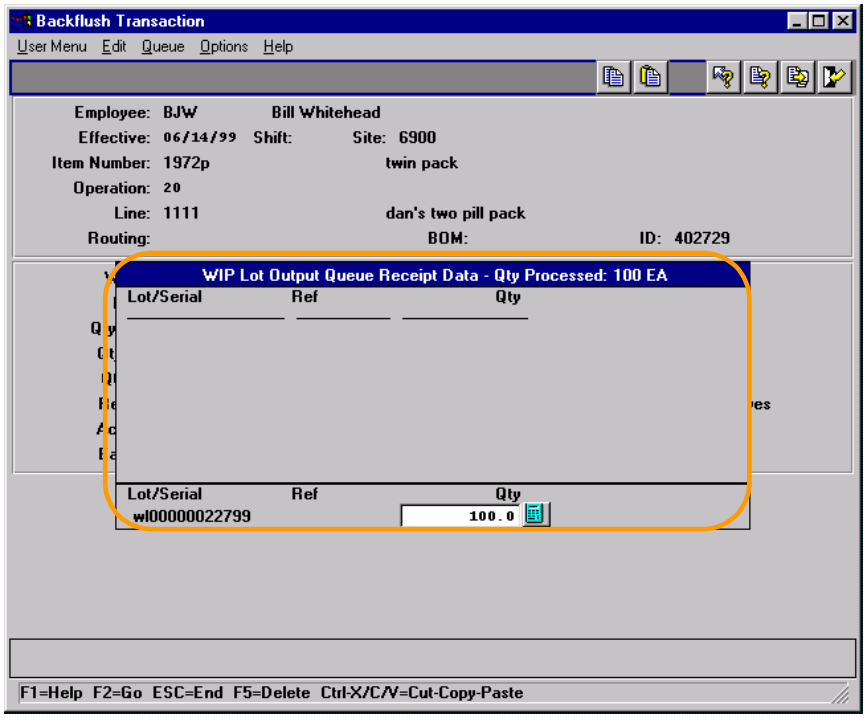
WIP Lot Input Queue Issue Data

Use the WIP Lot Input Queue Issue Data frame to register the lot/serial numbers, references, and quantities of the WIP material being consumed at the current operation.

- Displays when the previous operation's output queue and the current operation's input queue are WLT controlled
- Appears in:
  - Purchase Order Receipts 5.13.1
  - Purchase Order Returns 5.13.7
  - Work Order Component Issue 16.10
  - Work Order Operation Backflush 16.19

- Repetitive Labor Transaction 18.14
- Repetitive Reject Transaction 18.17
- Backflush Transaction 18.22.13

WIP Lot Output Queue Receipt Data Frame



WLT-PR-060

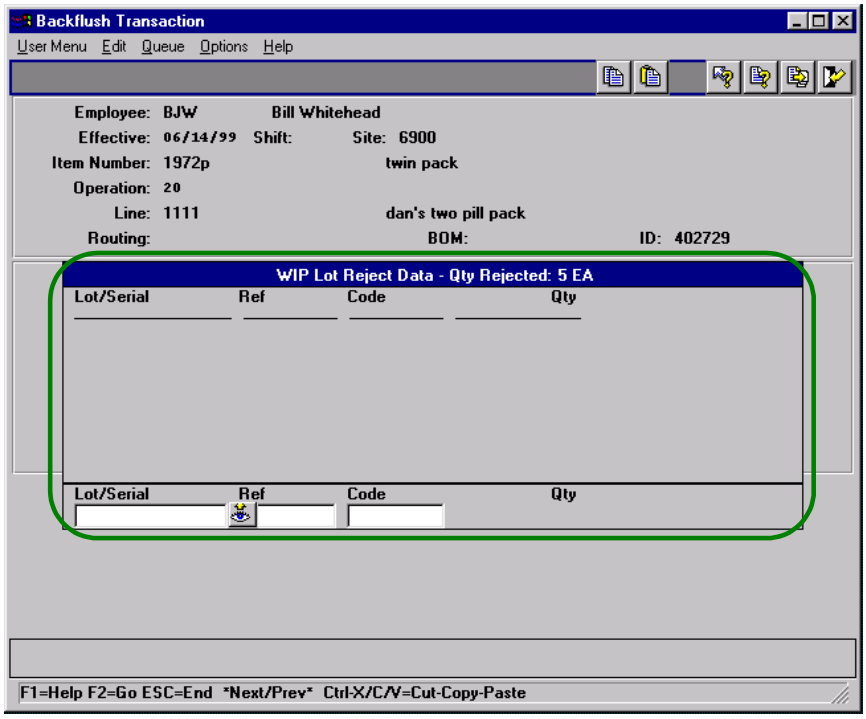
WIP Lot Output Queue Receipt Data Frame

Use the WIP Lot Output Queue Receipt Data frame to report the WIP lot/serial numbers, references, and quantities of the WIP material produced by an operation.

- Appears in:
  - Purchase Order Receipts 5.13.1
  - Purchase Order Returns 5.13.7
  - Work Order Operation Backflush 16.19
  - Labor Feedback by Work Order 17.1
  - Labor Feedback by Employee 17.2
  - Labor Feedback by Work Center 17.3

- Repetitive Labor Transaction 18.14
- Backflush Transaction 18.22.13

WIP Lot Reject Data Frame



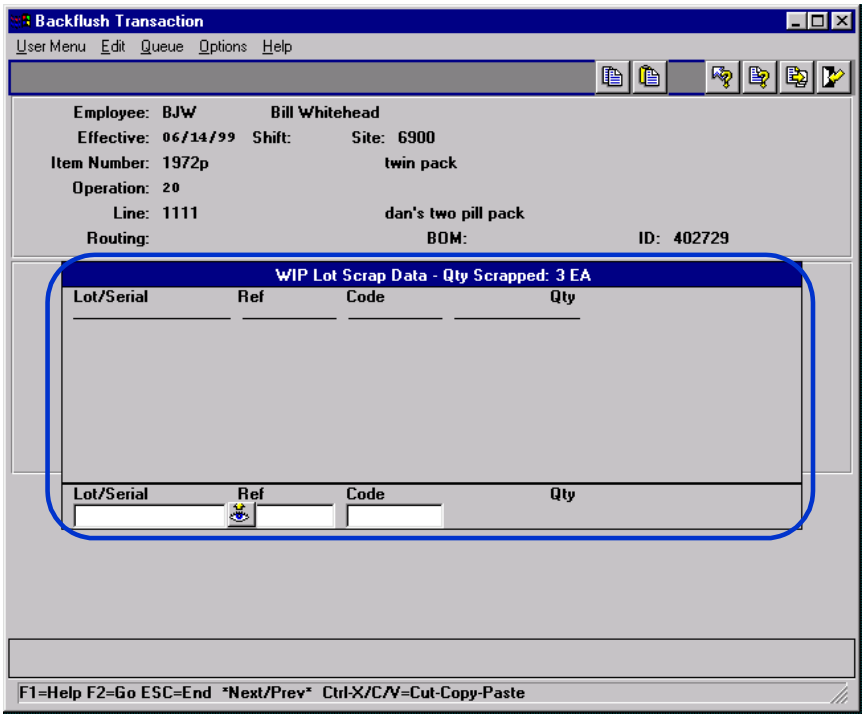
WLT-PR-070

WIP Lot Reject Data Frame

Use the WIP Lot Reject Data frame to report the WIP lot/serial numbers, references, reject codes, and quantities of rejected material.

- Quantity is moved from the operation's output queue to the reject queue
- Appears in:
  - Repetitive Labor Transaction 18.14
  - Repetitive Reject Transaction 18.17
  - Backflush Transaction 18.22.13
  - Reject Transaction 18.22.16

Reporting Scrap Data



WLT-PR-080

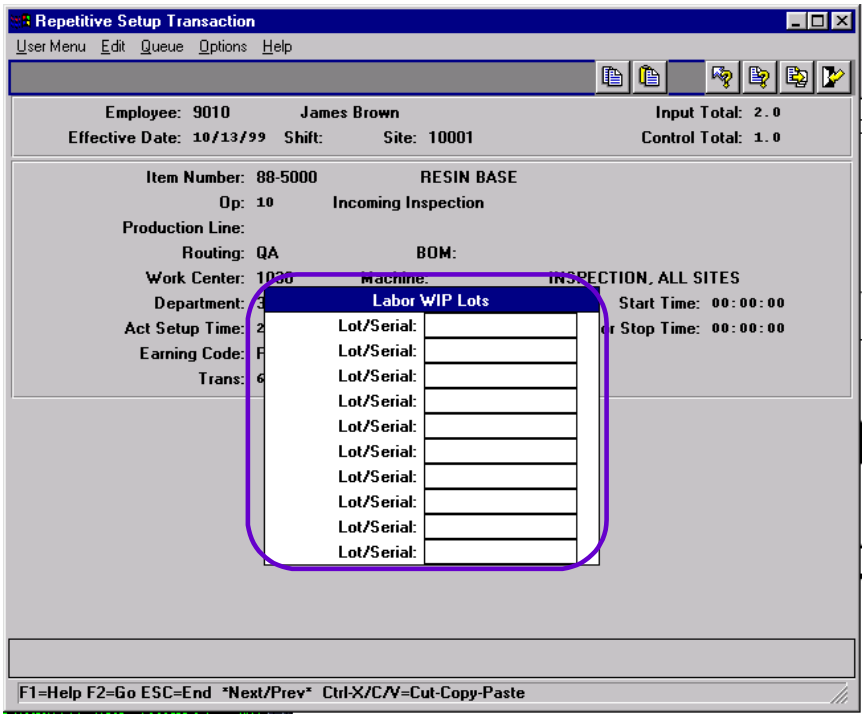
Reporting Scrap Data

There are four different WLT frames that can be used to record WLT controlled material being scrapped from an operation's input, output, or reject queues. Each frame records lot/serial numbers, references, scrap codes, and quantities being scrapped.

- WIP Lot Scrap Data Frame appears in:
  - Repetitive Labor Transaction 18.14
  - Backflush Transaction 18.22.13
- WIP Lot Reject Queue Scrap Data Frame appears in:
  - Repetitive Scrap Transaction 18.18
  - Scrap Transaction 18.22.18

- WIP Lot Input Queue Scrap Data Frame appears in:
  - Operation Scrap Transaction 17.7
  - Repetitive Labor Transaction 18.14
  - Backflush Transaction 18.22.13
  - Repetitive Scrap Transaction 18.22.18
- WIP Lot Output Queue Scrap Data Frame appears in:
  - Operation Scrap Transaction 17.7
  - Repetitive Scrap Transaction 18.22.18

Labor WIP Lots Frame



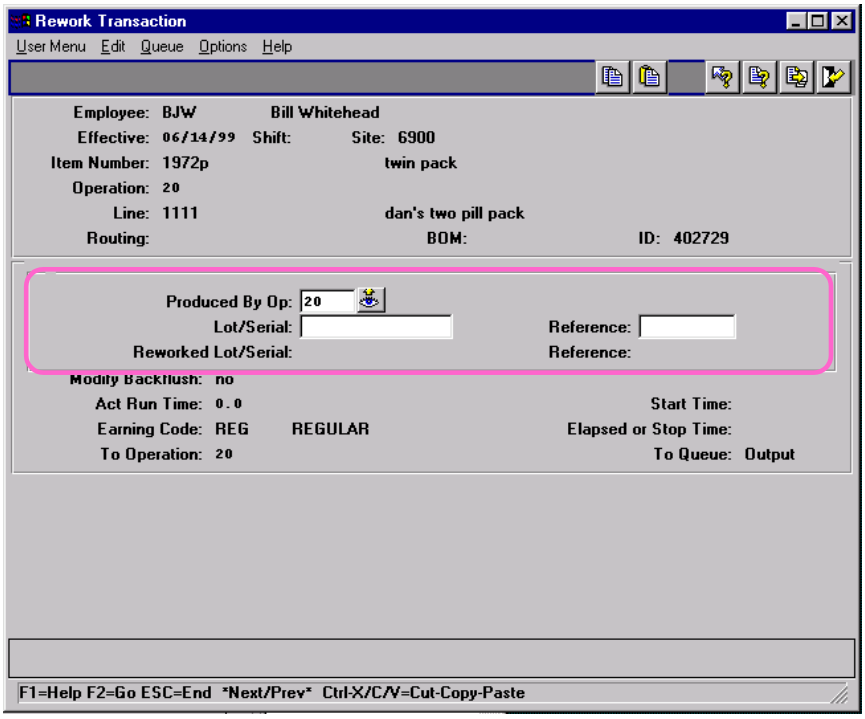
WLT-PR-090

Labor WIP Lots Frame

Use the Labor WIP Lots frame to associate run and set up labor time with corresponding lot/serial numbers. When the output queue of the operation being processed is WLT controlled, the Labor WIP Lots frame appears in:

- Repetitive Setup Transaction 18.13
- Run Labor Transaction 18.22.14
- Setup Labor Transaction 18.22.15

Reporting Rework Data



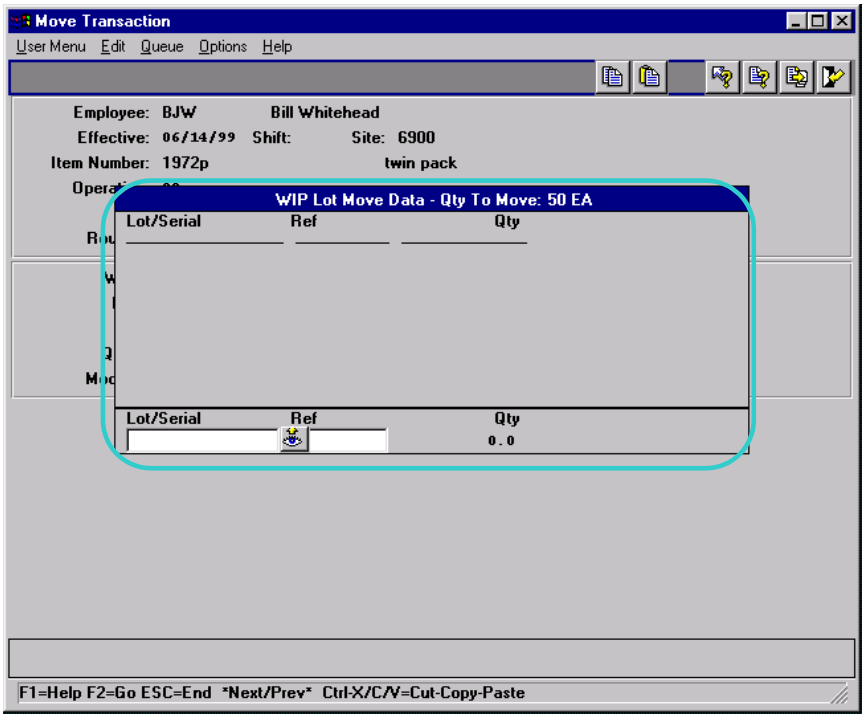
WLT-PR-100

Recording Rework Data

Use the WIP Lot Rework Data frame to specify the WIP lot/serial numbers and references that were reworked.

- Can also be used to assign new WIP lot/serial numbers and references to WIP material
- Appears in:
  - Repetitive Rework Transaction 18.16
  - Rework Transaction 18.22.17

WIP Lot Move Data Frame



WLT-PR-110

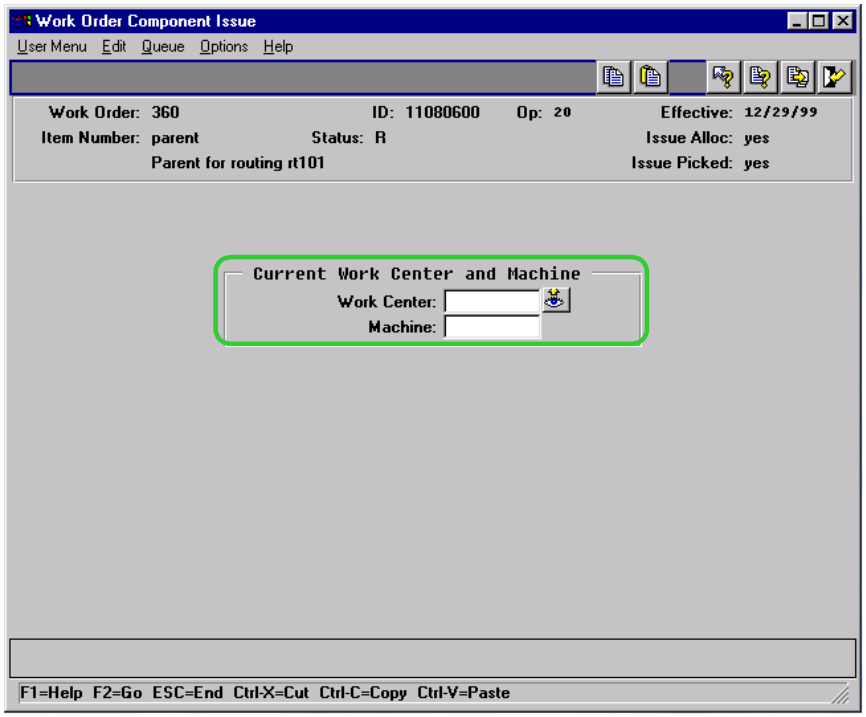
WIP Lot Move Data Frame

Use the WIP Lot Move Data frame to record the WIP lot/serial numbers, references, and quantities of material being moved.

- Appears in:
  - Operation Move Transaction 17.6
  - Move Transaction 18.22.19
  - Sub Container Maintenance 18.22.5.4
  - Sub Shipper Maintenance 18.22.5.5

Note This frame does not appear if you are moving WIP quantities to finish goods inventory. The Receipt Data Input frame appears for receipt of finished goods into inventory.

Current Work Center and Machine Frame



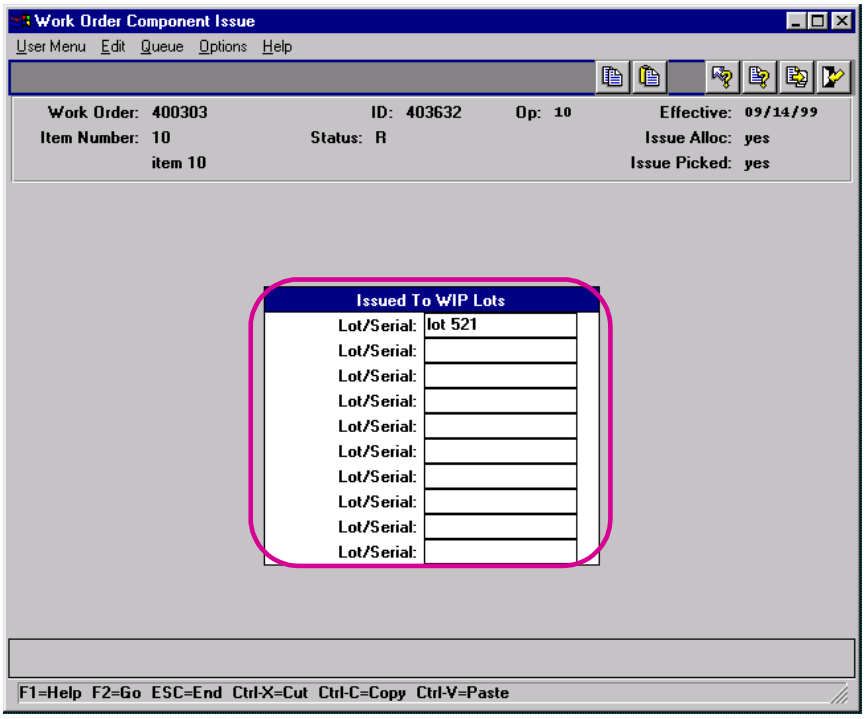
WLT-PR-120

Current Work Center and Machine Frame

Use the Current Work Center and Machine frame to specify the work center and machine location from where the input WIP lot/serial inventory will be consumed by the operation.

- Appears in:
  - Work Order Component Issue 16.10
  - Work Order Receipt 16.11

Issued To WIP Lots Frame



WLT-PR-130

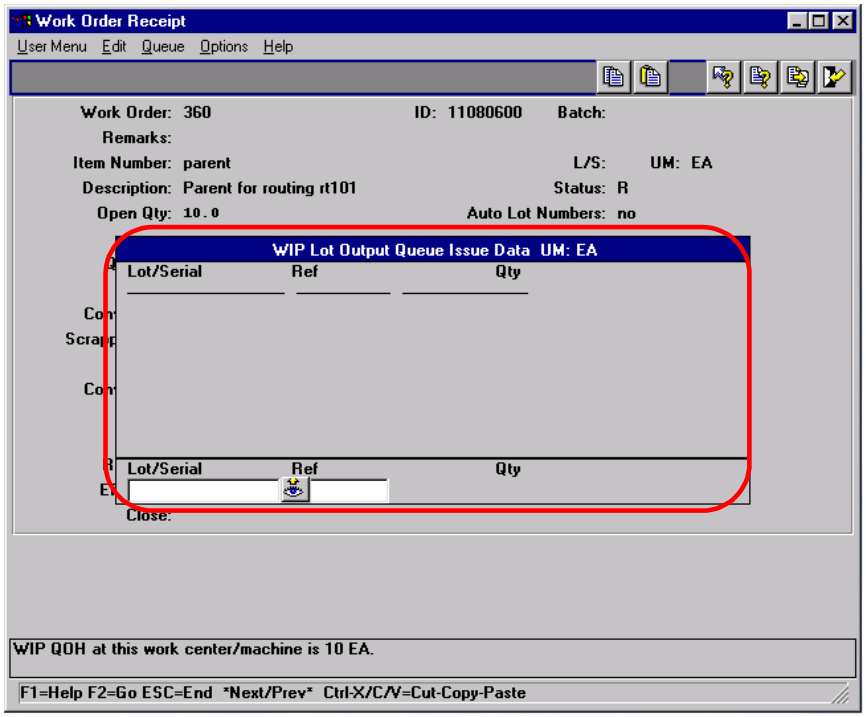
Issued To WIP Lots Frame

Use the Issued To WIP Lots frame to specify the produced WIP lot/serial numbers to which the specified components and WIP material are being issued.

Note The WIP material to be issued is specified in the WIP Lot Input Queue Issue Data frame that appears immediately before this frame.

- Appears in:
  - Work Order Component Issue 16.10

WIP Lot Output Queue Issue Data Frame



WLT-PR-140

WIP Lot Output Queue Issue Data Frame

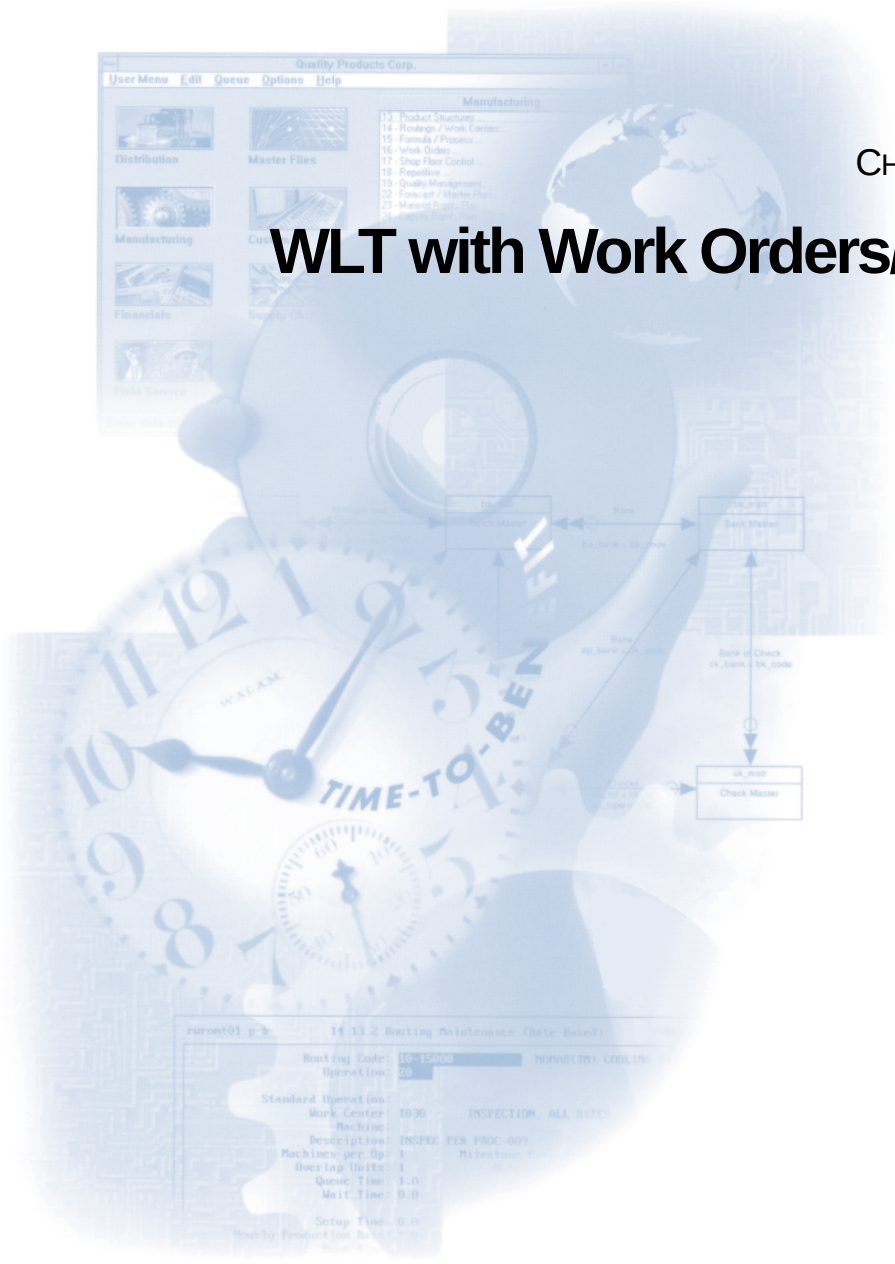
Use the WIP Lot Output Queue Issue Data frame to enter a list of the WIP lot/serial numbers that should be consumed from the pervious operation's output queue in the specified work center and machine.

- Appears in:
  - Work Order Receipt 16.11

Course Overview

- ✓ Introduction to WLT
- ✓ Business Considerations
- ✓ Set up WLT
- ✓ Process WLT
- ♦ WLT with Work Orders/SFC
- ♦ WLT with Advanced Repetitive
- ♦ WLT with Repetitive

WLT-PR-150



CHAPTER 5

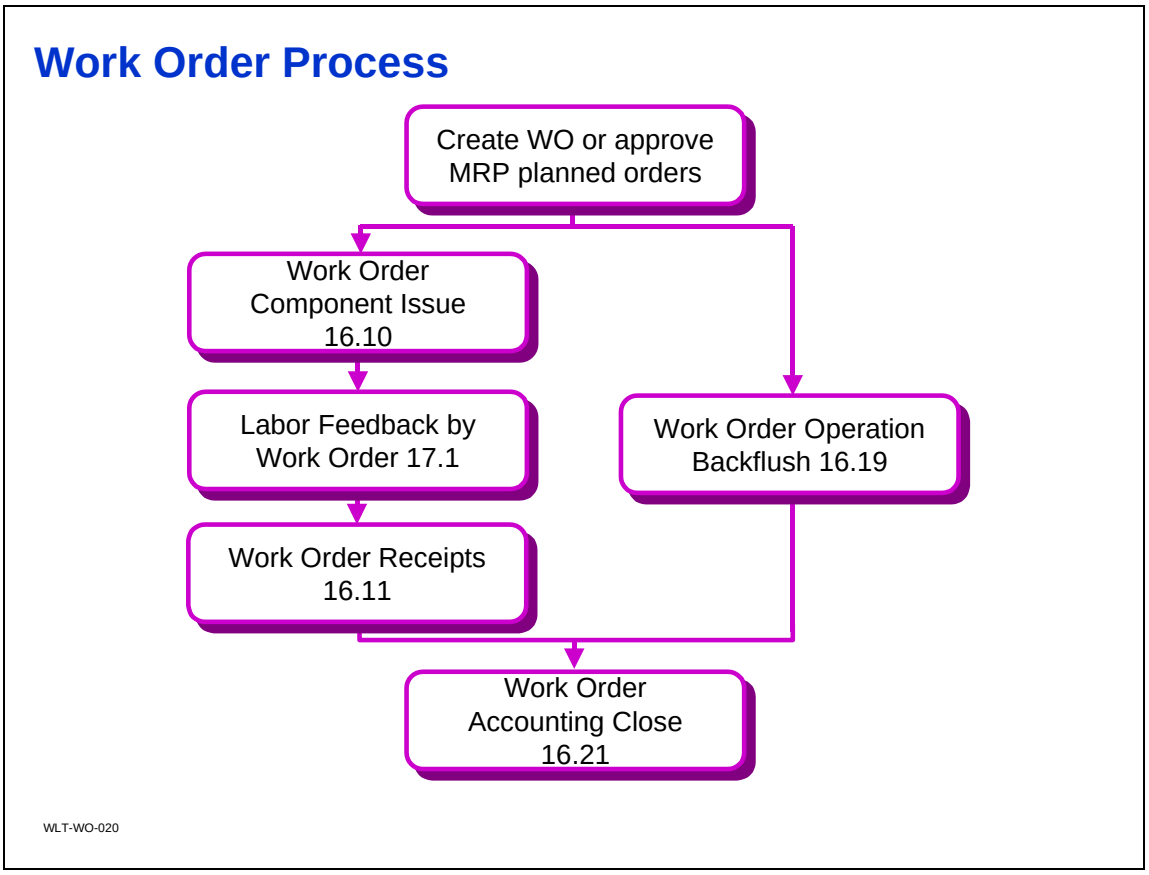
WLT with Work Orders/SFC

WLT with Work Orders

In this section you learn how to:

- ✓ Identify some key business considerations before setting up WLT in MFG/PRO
- ✓ Set up WLT in MFG/PRO
- ✓ Process WLT in MFG/PRO
- ✓ **WLT with Work Orders/SFC**
  - ♦ WLT with Advanced Repetitive
  - ♦ WLT with Repetitive

WLT-WO-010



Work Order Process

When processing a work order (WO), the system uses WLT data collection frames to collect tracing information if the WO is WLT controlled. A WO is WLT controlled when:

- WLT has been enabled
- Trace Parents is Yes in the WIP Lot Trace Control File 3.22.13.24, or
- A WLT BOM registration record is active for the parent item being manufactured and Trace Parents is Yes for that BOM registration record

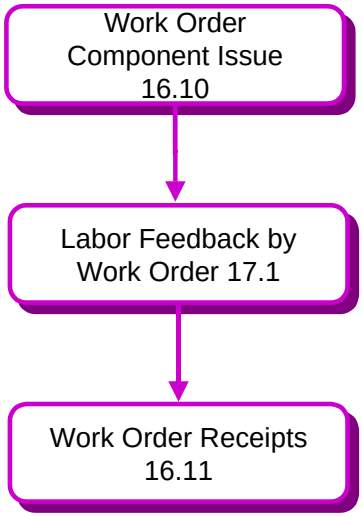
The above graphic shows two methods for processing a WO. In the first method, the job flow is:

- Issue the components
- Report labor

- Receive finished goods into inventory

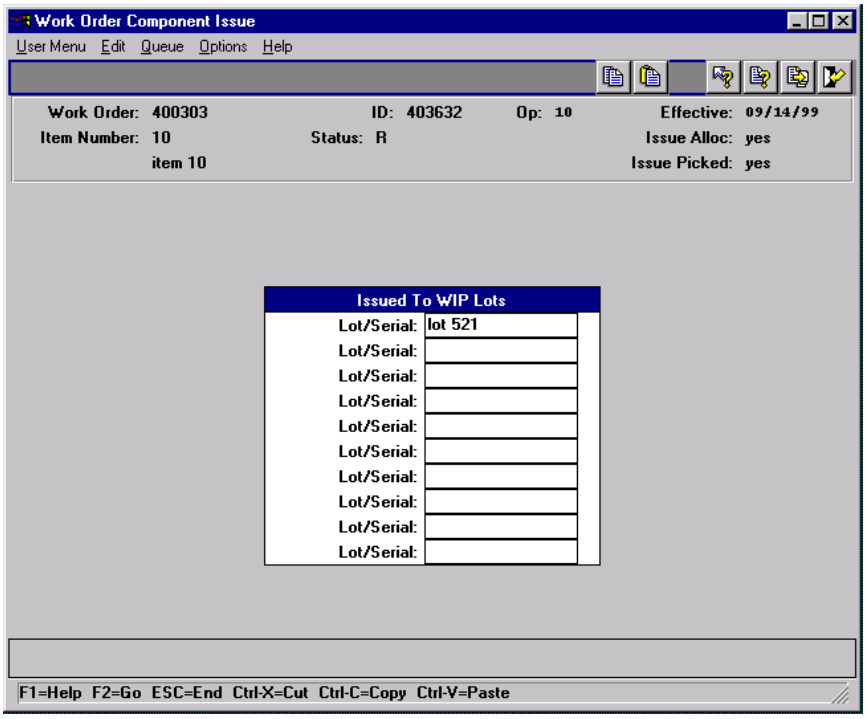
The second, or alternative, method is to use Work Order Operation Backflush 16.19. It combines issuing, labor reporting, and receiving functions.

Work Order Process



WLT-WO-030

16.10 – Work Order Component Issue: Issued To WIP Lots Frame



WLT-WO-040

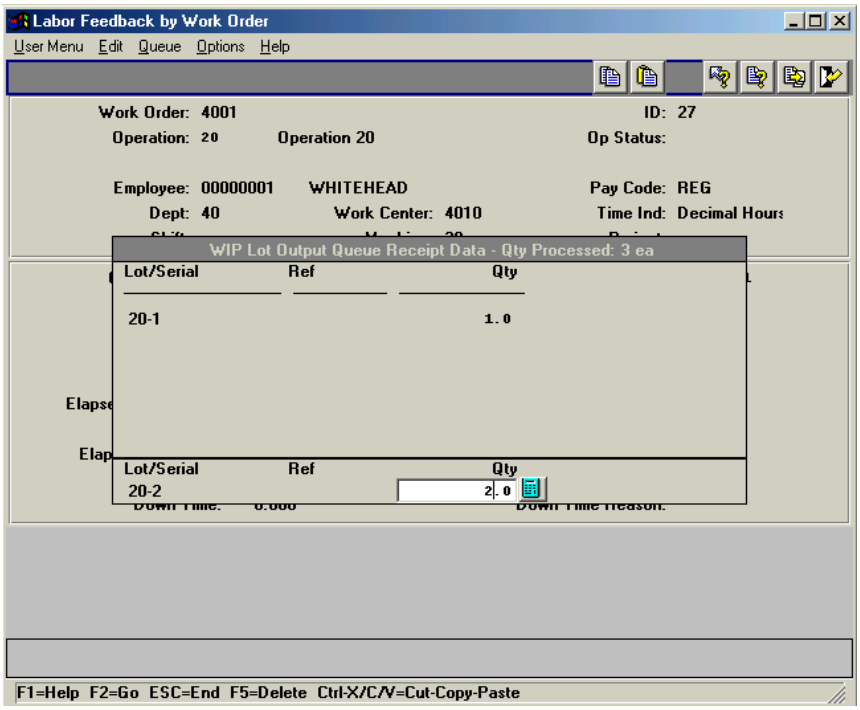
Work Order Component Issue

Menu Number 16.10

Use Work Order Component Issue to issue component and WIP material to WLT controlled WOs. It uses the following WLT data collection frames:

- Current Work Center and Machine
- WIP Lot Input Queue Issue Data
- Issued to WIP Lots

17.1 – Labor Feedback by Work Order: WIP Lot Output Queue Receipt Data



WLT-WO-050

Labor Feedback by Work Order

Menu Number 17.1

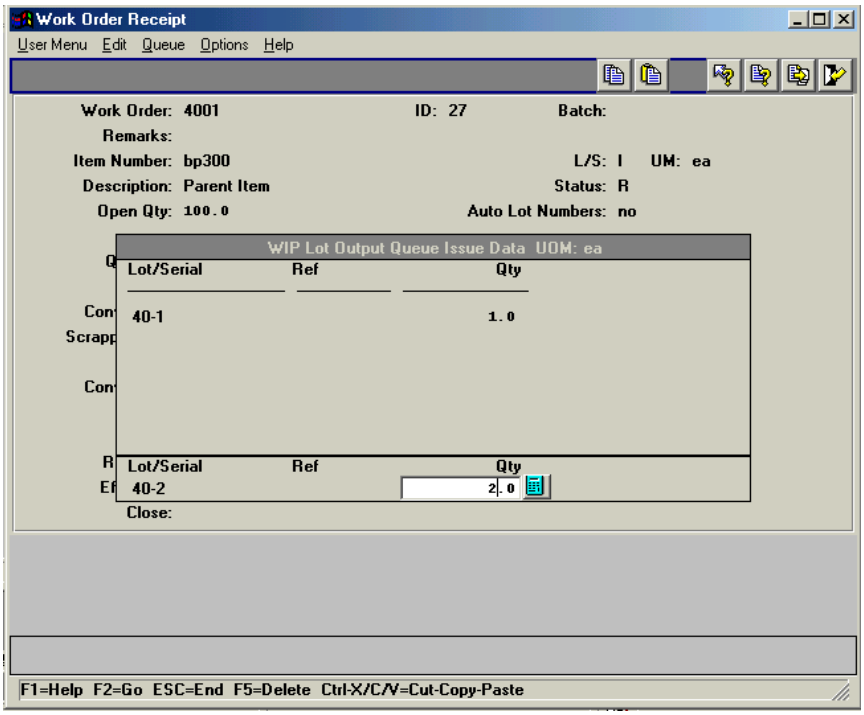
To report labor you can use any of the following Shop Floor Control programs:

- Labor Feedback by Work Order 17.1
- Labor Feedback by Employee 17.2
- Labor Feedback by Work Center 17.3

The labor feedback programs use the following WLT data collection frame:

- WIP Lot Output Queue Receipt Data frame

16.11 – Work Order Receipt: WIP Lot Output Queue Issue Data Frame



WLT-WO-060

Work Order Receipt

Menu Number 16.11

You use Work Order Receipt to receive the finished goods manufactured with WLT controlled routings. Work Order Receipt uses the WLT data collection frames:

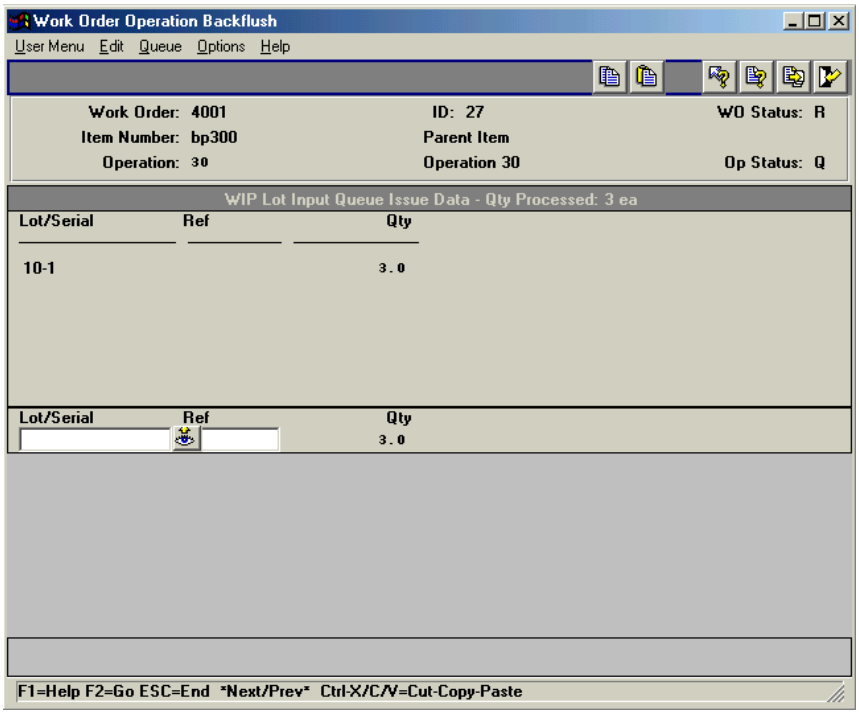
- Current Work Center and Machine
- WIP Lot Output Queue Issue Data

Work Order Process

Work Order Operation
Backflush 16.19

WLT-WO-070

16.19 – Work Order Operation Backflush: WIP Lot Input Queue Issue Data



WLT-WO-080

Work Order Operation Backflush

Menu Number 16.19

You can also use Work Order Operation Backflush to process a WO. It uses the following WLT data collection frames:

- WIP Lot Input Queue Issue Data
- Destination Work Center and Machine
- WIP Lot Output Queue Receipt Data

Work Orders/SFC Exercises

Important The data used in these exercises may not be the same as the data shown in the screen captures in this lesson. In an exercise, if a field is not listed, you can accept the default value or leave it blank.

Work Order Component Issues

Description: Next you are going to issue materials to an operation. In addition to the component material to issue, you will be prompted to enter a list of WIP material to issue. You will also be prompted to enter a list of WIP lot numbers to which the issued WIP and component lot/serials are issued. Note that these WIP lot numbers are not “produced” by this transaction, but rather, they are used to form the association between the materials issued and the materials that will be produced later.

1 To issue the components, enter the following:

Field	Data
Work Order	<work order number created earlier>
Op	20

Use Work Order Component Issue 16.10

2 For the component item listed enter:

Field	Data
Item Number	<component item number listed>
Quantity	3
Lot/Serial	L2

Note Ignore any warning message.

3 Advance to the WIP Lot Input Queue Issue Data frame and enter the following:

Field	Data
Lot/Serial	10-1
Ref	<leave blank>
Qty	1

Repeat the above using the following data:

Field	Data
Lot/Serial	10-1
Ref	<leave blank>
Qty	2

Note Ignore warning message.

4 Advance to the Issued To WIP Lots frame and enter 20-1 and 20-2.

View Tracing Data

Description: Now you can view the tracing data created by the component issue transaction.

1 Review the operation transaction detail. It should default to your last transaction (ISSUE).

Use Operation Transaction Detail Inq 17.9

2 Advance to the WIP Lot Trace Data frame.

The data displayed shows the material lots consumed and produced as a result of your issue transaction.

Note The WIP material will be listed with an item number which is the same as the parent item number.

3 View the same detail in report format.

Use WIP Lot Convert Trans Report 3.22.13.15

4 View downstream traceability.

Use WIP Lot Where-Used Report 3.22.13.19

5 View composed-of traceability.

Use WIP Lot Actual Bill Report 3.22.13.20

Labor Feedback by Work Order

Description: Using this function you will register an operation completion at the second operation. You will be prompted to enter a list of WIP lot numbers that were “produced”. This also updates the QOH for the WIP lot/serials produced.

1 Record the labor feedback by entering the following:

Field	Data
Work Order	<the work order number entered above>
Operation	20
Employee	<use your Down Arrow to select the first record>
Qty Completed	3
Operation Complete	No

Use Labor Feedback by Work Order 17.1

2 Advance to the WIP Lot Output Queue Receipt Data frame and enter the following:

Field	Data
Lot/Serial	20-1
Ref	<leave blank>
Qty	1

Repeat the above using the following data:

Field	Data
Lot/Serial	20-2
Ref	<leave blank>
Qty	2

3 View the WIP lot/serial QOH balances for this work order.

Use WIP Lot Inventory Status Report 3.22.13.13

Work Order Receipts

Description: This function records the completion of finished material, similar to an Advanced Repetitive backflush at the last operation. You will be prompted to enter a list of output queue WIP lot/serials to “consume”. Tracing data will be recorded to show the consumption of the WIP lot/serials entered and the production of the finished-material lots entered. QOH balances are adjusted accordingly.

1 To process the receipt, enter the work order number of the work order created earlier.

Use Work Order Receipt 16.11

2 Advance to the WIP Lot Output Queue Issue Data frame and enter the following:

Field	Data
Lot/Serial	40-1
Ref	<leave blank>
Qty	1

Repeat the above using the following data:

Field	Data
Lot/Serial	40-2
Ref	<leave blank>
Qty	2

Note Ignore any warning message.

3 In the main data entry frame, enter the following:

Field	Data
Quantity	3
Lot/Serial	FGL2

4 Review the operation transaction detail. It should default to your last transaction (RECEIPT).

Use Operation Transaction Detail Inq 17.9

5 Advance to the WIP Lot Trace Data frame.

The data displayed shows the material lots consumed and produced as a result of your last transaction.

Note The WIP material will be listed with an item number the same as the parent item number.

6 View the same detail in report format.
Use WIP Lot Convert Trans Report 3.22.13.15

7 View downstream traceability.
Use WIP Lot Where-Used Report 3.22.13.19

8 View composed-of traceability.
Use WIP Lot Actual Bill Report 3.22.13.20

Work Order Operation Backflush

Description: Using this function you are going to issue material and labor and record completions at the second operation. It is very similar in concept to the Advanced Repetitive Backflush Transaction.

1 To perform the backflush, enter the following:

Field	Data
Work Order	<work order number created earlier>
Operation	20
Employee	<use your Down Arrow to select the first record>
Qty Completed	3
Op Complete	No
Prev Ops Complete	No

Use Work Order Operation Backflush 16.19

2 Press Go until you are prompted for component lot/serials. For the component item listed enter:

Field	Data
Item Number	<component item number listed>
Quantity	3
Lot/Serial	L4

Note Ignore any warning message.

3 Advance to the WIP Lot Input Queue Issue Data frame and enter the following:

Field	Data

Lot/Serial	10-1
Ref	<leave blank>
Qty	3

Note Ignore any warning message.

4 Advance to the WIP Lot Output Queue Receipt Data frame. Delete the default entry by doing the following:

a Press the Down Arrow.

b Press F2.

c Press F5.

d Confirm the delete.

5 In the WIP Lot Output Queue Receipt Data frame enter the following:

Field	**Data**
Lot/Serial	20-1
Ref	<leave blank>
Qty	3

6 Review the operation transaction detail. It should default to your last transaction (MOVE).

Use Operation Transaction Detail Inq 17.9

7 Advance to the WIP Lot Trace Data frame.

The data displayed shows the material lots consumed and produced as a result of your last transaction.

Note The WIP material will be listed with an item number the same as the parent item number.

8 View the same detail in report format.

Use WIP Lot Convert Trans Report 3.22.13.15

9 View downstream traceability.

Use WIP Lot Where-Used Report 3.22.13.19

10 View composed-of traceability.

Use WIP Lot Actual Bill Report 3.22.13.20

Register Work Order Operation Scrap

Description: Now you are going to use this function to record WIP material scrapped at an operation. This function is very similar to the Advanced Repetitive Scrap Transaction. Additionally, this function can be used with or without WIP Lot Trace.

1 To record the scrap material, enter the following:

Field	Data
Work Order	<work order number created earlier>
Operation	30
Employee	<use your Down Arrow to select the first record>

Use Operation Scrap Transaction 17.7

2 Advance to the WIP Lot Input Queue Scrap Data input frame, press the Lookup key. You should see lot/serial 20-1 listed in the lookup frame. Select it and enter a Qty of 1.

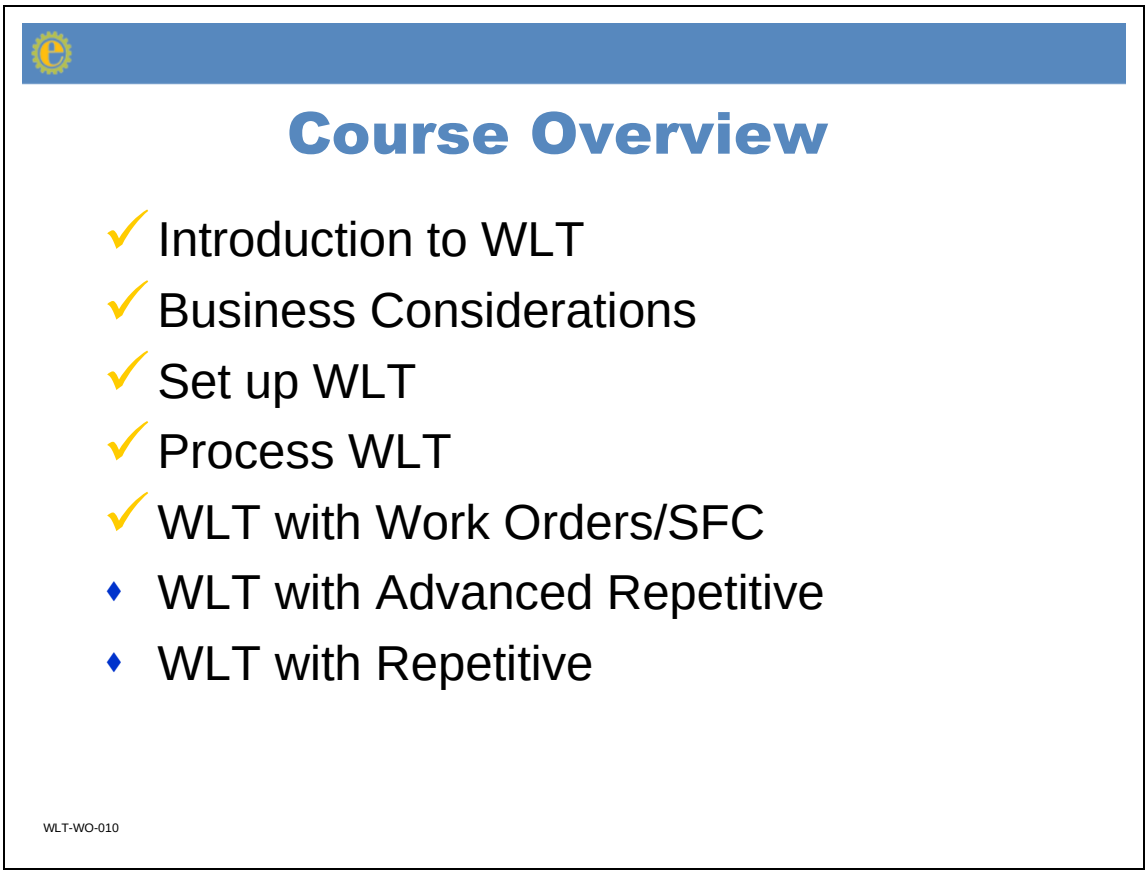
3 Review the transaction detail for your last transaction (WOSCRAPI). It will be the default.

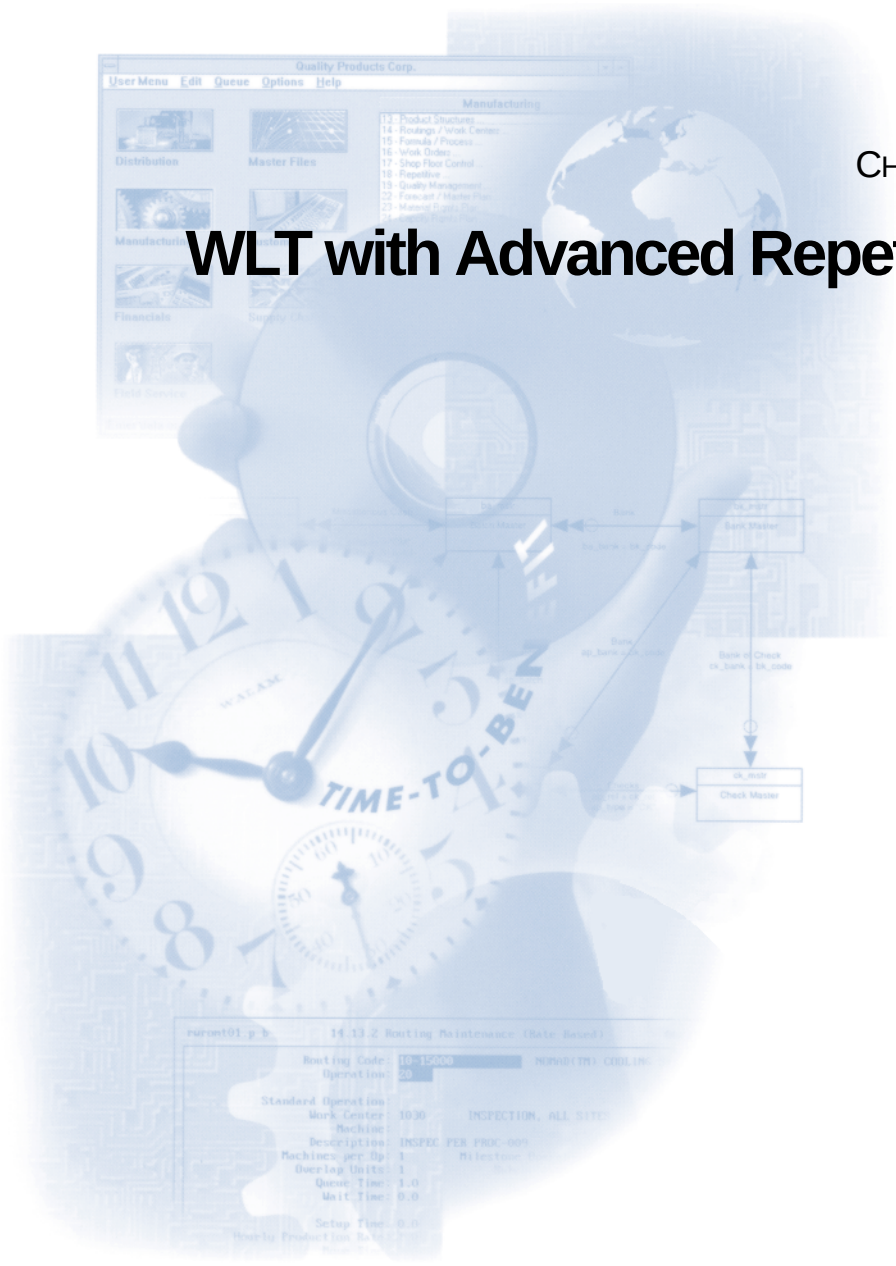
Use Operation Transaction Detail Inq 17.9

4 Advance to the WIP Lot Processed frame. This frame shows the WIP lot/serial that was scrapped by this transaction. Note that there will be one Operation History record written for each WIP lot/serial scrapped.

Note You can also use:

- WIP Lot Non-Convert Trans Report 3.22.13.16 to display this information
- Operations by Work Center Report 17.13, Operations by Work Order Report 17.14, and Operations by Employee Report 17.15 to report operation scrap data





CHAPTER 6

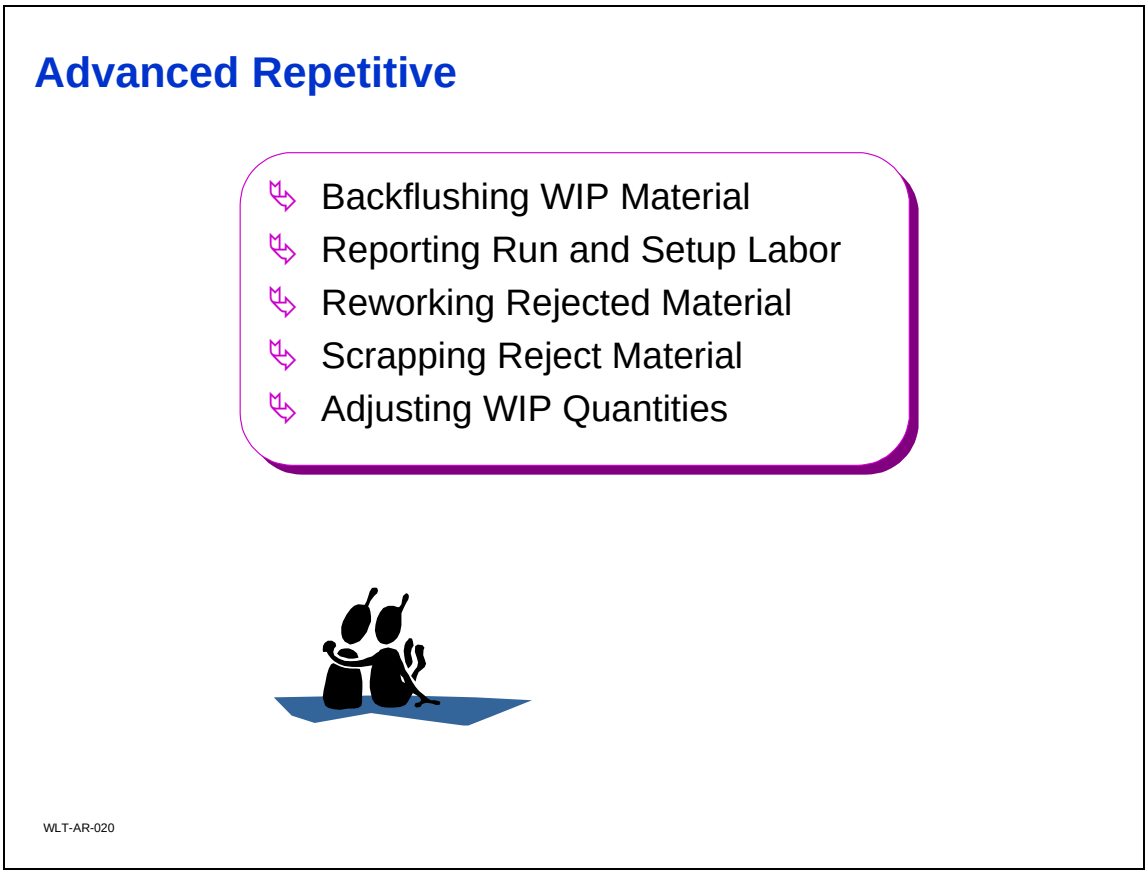
WLT with Advanced Repetitive

WLT with Advanced Repetitive

In this section you learn how to:

- ✓ Identify some key business considerations before setting up WLT in MFG/PRO
- ✓ Set up WLT in MFG/PRO
- ✓ Process WLT in MFG/PRO
- ✓ WLT with Work Orders
- ✓ **WLT with Advanced Repetitive**
  - ♦ WLT with Repetitive

WLT-AR-010

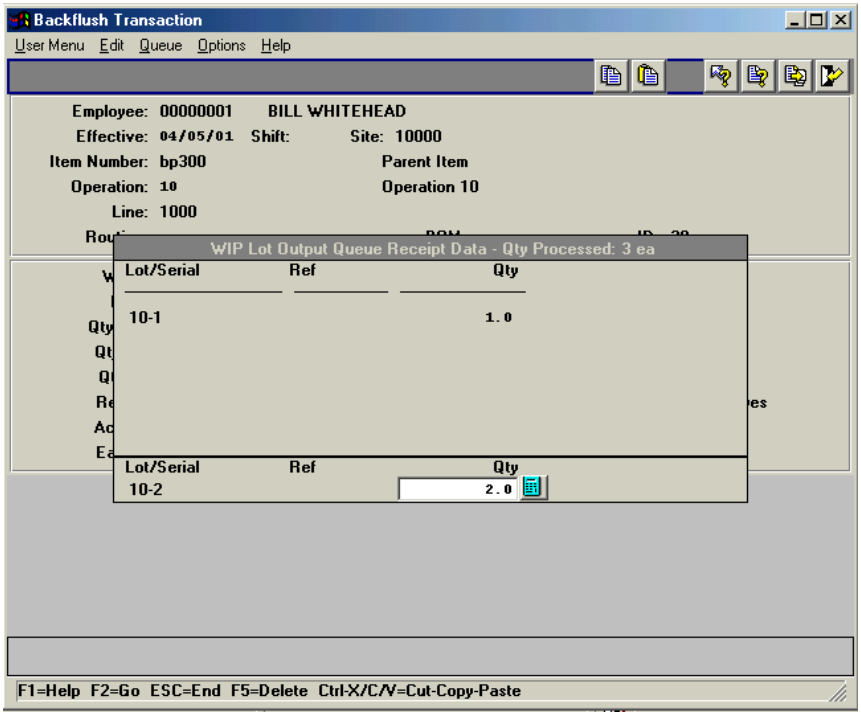


Advanced Repetitive

When processing a cumulative order in the Advanced Repetitive module, the system uses WLT data collection frames to collect tracing information if the cumulative order is WLT controlled.

- WLT has been enabled

18.22.13 – Backflush Transaction: WIP Lot Output Queue Receipt Data



WLT-AR-030

Backflush Transaction

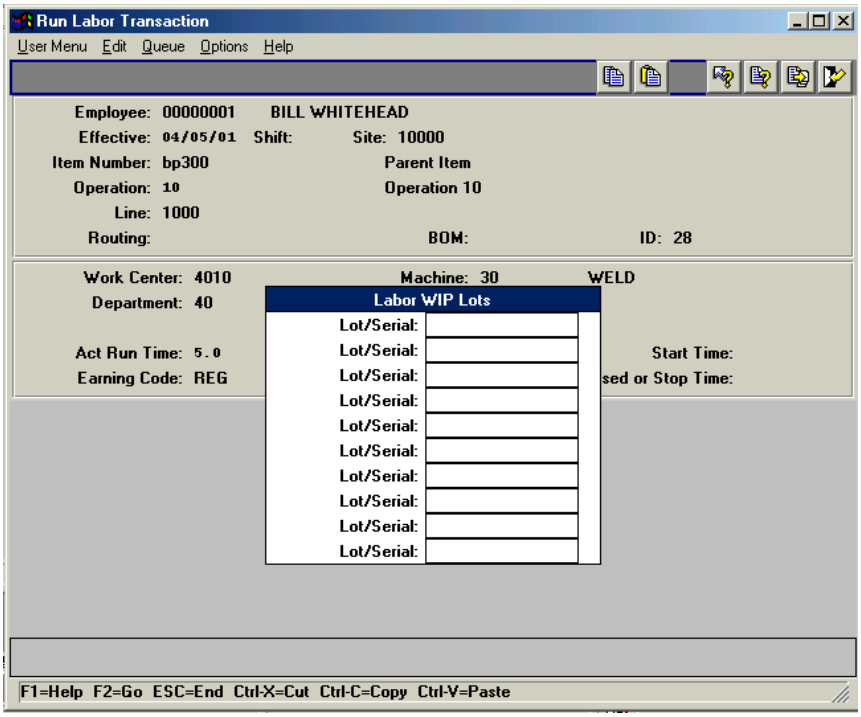
Menu Number 18.22.13

Use Backflush Transaction to report production activity at advanced repetitive manufacturing operations. When WLT is active, the following WLT data collection frames display:

- Destination Work Center and Machine
  - Appears only if Move Next Op is set to Yes
- WIP Lot Input Queue Issue Data
- WIP Lot Output Queue Receipt Data
- WIP Lot Scrap Data
  - Appears only if you enter a value in the Qty Scrapped field

- WIP Lot Reject Data
  - Appears only if you enter a value in the Qty Rejected field

18.22.14 – Run Labor Transaction: Labor WIP Lots Frame



WLT-AR-040

Run Labor Transaction

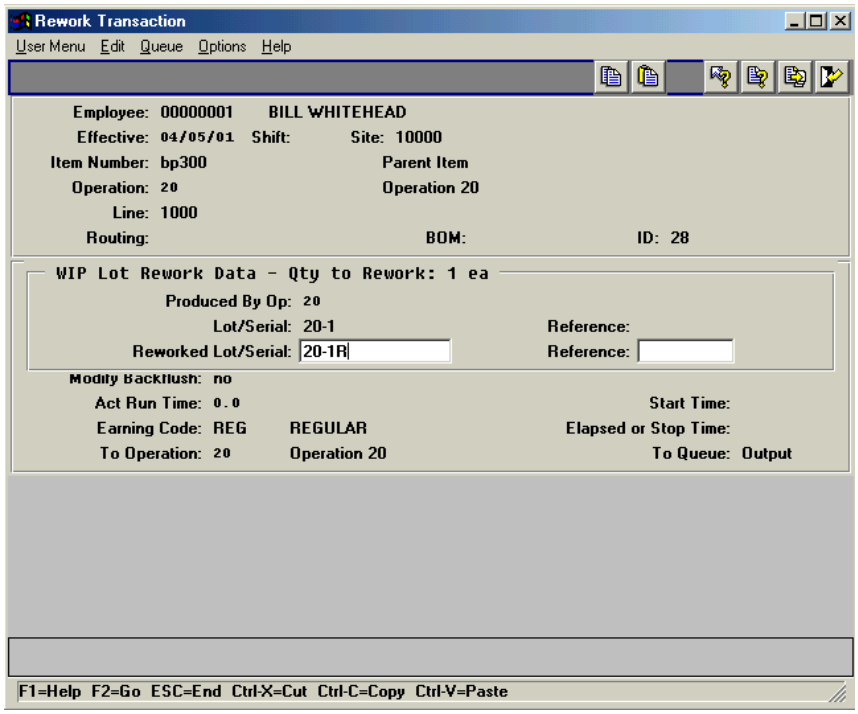
Menu Number 18.22.14

Use Run Labor Transaction to report labor performed for WLT controlled lot/serial numbers. You do this using the WLT data collection frame:

- Labor WIP Lots

Note Setup Labor Transaction 18.22.15 works similarly.

18.22.17 – Rework Transaction: WIP Lot Rework Data Frame



WLT-AR-050

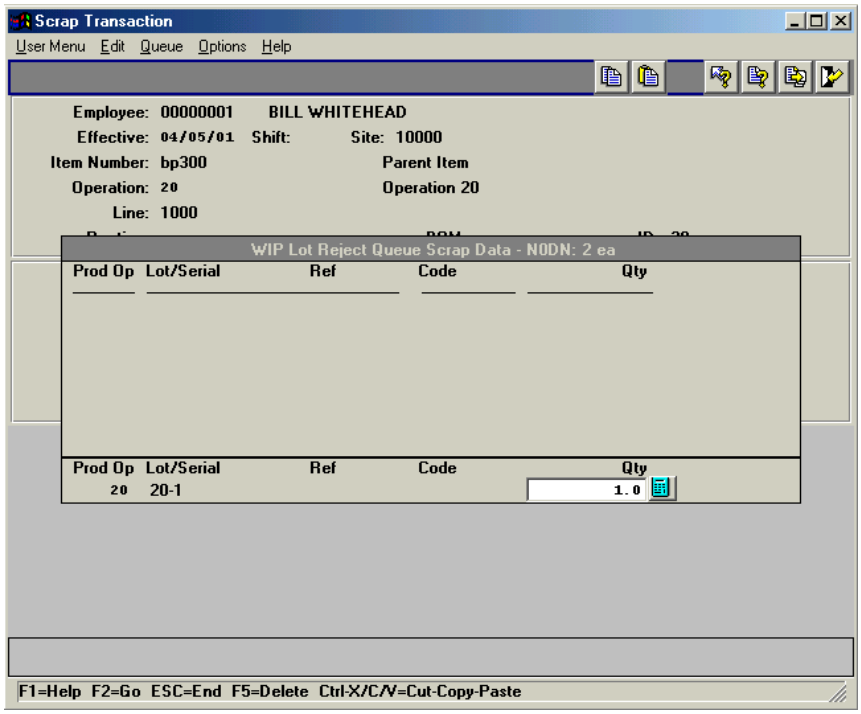
Rework Transaction

Menu Number 18.22.17

Use Rework Transaction to move previously rejected WLT-controlled material back into production. The following WLT data collection frames display:

- Destination Work Center and Machine
- WIP Lot Rework Data

18.22.18 – Scrap Transaction: WIP Lot Reject Queue Scrap Data Frame



WLT-AR-060

Scrap Transaction

Menu Number 18.22.18

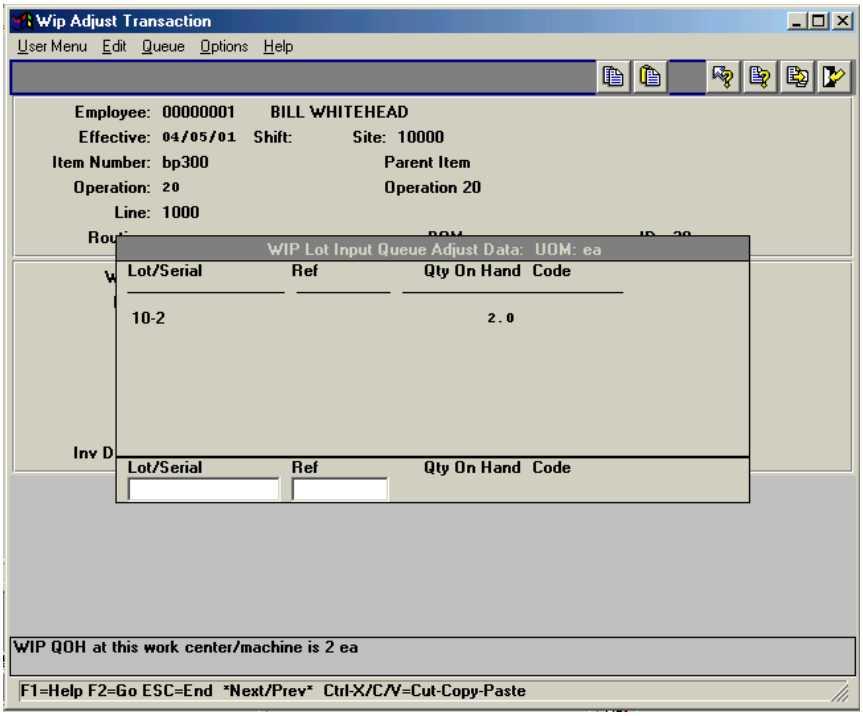
Use Scrap Transaction to scrap or remove WIP quantities from any queue of an operation without backflushing. Depending on which queue you are scrapping material from, one or more of the following WLT data collection frames will appear:

- WIP Lot Input Queue Scrap Data
  - Enter a value in the In Queue field
- WIP Lot Output Queue Scrap Data
  - Enter a value in the Out Queue field

- WIP Lot Reject Queue Scrap Data
  - Enter a value in the Rjct Queue field

The system reduces the WIP QOH at each queue by the quantity scrapped at the indicated work center and machine (specified in the second frame). It also adds the quantity scrapped to the cumulative scrapped quantity for the specified lot/serials.

18.22.21 – WIP Adjust Transaction: WIP Lot Input Queue Adjust Data



WLT-AR-070

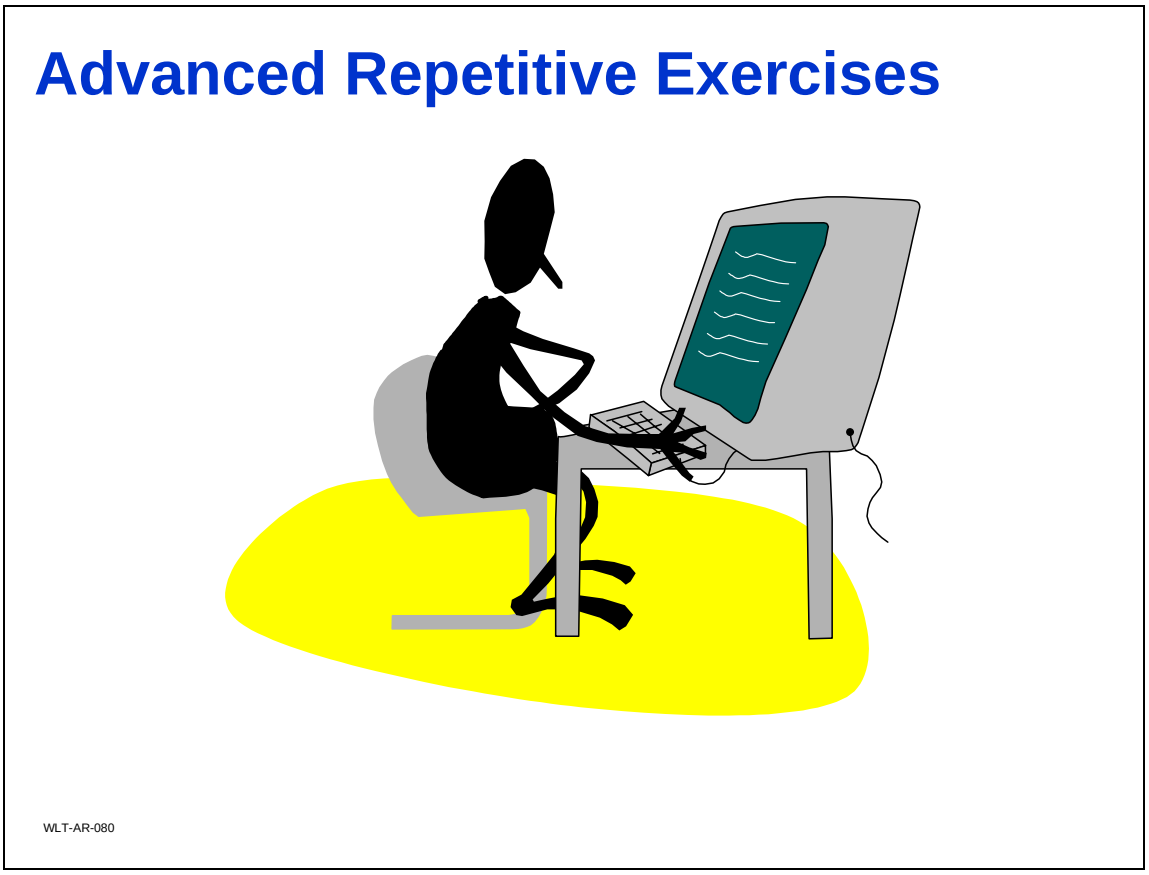
WIP Adjust Transaction

Menu Number 18.22.21

Use WIP Adjust Transaction to adjust quantities at an operation's input, output, and reject queues. The following WLT data collection frames display:

- WIP Lot Input Queue Adjust Data
- WIP Lot Output Queue Adjust Data
- WIP Lot Reject Queue Adjust Data

Note When using WLT, the In Queue, Out Queue, and Rjct Queue fields are not available. You must enter the WLT data collection frames to enter adjustments to QOH balances for the WIP lot/serials in each queue.



Advanced Repetitive Exercises

Important The data used in these exercises may not be the same as the data shown in the screen captures in this lesson. In an exercise, if a field is not listed, you can accept the default value or leave it blank.

Backflush

Description: You will backflush the first operation of your parent item's routing. Then you will be prompted to enter the lot numbers of the WIP that was "produced" by the material conversion event.

Note Because this is the first operation, you are not prompted for input WIP lot/serials to "consume".

1 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	10
Line	1000
Qty Processed	3

Record the cumulative order ID (displays in the lower-right corner of the first frame):

_____

Use Backflush Transaction 18.22.13

2 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

3 Advance to the WIP Lot Output Queue Receipt Data frame and enter the following:

Field	Data
Lot/Serial	10-1
Ref	<leave blank>
Qty	1

Create a second entry by entering the following:

Field	Data
Lot/Serial	10-2
Ref	<leave blank>
Qty	2

View Tracing Data

Description: Now you will view the tracing data created by the backflush.

1 Review the operation transaction detail. It should show your last transaction first (BACKFLSH). It will be the default.

Use Operation Trans Detail Inquiry 18.22.4.2

2 Advance to the WIP Lot Trace Data frame.

The data displayed shows the material lots consumed and produced as a result of your backflush transaction.

Note The WIP material will be listed with an item number the same as the parent item number.

3 Enter your cumulative order ID in the ID and To fields.

The data displayed shows the material lots consumed and produced as a result of your backflush transaction, similar to Operation Trans Detail Inquiry. WIP material is listed with Type of WIP and with an Item Number the same as the parent item number.

Use WIP Lot Convert Trans Report 3.22.13.15

Note WIP Lot Convert Trans Report is called that because tracing data is recorded only when material is converted (e.g., fabricated, assembled, reworked, etc.).

4 Print a WIP Lot Where-Used report by entering the following:

Field	Data
Material Type (Item/WIP)	Item
Item Number	<component item you backflushed>
Lot/Serial	L1
To	L1

Use WIP Lot Where-Used Report 3.22.13.19

5 Review the report taking note of the following.

a The component you backflushed as the level 1 line.

b The Qty value is the total quantity of this lot/serial that was consumed.

c The next two lines represent the material into which the component lot was consumed, namely the output WIP lots produced by the backflush transaction.

Note The Qty values represent the quantity of the component (the lower-level line) that was consumed into each WIP lot.

6 To print the WIP Lot Actual Bill Report enter the following:

Field	Data
Material Type (Item/WIP)	WIP
Item Number	<your parent item number>
Produced By ID	<cumulative order ID>
Produced By Op	10
Lot/Serial	10-1
To	10-2

Use WIP Lot Actual Bill Report 3.22.13.20

7 Review the report taking note of the following.

a The two WIP lots you entered appear as level 1 lines.

b The Qty value is the total quantity of this lot/serial that was produced.

c Each level 1 line is followed by a level 2 line.

d The level 2 lines represent the material that was consumed to produce their respective level 1 lines.

e The Qty value is the quantity consumed into its respective level 1 line.

View WIP Lot Inventory

Description: You can now view the on-hand balances for the WIP lots created by the backflush.

1 To view the on-hand balances, enter the following:

Field	Data
Effective	<accept the default>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000

Use Wip Status Inquiry 18.22.12

Note You had to view operation 20 because Move To Next Op in the Backflush Transaction was set to Yes.

2 Review the report. Look at the WIP Lot Inventory section. This section displays a list of the WIP lots at this operation.

3 To print the WIP Lot Inventory Status Report, enter the ID of the cumulative order in the ID and To fields.

Use WIP Lot Inventory Status Report 3.22.13.13

4 Review the report. You will see the two WIP lots you entered in the Backflush Transaction.

Backflush

Description: You will backflush a WIP lot all the way through the rest of the routing in order to view the tracing data that is created.

1 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000
Qty Processed	1

Use Backflush Transaction 18.22.13

2 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	1
Lot/Serial	L1

Note Ignore any warning message.

3 Advance to the WIP Lot Input Queue Issue Data frame, and enter the following:

Field	Data
Lot/Serial	10-1
Ref	<leave blank>
Qty	1

4 Advance to the WIP Lot Output Queue Receipt Data frame. Delete the default entry by doing the following:

a Press the Down Arrow.

b Press F2.

c Press F5.

d Confirm the delete.

5 In the WIP Lot Output Queue Receipt Data frame enter the following:

Field	Data
Lot/Serial	20-1
Ref	<leave blank>
Qty	1

6 You are now going to do another backflush, using the same Employee and Site. Enter the following:

Field	Data
Item Number	<your parent item number>
Operation	30
Line	1000
Qty Processed	1

Use Backflush Transaction 18.22.13

7 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	1
Lot/Serial	L1

Note Ignore any warning message.

8 Advance to the WIP Lot Input Queue Issue Data frame and enter the following:

Field	Data
Lot/Serial	20-1
Ref	<leave blank>
Qty	1

9 Advance to the WIP Lot Output Queue Receipt Data frame. Delete the default entry by doing the following:

a Press the Down Arrow.

b Press F2.

c Press F5.

d Confirm the delete.

10 In the WIP Lot Output Queue Receipt Data frame enter the following:

Field	Data
Lot/Serial	30-1
Ref	<leave blank>
Qty	1

11 Using the same Employee and Site, you are going to do another backflush. Enter the following:

Field	Data
Item Number	<your parent item number>
Operation	40
Line	1000
Qty Processed	1

Use Backflush Transaction 18.22.13

12 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	1
Lot/Serial	L1

Note Ignore any warning message.

13 Advance to the WIP Lot Input Queue Issue Data frame and enter the following:

Field	Data
Lot/Serial	30-1
Ref	<leave blank>
Qty	1

14 Advance to the Receipt Data Input frame and enter the following:

Field	Data
Lot/Serial	FGL1

View Tracing Data

Description: You can now view the tracing data created by the backflushes using the Lot Where-Used and Lot Actual Bill reports. This demonstrates traceability of component, WIP, and finished material lots throughout the entire routing.

1 Print a WIP Lot Where-Used report by entering the following:

Field	Data
Material Type (Item/WIP)	Item
Item Number	<first component item you backflushed>
Lot/Serial	L1
To	L1

Use WIP Where-Used Report 3.22.13.19

2 Review the report taking note of the following:

a The component you backflushed appears as the level 1 line.

b The Qty value on that line is the total quantity of the lot/serial that was consumed.

c The next several lines trace the flow of material as it is successively processed by each operation in the routing.

For level 2 and greater lines, the Qty value displayed on each line is the quantity of the respective parent level material that was consumed into this material. For example, the Qty displayed on a level 5 line is the total quantity of the preceding level 4 line material that was consumed into it.

3 Print a WIP Lot Actual Bill report by entering the following:

Field	Data
Material Type (Item/WIP)	Item
Item Number	<parent item number>
Lot/Serial	FGL1
To	FGL1

Use WIP Lot Actual Bill Report 3.22.13.20

4 Review the report taking note of the following:

   a The finished material item log (FGL1) that you backflushed appears as a level 1 line.

   b The Qty value is the total quantity of this lot/serial that was produced.

   c This is followed by a level 2 line.

   This represents the material and quantity consumed at operation 40 to produce the level 1 material.

   d The level 2 line is followed by level 3 lines, which represent the materials and quantities consumed at operation 30, and so forth.

   e You should be able to see how material (WIP and component) is consumed, starting with the parent lot FGL1 all the way to the component lots consumed at the first operation.

Run Labor Transaction

Description: Now you will record labor against an operation. You will be prompted to enter the lot numbers of the WIP to which this reported labor will be associated.

1 To record labor, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	10
Line	1000
Act Run Time	5

Use Run Labor Transaction 18.22.14

2 Advance to the Labor WIP Lots frame and enter 10-1 in the first Lot/Serial field.

3 Review the operation transaction detail. It should default to your last transaction (LABOR).

Use Operation Trans Detail Inquiry 18.22.4.2

4 Advance to the WIP Lot Trace Data frame.

The data displayed shows the WIP lot/serial entered with a quantity of 0.0 (zero). This tracing record is created in order to associate the reported labor with the “production” of the WIP lot/serial.

Note Setup Labor Transaction 18.22.15 works similarly.

WIP Adjust Transaction

Description: Next you are going to modify WIP lot/serial QOH balances at an operation.

1 To adjust the data, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000

Use Wip Adjust Transaction 18.22.21

2 Advance to the WIP Lot Input Queue Adjust Data frame.

This frame presents a list of the input queue WIP lot/serials and QOH balances for this operation.

3 Enter several WIP lot/serials and quantities.

Entries in the list will be added or updated.

4 Advance to the WIP Lot Output Queue Adjust Data frame and repeat step 3.

5 Advance to the WIP Lot Reject Queue Adjust Data frame and repeat step 3.

6 Cycle back through the transaction. You should see your updated entries.

7 View the updated WIP lot/serial QOH balances.

Use Wip Status Inquiry 18.22.12 and WIP Lot Inventory Status Report 3.22.13.13

8 Review the operation transaction detail. It should default to your last transaction (WIPADJ-x).

Use Operation Trans Detail Inquiry 18.22.4.2

9 Advance to the WIP Lot Processed frame.

This frame shows the WIP lot/serial that was adjusted by this transaction. Notice that there will be one Operation History record written for each WIP lot/serial adjusted.

Note You can also use WIP Lot Non-Convert Trans Report 3.22.13.16 to display this information.

Scrap Transaction

Description: You are now going to scrap quantities of WIP lot/serial QOH balances at an operation.

1 To begin the scrap process, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000

Use Scrap Transaction 18.22.18

2 Advance to the second (i.e., lower) frame. Enter 2 in the In Queue, Out Queue and Rjct Queue fields.

3 Advance to the WIP Lot Input Queue Scrap Data frame. Press the Lookup key to display a list of WIP lot/serials at that operation. Select one and enter 2 in Qty.

Note You can enter a non-existent WIP lot/serial if necessary.

4 Repeat the process for the WIP Lot Output Queue Scrap Data frame and the WIP Lot Reject Queue Scrap Data frame.

5 View the updated WIP lot/serial QOH balances.

Use Wip Status Inquiry 18.22.12 and WIP Lot Inventory Status Report 3.22.13.13

6 Review the transaction history for your last transaction (SCRAP-x). (It will be the default.)

Use Operation Trans Detail Inquiry 18.22.4.2

7 Advance to the WIP Lot Processed frame.

This frame shows the WIP lot/serial that was scrapped by this transaction. Notice that there will be one Operation History record written for each WIP lot/serial scrapped.

Note You can also use WIP Lot Non-Convert Trans Report 3.22.13.16 to display this information.

Move Transaction

Description: This function moves WIP from the output queue of one operation to the input queue of the following operation. You use this transaction when manual control over moving WIP to the next operation is desired (e.g., when Move Next Op is set to No in Routing Maintenance 14.13.1).

1 Enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000
Qty to Move	1

Use Move Transaction 18.22.19

2 Advanced to the WIP Lot Move Data frame. Press the Lookup key to select a WIP lot/serial. Enter 1 in the Qty field.

Note Ignore any warning message.

3 View the updated WIP lot/serial QOH balances.

Use Wip Status Inquiry 18.22.12 and WIP Lot Inventory Status Report 3.22.13.13

Reject Transaction

Description: This function rejects WIP lot/serials from the output queue to the reject queue.

1 To run the reject process, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000
Qty Rejected	1

Use Reject Transaction 18.22.16

2 Advance to the WIP Lot Reject Data frame and enter 20-1 in the Lot/Serial field. Enter 1 in the Qty field.

3 View the updated WIP lot/serial QOH balances.

Use Wip Status Inquiry 18.22.12 and WIP Lot Inventory Status Report 3.22.13.13

Rework Transaction

Description: Using this function lets you register the rework of WIP lot/serials. This involves moving WIP lot/serials from the reject queue back to the output queue.

1 To register the rework, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000
Qty Reworked	1

Use Rework Transaction 18.22.17

2 Advance to the WIP Lot Rework Data frame. In the Lot/Serial field enter 20-1 and in the Reworked Lot/Serial field enter 20-1R.

3 Review the operation transaction detail. It should default to your last transaction (REWORK).

Use Operation Trans Detail Inquiry 18.22.4.2

4 Advance to the WIP Lot Processed frame.

This frame lists the WIP lot/serial processed by this transaction.

5 Advance to the WIP Lot Trace Data frame.

The data displayed shows the material lots consumed and produced as a result of the Rework Transaction. This tracing data is recorded only because the entered Reworked Lot/Serial value is different from the Lot/Serial value.

Note You can also use WIP Lot Non-Convert Trans Report 3.22.13.16 or WIP Lot Convert Trans Report 3.22.13.15 to display this information.

Close Cumulative Order

Description: Now you are ready to close the Advanced Repetitive cumulative order that you have been working with.

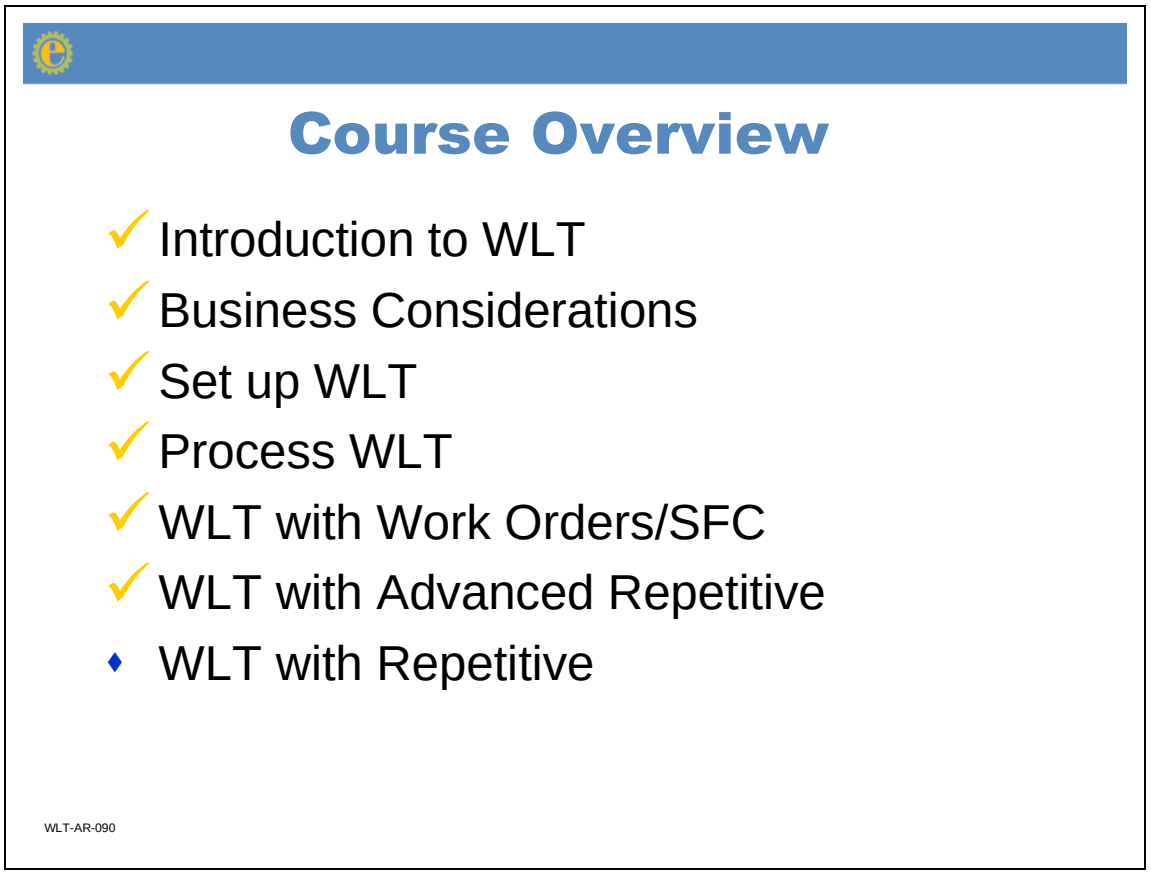
1 To close the cumulative order, enter the following:

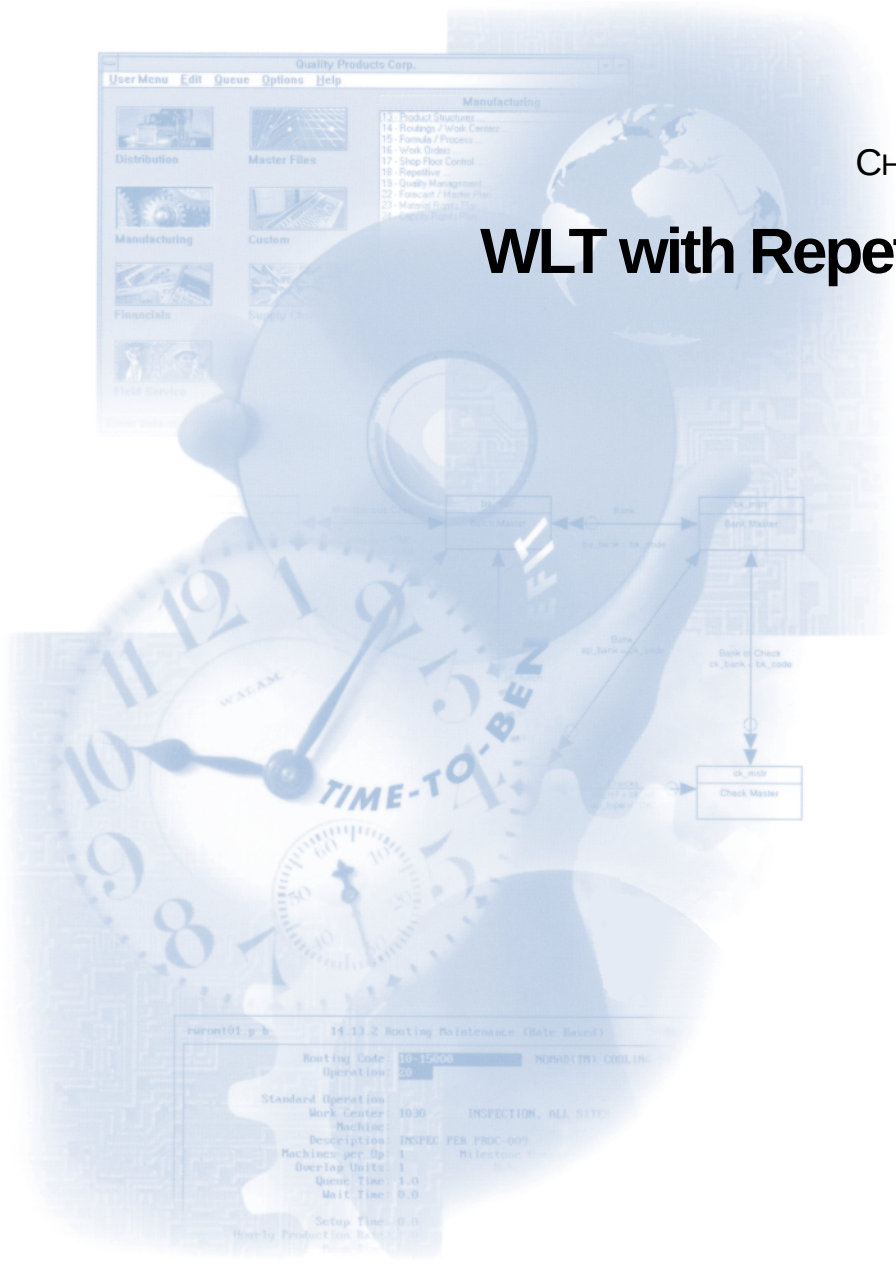
Field	Data
ID	<your cumulative order ID>
To	<your cumulative order ID>
End Effective	<end effective date of your cumulative order>
Transfer WIP	Yes
Update	Yes

Note If you do not know the end effective date of your cumulative order, you can find it by running Cumulative Order Report 18.22.8.

Use Cumulative Order Close 18.22.10

This function closes your cumulative order and transfers its WIP lot/serials to the new cumulative order. The report output contains a list of the WIP lot/serials transferred to the new cumulative order.





CHAPTER 7

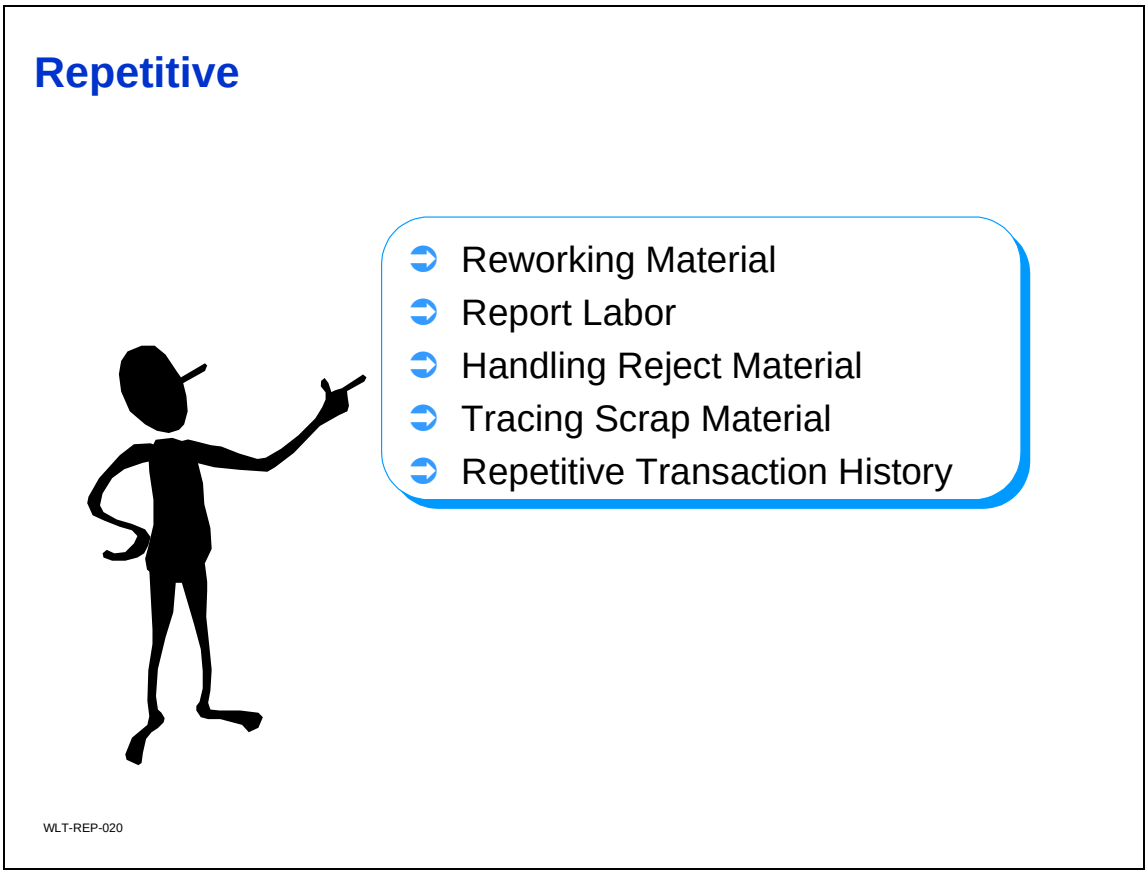
WLT with Repetitive

WLT with Repetitive

In this section you learn how to:

- ✓ Identify some key business considerations before setting up WLT in MFG/PRO
- ✓ Set up WLT in MFG/PRO
- ✓ Process WLT in MFG/PRO
- ✓ WLT with Work Orders/SFC
- ✓ WLT with Advanced Repetitive
- ✓ **WLT with Repetitive**

WLT-REP-010

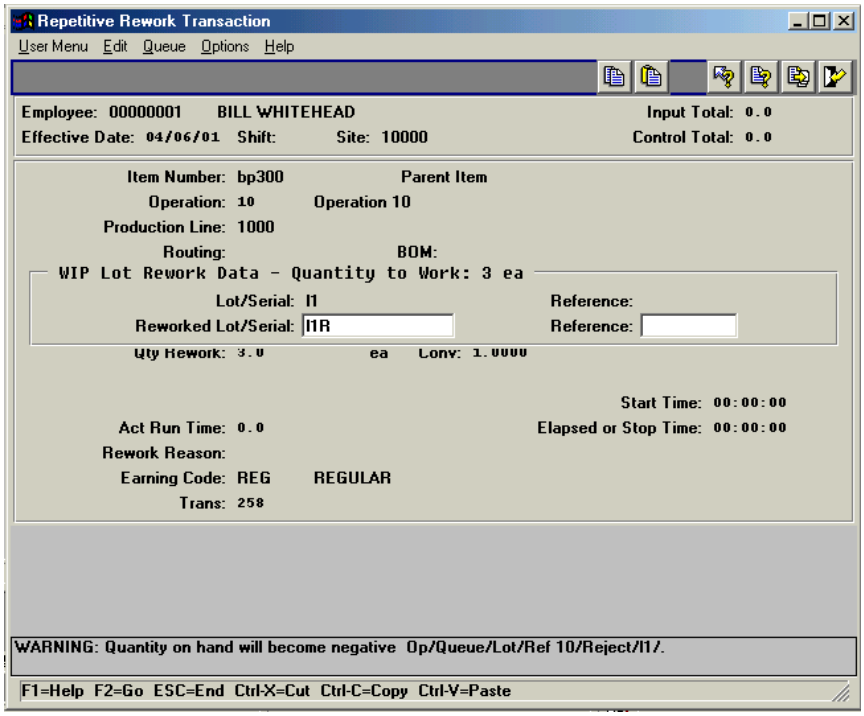


Repetitive

When processing a cumulative order in the Repetitive module, the system uses WLT data collection frames to collect tracing information if the cumulative order is WLT controlled.

- WLT has been enabled

18.18 – Repetitive Rework Transaction: WIP Lot Rework Data Frame



WLT-REP-030

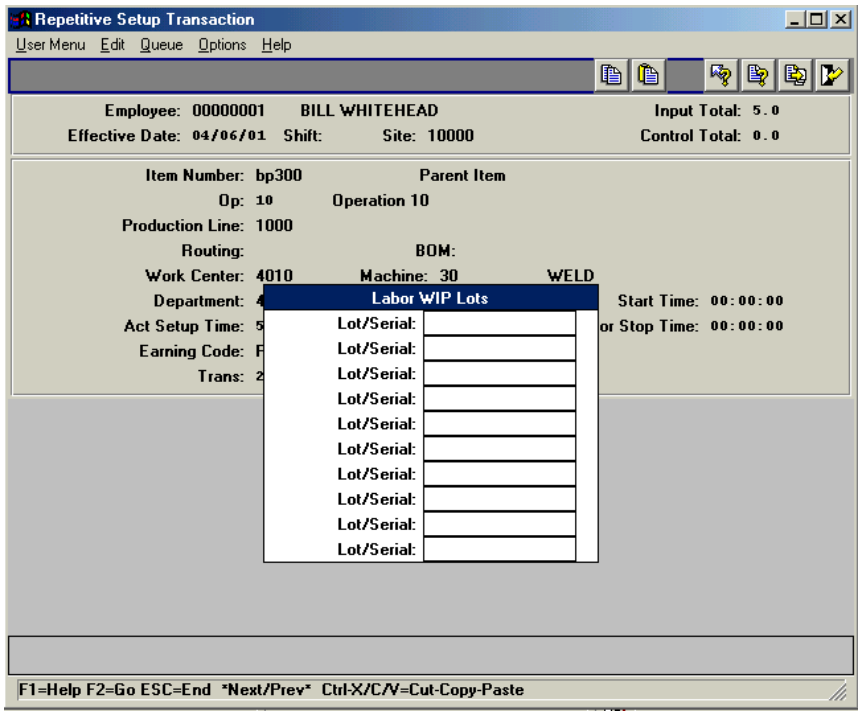
Repetitive Rework Transaction

Menu Number 18.16

Use Repetitive Rework Transaction to to move previously rejected WLT-controlled material back into production. The following WLT data collection frames display:

- Destination Work Center and Machine
- WIP Lot Rework Data

18.13 – Repetitive Setup Transaction: Labor WIP Lots Frame



WLT-REP-040

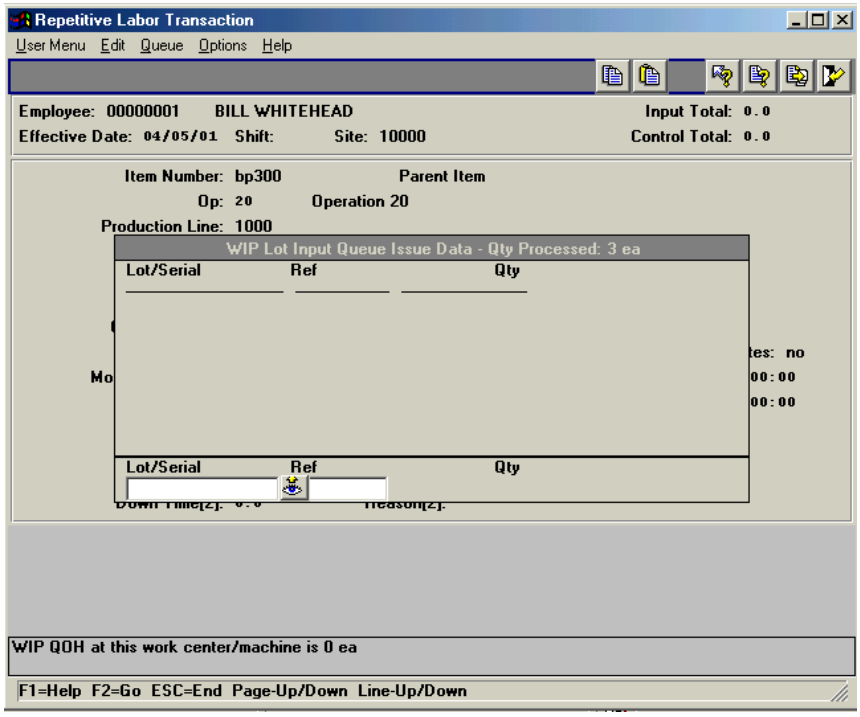
Repetitive Setup Transaction

Menu Number 18.13

Use Repetitive Setup Transaction to report labor performed for WLT controlled lot/serial numbers. You do this using the WLT data collection frame:

- Labor WIP Lots

18.14 – Repetitive Labor Transaction: WIP Lot Input Queue Issued Data



WLT-REP-050

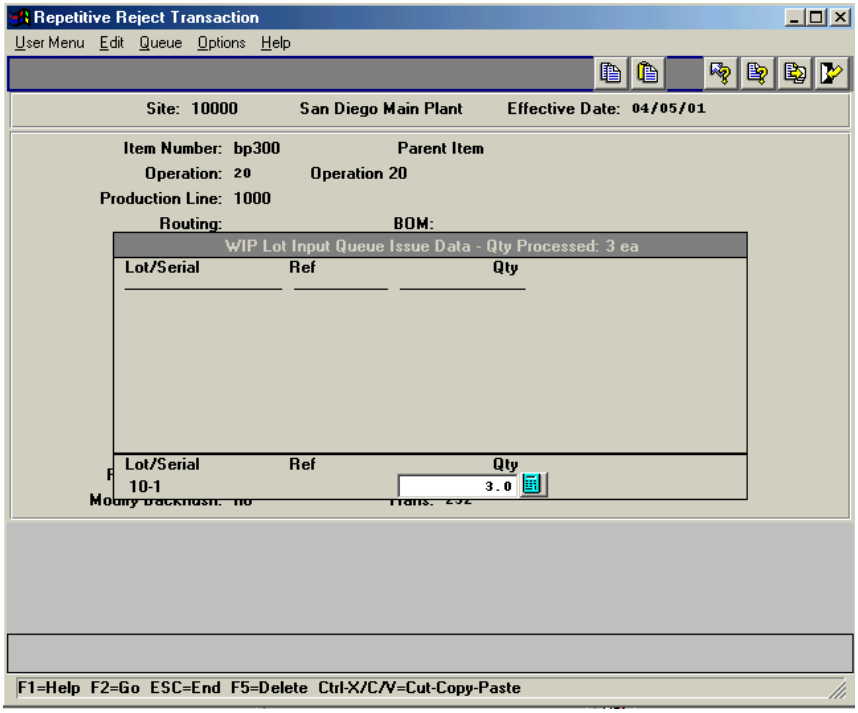
Repetitive Labor Transaction

Menu Number 18.14

Use Repetitive Labor Transaction to report production activity (input, output, reject) at repetitive manufacturing operations. When WLT is active, the following WLT data collection frames display:

- Destination Work Center and Machine
- WIP Lot Input Queue Issue Data
- WIP Lot Output Queue Receipt Data
- WIP Lot Reject Data
  - Appears only if you enter a value in the Qty Reject field

18.17 – Repetitive Reject Transaction: WIP Lot Input Queue Issue Data



WLT-REP-060

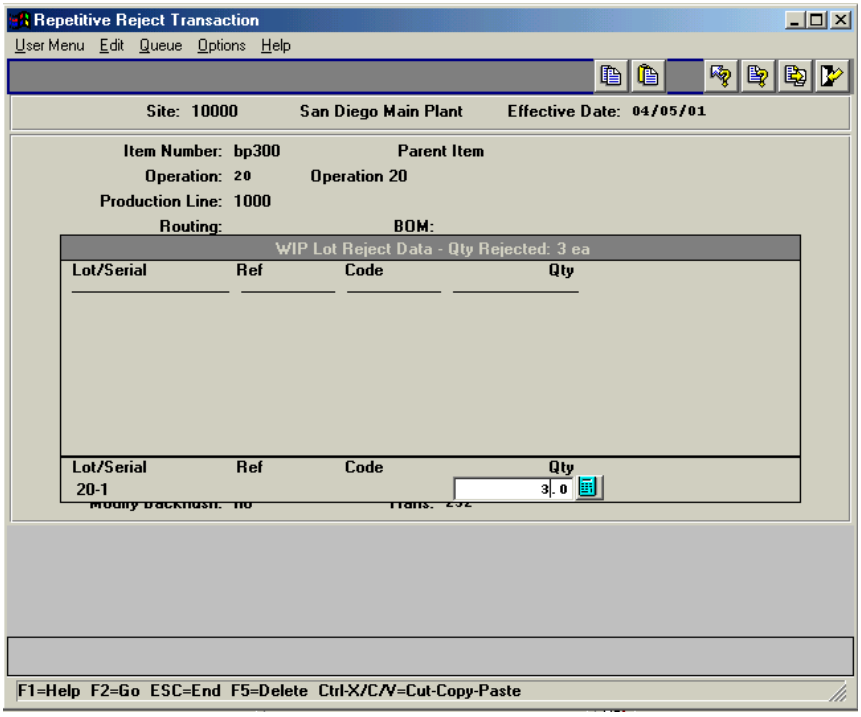
Repetitive Reject Transaction

Menu Number 18.17

Use Repetitive Reject Transaction to enter reject material information for an operation. The following WLT data collection frames display:

- WIP Lot Input Queue Issue Data
- WIP Lot Reject Data

18.18 – Repetitive Scrap Transaction: Wip Lot Reject Queue Issue Data



WLT-REP-070

Repetitive Scrap Transaction

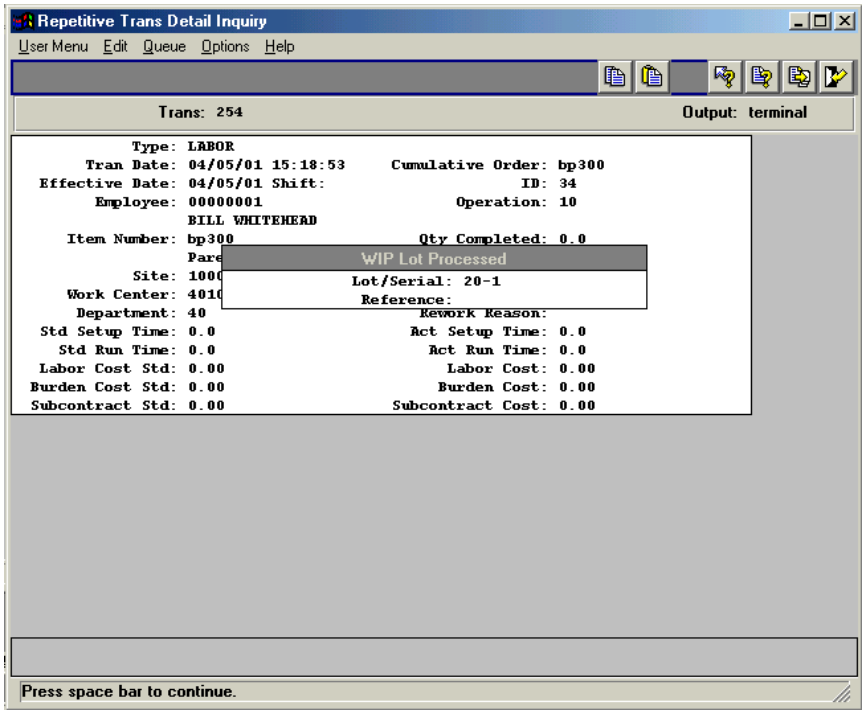
Menu Number 18.18

Use Repetitive Scrap Transaction to scrap or remove WIP quantities of an operation. The following WLT data collection frame appears:

- WIP Lot Reject Queue Scrap Data

The system updates tracing history records and WIP lot/serial QOH balances.

18.18 – Repetitive Scrap Transaction: Wip Lot Reject Queue Issue Data



WLT-REP-080

Repetitive Trans Detail Inquiry

Menu Number 18.4.2

Use Repetitive Trans Detail Inquiry to display WIP lot/serial information connected with an operation history record. Also displayed are:

- Tracing records associated with the operation history record
- WIP lot/serials recorded by a scrap, reject, rework, or adjust transaction

Repetitive Exercises

Important The data used in these exercises may not be the same as the data shown in the screen captures in this lesson. In an exercise, if a field is not listed, you can accept the default value or leave it blank.

Setup

Description: Before proceeding, you need to enable the system to use Repetitive. The first step will be to report all expired or open Advanced Repetitive cumulative orders. The next step will be to close them. The next step will be to delete them. The last step is to set the control file such that Advanced Repetitive is no longer enabled.

1 Get a list of all cumulative orders and their end-effective dates.
Use Cumulative Order Report 18.22.8

2 You need to close the cumulative order for each different end effective date.

Field	Data
End Effective	<end effective date of the cumulative orders being closed>
Transfer WIP	No
Update	Yes

Use Cumulative Order Close 18.22.10

3 To delete the next cumulative order:

a Use the Down Arrow to select the next cumulative order.

b Press F2.

c Press F5.

Use Cumulative Order Maintenance 18.22.6

4 Repeat this process for every cumulative order.

5 Turn off new repetitive by setting Enable New Repetitive to No.
Use Repetitive Control File 18.22.24

Labor Transaction

Description: You will use this function to issue material and labor and record completions at the second operation. It is very similar in concept to the Advanced Repetitive Backflush Transaction.

1 To record labor feedback, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Op	20
Production Line	1000
Qty Completed	3

Use Repetitive Labor Transaction 18.14

2 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

3 Advance to the WIP Lot Input Queue Issue Data frame and enter the following:

Field	Data
Lot/Serial	10-1
Ref	<leave blank>
Qty	3

Note Ignore any warning message.

4 Advance to the WIP Lot Output Queue Receipt Data frame. Delete the default entry by doing the following:

   a Press the Down Arrow.

   b Press F2.

   c Press F5.

   d Confirm the delete.

5 In the WIP Lot Output Queue Receipt Data frame enter the following:

Field	Data
Lot/Serial	20-1
Ref	<leave blank>
Qty	3

6 Review the repetitive transaction detail. There will be two Operation History records created of type LABOR. Select the first one.

   Use Repetitive Trans Detail Inquiry 18.4.2

7 Advance to the WIP Lot Trace Data frame. The data displayed shows the material lots consumed and produced as a result of this transaction. Select the second one.

8 Advance to the WIP Lot Processed frame. This shows the rejected WIP lot/serial entered above.

Note You can also use WIP Lot Non-Convert Trans Report 3.22.13.16 and WIP Lot Convert Trans Report 3.22.13.15 to display this information.

Setup Transaction

Description: Now you are ready to record setup labor against an operation. You will be prompted to enter the lot numbers of the WIP to which this reported labor will be associated.

Note Note this function is very similar to Run Labor Transaction 18.22.14 and Setup Labor Transaction 18.22.15.

1 To record setup labor against an operation, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Op	10
Production Line	1000
Act Setup Time	5

Use Repetitive Setup Transaction 18.13

2 Advance to the Labor WIP Lots frame and enter 10-1 in the first Lot/Serial field.

3 Review the repetitive transaction detail. It should default to your last transaction (LABOR).

Use Repetitive Trans Detail Inquiry 18.4.2

4 Advance to the WIP Lot Trace Data frame. The data displayed shows the WIP lot/serial entered with a quantity of 0.0 (zero). This tracing record is created in order to associate the reported labor with the “production” of the WIP lot/serial.

Reject Transaction

Description: This function lets you issue material and labor, record completions at an operation, and immediately disposition the completed material as “rejected”. The completed WIP material will be placed in the Reject Queue of the operation, where it waits for disposition by the user (either scrap or rework).

1 To record the completions, enter the following:

Field	Data
Site	10000
Item Number	<your parent item number>
Operation	20
Production Line	1000
Employee	<use your Down Arrow to select the first record>
Qty Reject	3

Use Repetitive Reject Transaction 18.17

2 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

3 Advance to the WIP Lot Input Queue Issue Data frame, enter the following:

Field	Data
Lot/Serial	10-1
Ref	<leave blank>
Qty	3

Note Ignore any warning message.

4 Advance to the WIP Lot Reject Data frame, delete any default entry, and enter the following:

Field	Data
Lot/Serial	20-1
Ref	<leave blank>
Qty	3

5 Review the repetitive transaction detail. There will be two Operation History records created of type LABOR. Select the first one.

Use Repetitive Trans Detail Inquiry 18.4.2

6 Advance to the WIP Lot Trace Data frame. The data displayed shows the material lots consumed and produced as a result of this transaction. Select the second one.

7 Advance to the WIP Lot Processed frame. This shows the rejected WIP lot/serial entered above.

Note You can also use WIP Lot Non-Convert Trans Report 3.22.13.16 and WIP Lot Convert Trans Report 3.22.13.15 to display this information.

8 Run the WIP Lot Inventory Status Report by entering the cumulative order ID in the ID and To fields.

You can use the Lookup key to select the cumulative order ID.

Use WIP Lot Inventory Status Report 3.22.13.13

9 Review the report. You will see the rejected WIP lot in the operation's reject queue.

Rework Transaction

Description: In this function you will change the disposition of rejected material back to good material. For WIP lot/serials, this involves moving them from the reject queue of the reporting operation to the input queue of the following operation. If at the last operation, it involves moving to finished material inventory.

1 To change the rejected material back to good material, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	10
Production Line	1000
Qty Rework	3

Use Repetitive Rework Transaction 18.16

2 Advance to the WIP Lot Rework Data frame. Enter 20-1 in the Lot/Serial field and in the Reworked Lot/Serial field enter 20-1R.

3 Review the repetitive transaction detail. It should default to your last transaction (LABOR).

Use Repetitive Trans Detail Inquiry 18.4.2

4 Advance to the WIP Lot Processed frame. This lists the WIP lot/serial processed by this transaction.

5 Advance to the WIP Lot Trace Data frame. The data displayed shows the material lots consumed and produced as a result of your rework transaction. This tracing data is recorded only because the entered Reworked Lot/Serial value is different from the Lot/Serial value.

Note You can also use WIP Lot Non-Convert Trans Report 3.22.13.16 and WIP Lot Convert Trans Report 3.22.13.15 to display this information.

Scrap Transaction

Description: Using this function lets you scrap material previously rejected. For WIP lot/serials, this entails reducing their QOH balances at the reject queue of the reporting operation.

1 To scrap the rejected material, enter the following:

Field	Data
Site	10000
Item Number	<your parent item number>
Operation	10
Production Line	1000
Qty Scrapped	3

Use Repetitive Scrap Transaction 18.18

2 Advance to the WIP Lot Reject Queue Issue Data frame. Press the Lookup key to display a list of WIP lot/serials at that operation. Select one and enter 3 in Qty.

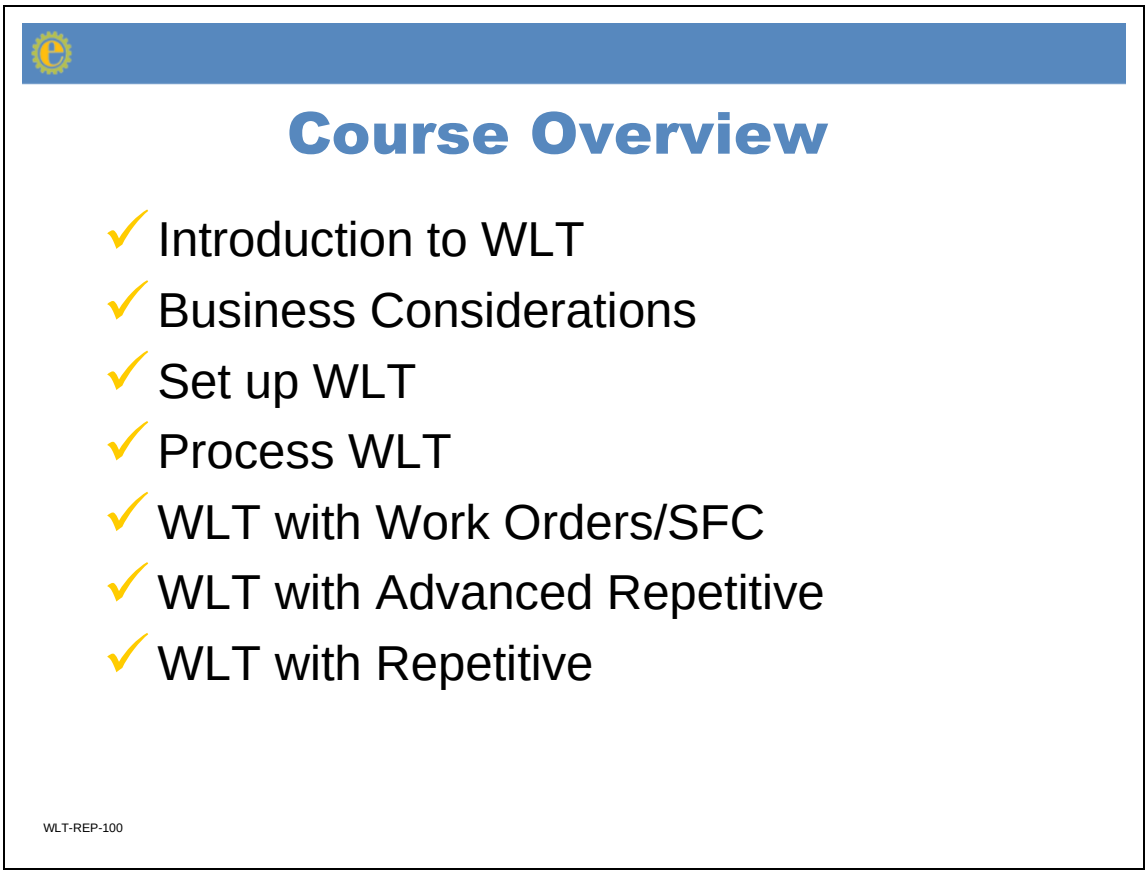
Note You can enter a non-existent WIP lot/serial if necessary.

3 Review the repetitive transaction detail. It should show your last transaction (SCRAP) as the default.

Use Repetitive Trans Detail Inquiry 18.4.2

4 Advance to the WIP Lot Processed frame. This shows the WIP lot/serial that was scrapped by this transaction. Note that there will be one Operation History record written for each WIP lot/serial scrapped.

Note You can also use WIP Lot Non-Convert Trans Report 3.22.13.16 to display this information.



APPENDIX A

Workshops

Control and Registration

WIP Lot Number Sequence ID

Description: You need to set this field, then run the Backflush Transaction to view how an automatic lot number can be generated.

1 To set up the number range, enter the following:

Field	Data
Sequence Id	WLT
Description	<anything>
Target Dataset	<leave blank>
Internal	Yes
Allow Discarding	Yes
Allow Voiding	Yes

Use Number Range Maintenance 36.2.21.1

2 Advance to the Segment List frame and enter the following:

Field	Data
Nbr	1
Type	FIXED

3 The Fixed Segment Editor frame displays. Enter the following:

Fixed Value	WLT

4 In the Segment List frame create a second entry by entering the following:

Field	Data
Nbr	2
Type	INT

5 The Integer Segment Editor frame displays. Enter the following:

Minimum Value	0
Maximum Value	9999
Initial Value	0
Reset Value	9999

6 To create the sequence ID, in the WIP Lot Number Sequence ID field enter WLT.

Use WIP Lot Trace Control File 3.22.13.24

Backflush

Description: The following activity requires Advanced Repetitive be enabled.

1 Check the setting of the Enable New Repetitive field. If it is set to No, set to Yes.

Use Repetitive Control File 18.22.24

If you get the message "You must run rewocl.p before using this module. Please re-enter." do the following:

a Run Cumulative Ord Accounting Close 18.9, accepting the defaults.

b Run Cumulative Order Maintenance 18.6. Using your Arrow keys, locate all cumulative orders and delete them.

c Change the Enable New Repetitive field to Yes.

Use Repetitive Control File 18.22.24

2 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	10
Line	1000
Qty Processed	3

Use Backflush Transaction 18.22.13

3 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

4 Advance to the WIP Lot Output Queue Receipt Data frame. Leave Lot/Serial and Reference blank. When you proceed to Qty, Lot/Serial, it will default to the next sequence number for the indicated sequence id. Do not complete the transaction.

Note You can override this field by creating an entry in Routing Registration Maintenance 3.22.13.1.

Split WIP Lots

Description: You will set this field to No and run the Backflush Transaction to view its effect. By setting this field to No, you prevent an input WIP lot from being processed into two or more output WIP lots.

1 Change the Split WIP Lots field to No.

Use WIP Lot Trace Control File 3.22.13.24

2 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000
Qty Processed	3

Use Backflush Transaction 18.22.13

3 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

4 Advance to the WIP Lot Input Queue Issue Data frame and enter lot number L1, quantity 3.

5 Advance the WIP Lot Output Queue Receipt Data frame and change the quantity for L1 to 1. Also enter lot number L2, quantity 2.

You should see the message “ERROR: Cannot specify more than one WIP lot when splitting not allowed.” Do not complete the transaction.

The checking works across transactions also. For example, instead of trying to create output WIP lots L1 and L2 from input WIP lot L1 at the same time, you could have entered them in separate transactions. The second transaction would produce the error message. In this case, the error message occurs after entry of the WIP Lot Output Queue Receipt Data and appears as an overlay frame.

Note You can override this field by creating an entry in Routing Registration Maintenance 3.22.13.1.

Combine WIP Lots

Description: You will set this field to No and run the Backflush Transaction to view its effect. By setting this field to No, you prevent two or more input WIP lot from being processed into one output WIP lot.

1 Set the following control fields:

Field	Data
Split WIP Lots	Yes
Combine WIP Lots	No

Use WIP Lot Trace Control File 3.22.13.24

2 To run the backflush transaction, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000
Qty Processed	3

Use Backflush Transaction 18.22.13

3 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

4 Advance to the WIP Lot Input Queue Issue Data frame and enter lot number L1, quantity 1, and lot number L2, quantity 2.

You should see the message “ERROR: Cannot specify more than one WIP lot when combining not allowed.” Do not complete the transaction.

The checking works across transactions also. For example, instead of trying to enter input WIP lots L1 and L2, you could have entered them in separate transactions. The second transaction would produce the error message. In this case, the error message occurs after entry of the WIP Lot Output Queue Receipt Data and appears as an overlay frame.

Note You can override this field by creating an entry in Routing Registration Maintenance 3.22.13.1.

WIP Lot Overissue

Description: You will set this field to No and run the Backflush Transaction to view its effect. By setting this field to No, you prevent QOH balances for WIP lots from becoming negative.

Note This is similar to Overissue in Inventory Status Code Maint 1.1.1.

1 Set the following control fields:

Field	Data
Combine WIP Lots	Yes
WIP Lot Overissue	No

Use WIP Lot Trace Control File 3.22.13.24

2 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>

Operation	20
Line	1000
Qty Processed	3

Use Backflush Transaction 18.22.13

3 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

4 Advance to the WIP Lot Input Queue Issue Data frame and enter lot number L100, quantity 3.

You should see the message "ERROR: Quantity on hand will become negative Op/Queue/Lot/Ref 20/Input/L100/. Please re-enter." Do not complete the transaction.

Note

- All queues are checked to see if the transaction would result in any negative WIP lot QOH balances (e.g., output queue WIP lots for reversing backflushes)
- You can override this field by creating an entry in Routing Registration Maintenance 3.22.13.1

Combine Component Lots

Description: You will set this field to No and run the Backflush Transaction to view its effect. By setting this field to No, you prevent more than one lot of a particular component item from being consumed into a particular WIP lot.

1 Set the following control fields:

Field	Data
WIP Lot Overissue	Yes
Combine Component Lots	No

Use WIP Lot Trace Control File 3.22.13.24

2 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	10
Line	1000
Qty Processed	3

Use Backflush Transaction 18.22.13

3 Advance to the Issue Data Input frame. Set Multi Entry to Yes.

4 Advance to the Issue Detail frame.

a Delete the default entry.

b Enter two different lots for one component item.

5 Advance to the WIP Lot Output Queue Receipt Data frame, enter lot number L11, quantity 3.

You should then see the message “ERROR: Lots would be combined. Please re-enter.” and an overlay frame listing the component lots that are combined and into which output WIP lots they are being combined into. Do not complete the transaction.

Note

- The checking works across transactions also. For example, you could have consumed a lot of the component into WIP lot L11 in one transaction, and the other lot of the component into WIP lot L11 in another transaction. In this case, the message and overlay frame would appear in the second transaction.
- You can override this field by creating an entry in BOM Registration Maintenance 3.22.13.4.

Lot Trace Start Op

Description: You will set this field to an operation other than the first and run the Backflush Transaction to view its effect.

1 Make sure all the control file Yes/No fields are set to Yes.

Use WIP Lot Trace Control File 3.22.13.24

2 Create an entry for the parent item. Set Lot Trace Start Op to 20.

Use Routing Registration Maintenance 3.22.13.1

3 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	10
Line	1000
Qty Processed	3

Use Backflush Transaction 18.22.13

4 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

Note The WIP Lot Input Queue Issue Data frame does not appear. This is because the Lot Trace Start Op is the first operation at which lot/serial-controlled WIP material is produced.

Serialized WIP Start Op

Description: You will set this field to the second operation in your routing, then run the Backflush Transaction to view its effect. This causes WIP inventory on and after this operation to be serial-controlled which means:

- WIP QOH changes can only be –1, 0, or 1
- WIP QOH balances can only be 0 or 1
- In effect it is the same as setting the Lot/Serial Control field to S (Serial) in Item Master Maintenance 1.4.1

1 Make sure all the control file Yes/No fields are set to Yes.

Use WIP Lot Trace Control File 3.22.13.24

2 Create an entry for the parent item. Make sure all the Yes/No fields are set to Yes. Enter the following:

Field	Data
Lot Trace Start Op	0
Serialized WIP Start Op	20

Use Routing Registration Maintenance 3.22.13.1

3 To run the backflush, enter the following:

Field	Data
Employee	<use your Down Arrow to select the first record>
Site	10000
Item Number	<your parent item number>
Operation	20
Line	1000
Qty Processed	3

Use Backflush Transaction 18.22.13

4 Advance to the Issue Data Input frame and for the component item listed enter:

Field	Data
Quantity	3
Lot/Serial	L1

Note Ignore any warning message.

5 Advance to the WIP Lot Input Queue Issue Data frame and enter lot L100 quantity 3.

Note Ignore any warning message.

6 Advance to the WIP Lot Output Queue Receipt Data frame and try to take the default entry.
You should see the message “ERROR: Change in QOH must be 1 or 0 or -1. Please re-enter.”

7 Delete the default entry and try to enter a quantity other than –1, 0, or 1.
You should see the same message. Do not complete the transaction.

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Training Guide: WIP Lot Trace
Item number: 70-2793A

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