



PACSgear Core Server

EHR Gateway, ImageLink, ImageLink Encounter Workflow,
Media Writer Web, PACS Scan Web and Web Forms

User Help

LX-DOC-PCS4.2-UH-EN-REVC

Regulations and Compliance

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Symbols used in this document



CE marking of conformity

The device is in conformity with the applicable requirements set out in this EU Medical Device Regulation and other applicable Union harmonization legislation.



ISO 7000:3500 - Electronic Instructions For Use

To indicate on product or product packaging that relevant information for use of the product is available in electronic form rather than, or in addition to, printed paper form.



ISO 7000:3082 - Manufacturer

To identify the manufacturer of a product.



ISO 7000: 0434B – Caution

To indicate that caution is necessary when operating the device or control close to where the symbol is placed, or to indicate that the current situation needs operator awareness or operator action in order to avoid undesirable consequences.

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What is PACSGear Core Server?

PACSGear Core Server is a program that processes DICOM and non-DICOM medical data including patient demographics, images, videos, and HL7 messages. It also handles user accounts, security, client configuration, and the flow of data between modalities and destination DICOM systems. PACSGear Core Server exclusively supports PACSGear client products such as EHR Gateway, Image Link, MDR Video Touch and Web Forms. You access PACSGear Core Server from a web browser.

Intended use

PACSGear Core Server with installed client applications are intended to be used by authorized staff to perform various operations on imaging studies before they are made available to other locations in the network. These operations include processing images, video, and patient demographics. PACSGear Core Server is not labeled for diagnostic use.



See the Core Server Installation Guide for details on installing Core Server and for instructions how to license client application.

Manage connection settings

About managing connection settings

Since clients of PACSGear Core Server work in conjunction with other DICOM devices over a network, it is necessary to configure connection settings for those clients and devices. You can manage the following four categories of connection settings.

Devices

A device is an HL7 server, DICOM archive, XDS repository, or other system to which you can send HL7 messages, DICOM images, or media and metadata for processing or storage. To send images by using a client, you must configure at least one device. For information on the devices available at your institution, contact your PACS administrator.

Destinations

A destination is a user-specified set of DICOM, HL7, XDS, or other device configurations. By creating a destination, you can send studies or HL7 messages to multiple devices at once.

Lookup sources

A lookup source is a DICOM worklist server, archive, or other source that can respond to patient queries. To look up patient studies by using a client, you must configure at least one lookup source. For information on the lookup sources available at your institution, contact your PACS administrator.

Media Writer Web

Media Writer Web is a licensed and configured installation of version 5.2.1 or later on a computer on the same network as Core Server. The Media Writer web interface allows querying and queuing jobs on remote Media Writer installations, as well as checking audit logs.

DICOM Trace

DICOM Trace is a function that captures raw event data flowing between DICOM devices and PACSGear Core Server. This data is useful for server diagnostics. For DICOM trace data to be available to view, you must enable the function prior to any server activity.

Add a device

To add a device, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection** page, on the **Devices** tab, click **Add**.
3. In the **Add/Edit Device** dialog box, in the **Device type** list, select the type of device and enter device-specific settings.

Note: To configure an OnBase device, see "OnBase configuration."

4. To test whether the console can connect to your device, click **Test**.

Note: The test applies only to DICOM devices. If the test fails, confirm that you entered the correct settings, or contact your PACS administrator.

5. Click **Save**.

Edit a device



To edit an existing device, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection** page, select the **Devices** tab.
3. In the list of devices, click the name of the device that you want to edit.

Note: If the device that you want to edit does not appear on the first page of the list, click the navigation buttons at the bottom of the list or type all or a portion of the device information in the **Search** box.

4. In the **Add/Edit Device** dialog box, edit the information as needed and click **Save**.

Add a destination

To add a destination, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection** page, on the **Destinations** tab, click **Add**.
3. In the **Add/Edit Destination** dialog box, complete the following substeps.
 1. In the **Name** box, type a name for the destination.
 2. Optional. In the **Description** box, type a description of up to 65 characters to appear at the bottom of images.

Note: A description can help you remember the purpose of each destination, especially if there are a large number of destinations.

3. In the list of devices, select one or more check boxes corresponding to the devices that you want to include in the destination.
4. Click **Save**.

Edit a destination

To edit an existing destination setting, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection** page, select the **Destinations** tab.
3. In the list of destinations, click the name of the destination.

Note: If the destination that you want to edit does not appear on the first page of the list, click the navigation buttons at the bottom of the list or type all or a portion of the destination name in the **Search** box.

4. In the **Add/Edit Destination** dialog box, edit the information as needed and click **Save**.

Add a lookup source

To add a lookup (query) source, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection** page, on the **Lookup Sources** tab, click **Add**.
3. In the **Add/Edit Lookup Source** dialog box, complete the following substeps.
 1. In the **Protocol** list, select the protocol of the lookup source.
 2. Enter the relevant information for the protocol you selected.
 3. To test whether the console can connect to your lookup source, click **Test**.

Note: If the test is unsuccessful, confirm that you entered the correct settings, or contact your PACS administrator.

4. Click **Save**.

Edit a lookup source

To edit a lookup source, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection** page, select the **Lookup Sources** tab.
3. In the list of lookup sources, click the name of the lookup source.

Note: If the lookup source that you want to edit does not appear on the first page of the list, click the navigation buttons at the bottom of the list, or type all or a portion of the lookup source information in the **Search** box.

4. In the **Add/Edit Lookup Source** dialog box, edit the information as needed and click **Save**.

Edit the AE title

All DICOM devices use an application entity (AE) title to identify them to other DICOM devices on the same network. PACSGear Core Server and its clients use PACSGEAR as the default AE title. The AE title must not include spaces or special characters. To change the AE title, do the following.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection Settings** page, in the **AE title** box, type an AE title.
3. Click **Save**.

Media Writer Web

Media Writer Web is a licensed and configured installation of version 5.2.1 or later on a computer on the same network as Core Server. The Media Writer web interface allows querying and queuing jobs on remote Media Writer installations, as well as checking audit logs.

Add a Media Writer device

To add an existing Media Writer device, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Connection** page, select the **MediaWriters** tab.
3. In the list of **MediaWriters**, click the name of the device that you want to add.

Note: If the device that you want to add does not appear on the first page of the list, click the navigation buttons at the bottom of the list or type all or a portion of the device information in the **Search** box.

4. In the **Add/Edit Device** dialog box, edit the information as needed and click **Save**.

Configure an EHR print device

To configure an EHR print device, complete the following steps.

Prerequisite EHR Print requires an EHR Gateway Print license.

1. Click **Settings** and then select **Connections**.
2. On the **Connection** page, click the **Devices** tab.
3. Click **Add**.
4. In the **Add/Edit Device** window, select **EHR Print** from the **Device Type** list and complete the following substeps.
 1. In the **Name** box, type the name of the printer as it appears as a device.
 2. Select **Send to Printer** if you want the system to send the pages to a physical printer.
 3. In the **Printer Name** box, type the name of printer that you want to use if **Send to Printer** is enabled. This printer must be added and configured on the server running Core Server.
 4. From the **Aspect Ratio** list, select the appropriate image aspect ratio you want the system to display images in the page layout.
 5. Select **Send to Folder** if you want to create and save a PDF of the pages.
 6. In the **Folder Path** box, type the drive or network path where you want the system to save the PDF files if **Send to Folder** enabled.

7. In the **Accession Label** box, type the prefix label that you want to add before the Accession number of the patient in the output.
8. In the **Footer Logo File** box, type the location of the image you want the system to display at the bottom of each page. The image must be on the same server as Core Server.
9. In the **Footer Line 1 to 4**, type the text you want the system to display at the bottom of each page. You can add a maximum of four lines. The system only displays lines of text.

OnBase Configuration

Add an OnBase device

Prerequisite Install EHR Gateway.



PACS Scan Mobile and the MDR Video Touch can send images to OnBase for storage. To configure this feature, you first add an OnBase device, and then configure mapping of DICOM values to OnBase data values (see "Configure OnBase mapping.") To add an OnBase device, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. On the **Devices** tab, click **Add**.
3. In the **Add/Edit Devices** dialog box, in the **Device type** list, select **OnBase**.
4. Type a name for the device.
5. In the remaining boxes, enter the OnBase server URL, data source (ODBC), and credentials for the data source.

Note: Contact your OnBase administrator for the URL, data source, and credentials.

6. Click **Save**.

Configure OnBase mapping

After adding an OnBase device, configure mapping of DICOM values to OnBase database values. To configure OnBase mapping, complete the following steps.

1. In Notepad, open the **onbasemappings.config** file.

Note: The default file location is: C:\Program Files (x86)\PACSGear\PACSGEAR Core Server\config\OnBase

2. Edit the **OnBaseAttribute** tags to align with the corresponding PGCoreAttribute, and then save and close the file.

Note: For the purposes of this integration, EncounterID = Accession.

3. In the same folder, open the **OnbaseSettings.config** file.
4. Edit the **DocumentTypeGroup** and **DocumentType** as necessary, and then save and close the file.
5. Manually restart the **Pacsgear Core Server** service.

Note: Alternatively, you can restart your machine.

Manage a department

What is a department?

A *department* is a saved configuration that makes it easy to set up clients of PACSGear Core Server for use in specific departments at a healthcare institution. A department includes settings for application entity (AE) title, modality, lookup sources, destinations, and series descriptions. You must configure any destinations and lookup sources that you want to use before configuring departments (see Manage connection settings).

All clients use the default department General unless you specify otherwise. You must add at least one department in PACSGear Core Server before you can change the default or current department.

Add a department

To add a new department, complete the following steps.

1. On the **Settings** menu, select **Departments**.
2. On the **Departments** page, click **Add**.
3. Optional. To make this department the default department, in the **Add/Edit Department** dialog box, select the **Default** check box.
4. In the **Name** box, type a name for the department.
5. Optional. In the **AE title** box, type an AE title to use when you select the department.
6. Optional. In the **Modality** list, select the modality to use when you select the department.

Note: If you select None, you can specify a modality on the client.

7. On the **Destinations** and **Lookup Sources** tabs, select the check boxes corresponding to the destinations and lookup sources that you want to use in the department.
8. On the **Client** tab, select the check boxes of the clients that you want to have access to the department and adjust client settings as needed.
9. On the **Series** tab, click **Add**, type a description, and then click **Save**.

Note: You can repeat this step to add additional descriptions. The descriptions that you enter here are available to add to studies on the client.

10. In the **Add/Edit Department** dialog box, click **Save**.

Edit a department

To edit an existing department, complete the following steps.

1. On the **Settings** menu, select **Departments**.
2. On the **Departments** page, click the name of the department.
3. In the **Add/Edit Department** dialog box, change the settings as needed.
4. Click **Save**.

Change the default department

To change the default department, complete the following steps.

1. On the **Settings** menu, select **Departments**.

2. On the **Departments** page, in the list of departments, select the check box in the **Default** column corresponding to the department that you want to be the default.

Manage user access

About managing user access

To manage access to PACSGear Core Server and its clients, you can add users and assign administrator rights to authorized users.

You can configure local users and LDAP/Active directory users. However, you restrict access to only one type of user or the other. PACSGear Core Server verifies local users based on the settings that you specify in this section. Your LDAP/Active directory server verifies LDAP users.

Configure an LDAP/Active Directory server

To configure an LDAP/Active Directory server, complete the following steps.

1. On the **Settings** menu, select **Users**.
2. Under **Restrict access permissions to**, click **LDAP Users**.
3. Click **Add** and enter the LDAP user name of your initial admin user and then click **Save**.
4. In the **Server** and **Domain** boxes, type the address and domain of the LDAP/Active Directory Server.
5. Click **Test**.

Note: If the test fails, confirm that your settings are correct, or contact your network administrator. You cannot save the LDAP settings until the test succeeds, and you add at least one LDAP user to the list.

6. Click **Save**.

Assign access permissions

To assign access permissions by verification type, complete the following steps.

1. On the **Settings** menu, select **Users**.
2. Under **Restrict access permissions to**, do one of the following:
 - Click **Local Users**
 - Click **LDAP Users** and type a server and domain
3. Click **Save**.

Add a local user

You can add local users and assign them administrative rights. Administrators can edit many settings that normal users cannot. To add a local user, complete the following steps.

1. On the **Settings** menu, select **Users**.
2. Under **Restrict access permissions to**, click **Local Users**.
3. At the bottom of the page, click **Add**.
4. In the **Add/Edit User** dialog box, type a user name and password.
5. Optional. To assign administrative rights to the user, select the **Administrator** check box.
6. Click **Save**.

Add an LDAP user

When you enable LDAP, any user on the LDAP server can log in to PACSGear Core Server or its clients with limited rights. However if you want a user to have administrative rights, you must add them as an LDAP user in PACSGear Core Server. To add an LDAP user, complete the following steps.

1. On the **Settings** menu, select **Users**.
2. Under **Restrict access permissions to**, click **LDAP Users**.
3. At the bottom of the page, click **Add**.
4. In the **Add/Edit User** dialog box, type a user name that you already configured on your LDAP/Active Directory server.
5. Click **Save**.

Edit a user

To edit an existing user, complete the following steps.

1. On the **Settings** menu, select **Users**.
2. Under **Restrict access permissions to**, click the button corresponding to the type of user that you want to edit (**Local Users** or **LDAP Users**) and click a user name.

Note: If the user that you want to edit does not appear on the first page of the list, click the navigation buttons at the bottom of the list or type all or a portion of the user information in the **Search** box.

3. In the **Add/Edit User** dialog box, edit the user settings as needed and click **Save**.

Manage jobs

What is a job?

A job is a collection of information about a send operation that PACSGear Core Server creates when you send data to a destination. This information includes who sent the data, when, and from where. It also includes the job status, which is the result of the send operation. You can view job history or details, resend a failed job, and cancel a send job while in progress.

View a job

To view a job in PACSGear Core Server, complete the following step.

1. On the **Logs** menu, select **Jobs**.

Note: If the job that you want does not appear on the first page of the list, click the navigation buttons at the bottom of the list or type all or a portion of the job information in the **Search** box.

Cancel a job

You can cancel a job if it is already stopped in an error state. To cancel a job in PACSGear Core Server, complete the following steps.

1. On the **Logs** menu, select **Jobs**.
2. Select the job and click **Cancel**.

Note: If the job that you want does not appear on the first page of the list, click the navigation buttons

at the bottom of the list or type all or a portion of the job information in the **Search** box.

Restart a job

If a job is already stopped in an error state, you can restart it. To restart a job in PACSGear Core Server, complete the following steps.

1. On the **Logs** menu, select **Jobs**.
2. Select the job and click **Retry**.

Note: If the job that you want does not appear on the first page of the list, click the navigation buttons at the bottom of the list or type all or a portion of the job information in the **Search** box.

Manage other server settings

Edit a server setting

To edit a server setting, complete the following steps.

1. On the **Settings** menu, select **Server**.
2. On the **Server Settings** page, click **Edit**.
3. Complete one or more of the following options.
 - To turn off recording of server logs, clear the **Enable debug** check box.
 - In the **Session timeout** box, type the number of minutes, between 1 and 60, until the connection to the server times out if a mobile device remains inactive.
 - In the **Max. retries** box, type the maximum number of times that the server attempts to reconnect after a lost connection.
 - In the **Retry intervals** box, type the number of seconds between attempts to reconnect.
4. Click **Save**.

View an audit log

When you enable auditing, you can view audit logs showing user and device access to PACSGear Core Server. To view an audit log, complete the following steps.

1. On the **Logs** menu, select **Audit**.

Note: If the log entry that you want is not on the first page of the list, click the navigation buttons at the bottom of the list or type all or a portion of the log entry in the **Search** box.

2. To display details, click the plus sign (+) next to the log entry that you want to view.

View server log

If you selected the Enable debug check box in the server settings, you can view server logs containing server-specific events such as errors and changes in connection statuses. To view a server log, complete the following step.

1. On the **Logs** menu, select **Server**.

Note: If the log entry that you want is not on the first page of the list, click the navigation buttons at

the bottom of the list or type all or a portion of the log entry in the **Search** box.

Enable DICOM Trace

To enable DICOM Trace, complete the following steps.

1. On the **Settings** menu, select **Connections**.
2. Under **AE title**, select the **Enable trace** check box.
3. Click **Save**.
4. Restart PGCore service.

Note:

You must always restart PGCore service after enabling or disabling DICOM.

View DICOM Trace

To view DICOM trace data, complete the following step.

1. On the **Tools** menu, select **DICOM Trace**.

Edit a default setting

Defaults are optional site information and settings that the server automatically includes with studies as DICOM metadata. To edit a default setting, complete the following steps.

1. On the **Settings** menu, select **Defaults**.
2. On the **Defaults** page, click **Edit**.
3. Complete one or more of the following options.
 - In the **Manufacturer** box, type the manufacturer of the sending device. The default value is PACSGEAR.
 - In the **Institution** box, type the name of your institution.
 - In the **Secondary capture model** box, type the model of the sending device.
 - In the **Serial number** box, type the serial number of the sending device.
 - In the **Software version** box, type the version number of the secondary capture model.
 - In the **Modality** list, select a default modality according to how you want systems that open images to process them.
4. Click **Save**.

About provisioning a device

Users of PACS Scan Mobile can provision their iOS and Android devices in PACSGear Core Server. For more information, see the PACS Scan Mobile Installation and Setup Guide.

Configure connection with an EHR

By using the EHR encryption key, you can configure PACSGear Core Server to connect with your EHR. After connecting, you can launch PACSGear Core Server clients such as PACS Scan Mobile or PACS Scan Web directly from the EHR by using an encrypted link. To configure connection with an EHR, complete the following steps.

1. On the **Settings** menu, select **EHR**.

2. Under **Encryption key**, click **Edit**.
3. In the **Encryption key** box, type the EHR encryption key and click **Save**.

Configure provisioning of devices

Administrators must configure provisioning so that users of PACS Scan Mobile can provision their devices. To configure provisioning of devices, complete the following steps.

1. On the PACSGear Core Server computer, open the following file in an XML editor. *{PACSGear Core Server installation directory}\admin\web.config*.
2. Under the `<devices>` element, complete the following substeps.
 1. In the tag `<add key="provisionAddress" value="IP_address_of_PACS_Scan_server"/>`, in the *value* parameter, type the IP address of the server.
 2. In the tag `<add key="provisionSSL" value="t"/>`, in the *value* parameter, type `t` if you enabled SSL on the server, or type `f` if you did not.
3. Save the file and close the XML editor.

Use client applications

About client applications

All PACSGear client applications require PACSGear Core Server for back-end processing and other server related functions. The following PACSGear clients are installed, licensed, documented, and operated together with PACSGear Core Server.

- Web Forms
- PACS Scan Web
- Image Link
- EHR Gateway
- ImageLink Encounter Workflow
- Media Writer Web

The following PACSGear clients are installed, licensed, documented, and operated separately from PACSGear Core Server.

- ModLink
- MDR Video Touch
- PACS Scan Mobile

Web Forms

What is Web Forms?

Web Forms is a web-based program intended to be used with ModLink and other similar or equivalent non-PACSGear products. With Web Forms, medical staff use customized web forms to gather information from dictation systems and DICOM worklist, add to or change the information, and then send the changes back to the dictation system. They can also send an image of the form to a DICOM source.

Administrators can create forms to match the needs of specific departments, and manage user access, departments, default settings, and other configurations.

Use Web Forms

Open a form

Opening a form involves selecting a form to open, and then selecting a patient study whose data you want to add to or edit in the form. To open a form, complete the following steps.

1. To open the form selection screen, perform one of the following actions.
 - Log in to Web Forms as a user. The **Select Form** screen appears.
 - Log in to PACSGear Core Server as an administrator, and then in the **Web Forms** menu, select **Open Form**.
2. To select a form, complete the following substeps.
 1. In the **Department** list, select your department.
 2. Optional. To change the lookup source, series description, or form, make changes in the corresponding fields.
3. To enter criteria to look up a patient study, do one of the following and click **Look Up**.
 - In the **Last name** box, type one or more of the first letters of the patient's last name.
 - In the **MRN** box, type the complete MRN.
 - In the **Accession** box, type the complete accession number.
4. In the **Lookup results** dialog box, click the patient study that you want, and then click **Select**.
5. Review the information in the form selection screen for accuracy. To make any changes, perform one of the following actions.
 - To change information in white, non-searchable fields, type or select new information.
 - To change information in yellow, searchable fields, click **Clear Form** and repeat the previous steps to look up a new study.
6. To open the form, click **Open Form**.

Result The form that you selected appears with the information that you entered, plus any applicable information from the dictation system or worklist.

Fill out and submit a form

To fill out and submit a form, complete the following steps.

1. Open a form.
2. In the form window, fill out the form.
3. To submit the information in the form to the dictation system, click **Submit**.
4. Optional. To send the information in the form to the dictation system and also send an image of the form to a DICOM source, complete the following substeps.
 1. Select the **Send image to** check box.
 2. In the list, select a source.
 3. Click **Submit**.

Manage forms

Find a form


To find a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.

2. Optional. To change the number of search results that appear, in the **Show** list, select a number.
3. In the **Search** box, type any part of the form name.
As you type, forms that match your search criterion appear in the list.

Edit a form

To edit a form, complete the following steps.


1. On the **Web Forms** menu, select **Manage Forms**.
2. Click the **Edit Form**  button corresponding to the form that you want to edit.
3. On the form editing page, edit the form, and then click **Save Form**.

Note: For a description of tools, see "Add an item to a form."

4. To exit the form editing screen, click **Finish**.


Preview a form

To preview a form, complete the following steps.

1. If the form that you want to preview is locked, unlock it (see "Unlock a form").
2. On the **Web Forms** menu, select **Manage Forms**.
3. Click the **Preview Form**  button corresponding to the form that you want to preview.
The form appears in a separate window.
4. Optional. To test the functionality of the form, you can manipulate any of the form controls.
Web Forms does not save any changes that you make in the Preview window.


Rename a form

To rename a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.
2. Click the **Rename Form**  button corresponding to the form that you want to rename.
3. In the **Rename Form** dialog box, under **New name**, type a new name and then click **Rename**.

Copy a form

When you want to create a new form that is similar to an existing form, you can make a copy of the existing form. To copy a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.
2. Click the **Copy Form**  button corresponding to the form that you want to copy.
3. In the **Copy Form** dialog box, type a new name, and then click **Copy**.
The name of the new form appears in the list.

Share a form

Sharing forms between Web Forms servers entails downloading a form from one server and uploading it onto another. To share a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.

2. On the **Manage forms** page, perform one of the following actions.
 - To download a form, to the right of the form in the list, click **Download Form**.
 - To download all forms, near the top of the page, click **Download All Forms**.
 The program downloads the forms to the default download directory on your PC.
3. Transfer the downloaded files to a directory on the destination server.
4. On the destination server, log in to Web Forms.
5. On the **Web Forms** menu, select **Manage Forms**.
6. On the **Manage forms** page, click **Upload Forms**.
7. Navigate to the forms and then click **Open**.

The forms appear on the **Manage forms** page in the list of forms.


About form locking

When you open a form on the Manage Forms page, the program locks the form to prevent other users from opening it.

When a form is locked, the buttons next to the form are unavailable, except for the Unlock Form button. You can unlock the form for your use, and lock the form for other users.

Unlock a form

If a form is locked, administrators can unlock it. To unlock a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.
2. Click the **Unlock Form**  button next to the form that you want to unlock.

The form buttons are available for use, and the form is locked for other users.

What are saving, finishing, and publishing?

The following describes the difference between saving, finishing, and publishing a form.

Saving

When you create or edit a form on the form editing page, you can save your in-progress changes. Additionally, the application saves the form automatically every 60 seconds.

Finishing



On the form editing page you click Finish Form to leave the page and return to the Manage Forms page. When you finish a form, the program unlocks the form for other users.

Publishing

After finishing a form, it is not available for use until you publish it.


Publish or unpublish a form

To prevent access to unfinished forms, they remain unavailable for use in a clinical setting until you publish them. To publish or unpublish a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.
2. Click the **Publish**  or **Unpublish**  button next to the form that you want to publish or unpublish.

Delete a form

To delete a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.
2. Click the **Delete Form**  button next to the form that you want to delete.
3. In the confirmation dialog box, click **Yes**.

After the next page refresh, the form no longer appears in the list.

About refreshing pages

The Manage Forms page, Manage Images page, and other pages automatically refresh every 10 seconds. Any changes made to lists in these pages, such as creating, deleting, renaming, locking/unlocking, or publishing/unpublishing do not appear until the next automatic refresh.

About simple and advanced forms

Web Forms version 1.0.x supported simple forms. Simple forms are faster to create and use on smaller mobile devices. Starting with version 2.0.0, you can also create advanced forms. With advanced forms, you can perform the following procedures.

- Set a background image for a form
- Create fields anywhere on the form in any size
- Create labels anywhere on the form, independent of field elements
- Adjust the font size of any field or label
- Control field borders
- Set the maximum character length of a field
- Set the default value for a field

Create a form

To get started with forms, first follow this procedure to name and save a form. Next, add and configure items on your form by following the procedures under "Customize items on a form." To create a form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Forms**.
2. In the upper left part of the screen, click **Create Form**.
3. In the **Create Form** dialog box, type a name for the form.
4. Optional. To create an advanced form, select the **Advanced** check box.
5. Click **Create**.
The form editing page appears.
6. Click **Save**, and then click **Finish**.

Customize items on a form

Add an item to a form

You can add fields, images, and other items to a form. To add an item to a form, complete the following step.

1. On the form editing screen, refer to "Form editing tools" and do one of the following.
 - **Simple forms:** On the **Add New Field** tab, use the available tools to add an item.

- **Advanced forms:** On the tool bar, use the available tools to add an item.

About customizing items on forms

After you place an item on a form you can customize it, for example by adding text to a label, adding color, or adding items to a list. The procedures to customize simple and advanced forms differ slightly.

Simple forms

Customize common items properties on a simple form

The properties described below can apply to multiple items, including text boxes, labels, and fields. To customize a common property on a simple form, complete the following steps.

1. In the form editor, click the item that you want to customize.
2. On the **Edit Field** tab, make any of the following customizations.
 - To add a label to the item, click **Label** or **Textbox Labels**, and then overwrite `Untitled` with a label.
 - To add a description to the item, click **Label**, and then overwrite `Add a longer description` with a description.
 - To require the user to fill in the item, click **Required**, and then select the **Required** check box.
 - To automatically populate the item with information from the dictation system and overwrite the custom field on the dictation system with the contents of the item, click **Custom Field**, and then select a custom field in the list.
 - To automatically populate the item with information from DICOM Worklist, click **Worklist Field**, and then select a field in a list.
 - To add a background color to the item, click **Color**, click inside the **Background** box, and then select a color.
 - To apply color to text that appears in the item, click **Color**, click inside a **Text** box, and then select a color.
 - To change the height or width of the item, click **Size** or **Textbox Size**, and then select a size in the list.
 - To display the item to the right of its label, click **Display on Image**, and then select the **To right of label** check box.





Note: This option only changes the appearance of the image of the form that you submit to the DICOM source. It does not affect the appearance of the form in the editing screen or the form preview window.

Customize check boxes, options, and lists

To customize properties specific to check boxes, lists, and options on a simple form, complete the following steps.

1. In the form editor, click the item that you want to customize.
2. On the **Edit Field** tab, make any of the following customizations.
 - To group items in columns, click **Number of Columns**, and then select a number in the list.

- To add a check box, option, or list item to a group, click **Items**, and then complete the following substeps.
 1. At the bottom of the **Items** pane, click **Add**.
 2. In the empty box, type a label for the item.
- To include an “Other” check box or option with an associated text box, near the bottom of the Items pane, select the **Include “other”** check box.
- To select an item by default, in the **Items** pane, select the check box to the left of the item that you want to be the default.
- To delete an item, in the **Items** pane, click the **Delete**  button to the right of the item box that you want to delete.
- To copy an item, in the **Items** pane, click the **Copy**  button next to the item that you want to copy.

Add an image header

An image header is an image that you can place at the top of your form, such as the logo of your institution. To add an image header to a form, complete the following steps.

Prerequisite Upload at least one image to the image library.

1. On the form editing page, in the **Use Image as Header** list, select an image.

Note: The image header does not appear in the form editing page.

2. Optional. To view the form with the image header included, click **Preview**.

Customize an image field


To customize properties specific to image fields on a simple form, complete the following steps.

Prerequisite Upload at least one image to the image library, and add an image field to the form.

1. In the form editor, click the image field that you want to customize.
2. On the **Edit Field** tab, make any of the following customizations.
 - To assign an image file, click **Image File**, and then select an image from the list.
 - To allow users to draw on the image, click **Allow Drawing**, and then select the **Allow** check box.

Copy a form field

When you want to create a field that is similar to an existing field, you can copy the existing field. To copy a form field, complete the following steps.

1. In the form editing screen, click the **Copy**  button to the lower right of the field that you want to copy.
A copy of the field appears next to the original field.
2. Configure the new field as needed.

Move a form field

To move a form field, complete the following step.

- In the form editing screen, drag the field below or above another field.

Save and finish a form

When you are done creating and configuring a form, you must save and finish it. To save and finish a form, complete the following steps.

1. In the upper right part of the form editing screen, click **Save Form**.
The program saves any unsaved changes to the form.

2. Click **Finish**.

Result The program returns to the Manage Forms page, and unlocks the form to other users.

Advanced forms

Customize common items properties on an advanced form

The properties described below can apply to multiple items, including text boxes, labels, and fields. To customize a common property on an advanced form, complete the following steps.



1. In the form editor, click the item that you want to customize.
2. On the **Input Properties** tab, make any of the following customizations.
 - To create text for a label, click the **Label** text box, and then overwrite `label` with new text.
 - To add a background color to the label, click the **Background** box, and then select a color.
 - To apply color to text in the item, click the **Font** box, and then select a color.
 - To change the size of text associated with the item, in the **Font Size** list, select a size.
 - To require the user to fill in the item, select the **Required** check box.
 - To automatically populate the item with information from the dictation system and overwrite the custom field on the dictation system with the contents of the item, in the **Custom Field** list, select a field.
 - To automatically populate the item with information from DICOM Worklist, in the **Worklist Field** list, select a field.
 - To add borders to the item, select the **Top**, **Bottom**, **Left**, or **Right** check box.
 - To set a character limit for an item, under **Character Limit**, in the **Max** box, type or select a number.
 - To set default text for an item, in the **Default Text** box, type text.
 - To add text that helps the user know what type of information to add, in the **Text Hint** box, type a hint.

Customize check boxes, lists, and options

To customize properties specific to check boxes, lists, and options on an advanced form, complete the following steps.

1. In the form editor, click the item that you want to customize.
2. On the **Input Properties** tab, make any of the following customizations.
 - To group items in columns, click **Number of Columns**, and then select a number in the list
 - To add a check box, option, or list item to a group, complete the following substeps.
 1. At the bottom of the tab, click **Add option**.
 2. In the empty box, type a label for the item.
 - To include an “Other” check box or option with an associated text box, select the **Include “other”**

check box.

- To include a blank list item, select the **Include blank** check box.
- To select an item by default, select the check box to the left of the item that you want to be the default.
- To delete an item, click the **Delete**  button to the right of the item box that you want to delete.
- To copy an item, click the **Copy**  button next to the item that you want to copy.

Customize an image field


To customize properties specific to image fields on an advanced form, complete the following steps.

Prerequisite Prior to completing these steps, you must first upload at least one image to the image library, and add an image field to the form.

1. In the form editor, click the image field that you want to configure.
2. On the **Input Properties** tab, in the **Image File** list, select an image.

Copy a form field

When you want to create a field that is similar to an existing field, you can copy the existing field. To copy a form field, complete the following steps.

1. In the form editing screen, click the **Copy**  button to the lower right of the field that you want to copy.
A copy of the field appears highlighted in red on top of the original field.
2. Drag the new field to a new location on the form.
3. Configure the new field as needed.

Save and finish a form



When you are done creating and configuring a form, you must save and finish it. To save and finish a form, complete the following steps.













1. In the upper right part of the form editing screen, click **Save Form**.
The program saves any unsaved changes to the form.
2. Click **Finish**.

Result The program returns to the Manage Forms page, and unlocks the form to other users.

Form editing tools

The following tools are available for editing forms.

Name	Control	Description
Form break		Adds a separator (simple forms only)
Text input		Adds a single text box

Name	Control	Description
Text input (2)		Adds double text boxes (simple forms only)
Text input (3)		Adds triple text boxes (simple forms only)
Choice		Adds an option group
Text Area		Adds a text area
Image		Adds an image field
Checkbox		Adds a check box group
Dropdown		Adds a list
Label		Adds a label (advanced forms only)
Background		Adds a background (advanced forms only). Prompts you to navigate to the image that you want to use as the background.
Patient History		Adds a control which stores/retrieves and displays a text field that contains Patient History field information.
Tab Index		Toggles displaying on each control the tab order number. You can change tab index on each controls properties.
Toggle Grid		Turns on or off a visual grid overlay that can assist you in placing and sizing controls.

About conflicting field settings

It is possible to set conflicting settings on some fields. For example you can set a default text for a text box, but also set the text box to auto-fill from DICOM Worklist. When Web Forms displays a field with conflicting settings, it uses the setting higher in the order of precedence, and ignores the setting lower in the order of precedence. The order of precedence is as follows.

- Custom field
- Worklist
- Default text
- Blank

Manage images

Upload an image to the image library



You can add JPEG (JPEG, JPG, JPE, JFIF), PNG, and GIF images to web forms. To make an image available to add to forms, you must first upload it to the image library. To upload images, complete the following steps.

Prerequisite Prior to completing these steps, you must first prepare an image on a local or network medium that is smaller than 950 x 500 (W x H) pixels.

1. On the **Web Forms** menu, select **Manage Images**.
2. On the **Manage Images** page, in the **Upload Image** box, click **Browse**, navigate to an image file, and then click **Open**.
3. Click **Upload**.

The program uploads the image to the image library, and the name of the image appears in the list.

Preview an image in the image library

To preview an image in the image library, complete the following steps.

Prerequisite Upload an image to the image library.

1. On the **Web Forms** menu, select **Manage Images**.
2. On the **Manage Images** page, click the **Preview** button next to the image that you want to preview.

The image appears in a separate window.

Delete an image from the image library

If an image is not included in any forms, you can delete it from the image library. To delete an image from the image library, complete the following steps.

If the image is included in any forms, the names of the forms appear in the Used in forms field, and the Delete button is unavailable.

1. On the **Web Forms** menu, select **Manage Images**.
2. On the **Manage Images** page, find the image that you want to delete in the list of images, and then click

the **Delete** button next to that image.

On the next automatic screen refresh, it no longer appears in the list.

Upload an image to the background image library

You can add a JPEG (JPEG, JPG, JPE, JFIF) or GIF image to a web form as a background. To make an image available to add as a background, you must first upload it to the background image library. To upload images to the background image library, complete the following steps.

Prerequisite Prior to completing these steps, you must first prepare an image on a local or network medium that is smaller than 1277 x 1651 (W x H) pixels.

1. On the **Web Forms** menu, select **Manage Background Images**.
2. On the **Manage Background Images** page, in the **Upload Background Image** box, click **Browse**, navigate to an image file, and then click **Open**.
3. Click **Upload**.
The program uploads the image to the background image library, and the name of the image appears in the list.

Dual page forms

Create a dual page form

To create a dual page form, complete the following steps.

1. On the **Web Forms** menu, select **Manage Dual Page Forms**.
2. In the **Dual Page** screen, click **New Dual Page Form**.
3. In the **Create Form** dialog box, type a name for the form.
4. Optional. To create an advanced form, select the **Advanced** check box.
5. Click **Create**.
The form editing page appears.
6. Click **Save**, and then click **Finish**.

Use a dual page form

To use a dual page form, complete the following steps.

1. On the **Web Forms** menu, select **Open Form**.
2. After selecting a department, searching or entering patient demographics, select the appropriate dual page form from the **Forms to use** list. The system displays the dual page form.
3. Click **Page 1** and **Page 2** to switch between the advanced forms. Otherwise, use the form as you would an advanced form.

Forms in progress

Save and finish a form in progress

Web Forms supports saving a form in progress, allowing you to return to the form later to enter and edit data before sending. To save and finish a form in progress, complete the following steps.

1. While using a form, click **Save** in the bottom right part of the form editing screen.
The program saves any unsaved changes to the form.

2. To return to a form in progress, from the **Saved Forms** list, click the magnifying glass for the form you want to continue editing.
3. Optional. To delete a form in progress, from the **Saved Forms** list, click **X** to delete the saved form.
4. Click **Finish**.

Result The program removes the saved form from the **Saved Forms** list, returns to the **Manage Forms** page, and unlocks the form to other users.

PACS Scan Web

What is PACS Scan Web?

PACS Scan Web is a web client of PACSGear Core Server that is intended for editing and attaching images to patient records and send them to PACS/VNA. You can also create a new patient record, or add information to existing patient records and studies.

Work with PACS Scan Web

About lookup sources


A lookup source (query source) is a DICOM worklist server, archive, or other source that can respond to patient queries. To query patient studies in PACS Scan Web, you must configure at least one lookup source. To configure a lookup source, see "Add a lookup source." For information on the lookup sources available at your institution, contact your PACS administrator.

Look up a patient

To begin most operations in PACS Scan Web, you must create a new patient record to associate with the image or scan, or look up an existing record. To create a new patient record, see "Create a patient record." To look up an existing record, do the following.

1. On the **PACS Scan Web** menu, select **Advanced DICOM Import, Simple DICOM Import, Web Scan, or Media File Import**.
2. Optional. Select a department (see "Change the current department").
3. Under **Patient Information**, type one or more of the following search criteria.
 - All or part of the last name of the patient.
 - The exact MRN or accession number.

Example To look up studies of patients whose last names begin with the letter c, in the **Last Name** box, type c.

4. Click **Look Up**.
5. On the **Lookup Results** page, click the plus  button in a patient row to display studies of that patient, and select a study.
6. At the top of the screen, click **Next**.

Note: For next steps, see topics on importing and scanning.

Simple DICOM image import



You can import a DICOM image, reconcile embedded demographics against a worklist, and send the image to the current destination. The Simple DICOM image import allows selecting specific DICOM files to import.

1. On the **PACS Scan Web** menu, select **Simple DICOM Import**.
2. Optional. Select a department. For more information, see the *Change the current department* topic.
3. In the right pane, click **Browse**.
4. In the **Choose File to Upload** dialog box, select a file to import and click **Open**.
5. On the **DICOM Import** page, click **Next**.
The patient information associated with the image appears in the right pane.
6. To edit the study information, click **Edit Study**. To reconcile the study information against a worklist, see the *Reconcile studies* topic.
7. Click **Send Patient**.

Note: PACS Scan Web sends all studies in the patient record at once.

Advanced DICOM image import



You can import a DICOM image, reconcile embedded demographics against a worklist, and send the image to the current destination. The Advanced DICOM image import allows importing from a DICOMDIR and automatic recursing directories for DICOM files.

Prerequisite Install the PACS Scan Web paper scanning service. For more information, see the PACSGear Core Server Installation Guide.

1. On the **PACS Scan Web** menu, select **Advanced DICOM Import**.
2. Optional. Select a department, Lookup Source and/or Destination from the sidebar. For more information, see the *Change the current department* topic.
3. In the **Select Folder** window, click on drive letters to expand folders and double-click on folders to expand the view of sub-folders. Select the appropriate folder and click **Next**.

Note:

We highly recommend you do not search root folders, such as C:\ or large volumes. This may result in the scanning service stalling or falling into endless loops.

In the next screen you will see a **Patients** column and a **Study Information** column. Selecting a Study row from the Patients column will update the information in the Study Information column.

4. To edit the study information, click **Edit Study**. To reconcile the study information against a worklist, see the *Reconcile studies* topic.
5. Click **Send Patient**.

Note: PACS Scan Web sends all series in the selected patient study as one job.

Reconcile studies

When importing DICOM images, you can reconcile embedded patient demographics against a worklist. To reconcile studies, do the following.

1. Following the steps in "Import DICOM images," open a DICOM file and click **Next**.
2. In the left pane, select a patient or study. In the right pane, click **Reconcile with MWL**.
3. In the **Reconcile Patient Lookup** dialog box, type lookup criteria in the **MRN**, **Last Name**, **First Name**, **DOB**, and/or **Accession** boxes.
4. Optional. For studies only, to retain the description and/or date from the imported file, select the **Keep Study Description** and/or **Keep Study Date** check boxes.
5. Click **Look Up**.
6. Select a patient from the list of results and click **Select**.
7. Click **Save**.
8. In the list of patients on media, click **Send Patient**.

Import media files

You can lookup a patient record, attach non-DICOM images, PDFs and video files, and send the image to the current destination. To import a non-DICOM image, do the following.

1. On the **PACS Scan Web** menu, select **Media File Import**.
2. Look up a patient record (see "Look up a patient").
3. In the right pane, click **Browse**.
4. In the **Choose File to Upload** dialog box, select images, PDF and/or video files (.mp4, .avi and .mov) to import and click **Open**.

Note: To add more images, click **Browse** again.

5. Optional. To edit the image before sending, see "Edit images."
6. Click **Send All Images**.

Web scan

Prerequisite Install a paper scanner on your PC, and install the PACS Scan Web paper scanning service (see the PACSGear Core Server installation guide).

You can lookup a patient record, attach a scan, and send it to the current destination. To scan paper, do the following.

1. On the **PACS Scan Web** menu, select **Web Scan**.
2. Look up a patient record (see "Look up a patient").
3. Click **Scan**.

Note: To add more scans, click **Scan** again.

4. Click **Send All**.

Create a patient record

You can create a new patient record, attach images, PDFs, or scans to it, and then send it to the current destination. To create a new patient record, do the following.

1. On the **PACS Scan Web** menu, select **Media File Import**, or **Web Scan**.
2. Optional. Select a department (see "Change the current department").
3. Under **Patient Information**, enter all demographics for the new patient.

4. Click **Next**.
5. Attach assets to the new patient record and send it to the current destination.

Change the current department



Prerequisite Add at least one department (see "Add a department").

Before beginning a task in PACS Scan Web, select the department with the application entity (AE) title, modality, lookup sources, destinations, and series descriptions that you want to use. If you change the department while a task is in progress, the program discards all current images and data. To change the current department, complete the following steps.

1. In left pane, in the **Department** list, select a department.
The default lookup source and destination for the department appear in their lists.
2. Optional. In the **Lookup Source** list, select a different source.
3. Optional. In the **Destination** list, select a different destination.

Launch uploading of media by using a URL

You can launch media uploading functions of PACS Scan Web directly by using a URL in a web browser. You can also specify a patient lookup criteria by adding parameters to the URL. To launch uploading of media by using a URL, complete the following steps.

The following table lists the URL launch page for each type of import.

Import Type	URL
Advanced DICOM	http://10.0.0.156/PGAPPS/PACSScan/CDImportService
Simple DICOM	http://10.0.0.156/PGAPPS/PACSScan/Upload/CDUpload
Web Scan	http://10.0.0.156/PGAPPS/PACSScan/PaperScan
Media File	http://10.0.0.156/PGAPPS/PACSScan/MixedUpload



Different modalities require the system to pass different parameters. For more information, refer to the launching system's documentation.

1. In a web browser, type a URL in the following format.

Example `http://[server address]/PGAPPS/PACSScan/Capture/index?[parameter]=[value]`

Notes

If a value contains a space, substitute a caret for the space (e.g. john^smith).

You can use multiple parameters, delimited with an ampersand (&).

2. In the URL, substitute one or more of the following parameters.

Parameter	Meaning
mrn	MRN
acc	Accession number
lastName	Patient last name
firstName	Patient first name
middleName	Patient middle name
dob	Patient date of birth
sex	Patient sex
name	Patient full name
date	Study date
time	Study time
op	Operator
prov	Provider ID
mdname	Provider name
username	PCS login name
password	PCS login password

Example

Example Example URL:

```
http://10.188.123.456/PGAPPS/PACSScan/Capture/index?mrn=12345&name=john^s
mith^joe&dob=19631101&sex=M&acc=1234567&date=20180221&time=123948&op=Test
User&prov=prov12121&mdname=Sarah^Connors&username=Admin&password=pacsgear
1
```

3. Press **Enter**.

Edit images

Crop an image

After selecting an image, you can crop it before sending it to the destination. To crop an image, do the following.

1. In the image editing area, on the menu bar, click **Crop**.

2. Drag the pointer on the image to specify a crop boundary.
3. On the toolbar, click **Apply**.
4. Click **Save Image**.

Flip or rotate an image

After selecting an image, you can flip or rotate it before sending it to the destination. To flip or rotate an image, complete the following steps.

1. In the image editing area, on the menu bar, click **Flip** or **Rotate** and complete the appropriate option below.
 - To flip the image, on the toolbar, click **Flip Horizontal** or **Flip Vertical**.
 - To rotate the image ninety degrees, on the toolbar, click **90° CW** or **90° CCW**.
 - To rotate the image a number of degrees other than ninety, drag the **Rotate** slider.
2. Click **Save Image**.

Draw a line on an image

After selecting an image, you can annotate it with straight or freehand lines before sending it to the destination. To draw a line on an image, complete the following steps.

1. In the image editing area, on the menu bar, click **Line**.
2. On the toolbar, complete the following substeps.
 1. Select the **Freehand** or **Straight line** option.
 2. Click a color swatch.
 3. Drag the **Weight** slider to increase or decrease the stroke weight.
3. To draw a line, drag the pointer on the image.
4. Click **Save Image**.

Add text to an image

After selecting an image, you can add text to it before sending it to the destination. To add text to an image, complete the following steps.

1. In the image editing area, on the menu bar, click **Text**.
2. To place a text box, click anywhere on the image.
3. Double-click the text box, type text, and then click on the image outside of the text box.
4. To format the text, click the text box and complete one or more of the following options.
 - To adjust the emphasis of the text, click **Bold**, **Italic**, or **Underline**.
 - To adjust the size of the text, drag the **Font Size** slider.
 - To change the color of the text, click a color swatch.
5. Click **Save Image**.

Delete an item from an image

After adding lines and text to an image, you can delete any of these items before saving the image. To delete an item from an image, complete the following steps.

1. Click the item that you want to delete.

Note: If the toolbar is open, click **Close**.

2. On the menu bar, click **Delete Selected**.
3. Click **Save Image**.

Assign a body part to an image

You can assign a body part to an image before sending it to a destination. PACS Scan Web adds the body part to the relevant DICOM tags in the current study. To assign a body part to an image, complete the following steps.

1. On the menu bar, click **Body Part**.
2. In the **Select Body Region** dialog box, click a body region.
3. In the **Select Part** area, select a body part.
4. Optional. To specify the same body part for all images that you attach to the current patient record, select the **Apply to all images** check box.
5. Click **Apply**.
6. Click **Save Image**.

Image Link

What is Image Link?

Image Link is a background application intended to translate incoming data from EHR/RIS for compatibility with other PACS or DICOM systems and provides DICOM Modality Worklist Management for improved workflow and data consistency.

Image Link consists of an HL7 engine that interprets messages from RIS, a DICOM engine that interprets DICOM Modality Worklist requests, and sophisticated mapping functions to translate between HL7 and DICOM.

About servers

In Image Link, an *HL7 server* is a translation engine for inbound HL7 messages. You can add HL7 servers to allow Image Link to recognize multiple HL7 data streams. Image Link comes pre-configured with an HL7 server called "Primary HL7 Service" that listens for messages on port 5100.

A *DICOM Worklist server* is a configuration that defines how to handle modality worklist queries. Each DICOM device can have a different port, and you can set modifiers on each port that change incoming queries for compatibility with the device on the port.

Manage HL7

What are translations, mappers, and triggers?

A *translation* is a saved instruction for converting HL7 messages into DICOM fields and values.

A *mapper* is a saved configuration that includes a set of translations, the destinations for the results of the translations, settings that determine what part of a message to send to the destination, and triggers. Each HL7 server requires at least one mapper.

A *trigger* is a set of criteria that determines whether Image Link performs the translations in the associated mapper. The criteria that you select constitute an "If-Then" expression ("if" conditions are true, "then" apply the mapper).

Add an HL7 server

If you use more than one HL7 server machine, you can add corresponding HL7 server configurations. To add an HL7 server, complete the following steps.

1. On the **Image Link** menu, select **HL7 Servers**.
2. On the **HL7 Servers** page, under **Servers**, click **Add**.
3. In the **Server** dialog box, type the server name, port, starting character, and ending character.

Note: You must assign a unique port number for each server.

4. Click **OK**.

Add a mapper

You must add at least one mapper to an HL7 server configuration that you create. To add a mapper, complete the following steps.

1. On the **Image Link** menu, select **HL7 Servers**.
2. On the **HL7 Servers** page, under **Servers**, select the server to which you want to add the mapper.
3. Under **Mappers**, click **Add**.
4. Under **Select Mapper Type**, select a type and click **Next**.

Note: For a description of available types, see "Mapper templates."

5. On the **Add/Edit Mapper** page, in the **Name** box, type a name for the mapper, and in the **Operation** list, do one of the following:
 - To store translated messages in the database, select **Store Worklist Item**.
 - To use the mapper to update patient information, select **ADT Patient Update**.
6. Click **Next**, and on the **Triggers** page, click **Add**.
7. Under **Trigger Name**, type a name for the trigger and complete the following substeps.
 1. To modify the incoming data prior to evaluating it for a match, under **Function**, select a function.

Note: **Substr** delineates a portion of the incoming data based on the starting position and length in number of characters. **ToLower** and **ToUpper** change the case of the incoming data.

2. To specify criteria to identify a specific field, select options in the **Segment**, **Field**, and **Subfield** lists.

Note: This is the "If" part of the trigger expression.

3. To specify the comparison operator for the trigger expression, in the **Comparison** list, select an option.
 4. To specify a comparison value for the criterion field, in the **Value** box, type a value.
8. Click **Insert**, and in the **Substring** dialog box, type a starting point and number of characters.

Note: The Substring dialog box does not appear if you selected the ToLower or ToUpper function.

9. Click **OK** and **Finish**.

Add a translation to a mapper

You can add a pre-configured translation to a mapper. To add a translation, complete the following steps.

1. On the **Image Link** menu, select **HL7 Servers**.
2. On the **HL7 Servers** page, select a server.
3. Under **Mappers**, select a mapper and click **Edit**.
4. On the **Add/Edit Mapper** page, click **Add**.
5. In the list of translations, select a translation and click **OK**.

Edit a translation

Although you cannot create a new translation, you can edit an existing one. To edit a translation in a mapper, complete the following steps.

1. On the **Image Link** menu, select **HL7 Servers**.
2. On the **HL7 Servers** page, select a server.
3. Under **Mappers**, select a mapper and click **Edit**.
4. On the **Add/Edit Mapper** page, select a translation and click **Edit**.
5. On the **Edit Translation** page, complete the following substeps.
 1. Optional. To clear the contents of the existing translation, click **Clear**.
 2. In the **Function** box, select a translation function.
 3. To define the part of the message to translate, select items in the **Segment**, **Field**, and **Subfield** boxes.
 4. Click **Insert**.

Note: You can repeat this step to add additional translation functions.

The translation functions appear in the **Translation** box.

6. Click **OK**.

Create a lookup table

Image Link can use lookup tables during translations to replace incoming HL7 values with custom values based on key/value pairs. A lookup table can include one or more key/value pairs. To create a lookup table, complete the following steps.

1. On the **Image Link** menu, select **Lookup Tables**.
2. On the **Lookup Tables** page, under **Tables**, click **Add**.
3. In the **Table Name** dialog box, type a name for the table and click **OK**.
4. Under **Tables**, select a table.
5. Under **Key/Value Pairs**, click **Add**.
6. In the **Key Value** dialog box, type a key and a value and click **OK**.

Note: You can repeat the previous two steps to add additional key/value pairs.

Look up patient studies

You can look up patient studies to confirm that Image Link mapped messages correctly. To look up patient studies, complete the following steps.

1. On the **Image Link** menu, select **Patient Information**.
2. On the **Patient Information** page, in the list in the upper left part of the screen, select a search type.
3. In the box in the upper right part of the screen, type a search criterion and click **Search**.
Patients matching the criterion appear under Patients.
4. To view studies for a patient, under **Patients**, select the patient.
5. To view details of a study, under **Studies for**, select the study.

Manage DICOM

Add a DICOM Worklist server

To add a DICOM Worklist server, complete the following steps.

1. On the **Image Link** menu, select **DICOM Worklist Servers**.
2. On the **DICOM Worklist Servers** page, under **Servers**, click **Add**.
3. In the **Server** dialog box, type the name and port number of the server.
4. Click **OK**.

What is a modifier?

Similar to a translation, a modifier makes queries compatible between DICOM devices. A modifier is an instruction to Image Link in the format: "If a query on the **Port** contains a **Match** to the **Criteria**, perform the **Action** using the **Value** on the specified **DICOM** field." For example, if Image Link receives a query for CR, a modifier can replace the CR with XA so that Image Link returns only XA results.

Add a modifier

You can add a modifier to a DICOM Worklist server. To add a modifier, complete the following steps.

1. On the **Image Link** menu, select **DICOM Worklist Servers**.
2. On the **DICOM Worklist Servers** page, under **Servers**, select a server.
3. Under **Modifiers**, click **Add**.
4. On the **Add/Edit Modifiers** page, type a name for the modifier and complete the following substeps.
 1. In the list, select a DICOM field to modify.
 2. In the **Action** list, select an action to perform if a match occurs.
 3. In the **Insert value** box, type a value to insert.

Note: You can only type a value if you selected **Insert** in the **Action** list. You can use backslashes (\) to separate the values in multi-value fields, such as "US\CT\MG".

5. Click **OK**.

Image Link Encounter Workflow

What is Image Link Encounter Workflow?

Image Link is intended to support encounter-based imaging workflows for unscheduled or point-of-care DICOM devices such as ultrasounds. Image Link acts as a worklist for DICOM modalities that are not connected to a traditional worklist or RIS. It accepts incoming images from the modalities, automatically reconciles incomplete or incorrect metadata from user-specified lookup sources, and then forwards the images to PACS, VNA, OnBase, or other destinations.

In Image Link, a *workflow* is a named configuration that specifies a listening port for incoming images from DICOM modalities, lookup sources for automatic and manual reconciliation, and storage or archive destinations for the outgoing images.

Add an encounter workflow

To facilitate reconciliation and routing of encounter-based images, you must set up an encounter workflow. To add an encounter workflow, do the following.

1. On the **Image Link** menu, select **Encounter Workflow**.
2. On the **Encounter Workflow Setup** page, click **Add**.
3. In the **Settings** dialog box, do the following.
 - **Name:** Type a name for the worklist.
 - **Port:** Type a destination port number for incoming encounter-based images.
 - **Destination Group:** Select a destination for outgoing images that are successfully reconciled.
 - **Worklist Lookup:** Select a lookup source for automatic reconciliation.

Note: Only worklist protocol lookup sources are available.

- **QC Destination:** Select a destination for manual reconciliation of failed jobs.

Note: The QC destination can be the same as the destination.

- **Enabled:** Set to **True**.

4. Click **OK**.

Configure description codes

For correct processing of study descriptions by destination devices, you must associate them with the proper codes. To configure description codes, do the following.

1. In the **EncounterManager** subdirectory of your PACSGear Core Server installation directory, use Notepad to open the **studycodes.txt** file.

Note: The default path is C:\Program Files (x86)\PACSGear\PACSGEAR Core Server\config\EncounterManager\studycodes.txt

2. Edit each line of the file with the descriptions that you want to use.

Note: For example, change "DescriptionA=code123" to "Pericardial effusion=code123."

3. Save and close the file.
4. In Control Panel, restart the PACSGear Core Server service.

Reference

Mapper templates

When you create a mapper, you choose a mapper type based on the following templates.

Type	Value	Description
Blank	For user-customized translations.	Only users with extensive knowledge of HL7 and DICOM should attempt to create a translation by using this template.
Worklist	For creating modality worklists from all ORM messages.	This mapper has a default trigger that executes when <MSH,9> contains the characters ORM.
ADT Template	For ADT messages that update patient information.	This mapper does not contain a default trigger, but maps updated patient information when receiving an ADT message.
Encounter	Reserved	Inquire with your Hyland representative.

Modifiers

The following is a list of available modifiers.

Name	Value
Modality	0008 0060 (multi value)
Referring Physician	0008 0090
Sched Location	0040 0011
Sched Performing Physician	0040 0006
Sched Proc Code	0008 0100 (multi value)
Sched Start Date	0040 0002
Sched Station AE	0040 0001
Sched Status	0040 0020 (multi value)

DICOM Tags Supported by Insert and Ignore Actions

Image Link supports the following DICOM tags for insert and ignore actions when setting up Worklist query modifications. Tags not appearing in the table have no effect on the output.

Name	Tags
Accession	[0008, 0050]
AE Title	[0040, 0001]
Scheduled Location	[0040, 0011]
Modality*	[0008, 0060]
Scheduled Performing Physician	[0040, 0006]
Scheduled Station Name	[0040, 0010]
Scheduled Date	[0040, 0002]
Scheduled Time	[0040, 0003]
Scheduled Status*	[0040, 0020]
CPT Code*	[0008, 0100]
Patient Name	[0010, 0010]
Patient ID	[0010, 0020]

*Multiple backslash-delimited values.

Media Writer Web

What is Media Writer Web?

Media Writer Web is a web client of PACSgear Core Server intended for use by authorized staff to perform various operations on connected Media Writer systems. These operations include querying and retrieving patient records and burning them to portable media, and retrieving the audit log information from said Media Writer systems.

Submitting a Media Writer job

To connect to a Media Writer device and queue up a media burn job, complete the following steps.

1. From the home screen, click **Media Writer** and then select **Submit Job**.
2. On the **Patient Information** screen, select the **Output Destination** and **Lookup Source** from the **Settings** sidebar.
3. Enter an **MRN**, **Accession** number and **Patient name** and then click **Search**. The system displays a list of patients and studies.
4. Select one or more **Studies** and click **Burn**.
5. From the **Burn options** list, configure the following options.
 - Media type
 - Disc label design

- Anonymization option
- Encryption
- Label notes
- Number of copies

6. Click **Burn**.

EHR Gateway

What is EHR Gateway?

EHR Gateway is a background service that is intended to convert DICOM data from modalities to standard EHR formats, such as MP4, JPG, or PDF, and to extract metadata from the DICOM header and convert to an XML file. This is intended to simplify acquiring and managing content from DICOM devices for submission to EHR platforms.

Configuring EHR Gateway

After enabling the EHR Gateway feature, you can configure the program to match your needs and operating environment. To configure EHR Gateway, complete the following steps.

1. In the **PACSGEAR Core Server** installation directory, open the **Config** folder.
2. Open the **EHRPorts.xml** file in Notepad, and then modify settings as needed.
You can add additional ports by enclosing them in *EHRPortSettings* tag blocks.

Using EHR Gateway

After configuring EHR Gateway feature, configure modalities to send DICOM to the ports defined in the EHRPort.xml file.

EHR Gateway is a passive service. Once it receives DICOM files, it automatically separate DICOM images into their metadata and media and then saves the output to folders defined in the EHRPorts.xml file.

MDR Link

What is MDR Link?

MDR Link is a background service intended for clinicians and technicians to queue up jobs to MDR-VT devices that have connected to a central Core Server instance. You can initiate MDR Link through a URL call with patient data. The UI then allows for assigning the related study to an MDR-VT that has registered with the Core Server. The MDR-VT then initiates a capture session, using the patient data sent to it.

Configure MDR Link

Prerequisite An MDR Video Touch license and MDR Video Touch devices with version 1.3 or later software.

Complete the following step to configure MDR Link.

1. Configure individual MDR Video Touch devices to communicate with the central Core Server installation before you can use MDR Link. This registers MDR-Video Touch devices with the Core Server, so they can be assigned jobs in the future. For more information, see the MDR Video Touch User Help.

Use MDR Link

Complete the following steps to use MDR Link.

1. To initiate MDR Link, pass the appropriate URL to the Core Server. For example, *http<s>://<serverIP>/MDRLink/Link?*. The system opens the **MDR Link** screen.
2. On the **MDR Link** screen, select the appropriate options.
 - Department
 - Select a Study Description
 - Station Name (MDR-VT identity)

If the MDR-VT assigned a job is currently online, MDR-VT automatically starts a session with the patient information and goes directly to the Capture screen. If the MDR-VT assigned a job is currently offline, the MDR-VT initiates the job the next time it reconnects with the Core Server.

The following parameters can be passed through the MDR-Link protocol. Each parameter is separated by an ampersand (&) character.

- mm
- name (format=Last^First^Middle)
- sex
- acc
- date (format=yyyymmdd)
- time (format=hhmmss)
- op
- env
- prov
- mdname