Course Content

- Unit 1 – The Plant Maintenance Process
- Unit 2 – Notifications (Work Requests)
- Unit 3 – Work Orders
- Unit 4 – Materials
- Unit 5 – Time Processing
- Unit 6 – Equipment
- Unit 7 – Reports
Prerequisites and Roles

• Prerequisites
  - PM UK_100 IRIS/SAP Awareness & Navigation

• Roles
  - All Plant Maintenance IRIS users 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
Integration Across IRIS

• IRIS data integration provides:
  • Data that flows immediately throughout the system
  • Real-time access of common information in PM
  • Virtual elimination of duplicate entries and the errors they can produce

Unit 1

The Plant Maintenance Process
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 Req's

Record What was Done
- Hours Worked
- Comments
- Codes

History/Analysis
- Technical History
- Breakdowns
- Costs

Preventive Maintenance
- Procedures
- Schedules

The Plant Maintenance Process in IRIS

Identify the Work
- Notification

Plan the Work
- Work Order

Do the Work
- Goods Issue
- Purchase Order

Record What was Done
- Order Confirmation

History/Analysis
- Reports
- UK Business Warehouse

Preventive Maintenance
- Task List
- Maintenance Plan
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 (HOUS)
  • 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

- The Building: LX–0030
  Student Center
- The Floor: LX–0030–02
  Student Center, 2nd floor
- The Room: LX–0030–02–249
  Student Center, 2nd floor, room 249
- LX–0030–ST
  Stairway
- LX–0030–EL
  Elevator

Unit 1 – The Plant Maintenance Process

Exercise 1

Display Functional Location
IL03
Unit 2

Notifications (Work Requests)

The Plant Maintenance Process

Identify the Work
Plan the Work
Do the Work

History/Analysis

Preventive Maintenance
Task List
Maintenance Plan

Record What was Done

Order Confirmation

Plan the Work
Work Order

Do the Work
Goods Issue
Purchase Order

UK Business Warehouse
What is a Notification?

- A Notification is a non-financial transaction that is used to:
  - Report a problem
  - Request work
  - Record an event or activity

How are Notifications Created?

- Notifications may be created:
  - Via a web form used to report a problem or request work
  - Through a phone call to the control desk
  - By a maintenance user, to record a log entry or technical observation
**Information Captured on a Notification**

- **Description**
  - Explanation of the problem or work
  - Examples: Room too cold; Broken window
  - Can include long text for more detail

- **Functional Location** – the location of the work
  - LX-0030 is the Student Center
  - LX-0030-02 is Student Center, 2nd floor
  - LX-0030-02-249 is Student Center, 2nd floor, room 249
  - Stairways and elevators are also included

- **Priority** indicates when this work should be scheduled. Choices are:
  - Daily Operations
  - Emergency
  - Research FAC
  - Renovations
  - Scheduled Maintenance
  - Elective Improvement
Information Captured on a Notification

- Reported by
  - The person reporting the problem

- Main Work Center
  - A work group or individual
  - Examples include Electric Shop, Plumbing, Cabinet Shop, Grounds, etc.
### Notification Types

<table>
<thead>
<tr>
<th>Description</th>
<th>Campus PPD</th>
<th>Medical Center PPD</th>
<th>Housing PPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency</td>
<td>CE</td>
<td>ME</td>
<td>HE</td>
</tr>
<tr>
<td>Fire Alarm</td>
<td>CF</td>
<td>MF</td>
<td>HF</td>
</tr>
<tr>
<td>Log Entry only</td>
<td>CL</td>
<td>ML</td>
<td>HL</td>
</tr>
<tr>
<td>Problem Report</td>
<td>CP</td>
<td>MP</td>
<td>HP</td>
</tr>
<tr>
<td>Work Request</td>
<td>CR</td>
<td>MR</td>
<td>HR</td>
</tr>
<tr>
<td>Notification created by external system</td>
<td>CX</td>
<td>MX</td>
<td>HX</td>
</tr>
<tr>
<td>ResNet Notification</td>
<td></td>
<td></td>
<td>HN</td>
</tr>
</tbody>
</table>

#### Creating a Notification

On the next screen, fill in the Description, Functional Location, Reported by, and Priority fields.
Creating a Notification

Select the Priority from the drop-down list

After entering the information, click on the Save icon
Notification Number

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

Unit 2 – Notifications (Work Requests)

Exercise 2

Display a Notification IW23
Unit 3

Work Orders

The Plant Maintenance Process

Identify the Work
- Notification

Plan the Work
- Work Order

Do the Work
- Goods Issue
- Purchase Order

History/Analysis
- Reports
- UK Business Warehouse

Preventive Maintenance
- Task List
- Maintenance Plan

Record What was Done
- Order Confirmation
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.

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

- **Description** – includes “long text” which can be of unlimited length
- **A Priority** for the work
- An object to be maintained: A Functional Location (building, room) or piece of Equipment
- **Contact information** for the person reporting the problem or requesting work
- **Planned** labor and materials
- **Actual** labor and materials costs
Other Work Order Information

- **Person Assigned** – This could be an individual with a specialty in a certain area
- **Materials** – Parts and supplies needed to perform the work
- **Special Conditions** – For example: Patient Rooms, Hazardous Areas
- These items can be added later as additional planning is performed for more complex orders.

Creating a Work Order – IW31

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

<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 Setup</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>
Click on the drop-down icon in the Priority field to see the choices.

Each priority has a specified time span for the work.

<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>MCPPD</td>
</tr>
<tr>
<td>Emergency</td>
<td>30 Min</td>
<td>24 Hours</td>
<td>PPD, Housing</td>
</tr>
<tr>
<td>General Maint.</td>
<td>7 Days</td>
<td>30 Days</td>
<td>MCPPD</td>
</tr>
<tr>
<td>Scheduleable Maint.</td>
<td>7 Days</td>
<td>30 Days</td>
<td>PPD, 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>PPD</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>MCPPD</td>
</tr>
<tr>
<td>Elect. Improv.</td>
<td>3 Days</td>
<td>10 Days</td>
<td>MCPPD</td>
</tr>
<tr>
<td>Elect. Improv.</td>
<td></td>
<td></td>
<td>PPD, Housing</td>
</tr>
<tr>
<td>Renovations</td>
<td></td>
<td></td>
<td>PPD, MCPPD</td>
</tr>
<tr>
<td>Renovations/AptChk</td>
<td></td>
<td></td>
<td>Housing</td>
</tr>
</tbody>
</table>
If you do not know the Functional Location code, click on the Possible Entries icon to search for it.

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.
**Functional Location**

The Functional Location matches will be displayed. Double-click on the appropriate location to populate the Functional Location field on the Order.

**Creating a Work Order**

After completing the fields, press the Enter key or click on the Create Order button.
Creating a Work Order

The work order will appear. Enter a description of the work and an estimate of labor time required.

Click on the Save icon.

Work Order Number

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

Order saved with number 807000000040
Unit 3 – Work Orders

Exercise 3
Display a Work Order IW33

Unit 4

Materials
The Plant Maintenance Process

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
**Stock Materials on a Work Order**

- We are assigning numbers for parts we keep “in stock” on campus – called **Stock Materials**
- Putting stock material numbers on your work order will create a **Reservation** for you at the Storeroom
- The Storeroom can then pick, stage, and deliver the materials as required
  - For example, say next week you plan to replace the air filters in your building. You can set up the work order and under materials needed go ahead and fill out the number for air filters. If the materials are “stock”, this will reserve the materials you need. You can pick them up under your Work Order number or the Storeroom can deliver the materials when needed.

**Non–Stock Materials on a Work Order**

- Items that we don’t want to store on campus but rather get on an as-needed basis, these are called non–stock and can also be assigned material numbers
- If you need non–stock materials, when they are placed on the work order the system will **automatically** generate a **purchase requisition** that will go thru Purchasing. These are automated because we have set up contracts with commonly used Vendors.
- Purchasing can take a look at these purchase orders on the computer and approve them. Much faster process than the old paper days and less paper work.
- The materials are ordered from the Vendor and delivered to Central Stores. The Storeroom can then pick, stage, and deliver the materials as required
Non–File Materials on a Work Order

• Not everything will have a material number. We call these things non–file materials
• Non–file materials are parts ordered as needed and do not have IRIS material numbers
• If you have a Work Order where you need to order a non–file material, you will manually create a Purchase Requisition. The system can’t do these automatically because we probably don’t have contracts set up with the Vendor
• This is the process used for those hard–to–find parts. Once you find a supplier for the item, you will proceed with a Purchase Requisition (as we do currently) or use the Pro–Card when necessary

Unplanned Materials on a Work Order

• If you are on your way to a job and realize you need light bulbs, you certainly can drop by the Storeroom and pick up the bulbs without having to drive first to a computer to reserve them!
• These are called Unplanned Materials – since you did not plan ahead to reserve them on a work order
• If Storeroom has some on hand, they will issue those to you. They will go into the computer and add the unplanned materials in under your Work Order number. This way, recharges will be kept up correctly
• They will also get your name when you pick up the materials
Placing Materials on a Work Order

- There is an area on a work order called Components where you list all materials.
- Enter the material number, if known.
- Do a Possible Entries search to find the part number or description.
  - Remember, you can use Asterisks as "wildcards" in a search to let you search to use partial information.
  - For example: *filter* will find all materials with "filter" in the description – air filters, water filters, pool filters, waste filters, etc.
  - Just double-click to choose the desired part from the search list.

Future Enhancements:
- Bill of Material for the building, room, or equipment to be maintained. The BOM may be used to suggest part numbers.
- 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

This is a newly created order. We need to add the materials now.

Click on the Components button.
Planning Materials on an Order

We will search for the Components (materials) needed by clicking on the Possible Entries icon in the Component field.

Planning Materials – Search by Description

The search box appears, and we choose the Plant Material by Description tab.

We need a light bulb, so we will search for all materials with light in the description.
### Planning Materials – Search by Description

The search results appear.

Double-click on the desired material.

### Planning Materials on an Order

The Component field is now populated. Enter the quantity required and unit of measure. Repeat for each component.

Click the Save icon.
To use a Task List, click the Change Work Order button on the Easy Access menu.

Note: A Task List could also be used when creating an order.

On the Menu bar, select Extras → Task List Selection → To reference object
The system will ask whether to delete the planning you have done.
If you click on “Yes” the Task List will replace what you have entered; otherwise, the Task List will be added to what you have entered.

Unit 5

Time Processing
**The Plant Maintenance Process**

- Identify the Work
  - Notification
- Plan the Work
  - Work Order
- Do the Work
  - Goods Issue
  - Purchase Order
- Preventive Maintenance
- Task List
- Maintenance Plan
- History/Analysis
  - Reports
  - UK Business Warehouse
- Record What was Done
  - Order Confirmation

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**Time Entry**

To begin, the Timekeeper clicks on the Time Entry button on the SAP Easy Access screen.
Choose PMWEEKCA in the Data Entry Profile field, and then click on the Change icon (pencil).

Click on the Personnel Selection button.
Time Entry

Enter the Personnel Number and then click the Execute icon.

On the list that appears, highlight the person and click the Change icon.

The Data Entry View screen will display. Highlight the row and enter the data.
Time Entry

The time can be entered either in total time by work order or by start and stop times in military time.

Unit 6

Equipment
Equipment in Plant Maintenance

• Equipment is a uniquely identifiable object
  - You can install it
  - You can maintain it separately from maintaining the building or room in which it is installed
  - You can remove it
  - IRIS keeps a history of the maintenance of that equipment regardless of where it is installed
  - Technical information is stored with the equipment master record
  - Preventive maintenance may or may not be scheduled for equipment

Creating Equipment

• Equipment information
  - Equipment number
  - Description
  - Functional Location
  - Manufacturer information, which can include model number, manufacturer part number, manufacturer serial number
  - Maintenance Plant – ALWAYS UK10
  - Main Work Center Work Group and Planning Plant
The Equipment Number

When creating equipment, each unit will manually enter its own equipment number, using a letter prefix before the number to identify who the equipment belongs to.

For example:  
C = Campus PPD  
M = Med Center PPD  
H = Housing

Display Equipment – IE03

Enter the equipment number in the Equipment field, or click the Possible Entries icon to search for the number. Then press Enter.
The information for that piece of equipment is displayed. Manufacturer data can be found on the General tab.

Cost Center information is on the Organization tab.
### Equipment – Where Installed

<table>
<thead>
<tr>
<th>General</th>
<th>Location</th>
<th>Organization</th>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structuring:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function Location</td>
<td>L2-0882-04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>COLLEGE OF PHARMACY - Floor 04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SuperEquip.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical No.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ConstType</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Functional Location information is on the Structure tab.

### Equipment – Classification

- Classification information may also be available, such as JCAH code for the Hospital.
Unit 6 – Equipment

Exercise 4
Display Equipment IE03

Unit 7

Reports
Reporting in IRIS

- IRIS data can be extracted and analyzed.
- Use selection screens and variants to narrow your requests for information.
- Drill-down functionality can provide detail.
- List Displays can help manage work – you can specify criteria and produce lists of notifications, work orders, equipment, functional locations, etc., for planning and analysis.

Example: To display certain notifications, you first specify your criteria, such as Notification Status, Type, and Functional Location.
In this example, we have selected criteria that will display a list of CPPD Emergency Notifications that are outstanding or in process.

After specifying the criteria, you can save it for future use as a variant by clicking on the Save icon.
Creating a Variant

The Save as Variant screen will appear. Give the variant a name and description (Meaning), and then protect it from changes.

Click on the Save icon to save your variant.

Display the List

You will be returned to the criteria selection screen. Click on the Execute icon to display the results.
Display the List

The results display as a list of notifications that match the criteria you specified.

Using a Variant

The next time you want to produce a current list of notifications meeting those criteria, click on the Get Variant icon.
**Using a Variant**

A list of variants will be displayed. Double-click on the one you want to use and the criteria fields will be populated automatically.

**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 this 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 that you can format, save, and use as you wish.
Exercise 5
List Display Notifications
IW29

Course Summary

You should now have a better understanding of:

• The Plant Maintenance Process
• Notifications (Work Requests)
• Work Orders
• The Plant Maintenance–Materials Management Relationship
• PM Time Processing
• Equipment
• Reports
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