



Oracle Maintenance Cloud

Release 13

New Feature Summary

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REVISION HISTORY

This document will continue to evolve as existing sections change and new information is added. All updates are logged in the following table, with the most recent updates at the top.

Date	What's Changed	Notes
07 APR 2017		Document created.

OVERVIEW

An integrated asset management system is fundamental for organizations that are heavily dependent upon physical assets in the manufacture or delivery of their products. Asset-intensive firms of all sizes, locations, and industries face unprecedented challenges in today's changing global economy. With shrinking margins and decline in capital spending, firms need to operate their assets with greater efficiency, uptime, and effectiveness. Plant managers are asked to "do more with less" with current resources; Oracle Maintenance Cloud helps you address these challenges in a dynamic global economy.

MAINTENANCE

Oracle Maintenance Cloud provides a comprehensive ability to define and maintain assets across the enterprise using maintenance processes that are consistent and repeatable. Maintenance is part of a suite of applications that includes other Oracle Cloud solutions, such as Procurement, Inventory and Cost Management, Product Lifecycle Management, and Financials. A simplified setup helps you quickly set up supply chain common components, as well as basic features for maintenance, inventory management, and cost management.

DEFINE MAINTENANCE MASTER DATA

CREATE AND USE MAINTENANCE ORGANIZATIONS

To avoid the challenges of master data duplication and synchronization common to 'add-on' maintenance solutions, Maintenance extends the existing Oracle Cloud Enterprise Resource Planning and Supply Chain Management data model to support additional maintenance-specific master data. Your maintenance manager can now easily define, view, and update the maintenance organization data and its relationships in the following areas:

- **Maintenance organization.** Define an organization where you can specify maintenance setup data, run maintenance processes, and support maintenance, repair, and overhaul (MRO) materials. Configure organization parameters that determine the behavior of work definitions, work orders, and work execution. Use an organization calendar to schedule maintenance resources.
- **Maintenance calendar.** Define a maintenance calendar that includes work days, shifts, and exceptions.
- **Work areas.** Define work areas that represent locations in the organization, where multiple work centers comprise each work area.
- **Work centers.** Define each work center, such as a department or maintenance location, where maintenance operations are performed. Each work center is comprised of maintenance resources that provide capacity and availability.

- **Maintenance resources.** Define common equipment and labor resources that your organization uses in maintenance. Define resource calendar exceptions, such as training, according to day or shift. Define and view resource rates in Oracle Cost Management Cloud.
- **Standard operations.** Create a predefined library of standardized maintenance operations and their resources and usages, so you can add them to work definitions and work orders. Automatically publish subsequent changes that occur to a standard operation to the work definitions that reference it.

QUICKLY SET UP COMMON COMPONENTS AND FACILITIES

In order to simplify and to guide you towards recommended best practices, an automated setup flow assists you with the setup process, reuses existing setups, asks important questions and, for some tasks, provides default values for setups according to recommended practices. You can:

- **Set up your calendar.** Set up shifts, workday patterns, and schedules.
- **Set up units of measure.** Set up unit of measure classes, units of measure, and conversions.
- **Set up inventory organizations and maintenance organizations.** Set up master item organization and inventory organizations or maintenance plants, and set inventory organization and maintenance plant parameters.
- **Automatically predefine required receiving, inventory, and shipping tasks for your organization:**
 - **Manage inventory configuration.** Manage subinventories, locator structure, inventory transaction reasons, material statuses, ABC classes, ABC classification sets, ABC assignment groups, and pick slip grouping rules.
 - **Manage receiving configuration.** Manage receiving parameters.
 - **Manage shipping configuration.** Manage rules that release pick waves and release sequence rules.
 - **Automatically default required setups for maintenance plants by creating default maintenance organization data.** Create default work area, work center, labor, and equipment resources.

For more information on setting up Maintenance Management, see Oracle SCM Cloud: Implementing Manufacturing and Supply Chain Materials Management.

DEFINE AND MANAGE ASSETS

You can create maintainable assets in Maintenance Management by way of four distinct flows:

1. On the Manage Assets page, you can create a new asset.
2. Through an acquisition process using the procurement flow, you can purchase an asset and track its lifecycle from purchase to receipt through implementation, maintenance, and eventual disposal.
3. Using Oracle Manufacturing Cloud, you can build your own asset, then track and maintain it through Maintenance Management.
4. If you are converting from another maintenance system or have collected your asset information in a spreadsheet, you can import assets.

The Manage Assets page is the starting point for most asset-related activities. This page allows you to quickly and easily create and retrieve asset and component information using enhanced search (including key word search, autosuggest, filters, and a combination of autosuggest or keyword search and filters), and to see the details of location. These functions are available using a mobile device, tablet, or desktop. Maintenance Management enables faster on-boarding of new assets and timely asset information for all assets spanning the complete maintenance lifecycle.

CREATE ASSETS

In order to manage and maintain your assets, you need to be able to create them in the system. You access the create assets capability from the Manage Assets page. Asset creation includes uniquely identifying the asset, defining its relationship to an item, defining the asset's location, and providing default parameters for work order execution. The attributes for the create asset feature include the following:

- **Number.** Asset number is alphanumeric and unique across the organization. If not specified, the asset number is automatically generated. This field is mandatory.
- **Description.** Description of the asset. This field is optional.
- **Item.** Item is defined in the Product Information Management work area and associated with an asset. This field is mandatory.
- **Item Serial Number.** Item serial number is alphanumeric, is unique in combination with asset item, and is unique within an organization and across organizations. This field is optional.
- **Asset Location.** The work center or subinventory location associated with the asset. This field is optional.
- **Work Center.** The work center location associated with an asset. This association does not have any influence on work orders. This field is optional.
- **Default Maintenance Work Order Type.** Work order type default value assigned when creating a maintenance work order. This field is optional.
- **Default Maintenance Work Order Subtype.** Maintenance work order subtype default value assigned when creating a maintenance work order. This attribute is one of the 'Source Parameters' in the subledger accounting for asset maintenance. Oracle Cost Management Cloud derives work order accounts based on this attribute. This field is optional.

PROCURE ASSETS

There are times when you will need to procure a new asset, whether to replace an aging asset or as a critical spare. Using Oracle Procurement Cloud, you can purchase an item that has been defined in the Product Information Management work area as inventory-tracked, 'Full Lifecycle Tracking,' and 'Maintainable.' After receiving the item, an asset is automatically created, and the maintenance manager can update the record in the Manage Assets page to identify it as a 'Maintainable Asset.'

BUILD ASSETS

In some industries, operations builds the assets used in production. This may be because the assets are unique to your business or hard to procure. In Oracle Manufacturing Cloud, you can manufacture an asset by defining the associated item in the Product Information Management work area as 'Full Lifecycle Tracking.' If you want to track it as a maintainable asset, make sure the associated item in Product Information Management is defined as 'Maintainable.'

IMPORT ASSETS

In order to support the flexible mass import and update of asset information, Maintenance Management provides a spreadsheet upload capability. Not only is this feature helpful when initially uploading asset information during implementation, but it is also useful for ongoing updates, such as those necessitated by mergers, acquisitions, and reorganizations.

DEFINE ASSET PARTS LIST

The asset parts list defines the replacement parts associated with an asset, which can be used to create the materials requirement for a reactive work order. The parts list can include both stock and nonstock parts. This feature saves you time when planning your work order by providing an easy way to see and copy what parts are commonly used on a repair of an asset. Also, during asset creation, if you have a number of similar assets, you can easily 'Copy Parts List' from one asset to another.

WORK EXECUTION

Work order execution and data capture provides the basis to evaluate the effectiveness of your maintenance strategy. The execution relies on a series of processes including: determining work priorities, management of the daily schedule, reviewing the dispatch list, data capture of labor and material, and work order completion. The actual transactions recorded during the work order execution process are then costed (see the Report Work Order Costs Comprehensively feature in this document). This financial information helps you determine which assets are the most costly to maintain and which assets you might want to consider replacing as opposed to repairing.

USE THE MAINTENANCE WORK AREA LANDING PAGE

Sifting through reports to determine what work is a high priority and what work is past due, wastes time, and takes your focus away from actually performing the repair and maintenance work. Maintenance managers and maintenance technicians need to quickly and easily see what requires their immediate attention, and assess how they are doing towards completing their work.

Maintenance provides this insight with the Maintenance work area landing page. It provides key metrics that you can drill down to the underlying objects to take action. These metrics also provide insight into your problematic assets, as well as the overall maturity of your maintenance program.

Metrics for the maintenance technician include:

- **Operations.** Displays the counts of released work order operations that are past due, as well as those that are ready to be worked on.
- **Past Due Operations.** Shows the top five work centers with the most past due operations.

Maintenance managers can see all of the maintenance technician metrics, plus:

- **Work Orders – Released.** Displays the total number of released work orders, including the total count of top priority work orders and past due work orders.
- **Scheduled vs. Completed Work.** Displays the number of work orders scheduled to be completed and the number of work orders actually completed for the current week. It also displays the total count of work orders scheduled to be completed in the current week.
- **Work Completion – This Week.** Shows the number of work orders that are completed on time versus the number of work orders that are completed late. For the work orders that are completed late, this metric also shows what percentage are preventive work orders and what percentage are corrective work orders.
- **Released Work Orders.** Shows the top five work centers with the most released work orders.
- **Work Orders with Work Definition.** Displays the count of work orders (with a scheduled completion date within the last six months), with and without a work definition reference, to help you assess the maturity of your maintenance program.
- **Assets with Most Work Orders.** Displays the five assets with the most number of work orders for the last six months. You can expand the view to show the assets with the most work orders for the last month, last three months, last six months, or last twelve months.

EXECUTE WORK ORDERS

The Maintenance Dispatch List provides the maintenance manager with a view of work scheduled for the current day, scheduled work orders for the following days, and changes to operations that might change priorities. The maintenance technician can easily complete work orders, enter material and labor required to complete a work order, and enter completion information.

The first thing a maintenance manager needs to know at the start of the day is: “*What needs to be done today?*” Maintenance helps the maintenance manager focus on the activities that must be finished today. You can view and manage all aspects of maintenance, such as create work orders, update or edit work order operations, update or edit priorities, edit and manage work order status, and print materials lists and work order details reports.

USE SIMPLIFIED REPORTING FOR MAINTENANCE TASKS

You can improve productivity by allowing maintenance technicians to get reports on materials, resources, and operation completion with only two clicks, and by providing access to more detailed information, if required. The Maintenance Dispatch List gives your maintenance personnel a single location where they can view maintenance priorities and complete tasks for their work center and their shift. The technician can start and end the day with only the dispatch list and perform all activities for work orders, such as completing operations, resolving material problems, returning materials, charging resources, printing maintenance documents, and so on.

When reporting material transactions, you can use the predefined integration with scanning devices for touchless issuance of material to a work order. This saves time and ensures data accuracy. After you have identified the work order number and operation, you can simply scan the component to issue it to the job.

OUTSIDE PROCESSING

MANAGE AND EXECUTE SUPPLIER OPERATIONS

With this release, you can create, update, and schedule work orders with supplier operations. As a maintenance manager, you can use the Manage Supplier Operations page to:

- Manage all supplier operations
- Receive and complete the supplier operations for serial-tracked assemblies from the supplier
- Review and print the work order traveler to provide the details of the supplier operations

This gives you a simple and easy-to-use page to review, monitor, and manage supplier operations across different suppliers and purchase orders for the plant or work area for which you are responsible.

CREATE AND MANAGE PURCHASING DOCUMENTS

Outside processing is one of the key activities on the shop floor. After you identify a supplier, the terms of the contract are set between the OEM and the supplier as a blanket agreement. However, every time you perform an outside processing activity, a separate purchase request and a corresponding purchase order is created.

In this release, the user can create a purchase request every time an outside processing activity is required (based on the work order operation information in Maintenance Management). After the purchase request is created, based on the settings, the system automatically converts the purchase request to a purchase order, or the purchase request will be converted by the buyer.

The status of the purchase request and the corresponding conversion to purchase order is visible to the user at all times. This visibility helps the user to keep track of all the outside processing purchase request activities at all times.

MONITOR AND REVIEW SUPPLIER OPERATION DETAILS

Most of the time, the process of shipment and receipt between your plant and the supplier is without issues. However, there are cases where there are issues related to shipment errors, receipt errors, and so on.

Upon review of the supplier operation details, you have a bird's eye view of the purchase request, purchase order, shipment, receipt, over-receipts, and so on. You can also make any corrections to receipts, shipments, and returns as well as submit new purchase requests. Additionally, you can resolve exceptions raised due to purchasing or demand issues.

This supplier operations details page gives you a complete control on the current status of the supplier operation and also helps you take corrective actions.

ADDITIONAL MAINTENANCE ENHANCEMENTS

VISUALLY DESIGN MAINTENANCE WORK DEFINITIONS

You use the Maintenance Work Definition template to define the relationship between parts, resources, and maintenance operations for a given piece of maintenance work. After the work definition is defined, you can use it to quickly create a specific work order. Visually design a work definition that represents the maintenance process, including the materials and resources needed to complete the job. Drag-and-drop capability allows users to quickly associate the different parts of the maintenance work order definition and depict the sequence of operations to specify how each operation is executed. Use work definition versioning to monitor and implement changes you make to support a Reliability Centered Maintenance (RCM) methodology. Print a report of the work definition, including operations, material, and resource requirements and share this report internally in your organization and externally with contractors to collaborate on process improvement.

MANAGE MAINTENANCE WORK ORDERS

The Manage Maintenance Work Orders enhanced search page helps you quickly and easily retrieve work order information detailing the work description, asset to be repaired, work order status, and start and completion dates. It provides keyword search, autosuggest, filters, and a combination of autosuggest or keyword search and filters.

You can view and manage all aspects of maintenance, such as create reactive work orders, update or edit work order operations, update or edit priorities, edit and manage work order status, view progress, and print work order reports. If you are planning and managing large numbers of work orders, you might find that the mass actions feature saves you keystrokes and time when changing the status of multiple work orders.

Work definitions are used as templates for work orders to save the maintenance manager time when planning the work order. Whether using work definitions or creating the work order on the fly, you can create a job with multiple operations, multiple resources, and use the parts list to plan the materials needed for the different tasks. At the operational level, you can define in-house operations or supplier operations. You can also use the efficiency of using predefined standard operations. Resources are associated with work centers and are defined as either crafts or pieces of equipment (tools) needed for a job.

REPORT MAINTENANCE WORK ORDER COSTS COMPREHENSIVELY

Oracle Cost Management Cloud provides a setup that allows users to define cost by asset, work order, or type of work performed (such as segregating cost by reactive work or preventative work). This setup provides the cost accountant and maintenance manager with the information they need to control the material and resource costs incurred during the maintenance process.

Cost Management monitors work order costs across the entire lifecycle of the work order, from initial charges to work order close, including any overhead a cost accountant might add to the work order cost. This information is essential in determining the repair versus replace strategy for maintaining assets.

SELECT AND ACCESS FAVORITES IN MAINTENANCE

To support easy and quick retrieval of specific data, you can use the Favorites feature. In prior releases, setting a favorite was managed through the Favorites and Recent Items toolbar, which required a few extra clicks. In this release, you can easily establish for assets, work definitions, and work orders as favorites with a click on the Star icon that appears next to the object title. One click identifies the object as a favorite (solid yellow star), and one click removes it from favorites (empty star). Establishing a favorite provides you with easy access to revisit those objects by opening your Favorites and Recent Items list and clicking on the title.

COLLABORATE WITH STAKEHOLDERS ON WORK DEFINITIONS AND WORK ORDERS USING ORACLE SOCIAL NETWORK

Resolving issues requires effective collaboration on a communication platform that provides the right context, history, and tools, and connects people without introducing another standalone social networking tool. In this release, you can use Oracle Social Network to leverage the power of social collaboration that is directly built into Maintenance Management to:

- Stay connected with work definitions and work orders to get updates.
- Start a conversation and collaborate in real time, and in multiple threads, with internal and external partners.
- Resolve maintenance problems and share recommended practices through social collaboration.

All communications are maintained with the proper business context and team engagement using Oracle Social Network, effectively closing the collaboration gap.

ORACLE INSTALLED BASE

As businesses extend their offerings to include post-sale services or transform to product-service systems, the tracking of products that are installed at a customer site has become increasingly important. In addition, enterprise-owned asset insight is critical to ensure effective asset maintenance for companies that are heavily dependent upon physical assets for the manufacture and delivery of their products. To meet these needs, Oracle Installed Base Cloud provides a single source of truth for asset information, capturing, and tracking key asset information, such as:

- Asset number
- Product number
- Serial number
- Customer
- Location

This asset information is integrated with Oracle Enterprise Contracts Cloud to streamline contract creation for included services and provide customer asset insight for use when authoring contracts for additional services. This information is also integrated with Oracle Maintenance Cloud, so you can quickly and easily access asset information when maintaining and repairing assets. In addition, Installed Base maintains a complete transaction history for assets, including receipt and vendor information for purchased items, and “as manufactured” configuration information for manufactured items.

STREAMLINE ASSET CREATION AND RETURN PROCESS

Assets are usually created and removed as part of other transactions, such as a shipment or a return. Installed Base automates this process ensuring installed base information is up-to-date and accurate. You can simply mark an inventory-tracked, serialized item as “Customer Asset Tracked” or “Full Lifecycle Tracking” in the Product Information Management work area to enable the automatic creation of an asset upon shipment to the customer (the “Sales Order Issue” transaction in Oracle Inventory Management Cloud). In addition, any assets returned by the customer (by way of the return material authorization process in Oracle Inventory Management Cloud) are also updated accordingly in Installed Base.

INTEGRATE WITH ORACLE ENTERPRISE CONTRACTS CLOUD

Installed Base has a direct integration with Oracle Enterprise Contracts Cloud. This integration enables the creation of the included warranty contracts upon asset creation, and provides asset search and select capabilities when authoring service contracts to sell and bill for associated coverage services. This integration also ensures that included warranty contracts in Enterprise Contracts are properly updated based on changes made to the asset (such as asset termination) in Installed Base.

INTEGRATE WITH ORACLE MAINTENANCE CLOUD

Installed Base has a direct integration with Oracle Maintenance Cloud, providing asset insight so that maintenance managers and maintenance technicians can quickly and easily access asset information to maintain and repair their assets. Installed Base enables Maintenance Cloud users to uniquely identify an asset, define its location, and set default parameters for work order execution, thus ensuring effective and efficient maintenance operations.

USE WEB SERVICES TO MANAGE DATA

Installed base information can originate from, be updated by, or used by a variety of sources and systems. To allow for this flexibility, Installed Base provides an external REST web service, enabling any system to easily search for, create, and update customer asset information.

UPLOAD DATA USING SPREADSHEETS

To support the flexible mass import and update of asset information, Installed Base provides a spreadsheet upload capability. Not only is this feature helpful when initially uploading asset information during implementation, it is also useful for ongoing updates, such as those necessitated by mergers, acquisitions, and reorganizations.



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Integrated Cloud Applications & Platform Services