Course Content

- Unit 1 – Work Planning Overview
- Unit 2 – Work Orders
- Unit 3 – Creating a Work Order
- Unit 4 – Changing Work Orders
- Unit 5 – PM Materials
- Unit 6 – Work Order List Displays
Prerequisites and Roles

• Prerequisites
  • PM UK_100 IRIS/SAP Awareness & Navigation
  • PM_200 Plant Maintenance Overview

• Roles
  • All Plant Maintenance managers, supervisors, and workers who will process work orders will take this class
  • Each PM class taken will allow different access roles for different users, based on each user’s job and the IRIS functionality needed to perform that job

Plant Maintenance IRIS Project Goals

• Integrate Plant Maintenance with Finance, Human Resources, and Materials
• Allow enhanced scheduling and planning for work assignments
• Provide work scheduling as well as management reporting tools
• Improve automated updates to customers about the status of work
• Implement a Preventive Maintenance system for buildings, areas, and equipment
• Use standard SAP functionality to collect utility use and cost information for recharge calculations
Work Planning Overview

The Plant Maintenance Process

- Identify the Work
  - Web Request
  - Phone Call

- Plan the Work
  - Priority / Dates
  - Labor Required
  - Parts

- Do the Work
  - Parts Issued
  - Purchase Reqs

- History/Analysis
  - Technical History
  - Breakdowns
  - Costs

- Preventative Maintenance
  - Procedures
  - Schedules

- Record What was Done
  - Hours Worked
  - Comments
  - Codes
The Plant Maintenance Process in IRIS

Identify the Work
- Notification

Plan the Work
- Work Order

Do the Work
- Goods Issue
- Purchase Order

Preventive Maintenance
- Task List
- Maintenance Plan

History/Analysis
- UK Business Warehouse

Record What was Done
- Order Confirmation

The “Plants” in Plant Maintenance

- The Maintenance Plant
  - Represents the physical facility
  - The entire UK campus: buildings and grounds
  - Represents the place where maintenance materials are kept
  - Always UK10

- The Planning Plant
  - Organizational in nature
  - There are 3 main Planning Plants:
    - Main Campus PPD (CPPD),
    - Medical Center PPD (MPPD), and
    - Housing (HOUSS)
  - Work groups are grouped by plant
Functional Locations

- The Functional Location Structure
  - The first level would be the “campus” (LX–)
  - The next level is the building
  - The next level is the floor
  - The next level is the room
  - There is a separate structure for Grounds (exterior space)

Functional Location Structure – Buildings

- The Building: LX–0082
  College of Pharmacy
- The Floor: LX–0082–01
  College of Pharmacy, 1st floor
- The Room: LX–0082–01–116A
  College of Pharmacy, 1st floor, room 116A
- LX–0082–ST
  College of Pharmacy Stairway
- LX–0082–EL
  College of Pharmacy Elevator
Functional Locations

• How are Functional Locations used?
  • Maintenance repairs and work requests are written referencing the functional locations.
  • Work orders may be listed by functional location or rolled up to the organizational area (CPPD, MPPD, HOUS).
  • Accounting information for chargeback is automatically assigned to the work order from the functional location. (This may be overridden if required.)
  • Statistical reporting will provide summary work order counts and costs at the functional location or the organizational level(s) above it.
  • Equipment may be assigned to a functional location.

Unit 2

Work Orders
What is a Work Order?

- A financial and work management transaction used to plan and charge labor, stock materials, non-stock purchases, and services
- It is integrated with Financials, Materials Management, and Human Resources in the IRIS system
- It may be created from a Notification or without an existing Notification
- Multiple Notifications can be turned into ONE Work Order

Plan the Work

Why are Work Orders used?

Work Orders are used:

- To plan and schedule work
- To accumulate charges for work that will be recharged to others
- To document the costs of an event
- For Preventive Maintenance work
Who Creates Work Orders?

- This function will be used primarily by the Dispatch area (Work Control Centers) to create orders to initiate work to be done.
- Authorized users responsible for creating orders for their area will also have access to create work orders in IRIS.

Information on a Work Order

- **Order Type** – A four-character code used to distinguish the different work order types.
  - Examples: REPR = Corrective Repair; RENV = Renovation

- **Priority** – An indicator of when this work should be scheduled.
  - Examples: Daily Operations; Emergency

- **Object to be maintained** – Functional Location or Equipment
  - **Functional Location** – Place where the work is to be performed; i.e., a building, floor, room, or exterior (Grounds)
    - Example: LX-0030-01-104 = 104 Student Center
      (0030=Student Center, 01=First Floor, 104=Room 104)
  - **Equipment** – Can be located at a Functional Location
    - Example: H-222 Ice Maker
Optional Information on a Work Order

- **Description** – Text describing the work that is to be done; this can include “long text” of unlimited length
  - Examples: Repair thermostat; Fix broken window

- **Work Duration** – Number of hours of planned labor
  - Example: 2 H (2 hours)

- **Main Work Center** = 2 fields
  - Field 1 – initially created “Unassigned” – The work group responsible for maintaining the order, equipment, etc.
  - Field 2 – The responsible planning plant – based on the Functional Location.

Other Work Order Information

- **Person Assigned** – could be someone with a specialty in a certain area

- **Materials** – parts and supplies needed to perform the work
  - Planned labor and materials
  - Actual labor and materials costs

- **Special Conditions** – Examples: may have to wait to do work when patient leaves Hospital room or when students leave residence hall, or may be hazardous materials in the area

Many of these items are added later as additional planning is performed for more complex orders.
Unit 2 – Work Orders

Exercise 1

Display a Work Order IW33

Unit 3

Creating a Work Order
Create a Work Order – IW31

There are 3 required fields on the first screen:
- Order Type
- Priority
- Functional Location or Equipment

Work Order Types

Click on the Possible Entries icon to see the list of Order Types.
Double-click on the one you want to use.
### Work Order Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASH</td>
<td>Cash Chargeout Order</td>
</tr>
<tr>
<td></td>
<td>Example: Fraternity Work</td>
</tr>
<tr>
<td>EVNT</td>
<td>Special Event</td>
</tr>
<tr>
<td></td>
<td>Example: Commencement</td>
</tr>
<tr>
<td>PREV</td>
<td>Preventive Maintenance</td>
</tr>
<tr>
<td></td>
<td>Example: Oil HVAC regularly</td>
</tr>
<tr>
<td>RENV</td>
<td>Renovation (Charged Out)</td>
</tr>
<tr>
<td></td>
<td>Example: Install new bathroom</td>
</tr>
<tr>
<td>REPR</td>
<td>Corrective (Repair)</td>
</tr>
<tr>
<td></td>
<td>Example: Repair hinge on door</td>
</tr>
</tbody>
</table>

### Priority

Click on the drop-down icon in the Priority field to see the choices.

Each priority has a specified time span for the work. This time span is incorporated in the Order.
### Priority

<table>
<thead>
<tr>
<th>Description</th>
<th>Start</th>
<th>End</th>
<th>Area(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency</td>
<td>10 Min</td>
<td>24 Hours</td>
<td>MPPD</td>
</tr>
<tr>
<td>Emergency</td>
<td>30 Min</td>
<td>24 Hours</td>
<td>CPPD, Housing</td>
</tr>
<tr>
<td>General Maint.</td>
<td>7 Days</td>
<td>30 Days</td>
<td>MPPD</td>
</tr>
<tr>
<td>Scheduleable Maint.</td>
<td>7 Days</td>
<td>30 Days</td>
<td>CPPD, Housing</td>
</tr>
<tr>
<td>Daily Operations</td>
<td>1 Day</td>
<td>2 Days</td>
<td>All</td>
</tr>
<tr>
<td>Research Fac. Res.</td>
<td>1 Hour</td>
<td>4 Hours</td>
<td>CPPD</td>
</tr>
<tr>
<td>Priority Maintenance</td>
<td>1 Hour</td>
<td>4 Hours</td>
<td>Housing</td>
</tr>
<tr>
<td>Patient Care</td>
<td>1 Hour</td>
<td>4 Hours</td>
<td>MPPD</td>
</tr>
<tr>
<td>Elect. Improv.</td>
<td>3 Days</td>
<td>10 Days</td>
<td>MPPD</td>
</tr>
<tr>
<td>Elect. Improv.</td>
<td></td>
<td></td>
<td>CPPD, Housing</td>
</tr>
<tr>
<td>Renovations</td>
<td></td>
<td></td>
<td>CPPD, MPPD</td>
</tr>
<tr>
<td>Renovations/AptChk</td>
<td></td>
<td></td>
<td>Housing</td>
</tr>
</tbody>
</table>

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### Functional Location

Order Type: REPR  
Priority: D Daily Operations

If you do not know the Functional Location code, you can click on the Possible Entries icon to search for it.

To see the complete Functional Location structure, enter LX first and then click the Structure List icon.
Functional Location

The Functional Location search box will appear.

Navigate to the Text (= Description) tab.

Enter your search text in the Description field. The asterisk is the wildcard character.

Example: *mcvey* for McVey Hall.

Then press the Enter key.
The Functional Location matches will be displayed. Double-click on the appropriate location to populate the Functional Location field on the Work Order. Then press enter.

The required fields are complete. Press Enter.
If there have been 3 or more work orders for this functional location during the previous 12 months, the Object Information box appears.

Press Enter to proceed.

The work order will appear.

Enter a description of the work.

To add more detail, click on the Create Text icon.
Create a Work Order – IW31

For planning purposes you may want to enter an estimate of the labor time required. Click on the Save icon to save the order.

Work Order Number

The Work Order number is displayed in the lower-left corner of the screen.

Only REPR (Corrective Repair) Work Orders are saved with a notification number.

All other Work Orders are saved without a notification number.
Unit 3 – Work Orders

Exercise 2

Create a Work Order IW31

Notifications and Work Orders

• A Notification is a non-financial transaction that is used to report a problem, request work, or record an event or activity. It is purely informational in nature.

• A Work Order is a financial and work management transaction that is used to plan and charge labor, stock materials, non-stock purchases, and services.
Create Work Order from Notification – IW34

• A Work Order can be created from an existing Notification by using transaction code IW34.
• This function can be used after looking at a list of Notifications to create an order to do the work.
• One Work Order can be created for multiple Notifications. For example, if 10 Notifications are received for the same power outage, only one Work Order is really needed.

Create Work Order from Notification – IW34

• Information for this function:
  • Order Type – A four-character code used to describe an order type
  • Priority – Indicates when the work should be scheduled
  • Notification (number) – The number assigned to the notification by the system when the notification was created
Create Work Order from Notification – IW34

Fields on the first screen:
- Order Type
- Priority
- Notification

Notification Display

A notification is typically what, where and contact info
Create Work Order from Notification – IW34

Click on the Possible Entries icon to see the list of Order Types.
Double-click on the one you want to use.

Click the drop-down icon in the Priority field to see the choices, and then click on the one you want.
Create Work Order from Notification – IW34

*Create Notification Order: Initial Screen*

- **Order Type**: REPR
- **Priority**: D Daily Operations
- **Notification**: Type the Notification number in the Notification field. If you do not know the number, click on the Possible Entries icon to search for it.

Press the Enter key or click on the Enter icon.
Create Work Order from Notification – IW34

The Create: Central Header screen is displayed.

* Create Corrective (Repair) : Central Header

- Work Order Processing - PM_WO_300 (v1.2)

Create Work Order from Notification – IW34

Scroll down to the First operation section. Enter the work duration in the Work durtn field.

Example: 2 (for 2 hours)
Create Work Order from Notification – IW34

When you Save the Work Order, all Costs are calculated.

To see the calculated cost now...
Click on the Determine Costs icon on the Application toolbar.

This system message will appear in the lower–left corner of the screen.

Click on the Costs tab to display the costs.

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Costs were determined: See cost overview
Create Work Order from Notification – IW34

The Cost Overview will be displayed.

The system will assign a number to the order and display it in the lower-left corner of the screen.

Click the Save icon to save your Work Order.

The order was saved with notification 10000014.
Creating a Sub-order – IW36

• A sub-order is a work order that has a link to a “superior” order
• The actual costs of sub-orders may be viewed from the “superior” order
• These are typically used to break a project into units by craft or shop. Each shop can estimate its costs on a sub-order and these can be tracked at the sub-order and superior order level.
• The costs of the sub-orders may either settle to the superior order or directly to another cost object.
• Sub-orders may have sub-orders.

Create Sub-order – IW36

Fields on the first screen:
• Order Type
• Priority
• Superior Order
From this point on the process is the same as a regular work order.
Changing Work Orders

Change a Work Order – IW32

- You may need to modify an existing work order to change the following:
  - Description of the Work
  - Functional Location
  - Work Duration
  - Components
  - Person or Work Group Assigned
  - And other information
Change a Work Order – IW32

* Change Order: Initial Screen

Type the Order number in the Order field and press Enter.

If you do not know the Order number, click on the Possible Entries icon to search for it.

The Work Order is displayed.
We needed to add "chairs, podium" to the work description and increase the work duration from 2 hours to 3 hours.

**Remember you can also change:**
- Functional Location
- Work Duration
- Components
- Person or Work Group Assigned
- And other information

**Saving a Change to a Work Order**

The Work Order is saved with its **original number**, which is displayed in the lower–left corner of the screen.
Materials and Inventory

- Materials Management Inventory will be replacing Stores Inventory Systems
- On-shelf inventory will be minimized
- We are moving toward “just-in-time” inventory (parts will be requisitioned daily)
- We are moving away from ProCard being used for materials; instead, contracts will be set up
- There will be stock, non-stock, and non-file materials
- Materials may be planned (used on a routine basis) and unplanned
- Stock and non-stock materials will be identified by numbers in IRIS
Types of Components

- **Stock materials**: Parts that have IRIS material numbers and are kept on hand
- **Non-stock materials**: Parts which are used less frequently that do have IRIS material numbers. They are ordered as needed from suppliers
- **Non-file materials**: Parts ordered as needed and do not have IRIS material numbers
- **Services**: Services provided by external companies and are requested as needed
- **Text Items**: Text Items are instructions or comments about materials required for a work order, such as a note to bring a ladder or supplies like electrical tape.

Planned Materials on a Work Order

- Planning a **stock material** results in a **Reservation** being created in the Storeroom.
  - The Storeroom can then pick, stage, and deliver the materials as required.
- Planning a **non-stock material** results in a **Reservation** being created in the Storeroom and in the **automatic** creation of a **Purchase Requisition**.
  - The requisition is processed by Purchasing and materials are delivered to Central Stores. The Storeroom can then pick, stage, and deliver the materials as required.
- Planning a **non-file material** results in a **Reservation** being created in the Storeroom and in the **manual** creation of a **Purchase Requisition**.
  - The requisition is processed by Purchasing and materials are delivered to Central Stores. The Storeroom can then pick, stage, and deliver the materials as required.
Unplanned Materials on a Work Order

- Unplanned stock materials may be issued directly to a work order.
  - Storeroom personnel will issue the material and charge it to the work order number.
  - The name of the person receiving the material is also recorded.

How to plan stock materials

There are several ways to select the materials:

- Enter the component number, if known
- A Possible Entries search may be performed to find the part number or description.
  - Asterisks can be used as "wildcards" in a search, to let you search using partial information.
  - Examples: *bearing* will find all materials with "bearing" in the description; *filter*16* will find all materials with "filter" and "16" in the description (such as Filter, Air, 16x20x1)

- Future Enhancements
  - A Bill of Material (BOM) for the building, room, or equipment to be maintained. The BOM may be used to suggest part numbers.
  - A Task List – if you include the Task List on an order this will also include any materials on that Task List.
Planning Materials on an Order

We want to add materials to an order. Click on the Components tab.

Planning stock materials

The Components tab of a Work Order is displayed.
Columns on the Components Tab

<table>
<thead>
<tr>
<th>Item</th>
<th>Sequential number on the list</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component</td>
<td>The component number in IRIS</td>
</tr>
<tr>
<td>Description</td>
<td>Text describing the component</td>
</tr>
<tr>
<td>Reqmnt Qty</td>
<td>Quantity required for the work</td>
</tr>
<tr>
<td>UM</td>
<td>Unit of Measure, such as EA for each</td>
</tr>
<tr>
<td>IC</td>
<td>Item Category; Stock, Non-stock, etc.</td>
</tr>
<tr>
<td>SLoc</td>
<td>Storage Location</td>
</tr>
<tr>
<td>Plnt</td>
<td>Plant; always UK10</td>
</tr>
</tbody>
</table>

Planning Materials on an Order

We will search for the Components (materials) needed by clicking on the Possible Entries icon in the Component field.
When the search box appears choose the **Plant Material by Description** tab.

We need a hinge, so we will search for all materials with hinge in the description by using the wildcard character...i.e. *hinge*
**Planning Materials – Search by Description**

The search results appear.

Double-click on the desired material to populate the Component field.

**Planning Materials on an Order**

Enter the quantity required.

The unit of measure and item category fields will populate automatically.

Repeat for each component.
Component Item Category

For non-stock materials, an automatic purchase requisition is created in the background.

You do not see this dialog box.
### Text Component Item Category

The Item Category field will populate automatically based on the component specified – BUT if you enter a text note, you must select T for Text item.

### Component Item Category

The Item Category field will populate automatically based on the component specified – BUT if you enter a text note, you must select T for Text item.
Stock Materials – Availability

Future Enhancement
You will be able to check materials available using the Material Availability icon.

Non-file Materials

For a non-file component, enter a description, quantity, and unit of measure.
Press the Enter key to proceed.
Non-file Materials

This box will appear, asking for the information required by Purchasing.

Purchasing Information – Reference Only Slide

Information required to order non-stock materials:

- **Requirement Quantity** – How many are needed? (defaults from what was entered on the Components tab)
- **Price** – Cost of material (defaults from Components tab)
- **Material Group** – PM000001 for PM Non-Material Master Material, PM000002 for PM Non-Material Master Service
- **Purchasing Group** – Defaults to 000 / UK00
  - 000 = Work Order / UK00 = Purchasing
- **Goods Recipient** – Who should receive the material?
- **Requisitioner** – Who is requisitioning the material?
- **Unloading Point** – Where should material be delivered?
- **Vendor Material Number** – Description of the material
Calculating Planned Components Cost

When you Save the Work Order, all Costs are calculated.

To see the calculated cost now...
After entering the components, click on the Determine Costs icon.

Planned Cost Display

Note that all planned costs are displayed on the Costs Overview tab. Services are handled the same way as a non-stock material purchase.
Planning Materials on an Order

When you have finished adding Components, click the Save icon.

Unit 5 – PM Materials

Exercise 3
Add Components to a Work Order IW32
Work Order List Displays

Work Order List Displays in IRIS

- List Displays can help manage work. You can specify criteria and produce lists of work orders for planning and analysis.
- Selection screens and variants can narrow your requests for information.
- Drill-down functionality can provide detail.
Multi-Level Order List Display – IW40

- A multi-level order list allows more detailed information.
- Use this function to view an order from a list to see more detail, such as any sub-orders or labor costs associated with the order.

To display specific work orders, you can set criteria such as Order number, Type, and/or Functional Location, etc. To search on any field, click on the Possible Entries icon for that field.
After filling in the criteria, click the Execute icon.

Order information is displayed. The legend is shown here.
To display certain work orders, you first specify your criteria, such as Order Status, Type, and Functional Location.
Our criteria will display a list of REPR (Repair) Work Orders that are Outstanding (Not Released) or In process (Released).

Click on the Execute icon.

The results display as a list of orders that match the criteria specified.
Change the Layout

Click the Change Layout icon to add or remove columns.

You can add fields and rearrange the order of the columns. Click the Save icon to save the layout, or press Enter to simply display it once.
Change the Layout

The new layout appears.

Download Data to Spreadsheet

• When the list is displayed, click on the Spreadsheet icon.
• You will be prompted to “Enter number of key columns.” You can leave that unchanged (at 1).
• You will be prompted to choose “Table” or “Pivot Table”. Choose Table and click on the Continue icon.
• You will be prompted to save to MS Excel. Click on the Continue icon.
• Be patient. The data will appear in an Excel spreadsheet and you can format, save, and use it as you wish.
Unit 6 – Work Order List Displays

Exercise 5

Change Layout of Order List Display IW39

Course Summary

You should now have an understanding of:
- Creating Work Orders
- Creating Sub-orders
- Changing Work Orders
- Adding Components to Work Orders
- Materials
- Work Order List Displays
Contact Information

• First point of contact for any problems should be the IRIS–PM Power User in your area
  - Nick Arnold – Nick@uky.edu – 559–7605
  - Kevin Jones – Kevin.Jones@uky.edu – 7–3421
  - Skip Van Hook – bevanh2@email.uky.edu – 7–5397

• IRIS Plant Maintenance Team
  - Kevin Cheser – kchese@email.uky.edu
  - Ben Crutcher – ben@email.uky.edu

• For more information visit the IRIS PM web site:
  - www.uky.edu/IRIS/PM