



HEMS Enterprise 5.x

Best Practice Addendum



January, 2010; Revision 1.0

**THIS ADDENDUM DESCRIBES THE HEMS BEST PRACTICE 5.x
ADD-ON TO THE HEMS ENTERPRISE 5.x APPLICATION AND IS
PROVIDED AS AN ADDITION TO THE
*HEMS ENTERPRISE 5.x USER & ADMINISTRATOR GUIDE***

Copyright 2010 by EQ2, Inc. All rights reserved. HEMS is a trademark of EQ2, Inc. All other trademarks or registered trademarks are the property of their respective owners.

EQ2, Inc.

Mailing address:

P.O. Box 1483
Burlington, VT 05401

Technical Support: (802)865-0920 ext. 2 or support@eq2.com

Sales: (888)312-HEMS or sales@eq2.com

Table of Contents

CHAPTER 1: Welcome!	1
About HEMS Best Practice	2
The Best Practice Committee	2
About This Addendum	3
Organization	3
Formatting Conventions	3
Text	3
Special Information	4
CHAPTER 2: How HEMS Best Practice Works.	5
Standards and Approvals.	6
Standardized Information Lists	6
The Approval Process	6
Equipment and Best Practice List Approvals	7
The Best Practice Service Area	7
What Approval Means	7
What Requires Approval	7
Risk	8
CHAPTER 3: Best Practice List Configuration & Approval	9
Best Practice Windows	10
Best Practice Toolbar	10
The Choose Service Area Window	10
The Approval Process Configuration Window	11
Approving Best Practice Lists	12
CHAPTER 4: Equipment Item Configuration & Approval.	15
Equipment Item Windows.	16
The Equipment Item Approval Process Configuration Window	16
Approving Equipment Items	17
CHAPTER 5: Working with HEMS Best Practice	19
Working with Best Practice	20
Adding an Entry	20
Copying an Entry	20
Editing an Entry	20
Deleting an Entry	21
Replacing Values	21

This page intentionally left blank.

CHAPTER 1: Welcome!

About HEMS Best Practice

The HEMS Enterprise 5.x Best Practice application adds automatic best practice and standardized nomenclature to HEMS Enterprise. This added functionality requires approvals for each new equipment item added to your inventory, as well as new records added to your **Equipment Model, Equipment Type**, manufacturers, and other Best Practice Information Lists that are published throughout the enterprise. Newly added records are available for your enterprise as “unapproved” until the Best Practice Committee approves them. Once the Best Practice Committee reviews and approves these records, they will be published across the enterprise as “approved” items. Your equipment inventory, parts, and Information Lists are standardized because new entries are reviewed and approved.



Note: For simplicity, this addendum will refer to the HEMS Enterprise 5.x - Best Practice add-on as “HEMS Best Practice” throughout. This addendum will also refer to the base HEMS Enterprise 5.x application as “HEMS” throughout.

HEMS Best Practice allows the entire enterprise to build and maintain a robust electronic library of your equipment models, types, and manufacturers. Enter this information once and authorized HEMS users across the entire enterprise can access it.

The Best Practice Committee

A Best Practice Committee is the foundation for maintaining a comprehensive medical equipment management program using HEMS Best Practice. For larger enterprises, a successful Best Practice Committee typically consists of 5-8 members: Clinical Engineering Director, Clinical Engineers, Senior Biomedical Technicians, Specialty Leads, and Administrative Support personnel. The Clinical Engineering Directors and Clinical Engineers focus on the strategy and vision of the entire HEMS Best Practice application. Biomedical technicians and administrative support personnel translate that vision into reality through efficient use of the program. Together, the Best Practice Committee guides the implementation of HEMS Best Practice and performs housekeeping, management, and benchmarking functions.

About This Addendum

This addendum is provided as an addition to the *HEMS Enterprise 5.x User and Administrator Guide*. It provides comprehensive information about using and administering HEMS Best Practice and also uses specific formatting conventions to present special information such as lists, procedures, cautions, and tips/hints.

Organization

This addendum is organized as follows:

- **Welcome:** Introduces HEMS Best Practice and this *Addendum*.
- **How HEMS Best Practice Works:** Describes how HEMS Best Practice integrates with HEMS Enterprise to implement Best Practice and equipment approvals, how those approvals work, and the Information Lists covered by HEMS Best Practice. This chapter begins on page 5.
- **Best Practice Configuration and Approval:** Lists the windows required to configure and approve entries in the **Best Practice** Service Area, and describes the approval process. This chapter begins on page 9.
- **Equipment Item: Configuration and Approval** Lists the windows required to configure and approve equipment items, and describes the approval process. This chapter begins on page 15.
- **Working with HEMS Best Practice:** Describes how to use HEMS Best Practice when adding, copying, editing, and deleting information. This chapter begins on page 19.

Formatting Conventions

This addendum uses several formatting conventions to present information of special importance.

Text

Lists of items, points to consider, or procedures that do not need to be performed in a specific order appear in bullet format:

- Item 1.
- Item 2.

Procedures that must be followed in a specific order appear in numbered steps:

1. Perform this step first.
2. Perform this step second.

Specific keyboard keys are depicted in square brackets and are capitalized, for example: [ESC]. If more than one key should be pressed simultaneously, the notation will appear as [KEY1]+[KEY 2], for example [ALT]+[F4].

Interface elements such as document titles, fields, windows, tabs, buttons, commands, options, and icons appear in **bold** text.

Menus and submenus are indicated with the notation **Menu>Submenu**. For example, “Select **Activities>Work Order**” means that you should first select **Activities** in the menu, and then select **Work Order** in the submenu.

Special Information

The following icons and text format appear throughout this addendum to provide additional information that complements the main text where necessary:



CAUTION: CAUTIONS INDICATE A POSSIBILITY OF UNPREDICTABLE RESULTS AND/OR DATA LOSS IF THE SPECIFIED PROCEDURE IS NOT FOLLOWED OR IS FOLLOWED INCORRECTLY.



Note: Notes provide tips, hints, and other useful information to make using HEMS faster and easier.

CHAPTER 2:

How HEMS Best Practice Works

Standards and Approvals

HEMS Best Practice maintains standardized nomenclature for the entire enterprise by integrating an approval process for new equipment items, parts, and Information List records, then publishing the approved entries across the enterprise. You can specify both the information that must be entered prior to submission for approval and any additional information needed when providing an approval. You can also check to make sure that new items or information are not duplicates before granting approval (such as creating different Information List entries for the same vendor using different spellings).

Standardized Information Lists

Standardized Information Lists benefit the enterprise by preventing duplicate records and ensuring that all information follows the enterprise's protocols. It also helps keep your data from getting cluttered because of typos, variant spellings, etc. For example, variant vendor spellings may include, "HP," "Hewlett Packard," "Hewlett Packard, Inc.," etc. This saves time and also avoids confusion when adding or editing equipment items, parts, or other data. Standardized Information Lists also help when running reports and ensuring that the enterprise is in full compliance with all applicable regulations.

The Approval Process

The HEMS Best Practice approval process begins when you specify the minimum information required to enter a new equipment item or Best Practice list (parts and Information Lists) entry into HEMS, followed by any additional information needed to finalize the approval, if any. The person entering the new information should enter at least the minimum required information before submitting the record for review and approval. The Best Practice Committee will check for possible duplicates, correct any nonstandard entries, and enter any additional information required before granting the approval. Approved records can only be edited by the HEMS Best Practice Committee in the **Best Practice** Service Area. The Best Practice lists may contain "local" fields that can be edited in the individual Service Areas (such as **Assigned Engineer** in the **Equipment Types** Information List). Unapproved records may be used before they are approved. For example, an unapproved model may be used on new equipment. Any rejected items will require a replacement.

Equipment and Best Practice List Approvals

HEMS Best Practice uses two levels of approvals:

- **Equipment items:** By default, new equipment items are approved in individual Service Areas. If necessary, HEMS Best Practice can be configured to require Best Practice Committee approval globally across the enterprise via the **Best Practice** Service Area (such as for service providers).
- **Best Practice lists:** Equipment types, models, manufacturers (vendors), and certain other Information Lists entries require Best Practice Committee approval, as do parts.

The Best Practice Service Area

The HEMS **Best Practice** Service Area is a separate Service Area that allows Best Practice Committee members to review and approve Best Practice lists (e.g. **Equipment Models**, **Equipment Types**, **Vendors**, or **Procedures**, and parts).



*Note: The HEMS **Home** screen does not appear when you are in the **Best Practice** Service Area.*

What Approval Means

HEMS Best Practice review and approval provides the following benefits:

- Approved data is published to all facilities in the enterprise across all Service Areas, ensuring standardization.
- Best Practice lists can only be edited in the **Best Practice** Service Area. Certain “local” fields within those lists may be edited in individual service areas (such as the **Assigned Engineer** field in the **Equipment Types** Information List).

What Requires Approval

HEMS Best Practice requires you to approve all of the following information:

- **Equipment Items:** Each new equipment item requires approval when added to the HEMS inventory. The **Equipment Inventory** window for each item displays whether that item has been approved or not.
- **Best Practice lists:** The following require approval by the Best Practice Committee:
 - Equipment types
 - Equipment classes
 - Equipment systems
 - Maintenance specialties
 - Manufacturers (in the **Vendors** Information List)
 - Parts
 - Part types

- Procedures
- Procedure types
- Tasks
- Task types
- Work order priorities

Risk

HEMS Best Practice allows you to define risk by equipment type or model in the **Best Practice** Service Area. These definitions will apply to all equipment items that belong to those models and/or types. Individual facilities/Service Areas cannot modify the risk definitions for equipment models and types; they can, however, define risk by individual equipment item, if required.

CHAPTER 3:

Best Practice List Configuration & Approval

Best Practice Windows

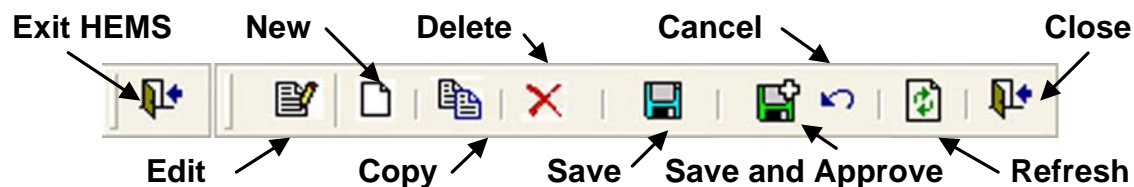
HEMS Best Practice includes the following windows for configuring and approving entries in the **Best Practice Service Area**:

- **Choose Service Area window:** The **Choose Service Area** window allows you to access the **Best Practice Service Area**, which is where you configure, review, and approve Best Practice data entries, as described in “Equipment and Best Practice List Approvals” on page 7. Please see “The Approval Process Configuration Window,” below, for more information about the **Choose Service Area** window.
- **Best Practice - Approval Process - Configuration window:** The **Best Practice - Approval Process - Configuration** window allows you to configure required information for adding and approving new Best Practice list entries. Please see page 11 for more information about the **Best Practice - Approval Process - Configuration** window.
- **Approval window:** The **Approval** window is where you review and approve/reject pending approvals for Best Practice lists. Please see “Approving Best Practice Lists” on page 12 for more information about the **Approval** window.

In addition, the **Toolbar** displays an extra button when appropriate.

Best Practice Toolbar

If you have the appropriate permissions to approve the record you are adding, the **Toolbar** displays the **Save and Approve** button, which allows you to perform both steps with a single click:

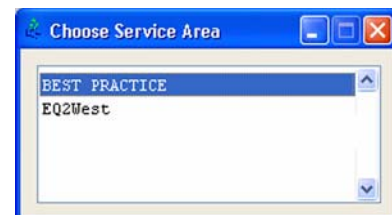


*Note: For clarity, this image shows all **Toolbar** buttons active. The active buttons you will actually see depend on the functions available at the moment. Unavailable buttons will appear grayed out.*

The Choose Service Area Window

Selecting **Activities>Change Service Area** opens the **Choose Service Area** window, which allows you to switch between HEMS Service Areas. This is a standard HEMS window, however HEMS Best Practice adds the **Best Practice Service Area** as an option.

To switch Service Areas, double-click the Service Area you want to switch to. You must be in the **Best Practice Service Area** to review and approve Best Practice list entries, as described in “Equipment and Best Practice List Approvals” on page 7.



The Approval Process Configuration Window

Selecting **Utilities>Management Tools>Best Practice** opens the **Best Practice - Approval Process - Configuration** window.

HEMS Best Practice allows you to configure the following:

- Information required when adding a new data entry.
- Information required when approving a data entry.

To configure Best Practice approvals:

1. Go to the **Best Practice Service Area**.
2. Select **Utilities>Management Tools>Best Practice** to open the **Best Practice - Approval Process - Configuration** window.
3. If necessary, you may configure how new equipment items are approved by selecting the appropriate option in the **General** tab:
 - To allow managers to approve new equipment items within their own Service Areas, check the **Local** radio button. This is the default setting.
 - To require new equipment items to be approved globally across the enterprise by the Best Practice Committee (in the **Best Practice Service Area**), check the **Global** radio button.

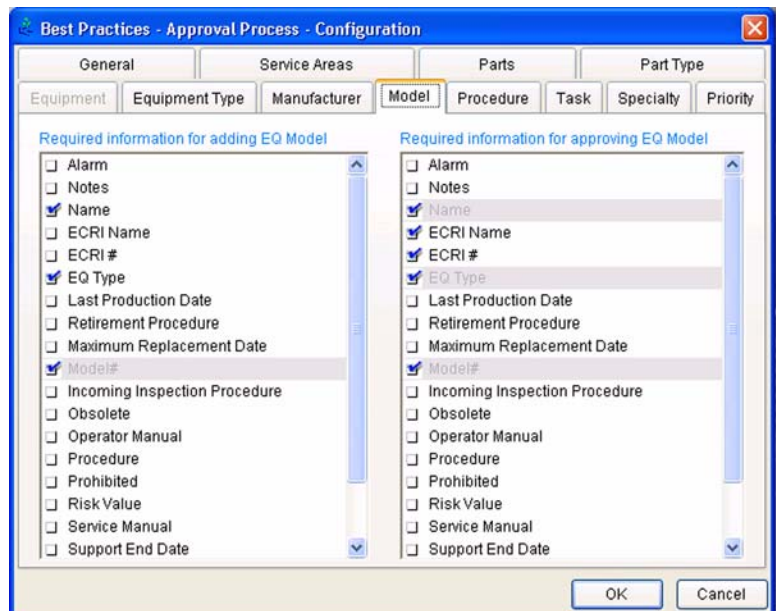


*Note: The remaining items in the **General** tab are for informational purposes only; these options cannot be configured.*

4. Select the list for which you want to configure the required information for adding and approving new entries by clicking the appropriate tab.



*Note: Some tabs allow you to configure multiple data entry types. For example, going to the **Equipment Type** tab allows you to configure add and approval information for new equipment types, classes, and systems.*



5. Specify the following:

- Check the appropriate checkbox(es) in the **Required information for adding** column to specify the information that must be entered to add an item. Required HEMS fields are checked by default; you cannot deselect them.
- Check the appropriate checkbox(es) in the **Required information for approving** column to specify the information that must be entered to approve an item.
- Equipment item approvals have an additional column to restrict editing after approval. If you are configuring equipment item approvals, check the appropriate check box(es) in the **Restricted information after approval** column to prevent the selected field(s) from being edited after approval. This helps preserve data integrity and standardization.

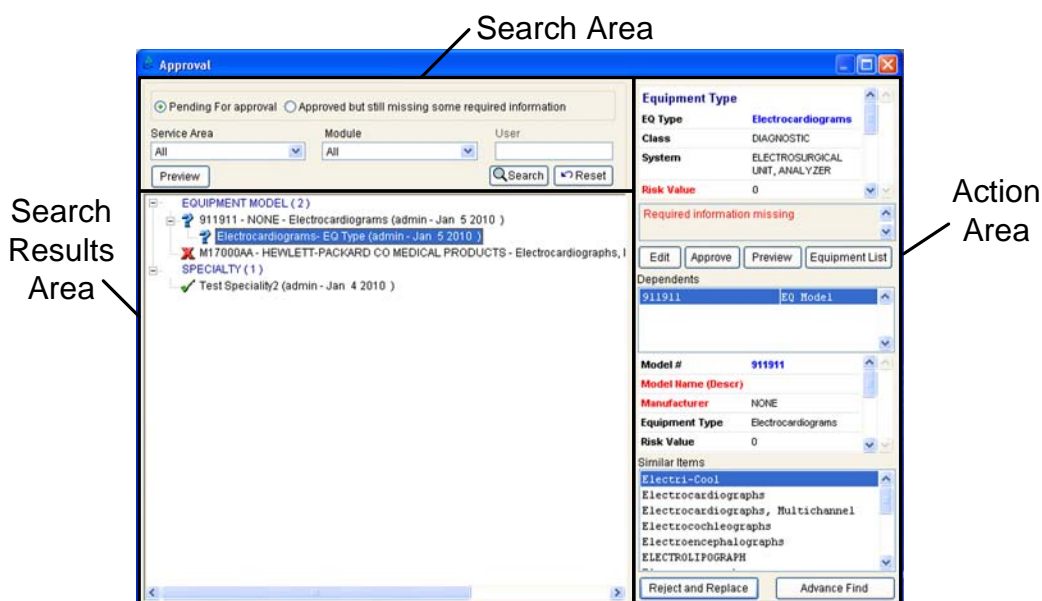


Note: The two-stage information entry system saves time and helps ensure standardization. For example, you may only require field technicians to enter basic information about a new equipment model and then require the Best Practice Committee to enter more detailed information for that model before approving it. This allows field technicians to continue with preventive and/or corrective maintenance without interruption, and the Best Practice Committee to add detailed information that may not be accessible to the field technicians.

6. Repeat Steps 4 and 5 for the other data entry types you want to configure.
7. Click **OK** to exit the **Best Practice - Approval Process - Configuration** window. You are prompted to save your changes.

Approving Best Practice Lists

In the **Best Practice Service Area**, selecting **Activities>Approval** opens the **Approval** window, which allows you to view pending Best Practice approvals, add or edit information, and approve or reject the pending entries. The **Approval** window appears as follows:



To use the **Approval** window:

1. Go to the **Best Practice** Service Area.
2. Select the list you want to review:
 - Checking the **Pending for approval** radio button displays new entries that have not yet been approved.
 - Checking the **Approved but still missing some required information** radio button displays approved items that are missing required information.
3. Select the Service Area for which you want to review pending approvals using the **Service Area** pull-down menu. To view all pending approvals across all Service Areas, select **All**.
4. Select the data type of pending approval you want to review using the **Module** pull-down menu. To view all pending approvals, select **All**.
5. If desired, search pending approvals by user by entering the desired HEMS user name in the **User** field. The user name and date are displayed next to each entry.
6. Click the **Preview** button above the Search Results Area to open the **Best Practice Approval** report in a separate browser window. This report lists all of the pending approvals that match your desired search criteria.
7. Clicking **Search** displays all pending approvals that match your desired search criteria in the Search Results Area.
 - Pending approvals are alphabetized and organized by equipment model, specialty, etc. Entries will appear in a hierarchical tree format if they were added at the same time and have dependencies. Clicking a + icon next to an entry expands that entry to show dependencies. Clicking a - sign next to an entry collapses that entry.
 - Pending items have a blue question mark next to them.
 - Approved items have a green check mark next to them.
 - Rejected items have a red X next to them.
8. Click an entry in the Search Results Area to display that item's information in the Action Area.
9. Review the entry's information at the top of the Action Area. If any required information is missing, the warning "Required information missing" appears in red text and the missing fields appear in red as well.
 - To edit the entry, click the **Edit** button to open the selected window (**Equipment Inventory, Parts**, or the selected **Information List**, as appropriate) and edit the entry as needed. When you are finished editing, click the **Save** button in the **Toolbar**. A confirmation dialog appears if the entry is still missing required information.



*Note: When you are editing a record, you may save and approve the selected entry in one step by clicking the **Save and Approve** button in the **Toolbar**.*



- To approve the entry, click the **Approve** button. A confirmation prompt appears if required information is missing. You can proceed with the approval and add the missing information later by checking the **Approved but still missing some required information** checkbox in the Search Area.
 - To preview, print, or export the entry in a separate browser window, click the **Preview** button.
 - To view a list of equipment item(s) associated with the currently selected entry, click the **Equipment List** button. The list of equipment items appears in a separate browser window.
10. Review any listed dependents using the **Dependents** list, which displays the type of dependent. Missing information, if any, appears in red text.
11. Review any items that are similar to the entry you are currently reviewing in the **Similar Items** list. For example, there could be a duplicate vendor entry with different spelling. You can perform an advanced search for any similar items that are not listed here by clicking the **Advance Find** button to open the **Advance Find** window with available search criteria fields. Enter your desired criteria and click **OK** to return matching entries to the **Similar Items** list.
12. If you find a duplicate entry, reject the currently selected pending approval and replace it with the existing entry. To do this, highlight the similar entry that will replace the pending approval and then click the **Reject and Replace** button. A warning window appears. Click **OK** to proceed. If there are no duplicate items, you may click the **Approve** button as described in Step 8, above.

CHAPTER 4:

Equipment Item Configuration & Approval

Equipment Item Windows

HEMS Best Practice includes the following windows for configuring and approving equipment items within individual service areas:

- **Choose Service Area window:** The **Choose Service Area** window allows you to access the Service Area for which you want to review and approve equipment items. Please see “The Choose Service Area Window” on page 10 for more information about the **Choose Service Area** window.
- **Best Practice - Approval Process - Configuration window:** The **Best Practice - Approval Process - Configuration** window allows you to configure required information for adding, approving, and restricting edits to approved equipment items. Please see “The Equipment Item Approval Process Configuration Window,” below, for more information about the **Best Practice - Approval Process - Configuration** window.
- **Approval window:** The **Approval** window is where you review and approve/reject pending equipment items. Please see “Approving Equipment Items” on page 17 for more information about the **Approval** window.

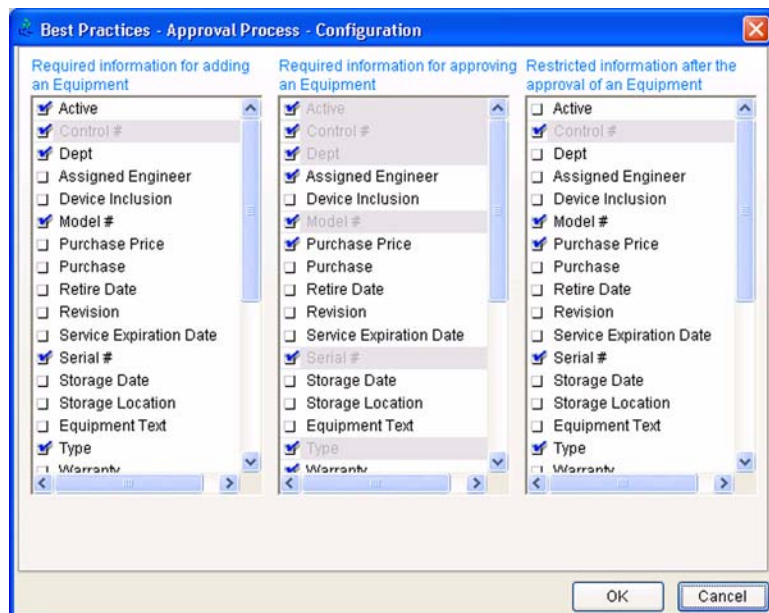
In addition, the **Toolbar** displays an extra button when appropriate, as described in “Best Practice Toolbar” on page 10.

The Equipment Item Approval Process Configuration Window

In a local Service Area, selecting **Utilities>Management Tools>Best Practice** opens the **Best Practice - Approval Process - Configuration** window. This window allows you to define the information required to submit new equipment item records for approval, any additional information required to approve the record, and information that cannot be edited after approval is granted.

To configure equipment item add/approval/edit information:

1. Go to the first Service Area for which you want to configure equipment item information requirements using the **Choose Service Area** window, as described in “The Choose Service Area Window” on page 10.



2. Select **Utilities>Management Tools>Best Practice** to open the equipment item **Best Practice - Approval Process - Configuration** window.

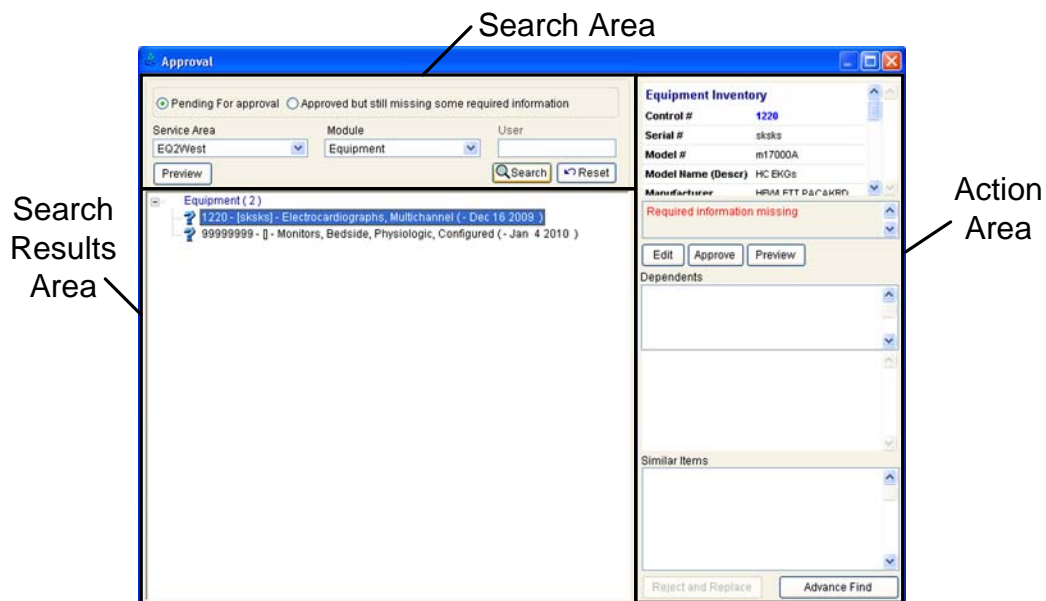


*Note: If HEMS Best Practice is configured to require Best Practice Committee global approval for equipment items, the **Best Practice - Approval Process - Configuration** window is only available in the **Best Practice Service Area**.*

3. Specify the information that must be entered in order to save a new equipment item record by checking the appropriate checkbox(es) in the **Required information for adding** column. Required HEMS fields are checked by default; you cannot deselect them.
4. Select the information that must be entered in order to approve a new equipment item by checking the appropriate checkbox(es) in the **Required information for approving** column.
5. Select the information that cannot be edited once the equipment item has been approved in the **Restricted information after the approval** column. Protecting fields from editing after approval helps preserve data integrity and standardization.
6. Save your changes when you exit the equipment item **Best Practice - Approval Process - Configuration** window.
7. Repeat this procedure for each additional Service Area you want to configure.

Approving Equipment Items

In a local Service Area, selecting **Activities>Approval** opens the equipment item **Approval** window, which allows you to view pending approvals, add or edit information, and approve or reject the pending equipment item(s). The equipment item **Approval** window appears as follows:



To use the equipment item **Approval** window:

1. Search for the equipment item(s) you want to review.
 - Checking the **Pending for approval** radio button displays new equipment items that have not yet been approved.
 - Checking the **Approved but still missing some required information** radio button displays equipment items that have already been approved but that need some additional information.
2. If desired, search pending approvals by user by entering the desired HEMS user name in the **User** field. The user name and date are displayed next to each equipment item.
3. Click the **Preview** button above the Search Results Area to open the equipment item **Approval** report in a separate browser window. This report lists all of the pending equipment item approvals that match your desired search criteria.
4. Clicking **Search** displays all pending equipment item approvals that match your desired search criteria in the Search Results Area.
 - Pending items have a blue question mark next to them.
 - Approved items have a green check mark next to them.
 - Rejected items have a red X next to them.
5. Click an equipment item in the Search Results Area to display that item's information in the Action Area.
6. Review the item's information at the top of the Action Area. If any information is missing, the warning "Required information missing" appears in red text and the missing fields appear in red as well.
 - To edit the equipment item, click the **Edit** button to open the **Equipment Inventory** window for the selected item and edit that item as needed. When you are finished editing, click the **Save** button in the **Toolbar**. A confirmation dialog appears if the equipment item is still missing required information.



*Note: When you are editing an equipment item, you may also save and approve the selected entry in one step by clicking the **Save and Approve** button in the **Toolbar**.*



- To approve the entry, click the **Approve** button. A confirmation prompt appears if required information is missing. You can proceed with the approval and add the missing information later by checking the **Approved but still missing some required information** checkbox in the Search Area.
- To preview, print, or export the equipment item in a separate browser window, click the **Preview** button.

CHAPTER 5:

Working with HEMS

Best Practice

Working with Best Practice

This chapter describes how to work with HEMS Best Practice from the point of view of HEMS users who add, copy, edit, use, and delete information in HEMS.

Adding an Entry

To add an entry using HEMS Best Practice:

1. Open the appropriate window.
2. Follow the appropriate procedure to add the new data entry to HEMS Best Practice, being sure to provide at least the minimum amount of information required by the enterprise. Required fields appear in yellow.
3. Save the new data entry. A warning dialog appears if you have not entered all of the required information. You may either cancel the save and add the required information, or save the entry without entering all the required information.

Your new entry appears with a **Not Approved** flag in the upper right corner of the window. This flag will change to **Approved** once the Best Practice Committee has approved the entry, as shown.



HEMS Best Practice allows a new record to be used prior to approval. For example, you may:

- Open work orders for unapproved equipment items.
- Assign equipment items to unapproved models and/or types.
- Add unapproved parts to equipment models.
- Include unapproved tasks in procedures.
- Reference unapproved vendors in service contract records.



Any rejected pending entries require replacement with an existing entry.

Copying an Entry

Copies of existing entries in HEMS Best Practice require review and approval. You may copy approved or unapproved entries.

Editing an Entry

When editing existing entries in HEMS Best Practice:

- You may only edit approved Best Practice lists in the **Best Practice Service Area**. You may edit “local” fields in Best Practice lists (such as the **Assigned Engineer** field in the **Equipment Models** Information List).
- You may only edit Best Practice list entries in the **Best Practice Services Area**.

- You may edit pending (unapproved) entries.

Deleting an Entry

When deleting existing entries in HEMS Best Practice:

- You may delete an unused equipment item from its Service Area regardless of its approval status.
- You may delete an unused and unapproved Best Practice record from the Service Area that entered it.
- You may delete an approved Best Practice record that has not been used from the **Best Practice** Service Area.

Replacing Values

You may use the HEMS Replace Values function for Best Practice lists in the **Best Practice** Service Area.

You may also use the HEMS Replace Values function for non-Best Practice lists in the individual (local) Service Areas.

This page intentionally left blank.

Copyright 2010, EQ2, Inc. All rights reserved.

EQ2, Inc.

Mailing address:

P.O. Box 1483
Burlington, VT 05401

Technical Support: (802)865-0920 ext. 2 *or* support@eq2.com

Sales: (888)312-HEMS *or* sales@eq2.com