



Agile Product Lifecycle Management

Recipe & Material Workspace
Equipment Management Guide

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Preface

Oracle's Agile PLM documentation set includes Adobe® Acrobat PDF files. The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.html> contains the latest versions of the Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

Note To read the PDF files, you must use the free Adobe Acrobat Reader version 9.0 or later. This program can be downloaded from the [Adobe Web site](http://www.adobe.com) <http://www.adobe.com>.

The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.html> can be accessed through **Help > Manuals** in both Agile Web Client and Agile Java Client. If you need additional assistance or information, please contact My Oracle Support (<https://support.oracle.com>) for assistance.

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Readme

Any last-minute information about Agile PLM can be found in the Readme file on the [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.html>

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Introduction to Recipe & Material Workspace Equipment Management

This chapter includes the following:

▪ About this Guide	1
▪ Recipe & Material Workspace Documentation	1
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The Equipment Management module within the Agile PLM Recipe & Material Workspace (RMW) solution provides information on how to effectively qualify and make equipment available for use.

About this Guide

This guide provides information on all the features and functionality of the RMW Equipment Management solution. It also covers instructions on how to use the various menus and commands available on the RMW User Interface to author and manage equipment objects. The features that are visible to you on the interface are determined by the access privileges assigned to you by an administrator.

Recipe & Material Workspace Documentation

The complete list of RMW manuals is provided here for the benefit of users and administrators of the RMW solution.

- *Getting Started with Recipe & Material Workspace* — Describes common concepts, basic navigation, searches and workflows. Also covers how to work with reports, standards, and environmental conditions.
- *Recipe & Material Workspace Administrator Guide* — Describes all administration and configuration information including Agile PLM integration requirements.
- *Recipe & Material Workspace Process Management Guide* — Describes the features of the Process module, covering the creation and execution of projects and campaigns, control recipes, and work requests.
- *Recipe & Material Workspace Recipe Management Guide* — Describes the features of the Recipe module, covering the authoring and management of recipes and recipe templates.
- *Recipe & Material Workspace Material Management Guide* — Describes the features of the Materials module, covering how to work with material requests, inventory, and allocation. Also covers how to manage analytical activities.
- *Recipe & Material Workspace Equipment Management Guide* — Describes the features of the Equipment module, covering equipment qualification, loan, lease, and reservation.

- *Recipe & Material Workspace Export/Import Guide* — Describes how to export and import RMW business and administrator objects from a source system to a target system.

RMW is accessed only through the Agile PLM user interface. Refer to the *Getting Started with Agile PLM* along with the *Agile PLM Administrator Guide* for a thorough understanding of PLM processes. The complete set of Agile PLM documentation, including RMW documentation, is available on the [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html)
<http://www.oracle.com/technetwork/documentation/agile-085940.html>.

Equipment Overview

The Equipment module in the RMW application tracks the availability of equipment in various sites, reserves it for activities, checks for its qualification in installation, operation and performance.

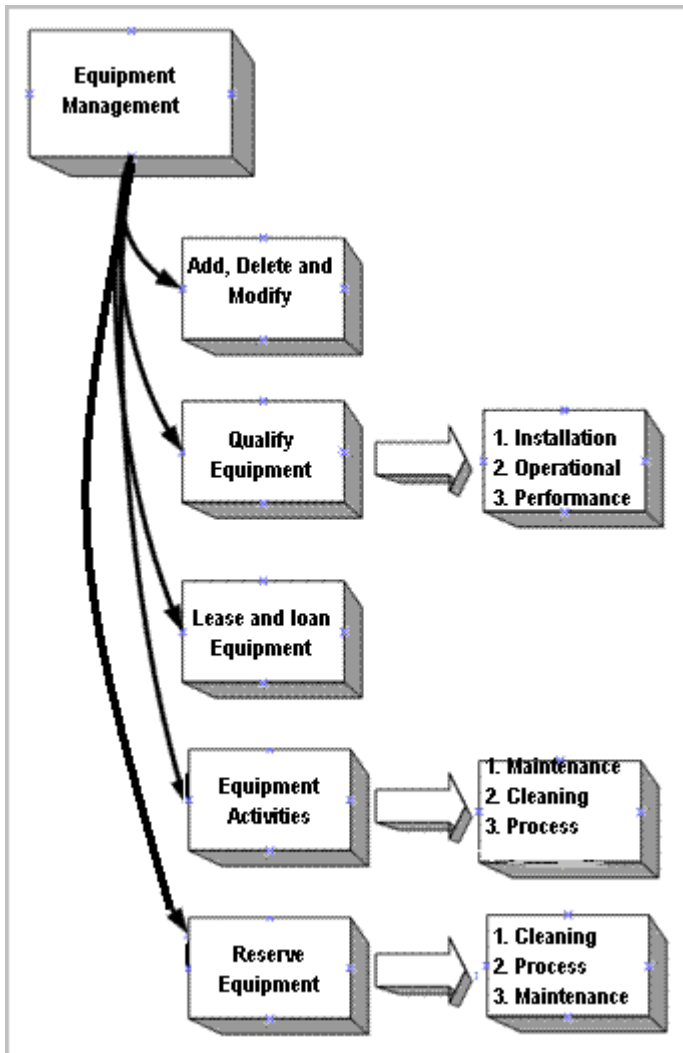
The Recipe & Material Workspace Equipment Management core functions involve:

- Creating and managing the equipment master data in the equipment library.
- Carrying out transactions on equipment
 - Qualifying equipment as:
 - Installation: If the equipment is installed correctly.
 - Operational: If the equipment is operational as per specifications.
 - Performance: If the equipment is performing in the specified environment.

Note If needed, equipment qualification can be configured to have additional qualification types.

- Loaning and leasing of equipment.
- Performing certain core activities on equipment, including:
 - Maintenance
 - Cleaning
 - Processing

The following figure illustrates the main functions of equipment management:



Working with Equipment Library

This chapter includes the following:

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Equipment Library is a repository of equipment master data. It contains the physical and other attributes of the equipment, and thus helps define and categorize various types of equipment for easy search and usage.

In equipment library, you can carry out:

- Equipment Definition management, where you can add, edit, search, duplicate, activate/de-activate, take action, set permission and remove equipment data.
- Equipment Transactions such as Change Site, View Availability, Reserve, Perform Activity, Qualify, Loan and Lease.

You can specify the following when you add a new equipment definition or edit an existing equipment definition in the Equipment Library:

- **Cleaning Method** - Each type of equipment is associated with one cleaning method. The RMW application allows you to choose one of the following cleaning methods:
 - Dose-in-Dose - a standard method of cleaning.
 - Set Cleaning Limit - the cleaning limit set by you.

You can also choose not to associate a cleaning method.

- **Qualification Type** - You can specify qualification information to ensure that when such equipment is created in the system, that equipment uses the definition to qualify before usage. Equipment should have at least one qualification associated with it. You can also associate multiple qualifications.
- **Accessory List** - You can associate accessories like hoses, pipes, which may be associated with the equipment definition, thus create an Accessories List.
- **Equipment Group** - Equipment can be grouped for one main reason, namely to reserve them together. Equipment can also be used to model suites or rooms, where the same transactions (qualify, clean etc) are applicable.

Equipment can be grouped to allow users to manage entire rooms for a project. For example, you can create a group "Suite 1" that contains the following:

- Room 1
 - Equip1
 - Equip2
- Room 2
 - Equip3
 - Equip4

When you add group equipment, you cannot add equipment in Development mode to equipment in Clinical Supply mode. You can add equipment from the same or a different category to create a group.

Note The system displays the Group tab between the MOC and Accessories tabs only if a user chooses "Group = Yes" in the General tab.

- **MOC** - You can specify a Material of Construction for the new equipment. Make sure that Material of Construction (MOC) is specified so that when placing materials in this equipment, you know that there is no chemical reaction caused by the MOC.

Equipment definitions in a library must be associated with a category. Ensure that the appropriate equipment category is created before you carry out equipment transactions. For information on adding equipment categories, see *Recipe & Material Workspace Administrator Guide*.

Adding New Equipment

Equipment used in any of the recorded processes in RMW has to be entered into equipment library first.

To add new equipment:

1. In the **Create New** menu, select **Equipment > Library**.
2. In the **Preface** tab, select the category to which your equipment belongs.
3. Click **Next**.
4. In the **General** tab, enter required information.

Significant inputs:

- **Equipment Tag Number** - The tag number according to which you arrange equipment in your catalog for corporate identification. This could be the ID coming from an Enterprise Asset Management system, if the Equipment Master is in EAM.
- **Current Site** - The site ID that currently has the right to use equipment.
- **Product Quality Impact**
 - Select **Direct**, if the equipment has a direct impact on the quality of the product.
 - Select **Indirect**, if the equipment has an indirect impact on the quality of the product.
 - Select **No Impact**, if the equipment has no impact on the quality of the product.
- **Operating Mode** - Indicates the quality operating standards for equipment. Select the operating mode from the drop-down list.
 - Select **Clinical Supply**, if you are requesting equipment for clinical supplies.

- Select **Development**, if you are requesting equipment for development, both experimental and late stage.
- Select **Not Applicable**, if you do not wish to associate an operating mode with the request.
- **Effective Start Date** - The date from which this equipment becomes active and can be used. You can change this date.
- **Effective End Date** - The date on which this equipment becomes inactive and unavailable for use. Leave the field blank if you do not want to specify when this equipment becomes inactive and unavailable for use.
- **Group** - Select **Yes** if you want to group equipment and **No** if you do not want to group equipment.
- **Can Contain Inventoried Material** - Select **Yes** if any material from the inventory is part of this equipment. Certain equipment may store the In-process materials, which are being analyzed, sampled etc. For this, the equipment can be considered as a container also. This flag will auto-create a container in the Inventory, which will be used by an analytical scientist to pull samples.

Note When you add a new equipment record to the library, the RMW application automatically generates **Equipment ID**.

5. Click **Next**.
6. In the **Characteristics** sub-tab under the **Details** tab, enter required information.

Significant inputs:

- **Equipment Site** - The ID of the site that has the permission to use the equipment.
- **Department** - The department that owns equipment.
- **General Reservation** - Indicates if equipment should have a control on reservation.
 - Select **Yes**, if you want to allow general reservation. All users with relevant roles and equipment-reservation rights can hard reserve equipment.
 - Select **No**, if you do not want to allow general reservation. Only those users with relevant roles and equipment-reservation rights can hard reserve equipment.

Note To see **Equipment Lock Reservation Role**, refer to *RMW Administrator Guide*.

- **Calibration Frequency (in days)** - Enter the calibration frequency. This field is enabled only if the **Is Calibration Needed** field is set to **Yes**.
- **Allow Simultaneous Activities** - Select **Yes** if equipment can be used for multiple activities simultaneously.

7. Click **Next**.
8. In the **Cleaning and Qualification** sub-tab under **Details** tab, select one of the following **Cleaning Methods**:

- **N/A** - Select this option if equipment does not require cleaning.
- **Dose-in-Dose** - This is a standard method of cleaning.

When you select this method of cleaning, the following fields appear:

- **Minimum Lot Size** - Refers to the quantity of material that is being used as part of the work request.
- **Final Assay Rinse Vol** - Refers to the amount of material (solvent) used as part of the

final assay for equipment cleaning.

- **100 ppm Limit** - Refers to how well equipment needs to be cleaned (i.e. the lowest detection limit for material in question).
 - **10 ppm Limit** - Refers to how well equipment needs to be cleaned (i.e. the lowest detection limit for material in question).
 - **Clean Every** - Frequency of cleaning.
 - **Set Cleaning Limit** - Sets a limit for cleaning that suits your process.
 - When you select this method of cleaning, the following field appears :
 - **User-defined PPM Limit** - The cleaning limit to define the residual amount, in Parts per Million, of the last compound allowed.
9. In the **Qualification Types**, click **Add Row(s)** to specify types of qualification checks you would like to be performed on equipment.
10. Select the qualification type for each row that you have added from the drop-down list.
- Select **Installation Qualification**, to ensure that equipment is installed in compliance with the manufacturer's specifications.
 - Select **Operational Qualification**, to ensure that equipment operates as intended.
 - Select **Performance Qualification**, to ensure that equipment and its associated equipment perform according to approved methods and specifications.

Note For more information on qualification, see [Working with Equipment Qualification](#) on page 21.

To add more than one qualification check to be performed on equipment, enter the number of rows in the field adjacent to the **Add Rows(s)** button and click **Add Rows(s)**. The corresponding number of rows gets added.

Note You have to select at least one qualification type to proceed further.

11. Click **Next**.
12. In the **MOC** sub-tab, click **Add** to select the **Material of Construction** of the Equipment from the **Results in MOC** page and click **OK**.
13. Select the Material of Construction for Equipment and click **Next**.
-
- Note** You can associate one or more materials of construction with the new equipment.
-
14. If you selected **Yes** for **Group** in the **General** tab, the **Group** sub-tab appears. Skip to the next step if you selected **No**.
1. Click **Add** to select Equipment groups from the **Results in Equipment** page.
Equipment is added in the **Group** tab.
 2. From the **Group Classification** drop-down list, select the category to associate equipment to.
 3. From the equipment records, select equipment to be grouped and click **Next**.
-

Note You can group more than one piece of equipment with new equipment.

15. If you selected **Yes** for **Can Contain Inventoried Material** in the **General** tab, the **Container** sub-tab appears. Skip to the next step if you selected **No**.

Here, you can specify the details of the container that is used for storing equipment.

Significant inputs:

- **Status -**
 - Evaluated
 - Rejected
 - To be Evaluated
 - In Production
 - Hold
 - Rework
- Package Verified - indicates if it has been verified for acceptance or not.
- Storage Location - search and select
- Material of Construction - search and select
- Import Status
- Tare Weight
- Type - Box, etc.

16. Click **Next**.

17. In the **Accessories** sub-tab, you can associate existing equipment as an accessory to new equipment.

Note You cannot add the same equipment as accessory that you have grouped with the new equipment.

To add accessories:

1. Click **Add**.
 2. From the *Results in Equipment* page, select equipment to be added as accessory. You can add more than one accessory to the new equipment.
 3. Click **OK**. The equipment appears under **Name** in **Accessories**.
 4. Select one or more equipment and click **Next**.
18. In the **Consumables** sub-tab, you can add the Material that equipment will use for its operations.

To add accessories:

1. Click **Add**.
 2. From the *Results in Material* page, select the material to be added as consumables. You can add one or more consumable to new equipment.
 3. Click **OK**.
 4. Select one or more material as consumables for this equipment.
19. Click **Finish**.

Creating New Equipment Using Save As

You can create a new equipment record from existing equipment using the **Save As** feature.

To create a new equipment using Save As:

1. Search and select equipment.
2. Click **More > Save As**.
3. Enter **Equipment Tag Number**.
4. To duplicate the Notes and Attachments, select Yes.
5. To modify any other details, click **Save and Edit**, else click **OK** to finish.

Reserving Equipment

You can add a new reservation for equipment from equipment library.

To reserve equipment:

1. Search and select equipment that you want to reserve.
2. Click **Reserve**.

For details, follow the instructions given in [Working with Equipment Reservation](#) on page 27.

Managing Reservation from Equipment Library

To manage equipment reservation from equipment library:

1. Search and select equipment for which you want to manage the reservation.
2. Click **More > Manage Reservation**. You can add new reservation and edit existing reservations.

For complete details on equipment reservations, see [Working with Equipment Reservation](#) on page 27.

Recording Equipment Activity

To record equipment activity from equipment library:

1. Search and select equipment for which you want to manage the activity.
2. Click **More > Record Activity**.

If equipment is in Draft state, the system will warn you.

3. In the Record Activity page, click **Add** to add equipment activity. You can record as many activities as required.

For complete details on recording equipment activity, see [Adding a New Equipment Activity](#) on page 15.

Managing Qualification from Equipment Library

To manage equipment qualification from equipment library:

1. Search and select equipment for which you want to manage qualification.
2. Click **More > Manage Qualification**.
3. In the *Manage Qualification* page, click **Add** to create a new equipment qualification.
For complete details on equipment qualification, see [Adding Equipment Qualification](#) on page 21.

Managing Loan/ Lease from Equipment Library

To manage loan/lease for equipment from equipment library:

1. Search and select equipment for which you want to add a new loan/lease.
2. Click **More > Manage Loan/Lease**.
3. To loan out the equipment, click **New Loan Out**.
4. To lease in the equipment, click **New Lease In**.
For complete details on equipment loan/lease, see [Working with Equipment Loan and Lease](#) on page 23.

Changing Equipment Site

To change equipment site:

1. Search and select equipment for which you want to change the site.
2. Click **More > Change Site**.
The system checks if any equipment loan or lease record is in **In-progress** status. If loan or lease records exist, a warning message appears.
3. From the search results, select the required site and click **OK**.

Viewing Equipment Availability

To check the availability of equipment:

1. Search and select equipment for which you want to view the availability details.
2. Click **More > View Availability**.
In the **View Availability** page, the reservation periods, if any, are marked in the calendar.
3. To modify any reservation, click **Edit Reservation**.
4. If there is no reservation, or if you wish to reserve equipment for a period other than already reserved, click **New Reservation**.

For complete details on equipment reservations, see [Working with Equipment Reservation](#) on page 27.

Activating / Deactivating Equipment

Equipment that is active can be reserved or modified. You cannot deactivate equipment if it is in use or in the reserved state.

To activate or deactivate equipment:

1. Search and select equipment that you want to activate or deactivate.
2. To activate equipment, click **More > Activate**.
3. In **Activate**, enter the effective start date, effective end date and the reason for activation.
4. Click **OK**.
5. To deactivate equipment, click **More > Deactivate**.
6. In **Deactivate**, enter the end date and the reason for deactivation.
7. Click **OK**.

Changing Equipment Lifecycle Phase

To set the status of equipment:

1. Search and select equipment.
2. Click **Change > Lifecycle Phase**.

The drop-down list in the change status is filled dynamically. Based on the current status of the equipment, the list is filled with only those statuses to which the equipment can be transitioned.

The status values are:

- **Hold QA** - when equipment is in the *Hold QA* status you cannot edit it. QC has to release the equipment.
- **Offline** - when equipment is not available for use, it is in *Offline* status. You can soft reserve, change status, deactivate and manage activity of equipment.
- **Hold clean** - when equipment is in the *Hold Clean* status you cannot edit it. QC has to first release the equipment.
- **Release To Process** - when disposition is set during production BOE, equipment status changes to *Release to Process*.
- **Hold maintenance** - when equipment is in the *Hold maintenance* status you cannot edit it. QC has to first release the equipment.
- **Retired** - when equipment is in the *Retired* status, it indicates that equipment has been retired and will not be used by the plant any longer. It is possible that it may have been removed from the plant altogether. You can change status, deactivate and manage activity.
- **Clean** - when equipment is cleaned, it is in the *Clean* status. You are allowed to log all types of activity but cannot edit.

- **In Use** - when equipment is in use you cannot edit it.
- **Draft** - when equipment is created, it is in the *Draft* status. You can edit equipment in this state. You can Change Status, Remove, Duplicate, Activate, Deactivate, Manage Reservation, Manage Activity, Manage Qualification, Manage Loan/Lease. You cannot add equipment to BOE, hard reserve equipment and loan/ lease equipment.

Working with Equipment Activity

This chapter includes the following:

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▪ Removing an Activity	20

RMW records all activity related to each piece of equipment. The following activities are performed on equipment before use in the production process.

1. **Maintenance** - The type of maintenance conducted last on equipment.
 - Corrective
 - Preventive
 - Calibration
 - Change
2. **Cleaning** - The last cleaning activity, whether major or minor, carried out on equipment.
 - Minor - when the cleaning activity is carried out at equipment site using the internal resources.
 - Major - when equipment is sent out to an external organization or to another site for cleaning activity.
3. **Processing** - The lot of material that the piece of equipment was utilized to produce.
 - External to (SUMS...Please check)
4. **Other**
 - Not Applicable
 - Equipment Setup
 - Tear-down

Adding New Equipment Activity

All the activities that are carried out on a piece of equipment have to be recorded in order for the equipment to qualify for production or development. Depending upon the purpose of an activity, the RMW application provides suitable entry forms.

If equipment is already under an activity on a particular day or during a particular period, you can add a new activity for any overlapping day or period.

Maintenance Activity

Equipment to which you want to assign maintenance activity can be in any status except

- Release to Process
- In Use
- Retired.

Equipment should be qualified and active.

To add a maintenance activity for equipment:

1. In the **Create New** menu, select **Equipment > Activity**.
2. In the **Preface** tab, select **Maintenance** and click **Next**.
3. In the **General** tab, enter required information.

Significant inputs:

- **Activity Type - Select:**
 - **Corrective** - when you want to fix or repair equipment.
 - **Preventative** - when you want to check for a possible wear and tear in equipment.
 - **Calibration** - when you want to calibrate equipment as per the specifications.
-
- Note** Equipment that you want to calibrate should have **Is Calibration Required** set to true. Only single equipment can be selected for a calibration type of activity.
-
- **Change** - when you want some modification to meet some new needs or specifications in equipment.
 - **Start Time** - This has to be prior to the current date as the RMW application records only completed activities.

4. Click **Next**.
5. In the **Characteristics** sub-tab under **Details** tab, enter required information.

Significant inputs:

- **Next Scheduled Date** - This field does not appear, if the maintenance activity type is **Corrective**, as it is not possible to reschedule the activity.
- **Change Control Reference Number** - The identification of the authorization to make the change to a piece of equipment.
- **Deviation ID** - If any deviations from the planned values were found in the activity, enter the corresponding deviation ID.
- **Work Request Number** - The number of the work request from where you perform the activity.

6. Click **Next**.
7. In **Equipment** sub-tab under **Details** tab, click **Add**.
8. Select equipment for which the maintenance activity is performed and click **OK**.
9. Select the status of each of equipment from **Change Status To** drop-down list.

The drop-down list in the change status is filled dynamically. Based on the current status of equipment it fills in all the status to which equipment can transition.

Note If equipment is already scheduled under another activity, the system issues an error after you click **Finish**.

10. Click **Next**.
11. If you selected **Calibration** in **Activity Type** under **General** tab, the **Calibration** sub-tab appears.
 1. Enter number of rows in the field adjacent to **Add Row(s)** and click **Add Row(s)**.
 2. Enter the calibration details.

To fill values to columns with same values, use the Fill Down action. Refer *Getting Started with Agile Recipe and Material Workspace Management Guide*.

12. Click **Finish**.

Cleaning Activity

To add a cleaning activity for equipment:

1. In the **Create New** menu, select **Equipment > Activity**.
2. In the **Preface** tab, select the **Cleaning**.
3. In the **General** tab, enter required information.

Significant inputs:

- **Activity Type**
 - **Minor** when the cleaning activity is carried out at equipment site using the internal resources.
 - **Major External** when equipment is sent out to an external organization or to another site for cleaning activity.

4. Click **Next**.
5. In the **Characteristics** sub-tab under **Details** tab, enter the information.

Significant inputs:

1. If you selected **Minor** as the **Activity Type** in the **General** tab:
 - **Cleaning up after Work Request** - Specify the ID of the Work Request whose execution resulted in this activity.
 - **Boiled Out** - Indicates that a boil out has been performed on equipment.
 - **Rinsed** - Indicates that a rinse has been performed on equipment.
 - **Visual Check** - Indicates that a visual check has been performed on equipment.
 - **Gravimetric** - Indicates that gravimetric test has been performed on equipment.
 - **Gravimetric Comment** - Provide comments, specific to gravimetric test.
 - **Other** - Indicates any other check that has been performed on equipment.
2. If you selected **Major-External** as the **Activity Type** in the **General** tab:
 - **External Batch Record** - Identification of the batch record that contains the activity instruction details used for re-instating the equipment.
6. Click **Next**.
7. In **Equipment** sub-tab under **Details** tab, click **Add**.

8. Select equipment for which the cleaning activity is performed and click **OK**.

Note You get a warning message either if Equipment Site does not match with Activity Site or if Equipment is in Draft status.

9. Select the status of equipment from **Change Status To** drop-down list.

The drop-down list in the change status is filled dynamically. Based on the current status of equipment it fills in all the status to which equipment can transition.

Note If equipment is already scheduled under another activity, the system issues an error after you click **Finish**.

10. If you have selected **Minor** as the cleaning **Activity Sub Type**, then click **Next**. If you have selected **Major-External** as the cleaning **Activity Sub Type**, click **Finish**.

11. In **Material Used** sub-tab under **Details** tab, click **Add Material**.

12. Select the material and click **OK**.

13. Enter the quantity of material used in **Quantity** and select the unit of measurement from the drop-down list.

14. Click on **Add Contaminant** to add a contaminant to the material.

The material or contaminant can be removed by clicking **Delete Material**. If you remove material then the added contaminants will also be removed.

If the material has more than one contaminant and if you select a contaminant, then only that contaminant will be removed when you click **Delete Material**. However, if the material has only one contaminant, both material and contaminant will be removed when you click **Delete Material**.

15. Click **Finish**.

Processing Activity

To add processing activity for equipment:

1. In the **Create New** menu, select **Equipment > Activity**.
2. In the **Preface** tab, select **Processing** and click **Next**.
3. In the **General** tab, enter the information.
 - **Activity Type**
 - **External to Agile PLM** - is carried out while setting Start Date on BOE Line Item in Work Request for cleaning type of Work Request.
 - **Start Time** - The time the activity starts. You cannot set a future date.
4. Click **Next**.
5. In the **Characteristics** sub-tab under **Details** tab, enter the information.

Significant inputs:

- **Material** - The material you are processing using equipment.
- **External Lot Number** - The identification of the activity instruction details used for re-instating of equipment.
- **Compound Number** - The identification number of the compound of the material that was

removed while cleaning.

6. Click **Next**.
7. In **Equipment** sub-tab under **Details** tab, click **Add**.
8. Select equipment for which the processing activity is performed and click **OK**.

Note You cannot select equipment that is in Retired, In-Use, Hold-QA, Hold-Maintenance, Hold-Clean or Offline state.

9. Select the status of equipment from **Change Status To** drop-down list.

The drop-down list in the change status is filled dynamically. Based on the current status of equipment it fills in all the status to which equipment can transition.

Note If equipment is already scheduled under some other activity, the system issues an error after you click **Finish**.

10. Click **Finish**.

Other Activities

To add any other activity for equipment:

1. From the **Create New** menu, select **Equipment > Activity**.
2. In the **Preface** tab, select **Other** and click **Next**.
3. In the **General** tab, enter the information.

Significant inputs:

- **Activity Type** - Select
 - **Equipment Setup** - if you are setting up new equipment or setting up equipment in a different location or re-instating equipment.
 - **Tear down** - if you are removing, un-installing or completely dismantling equipment.
 - **N/A** - if you are carrying out any activity other than all those described in earlier topics.
- **Transaction Type** - Staging is selected by default.

4. Click **Next**.
5. In the **Characteristics** sub-tab of **Details** tab, enter the information.

Significant inputs:

- **Material** - The material being processed.
- **External Lot Number** - The identification of the Lot Number that has the activity instructions used for reinstating equipment.
- **Compound Number** - The identification number of the compound used for equipment activity.

6. Click **Next**.
7. In **Equipment** sub-tab of **Details** tab, click **Add** to add equipment on which you are performing an activity.
8. After adding, select the new status for equipment from the **Change Status To** drop-down list.
9. Click **Finish**.

Removing an Activity

While removing an equipment activity, the significant points to note are:

1. No checks are required if the activity being removed is **In progress** status. Equipment status needs to be reverted to the status it was before the activity was performed. The status of equipment as part of activity will be changed back to the previous equipment status.
2. If it is completed but not the last completed activity then such equipment removes the activity but the status remains unchanged.
3. If it is the last completed activity then **Status before Activity**, **Status after Activity** and **Current Status** warnings are shown for the approval, to change the status.
4. To change the status of equipment after removing the activity click **OK**. To remove the activity without changing the status click **Cancel**.
5. If you try to remove or Edit a Major-Internal and Processing Internal activities then an error message shows up stating that these are logged in from work order and can be modified or removed only from work order.

Working with Equipment Qualification

This chapter includes the following:

- Adding Equipment Qualification 21
- Viewing Equipment Qualification Details 22

Depending on your implementation, you can specify any of the following types of qualification for equipment:

- **Installation Qualification** - indicates that the installed equipment complies with the manufacturer's specifications.
- **Operational Qualification** - indicates that equipment performs as intended throughout the anticipated operating ranges.
- **Performance Qualification** - indicates that equipment and its associated equipment perform effectively based on approved methods and specifications.

Note The qualification types can be configured and added from **Administration > Library > New Record**.

Equipment must be qualified at all specified levels of qualification for it to be Hard Reserved, Loan/Lease, Activity and In-progress for any process.

When a new equipment is added to the equipment category, by default, the qualification status is **Pending**. The qualification status of equipment is set to **Pending**, if any of the predefined qualification types has an active record with qualification status **Expired**.

You can change the qualification status from **Pending** to one of the following qualification states:

- **Qualified** - When each of the predefined qualification types has an active record with qualification status *Qualified*.
- **Not Qualified** - When any of the predefined qualification types has an active record with qualification status *Not Qualified*.
- **Expired** - When the qualification state is over upon completion of its qualification duration.

Adding Equipment Qualification

To add a new qualification:

1. In the **Create New** menu, select **Equipment > Qualification**.
2. In the **Preface** tab, select **Equipment ID** and click **OK**.
3. Click **Next**.

4. In the **General** tab, enter the information.

Significant inputs:

- **Qualification Start Date** - The date from which the qualification is applicable.
 - If the qualification status is **Expired** then the Qualification Start Date should be a past date.
 - If the qualification status is **Qualified**, the Start Date should not be a past date.
- **Qualification Duration (in days)** - The validity of the qualification status.
 - If the qualification status is **Expired**, the Qualification Duration should be prior to the current date.
 - If the qualification status is **Qualified**, the Qualification Duration should not be prior to the current date.
 - This value cannot be negative and zero.
- **Qualification Type** - Only the applicable qualifications appear. You can select more than one type.

5. Click **Finish**.

After you enter qualification information for each qualification type, the qualification status for equipment changes to **Qualified**.

Viewing Equipment Qualification Details

To view qualification details for equipment:

1. Click on the **Qualification ID** of the desired qualification, in Equipment Qualification search results.

The **Qualification Details** appear.

Working with Equipment Loan and Lease

This chapter includes the following:

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▪ Viewing Equipment Loan/Lease Details	24
▪ Editing Equipment Loan Out and Lease In Details	24
▪ Setting Equipment Loan/Lease Status	25
▪ Returning Leased Equipment	25
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You can rent out equipment to another site or borrow equipment from another site.

- **Loan Out:** when you rent out equipment.
- **Lease In:** when you borrow equipment.

The Lease In /Loan Out equipment feature is a part of equipment library. The Loaned in / Leased out equipment have the following states:

- In Progress
- Completed
- Pending
- Canceled

You can loan out equipment to an internal or external site. Initially, when you loan-out / lease-in equipment, the loan/lease status is **Pending**. If the loan/lease status is **In Progress**, the RMW application automatically updates equipment **Current Site** with **Loan to/Lease to Site**.

Note You cannot loan out or lease in equipment to the same site.

You can loan/lease equipment from:

- Equipment Library
- Equipment Loan
- Equipment Lease

Creating a New Equipment Loan Request

To create a new equipment loan request:

1. From the **Create New** menu, select **Equipment > Loan**.

2. In the **General** tab, enter the information.
Significant inputs:
 - The **Loaned To site** and **Loaned From site** must be different.
 - The **Start Date** and **End Date** cannot be earlier than the current date.
3. Click **Next**.
4. In the **Details** tab, click **Add Equipment**.
5. Select one or more equipment you want to loan out and click **OK**.
6. Click **Finish**.

Creating a New Equipment Lease Request

To create a new equipment lease equipment:

1. From the **Create New** menu, select **Equipment > Lease**.
2. In the **General** tab, enter the information.
Significant inputs:
 - The **Lease From Site** and **Lease To Site** must be different.
 - The **Start Date** and **End Date** cannot be earlier than the current date.
3. Click **Next**.
4. In the **Details** tab, click **Add Equipment**.
5. Select one or more equipment you want to loan out and click **OK**.
6. Click **Finish**.

Viewing Equipment Loan/Lease Details

To view loaned or leased details of equipment:

1. In the search results, click on the **Loan/Lease ID** whose details you wish to view.
The **Loan/Lease Details** page appears with list of equipment.

Editing Equipment Loan Out and Lease In Details

You can edit the loan or lease details for equipment and change status only if the loan or lease status is as follows:

- Pending
- In Progress

You cannot edit the details, if the lease/loan status is:

- Completed
- Canceled

To edit the loaned or leased details for equipment:

1. In **Equipment Loan/Lease** search results, select the desired equipment loan/lease record.
2. Click **Edit > Loan Out** to edit loaned out equipment.
3. Click **Edit > Lease In** to edit leased in equipment.
You can edit only the following information:
 - Start Date
 - End Date
 - Comment
4. Click the **Details** tab.
5. Click **Add Equipment** to change equipment that is to be loaned, leased, or add more equipment.
6. To delete, select equipment and click **Delete**.
7. Click **OK**.

Setting Equipment Loan/Lease Status

To set the status for the Leased In or Loaned Out equipment:

1. Search and select equipment for which you want to set the status.
2. Click **Change > Lifecycle Phase** and select a status.
If the status is changed to **In Progress**, the following conditions are validated:
 - Equipment should be available and qualified.
 - Equipment should be active.
 - There should not be any overlapping of duration with existing loan or lease for equipment.
 - The current site of Equipment should be equal to **Loaned From Site** or **Leased From Site**.
 - Equipment should not be hard reserved for the loan duration.
3. Click **OK**.

Returning Leased Equipment

You can return leased equipment to the leasing site and update the Lease In status as **In Progress**. You can also return multiple equipment associated with one **Lease In** transaction.

When the leased equipment is returned, it has no impact on equipment status, but the returned equipment is automatically deactivated.

Note You cannot return the leased equipment, if the Lease In status is Pending, canceled or completed.

To return leased in equipment:

1. From the Equipment Loaned/Leased search results, select the Leased In equipment that you want to return.
2. Click **More > Return**.
3. In **Return Details**, enter the information.

Significant inputs:

- **Actual End Date** - If you had specified an End Date at the time of leasing equipment, you can update it. If not, specify the actual end date of the lease period.

4. Click **OK**.

Reinstating Loaned Equipment

You can re-instate loaned-out equipment only when the loaned out status is **In Progress**. You can also reinstate multiple equipment at one time. You have the option to specify one or more equipment activities such as, processing, cleaning and maintenance on reinstated equipment.

Note Re-instate action has no impact on the equipment status.

To re-instate loaned equipment:

1. From **Equipment Loaned/Leased** search results, select the equipment you wish to reinstate.
2. Click **More > Re-Instate**.
3. Enter the **Actual End Time**.
The actual end date should only be the current date.
4. Click **Log Activity** to log a new activity on the re-instated equipment.
The **Add New Activity** page appears.
5. Follow the steps in [Adding a New Equipment Activity](#) on page 15 to add new activity for the re-instated equipment.
6. Click **OK**.

Working with Equipment Reservation

This chapter includes the following:

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▪ Viewing Equipment Availability for Reservation	28
▪ Locking and Unlocking Equipment Reservation	29
▪ Changing Equipment Reservation Dates	29
▪ Equipment Reservation Alerts	30

Equipment reservation is classified into:

- Soft Reservation
- Hard Reservation

Note You cannot reserve deactivated equipment.

By default, a new reservation is a soft reservation. You can soft-reserve equipment installed at any site in any status and convert soft reservation to hard reservation.

A hard reservation is possible only if equipment status is **Available** and equipment is Qualified.

You can add a new reservation on **Equipment** or **Equipment Group**. In case of **Equipment Group**, the children will also be reserved along with the parent. If you do not want to reserve a child, you have the option of removing the children and reserving the parent only.

To make a reservation, at least one piece of equipment needs to be associated to it. Multiple pieces of equipment or equipment group can also be added to a new reservation. If equipment group is added, you can remove equipment belonging to the added group that is not required for reservation. Once you add equipment to a new reservation, you can check the availability of that equipment to complete the reservation process.

By default, the reservation site is the logged-in user's primary site. You can edit this site.

The types of equipment reservations are:

- Cleaning
- Process
- Maintenance

You can reserve equipment through:

- Equipment Library
- Reservation
- Bill of Equipment via process steps

Note For Bill of Equipment, equipment should be in *Available* or *Qualified* state.

Adding New Equipment Reservation

To add reservation for equipment:

1. From the **Create New** menu, select **Equipment > Reservation**.
2. In the **Preface** tab, select the **Reservation Purpose**.

If you are reserving equipment from Work Request or Control Recipe, this field is automatically filled in with the Type of Work Request or Control Recipe.

3. In the **General** tab, enter the information.

Significant inputs:

- If you selected **Cleaning** or **Process** in the **Preface** tab, enter the information for one of the following:
 - Project
 - Campaign
 - Work Request
 - Process Step
- If you have selected **Maintenance** in **Preface** tab, select the **Maintenance Type** and enter the information in **Work Request Number** and **Final Due Date**.

4. Click **Next**.

5. In **Equipment** tab, click:

- **Add > Any Equipment** to select equipment from equipment library.
- **Add > Equipment from existing reservations** to select equipment from the list of reserved equipment.

You can add more than one equipment or equipment group.

Note If you select equipment that is in Draft state, a warning message appears.

6. To check the availability of equipment you added, select equipment and click **View Reservation**.
For complete details, see [Viewing Equipment Availability for Reservation](#) on page 28.
 - Enter **Start Date** and **End Date**.
7. Click **Finish**.

Viewing Equipment Availability for Reservation

You may need to check the availability of equipment to reserve it, to manage reservation, or to lock/unlock reservation on it.

To check the availability of equipment for reservation:

1. Search and select a reservation for which you want view the availability details.

2. Click **More > View Availability**.
3. To view the availability, click on the desired reservation periods, represented as horizontal bars in the calendar.

The *Reservation Details* table appears.
4. To modify the reservation, select the desired reservation record in the Reservation Details table or in the Calendar and click **Edit Reservation**.
5. You can lock or unlock reservation from this screen.

For complete details, see [Locking and Unlocking Equipment Reservation](#) on page 29.

You can also view the reservation based on the **Start Date**, **End Date**, **Interval**, **Reservation Purpose**, **Reserved For** and **Reservation Status**.
6. Click **OK**.

Locking and Unlocking Equipment Reservation

You can lock a reservation, to change the reservation status from **Soft** to **Hard**.

- You can lock a reservation only if equipment is qualified and is in the **Available** state.
- If equipment is loaned out, then hard reservation is not possible.
- If equipment is not present in the site of reservation or some other hard reservation is present for the same equipment and for the same duration, then you cannot lock the reservation.

RMW provides two levels of user permission to lock the reservation from **Soft** to **Hard**. They are:

- Super administrator
- The user who has lock permission role

A locked reservation can be unlocked. The status of the reservation will change from **Hard** to **Soft**. Locking and unlocking can be done for multiple reservations.

To lock and unlock a reservation for equipment:

1. Search and select the reservation that you wish to lock/unlock.
2. Click **More** and select **Lock** or **Unlock**. A message informs you of successful Lock or Unlock status.

-
- | | |
|-------------|---|
| Note | If two or more users make a soft reservation for the same equipment for the same period, all the previous users who made a reservation will get a Double Booked alert. |
| Note | If one of the users makes a hard reservation, then the other users get a No Longer Available alert. |
-

Changing Equipment Reservation Dates

You can change the dates of soft reservations only.

To change equipment reservation dates:

1. Search and select the reservation whose dates you want to move.
2. Click **More > Change Dates**.
3. In the Set Reservation Dates page, change the **Start Date** and **End Date**
4. Click **OK**.

Equipment Reservation Alerts

Equipment reservation alerts inform stakeholders and subscribed users of equipment availability, approvals, modifications and double bookings. Each alert is described below.

- **Reservation Double Booked** - This alert is triggered when an overlapping reservation is created. If a user creates a soft reservation for one or more equipment against which another reservation with an overlapping duration exists, then this alert is sent to the requesters of all the previous reservations.
- **No Longer Available** - This alert is triggered when a reservation is locked. If the user locks a soft reservation for one or more equipment against which reservations with an overlapping duration exists, then this alert is sent to the requesters of all the previous reservations.
- **New Reservation Requested** - This alert is triggered when a new reservation is created. The application triggers an alert whenever a new reservation is created. This alert is sent to the users on subscription.

Note Since this is not a mandatory alert, users with **Lock** privilege can manually subscribe to this alert. These users are responsible for managing all or specific equipment if they want to receive reservation request notification.

Note For specific equipment (one or more) notification, subscribers would have to put Equipment ID as part of the criteria.

- **Reservation Modified** - This alert is triggered when the reservation is edited by a user other than the requester.
- **Reservation Request Approved** - This alert is sent to the requester of the reservation.