

Integration for Epic

Reference Guide

Includes:

Installation Guide

Administration Guide

User Guide

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The Integration for Epic solution comprises several OnBase modules, including the Scan Acquisition Server, OnBase Application Server, and HL7. As part of the Integration for Epic solution, these modules allow users to scan, manage, and retrieve documents from within Epic. Keywords associated with documents are automatically propagated to OnBase, providing OnBase users real-time access to critical information.

By allowing the Healthcare Web Viewer and scanning functions to be used within Epic, this tight integration helps reduce training requirements and system maintenance.

Epic Modules

The Integration for Epic solution provides a predefined link between Epic and OnBase without requiring custom HL7 messages. The following Epic modules can be configured to work with OnBase.

- Prelude Registration / Admissions, Discharge and Transfers (ADT) on page 1
- EpicCare Inpatient and Ambulatory (EMR) on page 1
- Resolute Hospital and Professional Billing on page 2
- Radiant Radiology Information System on page 2
- EpicCare Link on page 2
- Release of Information on page 2
- Epic Welcome on page 2

Prelude Registration / Admissions, Discharge and Transfers (ADT)

At point-of-service during patient registration, registrars can scan documents using the OnBase Scan Acquisition Server or Front Office Scanning. Additional features include importing images from a camera and submitting signed E-Forms.

Scanned hospital registration documents are available for viewing from within the Prelude documents table using the Healthcare Web Viewer.

EpicCare Inpatient and Ambulatory (EMR)

At the point of care, providers scan documents into EpicCare using the OnBase Scan Acquisition Server or Front Office Scanning. Images also can be captured and imported from digital cameras.

Any authorized member of the Care team (e.g., physician, nurse, or other provider) can then view the scanned documents in EpicCare using the Healthcare Web Viewer.

Resolute Hospital and Professional Billing

OnBase documents are available for viewing from within Resolute using the OnBase third-party view function. OnBase Integration for Epic can be configured to open a multi-page document (e.g., Explanation of Benefits) to the correct page based on a user's selection.

Radiant Radiology Information System

Documents are scanned into Radiant using the OnBase Scan Acquisition Server. Any authorized member of the Lab team (e.g., radiologist, technologist or ordering clinician) can then view the scanned documents in Radiant using the Healthcare Web Viewer.

EpicCare Link

Using the EpicCare Link integration, users can view OnBase documents directly from a medical record within EpicCare Link, PlanLink, or EpicWeb. In addition, users can upload documents directly to OnBase.

Release of Information

When documents related to a patient's medical record are requested, a user can select the relevant encounters or individual documents within Epic Release of Information and initiate the release process. The associated documents, including those residing in OnBase, will be printed using Epic Print Services (EPS).

Epic Welcome

Patients can upload image documents to OnBase when registering using an Epic Welcome Kiosk.

Note: Epic, EpicCare, EpicCare Link, PlanLink, EpicWeb, Hyperspace, Prelude, Resolute, and Epic Welcome are registered trademarks or trademarks of Epic Systems Corporation.

OnBase Integration for Epic Components

The following sections describe the OnBase components and complementary modules for the Integration for Epic solution. For more information about complementary modules, see the corresponding module reference guides or help files.

- Healthcare Web Viewer on page 3
- Scan Acquisition Server on page 3
- Epic Front Office Scanning on page 3
- Epic Release of Information Integration on page 3
- EpicCare Link Integration on page 4
- Epic Image Retrieval API Integration on page 4
- Epic Welcome Integration on page 4
- Signature Deficiencies for Epic on page 4

- HL7 Module on page 4
- FHIR Module on page 5
- SMART on FHIR Module on page 5
- Document Imaging on page 5
- · OnBase Servers on page 6
- OnBase Patient Window on page 6
- Integration for Medical Imaging Viewer on page 6

Healthcare Web Viewer

OnBase documents can be directly accessed through Epic using the Healthcare Web Viewer. Based on features of the OnBase Web Client, the Healthcare Web Viewer allows users to submit documents for correction. Physicians also can use it to stamp documents sent to their In Basket as acknowledged.

Scan Acquisition Server

The Scan Acquisition Server offers a light scanning solution, allowing users to convert both paper documents and existing electronic files into electronic documents in OnBase.

The Scan Acquisition Server offers several methods of import:

- Using a TWAIN, Kofax[™], or ISIS-compliant scanner, users can scan paper documents and convert the captured images into electronic OnBase documents.
- Sweeping can import large quantities of existing electronic data files into OnBase without using a scanner. Sweeping is typically used to acquire digital content, such as digital photographs. The sweeping process brings electronic files into OnBase and stores them as documents.
- Users can send documents directly to the Scan Acquisition Server by printing them through the Hyland Virtual Print Driver.

Epic Front Office Scanning

An alternative to the Scan Acquisition Server, the Front Office Scanning integration allows Epic users to scan documents to OnBase through the OnBase Front Office Scanning client. The Front Office Scanning client offers additional features, including the ability to mark up documents and capture signatures. Documents are easily indexed using information provided by Epic.

Epic Release of Information Integration

The Epic Release of Information integration allows Epic Hyperspace users to print OnBase documents with supported file formats using the Release of Information screen.

EpicCare Link Integration

The EpicCare Link integration allows users to view OnBase documents directly from a medical record within EpicCare Link, PlanLink, or EpicWeb. In addition, users can upload documents directly to OnBase.

Epic Image Retrieval API Integration

The Epic Image Retrieval API integration allows OnBase documents to be displayed in locations where previously only Binary Large Object (BLOB) images were available, such as Hyperspace and MyChart.

For example, in Hyperspace, this integration allows OnBase images to be viewed in the following contexts:

- · As previews or thumbnails in Chart Review
- · Included in reports, notes, or In Basket messages with the Image Selector
- · Imported into Epic's annotation tool

For a complete list of integration points, contact your Epic support representative.

No ActiveX controls are required for this integration. Users can view and open thumbnails of supported file formats without additional client-side installation.

Epic Welcome Integration

Patients who register using the Epic Welcome software can scan and upload documents directly to OnBase from a kiosk. Documents are archived to the specified Document Type using the patients' registration information.

Signature Deficiencies for Epic

Signature Deficiencies for Epic provides the ability to electronically assign and complete deficiencies on documents stored in OnBase. Analysts can view documents and assign deficiencies to Physicians, and Physicians can accept or decline these deficiencies. Signature Deficiencies for Epic automatically routes the documents through the completion process.

For more information, see the Signature Deficiencies for Epic module reference guide.

HL7 Module

When used in conjunction with the Integration for Epic solution, the HL7 module provides batch scanning, high volume AutoFill keywords, Document Import Processing (DIP) and COLD functionality. For example, paper-based remittances from Payor organizations can be batch scanned into OnBase and generate an HL7 message that is imported into Epic. This approach allows an organization to take advantage of OnBase scanning features such as OCR, secondary indexing, and bar codes using a configurable link between applications.

See the **HL7** module reference guide for more information about configuring OnBase to send, receive, and process HL7 messages.

FHIR Module

The FHIR module allows healthcare customers to use OnBase as the repository for storing clinical content from external healthcare data systems. Users of external systems can create, read, update, and delete OnBase content without leaving the external healthcare system's interface.

See the **FHIR** documentation for more information about configuring OnBase to use FHIR to connect to your Epic environment.

SMART on FHIR Module

When used in conjunction with the Integration for Epic solution, the SMART on FHIR module connects third-party applications to Electronic Health Record (EHR) data, which allows apps to launch from inside or outside the user interface of an EHR system. This framework supports apps for use by clinicians, patients, and others through a patient portal, or any FHIR system where a user can give permissions to launch an app.

See the **SMART on FHIR** documentation for more information about configuring OnBase to use SMART on FHIR to connect to your Epic environment.

Hyland Identity Provider (IdP) Service

The Hyland IdP Service allows you to communicate and authenticate information between OnBase and your Epic environment. The Hyland IdP server hosts the required identity provider for authentication using the Hyland IdP. When correctly configured, a client authentication request is redirected to the IdP server to obtain an authentication token, either directly or using a third-party authentication provider, such as SAML or CAS. Depending on your configuration, the Hyland IdP performs the requested login using federated credentials or prompts the user for login credentials.

For more information on installing and configuring the Hyland IdP Service, see the **Identity and Access Management Services** documentation.

Document Imaging

OnBase Production Document Imaging allows users to batch scan documents into userdefined queues, where they are indexed and archived into OnBase. The OnBase client/server architecture allows users to scan documents from a single workstation and index and archive the documents from multiple workstations.

For more information, see the **Document Imaging** module reference guide or in the help files.

OnBase Servers

Depending on your solution's configuration, the OnBase Application Server or Web Server may be used to process requests to retrieve or store OnBase documents. These applications use the Core Services API to communicate with the database. They respond to requests from applications that are programmed to use them and provide a persistent connection to the database through Core Services.

See the **Application Server** and **Web Server** module reference guides for detailed information.

OnBase Patient Window

The OnBase Patient Window is a medical records retrieval tool that can provide Epic users access to OnBase records and documents within a Web-based interface. This integration is available for OnBase systems that are configured for the OnBase Integration for Epic or Signature Deficiencies for Epic.

For information about configuring and using the OnBase Patient Window, please refer to the **Patient Window** module reference guide.

Integration for Medical Imaging Viewer

The Integration for Medical Imaging Viewer allows the Integration for Epic viewer to display DICOM study documents stored in third-party repositories or in OnBase VNA. Studies stored in third-party repositories must have placeholder documents created in OnBase. Refer to the **Integration for Medical Imaging Viewer** module reference guide that corresponds to the license for your viewer integration.

Epic and OnBase Application Enabler

Although Application Enabler is capable of integrating with Epic applications, Epic Systems and the makers of OnBase discourage the use of Application Enabler with Epic. OnBase windows opened using Application Enabler do not respond to the switching of users or patient contexts within Epic. Therefore, the possibility exists that a previously launched OnBase window may remain open and display incorrect information for the current context in Epic. Additionally, Epic upgrades may introduce changes that invalidate Application Enabler's configuration and pose a risk to patient safety.

To integrate Epic and OnBase, use the OnBase integrations for Epic. These integrations have been developed specifically for use with Epic applications, and they resolve these possible issues of patient safety. If the existing integrations do not provide the functionality needed for your solution, contact your solution provider to determine how your business needs can be met and to request any necessary enhancements.

Licensing

Beginning in OnBase Foundation EP5, new customers must use simplified licensing to access Integration for Epic functionality. Existing customers upgrading from a version of OnBase prior to OnBase Foundation EP5 can continue to use legacy licensing to access this functionality.

If you are a new customer as of OnBase Foundation EP5 or greater, see Simplified Licensing on page 7.

If you are upgrading from a version of OnBase prior to OnBase Foundation EP5, see Legacy Licensing on page 351.

Simplified Licensing

In addition to an enterprise base package license for standard OnBase functionality, the OnBase Integration for Epic add-on license is required to access standard Integration for Epic functionality.



Integration for Epic

Installation Guide

For installation and support information, see the following sections:

- · Additional Resources on page 9
- Requirements on page 10
- Upgrade Considerations on page 10
- Before Installing the Integration on page 14
- Installing the OnBase Application Server on page 43
- Configuring the EpicIntegrations Configuration File on page 45
- Installing the Web Viewer on page 57
- Installing the Scan Acquisition Server on page 68
- Installing the Epic Front Office Scanning Integration on page 81
- Installing the Epic ROI Printer Plug-In Integration on page 97
- Installing the Epic ROI Web Service Integration on page 105
- Installing the EpicCare Link Integration on page 107
- Installing the Epic Image Retrieval API Integration on page 112
- Installing the Epic Welcome Integration on page 116
- Integrating Epic with Multiple OnBase Systems on page 117
- Troubleshooting on page 16
- · Contacting Support on page 41

Additional Resources

This guide provides information about running the Integration for Epic installer and configuring OnBase to integrate with Epic. For more information about installing the Integration for Epic, please refer to the following additional resources:

Configuring Epic for OnBase — The **Configuring Epic for OnBase** guide explains the settings required in Epic for OnBase integrations and workflows. If you are a current Epic customer, you can request this guide from Hyland through your first line of support.

Supplemental Installation and Upgrade Guides — Installation files and procedures vary depending on your build of OnBase. For the latest file installation information, see the Supplemental Installation and Upgrade Guide for Epic Integrations module reference guides, available on Hyland Community at https://community.hyland.com/products/onbase/integration-for-epic/resources.

Signature Deficiencies for Epic — This module reference guide describes how to configure the Signature Deficiencies for Epic module, which allows OnBase documents to be accessed within Epic for analysis and completion.

Requirements

The following sections outline requirement information specific to Integration for Epic in OnBase Foundation EP5.

General Requirements

For general requirement information that applies to Integration for Epic and other modules, see the sections on the following topics in the **Installation Requirements** manual:

- Databases Supported
- · Database/File Servers
- Database Client / Server Version Compatibility

Note: The OnBase Client and Configuration modules require an ODBC connection to the OnBase database.

- Supported Desktop Operating Systems for the Web/Application Server, Unity Client, and OnBase Client table columns.
- · 32-Bit Server Hardware Requirements
- · Server Browser Requirements
- · Client Scanning Workstation Hardware Requirements
- · General C++ Requirements
- · Server C++ Requirements
- · Microsoft .NET Framework Requirements

Note: This requirement applies to the following integration components: OnBase Application Server, OnBase Web Viewer, EpicCare Link (server and clients).

Licensing

See Licensing on page 7 for licensing requirements.

Upgrade Considerations

The following upgrade considerations have been compiled by OnBase subject matter experts. These upgrade considerations are general and applicable to most OnBase solutions and network environments and should be considered each time an upgrade is performed.

Carefully consider the impact of making any changes, including those listed below, prior to implementing them in a production environment.

For additional general information about upgrading OnBase, refer to the Upgrade Guidelines reference manual, and visit the Hyland Community at: https://www.hyland.com/community.

Integration for Epic Upgrade Considerations

The following information should be considered or noted when upgrading Integration for Epic deployments. Read this information prior to upgrading your version of OnBase.

General Deployment Considerations — The following guidelines are considered best practices for upgrading the Integration for Epic:

- Beginning in OnBase EP3, when configuring authentication, the Epic Encryption Key
 must be a 32-byte Base64-encoded value when using an AES 256 encryption key size.
 For more information on configuring this setting, see the section on configuring
 encryption settings for URL integrations in the Integration for Epic module reference
 guide.
- Beginning in OnBase 18, the logic used to create user accounts via Epic authentication differs from previous versions. If you are upgrading from a version of OnBase prior to OnBase 18, contact your first line of support to determine whether any additional steps are needed to update existing user accounts.
- All previous integration files should be unregistered (if necessary) and removed.
 - For OnBase 12 and later, use the MSI for the installed version of OnBase to uninstall the integration components.
 - For file and registration information in OnBase 11.0 and earlier, check the Integration for Epic or Signature Deficiencies for Epic module reference guide for the version of OnBase being upgraded.
- When upgrading both OnBase and Epic, perform the OnBase upgrade before you upgrade your Epic system.
- When upgrading to a new build of OnBase, also upgrade all OnBase Application Servers used by the Epic integration. Upgrading to a new build will not require changes to the OnBase database or other aspects of the OnBase environment.
- When upgrading OnBase, use the latest build available for the new OnBase version.

Web Considerations — The following should be considered with regard to OnBase web applications that integrate with Epic, such as DocPop and OnBase Patient Window:

- When upgrading to the OnBase Web Viewer from the legacy ActiveX-based OnBase Viewer, you must update any Document Corrections E-form templates to use the OBBtn_SaveAndClose button for these forms to function properly in the OnBase Web Viewer. For more information on configuring Document Correction E-form templates, see the topic on form template configuration in the Integration for Epic documentation.
- As of OnBase Foundation EP3, the Epic ROI Web Service is not compatible with multiple OnBase systems integrating with one Epic system. If your system is currently configured to use multiple OnBase systems with one Epic system and you are upgrading your OnBase system to use the Epic ROI Web Service from the legacy Epic ROI Printer Plug-In integration, contact your first line of support for assistance.
- As of OnBase Foundation EP1, Epic encryption settings for OnBase web applications
 must be configured in OnBase Configuration under Utils | External Systems. The
 PopChecksumKey, EpicAuthenticationType, DPChecksum, and DPEncryptionType
 web.config settings are no longer used for Epic authentication.

- As of OnBase Foundation EP1, the epicTimestamp parameter must be included in the encrypted query string used to launch an integrated web application.
 Timestamps are used for validation. If a user's session times out, the user must relaunch the web application from Epic in order to log back in.
- As of OnBase 18, the Epic integrations no longer support RC4 encryption. If you are
 upgrading from a version of OnBase prior to OnBase 18, be sure to update the Epic
 encryption settings for web applications integrated with Epic. Also make sure Epic is
 using a supported encryption type.

Mobile Considerations — The following should be considered with regard to the integrations for Epic Canto or Epic Haiku:

- As of OnBase Foundation EP3, the **DPEncryptionType** and **DPCheckSum** settings are no longer used. The Mobile Applications Broker Server Web.config file must be updated to use the **EpicIntegration** setting.
- As of OnBase 18, the Epic integrations do not support RC4 as a value for DPEncryptionType. Be sure to update the Web.config file to use a supported encryption type. The Epic applications also must be updated to use the specified encryption type.
- If upgrading from OnBase 16 SP1 or earlier, take note of the value for the following key. This key value will be used to populate the MedicalEncounterKeywordID in the web.config file for the new OnBase version. As of OnBase 16 SP2, the MedicalEncounterKeywordID key replaces the DefaultKeywordID key.
 - <add key="DefaultKeywordID" value="" />
- If upgrading from OnBase 16 SP2 or later, take note of the values for the following keys:
 - <add key="MedicalEncounterKeywordID" value="" />
 - <add key="MedicalPatientKeywordID" value="" />

Scan Acquisition Server Considerations — The following should be considered with regard to the integrated Scan Acquisition Server:

- To prevent errors and loss of functionality when upgrading the Scan Acquisition Server from a version of OnBase prior to OnBase Foundation EP5, you must ensure all instances of the Application Server are also upgraded to the new version.
- If upgrading the Scan Acquisition Server from a version of OnBase prior to OnBase 16, you must update the Scan Acquisition Server ProgID in Epic.
- Back up the EpicIntegrations.config file.

Front Office Scanning Considerations — The following should be considered with regard to the integrated Front Office Scanning client:

- To prevent errors and loss of functionality when upgrading the Front Office Scanning integration from a version of OnBase prior to OnBase Foundation EP5, you must ensure all instances of the Application Server are also upgraded to the new version.
- As of OnBase 17 SP 2, the Front Office Scanning client can send Epic a service date, effective date, and received date to be used for all documents included in a single upload. By default, users are prompted to enter these dates when indexing documents. The dates can be disabled using the Epic FOS XML configuration file.

- As of OnBase 17, the Front Office Scanning client can load a different configuration file when scanning is initiated from registration contexts. To take advantage of this feature, you must create and configure the new file (EPICFOSCONFIG.registration.xml). If you do not want to use this feature, then no configuration changes are necessary.
- If upgrading the Front Office Scanning integration from a version of OnBase prior to OnBase 16, you must update the Scan Acquisition Server ProgID in Epic.
- Back up the EPICFOSCONFIG.xml, EPICFOSCONFIG.registration.xml (if applicable), and EpicIntegrations.config files.

Image Retrieval API Considerations — The following should be considered with regard to the Image Retrieval API integration:

Take note of the domain account used to run the Application Server used by this
integration. After upgrading, configure the Application Server to run under this
account or another account with the same permissions.

Signature Deficiencies Considerations — The following should be considered with regard to Signature Deficiencies for Epic:

- As of OnBase 18, new settings control the sending of HL7 messages to Epic when
 deficiencies are created or addressed. These settings are named Notify Epic of
 Pending Deficiencies and Notify Epic of Completed or Rejected Deficiencies. They
 are available on the HL7 tab in Medical System Settings. Both settings are selected
 by default when the database is upgraded from a version prior to OnBase 18. Neither
 setting is selected for new database installations.
- As of OnBase 18, Signature Deficiencies for Epic no longer needs to be configured to send HL7 messages to Epic in order for deficiencies to be burned.
- As of OnBase 18, if deficiencies are addressed using the mobile Integration for Epic Canto or Epic Haiku, then the Notify Epic of Completed or Rejected Deficiencies setting must be selected, and the associated HL7 message template and destination must be configured.
- · Back up the SD4E.txt file.
- Back up the EpicIntegrations.config file.
- Back up the Web.config file of the Application Server used for the Epic integration, ensuring the following key is included:
 - <add key="SD4EConfigLocation" value="{Location of SD4E.txt}" />

EpicCare Link Considerations — The following should be considered with regard to the integration for EpicWeb, EpicCare Link, or PlanLink:

- As of OnBase 16, the EpicWeb.ini file has been replaced by the OnBaseEpicWeb.config file. If upgrading from a version prior to OnBase 16, take note of the settings in EpicWeb.ini. These will be needed to populate the OnBaseEpicWeb.config file.
- If upgrading from OnBase 16 or later, back up the OnBaseEpicWeb.config file.

- · If upgrading Epic, take note of the following settings in the Epic.ini file:
 - MediaHandlerProgIDs
 - WebMediaObject (needed only for Epic 2015 and earlier)
 - MultipleMediaHandlers (needed only for Epic 2015 and earlier)
- If upgrading to Epic 2017 or later from Epic 2015 or earlier, remove the following settings from the Epic.ini file:
 - WebMediaObject
 - · MultipleMediaHandlers
- As of OnBase 18, the Hyland Integration for Epic installer does not create the OnBaseEpicWeb.config file. Instead, the installer can copy a pre-configured OnBaseEpicWeb.config file from a specified location to the installation directory. The DATASOURCE and APPLICATION_SERVER_URL properties are no longer used when the installer MSI is run using the command line.

For more information about updating the Scan Acquisition Server ProgID for integrated scanning, see Updating the Scan Acquisition Server ProgID on page 14.

Updating the Scan Acquisition Server ProgID

If you are upgrading from a version of OnBase prior to OnBase 16 and you are using Epic Hyperspace, you must update the Scan Acquisition Server ProgID in Epic. If the Scan Acquisition Server ProgID is not updated when OnBase is upgraded, then integrated scanning with Epic Hyperspace will not work.

Beginning in OnBase 16, the Scan Acquisition Server ProgID must reflect the Epic Hyperspace version for Epic August 2018 and later, as shown: **OBEpicScanWrp85.OBEpicScanWrapper**.

Before Installing the Integration

Required installation procedures may vary depending on the Integration for Epic components that are part of your solution.

Accessing the Registry

Some procedures require you to modify the Windows registry. When accessing the registry, use the method recommended for your system type:

- For 32-bit systems, open the Registry Editor by accessing C:\Windows\system32\regedt32.exe
- For 64-bit systems, open the Registry Editor by accessing C:\Windows\SysWow64\regedt32.exe

Caution: Modify the registry at your own risk. Incorrectly editing the Windows registry can cause serious problems that may require you to reinstall your operating system. Be sure to back up the registry before making any changes to it. For more registry information, see the following Microsoft articles: http://support.microsoft.com/kb/256986 and http://technet.microsoft.com/en-us/library/cc725612.aspx

Procedures for Installing Epic Integration Components

One or more of the following installation procedures may apply to your solution.

- To let users retrieve OnBase documents from Epic applications, complete the procedures under Installing the Web Viewer on page 57.
- To let users scan documents into OnBase from Epic, see Installing the Scan Acquisition Server on page 68.
- To let users use the Front Office Scanning client to scan documents into OnBase from Epic, see Installing the Epic Front Office Scanning Integration on page 81.
- To let users print OnBase documents from the Epic Release of Information module, see Installing the Epic ROI Printer Plug-In Integration on page 97.
- To let users access and upload OnBase documents using EpicCare Link, PlanLink, or EpicWeb, see Installing the EpicCare Link Integration on page 107.
- After you install OnBase components, an Epic administrator must configure Epic to work with OnBase. See Epic Configuration on page 197.

Note: For information about installing in a Citrix environment, see Citrix Installation on page 158.

Adding EpicIntegrations.config Settings

The Scan Acquisition Server uses the EpicIntegrations.config file. When configuring this integration component, you may decide to add additional configuration settings to the file.

To add a setting within EpicIntegrations.config, you must create the setting's opening and closing tags on a new line within the setting's respective element. For example, to add the Scan Acquisition Server's **AutoSaveRotation** setting to the **<Init>** element, you would do the following:

- 1. Open EpicIntegrations.config from the scanning DLLs' directory.
- 2. Enter a new line between the <Init> and </Init> tags, which reside in the <OBEpicScanControl> element.
- 3. On the new line, enter the opening and closing tag for the setting, as shown here: AutoSaveRotation>
- 4. Between the opening and closing AutoSaveRotation tags, enter the value you want to set. (See AutoSaveRotation on page 168 for an explanation of values.)
 <AutoSaveRotation>1
 /AutoSaveRotation>
- 5. Save EpicIntegrations.config.

Command Line Switches

-EPICPHYSICIANSTAMP

The -EPICPHYSICIANSTAMP command line switch activates the Epic Physician Acknowledgement processor. This processor is responsible for burning physician acknowledgement stamps onto documents that physicians have signed using the Integration for Epic's Healthcare Web Viewer.

Troubleshooting

The following topics describe potential issues with the Integration for Epic module, the Scan Acquisition Server, and the Epic ROI Integration. For detailed error messages, run the OnBase Diagnostics Console on the Application Server. See the Diagnostics Console help files for information about configuring logging.

- · Debug Modes on page 16
- · General Troubleshooting on page 19
- · Web Viewer Troubleshooting on page 20
- Scan Acquisition Server Troubleshooting on page 21
- · Front Office Scanning Troubleshooting on page 36
- EpicCare Link Troubleshooting on page 40
- Epic Welcome Troubleshooting on page 41

Debug Modes

Components of the OnBase Integration for Epic can run in debug mode to facilitate troubleshooting. The following topics describe how to enable debug mode for each component.

- Running the Scan Acquisition Server in Debug Mode on page 16
- Running the Front Office Scanning Integration in Debug Mode on page 18
- Running the EpicCare Link Integration in Debug Mode on page 19

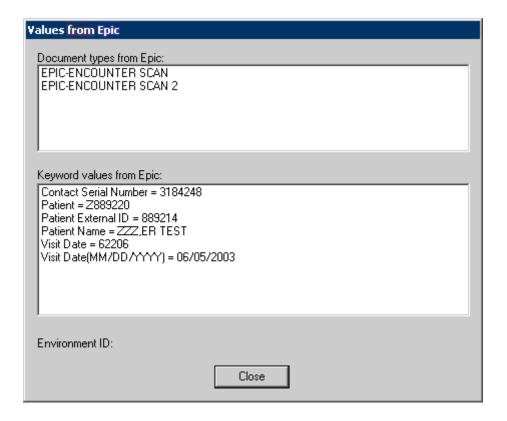
Running the Scan Acquisition Server in Debug Mode

When the Scan Acquisition Server runs in debug mode, you can view information being passed between Epic, the Scan Acquisition Server, and OnBase. The debugging dialog boxes can display the document type values and keyword context values being passed from Epic to the Scan Acquisition Server and also information about documents archived to OnBase. Turn on debug mode if you encounter issues while using the Scan Acquisition Server.

- 1. Open the EpicIntegrations.config file residing in the same directory as the scanning DLLs.
- 2. Locate **ShowInput** within the **Debug** node.

3. Set the **ShowInput** value to **1** if the Document Types and Keyword Values passed from Epic to the Scan Acquisition Server should be displayed. Set **ShowInput** to 0 to turn this feature off.

When **ShowInput** is set to **1**, the **Values from Epic** dialog box is displayed when a scan is initiated.



4. Locate **ShowOutput** within the **Debug** node.

5. Set the **ShowOutput** value to **1** to display the document handle, Document Type ID, page count, and OnBase keyword values for every item archived by the Scan Acquisition Server. Set the **ShowOutput** value to **0** to turn this feature off.

When **ShowOutput** is set to **1**, the **Debug Output** message box is displayed after a document is archived.



6. Save EpicIntegrations.config.

Writing Events to the Debug Log

The Scan Acquisition Server can write detailed messages to a debug log file, which is stored in the specified **Path** location. Messages include information such as input values, output values, and the Scan Acquisition Server's status.

- Open the EpicIntegrations.config file residing in the same directory as the scanning DLLs.
- 2. Locate WriteLog within the Debug node.
- 3. Set the **WriteLog** value to **1** if messages should be written to the debug log. Set the **WriteLog** value to **0** to turn this feature off.
 - If the **WriteLog** is set to **1**, the Scan Acquisition Server writes messages to the debuglog.txt file in the specified **Path** location.
- 4. Save EpicIntegrations.config.

Running the Front Office Scanning Integration in Debug Mode

The Epic Front Office Scanning integration can write debugging information to a text file for troubleshooting purposes.

In the same directory as the Front Office Scanning client executable, create a new text file named **debuglog.txt**. As long as this file exists in the same directory as the executable, the Epic Front Office Scanning integration will write debugging information to the file.

Running the EpicCare Link Integration in Debug Mode

The EpicCare Link integration can log debugging information to a text file for troubleshooting purposes. If you have trouble with the EpicCare Link integration, turn on debug mode and check the statements in the trace log.

By default, when debug mode is enabled, the trace log is created in the same directory as OnBaseEpicWeb.dll and named OnBaseEpicWeb.Trace.Log. You can change the location and name of the trace log by configuring the **debugLog** setting.

To turn on debug mode:

- 1. Open OnBaseEpicWeb.config.
- 2. Set the **debugMode** setting to **true**.

<debugMode>true</debugMode>

3. To specify a location and name for the trace log, enter a full path in the **debugLog** setting.

<debugLog>C:\EpicLogs\Trace.log</debugLog>

Ensure the account running the EpicCare Link / EpicWeb application pool has **Modify** permissions to this folder.

4. Save OnBaseEpicWeb.config.

Note: Even if debug mode is disabled, the integration will attempt to log errors to OnBaseEpicWeb.Errors.log. This file is created by default in the same directory as OnBaseEpicWeb.dll. The name and location of this log file can be changed using the **errorLog** setting.

General Troubleshooting

The following information describes how to troubleshoot issues that are not specific to a particular Epic integration component.

Cannot Log on to Other OnBase Applications

Users may be unable to log on to other OnBase applications, such as the Web Server or Application Enabler, if your solution uses an outdated version of Hyland.Oem.Epic.dll. To resolve the issue, you may need obtain an updated version of Hyland.Oem.Epic.dll. Contact your first line of support for assistance.

OEM Authentication failed. Invalid key.

When a user attempts to access an Epic integration, the authentication fails, and the following error message is displayed:

OEM Authentication failed. Invalid key.

This error message indicates the Epic authentication settings in OnBase Configuration are incorrect. For example, the **EpicUsername** and **EpicPassword** keys may have the wrong case applied. (The keys are case sensitive.) For more information, see Authentication Configuration on page 186.

Web Viewer Troubleshooting

For Web Viewer troubleshooting information, see the following topics.

- Bi-Directional Communication Cannot Be Processed on page 20
- Requested Action Cannot Be Processed on page 20
- · Missing Authorized Sources on page 21

Bi-Directional Communication Cannot Be Processed

When a server attempts to establish bi-directional communication with the OnBase Web Viewer, but is not listed as an authorized source origin in the OnBase Web Server web.config file, the following error message is displayed on the **scriptexception** tab in the Diagnostics Console:

• Bi-directional communication received message cannot be processed. Source origin < originalEvent.origin > not found in accepted origins list.

When this occurs, bi-directional communication is not established for the session however the document is displayed to the user but the user cannot perform any page actions when using Epic controls.

To configure specific sources as authorized sources for bi-directional communication between your Epic environment and the OnBase Web Viewer, see Enabling Bi-Directional Communication on page 66.

Requested Action Cannot Be Processed

When a user attempts to perform an action initiated from the Epic system to the OnBase Web Viewer, but the action cannot be completed due to a communication error, the following error message is displayed for the user:

• Bi-directional communication received message cannot be processed. Communication Initialization was not completed.

When this message is displayed the action requested cannot be completed and certain functionalities may not be available from the Epic system. If this message is displayed, contact your first line of support for further assistance.

Missing Authorized Sources

When bi-directional communication cannot be established because a list of authorized sources cannot be found, the following message is displayed on the **scriptexception** tab in the Diagnostics Console:

SourceOrigin List is empty or cannot be found

This message occurs when empty values exist within the **sourceOriginWhitelist** element in the Web Server web.config file. The list of authorized sources cannot be found and bi-directional communication cannot be established. To configure specific sources as authorized sources for bi-directional communication between your Epic environment and the OnBase Web Viewer, see Enabling Bi-Directional Communication on page 66.

Scan Acquisition Server Troubleshooting

For Scan Acquisition Server troubleshooting information, see the following topics.

- · Cannot Connect to Epic Hyperdrive on page 22
- Missing or Empty Command Line Parameters on page 22
- Scanning to Multiple Orders on page 23
- Missing Document Reference Endpoint on page 23
- Cannot Use the Scan Acquisition Server Through a Citrix Session on page 23
- Cannot Close Scanner Settings on page 23
- · Cannot Save Scanner Settings on page 24
- Cannot Create or View Scan Formats on page 24
- Cannot Access "Start Scanning" Button on page 25
- Cannot Preview Scanned Images on page 25
- Cannot Scan Rotated Pages on page 26
- Cannot Close TWAIN Scanning Dialog Box on page 26
- Missing Keyword Values on Scanned Documents on page 27
- Missing Keyword Values in Keyword Type Groups on page 27
- Cannot View Scanned or Swept Documents on page 27
- Cannot View MHT Documents on page 27
- Cannot Assign Document Types When Indexing on page 27
- Kofax Read INI Errors on page 28
- Cannot Store Scanned Files on page 28
- Cannot Load KVIEWOCX on page 28
- Cannot Read Keyword Mapping File on page 28
- Missing External Authentication Information on page 29
- Cannot Archive Documents on page 29

Cannot Connect to Epic Hyperdrive

When a user is working in the Scan Acquisition Server client and OnBase is unable to heartbeat to Epic Hyperdrive, the following message is displayed for the user:

 A communication error occurred. The application will now exit without saving progress.

This message is displayed when the Epic Hyperdrive client is closed unexpectedly. Because Epic Hyperdrive must remain running to receive the documents you captured and indexed in OnBase, the Scan Acquisition Server client is automatically closed without saving your progress if Epic Hyperdrive stops running. Additional information about the cause of the issue is included in the Windows Event Viewer and the OnBase Diagnostics Console. For further assistance, contact your first line of support.

Missing or Empty Command Line Parameters

When a user attempts to open the Scan Acquisition Server client from Epic Hyperdrive and required command line parameters are missing or empty, the following message is displayed for the user:

• Required command line parameter is missing. The application will now exit. Contact your administrator if this issue persists.

When this message is displayed, OnBase detects that one or more of the parameters required to launch the Scan Acquisition Server client from Epic Hyperdrive are missing or empty in the command line interface. To address this issue, ensure each of the following parameters is present and set to an appropriate value in the command line interface. For more information on these parameters, see the SMART on FHIR app launch details at http://hl7.org/fhir and http://fhircast.org.

Parameter	FHIR Context	Description
Launch	SMART on FHIR	Opaque identifier for this specific launch and any Electronic Health Record (EHR) context associated with it.
iss	SMART on FHIR	Issuer that identifies the EHR's FHIR endpoint, which the app can use to obtain the EHR's authorization URL and other details.
huburl	FHIRcast	Base URL of the EHR's hub.
hubtopic	FHIRcast	Opaque identifier for the user's session, typically expressed as a hub-generated GUID.

Scanning to Multiple Orders

When a user attempts to open the Scan Acquisition Server client from Epic Hyperdrive and multiple order values are passed to OnBase, the following message is displayed for the user:

 Scanning to multiple orders is not permitted. Please select a single order and then try again.

When this message is displayed, OnBase detects that the Epic document being imported into the Scan Acquisition Server client has been indexed with multiple order values in Epic. Since the Scan Acquisition Server client can only index documents to a single order value, it cancels the launch attempt to prevent any data loss.

To address this issue, ensure each of your Epic Hyperdrive documents is indexed with no more than one order value before importing it into the Scan Acquisition Server client.

Missing Document Reference Endpoint

When a user attempts to close the Scan Acquisition Server interface, the following error message is displayed:

 No Document Reference endpoint configured. Please contact your first line of support for more details. CorrelationID: [ID number]

When this message is displayed, OnBase cannot notify the Epic system that new documents have been created. The Correlation ID links to a log statement that includes the IDs of all the documents that could not be archived.

To address this issue, ensure the Document Reference endpoint is properly configured for the OnBase FHIR server (see the sections on configuring endpoints in the **FHIR** documentation). For further assistance, contact your first line of support.

Cannot Use the Scan Acquisition Server Through a Citrix Session

A user may be unable to use the Scan Acquisition Server for the following reasons:

- The user doesn't have appropriate rights. Verify that the user account that
 establishes the Citrix session has the appropriate rights to the folders, files and
 objects.
- The obepicscan.dll is outdated. A new version of the obepicscan.dll that allows for scanning within the Citrix environment was released in January 2006. Version 4.0 or greater of Citrix Presentation Server is required.

Cannot Close Scanner Settings

In a Citrix Presentation Server environment using TWAIN redirection, users may be unable to close the scanner settings dialog box, forcing them to restart their OnBase and Citrix sessions.

This issue may occur if the scanner uses TWAIN redirection with a version of Citrix Presentation Server that doesn't allow the dialog box to close. Citrix fixed this issue in Hotfix Rollup 1 for Citrix Presentation Server 4.5 and Citrix Client 10.1.

For different versions of Citrix, enabling low TWAIN mode can address the issue. Low TWAIN mode is enabled in the EpicIntegrations.config file on the local workstation. To enable low TWAIN mode:

- 1. Open the EpicIntegrations.config file residing in the same directory as the scanning DLLs.
- Under <Scan>, set LowTwainMode to 1 to enable low TWAIN mode.
 A value of 0 disables low TWAIN mode. When the Scan Acquisition Server is installed, low TWAIN mode is disabled by default.
- 3. Save EpicIntegrations.config.

Cannot Save Scanner Settings

When a user changes the TWAIN scanner settings, the new settings are not saved.

This issue may occur because the TWAIN driver does not allow scanner settings to be saved. This behavior varies depending on the TWAIN driver.

Enabling low TWAIN mode can allow users to save scanner settings. When low TWAIN mode is enabled, the following scanner settings can be saved at the local workstation level: Duplex, autofeed, color format, brightness, contrast, paper size, orientation, rotation, threshold, xres, and yres. Other settings are retained only for the duration of the scan session.

Low TWAIN mode is enabled in the EpicIntegrations.config file on the local workstation. To enable low TWAIN mode:

- 1. Open the EpicIntegrations.config file residing in the same directory as the scanning DLLs.
- Under <Scan>, set LowTwainMode to 1 to enable low TWAIN mode.
 A value of 0 disables low TWAIN mode. When the Scan Acquisition Server is installed, low TWAIN mode is disabled by default.
- 3. Save EpicIntegrations.config.

Cannot Create or View Scan Formats

When a user attempts to scan documents using the Scan Acquisition Server, there may be no scan formats available for selection, or new scan formats can be created but not saved.

These issues may occur for either of the following reasons:

- The user lacks Read/Write privileges to the scan format file.
- The file does not exist on the Citrix server.

Depending on your solution's configuration, scan formats may be saved in the location specified for the **Path** or **ConfigPath** in the EpicIntegrations.config file. Ensure users have at least Read access to this location. To allow users to create and save scan formats, grant them Write access, too.

For Citrix environments, ensure the scan formats are accessible by following the best practices provided under Epic Scanning Best Practices for Citrix Deployments on page 160.

Cannot Access "Start Scanning" Button

The Scan Acquisition Server's **Start Scanning** button may be unavailable if a **ConfigPath** value is provided in the EpicIntegrations.config file and there are no scan formats in the **ConfigPath** directory.

The **ConfigPath** value specifies where scan formats are located for the Scan Acquisition Server. By default, when a **ConfigPath** value is provided, users cannot create, modify, or delete scan formats using the Scan Acquisition Server. If the **ConfigPath** specifies a directory that contains no scan formats, the **Start Scanning** button is unavailable because the Scan Acquisition Server cannot create any scan formats.

For more information about ConfigPath, see ConfigPath on page 176.

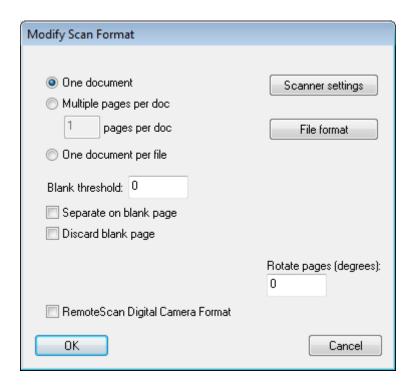
Cannot Preview Scanned Images

When a user attempts to scan an image using the Scan Acquisition Server, the image may not be displayed in the preview window. This issue may result when there is not enough contiguous memory on the scanning workstation. Refer to the following troubleshooting topic: Not enough memory available to copy image from scanner on page 35.

Cannot Scan Rotated Pages

In environments running Citrix Presentation Server 4.0, users may be unable to scan documents that are auto-rotated using their TWAIN driver's page rotation settings.

To resolve this issue, specify the document rotation in the Scan Acquisition Server's **Modify Scan Format** dialog box for TWAIN scanners. In the **Rotate pages** (**degrees**) field, type the number of degrees to rotate pages. Valid values range from **0** to **359**.



Cannot Close TWAIN Scanning Dialog Box

When a TWAIN-compliant scanner finishes scanning, the TWAIN scanning dialog box may not close. As a result, the Scan Acquisition Server is left waiting for more documents, even though scanning is complete.

This behavior occurs because some TWAIN scanners do not send the proper message when they are finished scanning.

To address this issue, use the **ForceCloseTwain** setting in EpicIntegrations.config. This setting allows the Scan Acquisition Server to automatically close the TWAIN dialog box when the Scan Acquisition Server stops receiving images from the scanner.

- Open the EpicIntegrations.config file residing in the same directory as the scanning DLLs.
- 2. Under **<Scan>**, set the **ForceCloseTwain** value to **1**. This setting instructs the Scan Acquisition Server to close the scanner dialog box as soon as the scanner finishes sending a page. To disable this setting, change the value to **0**.
- 3. Save EpicIntegrations.config.

Missing Keyword Values on Scanned Documents

If documents are scanned into OnBase without Keyword Values, there may be an issue with keyword mapping.

Review the topic titled Scanning Keyword Type Configuration on page 223. This topic describes possible keyword mapping options and their requirements.

Missing Keyword Values in Keyword Type Groups

If Keyword Values in Keyword Type Groups are not being saved to scanned documents, then a client-side Scan Acquisition Server file may be causing a version conflict. Ensure the client-side files match the version of OnBase you are using.

The client-side Scan Acquisition Server files are OnBase version-specific. Check the files' versions to determine whether they are compatible with your OnBase version.

Note: The file obepicscanwrpXx.dll is not version-specific. This file can still be used with multiple versions of OnBase.

Cannot View Scanned or Swept Documents

This may occur if documents and scan formats cannot be saved to the temp directory. To resolve, confirm that the user has read and write access to the scan data folder.

Cannot View MHT Documents

First, confirm that the user has read and write access to the temporary scanning directory configured in the registry. If only MHT documents are not displayed, then the Internet Explorer security settings on the scanning workstation may be too strict to display MHT documents.

The specific settings needed to allow navigation vary depending on the content of the MHT document. To troubleshoot the issue, open the MHT document externally from OnBase using Internet Explorer. If Internet Explorer returns an error message, adjust the security settings as indicated by the message.

Cannot Assign Document Types When Indexing

The Scan Acquisition Server may have no Document Types available for selection under any of the following conditions:

- Epic passed an empty Document Type list to the Scan Acquisition Server.
- The Document Types passed to the Scan Acquisition Server do not exactly match the names of the Document Types residing in OnBase.
- The Document Types passed to the Scan Acquisition Server do not exist in OnBase.

Check your configuration to ensure that the Document Type list being passed by Epic contains the correct Document Type names.

Kofax Read INI Errors

Kofax **read ini** errors when trying to scan can be fixed by recreating the scan formats and deleting the Kofax ini's from the workstation.

Cannot Store Scanned Files

When a user attempts to scan documents using the Scan Acquisition Server, the following error message may be displayed:

 File Error
 An error has occurred attempting to store the scanned file, please check for disk space and appropriate rights

This error occurs when the user who is scanning documents lacks privileges to the temporary storage location for scanned files. When documents are scanned through the Scan Acquisition Server, they are stored in a temporary disk group before being uploaded to OnBase. End users must have access to this temporary storage location.

After being assigned sufficient NTFS privileges to the temporary storage location, the user can scan documents.

To determine the temporary disk group location for the Scan Acquisition Server:

- 1. Open the EpicIntegrations.config file residing in the same directory as the scanning DLLs.
- 2. Under **<Diskgroup>**, check the **Path** value. This value contains the path to the temporary disk group location.

Note: The directory may be enclosed within <![CDATA[]]> tags.

Cannot Load KVIEWOCX

This error occurs when a user selects the **Kofax** scan format on a workstation that does not have the proper Kofax software or hardware.

Cannot Read Keyword Mapping File

When a user opens the Scan Acquisition Server, the following error message may be displayed:

 Error - failed to read keyword mapping file from specified disk location. Please contact your system administrator.

This message indicates that the keyword mapping file either does not exist in the specified location, or the file is inaccessible to the Scan Acquisition Server. The user cannot scan documents until the issue is addressed.

In EpicIntegrations.config, check the **FilePath** setting, which located under **<Mapping>** in the **<OBEpicScanControl>** element. Ensure the path provided is valid and accessible to the Scan Acquisition Server, and ensure the specified mapping file is present. The EpicIntegrations.config file is stored with the client-side scan files.

Missing External Authentication Information

When a user attempts to scan documents, the following error may be displayed:

• External authentication information not found. Please check your user settings and try again.



This issue may occur if the user is not configured correctly in Epic for external authentication. Confirm the setting with the Epic administrator.

Cannot Archive Documents

If the Scan Acquisition Server cannot archive one or more documents, the **Failed to archive documents** error is displayed after the user clicks the **Exit Scan Server** button. This error is accompanied by the following text:

· Do you want to exit?

If you exit, the above listed document(s) will not be archived or become part of the chart!

Please choose no to return and rescan or delete the document(s) in error.

If you continue to receive errors, please contact your technical support department.

The **Error** dialog box lists the documents that cannot be archived and states what caused the archive failure. Possible causes and their resolutions are outlined in the following topics:

- Document Missing Document Type Assignment on page 30
- Failed to get session for session id on page 30
- Failed to load xml for parsing on page 31
- Failed to open local document page for archival on page 32
- Hyland Services: caught exception in Execute() call for document archive context on page 32
- OpenDocFile Error on page 33
- Required output parameter for docld is missing on page 34

Document Missing Document Type Assignment

This message is displayed when the user chooses to exit the Scan Acquisition Server before indexing the listed documents.

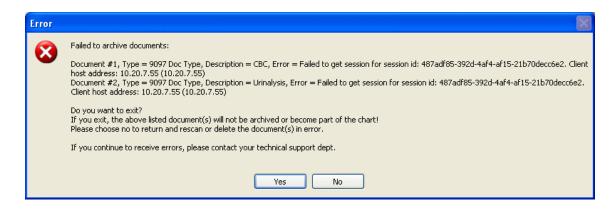


To address this issue, the user should do the following:

- 1. Click No to return to the Scan Acquisition Server.
- 2. Index the documents.
- 3. Click Exit Scan Server to archive the documents to OnBase.

Failed to get session for session id

This message may be displayed when the user's connection to the Application Server is lost and cannot be re-established.



If the Application Server is available, the Scan Acquisition Server automatically attempts to reconnect. If reconnecting is not possible, the user should do the following:

- 1. Click **No** to return to the Scan Acquisition Server.
- 2. Delete the scanned documents.
- 3. Click Exit Scan Server.

- 4. When the Application Server is available again, the user should re-open the Scan Acquisition Server from the correct Epic screen so that the indexing values are passed back in.
- 5. Rescan the documents.
- 6. Index the documents.

Note: This error also may be displayed due to an issue with TWAIN driver compression in a Citrix environment. For more information, see the description provided for DriverCompressionOff on page 178.

Failed to load xml for parsing

This message may be displayed when the user's connection to the Application Server is lost.



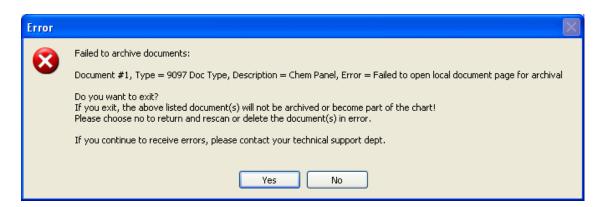
When the user clicks **No**, the **Required output parameter for docld is missing** error is displayed.

The user cannot re-establish the connection without re-opening the Scan Acquisition Server. To address this issue, the user should do the following:

- 1. Click **No** to return to the Scan Acquisition Server.
- 2. Delete the scanned documents.
- 3. Click Exit Scan Server.
- 4. Re-open the Scan Acquisition Server from the correct Epic screen so that the indexing values are passed back in.
- 5. Rescan the documents.
- Index the documents.

Failed to open local document page for archival

This message is displayed when the Scan Acquisition Server cannot find one or more document pages, which may occur if a page's file becomes corrupted or is deleted by another user. To help prevent the latter problem, ensure that the path specified in the registry is unique to each scanning user.



To address this issue, the user should do the following:

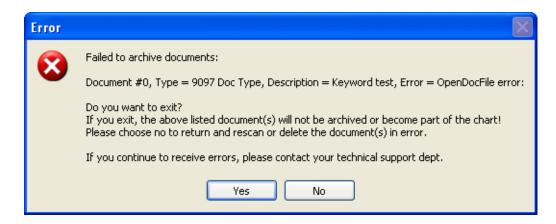
- 1. Click No to return to the Scan Acquisition Server.
- 2. Delete the missing page, which is displayed as a blank thumbnail in the viewer.
- 3. Rescan the page.
- 4. Index it or append it to the correct document, if necessary.

Hyland Services: caught exception in Execute() call for document archive context

This message is displayed if the upload request takes longer than the default 120-second timeout period. If this error occurs, increase the Scan Acquisition Server's timeout period using the EpicIntegrations.config file. See HttpTimeout on page 171.

OpenDocFile Error

This message is displayed if the upload is failing because the Scan Acquisition Server cannot access the OnBase disk groups.



When this occurs, the Diagnostics Console logs the following error:

 CHylandServicesSession::ArchiveAllDocuments() - calling AddKeywordByName (patient name, 12345)

Hyland Services: response error for document archive context - OpenDocFile error:

These errors may occur if the Application Server's impersonation account is not configured correctly, or if the share/NTFS permissions are insufficient. Ensure this user account has access to the disk groups.

See the System Administration reference guide or OnBase Configuration help files for more information about disk group share/NTFS permissions.

Required output parameter for docld is missing

This message is displayed under multiple situations. If the message **Failed to load xml for parsing** was displayed first, then refer to Failed to load xml for parsing on page 31.

This message may be displayed when the Scan Acquisition Server cannot find one or more document pages, which may occur if a page's file becomes corrupted or is deleted by another user. To help prevent the latter problem, ensure that the path specified in the registry is unique to each scanning user.



To address this issue, the user should do the following:

- 1. Click **No** to return to the Scan Acquisition Server.
- 2. Delete the missing page, which is displayed as a blank thumbnail in the viewer.
- 3. Rescan the page.
- 4. Index it or append it to the correct document, if necessary.

Kofax Error

During scanning the following error may be displayed:

• Error, The following error has been detected by Kofax Image Controls, ERROR 20099 - Error writing data, while processing page 1 of the batch. The image may not have been properly saved in the disk group. It may be necessary to purge or rescan this batch after the problem has been corrected.

This error often occurs when users who do not have Write network permissions, but not Modify network permissions for the location of the disk group used to store the documents. For example a user might receive this error if he has Network permissions of Read & Execute, List Folder Contents, Read, and Write.

Not enough memory available to copy image from scanner

When a user attempts to scan an image using the Scan Acquisition Server, the image may not be displayed in the preview window, or a blank error message may be displayed.

This issue may occur if the workstation has insufficient contiguous memory to render the image after it is scanned. This issue may be resolved by turning off TWAIN native transfer mode for the Scan Acquisition Server. For information about this option, see TWAINNativeTransfer on page 179.

ProcessArchivalTokenEX failed

When a user attempts to import documents, the following error may be displayed:



This issue may be caused by the following:

- The Document type is missing keywords. Each document type must contain one of these keywords: Epic_Patient_ID, Epic_Visit_Number, and Epic_Order_Number.
- The Scan Acquisition Sever is attempting to save a file larger than the size allowed by the OnBase Application Server (defined in the Application Server's Web.config file).
- The Scan Acquisition Sever's request to save a file is timing out based on the OnBase Web Server's configured time to transfer (defined in the Web Server's Web.config file).
- A mass storage copy of the disk group volume is unavailable. If the unavailable copy is a second or third copy, consider changing the copy's device type from Mass Storage to Backup. See the OnBase Configuration module help files for more information about disk group configuration.

TWAIN Drive Error

During scanning, the following error may be displayed:

• TWAIN Drive: A general fault of the MSG_OPENDS response. (Internally) There has been a sharing violation. Twain source may be in use. (Code: DS50171)

This error occurs when the Scan Acquisition Server attempts to use a TWAIN driver and finds it already in use by another module or application. Wait until that module or application has finished scanning and unlocks the driver, or ensure that no module or application currently has the TWAIN driver window open (accessible by clicking **Scanner Setup** on the **Scan Format Setup** dialog box).

Working Directory for Scan Control Not Specified in Registry

When a user attempts to start the Scan Acquisition Server, the following error may be displayed:



This message is displayed when the **Path** for the scan data folder is not specified in the EpicIntegrations.config file.

Front Office Scanning Troubleshooting

For help troubleshooting the Front Office Scanning integration, see the following topics.

- · Cannot Connect to Epic Hyperdrive on page 36
- Missing or Empty Command Line Parameters on page 37
- Scanning to Multiple Orders on page 37
- Missing Document Reference Endpoint on page 38
- Missing Remote Server Location on page 38
- Hyland Services Cannot Connect to the Server on page 38
- Missing "DocType" Elements on page 39
- · Missing or Invalid Document Type Contexts on page 39
- · Cannot Re-Index Existing Document on page 39
- Cannot Access Scanner on page 39

Cannot Connect to Epic Hyperdrive

When a user is working in the Front Office Scanning client and OnBase is unable to heartbeat to Epic Hyperdrive, the following message is displayed for the user:

 A communication error occurred. The application will now exit without saving progress.

This message is displayed when the Epic Hyperdrive client is closed unexpectedly. Because Epic Hyperdrive must remain running to receive the documents you captured and indexed in OnBase, the Front Office Scanning client is automatically closed without saving your progress if Epic Hyperdrive stops running. Additional information about the cause of the issue is included in the Windows Event Viewer and the OnBase Diagnostics Console. For further assistance, contact your first line of support.

Missing or Empty Command Line Parameters

When a user attempts to open the Front Office Scanning client from Epic Hyperdrive and required command line parameters are missing or empty, the following message is displayed for the user:

• Required command line parameter is missing. The application will now exit. Contact your administrator if this issue persists.

When this message is displayed, OnBase detects that one or more of the parameters required to launch the Front Office Scanning client from Epic Hyperdrive are missing or empty in the command line interface. To address this issue, ensure each of the following parameters is present and set to an appropriate value in the command line interface. For more information on these parameters, see the SMART on FHIR app launch details at http://hl7.org/fhir and http://fhircast.org.

Parameter	FHIR Context	Description
Launch	SMART on FHIR	Opaque identifier for this specific launch and any Electronic Health Record (EHR) context associated with it.
iss	SMART on FHIR	Issuer that identifies the EHR's FHIR endpoint, which the app can use to obtain the EHR's authorization URL and other details.
huburl	FHIRcast	Base URL of the EHR's hub.
hubtopic	FHIRcast	Opaque identifier for the user's session, typically expressed as a hub-generated GUID.

Scanning to Multiple Orders

When a user attempts to open the Front Office Scanning client from Epic Hyperdrive and multiple order values are passed to OnBase, the following message is displayed for the user:

 Scanning to multiple orders is not permitted. Please select a single order and then try again.

When this message is displayed, OnBase detects that the Epic document being imported into the Front Office Scanning client has been indexed with multiple order values in Epic. Since the Front Office Scanning client can only index documents to a single order value, it cancels the launch attempt to prevent any data loss.

To address this issue, ensure each of your Epic Hyperdrive documents is indexed with no more than one order value before importing it into the Front Office Scanning client.

Missing Document Reference Endpoint

When a user attempts to close the Epic Front Office Scanning client, the following error message is displayed:

 No Document Reference endpoint configured. Please contact your first line of support for more details. CorrelationID: [ID number]

When this message is displayed, OnBase cannot notify the Epic system that new documents have been created. The Correlation ID links to a log statement that includes the IDs of all the documents that could not be archived.

To address this issue, ensure the Document Reference endpoint is properly configured for the OnBase FHIR server (see the sections on configuring endpoints in the **FHIR** documentation). For further assistance, contact your first line of support.

Missing Remote Server Location

When a user attempts to access the Epic Front Office Scanning interface, the following error message is displayed:

• Error! The remote server location was not set from either the location or environment ID

To address this issue, ensure the environment ID value from Epic is mapped to the OnBase Application Server and data source in EpicIntegrations.config. See Front Office Scanning Differences in Epic on page 85.

For solutions where multiple OnBase systems are integrated with a single Epic system, ensure the Epic location value is correctly mapped. See Scanning Integrations on page 127.

Hyland Services Cannot Connect to the Server

When a user attempts to access the Epic Front Office Scanning interface, the following error message is displayed:

An error occurred connecting to the server using Hyland Services.
 Please verify the url specified in the configuration file.

To address this issue, ensure the correct data source and URL are mapped to the Epic environment ID in EpicIntegrations.config. See Front Office Scanning Differences in Epic on page 85.

Missing "DocType" Elements

When a user attempts to access the Epic Front Office Scanning interface, the following error message is displayed:

 Bad configuration file. "DocTypes" element does not specify any "DocType" elements.

To address this issue, do the following:

- Verify that the EPICFOSCONFIG.xml file is properly configured. The file must contain a
 DocTypes element that contains one or more DocType sub-elements.
- 2. Ensure each DocType sub-element specifies the name of a valid Document Type configured in OnBase.

Missing or Invalid Document Type Contexts

When a user attempts to access the Epic Front Office Scanning interface, the following error message is displayed:

• Error - no valid document type contexts were provided, unable to continue

This error indicates the Front Office Scanning integration was unable to identify the document type contexts received from Epic. Verify the **DocType** elements in EPICFOSCONFIG.xml file are configured correctly. See Document Types Available for Upload on page 89.

If the Front Office Scanning integration should ignore the document type contexts received from Epic, see Overriding the Document Types From Epic on page 91.

Cannot Re-Index Existing Document

When a Front Office Scanning user attempts to link a referral document to Epic, the following error message is displayed:

• Error - failed to re-index existing document, please verify the user has proper re-index privileges.

This error indicates the Front Office Scanning user has insufficient rights to re-index the document and link it to Epic. See User Privileges for Linking Existing Documents on page 102.

Cannot Access Scanner

When a user attempts to scan a document using the Epic Front Office Scanning client, the following error message is displayed:

Error accessing scanner: <scanner model>

This message indicates that the Front Office Scanning client cannot access the scanner specified in the EPICFOSCONFIG.xml file. To resolve this issue, perform the following steps:

- 1. Ensure that the scanner is specified correctly in the EPICFOSCONFIG.xml file. Refer to the **Front Office Scanning** module reference guide for more information about this setting.
- 2. Ensure the scanning workstation has access to the specified scanner.

EpicCare Link Troubleshooting

For help troubleshooting the EpicCare Link integration, see the following topics.

CanRetrieve()=False. FileExtension:'[ext]', ContentType:" combination invalid.

When a user attempts to retrieve a document using the EpicCare Link integration, the following error message may be logged to the error log, which by default is named OnBaseEpicWeb.Errors.log and located in the same directory as OnBaseEpicWeb.dll.

• CanRetrieve()=False. FileExtension:'[ext]', ContentType:" combination invalid. Check File Format Configuration with your OnBase Admin.

This message is logged when a user attempts to open a document of a file format with an unknown MIME type.

When displaying a document, the EpicCare Link integration performs the following checks:

- 1. The EpicCare Link integration first checks for the file format's MIME type in OnBase Configuration.
- 2. If the MIME type is not configured, then the integration checks its standard hard-coded values.
- 3. If the MIME type still cannot be found, then the error is logged to OnBaseEpicWeb.Errors.log.

To address this issue, ensure the file format's MIME type is specified in OnBase Configuration. Select **Document** | **File Formats** to access file format configuration. For configuration information, see the OnBase Configuration help files.

"Data Type Mismatch" Error in OnBase EpicCare Link Integration

When attempting to use the EpicCare Link integration, a user may encounter the following error:

Data Type Mismatch

This issue occurs if the media handler specified in Epic's configuration is incorrect. Contact an Epic administrator to resolve the issue.

Missing value for required keyword type

When a user attempts to upload a document using EpicCare Link, the upload fails, and one of the following errors may be logged to the Diagnostics Console:

- Missing value for required keyword type '[Keyword Type Name]'.
- Missing values for required keyword types: '[Keyword Type Name 1]', '[Keyword Type Name 2]'.

These errors indicate that the archival Document Type has Keyword Types configured as required for new documents. If any of these Keyword Types is missing a value at the time of upload, the upload will fail.

To address this issue, use one of the following approaches:

- Make sure the mapped Epic keywords are providing values for the required OnBase Keyword Types.
- Make sure the required Keyword Types are properly mapped to Epic keywords. See EpicCare Link Keyword Type Configuration on page 254.
- Re-evaluate whether the Keyword Types should be required for new documents. If necessary, remove the requirement in Document Type configuration. See the OnBase Configuration help files for more information.

Epic Welcome Troubleshooting

For help troubleshooting the Epic Welcome integration, see the following topics.

Missing value for required keyword type

When a user attempts to upload a document using Epic Welcome, the upload fails, and one of the following errors may be logged to the Diagnostics Console:

- Missing value for required keyword type '[Keyword Type Name]'.
- Missing values for required keyword types: '[Keyword Type Name 1]', '[Keyword Type Name 2]'.

These errors indicate that the archival Document Type has Keyword Types configured as required for new documents. If any of these Keyword Types is missing a value at the time of upload, the upload will fail.

To address this issue, use one of the following approaches:

- Make sure the mapped Epic keywords are providing values for the required OnBase Keyword Types.
- Make sure the required Keyword Types are properly mapped to Epic keywords. See Epic Welcome Keyword Type Configuration on page 265.
- Re-evaluate whether the Keyword Types should be required for new documents. If necessary, remove the requirement in Document Type configuration. See the OnBase Configuration help files for more information.

Contacting Support

When contacting your solution provider, please provide the following information:

- The OnBase module where the issue was encountered.
- The OnBase version and build.
- The type and version of the connected database, such as Microsoft SQL Server 2014 or Oracle 12c, and any Service Pack that has been installed.
- The operating system that the workstation is running on, such as Windows 10 or Windows Server 2012 R2, and any Service Pack that has been installed. Check the supported operating systems for this module to ensure that the operating system is supported.

Installation

- The name and version of any application related to the issue.
- The version of Internet Explorer and any Service Pack that has been installed, if applicable.
- A complete description of the problem, including actions leading up to the issue.
- · Screenshots of any error messages.

Supplied with the above information, your solution provider can better assist you in correcting the issue.

Installing the OnBase Application Server

The OnBase Integration for Epic components require the OnBase Application Server.

- 1. Install the OnBase Application Server. See the **Application Server** module reference guide for more information.
- 2. Ensure the required data source connection strings are configured in the Web.config file of the OnBase Application Server.
- 3. Run the Hyland Integration for Epic installer with **Application Server** as a selected component. See Epic Integrations Installer on page 133 for more information.

Note: If you are using the OnBase Web Viewer, it is recommended to establish a secure connection (using HTTPS) between the OnBase Web Server and the OnBase Application Server. For more information on installing the OnBase Web Viewer, see Installing the Web Viewer on page 57.

Enabling SMART on FHIR on the Application Server

The following Integration for Epic components or complementary modules require SMART on FHIR in order to launch when using Hyperdrive within an Epic environment:

- · Scan Acquisition Server
- Front Office Scanning
- · OnBase Web Viewer
- DeficiencyPop

Note: For more information on configuring SMART on FHIR for DeficiencyPop, see the **DeficiencyPop** documentation.

If your system environment contains any of these OnBase Integration for Epic components and SMART on FHIR is fully configured, you must also configure your OnBase Application Server to enable SMART on FHIR launches.

Note: For more information on configuring SMART on FHIR for your environment, see the **SMART on FHIR** documentation.

To enable SMART on FHIR application launches:

- 1. Locate the **web.config** file of the OnBase Application Server. In a default installation, this is located at **C:\inetpub\wwwroot\AppServer64**.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

3. Locate the SMARTonFHIRApplicationID setting within the <appSettings> element.

4. Enter the SMART on FHIR Application Unique ID as the value.

Note: The **Application Unique ID** can be found in OnBase Configuration in the **Epic Hyperdrive Settings** dialog box under **Medical** | **FHIR** | **SMART on FHIR**. For more information on the settings within this dialog box, see the **SMART on FHIR** documentation.

For example: <add key="SMARTonFHIRApplicationID" value="e443c053-26b2-404e-9f46-c3861244a053"

- 5. Save and close the web.config file.
- 6. Recycle the application pool for these changes to take effect.

Configuring the EpicIntegrations Configuration File

The EpicIntegrations.config file and the EpicIntegrations Configuration utility are available to configure the necessary settings used with the Scan Acquisition Server and the Front Office Scanning integrations.

Note: The ActiveX-based OnBase Viewer available in previous versions is no longer supported as of OnBase Foundation EP5. The EpicIntegrations Configuration utility can no longer be used to create the Epicintegrations.config file for this viewer.

You can configure these settings manually or by using the EpicIntegrations Configuration utility. See the following procedures:

- Configuration Using the EpicIntegrations Configuration Utility on page 45
- Manual Configuration of the EpicIntegrations Configuration File on page 54

Tip: If you use the Hyland Integration for Epic installer, configure the EpicIntegrations.config file before running the installer. The installer can copy the pre-configured file from a specified directory to the installation locations, allowing you to configure the file only once instead of in multiple locations.

Configuration Using the EpicIntegrations Configuration Utility

The following sections describe using the EpicIntegrations Configuration utility to create, modify, or upgrade EpicIntegration.config files for associated Scan Acquisition Server or Front Office Scanning integrations:

- Creating a New EpicIntegrations.config File on page 45
- Modifying an Existing Configuration File on page 47
- Upgrading an Existing Solution on page 49

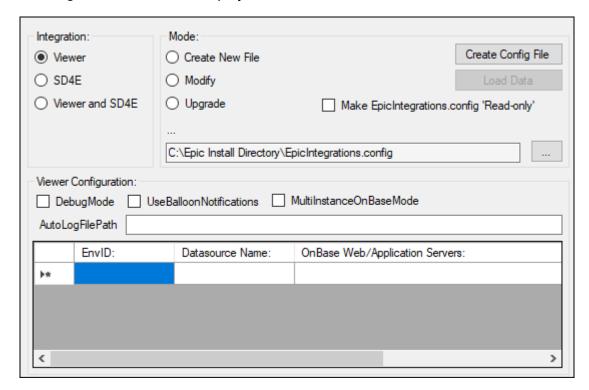
Creating a New EpicIntegrations.config File

Scan Acquisition Server (SAS) and Front Office Scanning (FOS) settings are maintained in the EpicIntegrations.config file. For new installations, use the EpicIntegrations Configuration utility to create this file.

To configure the EpicIntegrations.config file manually, see Manual Configuration of the EpicIntegrations Configuration File on page 54.

To create the configuration file using the EpicIntegrations Configuration utility:

1. From your installation files, launch **EpicConfigFileCreator.exe**. The **EpicIntegrations Configuration** window is displayed.



2. Under Integration, select one of the following:

Integration Option	Description
Viewer	Select to create a generic configuration file with SAS and FOS settings.
Viewer and SD4E	Select if both the SAS/FOS integrations for Epic and Signature Deficiencies for Epic will be installed on the same workstation. This option configures an EpicIntegrations.config file that both integrations can use.
	Note: The Signature Deficiencies for Epic module requires a Signature Deficiencies for Epic license. If you select Viewer and SD4E, additional settings must be configured. See the Signature Deficiencies for Epic documentation for more information.

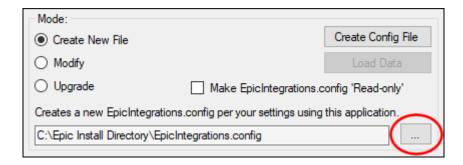
3. Under Mode, select Create New File.

Note: When **Create New File** mode is selected, EpicIntegrations Configuration automatically includes a section of unconfigured Scan Acquisition Server settings in the EpicIntegrations.config file. This feature helps simplify scanning installations and reduces the potential for configuration errors. For more information, see Creating EpicIntegrations.config on page 70.

4. If the EpicIntegrations.config file should be read-only, select the **Make EpicIntegrations.config 'Read-only'** option.

Note: Once you save the EpicIntegrations.config file as read-only, you cannot modify it using EpicConfigFileCreator.exe. To modify a read-only EpicIntegrations.config file, first remove the **Read-only** attribute manually using Windows Explorer.

5. Browse to the location for the EpicIntegrations.config configuration file by clicking the ellipsis (...) button. You can also type the full path to the EpicIntegrations.config file instead of browsing.



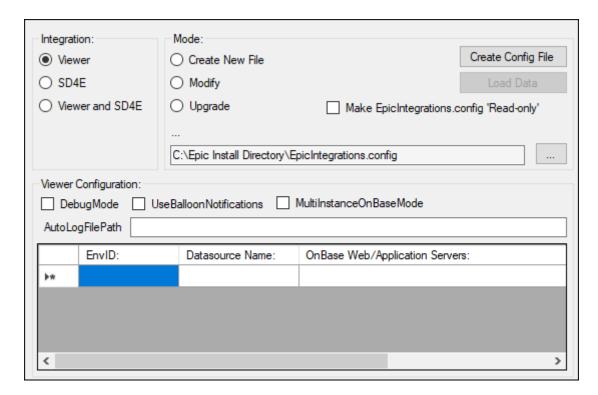
 Configure environment ID settings to connect to the OnBase data source and OnBase Application Server configured for your Integration for Epic environment. See Environment ID Configuration Settings on page 51.

Modifying an Existing Configuration File

Settings from an existing EpicIntegrations.config file can be loaded and modified.

To modify an existing EpicIntegrations.config file:

1. From your installation files, double-click **EpicConfigFileCreator.exe**. The **EpicIntegrations Configuration** window is displayed.



2. Under Integration, select one of the following:

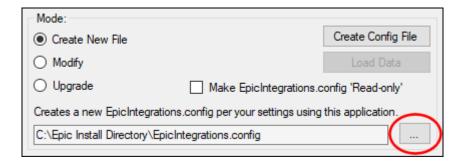
Integration Option	Description	
Viewer	Select to create a generic configuration file with SAS and FOS settings.	
Viewer and SD4E	Select if both the SAS/FOS integrations for Epic and Signature Deficiencies for Epic will be installed on the same workstation. This option configures an EpicIntegrations.config file that both integrations can use.	
	Note: The Signature Deficiencies for Epic module requires a Signature Deficiencies for Epic license. If you select Viewer and SD4E, additional settings must be configured. See the Signature Deficiencies for Epic documentation for more information.	

3. Under Mode, select Modify.

4. If the EpicIntegrations.config file should be read-only, select the **Make EpicIntegrations.config 'Read-only'** option.

Note: Once you save the EpicIntegrations.config file as read-only, you cannot modify it using EpicConfigFileCreator.exe. To modify a read-only EpicIntegrations.config file, first remove the **Read-only** attribute manually using Windows Explorer.

5. Browse to the location for the EpicIntegrations.config file by clicking the ellipsis (...) button. You can also type the full path to the EpicIntegrations.config file instead of browsing.



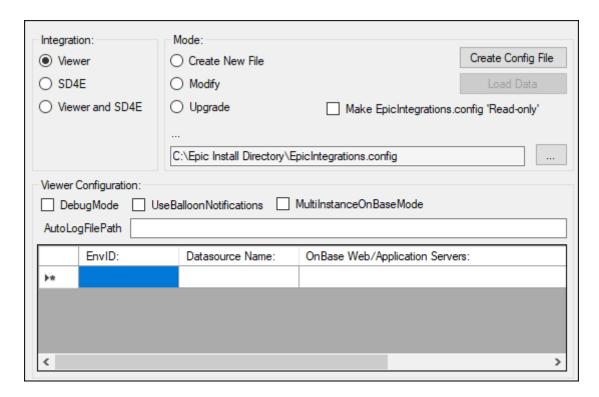
6. Click **Load Data**, and then continue to the following topic, Environment ID Configuration Settings on page 51.

Upgrading an Existing Solution

Existing solutions from OnBase 9.2 or earlier can be upgraded using the EpicIntegrations Configuration utility. This option creates the EpicIntegrations.config file using the workstation's existing registry settings.

To upgrade an existing solution:

1. From your installation files, double-click **EpicConfigFileCreator.exe**. The **EpicIntegrations Configuration** window is displayed.



2. Under **Integration**, select one of the following:

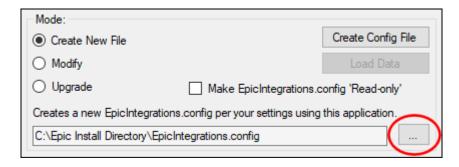
Integration Option	Description	
Viewer	Select to create a generic configuration file with SAS and FOS settings.	
Viewer and SD4E	Select if both the SAS/FOS integrations for Epic and Signature Deficiencies for Epic will be installed on the same workstation. This option configures an EpicIntegrations.config file that both integrations can use.	
Note: The Signature Deficiencies for Epic module requires a Signature Deficiencies for Epic license. If you select Viewer SD4E, additional settings must be configured. See the Signature Deficiencies for Epic documentation for more information.		

3. Under Mode, select Upgrade.

4. If the EpicIntegrations.config file should be read-only, select the **Make EpicIntegrations.config 'Read-only'** option.

Note: Once you save the EpicIntegrations.config file as read-only, you cannot modify it using EpicConfigFileCreator.exe. To modify a read-only EpicIntegrations.config file, first remove the **Read-only** attribute manually using Windows Explorer.

5. Browse to the location for the EpicIntegrations.config file by clicking the ellipsis (...) button. You can also type the full path to the EpicIntegrations.config file instead of browsing.



6. Click **Create Config File**. The EpicIntegrations.config file is created in the specified location.

Environment ID Configuration Settings

Epic environment IDs are configured in your Epic solution. You must map these Epic environment IDs to connect to the OnBase data source and OnBase Application Server configured for your Integration for Epic environment. You can configure environment ID mappings through the EpicIntegrations Configuration utility.

Note: These steps are not necessary if you are running the EpicIntegrations Configuration utility in Upgrade mode.

To configure Epic environment ID mapping manually, see Manual Configuration of the EpicIntegrations Configuration File on page 54.

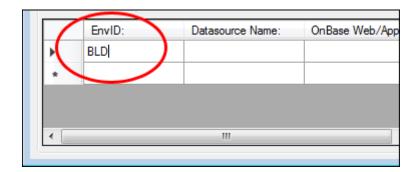
To configure environment ID settings:

 In the EpicIntegrations Configuration utility, under Viewer Configuration, use the table provided to map the Epic environment IDs to the corresponding OnBase servers. At least one mapping must be specified.

Note: The following options under **Viewer Configuration** are legacy options associated with the legacy ActiveX-based OnBase Viewer: **DebugMode**, **UseBalloonNotifications**, **MultiInstanceOnBaseMode**, **AutoLogFilePath**. These options are no longer supported in the EpicIntegrations Configuration utility.

Complete the following steps for each environment ID:

a. Select an **EnvID** cell and enter or update the Epic environment ID you want to map.



b. If the configuration file will be shared with the Scan Acquisition Server or Front Office Scanning integration, use the **Datasource Name** cell to enter or edit the OnBase data source the scanning integration will use for the specified environment ID. This data source must be configured on the associated Application Server.

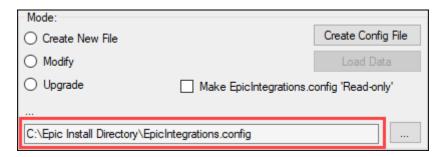
Note: The Datasource Name value applies only to the scanning integrations.

c. In the OnBase Web/Application Servers cell, enter or edit the path to the OnBase Web or Application Server for the specified environment ID. Use this format: http:// ServerName/VirtualDirectory/Service.asmx

Note: Server paths must begin with **http://** or **https://** and end with **/Service.asmx** in order for the EpicIntegrations Configuration utility to consider them valid.

2. If the environment ID mapping table contains blank rows (excluding the final row), then you must delete these rows. Ensure the row marked with an asterisk (*) is the only blank row present. To delete a row, see Deleting an Environment ID Mapping Row on page 53.

3. Click the **Create Config File** or **Modify Config File** button (depending on the selected mode). A confirmation message is displayed and the EpicIntegrations.config file is created or updated in the location specified in the field in the **Mode** section.

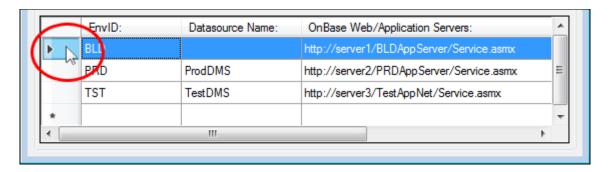


- 4. Click **OK**. A confirmation message is displayed.
- 5. Click **Yes** to exit the EpicIntegrations Configuration utility, or click **No** to keep the utility open.

Deleting an Environment ID Mapping Row

To delete a row from the environment ID mapping table:

Select the row by clicking the button to the left of the EnvID cell.
 The row marked with an asterisk (*) cannot be deleted.



2. Press DELETE.

Tip: You can also select multiple rows by CTRL-clicking or by clicking and dragging your pointer over the rows you want to delete.

Manual Configuration of the EpicIntegrations Configuration File

Scan Aquisition Server and Front Office Scanning settings are maintained in EpicIntegrations.config. This file was provided with the Integration for Epic installation files; it resides in the location of the Epic executables.

The following procedure describe how to configure the Scan Aquisition Server and Front Office Scanning settings in EpicIntegrations.config. Alternately, you can use EpicIntegrations Configuration to configure the file, as described under Creating a New EpicIntegrations.config File on page 45.

To manually configure settings:

- 1. Open EpicIntegrations.config from the Epic executables directory.
- 2. Locate the <servers> element under <OBEpicViewer>.

3. Within the first **<server>** element, modify the following to map the Epic environment ID to the corresponding OnBase Web or Application Server.

Element	Description
environmentID	The Epic environment ID you want to map.
url	The Application Server URL to connect to for the specified environment ID. Both HTTP and HTTPS are allowed. You can use the server's hostname or IP address. The following formats are acceptable: • http://server/AppServer/service.asmx • http://server/AppServer/ • http://server/AppServer
dataresource	The OnBase data source the scanning integration will use for the specified environment ID. This data source must be configured on the associated Application Server.

For example, if the environment ID is **PRD**, the section might look like this:

```
<server>
  <environmentID>PRD</environmentID>
  <url>https://srv-DMApp/AppServer64/service.asmx</url>
  <datasource>OBEpicData</datasource>
</server>
```

The **environmentID**, **url**, and **datasource** elements must be provided in the order shown. Make sure **environmentID** is first, **url** is second, and **datasource** is third.

Note: If the environment ID contains a <, >, or &, then the value must be enclosed in a **CDATA** section. For example, if the environment ID is X&Y, then the **environmentID** element would use the following format: <environmentID><![CDATA[X&Y]]>
EpicConfigFileCreator.exe, this formatting is applied automatically as needed.

4. Repeat for each environment ID. When you are finished, the file might resemble the following:

```
<?xml version="1.0" encoding="utf-8"?>
<EpicIntegration>
  <OBEpicViewer>
    <autolog>True</autolog>
    <autologFilePath>C:\EpicIntLogs\test1.txt</autologFilePath>
    <debugMode>False</debugMode>
    <timeDelay>500</timeDelay>
    <servers>
      <server>
        <environmentID>HH PROD</environmentID>
        <url>http://srvAppProd/AppServer/service.asmx</url>
      </server>
      <server>
        <environmentID>TST</environmentID>
        <url>http://srvAppTest/AppServer/service.asmx</url>
      </server>
    </servers>
  </OBEpicViewer>
</EpicIntegration>
```

- Ensure all <server> elements reside between the <servers> opening tag and the </servers> closing tag. Each <server> element must have an opening tag and a closing tag.
- 6. Save the EpicIntegrations.config file.

Installing the Web Viewer

At the time of the OnBase Foundation EP5 release, the OnBase Web Viewer is supported with Epic August 2018 and later.

To allow users to view OnBase documents within Epic:

- 1. Install the OnBase Application Server. See Installing the OnBase Application Server on page 43.
- 2. Install and configure the OnBase Web Server. See the **Web Server** module reference guide for more information. Once installed, ensure the Web Server is configured to use the correct data source connection string configured in the OnBase Application Server web.config file. See Installing the OnBase Application Server on page 43.

Note: It is recommended to establish a secure connection (using HTTPS) between the OnBase Web Server and the OnBase Application Server.

3. Install and configure the Hyland Identity Provider (IdP) service. See the **Identity and Access Management Services** documentation for more information.

Note: When configuring a client connection on the Hyland IdP server, you must select the **Addendum Exchange** grant type as an allowed grant type the client can use. For more information on configuring grant types on the IdP server, see the section on configuring client connections in the **Identity and Access Management Services** documentation.

- 4. Configure SMART on FHIR if you are using Epic Hyperdrive. See the **SMART on FHIR** documentation for more information.
- 5. Install and configure the OnBase Web Viewer on each workstation or Citrix server where documents will be viewed. See the following procedures:
 - Installing the Web Viewer Integration Files on page 57
 - Modifying the Web Viewer Configuration File on page 58
 - Modifying the Web Server Configuration File on page 60

Installing the Web Viewer Integration Files

Use the Hyland Integration for Epic installer to install the OnBase Web Viewer on the workstations or Citrix servers where users are accessing Epic. If you are installing the OnBase Web Viewer on a Citrix server, ensure it is in multi-user install mode while you perform these procedures.

See Epic Integrations Installer on page 133 for installation information.

Note: For installation file information, see the **Supplemental Installation and Upgrade Guide for Epic Integrations**, available on Hyland Community on the **Resources** tab of the **Integration for Epic** product gallery.

Modifying the Web Viewer Configuration File

The web viewer respects environment ID and diagnostics logging settings in the OBEpicWebViewer.dll.config file. You can configure these settings manually.

The OBEpicWebViewer.dll.config file is provided with the web viewer installation files; it resides in the location of the Hyland install directory. In a default installation, the OBEpicWebViewer.dll.config file is located at C:\Program Files (x86)\Hyland\Integration for Epic\Web Viewer.

See the following sections:

- Configuring Environment IDs on page 58
- Configuring Diagnostics Logging on page 60

Configuring Environment IDs

An Epic environment ID is used to map specific OnBase Application Servers and data sources to an Epic environment. To have an environment ID to map, you must first configure an environment ID in the OBEpicWebViewer.dll.config file. Multiple environment IDs can be configured depending on your Epic configuration.

To configure an environment ID:

- 1. Locate the **OBEpicWebViewer.dll.config** file. In a default installation, this is located at **C:\Program Files (x86)\Hyland\Integration for Epic\Web Viewer**.
- 2. Open the OBEpicWebViewer.dll.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

3. Locate the <environment> element under <OBEpicWebViewer>.

4. Within the **<environment>** element, modify the following attributes to map the Epic environment ID to the corresponding OnBase Application Server.

Attribute	Description
id	The Epic environment ID you want to map.
url	The Application Server URL to connect to for the specified environment ID. The URL should follow the format of https://hostname/AppServer/Service.asmx where hostname is replaced with the name or IP address of the server hosting the Application Server, and AppServer is replaced with the application name of the Application Server in IIS. Both HTTP and HTTPS are allowed.
dataSource	The name of the connection string configured for the OnBase database you want to connect to.

For example, if the environment ID is **PRD**, the section might look like this:

Note: The environment **id**, **url**, and **dataSource** attributes must be provided in the order shown. Make sure environment **id** is first, **url** is second, and **dataSource** is third.

5. Repeat for each environment ID. When you are finished, the file might resemble the following:

Note: Ensure all **<environment>** elements are under the **<environments>** parent element.

6. Save the OBEpicWebViewer.dll.config file.

Configuring Diagnostics Logging

The OBEpicWebViewer.dll.config file allows configuration of diagnostics logging for the OnBase Web Viewer. To enable diagnostics logging, you must first install and configure the Diagnostics Service and Diagnostics Console. For more information on installing and configuring the Diagnostics Service and the Diagnostics Console, see the **Diagnostics Service** and **Diagnostics Console** module reference guide.

Open the OBEpicWebViewer.dll.config file and edit the logging attributes within the <hyland.Logging> element. For information on configuring each of the logging attributes, see the Hyland.Logging section in the **Diagnostics Service and Diagnostics Console** module reference guide.

Note: Logs regarding bi-directional communication between your Epic system and the OnBase Web Viewer can be found on the **scriptexception** tab in the Diagnostics Console.

Modifying the Web Server Configuration File

The OnBase Web Viewer respects configuration settings specific to the Healthcare Web Viewer in the Web Server web.config file. All settings are configured manually. See the following procedures:

- Modifying the Automatic Session Timeout Setting on page 61
- Modifying E-Form and Unity Form Read-Only State Level on page 61
- Connecting to a Database Manually on page 63
- Specifying a Database on page 63

- Disabling Deficiency Viewing on page 64
- Disabling Physician Acknowledgement on page 65
- Disabling Document Correction on page 65
- Enabling Bi-Directional Communication on page 66

Modifying the Automatic Session Timeout Setting

The OnBase Web Viewer respects timeout configuration settings in the Web Server web.config file. This setting is configured manually. The session timeout setting configures the amount of time, in minutes, before the web viewer logs out a user with an inactive session.

Note: A session is also automatically logged out when a user navigates away from the OnBase Web Viewer interface.

To modify the automatic session timeout setting:

- Locate the web.config file. In a default installation, this is located at C:\inetpub\wwwroot\AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

- 3. Locate the <sessionTimeout> element under <Hyland.Web.HealthcareWebViewer>.
- 4. Within the **<sessionTimeout>** element, modify the **value** attribute to be the number of minutes before the web viewer automatically logs out of a session. For example, if you want the web viewer to automatically log out of a session after 1 hour, enter **60** as the value, or value="60".
- 5. Save and close the web.config file.
- Recycle the application pool of the OnBase Web Viewer for these changes to take effect.

Modifying E-Form and Unity Form Read-Only State Level

The OnBase Web Viewer, by default, displays E-Forms and Unity Forms in a read-only state. Users can retrieve these forms from within Epic, but cannot edit them. However, you can modify the read-only state of these forms to edit them in the OnBase Web Viewer.

To modify the read-only state of forms in the OnBase Web Viewer:

- Locate the web.config file. In a default installation, this is located at C:/inetpub/ wwwroot/AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

- 3. Locate the <readonlyHTMLForms> element under <Hyland.Web.HealthcareWebViewer>.
- 4. Within the **<readonlyHTMLForms>** element, modify the **value** attribute to be one of the following:

Value	Description
all	All E-Forms are viewed in the OnBase Web Viewer in a read-only state. Users can retrieve these forms from within Epic, but cannot edit them.
medical	All E-Forms configured as a Medical Document Type are viewed in the OnBase Web Viewer in a read-only state. Users can retrieve forms imported to a Medical Document Type within Epic, but cannot edit them. All other forms not classified as a Medical Document Type can be edited in the OnBase Web Viewer.
none	All E-Forms can be retrieved from Epic and edited in the OnBase Web Viewer.

- 5. Locate the **<readonlyUnityForms>** element under **<Hyland.Web.HealthcareWebViewer>**.
- 6. Within the **readonlyUnityForms>** element, modify the **value** attribute to be one of the following:

Value	Description
all	All Unity forms are viewed in the OnBase Web Viewer in a read-only state. Users can retrieve these forms from within Epic, but cannot edit them.
medical	All Unity forms configured as a Medical Document Type are viewed in the OnBase Web Viewer in a read-only state. Users can retrieve forms imported to a Medical Document Type within Epic, but cannot edit them. All other forms not classified as a Medical Document Type can be edited in the OnBase Web Viewer.
none	All Unity forms can be retrieved from Epic and edited in the OnBase Web Viewer.

- 7. Save and close the web.config file.
- 8. Recycle the application pool of the OnBase Web Viewer for these changes to take effect.

Connecting to a Database Manually

Users can manually connect to an OnBase Web Viewer session by entering the URL to the Web Viewer in a web browser. When entering the URL, users can specify the document to open and the database from which to open the document, overriding any configured database within the OnBase Web Server web.config file. For example, this feature can be used when:

- Users need to access a document saved to a different database than the one configured for their integration.
- An administrator needs to do testing of the OnBase Web Viewer.

To manually connect to a specified database in an OnBase Web Viewer session:

- Locate the web.config file. In a default installation, this is located at C:/inetpub/ wwwroot/AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

- 3. Locate the enableHTTPDataSource element under Hyland.Web.HealthcareWebViewer.
- 4. Within th enableHTTPDataSource element, modify the value attribute to be true.
- 5. Save and close the web.config file.
- 6. Recycle the application pool of the OnBase Web Viewer for these changes to take effect.
- 7. Open a web browser and enter the URL to the OnBase Web Viewer. For example, the URL can be entered in the following format: http://hostname/appnet/healthcarewebviewer/login.aspx?docid=12345&datasource=datasourcename, where the docid is the Document Handle and the datasource is the name of the connection string configured for the OnBase database to connect to. An OnBase Web Viewer session is opened and the document from the specified database in the URL is displayed.

Note: If a datasource name is not specified in the URL, the OnBase Web Viewer uses the database specified for the **datasource** configuration setting in the web.config file. If no database is specified for the **datasource** configuration setting, then the database configured for the **dmsDataSource** configuration setting is used.

Specifying a Database

You can specify a database to use when an OnBase Web Viewer session automatically opens from Epic. This specified database overrides the database configured for the **dmsDataSource** configuration setting in the Web Server web.config file.

To specify a database for OnBase Web Viewer sessions:

- Locate the web.config file. In a default installation, this is located at C:/inetpub/ wwwroot/AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

- 3. Locate the datasource element under Hyland. Web. Healthcare WebViewer.
- 4. Within the **datasource** element, modify the **value** attribute to be the name of the connection string configured for the OnBase database you want to connect to.
- 5. Save and close the web.config file.
- 6. Recycle the application pool of the OnBase Web Viewer for these changes to take effect.

Disabling Deficiency Viewing

Deficiency viewing allows users with appropriate rights to see document-based deficiencies on the document being viewed. When installing the Integration for Epic, the deficiency viewing feature is enabled by default. If deficiency viewing does not need to be enabled for your work environment, you can disable deficiency viewer for the Integration for Epic.

To disable deficiency viewing:

- Locate the web.config file. In a default installation, this is located at C:/inetpub/ wwwroot/AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

- 3. Locate the **enableDeficiencyViewing** element under **Hyland.Web.HealthcareWebViewer**.
- 4. Within the enableDeficiencyViewing element, modify the value attribute to be false.
- 5. Save and close the web.config file.
- 6. Recycle the application pool of the OnBase Web Viewer for these changes to take effect.

Disabling Physician Acknowledgement

The physician acknowledgement feature allows physicians to place a stamp on documents they need to mark as acknowledged. When installing the Integration for Epic, the physician acknowledgement feature is enabled by default. If physician acknowledgement does not need to be enabled for your work environment, you can disable physician acknowledgement for the Integration for Epic.

To disable physician acknowledgement:

- Locate the web.config file. In a default installation, this is located at C:/inetpub/ wwwroot/AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

- 3. Locate the <enablePhysicianAcknowledgment> element under <Hyland.Web.HealthcareWebViewer>.
- 4. Within the **<enablePhysicianAcknowledgment>** element, modify the **value** attribute to be **false**.
- 5. Save and close the web.config file.
- 6. Recycle the application pool of the OnBase Web Viewer for these changes to take effect.

Disabling Document Correction

The document correction feature allows users to submit corrections to a document through a Workflow queue. When installing the Integration for Epic, the document correction feature is enabled by default. If document correction does not need to be enabled for your work environment, you can disable document correction for the Integration for Epic.

To disable document correction:

- Locate the web.config file. In a default installation, this is located at C:/inetpub/ wwwroot/AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

- 3. Locate the **<enableDocumentCorrection>** element under **<Hyland.Web.HealthcareWebViewer>**.
- 4. Within the **<enableDocumentCorrection>** element, modify the **value** attribute to be **false**.

- 5. Save and close the web.config file.
- 6. Recycle the application pool of the OnBase Web Viewer for these changes to take effect.

Enabling Bi-Directional Communication

If your Epic environment is using Epic Hyperdrive, you must enable bi-directional communication between Epic Hyperdrive and the OnBase Web Viewer. This allows synchronization between both clients by using web messaging standards. For example, web messaging can communicate when a user performs a specific action on a document or when a document is initially loaded.

In addition, when bi-directional communication is enabled, you must define which domains have authorization to establish bi-directional communication. Any domains that are not listed as authorized cannot establish bi-directional communication.

To enable bi-directional communication:

- 1. Locate the Web Server web.config file. In a default installation, this is located at C:/ inetpub/wwwroot/AppNet.
- 2. Open the web.config file in a plain-text editor, such as Notepad.

Note: The *.config file should only be edited in a plain-text editor, such as Notepad, or a utility specifically designed to edit XML files. It should not be edited in a binary editor, such as Microsoft Word. Using a binary editor can introduce invalid characters to the file and make it unreadable by the software.

3. Locate the <epicScanViewerApi> element under <Hyland.Web.HealthcareWebViewer>.

```
<Hyland.Web.HealthcareWebViewer>
    <sessionTimeout value="30" />
    <datasource value="" />
        <enableHTTPDataSource value="false" />
        <enableDeficiencyViewing value="true" />
        <enablePhysicianAcknowledgment value="true" />
        <enableDocumentCorrection value="true" />
        <readonlyHTMLForms value="all" />
        <readonlyUnityForms value="all" />
        <epicScanViewerApi>
        <enabled value="false" />
```

- 4. Within the **enabled** setting, modify the **value** attribute to **true**.
- 5. Locate the <sourceOriginWhitelist> element within the <epicScanViewerApi> element.

6. Within the **add** setting, edit the **origin** attribute to include an authorized domain using the following format, where **my.domain** is the authorized domain name:

```
<add origin="https://my.domain.net" />
```

7. To add additional authorized domains, add new **add** settings beneath the one you just configured. For example:

```
<add origin="https://my.domain1.net" />
<add origin="https://my.domain2.net" />
```

- 8. In the new **add** settings, enter authorized domains within each **origin** attribute as described in step 6.
- 9. When all authorized domains are added, save and close the web.config file.
- 10. Recycle the application pool of the OnBase Web Viewer for these changes to take effect.

Installing the Scan Acquisition Server

As of OnBase Foundation EP5, the Scan Acquisition Server is supported with Epic Hyperdrive and with the Epic August 2018 and later versions of Epic Hyperspace.

To allow Epic users to scan documents into OnBase:

- 1. Install the Application Server. See Installing the OnBase Application Server on page 43.
- 2. If you are using Epic Hyperdrive, install and configure the Hyland Identity Provider (IdP) service. See the **Identity and Access Management Services** documentation for more information.

Note: When configuring a client connection on the Hyland IdP server, you must select the **Addendum Exchange** grant type as an allowed grant type the client can use. For more information on configuring grant types on the IdP server, see the section on configuring client connections in the **Identity and Access Management Services** documentation.

3. Install the Scan Acquisition Server on each workstation or Citrix server from which users will scan documents. If you are installing the Scan Acquisition Server on a Citrix server, ensure that it is in multi-user install mode while you perform these steps. For Citrix best practices, see Epic Scanning Best Practices for Citrix Deployments on page 160.

Tip: If one of your data sources is a test system, name the data source on the OnBase Application Server **test system** or **test_system**. When the Scan Acquisition Server uses that data source name, the scanning viewer displays the words **Test System** against a red background.

For more information on installing and configuring the Scan Acquisition Server, see the following topics:

- How the Registry Is Used on page 68
- Installing Scan Client Files on page 70
- Configuring EpicIntegrations.config for Scanning on page 70
- Configuring the Default TWAIN Source on page 75
- Turning Thumbnails On or Off on page 75
- Scan Format Setup on page 77

How the Registry Is Used

The Scan Acquisition Server is configured using an XML file named EpicIntegrations.config. In early versions of OnBase, the Scan Acquisition Server was configured using the registry. While the Scan Acquisition Server still stores a few settings in the registry, the primary and recommended means of configuration is the EpicIntegrations.config file.

See the following topics for more information:

- Available Registry Settings on page 69
- Choosing Where Registry Settings Are Stored on page 69

Available Registry Settings

The Scan Acquisition Server creates and maintains the following settings within the **ACEpicScanControl** key in the registry. These settings are not stored in the EpicIntegrations.config file.

Settings Remaining in the Registry (in the format of Subkey/Value)			
ISIS/Scanner	Scan/DefaultSystem		
Kofax/CurrentDevice	Sweep/FileSpec		
Kofax/DiskSource	Sweep/SweepPath		
Kofax/ScanFolder	Twain/Scanner		
Kofax/ScanSource	Viewer/Thumbnails		

Note: Some settings may not apply to your solution. For example, if you use only TWAIN scanning, then your registry would not contain Kofax or ISIS settings. The Scan Acquisition Server creates and maintains these settings automatically. The only registry setting you should consider modifying is the Twain/Scanner setting, as described under Configuring the Default TWAIN Source on page 75.

Choosing Where Registry Settings Are Stored

Registry values can be created in the HKEY_LOCAL_MACHINE or the HKEY_CURRENT_USER subtree, depending on whether settings should be applied at a workstation level or a user level.

By default, the Scan Acquisition Server looks for and stores certain configuration settings in HKEY_LOCAL_MACHINE in the system registry. When settings are stored in this location, they default to the settings last used on the workstation. As an alternative, you can store settings at the user account level (HKEY_CURRENT_USER in the system registry) to allow different settings for each user account. When settings are stored in HKEY_CURRENT_USER, they must be configured for each user account under which the Scan Acquisition Server will be used.

Configuration settings fall into two categories: general settings and scan settings. **General settings** are the current thumbnail settings. **Scan settings** include the following:

- · Current scan system
- · Current Kofax device
- Kofax Scan Source name
- · Kofax Disk Source name
- Default scan from disk folder
- · Current ISIS device
- · Default sweep path
- Default sweep file
- · Current TWAIN device

To specify where general and scan settings are stored, the following settings exist in the <Init>element of the EpicIntegrations.config file:

- GeneralHKCU—Specifies where general settings are stored. See GeneralHKCU on page 170.
- ScanHKCU—Specifies where scan settings are stored. See ScanHKCU on page 173.

Installing Scan Client Files

To install and register client-side Scan Acquisition Server files, use the Hyland Integration for Epic installer. See Epic Integrations Installer on page 133.

Tip: Create and configure the EpicIntegrations.config file before running the installer. The installer can copy the file from a directory to the installation locations, allowing you to configure the file only once instead of in multiple locations. See Configuring EpicIntegrations.config for Scanning on page 70.

Note: For installation file information, see the Supplemental Installation and Upgrade Guide for Epic Integrations, available on Hyland Community at https://community.hyland.com/products/onbase/integration-for-epic/resources.

Configuring EpicIntegrations.config for Scanning

The following steps describe how to configure the Scan Acquisition Server using the EpicIntegrations.config file.

- Creating EpicIntegrations.config on page 70
- Configuring Scan Settings in EpicIntegrations.config on page 71
- Mapping Environment IDs in the Configuration File on page 74
- Optional EpicIntegrations.config Scan Settings on page 75

Note: Do not use XML comments in the EpicIntegrations.config file for the Scan Acquisition Server. Comments interfere with the application's ability to read the file.

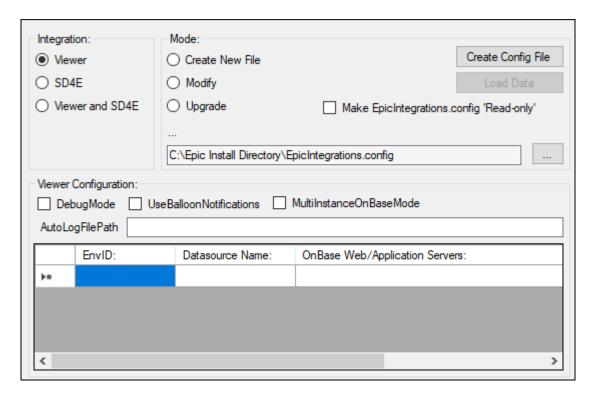
Creating EpicIntegrations.config

To create an EpicIntegrations.config file for integrated scanning, use EpicIntegrations Configuration. This utility is included in the same folder as the Integration for Epic installer.

The EpicIntegrations Configuration utility does not configure the settings used for scanning. It creates a new EpicIntegrations.config file containing an empty XML structure for scan configuration.

To create a new EpicIntegrations.config file:

 Open the EpicIntegrations Configuration executable, EpicConfigFileCreator.exe, from your installation files. The EpicIntegrations Configuration window is displayed.



2. Under **Mode**, select **Create New File**. Create the configuration file as described under Creating a New EpicIntegrations.config File on page 45.

Note: Running EpicIntegrations Configuration in **Upgrade** or **Modify** mode does not add scan configuration settings to an existing EpicIntegrations.config file.

3. Continue to Configuring Scan Settings in EpicIntegrations.config on page 71.

Configuring Scan Settings in EpicIntegrations.config

Complete the following steps to configure the required Scan Acquisition Server settings in EpicIntegrations.config.

Note: These steps describe required settings only. For information about all settings, both required and optional, see OBEpicScanControl on page 166.

- 1. Open EpicIntegrations.config.
- 2. In the **<OBEpicScanControl>** element, under **<Init>**, set the **GeneralHKCU** setting to **0** or **1**. For example:

<GeneralHKCU>0</GeneralHKCU>

This setting specifies whether *general* registry settings (i.e., thumbnail settings) should be read from the HKEY_CURRENT_USER hive or the HKEY_LOCAL_MACHINE hive.

- Set to **0** if general settings should be stored and read from HKEY_LOCAL_MACHINE.
- Set to 1 if general settings should be stored and read from HKEY_CURRENT_USER. For more information, see Choosing Where Registry Settings Are Stored on page 69.
- 3. Under <Init>, set the ScanHKCU setting to 0 or 1. This setting specifies whether scan registry settings should be read from the HKEY_CURRENT_USER hive or the HKEY_LOCAL_MACHINE hive.
 - Set to **0** if scan settings should be stored and read from HKEY_LOCAL_MACHINE.
 - Set to 1 if scan settings should be stored and read from HKEY_CURRENT_USER. For more information, see Choosing Where Registry Settings Are Stored on page 69.
- 4. Specify the **ServiceURL**. This setting specifies the default Application Server. Within the **<![CDATA[]]>** tag, enter the URL to the default Application Server. If the environment ID that Epic passes to OnBase is blank or invalid, the server specified here is used. For example:

<ServiceURL><![CDATA[http://server1/AppServer]]></ServiceURL>

Specify the ServiceDatasource. This setting specifies the default data source, which must be configured on the Application Server.

Within the <![CDATA[]]> tag, enter the name of the data source to be used if Epic passes in an environment ID that is blank, invalid, or not mapped to a data source (as described later in this procedure). If the **ServiceDatasource** is blank in this situation, the Scan Acquisition Server uses the data source configured in the Application Server's Web.config file.

<ServiceDatasource><![CDATA[dmdatasource]]></ServiceDatasource>

If a valid environment ID is passed in, then the data source mapped to the ID is used.

6. Under **<Diskgroup>**, set the **Path** value to the temporary storage directory for scanned images and documents. The directory should be defined in a local temporary location to which the workstation user has read and write access.

Note: This directory must be unique for each scanning user. If users have unique user names, include the **%username%** variable to ensure the directory is unique for each user.

Note: Do not use the installation files directory as the Path.

• Within the <![CDATA[]]> tag, enter the temporary storage directory for scanned images and documents. For example:

<![CDATA[C:\SAS\%username%]]>

• The **Path** value can include the following environment variables:

Variable	Location	
%systemdrive%	The drive where the operating system is installed (e.g., C:\).	
%systemroot%	The drive and path to the Windows installation (e.g., C:\WINDOWS).	
%temp%	The current user's temp folder (e.g., C:\DOCUME~1\JDOE\LOCALS~1\Temp).	
%username%	The current user name (e.g., JDOE).	
%userprofile%	The current user's profile path (e.g., C:\Documents and Settings\JDOE).	
	Note: If you use the %userprofile% variable, the value must point to another folder within that location, such as %userprofile%\SAS; it cannot be directly mapped to the root of %userprofile%.	
%appdata%	The path to the current user's application data folder (e.g., C:\Documents and Settings\JDOE\Application Data).	

Tip: Use the **%username**% variable to represent the scanning user's user name. When images are scanned, Scan Acquisition Server dynamically replaces the variable with the user name of the currently logged in user. For example, if the path is C:\SAS\%username%, when a user who's logged on to the workstation as JDOE scans images, the images are temporarily stored in C:\SAS\JDOE. This feature is particularly helpful in Citrix deployments.

7. If a keyword mapping file is configured, update the **FilePath** setting. Under **<Mapping>**, set the **FilePath** to the full path to the keyword mapping file (e.g., \\server\SAS\Mappingfile\epickeywords.txt).

Note: It is highly recommended that this path be a shared network path. It points to the epickeywords.txt file.

- 8. Save the EpicIntegrations.config file.
- 9. Continue to Mapping Environment IDs in the Configuration File on page 74.

Mapping Environment IDs in the Configuration File

The Scan Acquisition Server integration uses environment IDs from Epic to determine the Application Server and data source to use.

Note: For upgrades, the Scan Acquisition Server can migrate environment ID mappings from the Windows registry to the EpicIntegrations.config file. This migration occurs one environment ID at a time. When Epic passes in the environment ID, the Scan Acquisition Server checks for the ID in the registry. If present, the environment ID configuration is migrated to EpicIntegrations.config.

To map environment IDs in the Integration for Epic configuration file:

- 1. Open EpicIntegrations.config.
- 2. Locate the **<servers>** element under **<OBEpicViewer>**. This element contains one or more **<server>** elements.
- 3. Ensure each **<server>** element provides an **environmentID**, **url**, and **datasource** value. You may need to manually add a **datasource** value. This value is used only for scanning.

```
<EpicIntegration>
<OBEpicViewer>
 <autolog>True</autolog>
  <autologFilePath>C:\test1.txt</autologFilePath>
  <debugMode>False</debugMode>
  <timeDelay>500</timeDelay>
  <servers>
   <server>
     <environmentID>PRD</environmentID>
     <url>http://srvAppPRD/AppServer</url>
     <datasource>ECMProdDB</datasource>
    <server>
     <environmentID>TST</environmentID>
     <url>http://srvAppTST/AppServer</url>
     <datasource>TEST SYSTEM</datasource>
   </server>
  </servers>
</0BEpicViewer>
<OBEpicScanControl>
        <Init>
```

- 4. Ensure the correct settings are configured for both the **<OBEpicViewer>** and **<OBEpicScanControl>** elements in EpicIntegrations.config. For information about each setting, see EpicIntegrations.config Settings on page 165.
- 5. Save EpicIntegrations.config.

Optional EpicIntegrations.config Scan Settings

The EpicIntegrations.config file provides many optional settings for configuring the Scan Acquisition Server. For more information, see OBEpicScanControl on page 166.

Configuring the Default TWAIN Source

The following steps describe how to configure the default TWAIN source on each workstation or Citrix server where the Scan Acquisition Server is used.

Note: Before being used in production, all scanners and scan drivers should be tested to ensure that they can use the available scan format configuration files. Incompatible scanners and drivers cannot use the scanner settings specified in the scan format configuration files.

Caution: Modify the registry at your own risk. Incorrectly editing the Windows registry can cause serious problems that may require you to reinstall your operating system. Be sure to back up the registry before making any changes to it. For more registry information, see the following Microsoft articles: http://support.microsoft.com/kb/256986 and http://technet.microsoft.com/en-us/library/cc725612.aspx

- 1. Open the Registry Editor as described under Accessing the Registry on page 14.
- 2. Within HKEY_LOCAL_MACHINE\SOFTWARE\ACEpicScanControl\Twain, create a string value named Scanner.
 - This value specifies the default scan source when **Twain** is the selected scan method.
- 3. Set this value to **Generic Scanner** or **Default Scanner** if the Scan Acquisition Server should use the TWAIN device set as the default scanner on the user's workstation. This configuration is recommended for Citrix environments. If the default scanner is unavailable, the user is prompted to select a scan source.

Tip: Use this setting in conjunction with the **DisableTwainSource** EpicIntegrations.config setting to prevent users from changing the scan source.

Turning Thumbnails On or Off

The following steps describe how to configure thumbnails to be turned on or off in the Scan Acquisition Server viewer.

Caution: Modify the registry at your own risk. Incorrectly editing the Windows registry can cause serious problems that may require you to reinstall your operating system. Be sure to back up the registry before making any changes to it. For more registry information, see the following Microsoft articles: http://support.microsoft.com/kb/256986 and http://technet.microsoft.com/en-us/library/cc725612.aspx

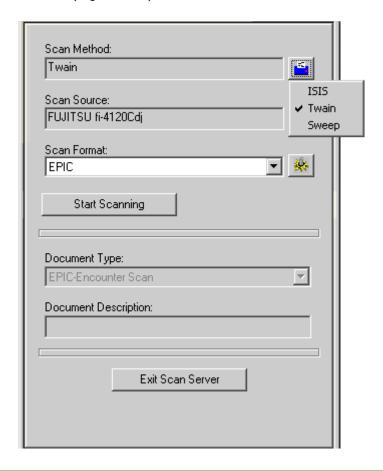
- 1. Open the Registry Editor as described under Accessing the Registry on page 14.
- 2. Navigate to one of the following paths, depending on where general settings are configured to be read (**GeneralHKCU** in EpicIntegrations.config):
 - HKEY_LOCAL_MACHINE\SOFTWARE\ACEpicScanControl\Viewer
 - HKEY_CURRENT_USER\SOFTWARE\ACEpicScanControl\Viewer
- 3. Within the **Viewer** subkey, create a DWORD value named **Thumbnails**.
- 4. Set this value to one of the following:
 - Set to 0 if thumbnails should be turned off.
 - Set to 1 if thumbnails should be turned on and displayed at the bottom of the viewer.
 - Set to **2** if thumbnails should be turned on and displayed on the right side of the viewer.

Scan Format Setup

After OnBase and Epic have been installed and configured, set up a scan format on the workstation.

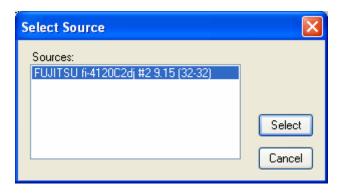
To configure a scan format:

- 1. In Epic, retrieve an entity (e.g., patient, visit, or order) and select **Scan**. (Refer to the Usage section for more detailed information on accessing the Scan Acquisition Server.)
- 2. Select a scan method (e.g., Twain).



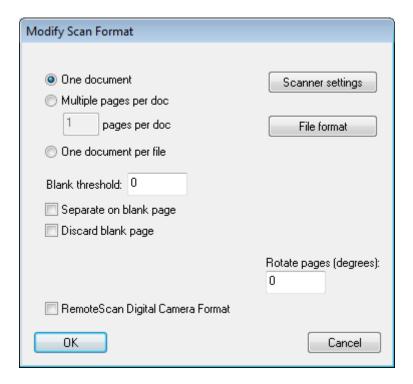
Note: Fujitsu PaperStream drivers are not compatible with the Scan Acquisition Server. Use a TWAIN scan method for Fujitsu PaperStream scanners.

3. Select the scan source.



Note: You can configure Integration for Epic to store scan settings like **Scan Method** and **Scan Source** at either the workstation level or the user account level. For more information, see Choosing Where Registry Settings Are Stored on page 69.

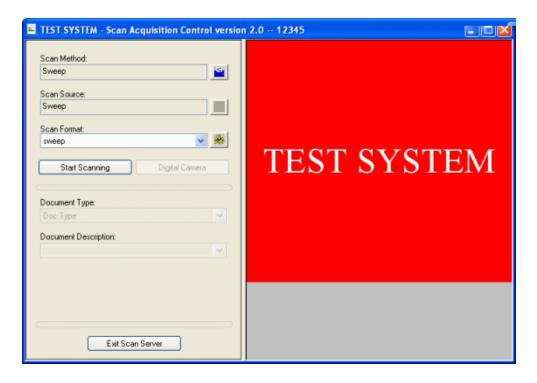
- 4. Create a new scan format by selecting **Create Scan**. Provide a name for the scan format and select **OK**.
- 5. Modify the scan format settings as appropriate for your organization and click **OK**. For information about scan format settings, see Scan Format Configuration on page 227.



- 6. Logout.
- 7. Log back on to Epic and perform a test scan.

Running the Scan Acquisition Server on a Test System

The Scan Acquisition Server provides a visual indicator to inform users when they are connecting to a test system. If the data source on the Application Server is named **test system** or **test_system**, then the Scan Acquisition Server displays a red background with the words **Test System**.



Enabling Digital Camera Support in Citrix Environments

To upload images from a digital camera through a remote desktop connection in a Citrix environment, ensure the RemoteScan® Enterprise for Terminal Server / Citrix® is installed.

Note: RemoteScan Enterprise for Terminal Server / Citrix is sold and supported by Quest Software®. For assistance installing or troubleshooting the RemoteScan Enterprise application, contact your RemoteScan solution provider.

RemoteScan Enterprise for Terminal Server / Citrix must be installed on the following:

- · The workstations that will use a digital camera
- The Citrix server to which the workstations will connect
- Workstations that log on to the Citrix server with anonymous users

Installation

Workstations that will not use digital cameras might still connect to Citrix machines on which the RemoteScan application is installed. These workstations will not need to have the RemoteScan application installed on them, provided that users are added to a Group Policy configured to use TWAIN redirection for scanning rather than the RemoteScan application for digital camera import. Group Policies can be set up on the Citrix machines to determine which of these scan formats in the Scan Acquisition Server will be used by users listed under each policy.

However, Group Policies cannot be applied to users who log on to Citrix sessions anonymously. As a result, anonymous users must install the RemoteScan application on any workstation that connects to a Citrix machine on which the RemoteScan application is installed, even if that workstation will not use a digital camera. This is due to the RemoteScan application's tendency to override the Citrix TWAIN redirection for all workstations that connect to Citrix machines on which the RemoteScan application is installed.

Installing the Epic Front Office Scanning Integration

The Front Office Scanning integration for Epic allows Epic users to scan documents to OnBase through the OnBase Front Office Scanning client. The Front Office Scanning client offers access to additional features, including the ability to mark up documents and capture signatures.

Tip: Before attempting to install, configure, or use Front Office Scanning in Epic mode, ensure you are familiar with Front Office Scanning and its terminology. For more information, see the **Front Office Scanning** module reference guide.

Note: The Epic Front Office Scanning client and the Scan Acquisition Server cannot be installed on the same workstation.

To allow Epic users to archive documents to OnBase using Front Office Scanning:

- 1. Install the Application Server. See Installing the OnBase Application Server on page 43.
- 2. If you are using Epic Hyperdrive, install and configure the Hyland Identity Provider (IdP) service. See the **Identity and Access Management Services** documentation for more information.

Note: When configuring a client connection on the Hyland IdP server, you must select the **Addendum Exchange** grant type as an allowed grant type the client can use. For more information on configuring grant types on the IdP server, see the section on configuring client connections in the **Identity and Access Management Services** documentation.

3. Install the Epic Front Office Scanning integration on each workstation or Citrix server where documents will be scanned.

For more information, see the following topics:

- Installation Requirements on page 82
- Installing the Front Office Scanning (FOS) Client on page 82
- Mapping Environment IDs for Front Office Scanning on page 85
- Front Office Scanning Differences in Epic on page 85
- Epic-to-OnBase Keyword Mapping on page 87
- Document Types Available for Upload on page 89
- Document Descriptions on page 91
- Sending Dates to Epic on page 96
- Simplified Scanning for Registration on page 100
- · Referrals: Link Existing OnBase Documents on page 101
- Referrals: Upload Documents from a Network Location on page 102
- Moving EPICFOSCONFIG.xml on page 104
- Preventing Links to Epic on page 104

Installation Requirements

The Epic Front Office Scanning integration requires the following modules:

- Application Server—The OnBase Application Server must be installed and accessible from the scanning workstations. See Installing the OnBase Application Server on page 43.
- Front Office Scanning (FOS)—Each workstation that will be performing Front Office Scanning requires a Front Office Scanning license, and the Front Office Scanning client must be installed on the scanning workstations. For installation and configuration information, see the Front Office Scanning module reference guide.
- Integration for Epic—OnBase must be licensed for the Integration for Epic.

The following procedures describe how to install the Epic Front Office Scanning integration on a client workstation.

Installing the Front Office Scanning (FOS) Client

As of OnBase Foundation EP5, the Front Office Scanning integration is compatible with Epic Hyperdrive and with the Epic August 2018 and later versions of Epic Hyperspace.

Note: For installation file information, see the Supplemental Installation and Upgrade Guide for Epic Integrations, available on Hyland Community at https://community.hyland.com/products/onbase/integration-for-epic/resources.

To install the Front Office Scanning integration for Epic, do the following:

- 1. Run the Hyland Integration for Epic installer. See Epic Integrations Installer on page
- 2. Navigate to the installation directory of the Front Office Scanning files.
 - On a 32-bit system, the default location is C:\Program Files\Hyland\Front Office Scanning
 - On a 64-bit system, the default location is C:\Program Files (x86)\Hyland\Front Office Scanning.
- 3. Create the EpicIntegrations.config file as described under Creating the EpicIntegrations Configuration File on page 83, if an EpicIntegrations.config file was not already created.
- 4. Configure EpicIntegrations.config as described under Mapping Environment IDs for Front Office Scanning on page 85.
- 5. Open the EPICFOSCONFIG.xml file in a program like Notepad.

6. Configure the settings as described in the Front Office Scanning documentation. See the **Front Office Scanning** module reference guide for detailed information about each setting.

Note: The Front Office Scanning integration is not compatible with Fujitsu PaperStream drivers. Fujitsu PaperStream scanners must be run as TWAIN devices.

For Epic-specific considerations, see the following topics:

- Front Office Scanning Differences in Epic on page 85
- Epic-to-OnBase Keyword Mapping on page 87
- Document Types Available for Upload on page 89
- · Document Descriptions on page 91
- Simplified Scanning for Registration on page 100
- Referrals: Link Existing OnBase Documents on page 101
- Referrals: Upload Documents from a Network Location on page 102
- Moving EPICFOSCONFIG.xml on page 104
- 7. If you are installing the integration in a Citrix environment, add a **TempPath** element to the EPICFOSCONFIG.xml file. This element must point to a location that will be unique for each user. See Front Office Scanning Setup for Citrix on page 163.
- 8. Save the EPICFOSCONFIG.xml file.

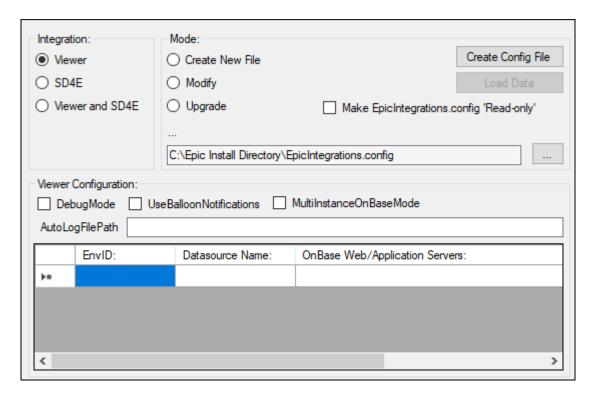
Creating the EpicIntegrations Configuration File

To create an EpicIntegrations.config file for integrated scanning, use EpicIntegrations Configuration. This utility is included in the same folder as the Integration for Epic installer.

The EpicIntegrations Configuration utility does not configure the settings used for scanning. It creates a new EpicIntegrations.config file containing an empty XML structure for scan configuration.

To create a new EpicIntegrations.config file:

1. Open the EpicIntegrations Configuration executable, **EpicConfigFileCreator.exe**, from your installation files. The **EpicIntegrations Configuration** window is displayed.



2. Under **Mode**, select **Create New File**. Create the configuration file as described under Creating a New EpicIntegrations.config File on page 45.

Note: Running EpicIntegrations Configuration in **Upgrade** or **Modify** mode does not add scan configuration settings to an existing EpicIntegrations.config file.

3. Continue to Mapping Environment IDs for Front Office Scanning on page 85.

Mapping Environment IDs for Front Office Scanning

The Front Office Scanning integration uses environment IDs from Epic to determine the Application Server and data source to use. If Epic passes the integration an invalid or blank environment ID, then the integration displays an error to the user and fails to launch.

The Front Office Scanning integration requires environment IDs to be mapped in EpicIntegrations.config. The EpicIntegrations.config file must reside in the same directory as obepicfosXx.dll.

Note: EpicIntegrations.config contains many settings. Front Office Scanning uses only the environment ID mappings and these settings: **PreventEpicLinks**, **PreventLinkTypes**, and **AllowLinkTypes**. Front Office Scanning uses the Epic FOS XML configuration file for all other configuration settings.

To map an environment ID to an Application Server and data source, see Front Office Scanning Differences in Epic on page 85.

- Create the EpicIntegrations.config file using the EpicIntegrations Configuration utility if it does not already exist. See Creating the EpicIntegrations Configuration File on page 83.
- 2. Copy EpicIntegrations.config to the directory where the obepicfosXx.dll is installed.
- 3. Open EpicIntegrations.config and map environment IDs as described in Mapping Environment IDs in the Configuration File on page 74.

Note: Do not use XML comments in the EpicIntegrations.config file for Front Office Scanning. Comments interfere with the application's ability to read the file.

Front Office Scanning Differences in Epic

In an Epic environment, the Front Office Scanning module has most of the same configuration requirements and best practices as it does outside of Epic. However, there are a few additional steps and considerations. When configuring Front Office Scanning for Epic, take note of the requirements and behaviors described in the following topics.

- Configuration File Usage on page 86
- Simplified Registration Scanning on page 86
- Epic User Credentials on page 86
- Background Uploads on page 86
- Disconnected Mode on page 86
- Source of Data Sets on page 87

Configuration File Usage

The Front Office Scanning integration attempts to automatically load its configuration settings from an XML configuration file named EPICFOSCONFIG.xml. The integration checks for this file in one of the following locations (in order of precedence):

- The location specified for the EpicConfigFile registry value (See Moving EPICFOSCONFIG.xml on page 104.)
- The location of FrontOfficeScanning.exe and obepicfosXx.dll

Note: If the Front Office Scanning client cannot find the Epic FOS configuration file, the client prompts the user to select the configuration file to load. To avoid this behavior, ensure EPICFOSCONFIG.xml is named correctly and resides in one of these accepted locations.

Simplified Registration Scanning

The Front Office Scanning integration can be configured to use two Epic FOS XML configuration files: one for registration contexts and one for non-registration contexts.

- EPICFOSCONFIG.xml is the default configuration file.
- **EPICFOSCONFIG.registration.xml** is used only if Epic passes an entry named RecordID to the Front Office Scanning client. This entry indicates scanning has been initiated from a registration context.

If Epic does not pass in a RecordID entry, or if **EPICFOSCONFIG.registration.xml** does not exist, then **EPICFOSCONFIG.xml** is used.

For more information, see Simplified Scanning for Registration on page 100.

Epic User Credentials

The user credentials passed in from Epic always override any user authentication information specified in the Epic FOS XML configuration file.

Background Uploads

In Epic mode, the document uploads always occur in the foreground; the XML configuration setting for background uploads is ignored.

Disconnected Mode

When integrated with Epic, the Front Office Scanning client does not run in disconnected mode. The XML configuration setting for disconnected mode is ignored.

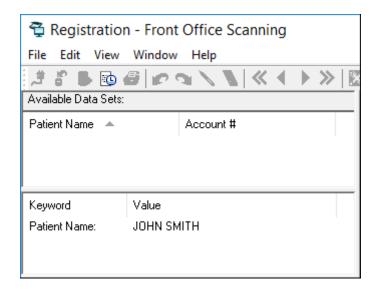
Close After Upload

When integrated with Epic, the Front Office Scanning client automatically closes after a document is uploaded to OnBase. The XML configuration setting for controlling whether the Front Office Scanning client closes or remains open after an upload is ignored.

Source of Data Sets

When Front Office Scanning runs in Epic mode, the active Data Set can come only from Epic. In Epic mode, the Front Office Scanning client does not allow ad hoc Data Sets, Web service Data Sets, HL7 Data Sets, or directory-polled Data Sets.

Also in Epic mode, the Available Data Sets list is empty, as shown in the following example.



Epic-to-OnBase Keyword Mapping

The following topics describe how to index OnBase documents imported using the Front Office Scanning integration for Epic.

- Mapping Epic Keywords to OnBase Keywords on page 87
- Indexing Keywords with Epic Document Descriptions on page 88
- Providing Default Values for OnBase Keywords on page 88

Mapping Epic Keywords to OnBase Keywords

To map Epic keywords to the OnBase Keyword Types in the Front Office Scanning Data Set, you must provide an additional setting in either the **Keywords** element (the required Keyword Types section) or the **DataSet** element (the non-required Keyword Types section) in the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).

Note: This configuration is only used to properly map the Epic values to OnBase Keyword values. The mapping is not used for ad hoc Data Set creation, which is not allowed in the Epic Front Office Scanning integration.

The new setting, which you can add to Keyword Types listed in either the **Keywords** or **DataSet** element, is **epic="Epic keyword type name"**, as shown in the following example. This setting maps the specified Epic keyword to the OnBase Keyword Type specified in the **Keyword** element.

```
<Keywords>
     <Keyword epic="Patient Name">Patient Full Name</Keyword>
     <Keyword epic="Account #">Account Number</Keyword>
</Keywords>
```

The mappings created in this example are shown in the following table:

Epic Keyword	Mapped OnBase Keyword Type
Patient Name	Patient Full Name
Account #	Account Number

Note: Any Epic keyword values that are not mapped to an OnBase Keyword Type using this method are ignored by Front Office Scanning and excluded from the Data Set list of Keyword values to be applied to the OnBase documents. Even if the names of the Epic keywords and OnBase Keyword Types are identical, they must be mapped in the Epic FOS XML configuration file (EPICFOSCONFIG.xml).

Indexing Keywords Not Populated by Epic

While keyword values passed in by Epic cannot be modified, users can provide values for Keyword Types that are not populated by Epic.

For example, if the Keyword Types **Account** # and **Scanner** are configured in the Epic FOS XML configuration file, and Epic passes in only an **Account** # value, then the user can enter a **Scanner** value in the Front Office Scanning client.

Keyword Types are configured in the **Keywords** and **DataSet** elements in the Epic FOS XML configuration file.

Indexing Keywords with Epic Document Descriptions

When a document is imported using the Epic Front Office Scanning integration, the integration can send a document description value to Epic. To map this description value to a Keyword Type in OnBase, see Using the Epic Description to Index OnBase Documents on page 95.

Providing Default Values for OnBase Keywords

To provide a default keyword value for a Data Set Keyword Type, add the **<Filter>** element to the root **<FOSCONFIGURATION>** element in the Epic FOS XML configuration file.

<Filter>

<Keyword name="[Keyword Type Name]" value="[Default Value]" default="true"/>

```
</Filter>
```

Note: The **default** attribute must be set to **true** for the specified value to be applied as the default.

Note: Default values can be provided only for Keyword Types in the Data Set. Make sure the specified Keyword Type is configured in either the **<Keywords>** or **<DataSet>** element.

For example, if you want to use **12345** as the default value for the **Scan Station** Keyword Type, you would add the following:

In this example, if a Data Set provides no value for the **Scan Station** Keyword Type, then Front Office Scanning will apply **12345** as the value. If the Data Set does provide a **Scan Station** value, then the Data Set's value is used.

Tip: The **<Filter>** element also can be used to filter available Document Type scan buttons based on whether the specified keyword value is present in the Data Set. For more information, see the **Front Office Scanning** module reference guide.

Document Types Available for Upload

Document Types available for upload are mapped in the **<DocTypes>** section of the Epic FOS XML configuration file. Epic must be configured to pass the FOS client the names of valid Document Types in OnBase.

See the following topics for mapping options:

- One Specific Document Type on page 89
- · Multiple Specific Document Types on page 90
- All Document Types Received From Epic on page 90
- All Document Types in a Document Type Group on page 90
- Overriding the Document Types From Epic on page 91

One Specific Document Type

To map a scan button to a specific Document Type, configure the button's **DocType name** to match the name of the Document Type in OnBase. For example:

```
<DocType name="PID - Insurance Card" bitmap="C:\F0S\images\Insurance.jpg"...</pre>
```

In this case, the FOS client will display the button if **PID - Insurance Card** is one of the Document Type values it receives from Epic. When a user uploads a document using this button, the document is archived to the **PID - Insurance Card** Document Type.

If **PID** - **Insurance Card** is not one of the Document Type values received from Epic, then the FOS client will not display the associated scan button. To change this behavior, see Overriding the Document Types From Epic on page 91.

Multiple Specific Document Types

To map a scan button to multiple specific Document Types, configure the **DocType name** to provide a comma-separated list of Document Type names. For example:

```
<DocType name="MED - ID Card,MED - Insurance Card,MED - Intake Form" bitmap="C:\...</pre>
```

In this case, the FOS client filters the configured list to display only Document Types received from Epic. The user can import to any Document Type remaining in the filtered list. If none of the configured Document Types matches a value received from Epic, then the FOS client will not display the associated scan button.

If the FOS client should not filter out any Document Types, see Overriding the Document Types From Epic on page 91.

All Document Types Received From Epic

If a scan button should prompt the user to select a Document Type, set the **DocType name** value to **ask**. For example:

```
<DocType name="ask" bitmap="C:\F0S\images\ScanButton.jpg"...</pre>
```

When a user uploads a document using an **ask** button, the user can choose the appropriate Document Type from a list. Available Document Types are limited to those received from Epic. If only one Document Type is received from Epic, that Document Type is automatically selected and cannot be changed.

Epic must be configured to pass valid Document Types to the FOS client. If none of the Document Types from Epic matches a Document Type in OnBase, then the **ask** button will present the user with an empty list.

All Document Types in a Document Type Group

When a scan button is configured in the following format, the user can choose from all Document Types in a Document Type Group.

```
<DocType name="ask_###" bitmap="C:\FOS\images\ScanButton.jpg"...</pre>
```

In this example, ### represents the ID number for a Document Type Group. For example, to allow users to choose from all Document Types in Document Type Group #102, you would use the following configuration:

```
<DocType name="ask_102" bitmap="C:\FOS\images\ScanButton.jpg"...</pre>
```

When a scan button is configured this way, all Document Types in the Document Type Group are available for the user to choose from. Available Document Types are not filtered by the user's rights or by the Document Types passed in from Epic.

Overriding the Document Types From Epic

By default, the Front Office Scanning client uses the Document Types sent by Epic to determine which scan buttons to display or hide.

If you want to override this behavior and always display all scan buttons regardless of the Document Types sent by Epic, then you must add **overrideepicdt="true"** to the **<FOSCONFIGURATION>** element in the Epic FOS XML configuration file. For example:

```
<FOSCONFIGURATION overrideepicdt="true" multiplepages="true" multiplepaths="false">
```

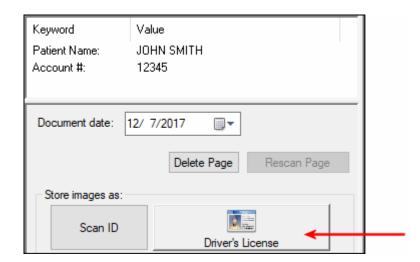
In this case, all configured scan buttons and their associated Document Types will be available for upload, regardless of whether they match a Document Type sent by Epic.

The **overrideepicdt** attribute does not affect buttons configured with a **DocType name** of **ask**. See the following topics for descriptions of **ask** button behavior:

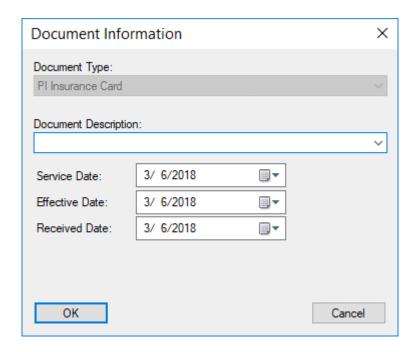
- All Document Types Received From Epic on page 90
- All Document Types in a Document Type Group on page 90

Document Descriptions

Optionally, users can provide Epic with a document description when using the Front Office Scanning integration. To do so, users must click the Document Type button adjacent to the scan button after scanning or creating a document.



Clicking the Document Type button displays the **Document Information** dialog box, where the user can enter the appropriate description.



To configure document descriptions, see the following topics:

- Configuring Default Description Values on page 92
- · Configuring a Maximum Number of Document Descriptions on page 93
- Requiring Document Descriptions on page 93
- · Disabling Document Descriptions on page 94
- Disabling User-Entered Descriptions on page 94
- Saving User-Entered Descriptions on page 95
- Using the Epic Description to Index OnBase Documents on page 95

Configuring Default Description Values

The Document Description field can be configured to provide a list of possible descriptions.

To configure values for the **Document Description** field:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. Add the epicdescription setting to the appropriate **DocType** element.
- 3. Specify the default document description values in the following format:

epicdescription="description 1;description 2;description 3"

• For multiple values, ensure each value is separated by a semicolon.

```
<DocType name="PID Patient ID" bitmap="C:\FOS\images\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicdescription="Driver's License;ID Card;Other ID"></DocType>
```

• For single values, no semicolon is needed.

```
<DocType name="PID Patient ID" bitmap="C:\F0S\images\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicdescription="Driver's License"></DocType>
```

Note: If you set **epicdescription="none"**, users will not be prompted to enter a document description. See Disabling Document Descriptions on page 94.

- 4. Repeat for each scan button as needed.
- 5. Save the Epic FOS XML configuration file.

Configuring a Maximum Number of Document Descriptions

By default, the Front Office Scanning client stores 50 document descriptions per user to be displayed in the **Document Description** drop-down list.

To override this maximum number of document descriptions, add **maxdescriptions="XX"** to the **FOSCONFIGURATION>** element in the Epic FOS XML configuration file, where **XX** is a positive integer. For example:

```
<FOSCONFIGURATION multiplepages="true" multiplepaths="false" maxdescriptions="30">
```

In this example, the Front Office Scanning client stores 30 document descriptions per user to be displayed in the **Document Description** drop-down list.

Requiring Document Descriptions

If every uploaded document should include a document description, you can configure the **Document Description** field to require a value.

To require a document description to be passed back to Epic:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. Add the **epicdescreq="true"** setting to the appropriate **DocType** elements, as shown in the following example:

```
<DocType name="PID Patient ID" bitmap="C:\FOS\images\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicdescreq="true"></DocType>
```

3. Repeat for each scan button as needed.

4. Save the Epic FOS XML configuration file.

Disabling Document Descriptions

If no document descriptions should be sent to Epic, you can disable the **Document Description** field. With this setup, the user will not be prompted for a description, and no description will be sent to Epic. The user may still be prompted to select a Document Type, if multiple Document Types are available for import. If only a single Document Type is available for import, the **Document Information** dialog box will not be displayed.

To disable descriptions:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. Add the **epicdescription="none"** setting to the appropriate **DocType** element, as shown in the following example:

```
<DocType name="PID Patient ID" bitmap="C:\FOS\images\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicdescription="none"></DocType>
```

- 3. Repeat for each scan button as needed.
- 4. Save the Epic FOS XML configuration file.

Disabling User-Entered Descriptions

To prevent users from manually typing values into the **Document Description** field:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. Add the **epicdescnoedit="true"** setting to the **DocType** element for the appropriate scan button. See the following example:

```
<DocType name="PID Patient ID" bitmap="C:\FOS\images\drvLicButton.jpg"
required="false" displayname="Patient ID" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicdescription="Driver's License;ID Card;Other ID"
epicdescnoedit="true"></DocType>
```

3. Make sure the **epicdescription** attribute is configured for the same scan button. Otherwise, the **Document Description** field will be available, but users will be unable to enter or select a document description.

Note: If the **epicdescription** setting has only one value, then the value will be automatically selected in the **Document Description** field, and the field will be read-only. If only a single Document Type is available for import, then the **Document Information** dialog box is not displayed at all.

- 4. Repeat for each scan button as needed.
- 5. Save the Epic FOS XML configuration file.

Saving User-Entered Descriptions

The Front Office Scanning client can save manually entered document descriptions for each Windows user. For user-entered descriptions to be saved, the associated scan button must meet these criteria:

- The button must allow users to manually enter document descriptions.
- The button must not have default description values configured.

By default, when a description is saved, it becomes available for all other scan buttons that meet these criteria. The user can either select a saved description from the **Document Description** drop-down or enter a new description to be saved.

To override this default behavior and prevent descriptions from being saved or accessed through a specific scan button, add **storedesc="false"** to the **<DocType>** element for the appropriate scan button in the Epic FOS XML configuration file. For example:

```
<DocType name="PID Patient ID" bitmap="C:\FOS\images\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" storedesc="false"></DocType>
```

Text File for Saved Descriptions

Saved descriptions are stored in a text file named **recdesc.<username>.txt** in the same folder as the Epic FOS XML configuration file.

It is possible for multiple users to share the same text file if they are logging in with the same Windows user name.

In a Citrix environment, users may not always access the same instance of the Front Office Scanning client. In this case, it is possible for users to have descriptions saved in multiple text files: one for each instance of the Front Office Scanning client. To avoid this scenario, you can configure the Front Office Scanning client on each server to load configuration settings from a shared location as described under Moving EPICFOSCONFIG.xml on page 104.

Using the Epic Description to Index OnBase Documents

To index OnBase documents with the **Document Description** values, use the Epic FOS XML configuration file to map the document description to a Keyword Type on the associated Document Type.

Note: Make sure the Keyword Type satisfies the Requirements for Description Keyword Type on page 96.

To map a Keyword Type to the **Document Description**:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. Add the **epicdescriptionkey** setting to the **DocType** element for the appropriate scan button.
- 3. Set the **epicdescriptionkey** setting to the name of the OnBase Keyword Type you want to map. See the following example:

```
<DocType name="PID Patient ID" bitmap="C:\FOS\images\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicdescriptionkey="Epic Description"></DocType>
```

In this example, the **Document Description** field is mapped to the OnBase Keyword Type named **Epic Description**. If a document is scanned and uploaded with a **Document Description** value of *Driver's License*, then the OnBase document will be indexed with an **Epic Description** value of *Driver's License*.

- 4. Repeat for each scan button as needed.
- 5. Save the Epic FOS XML configuration file.

Requirements for Description Keyword Type

For a document to be indexed with the **Document Description** value upon import:

- In the **DocType** element for the scan button, the **epicdescriptionkey** must provide the name of a valid OnBase Keyword Type.
- The mapped OnBase Keyword Type must be assigned to the Document Type of the scanned document.
- The value provided for the **Document Description** must be compatible with the data type of the OnBase Keyword Type. If the document cannot be indexed with the provided **Document Description** value, the value will still be passed to Epic, but the mapped OnBase Keyword Type will be left blank on the document.
- The value provided for the **Document Description** must not exceed the configured character limit for the OnBase Keyword Type. If it does, the full value will still be passed to Epic, but the document will be indexed with a truncated value for mapped OnBase Keyword Type.

Sending Dates to Epic

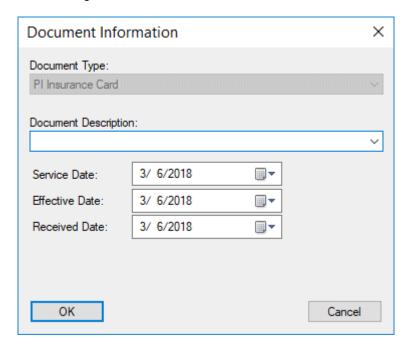
Beginning with Epic 2015, the Front Office Scanning integration can send Epic the following date values when importing a document:

Date	Description
Service Date	The date of the procedure related to a document.
Effective Date	The date a document is effective FROM.
Received Date	The date a document is scanned.

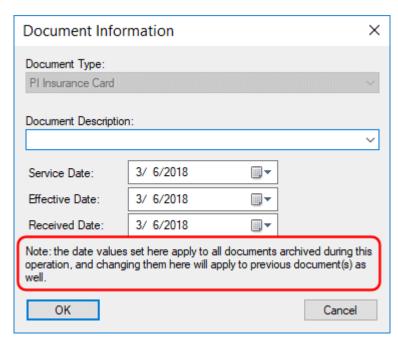
Note: These dates have different effects depending on the Epic context or application. Please contact your Epic solution provider for information about these dates and how they work in different Epic applications.

Functional Overview

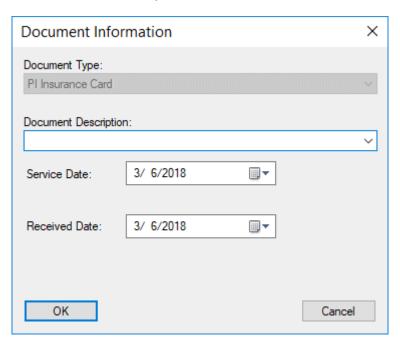
When a user clicks a Document Type button after scanning, the **Document Information** dialog box allows the user to specify the service date, effective date, and received date for the document. Because Epic accepts only one set of dates per upload, the dates entered apply to all documents scanned during the current scan session.



If a user scans additional documents using the same scan session, the user can change the dates in the **Document Information** dialog box. In this case, the Front Office Scanning client sends Epic only the latest value entered for each date, and Epic stores these values for all documents included in the upload. The **Document Information** dialog box displays a note to inform the user of the impact of changing dates on subsequent scans.



If an individual date field is disabled for a specific Document Type button, then the disabled date is not available in the **Document Information** dialog box for that Document Type. However, if the document is uploaded with another document on which the user specified a date value, then the specified date value is sent to Epic for both documents.



Disabling Dates

You can selectively disable the **Service Date**, **Effective Date**, and **Received Date** fields for specific Document Type buttons.

Note: If a date must not be sent to Epic in the context from which Front Office Scanning is launched, disable the date on all Document Type buttons in the configuration file.

If a date is disabled on some Document Type buttons and not on others, then it is possible for a date to be sent to Epic on documents indexed using a Document Type button where the date is disabled. Because Epic accepts only one set of date values per upload, the Front Office Scanning client sends Epic the latest value entered for each date, and the value is stored in Epic for all documents included in the upload.

To disable a date field:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. Add the necessary attributes to the **DocType** element for the appropriate scan button:

Date	Attribute
Service Date	epicservicedatekey
Effective Date	epiceffectivedatekey
Received Date	epicreceiveddatekey

3. Set the attribute value to **disable**. In the following example, only the **Effective Date** field is disabled:

```
<DocType name="PID Patient ID" bitmap="C:\FOS\Icons\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epiceffectivedatekey="disable"></DocType>
```

In the following example, all three date fields are disabled:

```
<DocType name="PID Patient ID" bitmap="C:\F0S\Icons\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicservicedatekey="disable" epiceffectivedatekey="disable"
epicreceiveddatekey="disable"></DocType>
```

- 4. Repeat for each scan button as needed.
- 5. Save the Epic FOS XML configuration file.

Saving Dates as OnBase Keyword Values

Values provided for the **Service Date**, **Effective Date**, and **Received Date** can be used to index documents imported into OnBase. Each date can be mapped to a Keyword Type on the Document Type used to store documents.

Note: Although Epic accepts only one set of date values per upload, OnBase indexes each document using the date values with which the user indexed the document. For example, if a user enters indexes two documents with different service date values, OnBase stores each document with the service date with which it was indexed. Epic stores both documents with the latest service date entered during the scan session.

To index OnBase documents with dates:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. Add the necessary attributes to the **DocType** element for the appropriate scan button:

Date	Attribute
Service Date	epicservicedatekey
Effective Date	epiceffectivedatekey
Received Date	epicreceiveddatekey

3. Set the attribute to the name of the OnBase Keyword Type you want to map. See the following example:

```
<DocType name="PID Patient ID" bitmap="C:\FOS\images\drvLicButton.jpg"
required="false" displayname="Driver's License" displayscanner="Scan ID"
scanner="FUJITSU fi-7260" epicservicedatekey="Date of Service"></DocType>
```

In this example, the **Service Date** value is mapped to the OnBase Keyword Type named **Date of Service**.

- 4. Repeat for each scan button as needed.
- 5. Save the Epic FOS XML configuration file.

Simplified Scanning for Registration

You can configure the Front Office Scanning integration to use two different Epic FOS XML configuration files: one for registration contexts, and one for non-registration contexts. This approach allows you to configure a simpler experience for registration scanning.

To determine whether a user is scanning from a registration context, the Front Office Scanning client checks for a RecordID entry from Epic. If Epic provides a RecordID entry, Front Office Scanning uses the configuration file created for registration contexts. If Epic does not provide a RecordID entry, or if an alternate configuration file is not present, then Front Office Scanning uses the standard configuration file (EPICFOSCONFIG.xml).

To create a separate configuration file for registration:

- 1. Copy the EPICFOSCONFIG.xml file.
- Append .registration to the name of the new file, keeping the .xml extension.
 For example, if the original file is named EPICFOSCONFIG.xml, then the new file should be named EPICFOSCONFIG.registration.xml.
- 3. Make sure both configuration files reside in the same location.

 The Front Office Scanning client first makes sure the EPICFOSCONFIG.xml file exists before checking for EPICFOSCONFIG.registration.xml. The client checks the following locations (in order of precedence):
 - The location specified for the EpicConfigFile registry value. (See Moving EPICFOSCONFIG.xml on page 104.)
 - · The location of the Front Office Scanning executable.
- 4. Modify the new configuration file (EPICFOSCONFIG.registration.xml) as needed for registration contexts.

Referrals: Link Existing OnBase Documents

The Front Office Scanning integration can use custom queries to find referral documents stored in OnBase. Epic users can then view, re-index, and link the appropriate documents to the current referral in Epic.

See the following topics:

- Functional Overview on page 101
- User Privileges for Linking Existing Documents on page 102
- Configuring FOS to Link Existing Documents to Referrals on page 102

Functional Overview

When Front Office Scanning is configured to retrieve documents using custom queries, each custom query is represented as an additional tab in the Related Documents pane.

Document	Page(s)	Date 🔺	Linked
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown

When a user views a document retrieved by custom query, the Document Type buttons become available in the left panel of the Front Office Scanning client. The user can click any of these buttons to re-index the document based on the button's configuration. When the user exits the Front Office Scanning client, the re-indexed documents are linked to the current context in Epic.

User Privileges for Linking Existing Documents

To link OnBase documents to referrals, Front Office Scanning users must have the following rights and privileges:

- Privileges to the associated custom queries specified in the Epic FOS XML configuration file
- The Re-index document privilege

Configuring FOS to Link Existing Documents to Referrals

To use custom queries to retrieve and link existing documents:

- 1. Open the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).
- 2. In the **Display** element, make sure the **dochitlist** attribute is set to **true**.
- 3. In the **Retrieval** element, make sure at least one retrieval keyword is defined.
- 4. Add the **RetrieveCustomQueries** element to the **FOSCONFIGURATION** element, as shown in this example:

- In each **query** element, the **name** attribute specifies the name of the custom query that should be executed. The **name** value will also be displayed on the associated tab in the Front Office Scanning client. Multiple **query** elements can be defined.
- Each **keyword** element encloses the name of a Keyword Type that the specified custom query should use to retrieve documents. When it executes, the custom query uses the value provided for the Keyword Type in the current data set. Each **query** element can contain zero to multiple **keyword** elements for retrieval.
- 5. Save the Epic FOS XML configuration file.

Referrals: Upload Documents from a Network Location

Front Office Scanning can allow Epic users to import faxed or scanned referral documents from a network location. Upon import, the documents are linked with the referral in Epic.

If uploading referral documents from a network location is not an option, see Referrals: Link Existing OnBase Documents on page 101.

See the following topics:

- Functional Overview on page 103
- Enabling Referral Document Upload for FOS on page 103

Functional Overview

When a user clicks a scan button configured for referral upload, the Front Office Scanning client checks for files in the specified network location.

- If a single file is found, the file is automatically uploaded to the Front Office Scanning client.
- If multiple files are found, their file names are compared to the referral ID received from Epic. If a file name contains the referral ID, that file is uploaded to the Front Office Scanning client. If no file names contain the referral ID, or if Epic did not send a referral ID, the **Open** dialog box is displayed, and the user can select the image or PDF file to import.
- If no file is found, an error is displayed to the user.

If the current Windows user has sufficient privileges to delete the source file from the network location, the source file is deleted upon being uploaded to the Front Office Scanning client. The Front Office Scanning client processes the uploaded document using the indexing settings configured for the associated scan button.

Enabling Referral Document Upload for FOS

To allow the Front Office Scanning client to upload documents from a network share, add the **referrallocation** attribute to the referral **DocType** element in the Epic FOS XML configuration file (typically EPICFOSCONFIG.xml).

For example:

<DocType name="Referral Docs" referrallocation="\\server\referral\\%winuser\\"...</pre>

The value of the **referrallocation** attribute must provide the path to the network location where referral documents are stored. The following variables can be included in the path:

Variable	Description
%epicuser%	Represents the Epic ID of the current user, as provided by Epic.
%winuser%	Represents the Windows user name of the user running the Front Office Scanning client.

Moving EPICFOSCONFIG.xml

When running in Epic mode, the Front Office Scanning client attempts to auto-load its configuration settings from EPICFOSCONFIG.xml, an XML configuration file. In a default installation, this file resides in the same folder as obepicfosXx.dll and the Front Office Scanning executable.

To configure the integration to look for the EPICFOSCONFIG.xml file in a different location (network or local), add a registry setting to the workstation running the Front Office Scanning client. The Front Office Scanning client will first attempt to find EPICFOSCONFIG.xml file in the specified location before checking the location of the Front Office Scanning executable.

To create the registry setting:

- 1. Open the Registry Editor as described under Accessing the Registry on page 14.
- 2. Navigate to the following key: HKEY_LOCAL_MACHINE\SOFTWARE\Hyland\Front Office Scanning
- 3. Create a new string value named EpicConfigFile.
- 4. In the value's Value data field, enter the full path (including file name) to the Epic FOS configuration file. This can be a UNC or local path.
 For example:

\\Server\FOS\EPICFOSCONFIG.xml

Note: Ensure Epic Front Office Scanning users have **Read** access to the **Front Office Scanning** registry key. Also ensure users have sufficient **Modify** NTFS permissions (and **Modify** share permissions, if applicable) to the location where the Epic FOS configuration file is stored.

Preventing Links to Epic

You can prevent the Front Office Scanning integration from notifying Epic of new documents using the EpicIntegrations.config file. This behavior can be accomplished for all scanned documents or for specific Document Types. For more information, see the following topics:

- PreventEpicLinks on page 172
- PreventLinkTypes on page 172

Installing the Epic ROI Web Service Integration

The OnBase web service integration for Epic ROI provides integrated printing from the Epic Release of Information module.

Note: The Epic ROI Web Service is not compatible with multiple OnBase systems integrating with one Epic system. If your system is currently configured to use multiple OnBase systems with one Epic system and you are upgrading your OnBase system to use the Epic ROI Web Service from the legacy Epic ROI Printer Plug-In integration, contact your first line of support for assistance.

Supported Epic Versions

As of OnBase Foundation EP5, the Epic ROI Web Service integration is supported with Epic Hyperdrive and with the Epic August 2018 and later versions of Epic Hyperspace.

Supported File Formats

The following file formats are supported by the web service integration for Epic ROI:

- · Image documents
- · Text documents
- Image and text documents with overlays
- Microsoft PowerPoint documents
- · Microsoft Word documents
- · PDF documents
- · Image-rendered PDF documents
- PCL documents
- AFP documents
- Dynamic documents (created using the Statement Composition module)
- · HTML documents
- · HTML Unicode documents
- · Electronic Form (E-Form) documents
- · Unity Form documents

For documents with unsupported file formats, an error code is returned.

Epic ROI Web Service Installation

The web service integration for Epic ROI is installed with the OnBase Application Server. See Installing the OnBase Application Server on page 43.

If necessary, the Application Server can receive requests from Epic ROI through the OnBase Web Server.

EpicROIHandler.ashx Service Method

An Epic system administrator must add the path to **EpicROIHandler.ashx** to the configuration for the Epic Print Service.

For example, if the virtual root for the Application Server is https://server/AppServer, then the path to **EpicROIHandler.ashx** should be entered as follows:

https://server/AppServer/EpicROIHandler.ashx

If Epic is communicating with the Application Server through the OnBase Web Server at https://server/AppNet, then the path to **EpicROIHandler.ashx** should be entered as follows:

https://server/AppNet/EpicROIHandler.ashx

Application Server Configuration

The web service integration for Epic ROI requires an installation of the OnBase Application Server.

HTTP and HTTPS

The web service integration is supported with both HTTP and HTTPS. An HTTPS binding is recommended for security.

Timeout

The web service integration for Epic ROI respects the request execution timeout configured for the OnBase Application Server. To ensure the web service can retrieve large files without exceeding the timeout, you may need to increase the value for the **executionTimeout** setting on the Application Server. This setting is located in the **httpRuntime** element in Web.config. The **executionTimeout** value is specified in seconds.

If Epic is communicating with the Application Server through the OnBase Web Server, then the **executionTimeout** setting also needs to be increased in the Web.config file of the Web Server.

Installing the EpicCare Link Integration

The EpicCare Link integration allows users to view OnBase documents of almost any file format¹ from within EpicCare Link, PlanLink, or EpicWeb. In the following topics, the term EpicCare Link is used to refer to all three of these Epic modules.

Note: To ensure documents are displayed successfully, assign their file formats to the appropriate MIME type in OnBase Configuration. Select **Document | File Formats** to access file format configuration.

To install this integration, refer to the following topics and procedures:

- Supported Versions on page 107
- Pre-Installation Steps for the EpicCare Link Integration on page 107
- Installing OnBase Components on the EpicCare Link Server on page 109
- Configuration Settings for the EpicCare Link Integration on page 109
- Epic Configuration for the EpicCare Link Integration on page 111

Supported Versions

As of OnBase Foundation EP5, the EpicCare Link integration is supported with Epic Hyperdrive and with the Epic August 2018 and later versions of Epic Hyperspace.

Pre-Installation Steps for the EpicCare Link Integration

Before you begin, do the following:

- 1. Make sure the EpicCare Link server has the Windows Application Server Role installed. This Role is required for EpicCare Link to communicate properly with the integration. It is not installed by default when the Web Server (IIS) Role is installed.
- Contact your Epic solution provider to obtain the ViewTIFF Image viewer. The ViewTIFF
 Image viewer must be installed to let users view OnBase scanned images using
 EpicCare Link.
- 3. Install the OnBase Application Server as described under Installing the OnBase Application Server on page 43.
- 4. Create the OnBaseEpicWeb.config file as described under Creating the Configuration File for EpicCare Link on page 108.
- 5. Install the OnBase EpicCare Link integration by completing the following procedures:
 - Installing OnBase Components on the EpicCare Link Server on page 109
 - Epic Configuration for the EpicCare Link Integration on page 111

^{1.} DICOM Study documents are not supported for retrieval using the EpicCare Link integration.

Creating the Configuration File for EpicCare Link

Integration settings for EpicCare Link are maintained in OnBaseEpicWeb.config. This file can be created manually or obtained from your solution provider. To ensure the file is installed to the correct location, create it prior to running the Hyland Integration for Epic installer.

To configure OnBaseEpicWeb.config:

Open OnBaseEpicWeb.config.
 If the file does not exist, you can create it manually using a text editor, such as Notepad++. The default contents are as follows:

- 2. Between the **datasource** tags, specify the name of the data source configured for the Epic integration in the Web.config file of the OnBase Application Server.
- 3. Between the **debugMode** tags:
 - Enter **true** to log debugging information to OnBaseEpicWeb.Trace.log. This text file is created in the same directory as OnBaseEpicWeb.dll.
 - Enter **false** to turn off debug mode. Even if debug mode is disabled, errors are logged to OnBaseEpicWeb.Errors.log.

For more information about debug mode, see Running the EpicCare Link Integration in Debug Mode on page 19.

- 4. Between the **appserverUrl** tags, enter the URL to the Application Server's Service.asmx page.
- 5. To reduce the size of color images retrieved by this integration, add the **colorImageAsJpegTiff** element. See colorImageAsJpegTiff on page 110.

<colorImageAsJpegTiff>true</colorImageAsJpegTiff>

- 6. If multiple OnBase environments are integrated with the same Epic system, see Integrating Epic with Multiple OnBase Systems on page 117.
- 7. Save OnBaseEpicWeb.config to a location accessible by the Hyland Integration for Epic installer.

Installing OnBase Components on the EpicCare Link Server

To install the EpicCare Link integration files, run the Hyland Integration for Epic installer on the EpicCare Link server. See Epic Integrations Installer on page 133.

Note: For installation file information, see the Supplemental Installation and Upgrade Guide for Epic Integrations, available on Hyland Community at https://community.hyland.com/products/onbase/integration-for-epic/resources.

Configuration Settings for the EpicCare Link Integration

The EpicCare Link integration is configured using OnBaseEpicWeb.config. This file is installed in the same directory as OnBaseEpicWeb.dll. In a default installation, this location is C:\Program Files (x86)\Hyland\Integration for Epic \Web.

For information about settings in the OnBaseEpicWeb.config file, see the following topics:

- appserverUrl on page 109
- datasource on page 109
- debugmode on page 110
- debugLog on page 110
- errorLog on page 110
- colorImageAsJpegTiff on page 110

appserverUrl

The appserverUrl specifies the path to the OnBase Application Server to be used by the EpicCare Link integration. This value is formatted as follows: https://server/AppServer/Service.asmx

datasource

The **datasource** setting specifies the name of the data source that will be used by the EpicCare Link integration. Data source connection strings are configured in the Web.config file of the OnBase Application Server. If no value is provided, the integration uses the data source specified for the **dmsdatasource** setting in the Web.config file of the OnBase Application Server.

debugmode

Set **debugmode** to **true** to run the EpicCare Link integration in debug mode. In debug mode, the EpicCare Link integration logs debugging information to a text file for troubleshooting purposes. If you have trouble with the EpicCare Link integration, turn on debug mode and check the statements in the OnBaseEpicWeb.Trace.log file.

When debug mode is enabled, OnBaseEpicWeb.Trace.log is created in the same directory as OnBaseEpicWeb.dll. The name and location of this log file can be changed using the **debugLog** setting. Ensure the account running the EpicCare Link / EpicWeb application pool has **Modify** permissions to this location.

Note: Even if debug mode is disabled, the integration will attempt to log errors to OnBaseEpicWeb.Errors.log. This file is created by default in the same directory as OnBaseEpicWeb.dll. The name and location of this log file can be changed using the **errorLog** setting.

debugLog

Specifies the full path to the trace log, which is created when **debugmode** is set to **true**. For example:

<debugLog>C:\EpicLogs\OnBaseEpicWeb.Trace.log</debugLog>

Ensure the account running the EpicCare Link / EpicWeb application pool has **Modify** permissions to this folder.

If the **debugLog** setting does not exist, the trace log is created in the same directory as OnBaseEpicWeb.dll and named OnBaseEpicWeb.Trace.log.

If the **debugLog** setting exists but is empty, then trace messages are not logged.

errorLog

Specifies the full path to the error log. For example:

<errorLog>C:\EpicLogs\OnBaseEpicWeb.Errors.log/

Ensure the account running the EpicCare Link / EpicWeb application pool has **Modify** permissions to this folder.

If the **errorLog** setting does not exist, the error log is created in the same directory as OnBaseEpicWeb.dll and named OnBaseEpicWeb.Errors.log.

If the **errorLog** setting exists but is empty, then errors are not logged.

colorImageAsJpegTiff

The **colorImageAsJpegTiff** setting can be added to OnBaseEpicWeb.config to reduce the size of color images retrieved using the EpicCare Link integration. This setting is not present in OnBaseEpicWeb.config by default.

To configure the EpicCare Link integration to use JPEG-compression for color images, add the following to the **<OnBaseEpicWeb>** node in OnBaseEpicWeb.config:

<colorImageAsJpegTiff>true</colorImageAsJpegTiff>

When set to **true**, the **colorImageAsJpegTiff** setting causes the integration to convert color images to JPEG-compressed TIFF files before sending them to the EpicCare Link server. This compression method can reduce the size of retrieved images and help address timeout errors.

Epic Configuration for the EpicCare Link Integration

An Epic administrator must make the necessary updates to Epic.ini. This file is located on the EpicCare Link server. See the following:

- MediaHandlerProgIDs
- WebMediaObject (Epic 2015 and earlier)
- MultipleMediaHandlers (Epic 2015 and earlier)

MediaHandlerProgIDs

The MediaHandlerProgIDs setting must be configured as follows:

MediaHandlerProgIDs=EWMediaHandlers#EPIC_VER#.WOnBaseWrap

Note: Do not replace #EPIC_VER#. This variable must be entered as shown here.

WebMediaObject

In Epic 2015 and earlier, the WebMediaObject setting must be set as follows:

WebMediaObject=EWMediaHandlers#EPIC_VER#.WOnBaseWrap

Note: Do not replace #EPIC_VER#. This variable must be entered as shown here.

The **WebMediaObject** setting is no longer used beginning in Epic 2017. Be sure to remove this setting when upgrading from a version of Epic prior to Epic 2017.

MultipleMediaHandlers

In Epic 2015 and earlier, the MultipleMediaHandlers setting must be set as follows:

· MultipleMediaHandlers=true

The **MultipleMediaHandlers** setting is no longer used beginning in Epic 2017. Be sure to remove this setting when upgrading from a version of Epic prior to Epic 2017.

Installing the Epic Image Retrieval API Integration

The Epic Image Retrieval API integration allows OnBase documents to be displayed in locations where previously only Binary Large Object (BLOB) images were available, such as Hyperspace and MyChart. For a complete list of integration points, contact your Epic support representative.

Supported Versions

As of OnBase Foundation EP5, the Epic Image Retrieval API integration is supported with Epic Hyperdrive and with the Epic August 2018 and later versions of Epic Hyperspace.

Supported File Formats

The following file formats are supported:

- Image documents
- Text documents
- · Image and text documents with overlays
- Microsoft PowerPoint documents
- · Microsoft Word documents
- PDF documents
- Image-rendered PDF documents
- · PCL documents
- · AFP documents
- Dynamic documents (created using the Statement Composition module)
- HTML documents
- HTML Unicode documents
- · Electronic Form (E-Form) documents
- · Unity Form documents

Application Server Configuration

The Image Retrieval API integration requires an installation of the OnBase Application Server.

Identity Configuration

The Image Retrieval API integration does not use ASP.NET impersonation. As a result, the Application Server used by the integration must be configured to run its worker process as a domain account with access to the required resources.

Mapping HTTP Handlers

For the Application Server to communicate with the Image Retrieval API, certain HTTP handlers must be mapped correctly. You can ensure the necessary HTTP handlers are configured by enabling HTTP Activation on the Application Server.

To enable HTTP Activation, complete the procedure below that pertains to your Windows Server operating system:

- Windows Server 2012 R2 on page 113
- Windows Server 2016 on page 113

To verify HTTP handlers are configured correctly, see the following procedure:

Verifying HTTP Handler Mapping on page 114

Windows Server 2012 R2

To enable HTTP Activation in Windows Server 2012 R2:

- 1. Open Windows Server Manager.
- Select Manage | Add Roles and Features. The Add Roles and Features Wizard is displayed.
- 3. On the Select Installation Type screen, select Role-based or feature-based installation.
- 4. Click Next. The Select Destination Server screen is displayed.
- 5. Select the Application Server that will be communicating with the Image Retrieval API.
- 6. Click Next. The Select Server Roles screen is displayed.
- 7. Click **Next** to skip to the **Select Features** screen.
- 8. Expand .NET Framework 4.5 Features.
- 9. Expand WCF Services.
- 10. Select the HTTP Activation check box.
- 11. Click **Next**. The **Confirm Installation Selections** screen is displayed.
- 12. Confirm the **HTTP Activation** feature is selected for installation.
- 13. Click Install.
- 14. To verify HTTP handlers are configured correctly, see Verifying HTTP Handler Mapping on page 114.

Windows Server 2016

To enable HTTP Activation in Windows Server 2016:

- 1. Open the Windows Server Manager application.
- Select Manage | Add Roles and Features. The Add Roles and Features Wizard is displayed.
- 3. On the **Select Installation Type** screen, select **Role-based or feature-based installation**.
- 4. Click Next. The Select Destination Server screen is displayed.
- 5. Select the Application Server that will be communicating with the Image Retrieval API.

- 6. Click Next. The Select Server Roles screen is displayed.
- 7. Click **Next** to skip to the **Select Features** screen.
- 8. Expand .NET Framework 4.6 Features.
- 9. Expand WCF Services.
- 10. Select the HTTP Activation check box.
- 11. Click Next. The Confirm Installation Selections screen is displayed.
- 12. Confirm that the HTTP Activation feature is selected for installation. Click Install.

Verifying HTTP Handler Mapping

To verify the necessary HTTP handlers are mapped correctly on the Application Server:

- 1. Open Internet Information Services (IIS) Manager.
- 2. Under **Sites** in the **Connections** pane, navigate to the application for the OnBase Application Server.
- 3. Double-click **Handler Mappings** in the middle pane.
- 4. Verify the svc-Integrated-4.0 handler is configured as shown in the following table. If the handler does not exist, add it manually by clicking Add Managed Handler from the Actions pane.

Setting	Value
Request Path	*.svc
Туре	System.ServiceModel.Activation.ServiceHttpHandlerFactory, System.ServiceModel.Activation, Version=4.0.0.0, Culture=neutral, PublicKeyToken=31bf3856ad364e35
Name	svc-Integrated-4.0

5. Verify the svc-ISAPI-4.0_32bit handler is configured as shown in the following table. If the handler does not exist, add it manually by clicking Add Script Map from the Actions pane.

Setting	Value
Request Path	*.svc
Executable	C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_isapi.dll
Name	svc-ISAPI-4.0_32bit

 Verify the svc-ISAPI-4.0_64bit handler is configured as shown in the following table. If the handler does not exist, add it manually by clicking Add Script Map from the Actions pane.

Setting	Value
Request Path	*.svc
Executable	C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_isapi.dll
Name	svc-ISAPI-4.0_64bit

BinaryDataRetrieval.svc

An Epic system administrator must add the path to the **BinaryDataRetrieval.svc** file to the configuration files for the applicable Epic modules. By default, **BinaryDataRetrieval.svc** is located in the Services\Epic folder of the OnBase Application Server's virtual directory.

For example, if the virtual root for the Application Server is https://server/AppServer, then the path to the **BinaryDataRetrieval.svc** should be entered as follows:

https://server/AppServer/Services/Epic/BinaryDataRetrieval.svc

Disabling HTTPS

By default, the Image Retrieval API integration is configured to use an HTTPS binding. If Epic is not configured to use an HTTPS binding (for example, in a test environment), then you must turn off the HTTPS binding for the Image Retrieval API integration.

- 1. Open the Web.config file for the OnBase Application Server.
- 2. Locate the following node:

3. Set the **security mode** to **None**. The resulting node should resemble the following:

4. Save Web.config.

Installing the Epic Welcome Integration

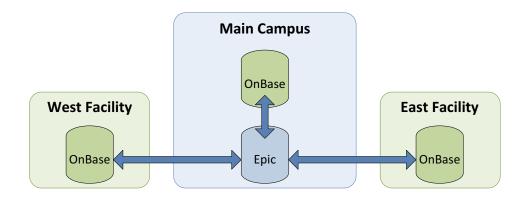
The Epic Welcome integration allows patients to scan and upload documents directly to OnBase from a kiosk running the Epic Welcome software. As of OnBase Foundation EP5, the Epic Welcome integration is supported with Epic Hyperdrive and with the Epic August 2018 and later versions of Epic Hyperspace.

The Epic Welcome integration requires the installation of the OnBase Application Server. In addition, Epic Welcome must be configured to communicate with the Application Server using a service account configured in OnBase.

For OnBase configuration information, see Epic Welcome Integration Configuration on page 262.

Integrating Epic with Multiple OnBase Systems

In a healthcare system with multiple facilities, each facility may have its own deployment of OnBase. In this case, each OnBase system can be integrated with Epic, even if all facilities share a single Epic system.



When multiple OnBase systems are integrated with one Epic system, Epic needs a way to determine which OnBase system to use for retrieving documents. This requirement is satisfied through the use of Facility IDs.

To integrate multiple OnBase systems with Epic, see the following topics:

- Solution Overview on page 117
- Assigning Facility IDs to OnBase Systems on page 119
- Mapping Facility IDs to URLs on page 123
- Setting Up Integration Components on page 127

Solution Overview

When multiple OnBase systems are integrated with Epic, the integration uses Facility IDs to uniquely identify each OnBase system.

When the OnBase integration notifies Epic of new a document, the notification includes both the document handle and the Facility ID for the OnBase system where the document is stored. When Epic later requests the document, the integration uses the document's Facility ID to identify the correct OnBase repository.

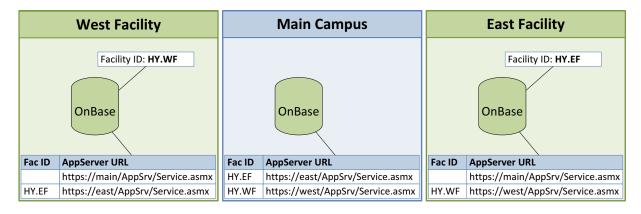
Facility Mapping

In a typical setup, one OnBase system is designated as the home system. When Epic requests a document from OnBase, the integration first checks whether the document's Facility ID matches the Facility ID for the home system. If the IDs match, the integration retrieves the specified document from the home system. If the IDs are different, the integration looks up the document's Facility ID in the facility mapping table.

The facility mapping table is configured on the home system. This table maps the Facility IDs for the remaining OnBase systems to their respective Application Servers. When the integration finds the correct Facility ID in the facility mapping table, it redirects the document request to the specified Application Server. This Application Server then tries to retrieve the document from the data source specified in its Web.config file.

Example Configuration

The following example illustrates how Facility IDs may be configured when multiple OnBase systems are integrated with a single Epic system.



In this example, Epic contained links to documents in the Main Campus OnBase system before Facility IDs were assigned. As a result, no Facility ID has been assigned to the OnBase system at Main Campus. Assigning a Facility ID to this OnBase system would invalidate the existing links in Epic.

All OnBase systems in this example have a facility mapping table configured. Although only one system needs this table configured, the approach in this example allows for any OnBase system to be used as the default data source for the Epic integration components.

If you configure a facility mapping table for only one OnBase system, then you must make this system the default data source for the following integration components:

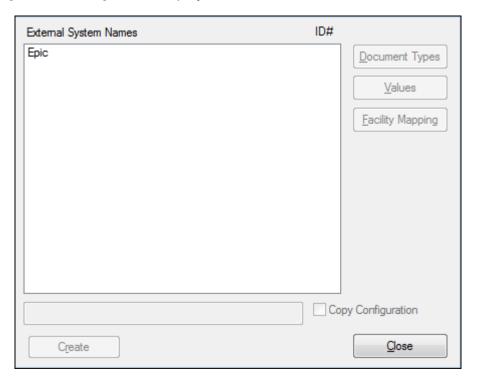
- EpicCare Link
- · Image Retrieval API
- · Signature Deficiencies for Epic

Assigning Facility IDs to OnBase Systems

The following procedure describes how to assign a Facility ID to a particular OnBase system.

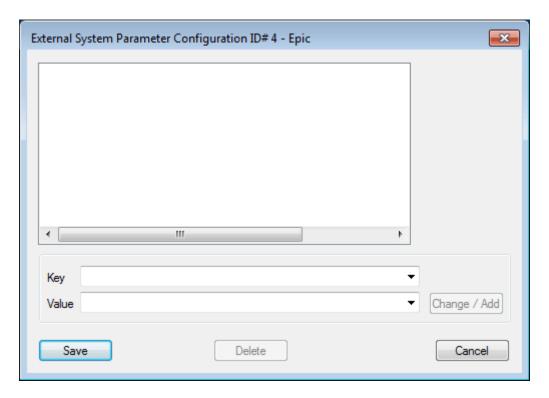
Note: If one OnBase system already has document links in Epic, this system should have no Facility ID assigned. When Epic requests a document using a document ID that has no Facility ID, the integration will retrieve the document from the OnBase system that also has no Facility ID. Only one OnBase system is allowed to have no Facility ID assigned.

1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



2. Select **Epic** from the list.

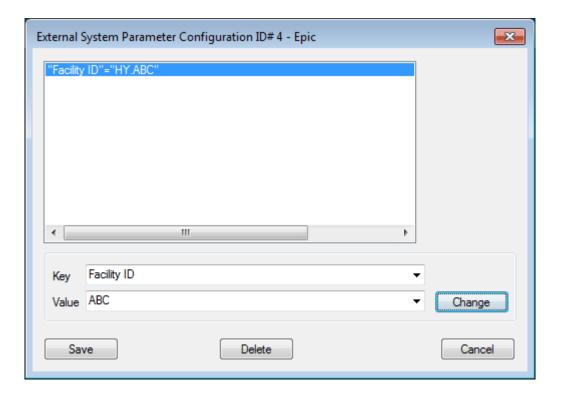
3. Click Values. The External System Parameter Configuration dialog box is displayed.



- 4. In the **Key** field, type **Facility ID**. This key is case-sensitive. Ensure the **F** and **ID** are capitalized.
- 5. In the **Value** field, type the new value to use as the Facility ID for this OnBase system. Follow these guidelines:
 - Ensure the Facility ID is unique to the current OnBase system.
 - Do not re-use an ID that has been assigned to another OnBase system in your solution.
 - Do not include a: (colon) or; (semicolon) character in the Facility ID value.

6. Click Add.

- The new key is added, and the prefix **HY.** is automatically added to the value. The **HY.** prefix ensures the value complies with Epic's internal requirements.
- If the value you entered already starts with a prefix of **HY**., the **HY**. prefix will not be appended again.



7. Click **Save** to save the Facility ID.

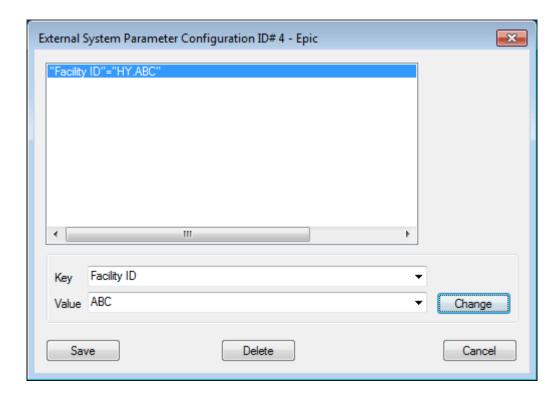
Note: If you click **Save** without first clicking **Add**, the specified **Key** and **Value** are automatically added and saved.

Changing a Facility ID

Note: Do not to change a system's Facility ID after the Facility ID has been configured and used in production. Doing so would invalidate any document IDs sent to Epic under the original Facility ID.

The following steps describe how to change the Facility ID assigned to a system.

1. Select the Facility ID setting in the External System Parameter Configuration dialog box.



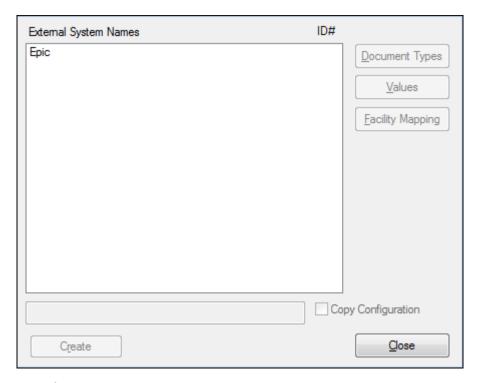
- 2. In the **Value** field, type the new value for the selected key.
- 3. Click Change.
- 4. Click **Yes** for both warning messages.
- 5. Click **Save** to save the change. To cancel the change, click **Cancel**.

Note: If you click **Save** without first clicking **Change**, a warning message prompts you to confirm the change.

Mapping Facility IDs to URLs

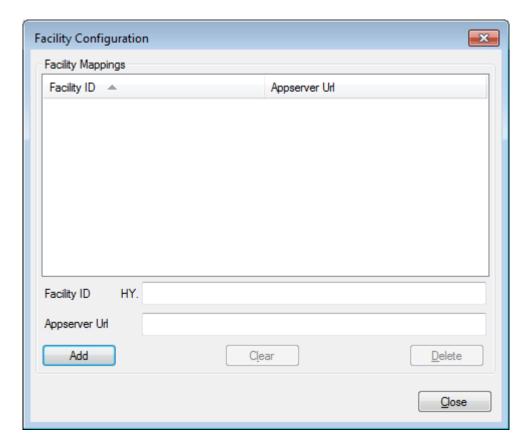
The following procedure describes how to map Facility IDs to Application Server URLs. Perform this procedure for each OnBase system you want to integrate with Epic. At a minimum, you must perform this procedure for the OnBase system that will be used as the default data source for an Epic integration component.

1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



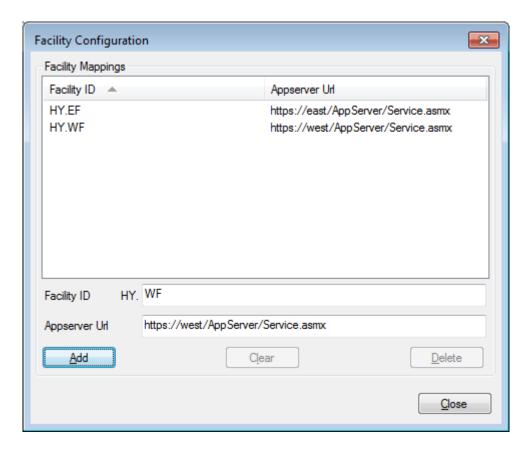
2. Select **Epic** from the list.





- 4. In the Facility ID field, type the Facility ID you want to map to a URL.
 - Do not type the **HY.** portion of the Facility ID. The **HY.** will be added to the ID automatically.
 - Do not map the Facility ID for the current OnBase system. Only the Facility IDs for other OnBase systems need to be mapped.
 - If one OnBase system does not have a Facility ID assigned, leave the **Facility ID** field blank for that system. You can map a blank Facility ID to an Application Server URL.
- 5. In the **Appserver Url** field, type the Application Server URL for the OnBase system the Facility ID is assigned to. Use the following format:
 - http://Server/VirtualRoot/Service.asmx

6. Click Add. The mapping is added to the list.



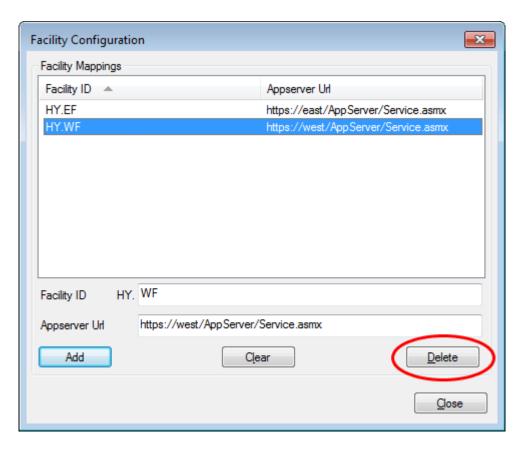
- 7. Repeat as needed for additional OnBase systems.

 To change or update a mapping, see the following topic.
- 8. Click Close when finished.

Changing a Facility Mapping

If a facility mapping needs to be changed or updated, you must delete the existing mapping and add a new one.

- 1. In the **Facility Configuration** dialog box, select the **Facility ID** you want to change or remap.
- 2. Click Delete.



- 3. In the Facility ID field, type the Facility ID you want to map.
- 4. In the **Appserver Url** field, type the Application Server URL for the OnBase system the Facility ID is assigned to.
- 5. Click **Add**. The new mapping is added to the list.
- 6. Click Close when finished.

Setting Up Integration Components

The following topics describe component-specific requirements for integrating Epic with multiple OnBase systems. Facility IDs and mapping also must be configured as described in the previous procedures.

Note: The web service integration for Epic ROI is not supported in an environment where multiple OnBase systems are integrated with a single Epic system.

To configure integration components, see the following topics:

- OnBase Application Servers on page 127
- Scanning Integrations on page 127
- EpicCare Link Integration on page 129
- Epic Image Retrieval API Integration on page 130
- Epic Welcome Integration on page 130
- OnBase HL7 on page 131
- · Signature Deficiencies for Epic on page 132

OnBase Application Servers

When multiple OnBase systems are integrated with Epic, the OnBase Application Servers have the following requirements:

- Each OnBase system integrated with Epic must have its own OnBase Application Server.
- If an Application Server is mapped to a Facility ID in a facility mapping table, then the **dmsdatasource** in the Application Server's Web.config file must point to the OnBase system assigned to that Facility ID.

Scanning Integrations

You can configure the Scan Acquisition Server (SAS) or Front Office Scanning (FOS) integration to connect to the correct OnBase system for import. When notifying Epic of a new document, the SAS or FOS integration sends Epic both the document handle and the Facility ID for the system where the document has been stored.

When integrating with Epic Hyperdrive using a SMART on FHIR launch of the SAS or FOS client, you can configure exact parameters for the **location** and **environmentID** elements in the command line interface. To launch the SAS or FOS client successfully, you must also configure exactly one matching value in the **EpicIntegrations.config** file for each of these elements provided on the command line. If neither element is provided on the command line, you must also remove these elements from the **EpicIntegrations.config** file.

To configure a SAS or FOS client launch:

- 1. Open the **EpicIntegrations.config** file that resides in the same directory as the scanning DLLs for SAS or FOS.
- 2. Locate the <servers> element under <OBEpicViewer>.

3. Under <servers>, add or modify a <server> element to include the following child elements:

Element	Description
location	The location is a value provided by Epic. In a multi-facility system, Epic may associate each facility with a different location value.
environmentID	The environmentID is a value provided by Epic for the environment ID you want to map.
url	The url is the Application Server URL to connect to for the specified location.
datasource	The datasource is the name of the connection string to use on the specified Application Server.

4. Using these child elements, map an Epic location to the appropriate OnBase data source.

For example:

```
<servers>
```

<server>

<location>Emergency Room West</location>

<environmentID>PRD</environmentID>

<url>https://server1/service.asmx</url>

<datasource>OB_PRD</datasource>

</server>

</servers>

When mapping an Epic location to the OnBase data source, also note the following:

- You can use a combination of locations and environment IDs to archive documents to different OnBase systems. If Epic sends OnBase a location value and an environment ID that are mapped to different OnBase systems, then the system mapped to the location value will be used.
- If a value contains a <, >, or &, then the value must be enclosed in CDATA tags. For example, if the location is X&Y, then the <location> element would use the following format: <location><![CDATA[X&Y]]></location>. Otherwise, the CDATA tags can be omitted.
- 5. Repeat for each location being used with this SAS or FOS deployment.
- 6. Save EpicIntegrations.config.

EpicCare Link Integration

The EpicCare Link integration (which includes PlanLink and EpicWeb) is supported for both retrieving and uploading documents using multiple OnBase systems. See the following topics for additional setup information.

EpicCare Link Retrieval

Complete the following steps to configure the EpicCare Link integration to retrieve documents from multiple OnBase systems.

- 1. Open OnBaseEpicWeb.config.
- 2. Add the following line under the **<OnBaseEpicWeb>** tag.

<multiInstanceOnBaseMode>true/multiInstanceOnBaseMode>

- 3. Update appserverUrl as needed for multi-instance OnBase mode.
 - The appserverUrl setting must provide the URL to the default Application Server.
 - In the Application Server's Web.config file, **dmsdatasource** must provide the name of the default connection string for your solution.
 - This data source must have facility mapping configured.

Note: The **datasource** setting in OnBaseEpicWeb.config is ignored when **multiInstanceOnBaseMode** is set to **true**. Instead, the integration uses the **dmsdatasource** specified in the Application Server's Web.config.

4. Save OnBaseEpicWeb.config.

EpicCare Link Upload

Complete the following steps to configure EpicCare Link to upload documents using multiple OnBase systems.

- 1. Make sure OnBaseEpicWeb.config is set up as described under the previous topic, EpicCare Link Retrieval.
- 2. Create a Location Keyword Type in each OnBase system integrated with Epic.
- 3. Assign the **Location** Keyword Type to all Document Types used for EpicCare Link upload.
- 4. In OnBaseEpicWeb.config, add a facilities element containing the following:

```
<facilities>
    <facility>
        <location><![CDATA[]]></location>
        <facilityID><![CDATA[]]></facilityID>
        </facility>
        <facility>
        <location><![CDATA[]]></location>
              <facilityID><![CDATA[]]></facilityID>
        </facility>
</facility>></facility>></facility>></facility>></facilities>
```

- Create one facility child element for each location you need to map.
 For example, if two different location values may be passed in, the facilities element requires two facility child elements.
- 6. Map possible **Location** values to the appropriate Facility ID for that location. For example:

- In this example, the Facility ID for the OnBase system at Eastland is HY.EF. The Facility ID for the OnBase system at Westland is HY.WF. If a user uploads a document with a **Location** of **Eastland**, then the integration looks up HY.EF in its default data source. If HY.EF is mapped to an Application Server, the document will be uploaded to the data source configured for that Application Server.
- Location values are passed in by Epic. Contact your Epic system administrator for a list of all possible Location values for your solution.
- If a document is uploaded without a **Location** value, then the document will be saved to the data source for the Application Server specified as the **appserverUrl**.
- If a document is uploaded with a Location value that does not exist in OnBaseEpicWeb.config, then the document will not be uploaded to any OnBase system. The error log for the EpicCare Link integration will log the following message:

No FacilityID configured for 'Location' keyword value of '<value>' in the OnBaseEpicWeb.config file.

7. Save OnBaseEpicWeb.config.

Epic Image Retrieval API Integration

The Epic Image Retrieval API integration requires no additional configuration. The Image Retrieval API integration respects Facility ID configuration and mapping when retrieving documents.

Epic Welcome Integration

The integration for Epic Welcome Kiosk requires no additional configuration, because it does not send Epic the identifiers for new documents scanned at the kiosk.

If Epic should be notified of documents scanned into OnBase through the kiosk, you can configure OnBase Workflow to send Epic the document information using HL7.

OnBase HL7

Because the OnBase HL7 module uses document handles to identify OnBase documents, additional configuration is necessary to ensure document identifiers are sent and received in the correct format.

See the following topics for requirements. For additional information, see the **HL7** module reference guide.

Sending HL7 Messages From OnBase To Epic

For each OnBase system with a Facility ID assigned, map the \$\$EPICFACDOCNUMBER default value to the HL7 template field where Epic expects the document ID.

The \$\$EPICFACDOCNUMBER default value allows HL7 to send the document ID in the format <Facility ID>.<itemnum>, where <Facility ID> is the Facility ID configured for the current OnBase system and <itemnum> is the document handle.

Sending HL7 Messages From Epic to OnBase

If Epic sends OnBase an HL7 message containing a document ID, the message must only be sent to the OnBase system where the document is stored.

Additional configuration is necessary if HL7 messages from Epic contain document IDs prefixed with the Facility ID for the receiving OnBase system. A script must be configured to strip the prefixed characters from values in the document ID field. For the script to be executed, an import process with the following settings must be configured for each message template used to receive document notification messages from Epic.

Import Process Setting	Description		
Message Type	Any message template used to receive document notification messages from Epic.		
Sending Application	If the selected message template is used with applications other than Epic, then a Sending Application filter must be configured to ensure the import process executes only for Epic messages.		
Message Action	Execute VBScript		
Options	 Select the script configured to strip the document ID value down to the OnBase document handle. Document IDs from Epic may be in the following format: <facility id="">.<itemnum> (where <itemnum> is the document handle).</itemnum></itemnum></facility> Select the Execute First setting. 		
Sequence Suggestion	A sequence suggestion may be necessary to ensure the execution of this script does not conflict with other configured scripts. Refer to the HL7 module reference guide for more information.		

Signature Deficiencies for Epic

Signature Deficiencies for Epic respects Facility ID configuration and mapping when retrieving documents. Complete the following steps to configure Signature Deficiencies to retrieve documents from multiple OnBase systems.

- 1. Open the EpicIntegrations.config file for Signature Deficiencies for Epic. In a typical installation, this file is located in C:\Program Files (x86)\Hyland\Integration for Epic\SD4E.
- 2. Add the following line under the **<SD4E>** tag:

<multiInstanceOnBaseMode>true/multiInstanceOnBaseMode>

- 3. Set the **<epicDatasource>** to a data source with facility mapping configured.
- 4. If Signature Deficiencies for Epic is configured to use different data sources for different Epic environment IDs, make sure each data source has facility mapping configured.
- 5. Save EpicIntegrations.config.

EPIC INTEGRATIONS INSTALLER

Overview

The Hyland Integration for Epic installer installs the components required to deploy the OnBase Epic integrations. The installation wizard can install any or all server-side and client-side components for the Epic integrations.

Available server-side components are described in the following table:

Server-Side Component	Description	
Application Server	Installs the necessary Integration for Epic DLLs to the Application Server's bin directory.	
	The installer does not install the OnBase Application Server. It only copies the necessary Integration for Epic files to the Application Server's virtual directory.	
Signature Deficiencies	Installs the server-side components for Signature Deficiencies for Epic, including the SD4E.txt configuration file.	
	The Application Server component is selected automatically when this component is selected.	

Available client-side components are described in the following table:

Client-Side Component	Description	
Scan Acquisition Server	Installs the OnBase Scan Acquisition Server.	
Front Office Scanning	Installs the Epic Front Office Scanning integration.	
Healthcare Web Viewer	Installs the OnBase Web Viewer.	
EpicCare Link	Installs the EpicCare Link integration.	
Signature Deficiencies	Installs the client-side components for Signature Deficiencies for Epic. Also installs the OnBase Alt ActiveX controls.	

Installer Requirements

You must be logged on to the installation machine with administrator privileges in order to use the Hyland Integration for Epic installer.

The Hyland Integration for Epic installer must be run with elevated administrator privileges, even if the user currently logged in is an administrator.

Limitations

Before using the installer, be aware of the following limitations:

- 1. The installer does not set any values in the registry.
- The installer does not configure any configuration files, with the following exception:
 When installing the server-side Signature Deficiencies component, the installer adds
 and configures a default SD4EConfigLocation setting in the Application Server's
 Web.config.
- 3. The installer does not copy or register the testing files used to test the integrations outside of an Epic environment.

Installation

To install the Epic integration components, see the following topics:

- Introduction to Installers on page 134
- Uninstalling Previous OnBase Versions on page 136
- Preparing the Epic Integration Configuration Files on page 136
- Running the Installer on page 137
- Installing Epic Integrations from the Command Line on page 151

Introduction to Installers

Standard (EXE or MSI) Installers — There are two methods for running OnBase installers: Interactive and silent. An interactive installation requires user interaction with dialog boxes during the installation process. A silent installation does not require user interaction during the installation process.

OnBase installers may consist of both an executable file (.exe) and a Windows Installer Package file (.msi). When performing an interactive installation, and both an executable file and MSI are available, use the executable file to ensure a complete installation. The executable validates that all prerequisites are met before proceeding with the installation. If any missing prerequisites are identified, the installer alerts the user. Most missing prerequisites can be installed directly from the installer before continuing the installation process.

Note: The Microsoft .NET Framework prerequisite must always be installed separately before running either the EXE or MSI installer.

When performing a silent installation, and both an executable file and MSI are available, use the MSI. Since the MSI package does not validate prerequisites, you must ensure that Windows Installer 3.0 or greater is installed on each workstation and that all other prerequisites are met before running the MSI. If any prerequisites are not met, a silent installation from the MSI will fail without alerting the user.

For more information about configuring a silent installation, see https://docs.microsoft.com/en-us/windows/win32/msi/command-line-options.

ClickOnce Installers — Some OnBase modules are installed for deployment using ClickOnce. ClickOnce is a Microsoft technology that installs a deployment package to a central server. This package can then be accessed by users to install the application on their local workstations. The application is installed entirely under the user's profile, ensuring that it cannot interfere with other applications installed on the workstation.

ClickOnce deployments also have the following advantages:

- Previously installed versions of the module can be easily and automatically updated to the latest version with little or no user interaction, as long as the deployment server and deployment instance name are not changed.
- The module is installed on a per-user basis and does not require administrator privileges for local installation.
- There can be multiple instances of the module deployed, allowing for different versions of the module to be installed on a per-user basis, to match the version requirements of the workstation it is being installed to.

For more information on Microsoft's ClickOnce technology see https://docs.microsoft.com/en-us/visualstudio/deployment/clickonce-security-and-deployment.

Note: ClickOnce-deployed applications are not supported by Microsoft within a Remote Desktop environment.

OnBase modules that are deployed using ClickOnce should either take advantage of the ClickOnce deployment method as an alternative to a Remote Desktop deployment, or the module should be installed using a standard installer and deployed using the Remote Desktop methodology.

Note: Not all OnBase modules that support ClickOnce have a standard installer available. Contact your first line of support if you are unsure how to install and deploy a specific module.

User Account Control (UAC) — If Windows User Account Control (UAC) is enabled, the installer must be run with elevated administrator privileges, even if an administrator is currently logged on. This can be accomplished by right clicking on the installer executable and selecting **Run as Administrator** from the right-click menu. MSI files cannot be run using the **Run as Administrator** option. Instead, you must launch the MSI package using the command line. For more information on installing files through the command line, refer to your Microsoft support information or see https://docs.microsoft.com/en-us/windows/win32/msi/command-line-options.

Silent Installation Using setup.exe — If you are running setup.exe silently from the command line you must use the /q switch and the /CompleteCommandArgs switch, followed by the required command-line arguments.

The **q** switch specifies quiet mode and is required to suppress the GUI. The **CompleteCommandArgs** switch must be followed by the command-line parameters required to configure and install the desired components.

The complete string of command-line parameters must be included in double quotes after the **CompleteCommandArgs** switch. If a parameter in the string also requires double quotes, those quotes must be escaped using \. For example: **setup.exe /q /CompleteCommandArgs** "INSTALL_PROPERTY=\"my value\" INSTALL_PROPERTY_2=\"my value 2\"".

Note: You should check the return value of the setup.exe process. A return value of **0** (zero) indicates success. Any other value returned may indicate that an error was encountered and the installation failed.

Uninstalling Previous OnBase Versions

It is considered a best practice to uninstall any previous versions of the Epic integration components before upgrading to the latest version.

If you are upgrading the Scan Acquisition Server or Front Office Scanning integration from OnBase 13 or earlier, you must uninstall the files from the previous version. In OnBase 13 and earlier, the versioning for certain scanning files is different from later OnBase versions. As a result, these files cannot be upgraded by the installer. By uninstalling the scanning integration files before performing an upgrade, you can ensure the correct version of the files will be installed.

Preparing the Epic Integration Configuration Files

When it runs, the installer does not configure the Epic integration configuration files, but it can copy pre-configured configuration files from a directory to the required locations.

To deploy the properly configured files, first create and configure the required integration configuration files. These files are described in the following table:

Configuration File	Description	
EpicIntegrations.config	Used by the Scan Acquisition Server, Front Office Scanning integration, and Signature Deficiencies for Epic. To create this file, use the EpicConfigFileCreator.exe utility provided with the installer files.	
EpicKeywords.txt	Used by the Scan Acquisition Server. Configure the sample file provided in the same directory as the installer. The installer deploys this file to the same directory as the Scan Acquisition Server integration files. For more information, see the Scan Acquisition Server configuration documentation.	
OnBaseEpicWeb.config	Used by the EpicCare Link integration, which includes PlanLink and EpicWeb. To create this file, see the installation documentation for Integration for EpicCare Link.	

Configuration File	Description	
SD4E.txt	Used by Signature Deficiencies for Epic. Configure the sample file provided in the same directory as the installer. The installer deploys this file to the root of the Application Server's virtual directory. For more information, see the Signature Deficiencies for Epic configuration documentation.	

Running the Installer

The following steps describe how to install Epic integration server- and client-side components using the Hyland Integration for Epic installer.

See the following topics:

- Where to Run the Installer on page 137
- · How to Run the Installer on page 138

Where to Run the Installer

Use the following table to determine where to run the installer:

To install this component	Run the installer here		
EpicCare Link integration	EpicCare Link or EpicWeb server		
Front Office Scanning	Client workstations or Citrix servers where the Epic client executables reside		
OnBase Application Server integration files	OnBase Application Server		
Healthcare Web Viewer	Client workstations or Citrix servers where the Epic client executables reside		
Scan Acquisition Server	Client workstations or Citrix servers where the Epic client executables reside		
Signature Deficiencies for Epic (client-side)	Client workstations or Citrix servers where the Epic client executables reside		
Signature Deficiencies for Epic (server-side)	OnBase Application Server		

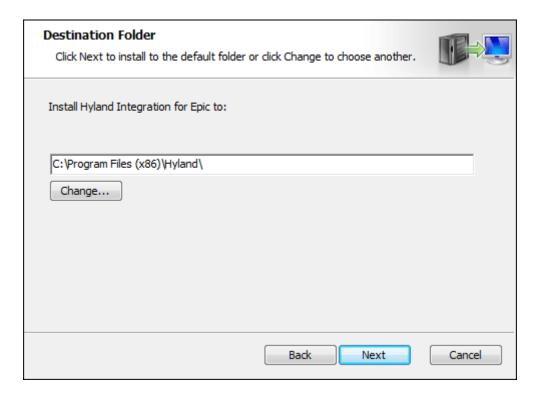
How to Run the Installer

To perform an interactive installation:

1. Launch the installer by executing **setup.exe**. This file is usually located in the **\install\Integration for Epic** folder of your source installation files.

Note: The Hyland Integration for Epic installer must be run with elevated administrator privileges, even if the user currently logged in is an administrator.

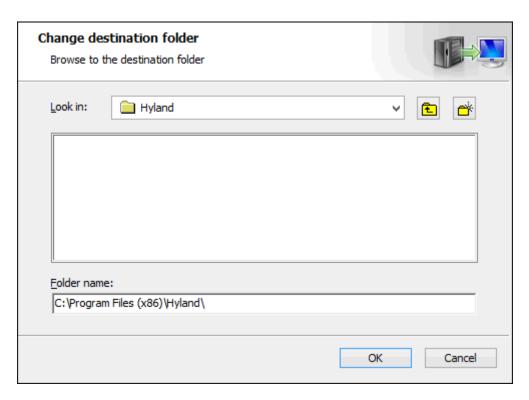
2. Click Next. The Destination Folder dialog is displayed.



3. In the field provided, enter top-level directory where integration components should be installed, or click **Change** to browse to it.

Note: This location does not apply to the Front Office Scanning integration. The location of this component can be changed later in the installation process.

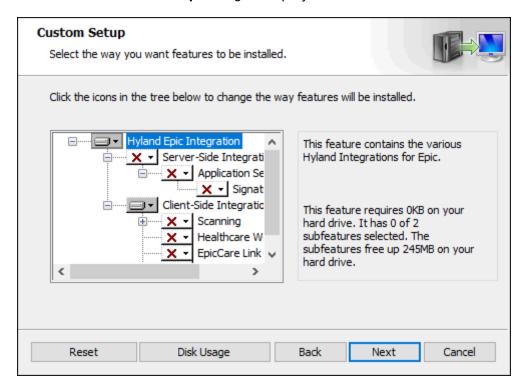
If you click **Change**, the **Change destination folder** dialog is displayed.



Enter a **Folder name** in the field provided or select it from the **Look in** drop-down list, then click **OK**.

If the Destination Folder is not changed, the default location is used (e.g., C:\Program Files\Hyland or C:\Program Files(x86)\Hyland\).

4. Click Next. The Custom Setup dialog is displayed.



- Server-side components are listed under Server-Side Integrations.
- Client-side components are listed under **Client-Side Integrations**. Some components require you to first select if you are using Epic Hyperspace or Epic Hyperdrive.

Note: The **Application Server** component does not install the OnBase Application Server itself. It installs the required server-side Epic integration files.

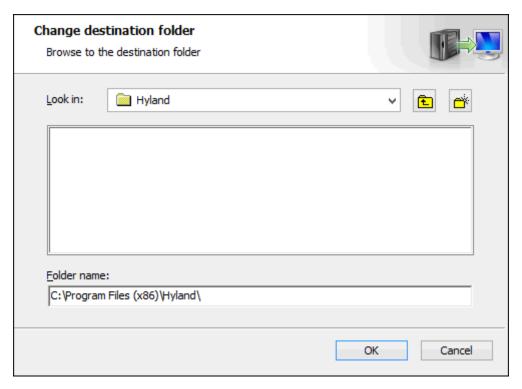
5. Click the drop-down list beside the name of a component to display the installation options:



Option	Description	
Will be installed on local hard drive	Installs the selected feature and does not install any dependent, optional functionality. To view optional functionality, click the + icon next to the feature to expand the sub feature list.	

Option	Description	
Entire feature will be installed on local hard drive	Installs the selected feature and any dependent functionality. To view the dependent functionality, click the + icon next to the feature to expand the sub feature list.	
Entire feature will be unavailable	Select this option to remove a feature from the list of features to install.	

- 6. Select **This feature will be installed on local hard drive** for each component you want to install.
 - To install all components, select **Entire feature will be installed on local hard drive** from the drop-down list beside the top-level component.
- 7. To determine the amount of space available for installation of the selected components, click **Disk Usage**. The **Disk Space Requirements** dialog box is displayed, with information on the space required for the selected components and the space available on the drives accessible by the installation machine.
- 8. To change the installation location of a component, select it and click **Browse**. The **Change destination folder** dialog box is displayed.



Enter a **Folder name** in the field provided or select it from the **Look in** drop-down list. If the destination folder is not changed, components are installed to the default locations listed in the following table.

Component	Default Location	
Application Server Server Side	C:\Inetpub\wwwroot\AppServer\ The path should point to the root of the Application Server virtual directory. Selecting the Application Server component does not install the OnBase Application Server itself; rather, it installs the server-side Epic integration files.	
Signature Deficiencies Server Side	<application location="" server=""> This location is dependent on the Application Server path and cannot be changed. To change the Application Server path, select the Application Server component and click Browse.</application>	
Scan Acquisition Server Client Side	<pre><destination folder="">\Integration for Epic\<v85>\SAS\ This location is the same whether the component is selected for use with Epic Hyperspace or Epic Hyperdrive.</v85></destination></pre>	
	Note: The Scan Acquisition Server and Epic Front Office Scanning integration cannot be installed together on the same machine.	
Front Office Scanning Client Side	<destination folder="">\Front Office Scanning\ This location is the same whether the component is selected for use with Epic Hyperspace or Epic Hyperdrive.</destination>	
	Note: The Scan Acquisition Server and Epic Front Office Scanning integration cannot be installed together on the same machine.	
Healthcare Web Viewer Client Side	<destination folder="">\Integration for Epic\Web Viewer\ This location is dependent on the destination folder path and cannot be changed from the Custom Setup dialog. To change the destination folder path, click Back, and then click Change.</destination>	
EpicCare Link Client Side	<destination folder="">\Integration for Epic\Web\ This location is dependent on the destination folder path and cannot be changed from the Custom Setup dialog. To change the destination folder path, click Back, and then click Change.</destination>	
Signature Deficiencies Client Side	<destination folder="">\Integration for Epic\SD4E\ This location is dependent on the destination folder path and cannot be changed from the Custom Setup dialog. To change the destination folder path, click Back, and then click Change.</destination>	

- 9. To finish the installation, proceed to one of the following topics:
 - Scan Acquisition Server Installation Options on page 143
 - Front Office Scanning Installation Options on page 145

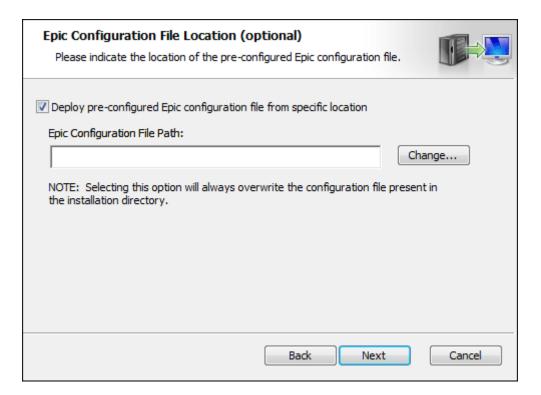
- EpicCare Link Installation Options on page 147
- EpicCare Link Installation Options on page 147
- Signature Deficiencies Installation Options on page 149

Scan Acquisition Server Installation Options

If you selected the **Scan Acquisition Server** component in the **Custom Setup** dialog, the installer prompts you for the location of the EpicIntegrations.config configuration file.

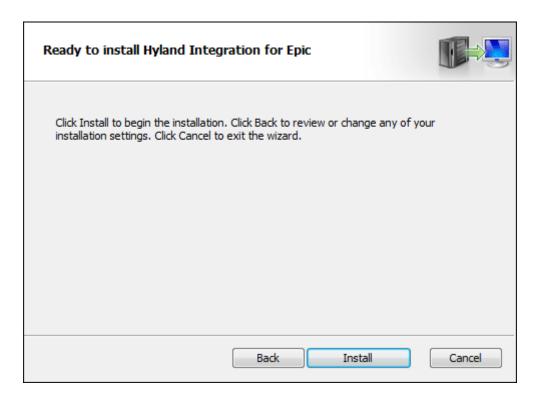
To provide a configuration file:

- 1. Click **Next** from the **Custom Setup** dialog. The next screen prompts you for the location of a pre-configured EpicIntegrations.config file.
- 2. To use a pre-configured file, select **Deploy pre-configured Epic configuration file from specific location**. Otherwise, skip to step 5.



- 3. Click **Change** to navigate to the configuration file.
- 4. Navigate to the EpicIntegrations.config file to be deployed by the installer.

5. Click Next. The Ready to install Hyland Integration for Epic dialog is displayed.



- 6. Do one of the following:
 - · Click Install to install the selected components.
 - Click Back to return to the previous dialog to change installation options.
 - Click Cancel to close the installer without installing any of the selected components.
- 7. When the **Completed the Hyland Integration for Epic Setup Wizard** dialog is displayed, click **Finish** to complete the installation.

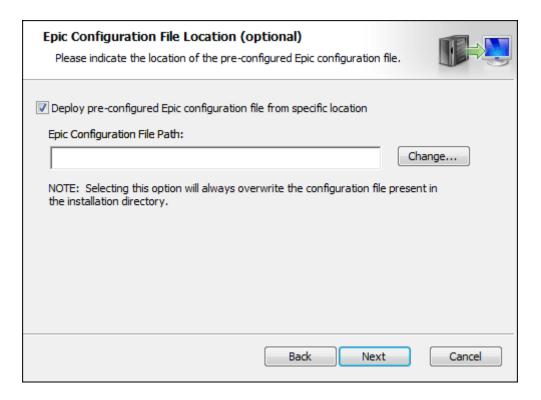
Note: To ensure the required system settings take effect, it is a best practice to restart the installing machine once the installer has finished.

Front Office Scanning Installation Options

If you selected the **Front Office Scanning** component in the **Custom Setup** dialog, the installer prompts you for the location of the configuration files.

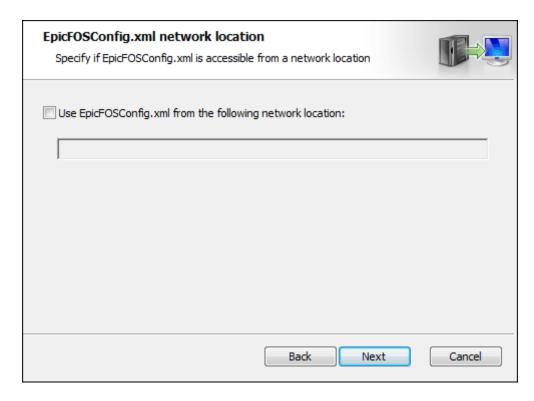
To provide the locations of configuration files:

- 1. Click Next from the Custom Setup dialog.
- 2. To use a pre-configured file, select **Deploy pre-configured Epic configuration file from specific location**. Otherwise, skip to step 5.



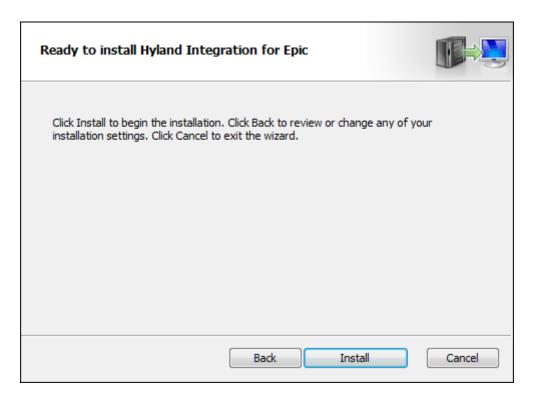
- 3. Click **Change** to navigate to the configuration file.
- 4. Navigate to the EpicIntegrations.config file to be deployed by the installer.

5. Click **Next**. The next screen prompts you for the location of the EPICFOSCONFIG.xml file.



- 6. If Front Office Scanning should use an EPICFOSCONFIG.xml file shared on the network, select **Use EpicFOSConfig.xml from the following network location**.
 - If this setting is selected, Front Office Scanning will obtain its configuration from a shared file in a specific location. The installer will not create an EPICFOSCONFIG.xml file in the client installation folder.
 - If this setting is not selected, installer will create an EPICFOSCONFIG.xml file in the Front Office Scanning client installation folder. The file will be populated with default settings.
- 7. If you selected **Use EpicFOSConfig.xml from the following network location**, enter the full path, including file name, to the shared EPICFOSCONFIG.xml file. This can be a local or UNC path.
 - This path will become the value for the **EpicConfigFile** string value in the Windows registry.

8. Click Next. The Ready to install Hyland Integration for Epic dialog is displayed.



- 9. Do one of the following:
 - Click Install to install the selected components.
 - Click Back to return to the previous dialog to change installation options.
 - Click Cancel to close the installer without installing any of the selected components.
- 10. When the **Completed the Hyland Integration for Epic Setup Wizard** dialog is displayed, click **Finish** to complete the installation.

Note: To ensure the required system settings take effect, it is a best practice to restart the installing machine once the installer has finished.

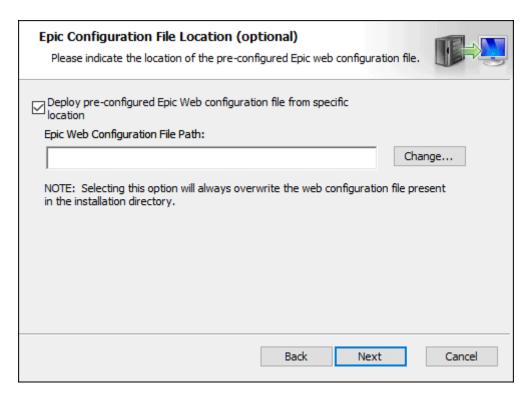
EpicCare Link Installation Options

If you selected the **EpicCare Link** component in the **Custom Setup** dialog, the installer prompts you for EpicCare Link configuration information.

To configure EpicCare Link settings:

- 1. Click **Next** from the **Custom Setup** dialog.
- 2. Click **OK** if the compatibility warning is displayed.

3. To use a pre-configured file, select **Deploy pre-configured Epic Web configuration file from specific location**. Otherwise, skip to step 6.



- 4. Click **Change** to navigate to the configuration file.
- 5. Navigate to the OnBaseEpicWeb.config file to be deployed by the installer.
- 6. Click Next. The Ready to install Hyland Integration for Epic dialog is displayed.
- 7. Do one of the following:
 - · Click Install to install the selected components.
 - Click Back to return to the previous dialog to change configuration options.
 - Click Cancel to close the installer without installing any of the selected components.
- 8. When the **Completed the Hyland Integration for Epic Setup Wizard** dialog is displayed, click **Finish** to complete the installation.

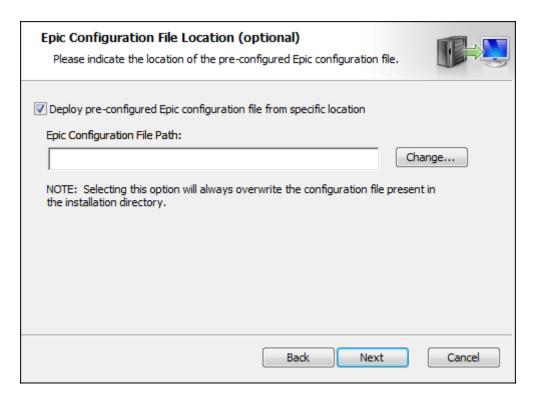
Note: To ensure the required system settings take effect, it is a best practice to restart the installing machine once the installer has finished.

Signature Deficiencies Installation Options

If you selected the **Signature Deficiencies** component in the **Custom Setup** dialog, the installer prompts you for the location of the EpicIntegrations.config configuration file.

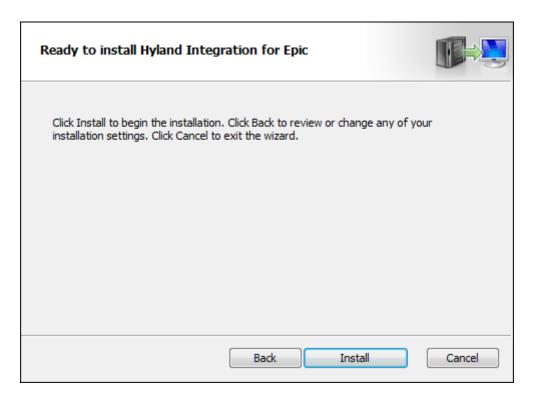
To provide a configuration file:

- 1. Click Next from the Custom Setup dialog.
- 2. To use a pre-configured file, select **Deploy pre-configured Epic configuration file from specific location**. Otherwise, skip to step 5.



- 3. Click **Change** to navigate to the configuration file.
- 4. Navigate to the EpicIntegrations.config file to be deployed by the installer.

5. Click Next. The Ready to install Hyland Integration for Epic dialog is displayed.



- 6. Do one of the following:
 - · Click Install to install the selected components.
 - Click Back to return to the previous dialog to change installation options.
 - Click Cancel to close the installer without installing any of the selected components.
- 7. When the **Completed the Hyland Integration for Epic Setup Wizard** dialog is displayed, click **Finish** to complete the installation.

Note: To ensure the required system settings take effect, it is a best practice to restart the installing machine once the installer has finished.

Change, Repair, or Remove an Installation

After initial installation, the setup program can be used to change, repair, or remove components from a previous installation. After launching **setup.exe** or the *.msi installation package, and clicking **Next** at the welcome dialog, the **Change, repair, or remove installation** dialog box is displayed.

Select the option for the actions you wish to perform:

Option	Description		
Change	Add or remove components using the Custom Setup dialog.		
	Note: This option is not available if the installer has no independently selectable features.		
	The steps for adding selected components are the same as those under the Component Selection section of the installation instructions, if applicable to the installer.		
	Note: Change does not allow you to alter configuration options originally set during a previous installation of components contained in the installer.		
Repair	Repair errors in the most recent installation of the component, such as missing and corrupt files, shortcuts, and registry entries.		
	Note: This option is not available from all installers. Repair does not include errors made in the configuration options set by the user during installation. For specific troubleshooting information regarding an installed component, see the module reference guide for that component.		
Remove	Removes all previously installed components.		

Installing Epic Integrations from the Command Line

The following topics describe how to install the Hyland Integration for Epic components from a command line. For general information about command line installations and options, including options for running the installer silently, see the following documentation from Microsoft: http://msdn.microsoft.com/en-us/library/aa367988.aspx

- Applying Component Installation Options on page 152
- Features & Properties Reference for Command Line Installations on page 153

Applying Component Installation Options

The following sections describe how to customize component installation from the command line using feature and property names.

- Features define which components are installed.
- Properties define installation settings for the respective components.

Adding Features

For command line installations, use the **ADDLOCAL** property to specify which components are installed.

- To install a component, pass its feature name to the installer using the ADDLOCAL property. See Features & Properties Reference for Command Line Installations on page 153.
- Append the ADDLOCAL property (with component feature names) to the end of the install command line. The following example would install the Healthcare Web Viewer and the Scan Acquisition Server for Epic August 2018 and later (version 85) to their default directories.

msiexec /i "Hyland Integration for Epic.msi" ADDLOCAL=EpicWebViewer,Epic85SAS /
quiet

Note: Feature names are case sensitive.

Note: If you install the server-side Signature Deficiencies for Epic component, the required Application Server component is installed automatically. You do not need to pass in the Application Server's feature name on the command line.

Configuring Properties

When installing a component from the command line, you can apply properties to specify the component's installation settings.

For example, to change where component files are installed, apply the component's directory property. For the server-side Signature Deficiencies for Epic files, the directory property is **APPLICATIONSERVER_FILES**:

msiexec /i "Hyland Integration for Epic.msi" ADDLOCAL=SignatureDeficienciesServer
APPLICATIONSERVER_FILES="C:\inetpub\wwwroot\DMSAppServer\" /quiet

For a complete list of properties for each component, see the Features & Properties Reference for Command Line Installations on page 153.

Features & Properties Reference for Command Line Installations

The following topics describe the features and properties you can use to install the Epic integrations from a command line. Before you begin, be sure to read the important notes in the following topic.

Important Notes

- Feature names are case sensitive; they must be added to the command line exactly as they appear in these tables.
- To set a component's installation location, use the directory property to enter the full path to the installation directory. If you omit the directory property for a component, the component is installed to the default location listed in this table.
- The associated properties listed under Configuration Properties for Command Line Installations on page 155 may have to be included on the command line in order to configure the installed component.

Server-Side Integrations

The following table provides the feature name and directory property for each server-side component. The directory property specifies where a component is installed. If the directory property is omitted from the command, the component is installed to its default location.

Component	Epic Version	Feature Name	Directory Property	Default Location
Application	All supported	EpicAppServer	APPLICATIONSERVER_FILES	C:\Inetpub\wwwroot\AppServer\
Server	versions			Note: If you specify a location, the directory must be set to the root of the OnBase Application Server.
Signature Deficiencies	All supported versions	SignatureDeficienciesServer	APPLICATIONSERVER_FILES	C:\Inetpub\wwwroot\AppServer\ Note: If you specify a location, the directory must be set to the root of the OnBase Application Server.

Client-Side Integrations

The following table provides the feature name and directory property for each client-side component. The directory property specifies where a component is installed. If the directory property is omitted, the component is installed to its default location.

Component	Epic Version	Feature Name	Directory Property	Default Location (on 64-bit systems) ^a
Healthcare Web Viewer	August 2018+	EpicWebViewer	EPIC_VIEWER_FILES	C:\Program Files (x86)\Hyland\Integration for Epic\Web Viewer\
Scan Acquisition Server	August 2018+	Epic85SAS	EPIC85_SAS_FILES	C:\Program Files (x86)\Hyland\Integration for Epic\v85\SAS\
Front Office Scanning	August 2018+	Epic85FOS	FRONTOFFICESCANNING_FILES	C:\Program Files (x86)\Hyland\Front Office Scanning\
EpicCare Link	All supported versions	EpicWeb	EPIC_WEB_FILES	C:\Program Files (x86)\Hyland\Integration for Epic\Web\
Signature Deficiencies	All supported versions	SignatureDeficienciesClient	EPIC_SIGNATURE_DEFICIENCIES	C:\Program Files (x86)\Hyland\Integration for Epic\SD4E\

a. On 32-bit systems, component files are installed to folders in the **Program Files** directory rather than the **Program Files** (x86) directory.

Configuration Properties for Command Line Installations

The following topics outline additional configuration properties you can apply to command line installations.

To make a property empty, set its value to an empty string on the command line. For example, set **EPIC_OVERWRITECONFIGFILE** to **1** to install the specified EpicIntegrations.config file. To prevent EpicIntegrations.config from being installed, enter the following on the command line to make the property empty: **EPIC_OVERWRITECONFIGFILE=""**

Note: If you omit a property when upgrading or reinstalling a component, the installer will apply the property value used the last time the component was installed on the current workstation or server.

Scan Acquisition Server Properties

The following table outlines configuration properties available for command line installations of the Scan Acquisition Server.

Property ID	Description
EPIC_OVERWRITECONFIGFILE	Indicates whether the file specified in the EPIC_CONFIG_SOURCE_PATH directory will be copied to the component's installation directory. Set this property's value to 1 to allow the specified configuration file to be copied to the installation directories. Otherwise, leave the property empty.
EPIC_CONFIG_SOURCE_PATH	Specifies the full path to a pre-configured EpicIntegrations.config file. When this property is specified and EPIC_OVERWRITECONFIGFILE is set to 1 , the specified configuration file is copied to the installation directory.

Front Office Scanning Properties

The following table outlines configuration properties available for command line installations of the Front Office Scanning integration.

Property ID	Description
EPIC_OVERWRITECONFIGFILE	Indicates whether the file specified in the EPIC_CONFIG_SOURCE_PATH directory will be copied to the component's installation directory.
	Set this property's value to 1 to allow the specified configuration file to be copied to the installation directories. Otherwise, leave the property empty.
EPIC_CONFIG_SOURCE_PATH	Specifies the full path to a pre-configured EpicIntegrations.config file. When this property is specified and EPIC_OVERWRITECONFIGFILE is set to 1 , the specified configuration file is copied to the installation directory.
EPIC_FOS_CONFIG_NETWORK_STORE_OPTION	Indicates whether the EPIC_FOS_CONFIG_NETWORK_LOCATION path will be set as the EpicConfigFile value in the Windows registry.
	Set this property's value to 1 to use the specified path as the EpicConfigFile registry value. Otherwise, leave the property empty.
EPIC_FOS_CONFIG_NETWORK_LOCATION	Specifies the full path to a shared EPICFOSCONFIG.xml file. When this property is specified and EPIC_FOS_CONFIG_NETWORK_STORE_OPTION is set to 1, the installer creates a string value named EpicConfigFile in the following registry location:
	HKLM\SOFTWARE\Hyland\Front Office Scanning ^a
	The specified network location becomes the value for the EpicConfigFile registry key.
	Set this property to the network location where EpicFOSConfig.xml is accessible. Otherwise, leave the property empty.

Property ID	Description
FOS_LOCAL_DATASET_PATH	Specifies the local path where the dataset XML files for Front Office Scanning are located. The specified path is created on the installation machine. This value is also written to the <sharepath></sharepath> element in EPICFOSCONFIG.xml. For example: FOS_LOCAL_DATASET_PATH="C:\EPICFOS\Datasets"
	Note: This value must be a path local to the installation machine in order for the installer to create it. Network (UNC) paths must be created by a network administrator.
	If no value is entered, the value is not valid, or the property is not included at all, then no path is created and EPICFOSCONFIG.xml is not updated.

a. Assuming Registry Editor is opened using C:\Windows\SysWow64\regedt32.exe on a 64-bit system. If you open Registry Editor using C:\Windows\system32\regedt32.exe on a 64-bit system, then the registry location is HKLM\SOFTWARE\Wow6432Node\Hyland\Front Office Scanning.

EpicCare Link Integration Properties

The following table outlines configuration properties available for command line installations of the EpicCare Link integration.

Property ID	Description
EPIC_OVERWRITE_WEBCONFIG_FILE	Indicates whether the file specified in the EPIC_WEBCONFIG_SOURCE_PATH directory will be copied to the component's installation directory.
	Set this property's value to 1 to allow the specified configuration file to be copied to the installation directories. Otherwise, leave the property empty.
EPIC_WEBCONFIG_SOURCE_PATH	Specifies the full path to a pre-configured OnBaseEpicWeb.config file. When this property is specified and EPIC_OVERWRITE_WEBCONFIG_FILE is set to 1, the specified configuration file is copied to the installation directory.

Pre-Installation

Before installing the Scan Acquisition Server, ensure the Citrix server is in Multi-User Install mode. It is a best practice for the Citrix server to be in Multi-User Install mode when you perform the following procedures:

- · Installing the Scan Acquisition Server
- · Registering controls and DLLs
- · Creating or modifying registry keys

Installing Integration for Epic on a Citrix server includes the same client-side installation steps that are performed when you install Integration for Epic on a client workstation.

Tip: Look for Citrix installation tips in the Scan Acquisition Server installation procedure.

OnBase Viewer

If users will be using Integration for Epic to view OnBase documents from the Epic application, you must install the OnBase Viewer on the Citrix server.

Before publishing the application, configure the ActiveX viewer options while the Citrix server is in Multi-User Install mode. Option settings are saved to the registry of the Citrix server, and they will be the default settings for each new user.

See Installing the OnBase Viewer on page 45.

Integrated Scanning

Citrix Presentation Server (version 4.0 and greater) supports the ability to scan documents into the Scan Acquisition Server using a USB scanner local to the client workstation using TWAIN redirection.

Before you begin, read the following topics:

- Limitations on page 159
- Epic Scanning Best Practices for Citrix Deployments on page 160

To install the Scan Acquisition Server, see Installing the Scan Acquisition Server on page 68.

Limitations

This functionality is available for TWAIN drivers only. ISIS and Kofax scanning functionality is not supported. This means that bar code scanning and other Kofax features such as scan from disk are not available. Contact your Citrix Administrator for more information.

When using TWAIN redirection in Citrix Presentation Server 4.0, some dialog boxes may not close as expected. Contact your Citrix Administrator for more information about the limitations of Citrix Presentation Server 4.0.

EPIC SCANNING BEST PRACTICES FOR CITRIX DEPLOYMENTS

Overview

The following best practice recommendations were assembled by a team of OnBase subject matter experts. They represent the accumulation of years of experience installing and configuring OnBase solutions.

The following recommendations are general in nature, and are applicable to most OnBase solutions and network environments. Depending on your solution design and your organization's needs, not all of the best practice recommendations listed below may apply to, or be recommended for, your OnBase solution.

Carefully consider the impact of making any changes, including those listed below, to your OnBase solution prior to implementing them in a production environment.

See the following topics:

- Scan Acquisition Server Setup for Citrix on page 160
- Front Office Scanning Setup for Citrix on page 163

Scan Acquisition Server Setup for Citrix

When configuring a Citrix deployment, you must ensure that the scanning environment allows users to access both the global scan formats and the directory where images are temporarily stored before archival to OnBase.

The following topics describe how to address these requirements in a manner that both prevents scanning conflicts and eliminates the need to change software configurations when upgrading or replacing scanning hardware.

- Scan Acquisition Server Setup for Citrix on page 160
- Configuring Scan Formats on page 162
- Configuring the Citrix Server on page 163

Configuring Scan Acquisition Server Settings

The following steps describe best practices for configuring Scan Acquisition Server settings in a Citrix environment.

- 1. Open the EpicIntegrations.config file from the directory containing the Scan Acquisition Server files.
- 2. Under **<Diskgroup>**, configure the **Path** setting using one of the following formats:

Option	Format
Home Directory	<pre><drive letter="">:\<folder path=""> For example, enter U:\SAS, where U:\ is mapped to the user's home directory.</folder></drive></pre>
Local Disk	<pre><drive letter="">:\<folder path="">\%username% For example, enter C:\SAS\%username%, where C:\ is the Citrix server's local disk drive.</folder></drive></pre>
Network Share	<pre><network share="">\%username% For example, enter \\server\SAS\%username%.</network></pre>

Note: The **Path** is the location where scan formats and temporary files are stored during scanning. The **Path** location must be unique to each scanning user. Using the **%username%** variable is recommended to ensure the path is unique.

- 3. Determine whether one set or multiple sets of scan formats will be used.
 - If only one set of scan formats will be used for all users, specify the network share for storing scan formats in the ConfigPath setting, which is also located under <Diskgroup>.
 - The **ConfigPath** can include the **%username**% variable to represent the Windows user name of the current user (for example, \\server\SAS\\%username\%). This configuration may be necessary for solutions where a single set of scan formats is being distributed to user-specific locations.
 - If multiple sets of scan formats will be used to accommodate different locations or scanner types, then do not specify a ConfigPath value. When no ConfigPath is specified, the Scan Acquisition Server will check the configured Path for scan formats.

This configuration requires a Citrix logon script to copy the scan formats from a network share to each user's **Path** directory, as described under Configuring the Citrix Server on page 163.

Note: If a **ConfigPath** location is provided, the Scan Acquisition Server disables the options to add, modify, and delete scan formats. To lock down access to global scan formats, also ensure users do not have **Modify** or **Write** permissions to the network share.

- 4. Under <Scan>, set the LowTwainMode setting to 1.
 - Low TWAIN mode addresses a number of TWAIN scanning issues both within and outside of Citrix, particularly those that deal with scanner settings.
- 5. Save EpicIntegrations.config.
- 6. Open the Registry Editor.
 - On a 32-bit system, open the regedt32.exe from C:\Windows\system32.
 - On a 64-bit system, open the regedt32.exe from C:\Windows\SysWow64.

Caution: Modify the registry at your own risk. Incorrectly editing the Windows registry can cause serious problems that may require you to reinstall your operating system. Be sure to back up the registry before making any changes to it. For more registry information, see the following Microsoft articles: http://support.microsoft.com/kb/256986 and http://technet.microsoft.com/en-us/library/cc725612.aspx

7. Set the Scanner string value to Generic Scanner in the following subkey: HKEY_LOCAL_MACHINE\SOFTWARE\ACEpicScanControl\Twain.

Generic Scanner allows the Scan Acquisition Server to use existing scan format configuration files for any compatible TWAIN driver, so new scan formats won't need to be configured for each model of scanner.

Note: Before being used in production, all scanners and scan drivers should be tested to ensure that they can use the available scan format configuration files (configured in the next procedure). Incompatible scanners and drivers cannot use the scanner settings specified in the scan format configuration files.

8. Remove the write permission to the **TWAIN** registry subkey for scanner users. This step ensures that the **Scanner** string value you configured in the previous step will not be overridden when users establish Citrix connections with different scanners.

Configuring Scan Formats

The following steps are best practices for preparing global scan formats for deployment to users as they connect to a Citrix server.

- Configure global scan formats using the Scan Acquisition Server. Depending on the type
 of scan formats configured, the following files are available in the configured Path or, if
 specified, the ConfigPath:
 - obrstwain.dat
 - tw-rs10[1-x].ini
 - obrssweep.dat
- 2. Create a network share to store the scan format files. This share must be a location that the Citrix servers can access.
- Copy the scan format files to the network share. You can now configure your servers to copy these files to users' temporary file paths as users log on. See the following topic, Configuring the Citrix Server on page 163.

Configuring the Citrix Server

If the Scan Acquisition Server is configured to read scan formats from the specified **Path**, complete the following procedure. These steps provide an overview of how to ensure new and updated scan formats are copied to users' temporary file paths.

- 1. If you specified users' home directories in the **Path** configuration setting, ensure users' home directories are mapped in their user profiles.
- 2. Create a BAT or VBS logon script to copy new and updated global scan formats from the network share to users' temporary file paths.
- 3. Assign the script to users' profiles using Computer Management (Users | Properties | Profile | User profile | Logon script). For more information about assigning logon scripts, see your server's help files.

Note: If the Scan Acquisition Server is configured to read scan formats from the configured **ConfigPath** location instead of the **Path** location, ensure that the **ConfigPath** location refers to the network location where you copied the global scan formats.

Front Office Scanning Setup for Citrix

If Front Office Scanning is integrated with Epic in a Citrix environment, you must specify a temporary storage directory that will be unique for each user. Complete the following steps:

- 1. Open the EPICFOSCONFIG.xml file.
- 2. Under the **ScanOptions** element, add the following:

<TempPath></TempPath>

3. Between the **TempPath** tags, enter the temporary storage directory using one of the following formats:

Option	Format
Home Directory	<pre><drive letter="">:\<folder path=""> For example, enter U:\FOS, where U:\ is mapped to the user's home directory.</folder></drive></pre>
Local Disk	<pre><drive letter="">:\<folder path="">\%username% For example, enter C:\FOS\%username%, where C:\ is the Citrix server's local disk drive.</folder></drive></pre>
Network Share	<pre><network share="">\%username% For example, enter \\server\FOS\%username%.</network></pre>

Note: The **TempPath** is the location where scanned files are stored before they are uploaded to OnBase. The **TempPath** location must be unique to each scanning user. Using the **%username%** variable is recommended to ensure the path is unique.

EPICINTEGRATIONS.CONFIG SETTINGS

Available EpicIntegrations.config settings are described in the following sections.

- For information about Epic environment ID configuration settings, see OBEpicViewer on page 165.
- For information about Scan Acquisition Server configuration settings, see OBEpicScanControl on page 166.
- For information about Signature Deficiencies for Epic settings, see the Signature Deficiencies for Epic module reference guide.

For information about adding settings to the EpicIntegrations.config file, see Adding EpicIntegrations.config Settings on page 15.

OBEpicViewer

The EpicIntegrations.config file contains the following Epic environment ID settings:

<servers> Settings on page 165

<servers> Settings

Configure the **<servers>** settings to map Epic environment IDs to different OnBase Application Servers or Web Servers.

<server>

For each environment ID you want to map, create a **<server>** element. Each **<server>** element contains the following settings:

- environmentID on page 165
- url on page 165
- datasource on page 166

environmentID

This value specifies the Epic environment ID you want to map. For example:

<environmentID>PRD</environmentID>

url

This value specifies the path to the Application Server the viewer should use for the specified **environmentID**. For example:

<url>https://ServerName/AppServer</url>

datasource

Add this setting only if the scanning integration (Scan Acquisition Server or Front Office Scanning) is being used.

Enter the name of the data source the scanning integration should use for the specified environmentID. (This data source must be configured on the specified Application Server.) For example:

<datasource>dmdatasource</datasource>

OBEpicScanControl

The following topics describe optional Scan Acquisition Server settings in the EpicIntegrations.config file.

- <Init> Settings on page 166
- <Debug> Settings on page 174
- <Diskgroup> Settings on page 175
- Scan> Settings on page 178
- <Mapping> Settings on page 180

Note: Do not add XML comments to the EpicIntegrations.config file for the Scan Acquisition Server or Front Office Scanning integration. Comments interfere with the ability of these applications to read configuration settings.

Tip: Many of these settings are optional. To configure required settings, look for the word **(Required)** in the topic headings.

<Init> Settings

The following topics describe the settings located under <Init> in the <OBEpicScanControl> element.

- AutoCameralmport on page 168
- AutoSaveRotation on page 168
- DescriptionKeytype on page 168
- DisableCameraSupport on page 169
- DisableDocDescription on page 169
- DisableSweep on page 169
- DisableTwainSource on page 169
- DisableWIA on page 170
- EnableDocDate on page 170
- GeneralHKCU on page 170
- HttpTimeout on page 171

- MaxDescriptions on page 171
- OverridePort on page 171
- OverrideSharedFormats on page 172
- PreventEpicLinks on page 172
- PreventLinkTypes on page 172
- PrinterSinkIntegration on page 173
- ScanHKCU on page 173
- ServiceDatasource on page 173
- ServiceURL (Required) on page 174
- ShutdownDesktop on page 174
- SkipWorkflow on page 174
- · UseServices on page 174

AllowLinkTypes

This setting allows you to limit the Document Types for which Epic should be notified of new documents.

When one or more Document Types are specified for the **AllowLinkTypes** setting, the Scan Acquisition Server or Front Office Scanning integration will send Epic only information about documents scanned into the specified Document Types.

Specify the Document Types using the following format:

<AllowLinkTypes>DocType 1,DocType 2,DocType 3</AllowLinkTypes>

In this example, the Scan Acquisition Server or Front Office Scanning integration will send Epic only information about documents scanned into Document Types named **DocType 1**, **DocType 2**, or **DocType 3**. They will not send Epic information about documents scanned into any other Document Type.

Note: The **AllowLinkTypes** setting is an alternative to the **PreventLinkTypes** setting. There is no need to configure both settings. However, if a Document Type is specified for both **AllowLinkTypes** and **PreventLinkTypes**, the **AllowLinkTypes** setting takes precedence.

For information about alternative link-related settings, see the following topics:

- PreventEpicLinks on page 172
- PreventLinkTypes on page 172

AutoCameralmport

This setting controls whether the user is prompted to import pictures from a camera device that is connected while the Scan Acquisition Server is running.

Set one of the following values:

- Set to 0 if the user should not be automatically prompted to import pictures when a camera device is connected.
- Set to 1 if the user should be automatically prompted to import pictures when a camera device is connected.

This setting works independently of the **DisableCameraSupport** setting. **AutoCameraImport** can be enabled while the **Digital Camera** button is disabled.

AutoSaveRotation

This value allows the Scan Acquisition Server to automatically save rotations users make to images during indexing.

- Set to 0 to require indexers to choose the Save Rotation right-click option to save rotations.
- Set to 1 to automatically save rotations made during indexing. The **Save Rotation** right-click option is disabled.

DescriptionKeytype

This setting maps a specified OnBase Keyword Type to the user-provided **Document Description** value.

For example, the following would map the **Document Description** value to the **Description** Keyword Type in OnBase:

<DescriptionKeytype><![CDATA[Description]]></DescriptionKeytype>

Note: The <![CDATA[]]> tag is required if the Keyword Type name contains a >, <, or & character.

If the document's OnBase Document Type is not associated with the specified Keyword Type, then the document in OnBase will not be indexed with the provided **Document Description** value.

If the **DescriptionKeytype** configuration setting is missing or blank, then the Scan Acquisition Server still allows Epic to associate the **Document Description** value with the document, but the document will not be indexed with the value in OnBase.

DisableCameraSupport

This value controls whether users can click the **Digital Camera** button to import pictures from a connected camera device.

- Set to **0** if the **Digital Camera** button should be enabled when a camera device is connected and hidden when no device is connected.
- Set to 1 if the **Digital Camera** button should be always hidden.

This setting works independently of the **AutoCameralmport** setting. **AutoCameralmport** can be enabled while the **Digital Camera** button is disabled.

DisableDocDescription

This setting controls whether the **Document Description** field is available in the Scan Acquisition Server.

- Set to **0** if the **Document Description** field should remain available.
- Set to 1 if the **Document Description** field should be hidden.

DisableSweep

This setting controls whether users can sweep files using the Scan Acquisition Server. Sweeping is a method for importing documents directly from a directory, and it is enabled by default.

Tip: Disable sweeping to increase security in Citrix environments, where sweeping would allow users to browse to and sweep files from any location that the Citrix server has access to.

- Set to 0 to allow users to sweep files using the Scan Acquisition Server.
- Set to 1 to disable users' ability to sweep files.

DisableTwainSource

This setting controls whether users can change the scan source on TWAIN scan formats. If users attempt to change the scan source after scanning a set of documents, the **Select Source** dialog box is displayed behind the Scan Acquisition Server window, making the application appear unresponsive.

Set one of the following values:

- Set to 0 to let users change the TWAIN scan source after scanning, but the Select Source dialog box will be displayed behind the Scan Acquisition Server window.
- Set to 1 to let users select a scan source only if one has not previously been specified for the selected TWAIN scan format. If a scan source has been specified, the Scan Acquisition Server will use that scan source, and the button for changing the scan source will be unavailable.

DisableWIA

This setting controls whether the Scan Acquisition Server communicates with the Windows Image Acquisition (WIA) platform. In some environments, communication with the WIA platform may adversely affect the performance of the Scan Acquisition Server.

Set one of the following values:

- Set to 0 to allow the Scan Acquisition Server to communicate with the WIA platform.
 This is the default behavior.
- Set to 1 to prevent the Scan Acquisition Server from communicating with the WIA platform.

Note: The Scan Acquisition Server must be allowed to communicate with the WIA layer in order to import images directly from a digital camera. Do not activate this setting if the Scan Acquisition Server needs to acquire images from a digital camera.

EnableDocDate

By default, OnBase uses the date of archival as the Document Date on scanned documents. The **EnableDocDate** setting controls whether Scan Acquisition Server users can change the Document Date on documents they are indexing.

- Set to **0** if users should not be able to set the Document Date on documents imported through the Scan Acquisition Server. The Document Date will be the date the documents were archived to OnBase.
- Set to 1 to allow users to change the Document Date on documents imported through the Scan Acquisition Server. When EnableDocDate is set to 1, the Scan Acquisition Server displays a Document Date field, allowing users to change the date for each document they index.

Note: For the Front Office Scanning integration, you can hide the **Document Date** field by removing the **advanced** value from the **Display interface** attribute. When this attribute is blank, Front Office Scanning users cannot modify the Document Date. See the **Front Office Scanning** module reference guide for more information.

GeneralHKCU

This setting specifies whether general registry settings (i.e., thumbnail settings) should be read from the HKEY_CURRENT_USER hive or the HKEY_LOCAL_MACHINE hive.

- Set to 0 if you want general settings to be stored and read from HKEY_LOCAL_MACHINE. This is the default setting.
- Set it to 1 if you want general settings to be stored and read from HKEY_CURRENT_USER.

For more information, see Choosing Where Registry Settings Are Stored on page 69.

HttpTimeout

This setting controls the HTTP timeout value for requests from the Scan Acquisition Server. Enter the desired timeout value (30–600) in seconds. By default, the timeout is 120 seconds.

Use this setting to increase the timeout when documents take longer than 120 seconds to be archived. For a scenario where changing the timeout may be helpful, see Hyland Services: caught exception in Execute() call for document archive context on page 32.

MaxDescriptions

This setting controls the number of descriptions retained in the Scan Acquisition Server's **Document Description** drop-down list. By default, 50 descriptions are retained between scan sessions. Descriptions are stored in the descdata.dat file, which by default is located in the **Path** location configured under **<Diskgroup>** in EpicIntegrations.config. The location of this file can be changed using the **DescriptionPath** setting, as described under **DescriptionPath** on page 177.

Type the number of descriptions to retain in the **Document Description** drop-down list. If no values should be retained, enter **0**.

If a user enters more descriptions than the configured maximum, the additional descriptions are retained in the **Document Description** drop-down list for the duration of the user's session. After the user closes the Scan Acquisition Server, the additional descriptions are discarded. The next time the user accesses the Scan Acquisition Server, the drop-down list contains only the configured maximum number of descriptions.

This setting does not affect the **Document Description** drop-down list in the Front Office Scanning client.

OverridePort

This setting specifies the port the Scan Acquisition Server should use to connect to the Application Server, provided that the value does not equal **0**.

Enter the port the Scan Acquisition Server should use. If this setting is missing or set to **0**, then the Scan Acquisition Server uses the port provided in the Application Server URL, if applicable. If no port is specified, then the Scan Acquisition Server uses the default port for HTTP (80) or HTTPS (443), depending on the connection type.

OverrideSharedFormats

This setting is used with the **ConfigPath** setting. This setting controls whether users can add, modify, or delete scan formats using the Scan Acquisition Server when a **ConfigPath** value is specified. If a **ConfigPath** is not specified, this setting has no effect.

If a **ConfigPath** value is specified, the Scan Acquisition Server assumes scan formats are being shared across multiple workstations, and it disables the ability to create, edit, or delete scan formats.

- Set to **0** to prevent the user from modifying shared scan formats stored in the **ConfigPath** using the Scan Acquisition Server.
- Set to 1 to allow the user to modify scan formats stored in the **ConfigPath** using the Scan Acquisition Server.

Caution: Setting this value to **1** allows the user to modify or add new scan formats that will affect all other users accessing the share.

Tip: Deny users **Modify** or **Write** permissions to the location where scan formats are stored for an additional layer of security.

PreventEpicLinks

This setting controls whether the Scan Acquisition Server or Front Office Scanning integration sends information about scanned documents to Epic as soon as indexing is completed. Turn on this setting if imported documents need to undergo additional processing within OnBase before being added to the encounter in Epic. In this case, you can configure OnBase Workflow or a scan queue to send Epic the document information via HL7 when processing is finished.

- Set to **0** if the Scan Acquisition Server should immediately provide Epic with the document linking information when scanning and indexing are completed.
- Set to 1 if the Scan Acquisition Server should not notify Epic of the new documents when scanning and indexing are completed. Document link information will not be sent to Epic, even if the Document Type is specified under the AllowLinkTypes setting.

For information about alternative link-related settings, see the following topics:

- AllowLinkTypes on page 167
- PreventLinkTypes on page 172

PreventLinkTypes

This setting performs the same function as **PreventEpicLinks**, but it applies only to specific Document Types. When one or more Document Types are specified for this setting, the Scan Acquisition Server or Front Office Scanning integration will not send Epic information about documents being scanned into these Document Types. Specify the Document Types using the following format:

<PreventLinkTypes>DocType 1,DocType 2,DocType 3

In this example, the Scan Acquisition Server or Front Office Scanning integration will not send Epic information about documents scanned into Document Types named **DocType 1**, **DocType 2**, or **DocType 3**.

Note: The **PreventLinkTypes** setting is an alternative to the **AllowLinkTypes** setting. There is no need to configure both settings. However, if a Document Type is specified for both **AllowLinkTypes** and **PreventLinkTypes**, the **AllowLinkTypes** setting takes precedence.

For information about alternative link-related settings, see the following topics:

- AllowLinkTypes on page 167
- PreventEpicLinks on page 172

PrinterSinkIntegration

This setting controls whether the Scan Acquisition Server can receive images that are printed to the OnBase Virtual Print Driver. The Virtual Print Driver integration removes the need to print documents before scanning them. To use this feature, ensure the following prerequisites are met:

The OnBase Virtual Print Driver must be installed on the workstations where users will be printing documents that need to be archived. For installation information, see the Virtual Print Driver reference guide.

The Scan Acquisition Server must be set up to receive images from the Virtual Print Driver, as described below.

- Set to **0** if the Scan Acquisition Server should ignore documents printed to the Virtual Print Driver
- Set to 1 if the Scan Acquisition Server should receive images from the Virtual Print Driver.

ScanHKCU

This setting specifies whether scan registry settings should be read from the HKEY_CURRENT_USER hive or the HKEY_LOCAL_MACHINE hive.

- Set to 0 if you want scan settings to be stored and read from HKEY_LOCAL_MACHINE. This is the default setting.
- Set it to 1 if you want scan settings to be stored and read from HKEY CURRENT USER.

For more information, see Choosing Where Registry Settings Are Stored on page 69.

ServiceDatasource

This setting specifies the default data source configured on the Application Server.

Within the <![CDATA[]]> tag, enter the name of the data source to be used if Epic passes in an environment ID that is blank, invalid, or not mapped to a data source (as described later in this procedure). If the **ServiceDatasource** is blank in this situation, the Scan Acquisition Server uses the data source configured in the Application Server's Web.config file.

<ServiceDatasource><![CDATA[dmdatasource]]></ServiceDatasource>

If a valid environment ID is passed in, then data source mapped to the ID is used.

ServiceURL (Required)

This setting specifies the default Application Server to be used for scanning.

Within the <![CDATA[]]> tag, enter the URL to the default Application Server. For example:

```
<ServiceURL><![CDATA[https://server1/AppServer]]></ServiceURL>
```

If the environment ID that Epic passes to OnBase is blank or invalid, the server specified here is used.

ShutdownDesktop

This setting is present for backward compatibility. It has no effect in OnBase Foundation EP5.

SkipWorkflow

If a document is configured to enter OnBase Workflow, the Scan Acquisition Server normally adds the document to Workflow upon archival. The **SkipWorkflow** setting changes the default behavior by causing the Scan Acquisition Server not to send documents to Workflow.

- Set to **true** if documents configured to enter OnBase Workflow should not be sent to OnBase Workflow upon archival.
- Set to false if documents configured to enter OnBase Workflow should be added to Workflow upon archival. This is the default behavior. If the SkipWorkflow setting is blank or missing, archived documents will be added to Workflow.

UseServices

This setting is present for backward compatibility. It has no effect in OnBase Foundation EP5.

<Debug> Settings

To troubleshoot an issue, configure the following settings under **<Debug>** in the **<OBEpicScanControl>** element.

- ShowInput on page 175
- ShowOutput on page 175
- UseAlIDT on page 175
- WriteLog on page 175

ShowInput

Use this setting for troubleshooting. Controls whether Document Types and Keyword values passed from Epic to the Scan Acquisition Server are displayed.

- · Set to 0 to turn this debug mode off.
- Set to 1to turn this debug mode on. The **Values from Epic** dialog box will be displayed when a scan is initiated.

ShowOutput

Use this setting for troubleshooting. Controls whether the document handle, Document Type ID, page count, and OnBase Keyword values are displayed for every item that is archived by the Scan Acquisition Server.

- Set to 0 to turn this debug mode off.
- Set to 1 to this debug mode on. The Debug Output message box will be displayed after a document is archived.

UseAIIDT

Use this setting to control how the Scan Acquisition Server responds when no valid Document Types are passed from Epic.

- Set to **0** if the **Document Type** drop-down should not display any Document Types.
- Set to 1 if the **Document Type** drop-down should display all Document Types to which the user has privileges.

WriteLog

Use this setting for troubleshooting. It specifies whether detailed messages are written to debuglog.txt, which is stored in the specified **Path** location.

- Set to 0 to turn this debug feature off.
- Set to 1 to turn this debug feature on

<Diskgroup> Settings

Under < Diskgroup>, configure the following settings:

- ConfigPath on page 176
- DeleteFilesTime on page 176
- DescriptionPath on page 177
- Path (Required) on page 177

ConfigPath

This setting allows you to specify a separate directory where scan formats are stored.

- If a **ConfigPath** is not specified, the Scan Acquisition Server reads and stores scan formats in the specified **Path**.
- If a ConfigPath is specified, the ability to add, modify, or delete scan formats using the Scan Acquisition Server is disabled by default. This behavior can be overridden by the OverrideSharedFormats setting. See OverrideSharedFormats on page 172 for more information about this setting.

Note: The **ConfigPath** can include the **%username**% variable to represent the Windows user name of the current user. This configuration may be necessary for solutions where a single set of scan formats is being distributed to user-specific locations.

Within the <![CDATA[]]> tag, enter the full path to the scan formats directory. See the following example:

```
<![CDATA[\\server\SAS\formats]]>
```

If you specify a **ConfigPath**, ensure the scan formats stored there are compatible with the scanners that will access them. Different Scan Acquisition Servers may need to access different **ConfigPath** locations based on scanner types and user roles.

Tip: To lock down users' ability to modify scan formats, deny the users the **Write** or **Modify** permission to the network location where scan formats are stored.

DeleteFilesTime

This setting controls when abandoned files in the temporary file path (**Path** setting) are deleted. By default, the Scan Acquisition Server deletes temporary files automatically when it shuts down, but files may not be removed in the event of a power outage, for example.

When this feature is enabled, the Scan Acquisition Server deletes temporary files that are older than the specified number of minutes upon startup. For example, if this value is **20**, then the Scan Acquisition Server deletes temporary files older than twenty minutes when it starts up.

Caution: Users must not share the same temporary file path (**Path**). If users share the same temporary file path and the **DeleteFilesTime** is set, then a user who starts the Scan Acquisition Server may delete the files another user is working on.

In minutes, enter the minimum age of files the Scan Acquisition Server should delete upon startup.

DescriptionPath

When added to the **<Diskgroup>** node, this setting specifies an alternate location for the descdata.dat file. This file populates the Scan Acquisition Server's **Document Description** dropdown with the values most frequently used for indexing. By default, descdata.dat is stored in the **Path** location, allowing the file to be unique to each user.

To share descdata.dat across users, use the **DescriptionPath** setting to specify a shared location for document descriptions. Workstation users need read and write access to this location.

For example, the following would allow descdata.dat to be stored in C:\SAS\Descriptions:

<DescriptionPath><![CDATA[C:\SAS\Descriptions]]></DescriptionPath>

Path (Required)

This setting specifies the temporary storage directory for scanned images and documents. The directory should be defined in a local temporary location to which the workstation user has read and write access.

• Within the <![CDATA[]]> tag, enter the temporary storage directory for scanned images and documents. For example:

<![CDATA[C:\SAS\%username%]]>

For supported variables, see Path Variables on page 178.

Note: This directory must be unique for each scanning user. If users have unique user names, include the **%username%** variable to ensure the directory is unique for each user.

Note: Do not use the installation files directory as the Path.

Path Variables

The **Path** setting in the **<Diskgroup>** element can contain the following variables:

Variable	Location
%systemdrive%	The drive where the operating system is installed (e.g., C:\).
%systemroot%	The drive and path to the Windows installation (e.g., C:\Windows).
%temp%	The current user's temp folder (e.g., C:\Users\jdoe\Local\Temp).
%username%	The current user name in Windows (e.g., jdoe).
%userprofile%	The current user's profile path (e.g., C:\Users\jdoe).
	Note: If you use the %userprofile% variable, the value must point to another folder within that location, such as %userprofile%\SAS; it cannot be directly mapped to the root of %userprofile%.
%appdata%	The path to the current user's application data folder (e.g., C:\Users\jdoe\AppData\Roaming).

Tip: Use the **%username%** variable to represent the scanning user's user name. When images are scanned, Scan Acquisition Server dynamically replaces the variable with the user name of the currently logged in user. For example, if the path is C:\SAS\%username%, when a user who's logged on to the workstation as JDOE scans images, the images are temporarily stored in C:\SAS\JDOE. This feature is particularly helpful in Citrix deployments.

<Scan> Settings

Under <Scan>, configure the following settings:

- · DriverCompressionOff on page 178
- ForceCloseTwain on page 179
- ForceTwainUI on page 179
- LowTwainMode on page 179
- SweepDisplay on page 179
- TWAINNativeTransfer on page 179

DriverCompressionOff

This setting specifies whether the Scan Acquisition Server asks the scanner to perform hardware compression if the scanner is capable. If the scanner is not capable, the Scan Acquisition Server does not ask for hardware compression.

Note: This setting is ignored if **TWAINNativeTransfer** is set to **1**.

Set this value to 1 if TWAIN scanning is not working correctly in a Citrix environment. Some scanners may not work correctly with TWAIN driver compression over Citrix.

- Set to **0** if the Scan Acquisition Server should request compressed data from the TWAIN driver. This is the default setting.
- Set to **1** if the Scan Acquisition Server should request uncompressed data from the TWAIN driver. Use as a workaround in Citrix environments.

ForceCloseTwain

Use this setting for troubleshooting. See Cannot Close TWAIN Scanning Dialog Box on page 26.

ForceTwainUI

This setting controls whether the TWAIN scanner user interface is displayed or suppressed for each scan operation. This feature is useful when the scanner prohibits saving TWAIN settings configured in the **Scan Format** dialog box.

- Set to **0** if the TWAIN scanner user interface should be suppressed for each scan operation.
- Set to 1 if the TWAIN scanner user interface should be displayed for each scan operation.

LowTwainMode

Use this setting for troubleshooting. See Cannot Close Scanner Settings on page 23 and Cannot Save Scanner Settings on page 24.

SweepDisplay

Use this setting to control whether the Scan Acquisition Server displays images of documents as they are being swept in. You may want to disable the display of images to help conserve memory when users are sweeping high-resolution images from disk.

- Set to 0 if the Scan Acquisition Server should not display images of documents as they are being swept in. Depending on the number and size of documents being swept, the user may experience a delay after clicking the Start Scanning button. When documents are ready for indexing, the first page of the first document will be displayed.
- Set to 1 if the Scan Acquisition Server should display images of the swept documents as they are being swept in. This is the default behavior.

TWAINNativeTransfer

This value controls whether the TWAIN driver passes scanned images to the Scan Acquisition Server using TWAIN Native mode transfer.

- Set to **0** if the TWAIN driver should pass scanned images to the Scan Acquisition Server using Buffered Memory mode transfer. This is the default setting.
- Set to 1 if the TWAIN driver should pass scanned images to the Scan Acquisition Server using Native mode transfer.

<Mapping> Settings

Under <Mapping>, configure the FilePath setting.

FilePath

This setting specifies the path to the keyword mapping file. For information about configuring this file, see Keyword Mapping File (Recommended) on page 224.

Note: It is highly recommended that this path be a shared network path.

Within the <![CDATA[]]> tag, enter the full path to the keyword mapping file. For example:

<FilePath><![CDATA[\\server\SAS\Mappingfile\epickeywords.txt]]></FilePath>

Ensure the specified file is accessible to the Scan Acquisition Server. If a file is specified but the Scan Acquisition Server cannot access it, the user will not be able to use the Scan Acquisition Server.



Integration for Epic

Administration Guide

This chapter provides instructions for configuring the Integration for Epic modules. See the Installation chapter of the **Integration for Epic** reference guide for information about configuring the Application or Web Server to work with Epic.

General Configuration — Describes tasks that must be completed for any Integration for Epic solution, regardless of the components being used.

See General Configuration on page 183.

Web Viewer Component Configuration — Describes how to allow OnBase Web Viewer users to send documents to OnBase Workflow for review and correction; how to extend the correction feature to OnBase DocPop; and how to link documents to physicians' inboxes for acknowledgment.

See Web Viewer Component Configuration on page 197. (For information about the OBEpicWebViewer.dll.config file, see the Installation chapter topic, Modifying the Web Viewer Configuration File on page 58.)

Scan Acquisition Server Component Configuration — Describes how to allow Epic users to archive documents to OnBase from within Epic. Also included are steps to configure the Scan Acquisition Server tool.

See Scan Acquisition Server Component Configuration on page 222. (For information about configuration settings, see the Installation chapter topic, Configuring EpicIntegrations.config for Scanning on page 70.)

Epic Front Office Scanning Integration Configuration — Describes how to allow Epic users to archive documents to OnBase through the Front Office Scanning client.

See Epic Front Office Scanning Integration Configuration on page 233.

General Scanning Integration Configuration — Describes how to allow Epic Hyperdrive users to map Epic metadata values to OnBase Keyword Values on documents imported through the Scan Acquisition Server and Front Office Scanning clients.

See General Scanning Integration Configuration on page 233.

Epic Release of Information Integration Configuration — Describes how to exclude OnBase documents indexed with specific values from released ROI requests.

See Epic Release of Information Integration Configuration on page 240.

EpicCare Link Integration Configuration — Describes how to allow users to archive documents to OnBase from within EpicCare Link, PlanLink, or EpicWeb.

See EpicCare Link Integration Configuration on page 247.

Epic Image Retrieval API Integration Configuration — Describes requirements and limitations for viewing notes on documents retrieved using the Image Retrieval API integration.

See Epic Image Retrieval API Integration Configuration on page 258.

Epic Welcome Integration Configuration — Describes how to configure the Epic Welcome integration to allow documents to be archived into OnBase.

See Epic Welcome Integration Configuration on page 262.

External System Keys Reference — Lists external system parameters that may be configured for the Epic integration in OnBase Configuration.

See External System Keys Reference on page 270.

General Configuration

The following topics describe how to configure settings that apply to all of the OnBase Integration for Epic components. These procedures must be completed for any integration.

- User Group Configuration on page 183
- Authentication Configuration on page 186
- Epic Configuration on page 197

User Group Configuration

The Integration for Epic creates users automatically and logs them on to OnBase seamlessly. Users neither need to be manually created in OnBase, nor do they have to manually log on to OnBase.

The first time an Epic user accesses an OnBase document through Epic, the Epic user account is created in OnBase and automatically added to the **ALL EPIC USERS** User Group (configured in the following procedure). The Epic security model governs which documents users can view within Epic.

If a user requires access to the OnBase Client, then the user's account must be manually added to additional OnBase User Groups with appropriate rights and privileges. If a user needs to log in to a client interactively, then the user's OnBase password must be reset or assigned by an administrator. Passwords do not need to be reset for users who log in to a client using a single sign-on mechanism, such as Active Directory authentication.

To configure the **ALL EPIC USERS** group:

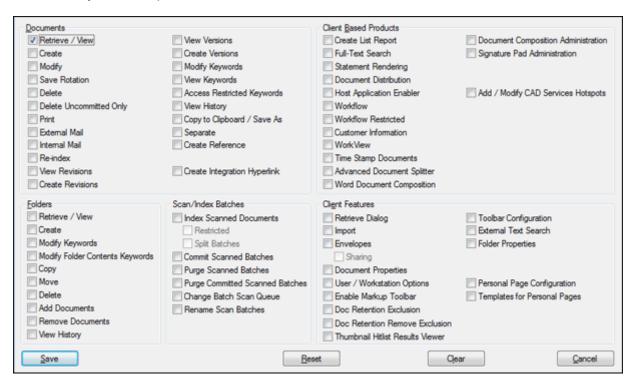
- 1. Create a User Group named **ALL EPIC USERS** in OnBase Configuration.
- 2. Grant the Web Client product right to the ALL EPIC USERS group.

Note: The Web Client product right is not required to use OnBase EpicCare Link integration.

Registered Processing Products		
Client		
✓ Web Client		
COLD Processor		
Check Image Processor		
Document Import Processor		
Scan		
XML Tagged Import		
Publishing		
Exception Reports		
Export		
Print Distribution		
☐ HTML/Unity Forms		
Document Retention		
EDI Processors		
XML Index Document Import Processor		
Med2Web Physician Portal		

- 3. Grant the User Group the appropriate privileges:
 - Grant the Retrieve/View privilege to allow users to view OnBase documents.
 - Grant the Create privilege if your solution includes scanning to OnBase.

 Grant additional privileges as needed, such as the ability to view and modify Keywords or print documents from the OnBase Web Viewer.



Note: The **Send To** options are not available in the OnBase Web Viewer, even if the user has sufficient privileges. These options have been disabled to help maintain the privacy of sensitive patient information.

- 4. The following features are configurable for use within OnBase Integration for Epic. These features can be assigned to the ALL EPIC USERS group. Alternatively, users from ALL EPIC USERS can be selectively added to another user group with the appropriate privileges for these features.
 - Note Types—Configure the Note Types that an Epic user can view, create, modify or delete.
 - Workflow Queues—Configure the Workflow queues and life cycles that can be referenced and executed when a user views a document.
 - Password Options—Depending on the password policy in effect, Epic users may be locked out if their accounts have been idle too long. Make sure password policies and account lockout settings are configured appropriately for Epic users.

Caution: Do not assign any Document Type Groups or Document Types to the **ALL EPIC USERS** group. This ensures Epic users can view only OnBase documents that Epic grants them access to.

Authentication Configuration

OnBase allows you to modify the external ID and password values expected from Epic. This feature provides an alternative to the default values used by the integration. To obtain the default values for the Integration for Epic, please contact a Technical Support Representative.

See the following topics:

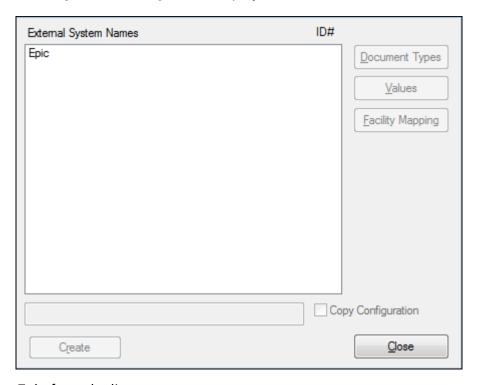
- Configuring the User Name and Password on page 186
- Configuring Encryption Settings for URL Integrations on page 189
- Configuring Initialization Vectors for URL Integrations on page 191
- Configuring the Clock Skew for URL Integrations on page 192
- · Changing Existing Values on page 195
- · Changing Existing Key Names on page 196

Configuring the User Name and Password

Complete these steps to change the external ID and password OnBase expects from Epic. If these settings are not configured, the default external ID and password are used.

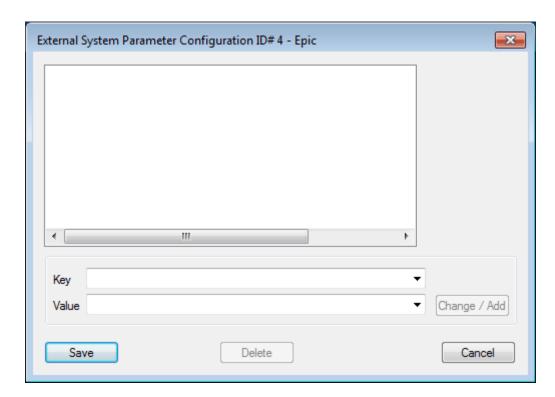
To configure the external ID and password:

1. In the OnBase Configuration module, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.

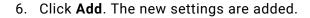


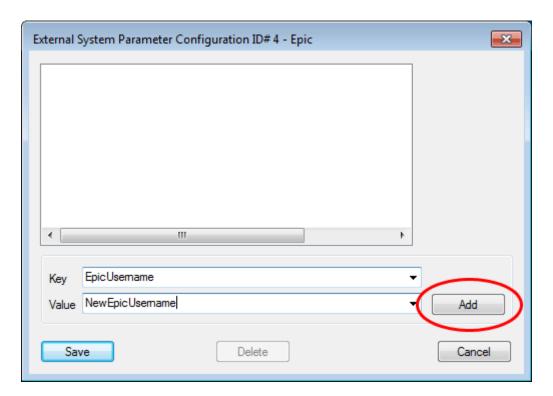
2. Select Epic from the list.





- 4. In the **Key** field, type **EpicUsername**. This key is case-sensitive. Ensure the **E** and **U** are capitalized.
- 5. In the Value field, type the new value to use as the external Epic ID.





- 7. In the **Key** field, type **EpicPassword**. This key is case-sensitive. Ensure the **E** and **P** are capitalized.
- 8. In the Value field, type the new value to use as the external Epic password.
- 9. Click Add. The new settings are added.
- 10. Click **Save** to save the settings.

Note: If you click **Save** without first clicking **Add**, the specified **Key** and **Value** are automatically added.

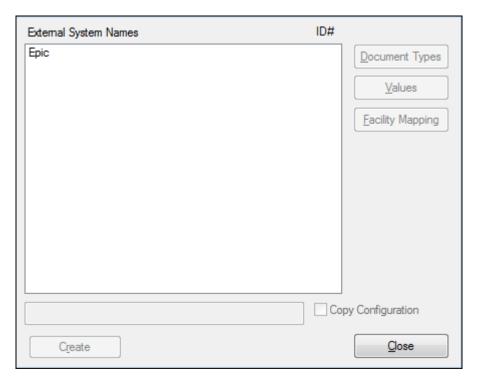
11. Update Epic to use the new external ID and password. Contact your solution provider for Epic configuration requirements.

Configuring Encryption Settings for URL Integrations

Encryption settings specify how Epic encrypts information sent in URL query strings. You must configure these settings if any OnBase application will receive Epic authentication information through a URL query string. Possible applications include (but are not limited to) DocPop and OnBase Patient Window.

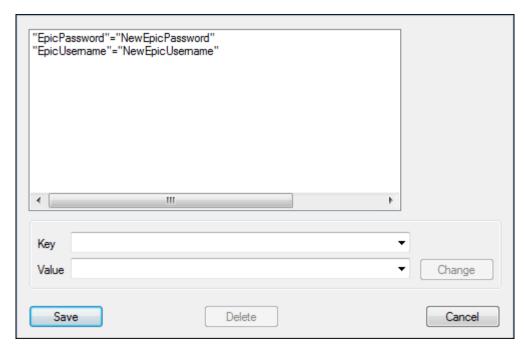
To configure encryption settings:

1. In the OnBase Configuration module, select **Utils** | **External Systems**. The **External System Configuration** dialog box is displayed.



2. Select Epic.





4. Configure the keys described in the following table. For each key, enter the appropriate value, and click **Add**.

Note: Key names are case sensitive and must be entered exactly as shown in this table.

Key	Value Description
Epic Encryption Key	The value Epic uses to encrypt the URL query string. This value should match the Cryptkey value configured in the Epic application.
	Note: Beginning in Epic 2015, the Cryptkey attribute has been renamed to DEPRECATED_CRYPTKEY. Although the name has changed, you should still use the DEPRECATED_CRYPTKEY setting to configure encryption with OnBase integrations.
	Depending on the Epic Encryption Key Size, the Epic Encyption Key must use the following types of values: • When using an AES 256 Epic Encryption Key Size, the Epic Encryption Key must be a 32-byte Base64-encoded value. • When using an AES 128 Epic Encryption Key Size, the Epic Encryption Key must be a SHA1 hash of a plain-text value.
Epic Encryption Key Size	The key size for the AES encryption. Valid values are 128 and 256 .

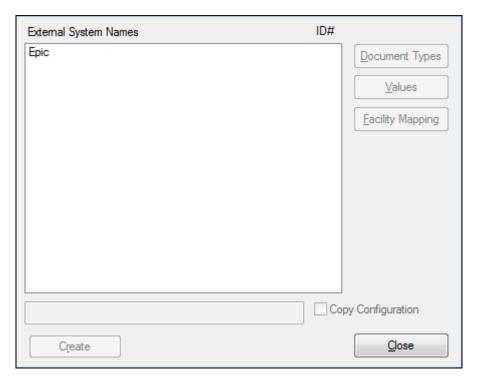
5. Click **Save** to save the configuration.

Configuring Initialization Vectors for URL Integrations

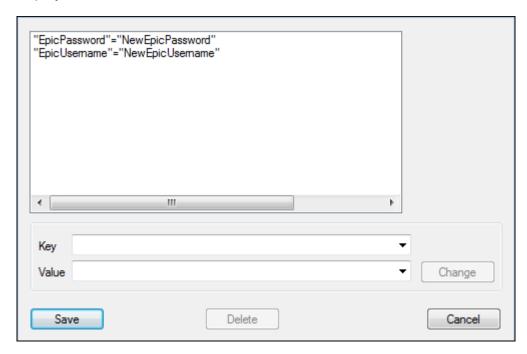
An initialization vector (IV) adds a layer of cryptographic security to encrypted information sent in URL query strings. Possible applications include (but are not limited to) DocPop and the OnBase Patient Window. It is highly recommended that this setting is configured if you have any OnBase applications that will receive Epic authentication information through a URL query string.

To configure initialization vectors for URL integrations:

1. In the OnBase Configuration module, select **Utils** | **External Systems**. The **External System Configuration** dialog box is displayed.



2. Select **Epic** and click **Values**. The **External System Parameter Configuration** dialog box is displayed.



3. In the Key field, type the following: Epic Encryption Initialization Vector Required

Note: Key names are case sensitive. Type the name exactly as displayed.

4. In the **Value** field, enter one of the following values:

Value	Description
True	Accepts only encrypted information that contains an initialization vector. For security purposes, it is highly recommended that this setting be configured to true .
False	Accepts encrypted information with or without an initialization vector.

- 5. Click Add.
- 6. Click Save.

Note: If you click **Save** without first clicking **Add**, the specified **Key** and **Value** are automatically added.

Configuring the Clock Skew for URL Integrations

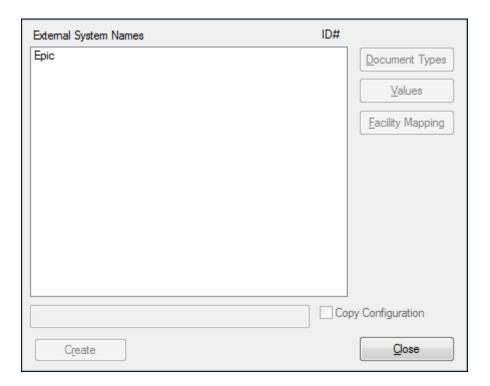
You can configure a clock skew for applications that pass a timestamp in the URL query string. Possible applications include (but are not limited to) DocPop and OnBase Patient Window.

OnBase requires Epic authentication requests passed in a URL to include a timestamp. This timestamp is compared against the current time (in UTC) in the OnBase database to ensure the request is still valid.

By default, OnBase allows a difference (or skew) of up to five minutes between the timestamp in the URL and the database time. If the skew is greater than five minutes, then the login attempt is denied. You can increase or decrease the allowed skew as needed using the OnBase Configuration module.

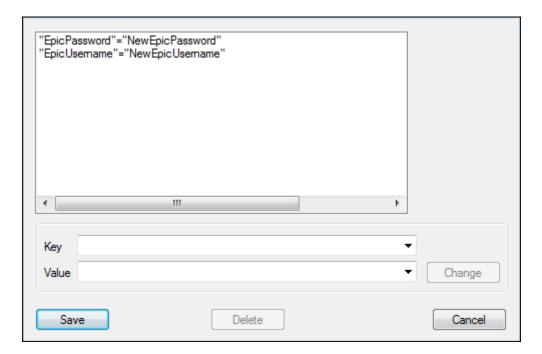
To configure the clock skew for timestamps:

1. In the OnBase Configuration module, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



2. Select **Epic**.





4. In the **Key** field, type the following: **Epic Token Clock Skew In Minutes**

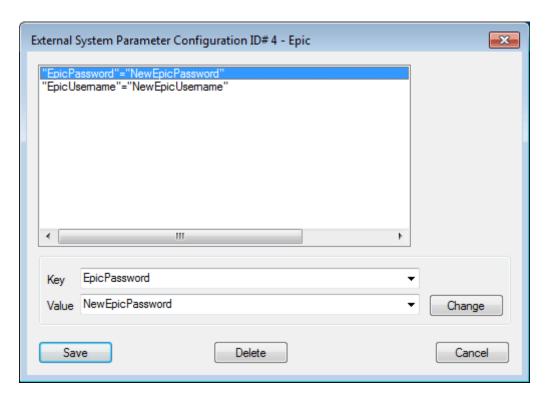
Note: Key names are case sensitive. Type the name exactly as displayed above.

- 5. In the **Value** field, enter an integer representing the difference in minutes allowed between the Epic timestamp and the database time. Valid values range from **1** to **1440** minutes.
- 6. Click Add.
- 7. Click Save to save the configuration.

Changing Existing Values

To change an existing value in the External System Parameter Configuration dialog box:

1. Select the setting whose value you want to change.



- 2. In the Value field, type the new value for the selected key.
- 3. Click Change.
- 4. Click Save to save the change. To cancel the change, click Cancel.

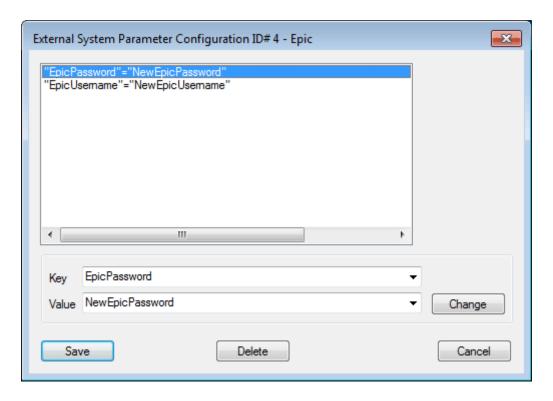
Note: If you click **Save** without first clicking **Change**, then your changes are saved automatically.

5. Update Epic to use the new external ID or password. Contact your solution provider for Epic configuration requirements.

Changing Existing Key Names

To change the name of an existing key in the **External System Parameter Configuration** dialog box:

1. Select the key whose name you want to change.



- 2. Click Delete.
- 3. In the **Key** field, type the correct name for the key.
 - For the external ID, type EpicUsername. This key is case-sensitive. Ensure the E and U are capitalized.
 - For the password, type EpicPassword. This key is also case-sensitive. Ensure the E and P are capitalized.
- 4. In the **Value** field, type the appropriate value.
- 5. Click Add.
- 6. Click **Save** to save the change.

Note: If you click **Save** without first clicking **Add**, the specified **Key** and **Value** are automatically added.

Epic Configuration

Most Epic modules require additional configuration to integrate with OnBase. Requirements vary depending on the design of the solution. For information about configuring Epic for OnBase, contact your solution provider.

The OnBase components for integrated scanning and viewing have specific ProgIDs, which may need to be updated in Epic when either Epic or OnBase is upgraded. The recommended practice is to configure the ProgIDs in an FDI record in Epic.

Note: For Signature Deficiencies for Epic, ProgIDs also need to be configured in an LWP record. See the **Signature Deficiencies for Epic** documentation for more information.

In the following table, **Xx** represents the version of Epic. For example, for Epic August 2018 and later, the **Xx** would be **85**.

FDI Attribute	Value
SCANACQ_PROGID	OBEpicScanWrp Xx .OBEpicScanWrapper
SCANVIEWER_PROGID	OBEpicWebViewer.EpicWebViewer Xx

Web Viewer Component Configuration

The following procedures describe how to configure additional web viewer features, such as the ability to send OnBase documents to Workflow for correction:

- URL Configuration on page 197
- Document Correction Process on page 199
- Document Correction Action Configuration on page 203
- DocPop Document Correction on page 208
- Integrating DocPop with Epic on page 210
- Physician Acknowledgment on page 212

For information about configuring the OBEpicWebViewer.dll.config file, see Modifying the Web Viewer Configuration File on page 58.

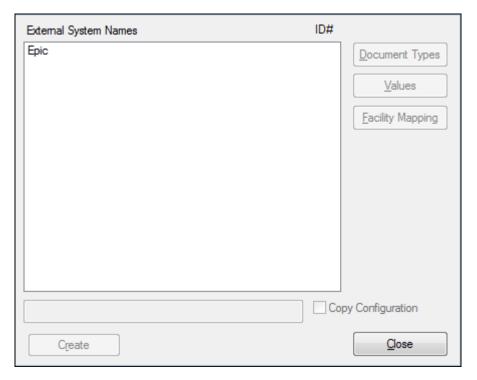
URL Configuration

When configuring the OnBase Web Viewer, you must configure the URL to the Web Viewer subdirectory for your OnBase Web Server. In a default installation, the **Web Viewer** subdirectory is located at **C:\Program Files (x86)\Hyland\Integration for Epic\Web Viewer**. Configuring this URL allows the OnBase Web Viewer to seamlessly load when opening an OnBase document in Epic.

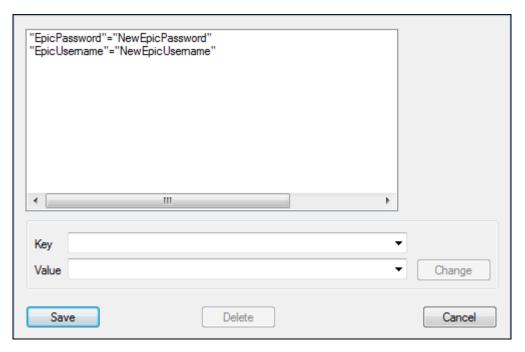
Note: To configure the URL, you must first install and configure the OnBase Web Server.

To configure the URL setting:

1. In the OnBase Configuration module, select **Utils** | **External Systems**. The **External System Configuration** dialog box is displayed.



2. Select **Epic** and click **Values**. The **External System Parameter Configuration** dialog box is displayed.



3. In the Key field, enter Healthcare Web Viewer URL.

- 4. In the Value field, enter the URL that points to the Web Viewer subdirectory for the OnBase Web Server. For example, the default URL would be https://localhost/AppNet/ Web Viewer/Login.aspx, where localhost is the machine name of the OnBase Web Server.
- 5. Click **Add**. The key/value pair is added to the list of pairs.
- 6. Click Save.

Document Correction Process

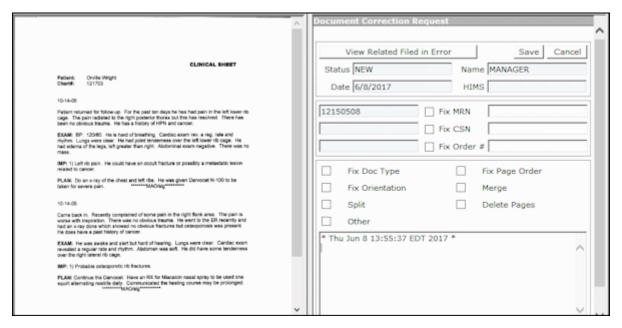
The document correction process allows users to send OnBase documents to OnBase Workflow from within Epic. This feature provides centralized administration for document corrections, and it can help ensure OnBase and Epic remain synchronized.

Designing a Correction Process

The following are a few examples of document correction processes. You can model your process off one or more of these examples, or you can design your own approach.

- When users submit a document for correction, display a form requesting additional information about the necessary changes. OnBase Workflow can use the values to route both the form and the submitted document to the appropriate queue.
- When users submit a document for correction, prompt them with a note requesting an explanation for the submission. The note also can serve to notify other users that the document has been submitted for correction.
- Create multiple correction actions, each one dedicated to a specific type of correction (for example, correcting the MRN, or reordering pages). Map each action to a Workflow life cycle dedicated to that type of correction.

In the following example, the OnBase Web Viewer presents the user with a form requesting the correction reason. A note has been automatically created by Workflow to indicate the document has been submitted.



Continue to the following topics for more information:

- Configuring Document Types for Correction Forms on page 200
- Configuring HL7 for Corrections on page 202
- Configuring Life Cycles for Corrections on page 202
- Creating the Healthcare Document Correction Action on page 202

Configuring Document Types for Correction Forms

When a user submits a document for correction, the OnBase Web Viewer can automatically display an E-Form to prompt the user for more information. If your solution will be driven using an E-Form, make sure the form template and Document Type are properly configured.

- Form Template Configuration on page 200
- Document Type Settings on page 201

Form Template Configuration

Note: Do not use OnBase Unity Forms for the document correction process. Unity Forms are read-only and cannot be edited when displayed within the Integration for Epic.

Use the following guidelines to configure the correction request form template:

- For E-Forms, use the OBBtn_SaveAndClose button to allow users to submit the form and automatically exit corrections mode. Label this button Save and Close to make it clear to users that the form must be complete before it is submitted.
 - Do not use the **OBBtn_Save** button for submitting correction E-Forms.
- 2. Be sure the form template asks users to specify the reason for submitting the document. For example, the template may provide check boxes for indicating the following issues:
 - Incorrect patient
 - · Incorrect encounter
 - · Incorrect order number
 - · Pages out of order

The template may also include a **Comments** field to capture additional information.

- 3. To configure and store the form template, see the **E-Forms** documentation for detailed information.
- 4. When finished, import the template into the SYS HTML Forms Document Type.

Document Type Settings

The following table outlines the required configuration settings for the correction request form's Document Type. For more information about Document Type configuration, see the **System Administration** module reference guide.

Document Type Configuration	Description
Settings	Set the Default File Format to Electronic Form .
Keyword Types	Ensure the Document Handle Keyword Type is assigned. OnBase Workflow can use this Keyword Type to link the request form to the submitted document.
	The Document Handle Keyword Type also must be assigned to the Document Types of documents that may be submitted for corrections.
	Note: Ensure the Document Handle Keyword Type (#19) is named Document Handle. If this Keyword Type has a different name, the document corrections process will not work.
User Group	Assign document privileges (Retrieve/View, Create, Modify) to users who need the ability to create and submit the form. Also assign rights to users who should be allowed to access the forms through standard document retrieval in one of the OnBase clients.
E-Form	Select the form template you imported into the SYS HTML Forms Document Type.

Configuring HL7 for Corrections

OnBase can send HL7 messages to notify Epic when a document is created, updated, or deleted. Make sure Workflow and the OnBase HL7 Module are configured to generate and send these messages to the appropriate export destinations for Epic.

Note: Different Epic solutions may require different values to be present in document notification HL7 messages. Work with your Epic administration team to determine which message types, document values, and properties must be sent.

Configuring Life Cycles for Corrections

To use the document correction process, you must configure at least one Workflow life cycle to receive and route submitted documents.

Correction actions send documents to the initial queue of the target life cycle. If additional routing is needed, configure system work for the initial queue to route documents to other queues.

For detailed information about configuring OnBase Workflow, see the **Workflow** module reference guide.

If you are using a form to submit correction requests, also do the following:

- 1. Configure the initial queue of the life cycle to create the correction request form using the **Create New Form** action type.
- Enable the Fill Document Handle Keyword(s) option for the Create New Form action.
 For this setting to work, the Document Handle Keyword Type must be assigned to the Document Types of both the document submitted for correction and the correction request form.
- 3. Create a work folder to display the related document based on the **Document Handle** Keyword Type.
 - Depending on the design of your solution, the related document may be either the document submitted for correction or the correction request form.

Creating the Healthcare Document Correction Action

To allow users to submit documents for correction, you must configure a correction action to send documents to the appropriate life cycle.

- To configure the action, see Document Correction Action Configuration on page 203.
- If your process uses a correction request form, make sure the action is assigned to the life cycle that creates the form. Also make sure Create E-Form on Entry to Lifecycle is selected in the action's settings.

Document Correction Action Configuration

Healthcare document correction actions allow Epic users to send OnBase documents to OnBase Workflow for review and correction. These actions can be accessed through the following applications:

- · The OnBase Web Viewer
- · The Signature Deficiencies for Epic Analysis window
- · The OnBase Patient Window
- The OnBase Web Server (using DocPop Document Correction)

Tip: The OnBase Web Viewer can display a form allowing the user to explain the issue. See Document Correction Process on page 199. The ability to display a form for additional input is not available in DocPop Document Correction.

Before you begin, configure the necessary life cycles and queues in OnBase Studio.

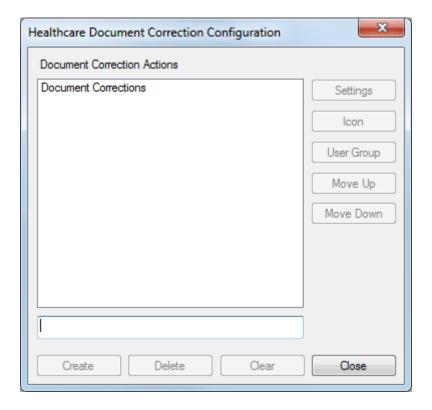
Note: Users do not need privileges to an action's life cycle or queue to be able to execute the action; users only need privileges to the action, as described later in this topic. Similarly, actions can send documents from any Document Type to a life cycle; Document Types do not have to be assigned to the life cycle.

Continue to the following topics:

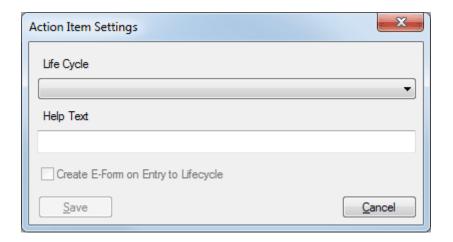
- Creating an Action on page 204
- Assigning an Icon on page 205
- Assigning User Group Privileges on page 207
- Re-ordering Actions on page 207
- DocPop Document Correction on page 208

Creating an Action

1. In OnBase Configuration, select **Medical** | **Healthcare Document Correction**. The **Healthcare Document Correction Configuration** dialog box is displayed.



- 2. In the field provided, type the name for an action.
- 3. Click Create to add the action to the list.
- 4. Click Settings. The Action Item Settings dialog box is displayed.



5. From the **Life Cycle** drop-down list, select the life cycle where documents should be routed initially.

- 6. In the **Help Text** field, type the tool tip to display when a user places the mouse pointer over the button.
- 7. Select Create E-Form on Entry to Lifecycle if both of the following are true:
 - The selected **Life Cycle** is set up to create a form when a document is submitted.
 - The form should be automatically displayed to users who submit documents using the OnBase Patient Window, the Integration for Epic Viewer, the Integration for Epic Web Viewer, or the Signature Deficiencies for Epic Analysis window. The form allows users to provide additional information about the requested corrections.

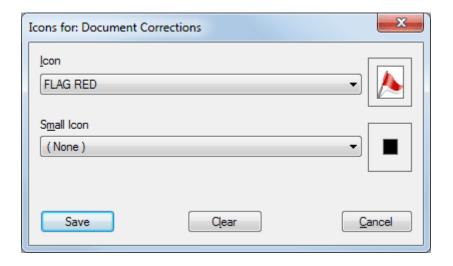
Note: Forms are not displayed when documents are submitted for correction through DocPop Document Correction.

- 8. Click Save.
- 9. Continue to the following tasks:
 - Assigning an Icon on page 205
 - Assigning User Group Privileges on page 207
 - Re-ordering Actions on page 207

Assigning an Icon

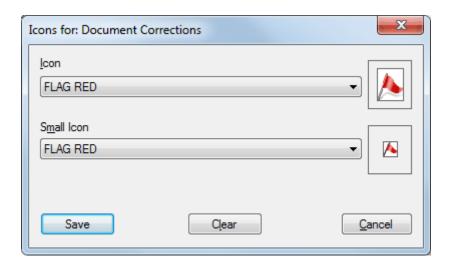
Follow these steps to assign an icon that will be displayed on the document correction button.

- 1. Select an action from the Healthcare Document Correction Configuration dialog box.
- 2. Click Icon. The Icons for dialog box is displayed.
- 3. From the **Icon** drop-down list, select the icon to be displayed for the action in the OnBase Patient Window or the DocPop Document Correction viewer.



The **Icon** is used only by the OnBase Patient Window and the DocPop Document Correction viewer. This setting is not required by the OnBase Web Viewer.

4. From the **Small Icon** drop-down list, select the icon to be displayed on the action button in the OnBase Web Viewer.

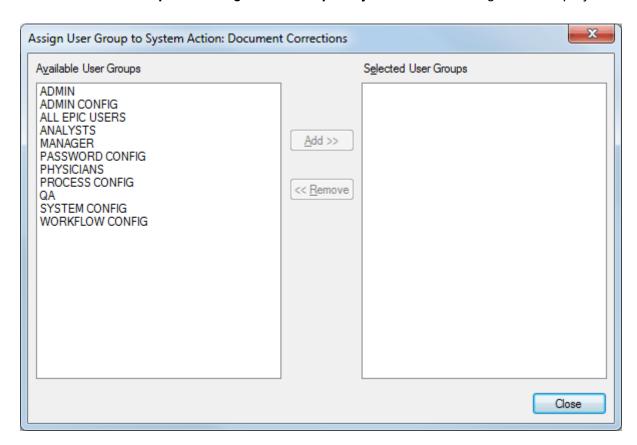


- 5. Click Save.
- 6. Continue to the following tasks:
 - Assigning User Group Privileges on page 207
 - Re-ordering Actions on page 207

Assigning User Group Privileges

To access an action, a user must belong to a User Group assigned to the action. Users do not need privileges to an action's life cycle or queue to be able to execute the action.

- 1. Select an action from the Healthcare Document Correction Configuration dialog box.
- 2. Click User Group. The Assign User Group to System Action dialog box is displayed.



- 3. Select the User Groups who need to see and use the action. To select multiple groups, press **CTRL** as you select each group.
- 4. Click Add.
- 5. Click Close when finished.
- 6. Continue to Re-ordering Actions on page 207.

Re-ordering Actions

Follow these steps to change the order in which buttons are displayed above the viewer.

- 1. Select an action from the **Healthcare Document Correction Configuration** dialog box.
- 2. Click Move Up or Move Down.
- 3. Repeat for each action as needed.

DocPop Document Correction

Document correction actions are displayed when clicking the **Add Correction** button from the OnBase Web Viewer control toolbar when OnBase documents are retrieved through Epic. These actions can also be displayed when OnBase documents are accessed through DocPop Document Correction, a component of the OnBase Web Server.

Use the following guidelines to configure DocPop Document Correction. For more comprehensive DocPop information, refer to the **DocPop** reference guide.

- Configuring DocPop on page 208
- Creating the DocPop Correction URL on page 208
- Expected Document Correction Behavior on page 209

Note: The form-based document correction process is not available in DocPop Document Correction.

Configuring DocPop

See the **DocPop** reference guide for information about configuring the OnBase Web Server for DocPop.

Creating the DocPop Correction URL

The URLs for DocPop Document Correction use the following format:

http://<server>/AppNet/docpop/correction.aspx?docid=x&clienttype=ActiveX&chksum=y In this URL,

- <server> refers to the server where the OnBase Web Server is installed.
- AppNet refers to the Web Server's virtual directory.
- x refers to the requested document's document handle.
- y refers to the checksum used to verify that the URL has not been modified.

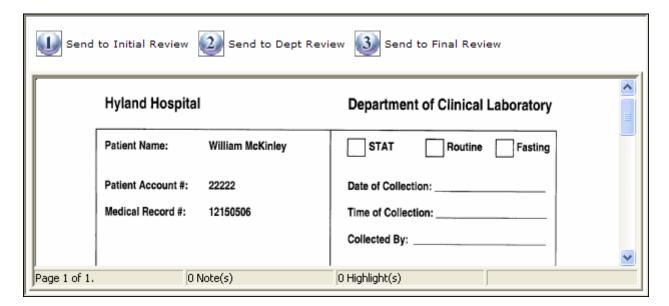
The text following **correction.aspx** is called the query string. The query string is composed of parameters that specify the requested document and Web Client type. These parameters are described in the following table.

Query String Parameter	Query String Value
docid	The document handle of the document to retrieve, if a document number query is being performed.
clienttype	Specifies whether DocPop displays results in the ActiveX Web Client or HTML Web Client. Valid values are ActiveX and HTML . If this variable is omitted, the ActiveX Web Client is used.

Query String Parameter	Query String Value
chksum	The generated checksum value used to verify that the URL has not been modified. Checksums are used only when enableChecksum is set to true in the Web Server's Web.config.
	Checksums can be generated automatically by using the API or manually by using the DocPop URL Creator page. • For API documentation, refer to the Hyland SDK. • For information about the DocPop URL Creator page, refer to the DocPop reference guide.

Expected Document Correction Behavior

When a user accesses DocPop Document Correction, the configured document correction actions are displayed above the Document Viewer. Only actions that the user has privileges to are displayed.



If the user clicks an action that adds a document to a Workflow life cycle, a message informs the user that the document was added to that life cycle:

Document was successfully assigned to '[Life Cycle Name]'

If the document is not added to the Workflow life cycle, a message informs the user that the document was not added.

Integrating DocPop with Epic

When integrated with Epic, DocPop allows users to view OnBase documents from other locations within Epic.

To integrate DocPop with Epic, see the following sections:

- Prerequisites on page 210
- Creating a DocPop URL on page 210

Prerequisites

To integrate with DocPop, some changes to your Epic solution's configuration are required. Not all Epic solutions may be able to integrate with DocPop. For more information on configuring Epic to integrate with DocPop, contact your Epic representative.

Before you begin:

- Ensure OnBase is configured for Epic authentication. For more information, see General Configuration on page 183.
- Ensure encryption settings for Epic are configured in OnBase. For more information, see Configuring Encryption Settings for URL Integrations on page 189.
- Ensure Hyland.Oem.Epic.dll has been copied to the **bin** folder of the Application Server's virtual directory.
- Ensure DocPop has been installed as described in the DocPop module reference guide.
- In the Web Server's Web.config file, ensure the **datasource** under **Hyland.Web.DocPop** specifies the appropriate data source name.
- Ensure DocPop is working by creating a DocPop link and using it to retrieve a document.

Creating a DocPop URL

General-purpose DocPop URLs can be created using the DocPop URL Creator. For information about using this tool, see the **DocPop** module reference guide.

To customize a DocPop URL for Epic:

- Create a DocPop URL using the DocPop URL creator. It is located at: https://[ServerName]/[WebServerVirtualDirectory]/docpop/docpopURLCreator.aspx
- 2. Test the DocPop URL to ensure it retrieves the intended documents.
- Add the following Epic parameters to the beginning of the URL query string, q=epicUserToken=username&epicPasswordToken=password&epicID=epicuseraccoun t&epicTimestamp=yyyyMMddHHmmss&

4. Replace the values for **epicUserToken**, **epicPasswordToken**, **epicID**, and **epicTimestamp** with the correct values for your solution. Refer to the following table for more information:

Parameter	Description
epicUserToken	The value provided in OnBase Configuration for the EpicUsername key. To configure this key, see Configuring the User Name and Password on page 186.
epicPasswordToken	The value provided in OnBase Configuration for the EpicPassword key. To configure this key, see Configuring the User Name and Password on page 186.
epicID	The user name of the Epic user who is accessing DocPop. If this user name is not found in OnBase, then a new user is created with this value as the user name, and a default password is assigned.
epicTimestamp	The timestamp of the request. This value must be provided in the format yyyyMMddHHmmss using the 24-hour clock, UTC.

Note: These parameters are encrypted in the final URL that is launched from Epic.

For example, suppose the following is the original query string:

- KT157_0_2_0=%242%2c000.00&clienttype=html&doctypeid=101 When you add the Epic parameters, it becomes the following:
- q=epicUserToken=username&epicPasswordToken=password&epicID=epicuseraccou nt&epicTimestamp=20190719145308&KT157_0_2_0=%242%2c000.00&clienttype=h tml&doctypeid=101
- 5. Append the query string (preceded by **q**=) to the DocPop URL. The URL should now resemble the following:
 - https://webserver.com/AppNet/DocPop/ docpop.aspx?q=epicUserToken=username&epicPasswordToken=password&epicID =epicuseraccount&epicTimestamp=20190719145308&KT157_0_2_0=%242%2c000. 00&clienttype=html&doctypeid=101

This is not the final URL. When the URL is launched from Epic, the portion of the query string following **q=** is encrypted.

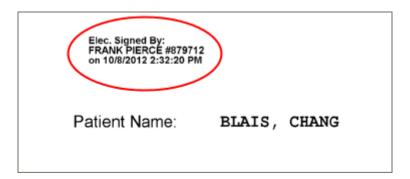
6. Provide the URL with the complete query string to the customer's Epic administrator. If any issues arise, verify all prerequisites are met. See Prerequisites on page 210.

Physician Acknowledgment

The OnBase Web Viewer allows physicians to access, review, and acknowledge OnBase documents directly from their inboxes. To show they have reviewed the documents, physicians can electronically sign (or stamp) the documents using the OnBase Web Viewer.

Note: This feature is available only for image and text documents. Other types of documents (OLE, PDF documents) cannot be acknowledged using this process.

These signatures then are burned onto the documents by the Epic Physician Acknowledgment processor.



Note: Acknowledging documents is not part of the deficiency resolution process. Physicians are not required to sign documents sent to them for acknowledgment. Failing to acknowledge a document does not affect a physician's privileges to treat patients. To give physicians the option to send documents to Workflow for further processing, see Document Correction Process on page 199.

To enable physician acknowledgement, configure the following components:

Acknowledgement Component	Description
HL7 Message Template	The HL7 message template that notifies Epic of new OnBase documents must be configured to identify the designated physicians. See Configuring an HL7 Message Template for Physician Acknowledgment on page 213.
Scan Queue	A scan queue must be configured to send documents to physicians' Epic inboxes. Scanning users can access this queue in both the OnBase Client and the Unity Client. See Configuring a Scan Queue for Physician Acknowledgment on page 215.

Acknowledgement Component	Description
Note Type	The Note Type for physician acknowledgement stamps must be assigned an icon, and users who need to create and view the stamps must have sufficient Note Type privileges. See Configuring the Acknowledgement Note Type on page 216.
Physicians	The physicians who need to acknowledge the documents in Epic must be configured as physician accounts in OnBase. See Configuring Physician Users to Acknowledge Documents on page 217.
Epic Physician Acknowledgement Processor	The OnBase Client (or the Windows service running the OnBase Client) must have the -EPICPHYSICIANSTAMP command line switch applied in order to permanently burn the signatures onto documents. See Epic Physician Acknowledgment Processor on page 219.

When Physician Acknowledgment is configured and a user places an acknowledgment stamp on a document, an audit message is logged that details the user that created the acknowledgement stamp and the Document Handle (the unique identification number of a document). These audit messages can be accessed in the document history by right-clicking an open document from the OnBase Web Viewer and selecting **History**.

Configuring an HL7 Message Template for Physician Acknowledgment

The HL7 message template that notifies Epic of new OnBase documents must be configured to provide the relevant physician and document information.

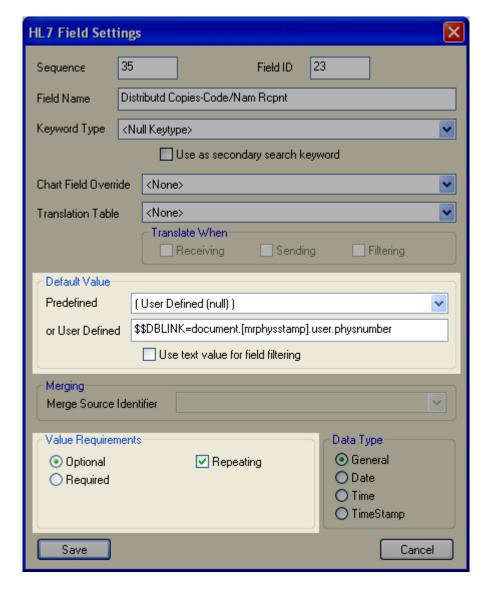
For detailed information about HL7 template configuration, see the **HL7** documentation.

To configure an HL7 message template for physician acknowledgment:

- 1. Open the HL7 field settings for **TXA.23** in the template your solution uses to notify Epic of newly scanned documents.
 - a. In OnBase Configuration, select Medical | HL7 | Message Template.
 - b. Select the HL7 message template used to notify Epic of newly scanned documents.
 - c. Click Segments.
 - d. Select the TXA Document Notification segment.
 - e. Click Fields.
 - f. Select field TXA.23: **Distributd Copies-Code/Nam Rcpnt**. This is typically the last field in the TXA segment.
 - g. Click Settings.

2. Configure the necessary options as described in the following table:

Option	Enter or select the following			
Predefined	(User Defined (null))			
or User Defined	\$\$DBLINK=document.[mrphysstamp].user.physnumber			
Value Requirements	Repeating			



3. Click Save.

Configuring a Scan Queue for Physician Acknowledgment

The following steps describe how to configure a scan queue to support sending documents to physicians' inboxes for acknowledgment. Once configured, this feature is available in the OnBase Client (in the Document Imaging window) and in the Unity Client (in the Batch Processing layout).

Note: This scan queue feature is not available in the Medical Records Unity Client.

Note: If scanned documents may have an overlay applied, make sure the overlay is correctly configured. For more information, see on page 221.

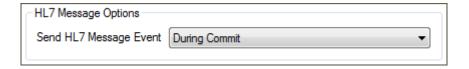
See the **Document Imaging** documentation for detailed scan queue configuration information.

To configure a scan gueue for physician acknowledgment:

- 1. Access the integration options for the scan queue.
 - a. In OnBase Configuration, select Import | Scan Queues.
 - b. Select the scan queue configured to notify Epic of new OnBase documents.
 - c. Click the Process Options button.
 - d. Click the Integrations tab.
- 2. In the Medical Records section, select Epic Physician Inbox Linking Support.
- 3. To require indexers to specify at least one physician for each document, select **Inbox** Link Required.

When this setting is selected, each document imported through this scan queue must have at least one physician specified for acknowledgment before the document can be indexed.

4. Under HL7 Message Options, set the Send HL7 Message Event to During Commit.



Note: The scan queue must be configured to send HL7 messages **During Commit**. This configuration allows OnBase to send Epic an HL7 message only after all necessary physicians have been added through indexing. Because Epic rejects messages about previously sent documents, it is important for the message to provide a finalized list of physicians.

- 5. Click Save.
- 6. Ensure the scan queue's **HL7 Configuration** is set up to send messages to the HL7 export destination configured for Epic.
 - See the **HL7** module reference guide for information about configuring export destinations and the HL7 process settings for scan queues.

Configuring the Acknowledgement Note Type

Physician acknowledgment stamps are OnBase notes that are permanently burned onto the document when the Epic Physician Acknowledgment processor runs.



Note: The **MedRec-Physician Acknowledgement** Note Type is pre-configured to ensure it is properly displayed and burned onto documents. Because certain settings should not be modified, the Note Type's **Attributes** are not configurable.

To configure the Note Type for acknowledgment stamps:

- 1. In OnBase Configuration, select **Document | Note Types** to open **Note Type Configuration**.
- Select the MedRec-Physician Acknowledgement Note Type.
 If you cannot see this Note Type in Configuration, make sure your user group has View privileges to the Note Type.
- 3. Configure an icon.
 - a. Click the **Icon** button.
 - b. Select an Icon and a Small Icon.
 - c. Click Save.
- 4. Assign user group privileges.
 - a. Click the **User Group** button.
 - b. Assign **Create** and **View** privileges to the physicians user group.
 - c. Assign **View** privileges to other user groups as needed.

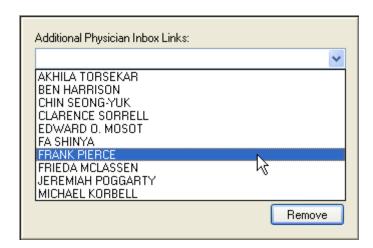
Note: The Epic Physician Acknowledgement processor permanently burns these notes onto acknowledged documents. Once the note is burned, it is a permanent part of the document, and anyone who accesses the document can view the burned-in signature.

d. Click Close.

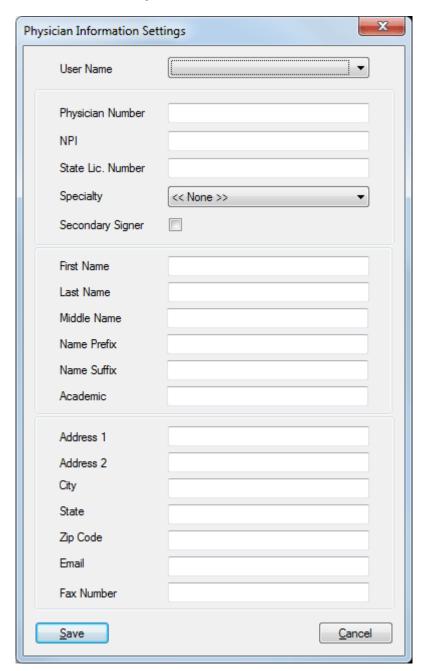
Configuring Physician Users to Acknowledge Documents

Physicians who need to acknowledge documents must be designated as physicians in OnBase. Use the following steps to configure the required physician settings. See the **HL7** module reference guide for detailed physician configuration information.

- 1. In OnBase Configuration, select Medical | Physicians | Physician Information.
- 2. At the bottom of the dialog box, enter the physician's full name and click **Create**. The physician's full name will be displayed in the following locations:
 - The list from which OnBase Client users select physicians who need to access the documents in Epic.



 The physician's electronic signature (if the physician's Signature Text is not configured in the Physician Information Settings dialog box) 3. If the **Physician Information Settings** dialog box is not displayed automatically, select the physician and click **Settings**.



- 4. Select a the physician's OnBase user account from the User Name drop-down.
- 5. Enter the physician's number in the **Physician Number** field.
 - This value must exactly match the user's physician number configured in Epic.
 OnBase uses this value to tell Epic which physicians need to acknowledge document.
 - This value also is displayed as part of the physician's signature.

- 6. If applicable, configure the **Signature Text** field to specify how the physician's name is displayed in the signature.
 - This field may be unavailable depending on your system's licensing. If the **Signature Text** is not configured, the physician's full name is used in the signature.
- 7. Click Save.

Epic Physician Acknowledgment Processor

The OnBase Client (or the Windows service running the OnBase Client) must have the **-EPICPHYSICIANSTAMP** command line switch applied in order to permanently burn the signatures onto documents.

This processor runs once per minute. If an acknowledged document is locked or contains an incomplete deficiency when the processor runs, the document is not burned; the processor checks the document again the next time it runs. If an acknowledged document cannot be burned due to an error, such as an invalid file format, then the error is logged. See Addressing Burn Errors on page 219.

Note: Signatures also can be burned by the -MRMSANALYSIS server (for the Medical Records Management Solution) or the -EPICANALYSIS server (for Signature Deficiencies for Epic). If a document is eligible to be burned by either server, any physician acknowledgement signatures will also be burned at the same time as the deficiencies.

Addressing Burn Errors

To check for burn errors, use the Burning Admin layout in the Medical Records Unity Client. This layout displays all burn errors for both deficiencies and acknowledgement stamps.

To access the Burning Admin layout, you must have the **Burning** medical records privilege. For more information about the Burning Admin layout and the Medical Records Unity Client, see the **Medical Records Unity Client** documentation.

Overriding Note Size Burn Errors

By default, if a physician's signature text is too long for the size of the acknowledgment stamp, the -EPICPHYSICIANSTAMP processor logs a burn error, and the document is not burned.

To allow these stamps to be burned without error, do the following:

- 1. In OnBase Configuration, select Medical | Medical System Settings.
- 2. Click the **Deficiency Settings** tab.
- 3. Select Override Note Size Burn Errors.
- 4. Choose from one of the following options:
 - Shrink Stamp to Fit Note on page 220
 - Expand Stamp to Fit Text on page 220

Note: In some cases, either option may adversely affect the readability of the signature text or the document. Make sure you understand the potential risks when selecting either option.

Shrink Stamp to Fit Note

Select this option if the signature text's font size should be reduced to fit within the acknowledgment stamp's note size. The -EPICPHYSICIANSTAMP processor will then attempt to burn the stamp.

Before selecting this option, be aware the resulting text may be too small to be clearly read.

Expand Stamp to Fit Text

Select this option if the stamp's note size should be increased to display the signature text legibly. After increasing the note size, the -EPICPHYSICIANSTAMP processor will attempt to burn the stamp.

Before selecting this option, be aware of the potential risks:

- If the stamp is positioned near the edge of a page, increasing its size may cause the stamp text to extend off the page.
- Depending on the document's contents, increasing the stamp's note size may cause the note to overlap text, images, or other notes on the page.

Configuring Standard Note Types for Burning

If a document contains a physician acknowledgment stamp, the document is eligible to be burned by the -EPICPHYSICIANSTAMP server. When burning occurs, other notes on the document may be burned, retained, or deleted, depending on the configuration of the associated Note Type.

See the following topics:

- Burn Processing for Standard Notes on page 220
- Requirements for Burning Standard Notes on page 221
- Configuring Standard Note Types to Burn on Documents on page 221

Burn Processing for Standard Notes

If the **Burn Note After Chart Processing** setting is enabled for a Note Type, then notes of this Note Type are eligible to be permanently burned onto documents during the burn process.

When a document is burned:

- Standard OnBase notes configured with the Burn Note After Chart Processing setting enabled are replaced with See appended note #XXX. Note text is printed on the pages appended to the end of the document, and the notes are removed from the document.
- Overlapped text configured with the Burn Note After Chart Processing option is burned directly onto the document.
- Non-burning notes are retained on the burned document only if the Repeat on All Revisions setting is enabled for the Note Type. Otherwise, the notes are removed when the document is burned.

Requirements for Burning Standard Notes

In order for standard notes to be burned onto documents by the -EPICPHYSICIANSTAMP server:

- The -EPICPHYSICIANSTAMP server must be running.
- The Note Type must be configured with the Burn Note After Chart Processing setting enabled.
- The document containing the note must have a file format of image or text.
- The document containing the note must contain at least one unburned physician acknowledgement stamp.
- The document containing the note must not have any unburned deficiencies.
- If the document is revisable, the note must be displayed on the latest revision of the document at the time of burning. Notes on previous revisions are not burned.

If OnBase is configured for Signature Deficiencies for Epic or the Medical Records Management Solution, standard notes may also be burned by the -EPICANALYSIS or -MRMSANALYSIS server when deficiencies are burned. For more information, see the Signature Deficiencies for Epic or Medical Records Unity Client module reference guide.

Configuring Standard Note Types to Burn on Documents

To configure burn settings for standard Note Types:

- 1. In OnBase Configuration, select **Document | Note Types**.
- 2. Select the Note Type and click Attributes.
- In the Medical Records section, select Burn Note After Chart Processing.
 This setting is available only for Note Types configured as a Note or Overlapped Text.
 Circles, arrows, and highlights are not eligible for burning.
- 4. Click Save.

Notes, Redactions, Burned Markups, and Deficiencies on Documents with Overlays

Notes, redactions, burned markups, and deficiencies on documents that have an overlay applied may encounter unexpected behavior. The position of notes, redactions, burned markups, and deficiencies may shift when the document is rendered.

The position shift may occur in the following instances:

- Text documents that contain overlays with an offset configured
- Text documents accessed using modules that render text documents as an image for display

 Image documents with overlays that do not have the same DPI or dimensions as the document

Caution: If a redaction, burned markup, or deficiency is not in the location you expect, do not save or sign the document until the location has been corrected. Saving or signing the document will permanently place the redaction, burned markup, or deficiency in the shifted position. In some instances, the location of a signature can only be changed by a system administrator.

When setting up overlays for documents that may also include notes, redactions, burned markups, or deficiencies:

- Ensure the dimensions of the overlay match the dimensions of the document.
- Do not use offsets with overlays since the document may contain notes, redactions, burned markups, or deficiencies.
- For text documents, use 96 DPI for overlays.
- For image documents, ensure the DPI of the overlay matches the DPI of the document.

A position shift can be corrected through the following methods:

- For text documents, recreate the overlay to match the dimensions of the document instead of using an offset. For example, add an empty space to the margin of the overlay instead of using an offset to account for this space.
- For text documents, the best practice is to set the DPI of the overlay to 96 DPI. Some
 OnBase modules render text documents as an image for display, and in most cases,
 the image is rendered at 96 DPI.
- For image documents, recreate the overlay to match the DPI and dimensions of the document.

If the issue still occurs, contact your first line of support.

Scan Acquisition Server Component Configuration

Any OnBase database can be configured to integrate with Epic. First, you must configure disk groups, Keyword Types, Document Types and User Groups. Consider Keyword Types carefully; the Integration for Epic allows administrators to map any Epic keyword to OnBase. When a document is scanned, all keywords related to a scanned document are automatically copied to OnBase without manual intervention.

In addition, you must configure the Scan Acquisition Server, HL7, and Application or Web Server.

Scanning Prerequisites

- 1. Ensure that the scanning device is properly installed, and that you have access to the manufacturer's instructions for use.
- Ensure that the disk groups are configured.
 A disk group is a logical storage area for documents and data. Only one disk group can be assigned to a scan queue.
- 3. Ensure that Keywords, Document Types and User Groups are configured. These are outlined in the following sections.

Scanning Keyword Type Configuration

A key benefit of the Integration for Epic is its ability to easily map an Epic keyword to an OnBase Keyword Type. When these are mapped and an authorized user scans a document using the Scan Acquisition Server, then the keyword values in Epic are propagated to the mapped OnBase Keyword Types without user intervention. If the Keyword Value is the primary Keyword Type in an AutoFill Keyword Set, the document is indexed with the AutoFill Keyword Set. Non-Epic users can use OnBase to search and retrieve documents by Keyword Value.

Note: This description of keyword behavior is specific to the Scan Acquisition Server and does not apply to batch scanning.

Caution: The Scan Acquisition Server does not support Multi-Instance Keyword Type Groups. Document Types used with the Scan Acquisition Server should not be assigned Multi-Instance Keyword Type Groups. The Scan Acquisition Server does support individual Keyword Types and single-instance Keyword Type Groups.

Keyword relationships are configurable in one of three ways:

- · Hard-Coded Keyword Names
- Identical Keyword Names
- Keyword Mapping File (Recommended)

Hard-Coded Keyword Names

The OnBase Scan Acquisition Server has hard-coded keyword mapping relationships. The OnBase administrator creates these Keyword Types in OnBase and they are automatically mapped to the named Epic keywords.

Epic Keyword name	OnBase Keyword Type Name
Patient External ID	Epic_Patient_ID
Contact Serial Number	Epic_Visit_Number
Order	Epic_Order_Number

Identical Keyword Names

Secondly, the OnBase Administrator can create OnBase Keyword Type names that exactly match the Epic keyword names. When OnBase Keyword Type names match Epic keyword names (including case), and the Keyword Types are assigned to the scanned Document Type, then the Epic keyword values are automatically transferred to the scanned document. For example, a Document Type with the OnBase Keyword Type **Patient External ID** receives a value from Epic since it matches the Epic keyword name.

This option applies to other keywords in Epic. For example, if an Epic keyword named **Patient Name** exists, then a Document Type with the same OnBase Keyword Type name will automatically transfer keyword values upon a successful scan.

Keyword Mapping File (Recommended)

The third option uses a keyword mapping file. This option is a best practice because keyword names can vary in Epic and OnBase. The keyword mapping file is a good reference on how keywords are mapped between the two systems. It also allows you to set default values for keywords when a document is scanned.

Any keyword not included in the mapping file will still be mapped if there are identical names in both systems or if the hard-coded values are used.

To use keyword mapping:

1. Open the sample epickeywords.txt file located in the same directory as the Hyland Integration for Epic installer.

Note: When you deploy the Scan Acquisition Server using the installer, this file is copied to the same directory as the Scan Acquisition Server files. Configure the sample file before running the installer to ensure the deployed copy is already configured.

2. In the file, add a line for each keyword being mapped. Use the following format:

Epic Key Name, OnBase Keyword Type Name

For example:

Patient External ID, Patient ID

Patient Name, Patient Full Name

Note: Keyword and Keyword Type names are case-sensitive.

- 3. To specify default values for OnBase Keyword Types, see Mapping Default Values on page 225. For example, you may want to set a specific Keyword Value on all documents scanned using the Scan Acquisition Server.
- 4. To map OnBase Keyword Types to the name of the scanning server or user, see Mapping Keyword Types to Server & User Name Variables on page 225.

- 5. Save the file to a network share location accessible by all scan stations (recommended) or to a local workstation.
- 6. Ensure all scanning users have permissions to read the file.
- 7. For each workstation installation, configure the EpicIntegrations.config file so that the **FilePath** setting in the **<Mapping>** element contains the full path to the mapping file. See FilePath on page 180.

Mapping Keyword Types to Server & User Name Variables

The keyword mapping file allows you to map OnBase Keyword Types to variables representing the name of the user who archived the file and the name of the server that performed the upload. This information can help you troubleshoot document issues in environments where multiple servers and users are sharing the same keyword mapping file.

The following variables are supported:

- %systemname%—This variable represents the NetBIOS name of the current workstation or Citrix server.
- %username%—This variable represents the Windows user name of the current user.
- %epicusername%—This variable represents the Epic ID of the current user (as specified from Epic).

To map these variables to Keyword Types in the mapping file, use the following format:

```
OnBase Keyword Type Name, "%systemname%"
OnBase Keyword Type Name, "%username%"
OnBase Keyword Type Name, "%epicusername%"
```

Default Keyword Values

Scanned documents can be indexed using values from Epic, default values from the keyword mapping file, and default values from OnBase Configuration.

When indexing documents from the Scan Acquisition Server, OnBase checks for keyword values using the following order of precedence:

- 1. Values provided by Epic for the mapped Keyword Type.
- 2. Default values configured in the mapping file (epickeywords.txt). See Mapping Default Values on page 225.
- 3. Default values configured for the Document Type in OnBase Configuration. See Configuring Default Values in OnBase on page 226.

For example, if a valid keyword value is provided by all three of these sources, the value from Epic would be used.

Mapping Default Values

You can map default values to Keyword Types using the mapping file. These values are used only if Epic does not provide a value for the Keyword Type.

To specify a default value for a Keyword Type assigned to a Document Type in OnBase, enter the Keyword Type name in the following format:

OnBase Keyword Type Name, "Default Value"

For example, if a Keyword Type named **Import Source** should have a default value of **Epic**, add the following line:

Import Source, "Epic"

Configuring Default Values in OnBase

Default values configured in OnBase Configuration are used only if neither Epic nor the mapping file provides a value for the Keyword Type.

For information about configuring default keyword values on a Document Type, see the OnBase Configuration help files.

AutoFill Keyword Set Behavior

The Scan Acquisition Server can expand AutoFill Keyword Sets on documents if the value provided by Epic is the primary value in an AutoFill Keyword Set. This feature lets you index OnBase documents more fully for easier retrieval. It also automates part of the indexing process, reducing the risk of errors.

Caution: If the primary value from Epic matches multiple instances of an AutoFill Keyword Set, the indexing behavior is undefined. As a result, a document may not be indexed as expected. If you are using AutoFill Keyword Sets with Epic, ensure the primary values are unique.

For more information about AutoFill Keyword Sets, their configuration, and their behavior, see the OnBase Configuration or Client help files.

Scanning Document Type Configuration

Document Types for Epic are configured like other Document Types, except for the following:

- The Document Type name within OnBase must be identical to the Document Type name configured in Epic.
- The **ALL EPIC USERS** User Group is not assigned to a Document Type. However, additional User Groups can be assigned to the Document Type (e.g., Administrators, non-Epic users, non-employees).
- Each Document Type typically contains one or more of the hard-coded Keyword Types listed above.

Scan Acquisition Server: Filtering Document Types by Order Type

The Scan Acquisition Server can filter the Document Types available for indexing based on the Order Type of the current Epic context.

In the keyword mapping file (epickeywords.txt), use the following syntax to specify the Document Types available for each Order Type:

```
[Order Type 1]:Document Type 1, Document Type 2, etc. [Order Type 2]:Document Type 3, Document Type 4, etc.
```

When Epic passes the Scan Acquisition Server the current Order Type value, the value is compared against the [bracketed] values in the mapping file. If a match is found, the Scan Acquisition Server filters the available Document Types to only those provided for the Order Type in the mapping file. If no match is found, then the Scan Acquisition Server displays all of the Document Types passed from Epic.

Scan Format Configuration

Scan formats control document separation, compression, and scan settings for individual imaging devices. By creating multiple scan formats with different settings for the same imaging source, you can scan different types of documents without resetting the scanner's parameters.

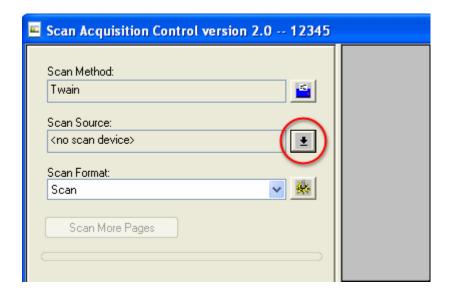
Scan formats are configured in the OnBase scan control (Scan Acquisition Server).

Note: Scan formats are stored on the workstation where they were created. By default, they are not accessible from other workstations.

- 1. In Epic, click the **Scan** button to launch the Scan Acquisition Server.
- 2. Click the Scan Method button.
- 3. Select one of the available scan methods. Available methods may include ISIS, Kofax, Sweep, or TWAIN.

Note: Fujitsu PaperStream drivers are not compatible with the Scan Acquisition Server. Use a TWAIN scan method for Fujitsu PaperStream scanners.

4. If applicable, click the **Scan Source** button.



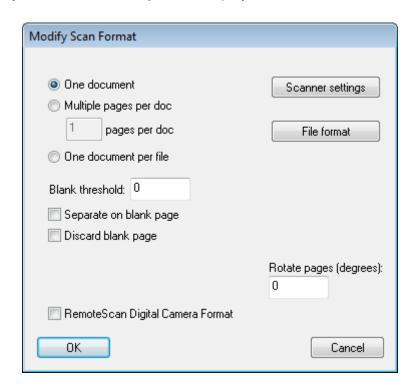
Depending on your integration's setup, the **Scan Source** button may be available only the first time you choose a scan source for the selected scan method.

For the Sweep scan method, skip to step 6.

5. Select the scanner that will be used for scanning, or select **Disk** to scan from disk.

- 6. Do one of the following:
 - To create a new format, click the Scan Format button. Select Add new format, type a format name, and click OK.
 - To modify an existing format, select the format from the **Scan Format** drop-down. Click the **Scan Format** button, and then select **Modify current format**.

The Modify Scan Format dialog box is displayed.



7. Configure settings as needed. Available settings vary depending on the selected scan method, as outlined in the following table. Click the name of an option in the left column to jump to the description of that option.

Option	ISIS	Kofax	Sweep	TWAIN
One document	Х	Х	Х	Х
Multiple pages per doc	Х	Х	Х	Х
One document per file	Х	Х	Х	Х
Blank threshold	Х	Х	Х	Х
Separate on blank page	Х	Х	Х	Х
Discard blank page	Х	Х	Х	Х
Sweep images Only			Х	

Option	ISIS	Kofax	Sweep	TWAIN
Delete swept files		Х	Х	
Single file import		Х	Х	
Rotate pages (degrees)				Х
Separate on patch code		Х		
Discard patch code page		Х		
RemoteScan Digital Camera Format	Х	X	Х	X
Scanner Settings	Х	Х		Х
File Format	Х	Х		Х
Image Processing		Х		

Scan Format Settings

Available scan format settings are described in the following topics.

Option: One document

This setting indicates all pages scanned during a scan session belong to a single document. During scanning, the user can override this setting and indicate that scanned pages belong to more than one document.

This setting is available for all scan methods.

Option: Multiple pages per doc

This setting indicates the pages scanned during a scan session may result in more than one document. This setting activates the **pages per doc** field. In the **pages per doc** field, enter the default number of pages per document.

This setting is available for all scan methods.

Option: One document per file

For scanning from disk, this setting ensures each file in a Windows directory is archived as a separate document.

This setting does not apply to pages scanned using the **Scan More Pages** option. When **Scan More Pages** is used, all new pages are appended to the current document.

Note: If the **One document per file** option is selected while scanning with a scanner, the files will be archived into OnBase as one document. The result is the same as if the **One document** option is selected.

This setting is available for all scan methods.

Option: Blank threshold

This setting is used with the **Separate on blank page** and **Discard blank page** options. In bytes, enter the file size of pages that are considered blank. A value of 1500 to 2500 bytes is considered normal for this setting.

Scanned pages should be similar in size when this setting is used. If a page has a file size below the **Blank threshold** value, the page is treated as a blank page.

This setting is available for all scan methods.

Option: Separate on blank page

This setting indicates a new document begins whenever a blank page is detected. The blank page becomes the first page of the new document, unless **Discard blank page** is also selected.

This setting is available for all scan methods.

Option: Discard blank page

This setting indicates the Scan Acquisition Server should delete scanned pages with a file size smaller than the **Blank threshold** value. This option can help save disk space by preventing blank pages from being stored in OnBase.

This setting is available for all scan methods.

Option: Sweep images Only

This setting prevents users from sweeping non-image file types. When users sweep with this setting selected, only image files can be imported.

This setting is available for the Sweep scan method.

Option: Delete swept files

This setting indicates the Scan Acquisition Server should delete swept or scanned-from-disk files from their source after they are successfully archived to OnBase. Files are not deleted unless they are successfully archived. Read-only files are not deleted.

For Sweep scan formats configured for **Single file import**, this option also controls whether **Delete Swept Files** is selected by default in the **Sweep files path** dialog box. Users can select or clear this option as needed for each sweep operation.

This setting is available for Kofax and Sweep scan methods.

Option: Single file import

This setting allows users to select a single file to sweep or scan from disk. Users cannot select multiple files or directories when this setting is selected.

This setting is available for Kofax and Sweep scan methods.

Option: Rotate pages (degrees)

This setting controls page rotation. Enter the page rotation in degrees. Valid values range from 0 to 359.

In environments running Citrix Presentation Server 4.0, this option lets you bypass an issue where pages cannot be scanned if auto-rotation is configured using the TWAIN driver's settings.

This setting is available for the TWAIN scan method.

Option: Separate on patch code

This setting indicates a new document begins when a patch code is recognized. A Kofax scan format is required for patch code recognition.

This setting is useful when separating documents that may contain blank pages. For example, when scanning a multi-page document in duplex mode, a blank side of a page does not necessarily indicate the end of the document.

OnBase recognizes all patch code types. OnBase begins a new document regardless of the type of patch code encountered. Some scanners may recognize and interpret patch codes based on scanner-specific settings.

This setting is available for the Kofax scan method.

Option: Discard patch code page

This setting prevents the page with the recognized patch code from being stored in OnBase.

This setting is available for the Kofax scan method.

Option: RemoteScan Digital Camera Format

This setting signals to the Scan Acquisition Server that the connected device is a camera in an environment with RemoteScan® Enterprise installed. This setting allows users to upload pictures from a digital camera in a Citrix environment. RemoteScan Enterprise for Terminal Server / Citrix is sold and supported by Quest Software®.

For assistance installing or troubleshooting the RemoteScan Enterprise application, contact your RemoteScan solution provider.

This setting is available for all scan methods.

Scanner Settings

Click the **Scanner Settings** button to adjust the image processing settings. The resulting dialog box provides the scanner model information and specifies general parameters for your scanner. Available settings depend on your image processing software. Refer to the software's documentation for a description of these settings.

Caution: Do not change scanner settings unless you fully understand the implications of the new values or are advised by a technical support representative.

Note: Whether scanner settings are saved varies depending on the TWAIN driver. If the TWAIN driver will not save settings, you may be able to retain basic settings by activating low TWAIN mode. For more information, see Cannot Save Scanner Settings on page 24.

The Scanner Settings button is available for ISIS, Kofax, and TWAIN scan methods.

File Format

Click the **File Format** button to select a file type and compression type for scanned documents.

The File Format button is available for ISIS, Kofax, and TWAIN scan methods.

Image Processing

Click the **Image Processing** button to set up image processing settings. These settings can enhance images as they are scanned, making them clearer.

The availability of the scan parameters, and the available values for each, depends on the scanner's capabilities. Refer to your scanner's documentation for detailed information.

The **Image Processing** button is available for Kofax scan methods.

Epic Front Office Scanning Integration Configuration

Configure Front Office Scanning according to the needs of your implementation, which may include support for image document signature capture, document markup, and E-Form creation. See the Front Office Scanning documentation for detailed configuration and usage information.

For detailed information about installing Front Office Scanning for Epic environments, see Installing the Epic Front Office Scanning Integration on page 81.

General Scanning Integration Configuration

If you are integrating with Epic Hyperdrive, you can configure how Epic metadata values are mapped to OnBase Keyword Values when new documents are imported through the Scan Acquisition Server and Front Office Scanning clients. These mappings rely on items configured through the FHIR module.

In some cases, Epic provides OnBase with shell documents that have already been created and simply need to be updated with new values during the scanning process. When mapping values for these shell documents, not all configuration settings are available.

See the following sections for details:

- Adding a FHIR Mapping Template for Integrated Scanning on page 234
- Editing a FHIR Mapping Template for Integrated Scanning on page 236
- Deleting a FHIR Mapping Template for Integrated Scanning on page 239

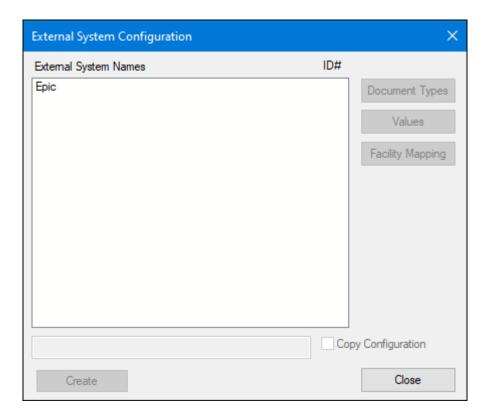
For detailed information on configuring mapping templates and related items in the FHIR module, see the **FHIR** documentation.

Adding a FHIR Mapping Template for Integrated Scanning

You can add an Epic FHIR mapping template for integrated scanning to specify how items configured for a resource type in the FHIR module are applied to new documents imported through the Scan Acquisition Server and Front Office Scanning clients.

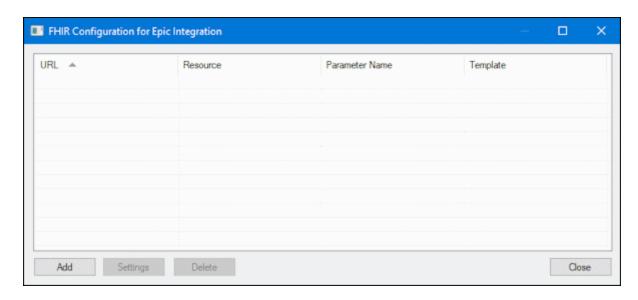
To add a FHIR mapping template for integrated scanning:

- 1. Open the OnBase Configuration module and log in.
- 2. Select **Utils** | **External Systems**. The **External System Configuration** dialog box is displayed.

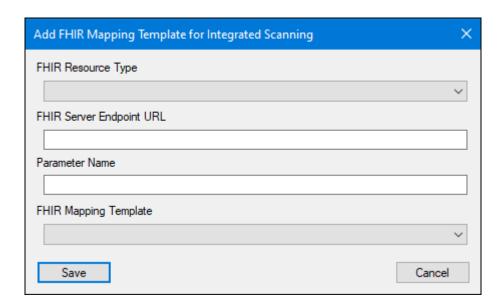


3. Select Epic in the External System Names list. The FHIR Mapping button is displayed.

4. Click FHIR Mapping. The FHIR Configuration for Epic Integration dialog box is displayed.



5. Click **Add**. The **Add FHIR Mapping Template for Integrated Scanning** dialog box is displayed.



- 6. Select the appropriate FHIR resource type from the FHIR Resource Type drop-down list.
- 7. Enter the Epic Interconnect Server URL for the selected FHIR resource type in the FHIR Server Endpoint URL field (for example, http://localhost:12345/api/fhir/r4/Patient). When entering this URL, also note the following:
 - The URL must end with the name of the selected FHIR resource type.
 - The Epic Hyperdrive integration requires FHIR R4 to be used.

8. Enter the appropriate FHIR logical ID in the **Parameter Name** field. This ID typically matches the resource type.

Note: If you are adding a template for a shell document, the **Parameter Name** field is not available.

9. Select the appropriate FHIR mapping template for the selected resource type in the FHIR Mapping Template field. The mapping template allows Keyword Values to be extracted from the resource type so they can be indexed on documents imported through the Scan Acquisition Server and Front Office Scanning clients.

Note: If you are adding a template for a shell document, the **FHIR Mapping Template** field is not available.

See the **FHIR** documentation for more information on configuring FHIR mapping templates.

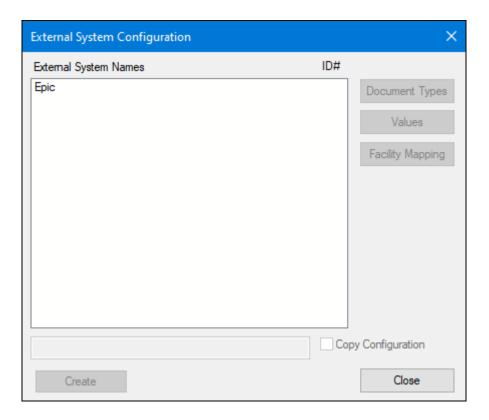
10. Click Save.

Editing a FHIR Mapping Template for Integrated Scanning

You can edit the settings of an existing FHIR mapping template for integrated scanning if you want to retain some of its settings but adjust others to better meet a user's indexing needs.

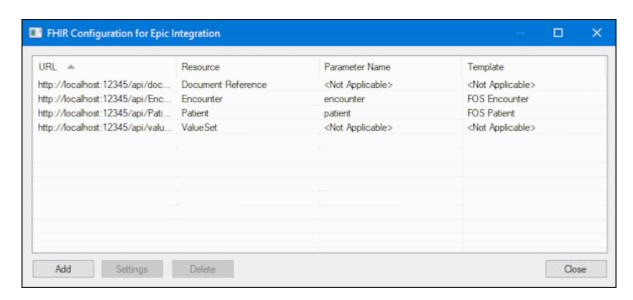
To edit a FHIR mapping template for integrated scanning:

- 1. Open the OnBase Configuration module and log in.
- 2. Select **Utils** | **External Systems**. The **External System Configuration** dialog box is displayed.

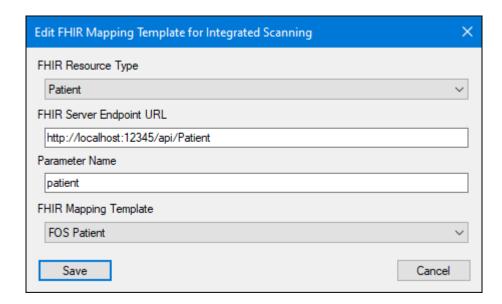


3. Select Epic in the External System Names list. The FHIR Mapping button is displayed.

4. Click **FHIR Mapping**. The **FHIR Configuration for Epic Integration** dialog box is displayed.



5. Select an existing template from the list and click **Settings**, or double-click the template. The **Edit FHIR Mapping Template for Integrated Scanning** dialog box is displayed.



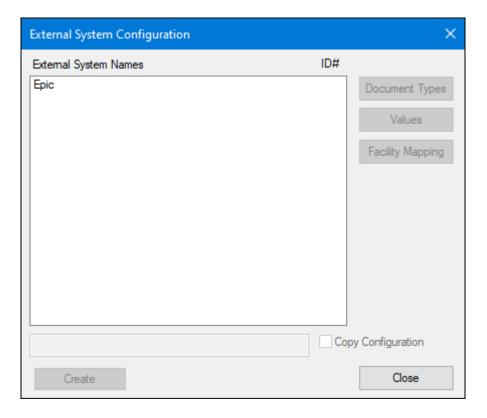
- 6. Edit the settings available for the template. For more information on these settings, see Adding a FHIR Mapping Template for Integrated Scanning on page 234.
- 7. Click Save.

Deleting a FHIR Mapping Template for Integrated Scanning

You can delete an existing FHIR mapping template for integrated scanning if users no longer need it for indexing Epic Hyperdrive documents in the Scan Acquisition Server and Front Office Scanning clients.

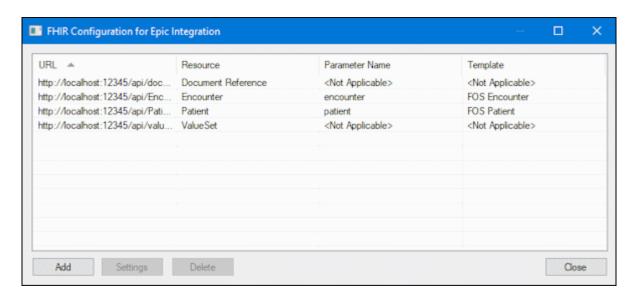
To delete a FHIR mapping template for integrated scanning:

- 1. Open the OnBase Configuration module and log in.
- 2. Select **Utils** | **External Systems**. The **External System Configuration** dialog box is displayed.



3. Select Epic in the External System Names list. The FHIR Mapping button is displayed.

4. Click FHIR Mapping. The FHIR Configuration for Epic Integration dialog box is displayed.



- 5. Select an existing template from the list and click **Delete**. A confirmation message is displayed.
- 6. Click Yes to confirm.

Epic Release of Information Integration Configuration

The following topics describe how to configure settings that affect the Epic Release of Information (ROI) integration.

- Environment ID Whitelist for ROI Integration on page 240
- Excluding Documents from ROI Printing on page 244
- · Printing Notes Using the ROI Integration on page 242

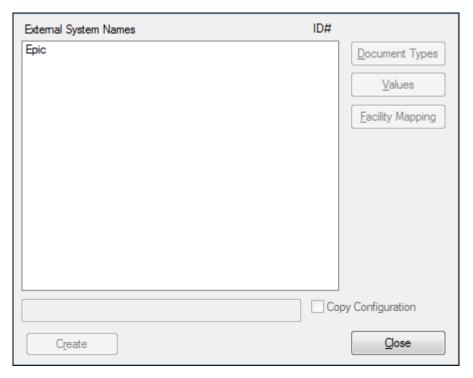
Environment ID Whitelist for ROI Integration

The Epic ROI web service validates Epic environment IDs against a whitelist configured using OnBase Configuration. At least one environment ID must be configured in the whitelist in order for the web service integration to retrieve documents. If the whitelist is empty, the web service integration will reject all Epic ROI requests.

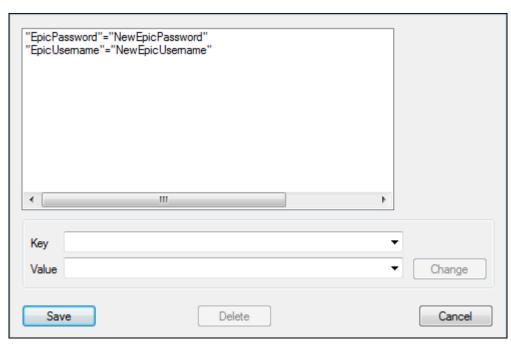
When the Epic ROI web service receives a request, it compares the environment ID in the request against the whitelist stored in the database. If the environment ID is not included in the whitelist, the request is rejected. If the request does not contain an environment ID, the request is rejected.

To configure the environment ID whitelist:

1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



- 2. Select Epic.
- 3. Click Values. The External System Parameter Configuration dialog box is displayed.



4. In the **Key** field, type the following:

Environment ID Whitelist

Note: Key names are case sensitive. Type the value exactly as displayed above.

5. In the **Value** field, specify the environment IDs that are allowed to communicate with this database. Environment ID values are not case sensitive.

For example, a single environment ID might be entered as follows:

PRD

To specify multiple environment IDs, use $|\sim\sim\sim|$ to separate each ID:

ID1 | ~~~ | ID2 | ~~~ | ID3

For example:

PRD | ~~~ | TST1 | ~~~ | TST2

- 6. Click **Add**. The new setting is added.
- 7. Click **Save** to save the setting.

Note: If you click **Save** without first clicking **Add**, the specified **Key** and **Value** are automatically added.

Printing Notes Using the ROI Integration

The Epic ROI integration can print notes on OnBase documents, depending on the document's file format and the print settings configured for the Note Type.

For a note to be eligible for printing, the Note Type must have one of the following print settings: **Default** or **Always Print on Document**.¹

See the following topics:

- Printing Notes On Documents: Supported File Formats on page 242
- Printing Notes After Documents on page 243
- Printing Medical Deficiency Notes on page 243

Printing Notes On Documents: Supported File Formats

If a note is eligible for printing, the Epic ROI integration will print it directly on the following types of documents:

- Image documents
- · Text documents
- Image and text documents with overlays

^{1.} Completed deficiencies are always printed. See Printing Medical Deficiency Notes on page 243.

The amount of information printed on the document depends on the print setting for the Note Type:

- **Default**—Only the note icon is printed on the document.
- Always Print on Document—The note icon, title, creator, date, and body text are printed on the document.

To enable note printing for other file formats, see Printing Notes After Documents on page 243.

Printing Notes After Documents

To ensure all eligible notes are printed regardless of the document's file format, you can configure the ROI integration to print note text on a supplemental page after the document. By default, this feature is disabled.

When this feature is enabled, the ROI integration prints all notes that are configured for printing on a supplemental page following the document. For each note, the supplemental page includes the Note Type, title, creator, date, page number, and body text.

If the document has a supported file format for printing notes, the ROI Integration will print notes both directly on the document and on the supplemental page.

To enable printing notes after documents:

- 1. In OnBase Configuration, select **Utils** | **External Systems**.
- 2. Select Epic.
- 3. Click Values.
- 4. Add a key named ROI Print Notes After Document with a value of true.
- 5. Click Save.

Printing Medical Deficiency Notes

If your solution includes the Medical Records Management Solution or Signature Deficiencies for Epic, then OnBase documents may include deficiencies. If a document that contains unburned deficiencies is printed using Epic Print Services, the following rules are applied:

- Completed deficiencies are always printed.
- Incomplete (unsigned) deficiencies are printed based on the Note Print Settings configured for the Note Types in OnBase Configuration. By default, unsigned deficiencies have a print setting of Never Print on Document.

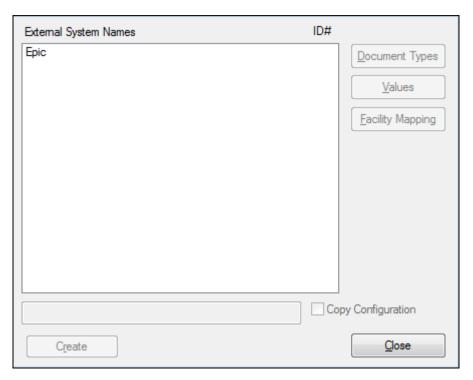
For information about available Note Print Settings, see the **Signature Deficiencies for Epic** or **Medical Records Unity Client** help files.

Excluding Documents from ROI Printing

The following procedure describes how to configure the Epic Release of Information integration to exclude certain OnBase documents from released ROI requests based on preconfigured Keyword values.

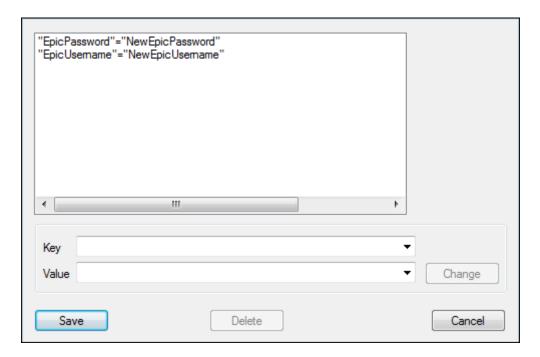
To configure Epic ROI to exclude OnBase documents based on Keyword Value:

1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



2. Select Epic.





4. In the **Key** field, type **ROI Filter Keys**.

Note: Key names are case sensitive. Type the value exactly as displayed above.

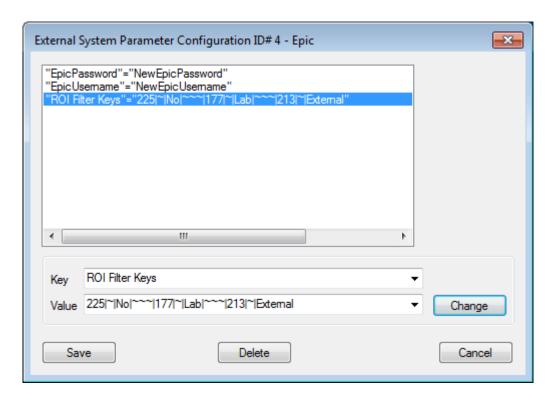
5. In the **Value** field, specify the Keyword Type and value the excluded documents must be indexed with. The format is described in the following table:

To exclude docs using	Value Format ^a
A single Keyword value	Keyword Type ID ∼ Keyword Value
	Example: 154 ~ Misfiled
Multiple Keyword values	1st Keyword Type ID ~ 1st Keyword Value ~~~ 2nd Keyword Type ID ~ 2nd Keyword Value ~~~ 3rd Keyword Type ID ~ 3rd Keyword Value
	Example : 225 ~ No ~~~ 177 ~ Lab ~~~ 213 ~ External

a. For currency, date, and date/time Keyword value formats, see Accepted Data Formats on page 246.

Note: If you configure multiple Keyword Values, the document must be indexed with ALL specified values in order to be excluded from the printed request.

6. Click Add. The new setting is added.



7. Click Save.

Note: If you click **Save** without first clicking **Add**, the specified **Key** and **Value** are automatically added.

Accepted Data Formats

If you are filtering OnBase documents using currency, date, or date/time Keyword Types, ensure their values use accepted formats, as shown in the following table:

Data Type	Format
Currency	Currency values must include their format's decimal symbol. The digit grouping and currency symbols are not necessary. For example, for a United States currency value, the following format is valid: 1234.56
Date	mm/dd/yyyy
Date & Time	mm/dd/yyyy hh:mm:ss AM/PM

EpicCare Link Integration Configuration

The following procedures describe how to configure the EpicCare Link integration to archive documents to OnBase from EpicCare Link, PlanLink, or EpicWeb. (In the following topics, the term EpicCare Link represents all three of these Epic modules.)

- EpicCare Link Document Type Configuration on page 247
- EpicCare Link Keyword Type Configuration on page 254

Note: Archival through EpicCare Link is available in specific versions of Epic. See Supported Versions on page 107 for more information.

Note: If you map Keyword Types for EpicCare Link, then you also must map Epic and OnBase Document Types, even if the Document Type names are identical. If Epic and OnBase Keyword Type names are identical but Document Type names are not, then you only need to map the Document Type names. If OnBase Keyword Type and Document Type names match their Epic counterparts exactly, then you do not need to map Keyword Types or Document Types.

EpicCare Link Document Type Configuration

Document Types used for EpicCare Link archival are configured like other OnBase Document Types, except they also must be associated with Document Types in Epic using either of the following methods:

- The Document Type name within OnBase must be identical to the Document Type name configured in Epic (recommended).
- As an alternate method, the OnBase Document Types can be mapped to Epic's Document Types in OnBase Configuration. This procedure is described later in this topic.

Regardless of the method you choose, you should provide a default Document Type for EpicCare Link documents that do not match any Document Types in OnBase. See Providing a Default Document Type for EpicCare Link Uploads on page 249.

For a description of how the integration determines the OnBase Document Type to use, see the following topic, Determining the Archival Document Type.

Determining the Archival Document Type

When a user archives a document to OnBase from EpicCare Link, the integration determines the Document Type to use by running the following checks:

- 1. First, the integration checks whether the Document Type from Epic exactly matches the name of any OnBase Document Types. If there is a match, the document is archived to the matching OnBase Document Type.
- 2. If there is no match, then the integration checks whether the Document Type from Epic is mapped to any OnBase Document Types. If it is, then the document is archived to the mapped OnBase Document Type.

- 3. If there is no match, then the integration checks whether a default Document Type is configured in OnBase Configuration. If it is, then the document is archived to the default Document Type.
- 4. If all of these checks fail, then the document is not archived to OnBase.
 - To ensure that documents are successfully archived, a default Document Type should be configured. To designate a default Document Type, see Providing a Default Document Type for EpicCare Link Uploads on page 249.
 - If the names of Document Types in Epic and OnBase do not match exactly, see Mapping EpicCare Link Document Types on page 252.

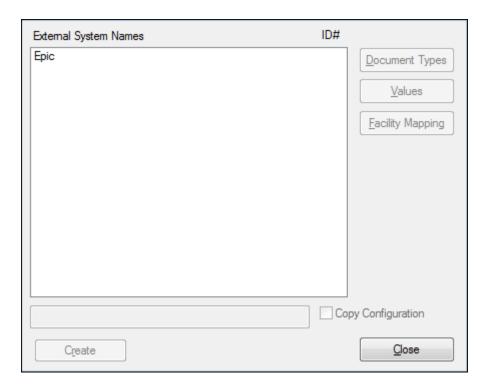
Providing a Default Document Type for EpicCare Link Uploads

It is considered a best practice to configure a default Document Type for documents archived from Epic. If OnBase cannot determine the correct Document Type for archival, then documents are archived to the default Document Type specified in OnBase Configuration.

Note: This default Document Type applies only to the EpicCare Link integration. It does not apply to the Scan Acquisition Server.

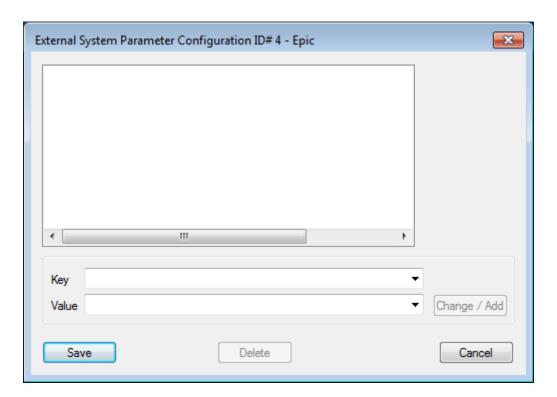
Note: To minimize the number of documents archived to the default Document Type, use the default Document Type only as a backup option. Ensure each Epic Document Type has a corresponding OnBase Document Type, as described under EpicCare Link Document Type Configuration on page 247.

1. In OnBase Configuration, select **Utils** | **External Systems**. The **External System Configuration** dialog box is displayed.



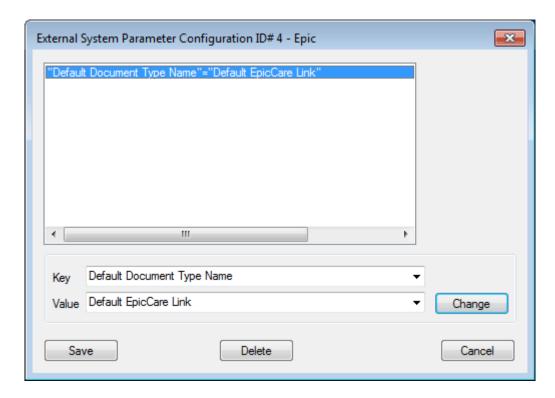
2. Select **Epic** from the list.





- 4. In the **Key** field, type **Default Document Type Name**. This key is case-sensitive. Ensure the first letter in each word is capitalized.
- 5. In the **Value** field, type the name of the OnBase Document Type to be used as the default for archiving documents.

6. Click Add. The new setting is added, as shown in the following example:



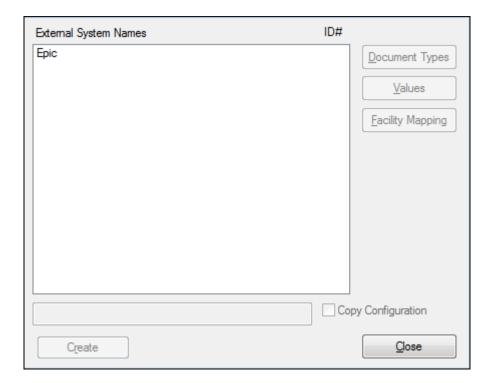
7. Click Save.

Mapping EpicCare Link Document Types

If the Epic and OnBase Document Type names are not identical, then they can be mapped to each other in OnBase Configuration.

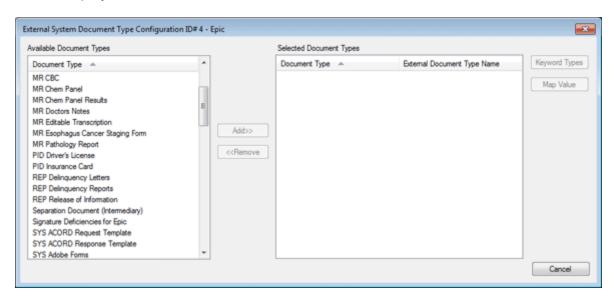
Note: This mapping applies only to the EpicCare Link and Epic Welcome integrations. It does not apply to the Scan Acquisition Server or Front Office Scanning integration.

1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.

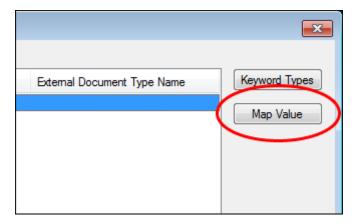


2. Select **Epic** from the list.

3. Click **Document Types**. The **External System Document Type Configuration** dialog box is displayed.

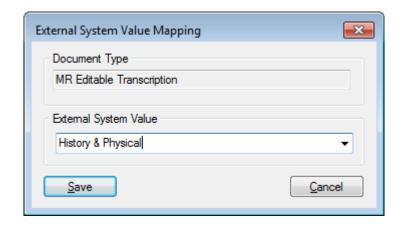


- 4. In the left pane, select the OnBase Document Type to map to an Epic Document Type.
- 5. Click Add.
- 6. Click Map Value to open the External System Value Mapping dialog box.



7. In the **External System Value** field, type the name of the Epic Document Type that corresponds to the selected Document Type.

Ensure that the Epic Document Type name is written in its entirety.



If you have already mapped the Epic Document Type to another OnBase Document Type, then you can select the Epic Document Type from the drop-down.

- 8. Click Save.
- 9. Repeat steps 4 through 8 for each Document Type.

EpicCare Link Keyword Type Configuration

Keyword Types for Epic are configured like other OnBase Keyword Types, except they must be associated with Epic keywords using either of the following methods:

- The Keyword Type name within OnBase must be identical to the keyword name configured in Epic (recommended).
- OnBase Keyword Types also can be mapped to Epic keywords in OnBase Configuration. See Mapping EpicCare Link Keyword Types on page 256.

Note: If you map Keyword Types for EpicCare Link, then you also must map Document Types, even if the Document Type names are identical. If Epic and OnBase Keyword Type names are identical but Document Type names are not, then you only need to map the Document Type names. If both OnBase Keyword Type and Document Type names match their Epic counterparts exactly, then you do not need to map Keyword Types or Document Types.

Note: If a Keyword Type is configured as required on the Document Type, make sure EpicCare Link is configured to provide values for the Keyword Type. Documents will not be uploaded if they are missing values for required Keyword Types.

Keyword Mapping Logic for EpicCare Link

When imported documents from EpicCare Link are indexed, the integration identifies the Keyword Types to populate by running the following checks:

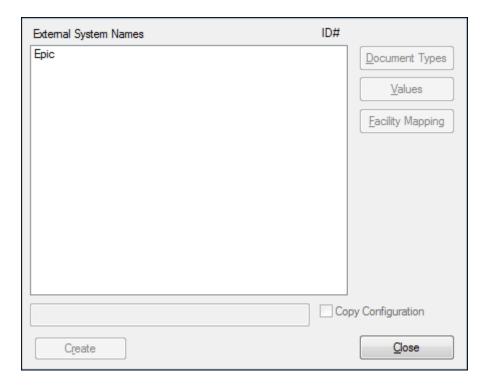
- 1. First, the integration checks whether the Epic keyword exactly matches the name of any OnBase Keyword Types assigned to the Document Type. If there is a match, then the Epic keyword is populated for the matching OnBase Keyword Type.
- 2. If there is no match, then the integration checks whether the Epic keyword is mapped to any OnBase Keyword Types. If it is, then the Epic keyword is populated for the mapped OnBase Keyword Type.
- 3. If the Epic keyword is not associated with any OnBase Keyword Types, then the archived document is not indexed with that keyword.
 - Similarly, if a Keyword Type on the Document Type is not associated with any Epic keywords, then the Keyword Type is left blank on the archived document.
 - If the names of Keyword Types in Epic and OnBase do not match exactly, see Mapping EpicCare Link Keyword Types on page 256.

Mapping EpicCare Link Keyword Types

The following steps describe how to map OnBase Keyword Types to Epic keywords for the EpicCare Link integration.

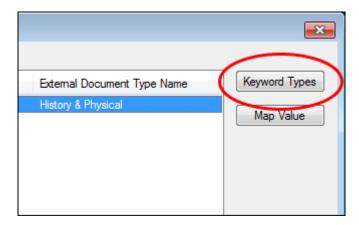
Note: This mapping applies only to the EpicCare Link and Epic Welcome integrations. It does not apply to the Scan Acquisition Server or Front Office Scanning integration.

1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.

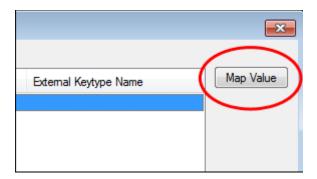


- 2. Select **Epic** from the list.
- 3. Click **Document Types**. The **External System Document Type Configuration** dialog box is displayed.
- 4. If the Document Type is not already listed in the right pane, select it from the left pane and add it to the right.
- 5. Select a Document Type from the **Selected Document Types** list.

6. Click Keyword Types.

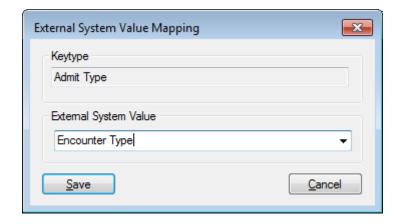


- 7. Select the OnBase Keyword Type(s) to map to Epic keywords.
- 8. Click Add. The selected Keyword Types are added to the Selected Keyword Types list.
- 9. Select a Keyword Type from the **Selected Keyword Types** list.
- 10. Click Map Value.



11. In the **External System Value** field, type the name of the Epic keyword that corresponds to the selected Keyword Type.

Ensure that the Epic Keyword Type name is written in its entirety.



- 12. Click Save.
- 13. Repeat steps 9 through 12 for each Keyword Type. Use the **Move Up** and **Move Down** buttons as needed to re-order Keyword Types. These buttons are provided only for re-ordering the Keyword Types in this dialog box. The order of Keyword Types has no effect on the Epic integration.
- 14. Click **Save**. You must click **Save** in the **External System Keyword Type Configuration** dialog box in order for mappings to be saved.
- 15. Repeat steps 5 through 14 for each Document Type.

Epic Image Retrieval API Integration Configuration

The following sections describe how to configure the display of documents and the requirements for displaying notes on documents retrieved using the Image Retrieval API integration.

See the following topics:

- Requirements for Displaying Notes on page 258
- Configuring Documents to Display in Native PDF Format on page 259
- Configuring Documents to Display in Native Image Format on page 261

Requirements for Displaying Notes

The following sections describe requirements for notes to be displayed on documents retrieved using the Image Retrieval API integration.

File Format Support for Notes

The Image Retrieval API integration supports displaying notes on different types of documents.

The following types of documents are supported:

- · Image documents
- · Text documents
- Image and text documents with overlays

Note Type Print Settings

For a note to be displayed through the Image Retrieval API integration, set the Note Type with one of the following print settings:

Print Setting	Description
Default	Only the note icon is displayed on the document.
Always Print on Document	The note icon, title, creator, date, and body text are displayed on the document.

For information about configuring print settings for Note Types, see the **System Administration** module reference guide.

Medical Deficiency Notes

If your solution includes the Medical Records Management Solution or Signature Deficiencies for Epic, then OnBase documents may include deficiencies. If a document containing unburned deficiencies is retrieved using the Image Retrieval API integration, the following rules are applied:

- Completed deficiencies are always displayed in the Image Retrieval API integration.
- Incomplete (unsigned) deficiencies are displayed based on the Note Print Settings set for the Note Types in OnBase Configuration. By default, unsigned deficiencies have a print setting of Never Print on Document, and they are not displayed.

For information about available Note Print Settings, see the **Signature Deficiencies for Epic** or **Medical Records Unity Client** documentation.

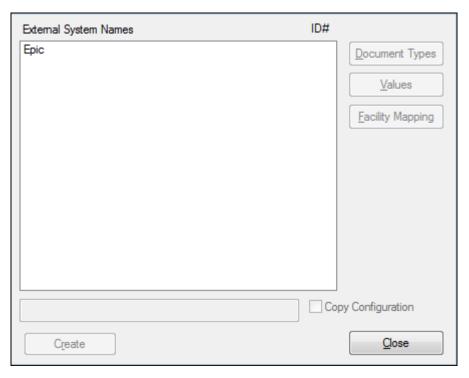
Configuring Documents to Display in Native PDF Format

By default, the Image Retrieval API integration converts retrieved PDF documents to TIFF images for viewing. However, you can instead configure the integration to retrieve and display these PDF documents in their native format.

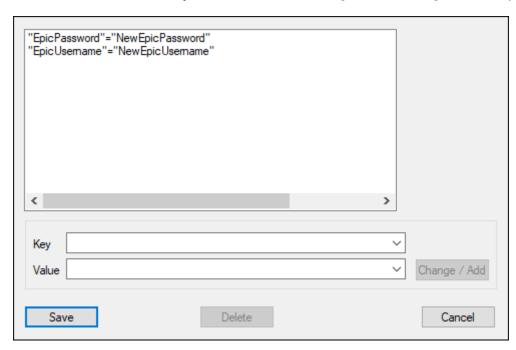
To configure this feature, you must be on a version of Epic August 2019 or later.

To configure documents to display in native PDF format:

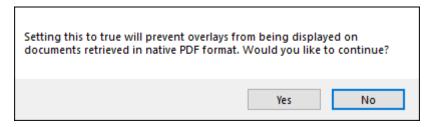
1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



- 2. Select **Epic** from the **External System Names** list.
- 3. Click Values. The External System Parameter Configuration dialog box is displayed.



- 4. Enter the key name Retrieve Native PDF in Epic IRA in the Key field.
- 5. Enter the value true in the Value field.
- 6. Click **Add**. A warning about configuration of this option preventing overlays from displaying is displayed.



7. Click **Yes**. Documents are now configured to display in native PDF format.

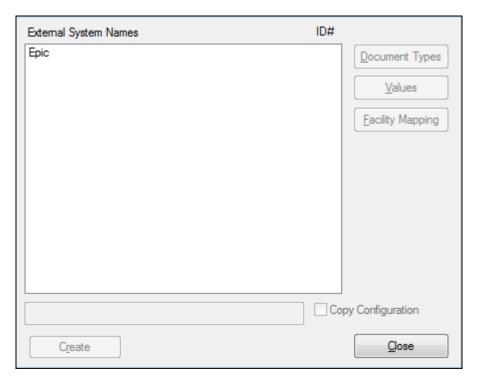
Configuring Documents to Display in Native Image Format

By default, the Image Retrieval API integration converts retrieved image documents (for example, .jpg or .png) to TIFF images for viewing. However, you can instead configure the integration to retrieve and display these image documents in their native format.

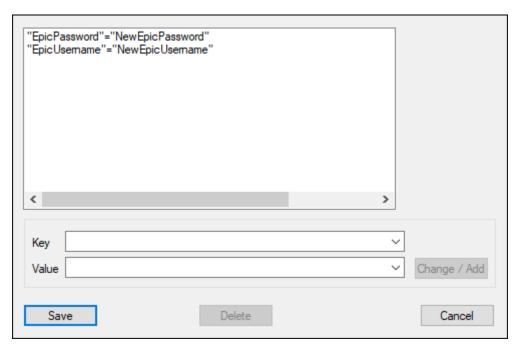
To configure this feature, you must be on a version of Epic August 2019 or later.

To configure documents to display in native image format:

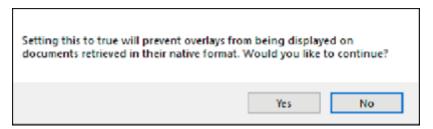
1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



- 2. Select Epic from the External System Names list.
- 3. Click Values. The External System Parameter Configuration dialog box is displayed.



- 4. Enter the key name Retrieve Native Image in Epic IRA in the Key field.
- 5. Enter the value true in the Value field.
- 6. Click **Add**. A warning about configuration of this option preventing overlays from displaying is displayed.



7. Click **Yes**. Documents are now configured to display in native image format.

Epic Welcome Integration Configuration

The following sections describe how to configure the Epic Welcome integration to upload image documents into OnBase.

- Epic Welcome Service Account Configuration on page 263
- Epic Welcome Document Type Configuration on page 263
- Epic Welcome Keyword Type Configuration on page 265
- Epic Welcome: Application Server Web.config Settings on page 269

Epic Welcome Service Account Configuration

To upload documents to OnBase, Epic Welcome must be configured to use a designated OnBase service account. For information about configuring a service account, see the **System Administration** module reference guide.

Epic Welcome Document Type Configuration

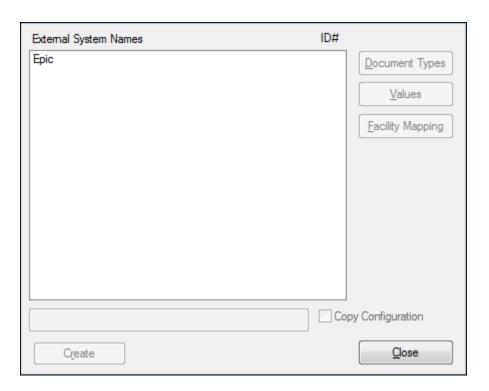
Epic Welcome Document Types are configured like other OnBase Document Types, except they also must be associated with a Document Type in Epic using either of the following methods:

- The Document Type name within OnBase must be identical to the Document Type name configured in Epic (recommended).
- As an alternate method, the OnBase Document Type can be mapped to the Epic Document Type in OnBase Configuration. This procedure is described later in this topic.

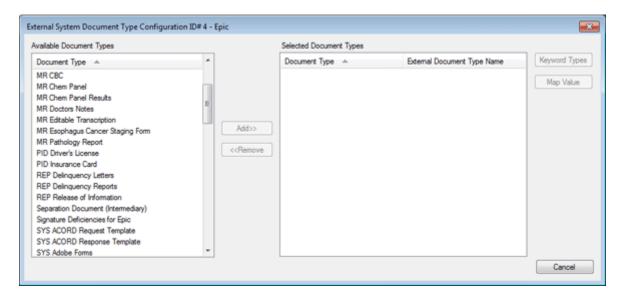
Mapping the Epic Welcome Document Type

If the Epic and OnBase Document Type names are not identical, then they can be mapped to each other in OnBase Configuration.

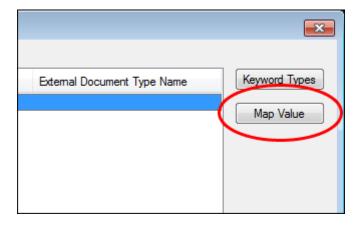
1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.



- 2. Select **Epic** from the list.
- 3. Click **Document Types**. The **External System Document Type Configuration** dialog box is displayed.

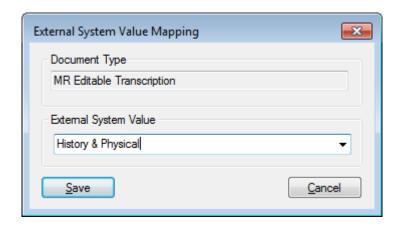


- 4. In the left pane, select the OnBase Document Type to map to an Epic Document Type.
- 5. Click Add.
- 6. Click Map Value to open the External System Value Mapping dialog box.



7. In the **External System Value** field, type the name of the Epic Document Type that corresponds to the selected Document Type.

Ensure that the Epic Document Type name is written in its entirety.



If you have already mapped the Epic Document Type to another OnBase Document Type, then you can select the Epic Document Type from the drop-down.

- 8. Click Save.
- 9. Repeat steps 4 through 8 for each Document Type.

Epic Welcome Keyword Type Configuration

When uploading documents to OnBase, the Epic Welcome integration provides keyword data that can be used for indexing. For indexing to occur, the Epic keywords must be mapped to OnBase Keyword Types using one of the following methods:

- The Keyword Type name within OnBase must be identical to the keyword name configured in Epic (recommended).
- OnBase Keyword Types also can be mapped to Epic keywords in OnBase Configuration. See Mapping Epic Welcome Keyword Types on page 267.

Note: If you map Keyword Types for Epic Welcome, then you also must map the Document Types, even if the Document Type names are identical. If Epic and OnBase Keyword Type names are identical but Document Type names are not, then you only need to map the Document Type names. If both OnBase Keyword Type and Document Type names match their Epic counterparts exactly, then you do not need to map Keyword Types or Document Types.

Note: If a Keyword Type is configured as required on the Document Type, make sure Epic Welcome is configured to provide values for the Keyword Type. Documents will not be uploaded if they are missing values for required Keyword Types.

Keyword Mapping Logic for Epic Welcome

When imported documents from Epic Welcome are indexed, the integration identifies the Keyword Types to populate by running the following checks:

- First, the integration checks whether the Epic keyword exactly matches the name of any OnBase Keyword Types assigned to the Document Type. If there is a match, then the Epic keyword is populated for the matching OnBase Keyword Type.
- 2. If there is no match, then the integration checks whether the Epic keyword is mapped to any OnBase Keyword Types. If it is, then the Epic keyword is populated for the mapped OnBase Keyword Type.
- If the Epic keyword is not associated with any OnBase Keyword Types, then the archived document is not indexed with that keyword.
 Similarly, if a Keyword Type on the Document Type is not associated with any Epic keywords, then the Keyword Type is left blank on the archived document.

AutoFill Keyword Sets for Epic Welcome

The Epic Welcome integration can expand AutoFill Keyword Sets on documents if the value provided by Epic is the primary value in an AutoFill Keyword Set. This feature allows OnBase documents to be indexed using a complete set of standardized values.

Caution: If the primary value from Epic matches multiple instances of an AutoFill Keyword Set, the indexing behavior is undefined. As a result, a document may not be indexed as expected. If you are using AutoFill Keyword Sets with Epic, ensure the primary values are unique.

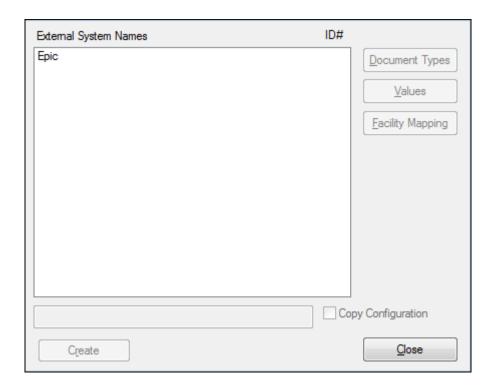
Note: If a secondary value in the AutoFill Keyword Set conflicts with a value provided by Epic, the value in the AutoFill Keyword Set takes precedence.

For more information about AutoFill Keyword Sets, their configuration, and their behavior, see the OnBase Configuration or Client help files.

Mapping Epic Welcome Keyword Types

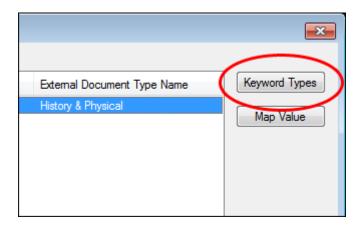
The following steps describe how to map OnBase Keyword Types to Epic keywords for the Epic Welcome integration.

1. In OnBase Configuration, select **Utils | External Systems**. The **External System Configuration** dialog box is displayed.

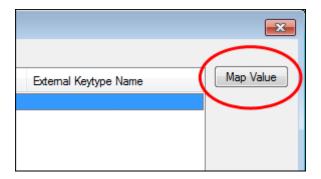


- 2. Select **Epic** from the list.
- 3. Click **Document Types**. The **External System Document Type Configuration** dialog box is displayed.
- 4. If the Document Type is not already listed in the right pane, select it from the left pane and add it to the right.
- 5. Select a Document Type from the **Selected Document Types** list.

6. Click Keyword Types.

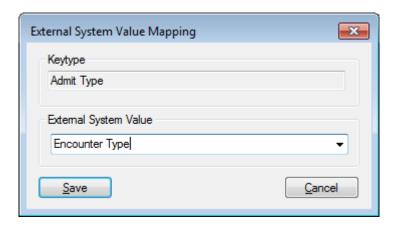


- 7. Select the OnBase Keyword Type(s) to map to Epic keywords.
- 8. Click Add. The selected Keyword Types are added to the Selected Keyword Types list.
- 9. Select a Keyword Type from the **Selected Keyword Types** list.
- 10. Click Map Value.



11. In the **External System Value** field, type the name of the Epic keyword that corresponds to the selected Keyword Type.

Ensure that the Epic Keyword Type name is written in its entirety.



If you have already mapped the Epic Keyword Type to another OnBase Keyword Type, then you can select the Epic Keyword Type from the drop-down.

- 12. Click Save.
- 13. Repeat steps 9 through 12 for each Keyword Type. Use the Move Up and Move Down buttons as needed to re-order Keyword Types. These buttons are provided only for re-ordering the Keyword Types in this dialog box. The order of Keyword Types has no effect on the Epic integration.
- 14. Click **Save**. You must click **Save** in the **External System Keyword Type Configuration** dialog box in order for mappings to be saved.
- 15. Repeat steps 5 through 14 for each Document Type.

Epic Welcome: Application Server Web.config Settings

The following settings in the OnBase Application Server's Web.config file can be modified to accommodate uploading larger file sizes in Epic Welcome.

maxRequestLength

This setting controls the maximum request size allowed for a file upload. This value is represented in kilobytes, and the default is 30000 KB (30 MB). If users need to upload files larger than 30000 KB, increase the **maxRequestLength**.

Note: The **maxRequestLength** setting specifies the maximum *request* size for uploading files, not the maximum file size. Files uploaded through the Web Client are encoded when passed to the Application Server, resulting in a larger request.

For more information about this setting, refer to the **Application Server** module reference guide.

maxAllowedContentLength

The **maxAllowedContentLength** setting is specific to file uploads. This setting allows the Application Server to override an IIS security feature that prohibits requests over 30 million bytes (about 28.6 MB). This request filtering feature is enabled by default.

Note: This setting doesn't override the maxRequestLength setting. If you increase the maxAllowedContentLength, you may also need to increase the maxRequestLength to accommodate larger files. The maxAllowedContentLength should exceed the maxRequestLength.

For more information about this setting, refer to the **Application Server** module reference guide.

External System Keys Reference

One or more of the following keys may be configured for Epic in OnBase Configuration under **Utils | External Systems**. See the section referenced in this table for more information about each key.

Кеу	Documentation Section
Default Document Type Name	Affects the EpicCare Link (EpicWeb) integration. See Providing a Default Document Type for EpicCare Link Uploads on page 249.
Environment ID Whitelist	Affects the Epic ROI integration. See Environment ID Whitelist for ROI Integration on page 240.
Epic Encryption Initialization Vector Required	Affects URL integrations. See Configuring Initialization Vectors for URL Integrations on page 191.
Epic Encryption Key	Affects URL integrations. See Configuring Encryption Settings for URL Integrations on page 189.
Epic Encryption Key Size	Affects URL integrations. See Configuring Encryption Settings for URL Integrations on page 189.
Epic Token Clock Skew In Minutes	Affects URL integrations. See Configuring the Clock Skew for URL Integrations on page 192.
EpicPassword	Affects all OnBase components that use Epic authentication. See Configuring the User Name and Password on page 186.
EpicUsername	Affects all OnBase components that use Epic authentication. See Configuring the User Name and Password on page 186.

Кеу	Documentation Section
Facility ID	Affects environments where Epic is integrated with multiple OnBase systems. See Integrating Epic with Multiple OnBase Systems on page 117.
ROI Filter Keys	Affects the Epic ROI integration. See Excluding Documents from ROI Printing on page 244.
ROI Print Notes After Document	Affects the Epic ROI integration. See Printing Notes After Documents on page 243.



Integration for Epic

User Guide

This section describes how to use the Integration for Epic solution. See the following topics:

- Overview
- Epic Desktop Document Scanning on page 274
- OnBase Production Scanning on page 289
- Epic Front Office Scanning on page 292
- EpicCare Link Document Retrieval and Upload on page 298
- Epic Release of Information Document Printing on page 298
- Epic Desktop Document Retrieval on page 300

Overview

Users can accomplish several tasks with the Integration for Epic solution.

Epic Desktop Document Scanning

Light-duty scanning using the Epic modules Prelude, EpicCare, Radiant or EpicScan. Using the OnBase Scan Acquisition Server, users can scan single documents, such as patient identification and insurance cards, within Epic for further processing and storage in OnBase. The Scan Acquisition Server can index documents based on a single keyword value using OnBase AutoFill Keyword Sets.

The Scan Acquisition Server can also sweep documents into OnBase from external media such as CDs or digital cameras using Windows Autoplay.

Users can send documents to the Scan Acquisition Server by printing them to the Hyland Virtual Printer. This feature removes the need to print documents on paper before scanning them into the system.

OnBase Production Scanning

Batch scanning can be accomplished in Epic by utilizing the Document Imaging and HL7 modules. This solution includes AutoFill Keyword Set indexing and provides the added functionality of E-Forms, auto-folders, and Front Office Scanning.

Epic Front Office Scanning

The Front Office Scanning integration allows Epic users to scan documents to OnBase through the OnBase Front Office Scanning client. The Front Office Scanning client offers access to additional features, including the ability to mark up documents and capture signatures.

Epic Desktop Document Retrieval

Epic users can view archived OnBase documents using the OnBase Document Viewer. If configured, document correction actions are also available. These actions can be used to send documents to OnBase Workflow for review and correction.

EpicCare Link Document Retrieval and Upload

Epic users can view archived OnBase documents from within EpicCare Link, PlanLink, or EpicWeb using the EpicCare Link integration. Users also can archive documents to OnBase through these modules.

Epic Release of Information Document Printing

OnBase documents can be printed from the Release of Information screen in Epic Hyperspace.

Epic Desktop Document Scanning

You can use Epic in conjunction with the OnBase Scan Acquisition Server (SAS) to perform light-duty, desktop document scanning. Once you begin scanning in Epic, the OnBase SAS client is launched, allowing you to capture and index documents in OnBase before returning to Epic for additional processing.

You can capture documents using any of several different methods, including scanning physical documents, sweeping files from a local or network directory, dragging external documents onto the SAS viewer, importing images from a digital camera or other external media, or importing images from the Hyland Virtual Printer.

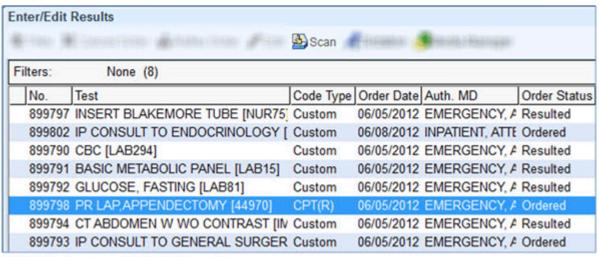
For details on performing desktop document scanning in the SAS client, see the following sections:

- Opening the Scan Acquisition Server Client on page 274
- Scanning Documents on page 277
- Sweeping Files on page 277
- Importing Images from a Digital Camera with WIA on page 278
- Importing Images from External Media Using Autoplay on page 280
- Importing Images from the Hyland Virtual Printer on page 280
- Reviewing Documents on page 280
- Indexing Documents on page 283

Opening the Scan Acquisition Server Client

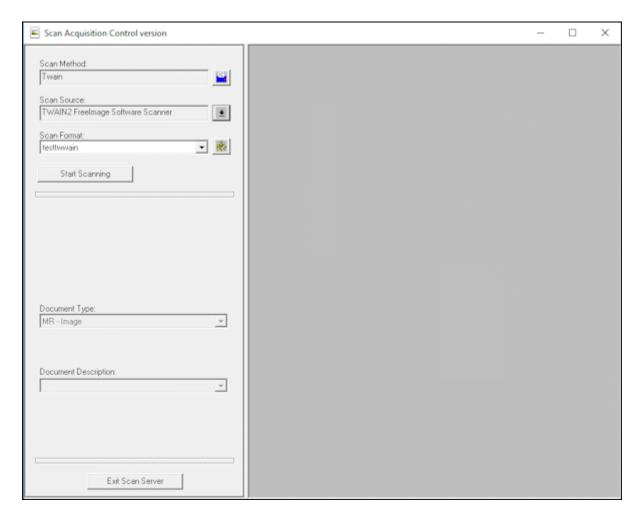
You must launch the OnBase Scan Acquisition Server client from within Epic before you can begin capturing documents.

To open the Scan Acquisition Server client from Epic, click the **Scan** button when viewing patient, encounter, or order information.



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The OnBase Scan Acquisition Server client is displayed.



As you open the Scan Acquisition Server client from Epic, also note the following:

- The Epic Environment ID (Net Node ID) is compared to the EpicIntegrations.config file or the registry to obtain remote connection information to the OnBase Application Server.
- The following items are passed to OnBase for authentication:
 - **Epic ID**—User ID that is unique to each Epic user and is used to create an associated user name in OnBase.
 - External Authentication username and External Authentication password—These parameters, which are configured within an Epic Environment, are used to verify that the connection to OnBase can be attempted and to identify the connection as coming from Epic.
- The Epic ID is added to the OnBase user group ALL EPIC USERS if it is not already there.

- The following items are passed to the Scan Acquisition Server:
 - A list of Document Types previously configured for the Epic module.
 - The type of request (for example, patient or encounter).
 - Internal Epic keyword names with their corresponding value (for example, Patient ID 12345).

Scanning Documents

You can scan image documents into the SAS client using a TWAIN, Kofax™, and ISIS-compliant scanner.

To scan documents:

- 1. Open the SAS client from Epic (see Opening the Scan Acquisition Server Client on page 274).
- 2. Click the **Scan Method** button and select the appropriate scan method for your scanner: **Twain**, **Kofax**, or **ISIS**.
- 3. Click the Scan Source button. The Select Source dialog box is displayed.
- 4. Select the input source matching your scanner and click Select.
- 5. Select a pre-configured scan format from the **Scan Format** drop-down list. For more information about the available scan formats, contact your system administrator.
- 6. Place the documents to be scanned in your scanner's feeder and click the **Start Scanning** button. Images of the documents are displayed in the SAS client's viewer as they are scanned in.

For information on reviewing the scanned images, see Reviewing Documents on page 280.

Sweeping Files

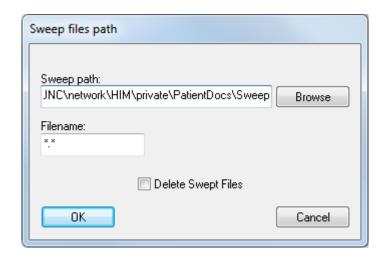
You can sweep one or more files into the SAS client from a local or network location.

To sweep files:

- 1. Open the SAS client from Epic (see Opening the Scan Acquisition Server Client on page 274).
- 2. Click the **Scan Method** button and select **Sweep**. The **Scan Source** is automatically set to **Sweep** and disabled.
- 3. Select a pre-configured scan format from the **Scan Format** drop-down list. For more information about the available scan formats, contact your system administrator.

4. Click Start Scanning.

- If the selected scan format is configured for single file import, the **Open** dialog box is displayed. Proceed to step 5.
- If the selected scan format is not configured for single file import, the **Sweep files** path dialog box is displayed. Proceed to step 6.



- 5. If the **Open** dialog box is displayed, browse to the file you want to import and click **Open**. Images of the files are displayed in the SAS client's viewer as they are swept in.
- 6. If the **Sweep files path** dialog box is displayed, do the following:
 - a. Enter the path to the file or files you want to sweep in the **Sweep path** field provided, or click **Browse**.
 - b. To delete the swept files after they are successfully archived, select **Delete Swept** Files.

Note: Read-only files are not deleted.

c. Click **OK**. Images of the files are displayed in the SAS client's viewer as they are swept in.

For information on reviewing the swept images, see Reviewing Documents on page 280.

Importing Images from a Digital Camera with WIA

Using Windows Image Acquisition (WIA), you can import images from a digital camera natively within the SAS client.

Alternatively, you can import images from a digital camera through a Citrix connection if you have RemoteScan® Enterprise installed on your workstation and a scan format configured as a RemoteScan Digital Camera Format. Refer to the RemoteScan Enterprise documentation for file import steps.

Note: If you are connecting to the SAS client through RemoteScan Enterprise, and if you had a single scanner already installed on your workstation when you installed the RemoteScan application, the scanner is selected as the scan source by default.

To import images natively within the SAS client:

- 1. Open the SAS client from Epic (see Opening the Scan Acquisition Server Client on page 274).
- 2. Connect the digital camera to the workstation.
 - If the camera is detected, depending on your configuration, the **Digital Camera** button is displayed. Contact your system administrator for more information on your configured settings.
 - If the camera is not detected, ensure that the Windows Image Acquisition (WIA) service is enabled and started. For information about this service, see the Windows help files.
- 3. Click the **Digital Camera** button. The Windows Image Acquisition (WIA) **Get Pictures** interface is displayed.



- 4. Select the images to import. The ability to select multiple images and the steps for doing so may vary per camera.
- 5. Click **Get Pictures**. The selected images are made available for indexing through the SAS client.

For information on reviewing the imported images, see Reviewing Documents on page 280.

Importing Images from External Media Using Autoplay

You can use Windows Autoplay to import images into the SAS client from external media, such as CDs, digital cameras, and USB drives.

To import images from external media:

- 1. Open the SAS client from Epic (see Opening the Scan Acquisition Server Client on page 274).
- 2. Insert the medium on which the images are currently stored (for example, insert a CD or plug in a camera). The Windows Autoplay dialog box is displayed.
- 3. Click **Archive to Scan Acquisition Server**. The swept documents are made available for indexing through the SAS client.

For information on reviewing the imported images, see Reviewing Documents on page 280.

Importing Images from the Hyland Virtual Printer

If the SAS client is configured to receive images from the OnBase Virtual Print Driver, you can send images to the SAS client by printing them to the Hyland Software Virtual Printer.

To import images from the Hyland Virtual Printer:

- 1. Open the SAS client from Epic (see Opening the Scan Acquisition Server Client on page 274).
- 2. Print the documents you want to import using the Hyland Software Virtual Printer. The Hyland Software Virtual Printer is available from the list of printers in the **Print** dialog box.
 - Once the documents have been virtually printed to the SAS client, the following message is displayed: **Received document(s) from external source.**
- 3. Click OK.

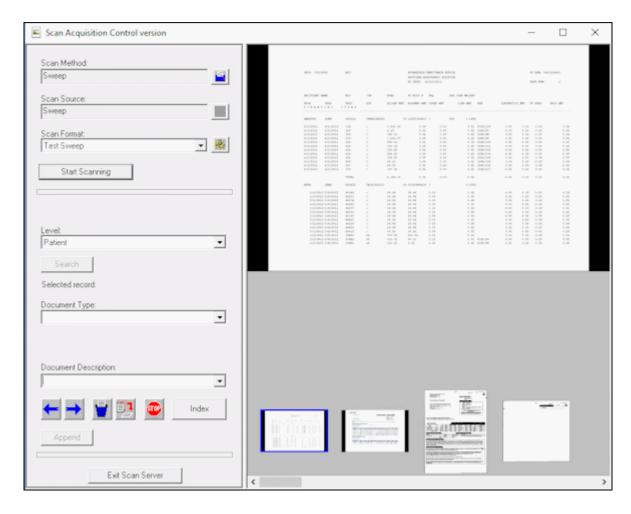
For information on reviewing the imported images, see Reviewing Documents on page 280.

Reviewing Documents

You can review any page of the captured documents in the document viewer on the right side of the SAS client. Reviewing a page may include adjusting its display size or rotating it to allow you to more effectively assess the page's image quality and content. You can also capture additional pages into the current document or delete unwanted pages before indexing.

To review captured documents:

- 1. Open the SAS client from Epic (see Opening the Scan Acquisition Server Client on page 274).
- 2. Capture documents by scanning, sweeping, dragging, or importing from external media into the SAS client (see the previous sections for details). Once the documents are captured, the first page of the first document is displayed in the document viewer, as shown in the following example:



Note: Document parameters are determined by the selected scan format. For example, if four pages are scanned using a scan format configured to have two pages per document, a total of two documents are scanned.

3. Use the scroll bars to view all thumbnails of document images at the bottom of the screen. Double-click a thumbnail to select that page and display it in the document viewer.

- 4. To navigate to a different captured document, do one of the following:
 - To navigate to the first page of the next document, click the **Next Document** button.



 To navigate to the first page of the previous document, click the Previous Document button.



Tip: You can use the **Previous Document** button to review a previously indexed document and determine if you need to re-index it.

5. To change the way the selected page is scaled in the document viewer, right-click the page and select one of the following options:

Option	Description
Reset zoom	Fits the page to the width and height of the screen.
Fit width	Fits the page to the width of the screen.
One to one	Resizes the page so that pixels are a 1:1 ratio, where one image pixel is equal to one screen pixel.

6. To change the zoom level of the selected page, right-click the page and select one of the following options:

Option	Description
Zoom in	Enhances the magnification and displays a smaller area of the page.
	Tip: You can also zoom in by clicking and dragging an area on the page.
Zoom out	Reduces the magnification and displays a greater area of the page.

7. To change the selected page's rotation, right-click the page and select one of the following options:

Option	Description
Rotate left	Rotates the page 90 degrees counter-clockwise.

Option	Description
Rotate right	Rotate the page 90 degrees clockwise.
Save rotation	Saves the page's current rotation so that it keeps this orientation when its document is archived in OnBase.
	The Save rotation option is only available after you rotate the selected page and only if your SAS client is not configured to automatically save rotations during indexing.

- 8. To capture additional pages into the current document, click **Scan More Pages**. When prompted, click **Yes** and scan or sweep the additional pages. All scanned pages are added to the current document.
- 9. To delete captured pages, do one of the following:
 - To delete the currently selected page from the current document, click the **Delete** Page button.



 To delete the entire current document, including all pages in the document, click the Delete Document button.



For information on indexing the reviewed documents, see Indexing Documents on page 283.

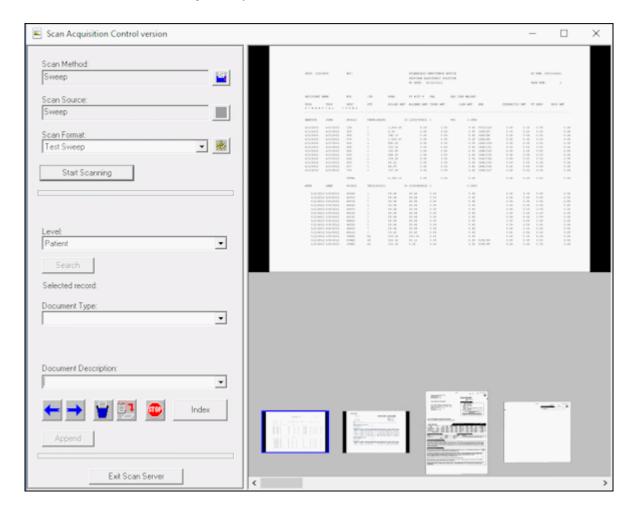
Indexing Documents

Once you have captured and reviewed documents in the SAS client, you can index them to store the documents and their Keyword Values in OnBase for later retrieval.

Caution: Any unindexed documents that were captured during this session are lost when you exit the SAS client.

To index captured documents:

- 1. Open the SAS client from Epic (see Opening the Scan Acquisition Server Client on page 274).
- 2. Capture documents by scanning, sweeping, dragging, or importing from external media into the SAS client (see the previous sections for details). Once the documents are captured, the first page of the first document is displayed in the document viewer, as shown in the following example:



Note: Document parameters are determined by the selected scan format. For example, if four pages are scanned using a scan format configured to have two pages per document, a total of two documents are scanned.

3. Review the captured documents to adjust how their pages are displayed and to add or remove documents for indexing (see Reviewing Documents on page 280).

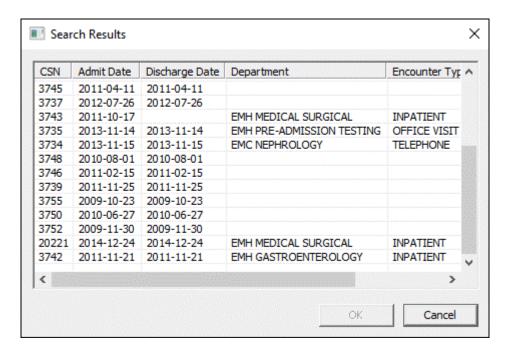
4. If you opened the SAS client from Epic Hyperdrive, and if your solution has been configured for FHIR-based reverse AutoFill Keyword Set lookups (reverse lookups), you can perform a reverse lookup to select from multiple encounters or orders for the same patient.

To perform a reverse lookup, do the following:

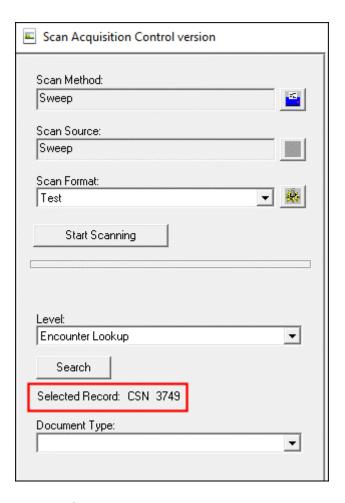
a. Select the reverse lookup you want to perform from the Level drop-down list.

Note: Because the SAS client is opened in a single patient record, you cannot perform a reverse lookup at the patient level.

b. Click Search. The Search Results dialog box is displayed.



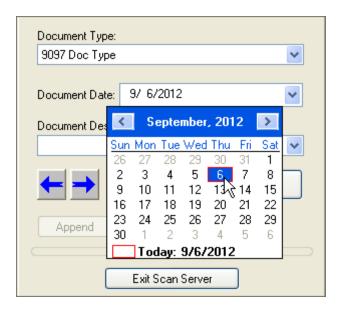
c. Select a record to apply to the captured document and click **OK**, or double-click the record. An identifier for the selected record is displayed in the SAS client, as shown in the following example:



5. Select a Document Type from the **Document Type** drop-down.

6. Enter or select the document's date, if applicable. The **Document Date** field may not be available, depending on your system's setup.

To access the calendar, click the **Document Date** drop-down list. An expanded calendar is shown in the following example:



- 7. Type or select a description in the **Document Description** field, if applicable. Descriptions should comply with Epic standards. When working with descriptions, also note the following:
 - Depending on your system's settings, the **Document Description** field may not be available.
 - Depending on your system's settings, the most commonly entered descriptions may be available in the **Document Description** drop-down list. You can use the list to select a previously entered description instead of re-typing it.
 - Any descriptions you enter during the current scan session remain available in the list for the duration of the scan session. Only the most common descriptions are retained across multiple scanning sessions.
- 8. To append all pages of the current document to the end of the last document you indexed, click **Append**. This option is only available if the scan format is set for multiple pages per document and if both the current document and the last document you indexed are image files.
- 9. To accept the indexing values and continue to the next document, click **Index**. This temporarily saves the documents and indexing information.

10. To pause the indexing process to capture more documents, click the **Stop Indexing** button.



To resume the indexing process after capturing more documents, click **Index Documents**.

Caution: Always use the **Stop Indexing** button to pause indexing. If you exit the SAS client instead of pausing indexing, previously indexed documents are archived, but unindexed documents are discarded. The next time you open the SAS client, no documents are retained from the previous session.

11. When you are done indexing all captured documents, click **Exit Scan Server** to exit the SAS client and submit the indexed documents to OnBase for storage and retrieval. Any OnBase Keyword Types that either match Epic keywords or are configured for mapping are also stored in OnBase.

Caution: If you click **Exit Scan Server** before indexing all documents, a warning is displayed. If you continue exiting before indexing all documents, all unindexed documents from this session are discarded.

Caution: If a **Failed to archive documents** error is displayed, contact your system administrator. Click **No** to return to the SAS client, where you may need to delete, rescan, and re-index the documents listed. If you click **Yes**, the listed documents are discarded.

When exiting the SAS client, also note the following:

- Depending on your system's setup, OnBase returns the following information to Epic when you finish indexing: OnBase document handle, Document Description value, and built-in Keyword Values based on the Epic module (for example, Patient ID, Encounter, or Order Number).
 - Epic uses the document description and document handle to create a hyperlink title reference. This link can be accessed by an authorized Epic user to retrieve the document.
- When integrating with Epic Hyperdrive, if OnBase FHIR has been configured for a DocumentReference endpoint, OnBase automatically sends a FHIR notification message to Epic for each document uploaded.
- When integrating with Epic Hyperdrive, an audit message is logged for each notification OnBase sends to Epic. These audit messages can be accessed by rightclicking an open document from the SAS client and selecting **History**.
- The SAS client can be configured not to provide Epic with linking information when scanning is completed. This allows the document to undergo additional processing in OnBase before being made available in Epic.

OnBase Production Scanning

OnBase Document Imaging is launched from within the OnBase Client. Selecting the **Scan/Index** option displays the Document Imaging user interface.

When OnBase is licensed for Production Document Imaging, you can batch scan documents into user-defined queues, where they are indexed and archived into OnBase. The OnBase client/ server architecture allows users to scan documents from a single workstation and index and archive the documents from multiple workstations.

If your solution is configured to allow physicians to acknowledge OnBase documents from within Epic, see Sending Documents to Physicians for Acknowledgment on page 289.

Note: For more information, see the OnBase **Document Imaging** module reference guide or help files.

Sending Documents to Physicians for Acknowledgment

As documents are indexed using OnBase Document Imaging, the indexers can specify a list of physicians who need to review the documents from within Epic. When committed, the documents show up as links in the specified physicians' Epic inboxes.

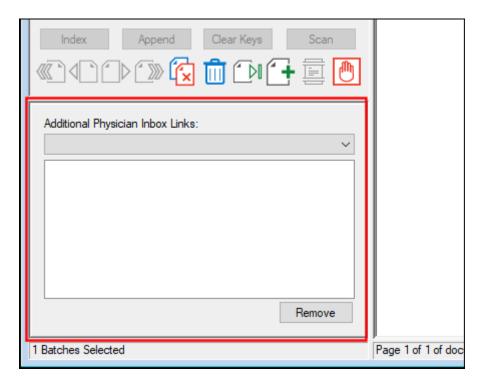
This feature is available in two indexing locations:

- The Document Imaging window in the OnBase Client—See Linking Physicians in the OnBase Client on page 290.
- The Batch Processing layout in the Unity Client—See Linking Physicians in the Unity Client on page 291.

Linking Physicians in the OnBase Client

If a scan queue is configured for **Epic Physician Inbox Linking Support**, then the physician linking pane is displayed in one of the following locations in the OnBase Client:

• During indexing, the pane is displayed in the lower-left corner of the Document Imaging window.



 During QA review, QA re-index, or manager resolution, the pane is displayed in the upper-left corner of the Document Imaging window.

Note: This pane is available only for image and text documents. It is not available for other file formats.

Depending on the configuration of the scan queue, you may be required to select a physician to acknowledge each document.

To select physicians for acknowledgment:

1. From the Additional Physician Inbox Links drop-down, select a physician.

Tip: To quickly jump to a physician, click the drop-down and type the first letters of the physician's name.

The physician is added to the list.

2. Repeat for each physician who needs to review the document. To remove a physician from the list, select the physician and click **Remove**.

3. Continue indexing or performing QA work on the document.

After all indexing is complete and the batch is committed, the document becomes available in the specified physicians' Epic inboxes.

Linking Physicians in the Unity Client

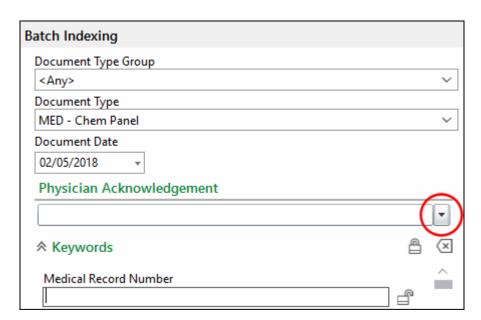
If a scan queue is configured for **Epic Physician Inbox Linking Support**, then the **Physician Acknowledgement** field is displayed above the Keyword panel in the Unity Client's Batch Processing layout.

Depending on the configuration of the scan queue, you may be required to select a physician to acknowledge each document.

Note: The **Physician Acknowledgement** field is available only for image and text documents. It is not available for other file formats. The **Physician Acknowledgement** field is not available in the Medical Records Unity Client.

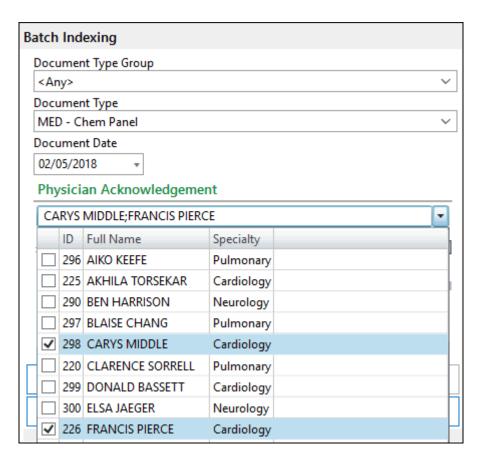
To select physicians for acknowledgement:

 Click the Physician Acknowledgement drop-down arrow to expand the list of physicians.



Tip: To filter the list, type part of the physician's name or specialty into the **Physician Acknowledgement** field. To sort physicians by name or specialty, click the column headers at the top of the list.

2. Select the check box next to the name of each physician who needs to review the document.



Continue indexing or performing QA work on the document.
 After all indexing is complete and the batch is committed, the document becomes available in the Epic inboxes of the specified physicians.

Epic Front Office Scanning

The following topics describe the Front Office Scanning integration's general usage behavior. For complete usage information, see the **Front Office Scanning** module reference guide.

- · Startup for the Front Office Scanning Client on page 293
- Indexing Documents Using Front Office Scanning on page 293
- Uploading Images on page 297
- Discarding Images on page 297
- · Linking Existing Documents to Epic on page 297

Startup for the Front Office Scanning Client

When you access Front Office Scanning from Epic, the Epic application passes in the Epic document type name list, the keyword data list, and your Epic credentials.

- The Front Office Scanning client uses the credentials for authentication.
- Depending on your system's setup, the Epic document type list may filter out any XML configuration buttons that do not match on Document Type. Buttons configured to ask (or prompt) you for the Document Type are always available.
- The mapping specified in the **DataSet** configuration block is used to convert the Epic keyword list into a Front Office Scanning Data Set, which becomes the active Data Set.

Indexing Documents Using Front Office Scanning

You can index documents using standard Front Office Scanning features. See the following sections for details:

- Data Sets on page 293
- Document Types on page 293
- Document Descriptions and Dates on page 294

If you are using Front Office Scanning in conjunction with Epic Hyperdrive, depending on your configuration, you can also perform a reverse AutoFill Keyword Set lookup to select from multiple encounters or orders for the same patient (see Reverse AutoFill Keyword Set Lookups on page 294).

Data Sets

If applicable, enter values for Data Set Keyword Types that have not been populated by Epic. Double-click a Keyword Type in the Data Sets list to modify its value. Any Data Set values you enter are stored on the OnBase document, but they are not sent to Epic.

Note: You cannot modify values for Keyword Types populated by Epic.

For information about mapping Keyword Types, see Epic-to-OnBase Keyword Mapping on page 87.

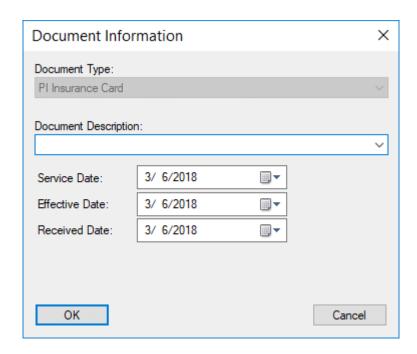
Document Types

Epic sends the Front Office Scanning client one or more Document Types to be used for storing documents. Depending on the configuration of the Front Office Scanning client, you may not need to choose a Document Type when indexing a document. However, if you click a Document Type button configured with a value of **ask**, you will be prompted to choose the Document Type from a list of available Document Types.

For information about configuring Document Types, see Document Types Available for Upload on page 89.

Document Descriptions and Dates

Depending on your system's setup, you may be prompted to specify an optional or required document description for Epic. Options for entering descriptions may vary depending on your system's configuration. For information about configuring document descriptions, see Document Descriptions on page 91.



If prompted, you can specify the service date, effective date, and received date for the document. Because Epic accepts only one set of dates per upload, the dates entered apply to all documents scanned during the current scan session. When you click **Upload Images**, the Front Office Scanning client sends Epic the latest value entered for each date, and this set of date values is stored in Epic for all documents included in the upload. For more information about configuring dates, see Sending Dates to Epic on page 96.

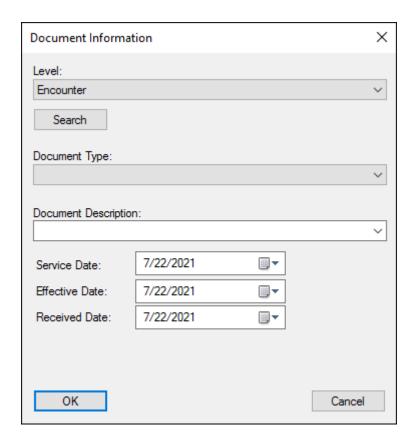
Reverse AutoFill Keyword Set Lookups

If you opened the Front Office Scanning client from Epic Hyperdrive, and if your solution has been configured for FHIR-based reverse AutoFill Keyword Set lookups (reverse lookups), you can perform a reverse lookup to select from multiple encounters or orders for the same patient.

To perform a reverse lookup:

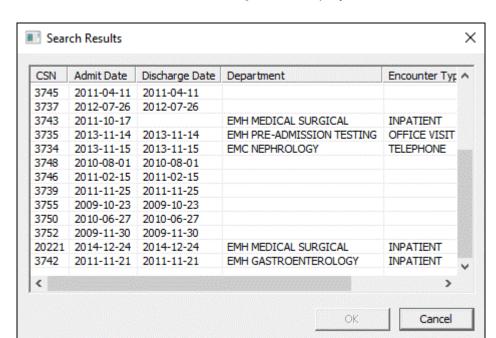
- 1. Open the Front Office Scanning client from Epic Hyperdrive.
- 2. Scan or import documents using standard Front Office Scanning functionality (see the **Front Office Scanning** documentation for full details).

3. Click the Document Type button that has been configured as an **Ask** type. The **Document Information** dialog box is displayed.



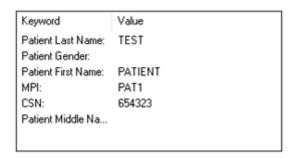
4. Select the reverse lookup you want to perform from the **Level** drop-down list.

Note: Because the Front Office Scanning client is opened in a single patient record, you cannot perform a reverse lookup at the patient level.



5. Click **Search**. The **Search Results** dialog box is displayed.

- 6. Select a record to apply to the document and click **OK**, or double-click the record.
- 7. Select a Document Type from the **Document Type** drop-down list.
- 8. Enter or select a description in the **Document Description** field, if applicable. Descriptions should comply with Epic standards.
- 9. Enter or select date values, if applicable. To access the calendar, click the appropriate date field's drop-down list.
- 10. Click **OK**. The Keyword pane in the upper-left corner of the FOS client is updated with additional context from the selected record, as shown in the following example:



For information on uploading the indexed documents and passing the metadata back to Epic, see Uploading Images on page 297.

Uploading Images

After scanning the necessary information for this patient, click **Upload Images**. If you attempt to exit the Front Office Scanning client without uploading, a warning message is displayed.

The FOS client performs the upload of the document(s), and returns the document information (OnBase document IDs, Document Type names, document descriptions, dates) to the wrapper DLL, which in turn passes this information back to Epic for attachment to the EMR record.

When exiting the Front Office Scanning client, also note the following:

- When integrating with Epic Hyperdrive, an audit message is logged for each notification OnBase sends to Epic. These audit messages can be accessed by rightclicking an open document from the Front Office Scanning client and selecting History.
- The Front Office Scanning integration can be configured not to provide Epic with linking information when scanning is completed. This allows the document to undergo additional processing in OnBase before being made available in Epic.

Discarding Images

Click **Discard Images** to delete all documents associated with the selected dataset. The documents are removed. The dataset, which contains values passed in from Epic, remains available for additional use.

Linking Existing Documents to Epic

The Front Office Scanning integration can use custom queries to find referral documents stored in OnBase. Using these custom queries, you can view, re-index, and link the appropriate documents to the current referral in Epic.

If the Front Office Scanning integration is configured for custom queries, each custom query is represented as an additional tab in the Related Documents pane.

Document	Page(s)	Date 🔺	Linked	
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown	
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown	
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown	
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown	
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown	
REF - Unknown Referral - 4/13/2017	1	4/13/2017	Unknown	

When you click a custom query tab, the Related Documents pane lists the documents retrieved using that custom query.

For information about configuring this feature, see Referrals: Link Existing OnBase Documents on page 101.

To link a document to the current referral:

- 1. Click the custom query tab in the Related Documents pane.
- 2. Double-click the document you want to view.
- 3. To re-index the document, click the appropriate Document Type button from the left pane of the Front Office Scanning client.

Note: Existing values for Keyword Types that are allowed by the newly assigned Document Type remain on the document. However, existing values for Keyword Types that are not allowed by the newly assigned Document Type are removed from the document.

- 4. Enter indexing information if prompted, and click **OK**.
- 5. Repeat for each additional document as needed.
- 6. Click Finished to link the documents to Epic and close the Front Office Scanning client.

EpicCare Link Document Retrieval and Upload

The EpicCare Link integration allows for document retrieval and upload through EpicCare Link, PlanLink, and EpicWeb.

EpicCare Link Document Retrieval

The OnBase EpicCare Link integration allows users to retrieve OnBase documents directly within an electronic medical record. These documents were previously brought into Epic using OnBase through scanning or other import options.

Note: OnBase notes are not displayed on documents retrieved using the EpicCare Link integration.

EpicCare Link Document Upload

The OnBase EpicCare Link integration allows users to archive documents to OnBase from within EpicCare Link, PlanLink, or EpicWeb. Users can upload documents to OnBase either by adding them as **Additional Documents** on a CRM message or by using the Upload Document feature. For more information, refer to your Epic documentation or system administrator.

Epic Release of Information Document Printing

The Integration for Epic can be configured to print OnBase documents through Epic Print Services. This component allows you to print documents residing in OnBase from the Release of Information screen in Epic Hyperspace. Select the documents you want to print and begin printing.

Printing Notes

Certain notes may be eligible for printing.¹ The Release of Information integration supports printing eligible notes directly on the following types of documents:

- · Image documents
- · Text documents
- Image and text documents with overlays

The integration can also be configured to print all eligible notes on a supplemental page following the document. If this feature is enabled, the supplemental page includes the following information for each eligible note: Note Type, title, creator, date, page number, and body text. This configuration ensures eligible notes are printed when the document file format does not support note printing. If the document file format supports note printing, eligible notes are printed both on the document and on the supplemental page.

Printing Medical Deficiencies

If your solution includes the Medical Records Management Solution or Signature Deficiencies for Epic, then OnBase documents may include deficiencies. If a document containing unburned deficiencies is printed using through Epic Print Services, the following rules are applied:

- 1. Completed deficiencies are always printed.
- Incomplete (unsigned) deficiencies are printed based on the Note Print Settings set for the Note Types in OnBase Configuration. By default, unsigned deficiencies are not printed.

Supported File Formats for ROI

The Release of Information integration supports the following file formats:

- Image documents
- · Text documents
- Image and text documents with overlays
- · Microsoft PowerPoint documents
- · Microsoft Word documents
- · PDF documents
- · Image-rendered PDF documents
- · PCL documents
- AFP documents
- Dynamic documents (created using the Statement Composition module)
- · HTML documents
- · HTML Unicode documents
- · Electronic Form (E-Form) documents
- Unity Form documents

^{1.} Printing eligibility is based on the print setting configured for the Note Type.

Other file formats are not supported. Password-protected documents also are not supported.

If you try to print a document with an unsupported file format from the Release of Information screen, a surrogate page is printed to indicate that the document must be printed from its native application.

Epic Desktop Document Retrieval

The OnBase Web Viewer allows you to retrieve OnBase documents from within an Epic environment. When Epic launches the OnBase Web Viewer, it passes the following identification to the OnBase API for authentication:

- Epic ID—User ID that is unique to each Epic user and is used to create an associated user name in OnBase. The Epic ID is added to the OnBase user group ALL EPIC USERS if it is not already there.
- External Authentication username and External Authentication password—A special API uses these parameters, which are configured within an Epic Environment, to verify that the connection to OnBase can be attempted and to identify the connection as coming from Epic.

Note: If the integrated login fails, you cannot manually log on to the OnBase Web Viewer.

This API is the same one used for the Scan Acquisition Server, except that Epic is making this authentication call directly.

See the following topics to retrieve and work with OnBase documents:

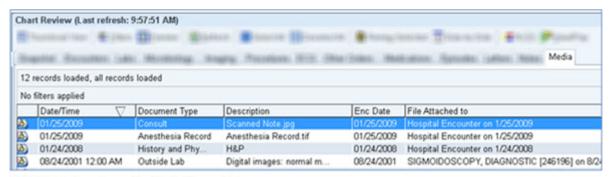
- Retrieving OnBase Documents on page 300
- Sending a Document to Workflow for Review on page 302
- Printing Documents on page 304
- Acknowledging Documents on page 305
- Viewing Unity Forms on page 306

Retrieving OnBase Documents

You can retrieve and view documents stored in OnBase from within Epic using the OnBase Web Viewer.

To retrieve and view documents stored in OnBase from within Epic:

1. In Epic, navigate to the tab or section containing scanned documents. For example, in Chart Review, scanned documents are available on the **Media** tab.

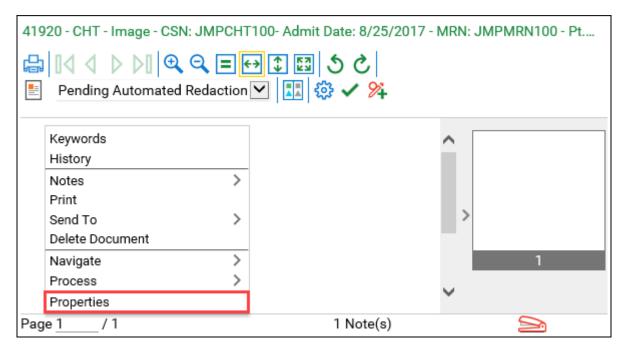


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2. Open the OnBase document you want to view. Epic makes an API call to retrieve the document using the OnBase document handle. The document is displayed in the OnBase Web Viewer.

Tip: To scroll through multi-page text and image documents, use your mouse wheel.

In the OnBase Web Viewer, the document handle can be displayed by selecting **Properties** from the right-click menu.



Sending a Document to Workflow for Review

The document correction process allows users to submit medical documents to OnBase Workflow, where HIM staff can re-index or correct the documents as needed. This process offers the following benefits:

- Corrections are centralized. All documents that need to be corrected are accessible through OnBase Workflow.
- Correction-related privileges are limited to a small subset of users. Other users can submit documents for corrections as needed, but only users who should be allowed elevated privileges will be able to perform the corrections.
- OnBase remains synchronized with external EMR systems. When a document is created, modified, or deleted in OnBase, OnBase can send an HL7 message notifying the EMR system of the event.

The correction process may be used to address multiple types of issues, including the following:

- · Documents are filed to the wrong Document Type, patient, or encounter
- · Duplicate documents need to be deleted
- · Pages need to be deleted
- Pages are out of order
- · Pages need to be rotated
- · Documents need to be split
- · Document image quality is poor

Submitting a Document for Correction

Information on a document may need to be changed to correct inaccuracies. If your system is configured for document corrections, you can submit a request for the document to be corrected.

To submit a document for correction:

- From the OnBase Web Viewer, click the Add Correction button in one of the following locations:
 - If an image document is open, click the Add Correction button in the Web Viewer control toolbar:

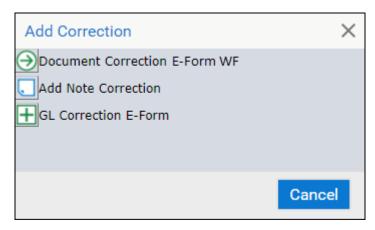


• If a PDF document is open, click the **Add Correction** button from the PDF document toolbar:



One of the following may occur:

- If only one document correction action is configured for your system, this action is automatically performed.
- If multiple document correction actions are configured for your system, the Add Correction dialog box is displayed.



2. If the **Add Correction** dialog box is displayed, click the appropriate document correction action button to perform the selected action.

Tip: For information about a button, rest your pointer over it. The help text is displayed. For additional information, contact your system administrator.

Depending on your system's configuration, one of the following may occur:

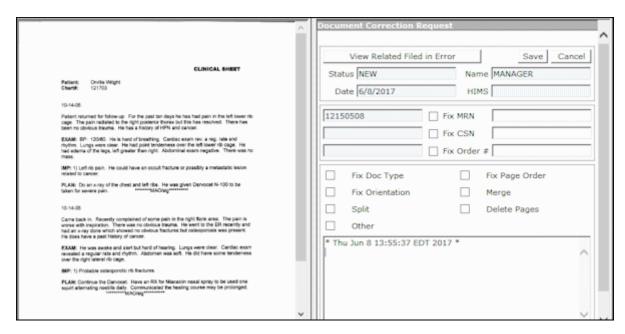
- The document is sent to the life cycle and queue associated with the action and a confirmation message is displayed.
- A correction form is displayed. To complete the correction form and send it to the appropriate life cycle and queue, see Completing a Correction Form on page 304.

Completing a Correction Form

If a form is displayed when you submit a document to Workflow, complete the following steps.

Note: If the document was corrected using this process previously, the previous correction request is available in the document results list above the viewer.

1. Fill out the form in the viewer's right pane. Clearly explain the reason you are submitting the document for correction.



- 2. Click the save or submit button on the form. A confirmation message is displayed. The form and document were sent to OnBase Workflow.
- 3. If a correction note was added to the document, you may be able to update the note text to describe your requested corrections. This note provides a visual indication that the document was submitted for correction.

Printing Documents

For more information on printing documents in the OnBase Web Viewer, see Printing Documents from the Web Viewer on page 346.

For information about printing documents using Epic Release of Information, see Epic Release of Information Document Printing on page 298.

Acknowledging Documents

If you are a physician, you may be able to acknowledge OnBase documents that have been routed to your inbox. To show you have reviewed a document, click the viewer's **Acknowledge** button, and then stamp the document with your electronic signature.

Note: Acknowledging documents is not part of the deficiency resolution process. Physicians are not required to sign documents sent to them for acknowledgment. Failing to acknowledge a document does not affect a physician's privileges to treat patients.

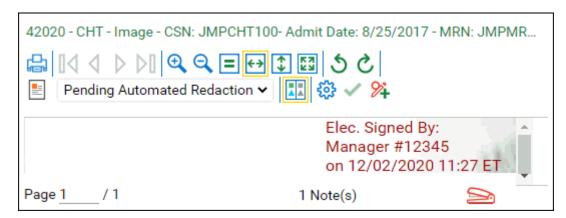
To acknowledge a document:

- 1. Click the link to the document from your inbox. The document is displayed in the OnBase Web Viewer.
- 2. When you are ready to sign the document, click the **Acknowledge** button from the viewer control toolbar.



Note: You may be unable to click the **Acknowledge** button in some situations. For example, another user may be viewing the document, or you may have already acknowledged the document.

3. On the document, click the location where your signature should be displayed.



- 4. If necessary, click and drag the signature to the location where you want it to be permanently burned.
- 5. Close the viewer to save your changes.

Viewing Unity Forms

If your OnBase solution includes Unity Forms, the OnBase Viewer can display these forms in a read-only state. You can retrieve Unity Forms from within Epic, but you are not able to edit them.

If a print button is configured on the form, you can use this button to print the current tab of the form. If the form is listed in a document results list above the viewer, you can right-click the form in the list and select **Print**. The print button in the viewer toolbar is unavailable.

For information about Unity Forms, see the Unity Forms module reference guide.

Navigating Documents

Navigating documents in the OnBase Web Viewer can be done through toolbars and keyboard shortcuts. See the following sections:

- · Web Viewer Document Shortcuts on page 307
- Web Viewer Toolbars on page 307

Web Viewer Document Shortcuts

The following keyboard shortcuts are available while viewing documents in the OnBase Web Viewer, in addition to the list of shortcuts in the previous sections.

Shortcut	Function
Page Up	Quickly scrolls up the current page. At the beginning of a page in a multipage document, scrolls to the previous page.
Page Down	Quickly scrolls down the current page. At the end of a page in a multi-page document, scrolls to the next page.
Ctrl + K	View or modify keywords for the selected document.
Ctrl + H	View the document history for the selected document.
Ctrl + N	Display the Add Note dialog for the current document.
	Note: This shortcut is not supported in Chrome.
Ctrl + Shift + N	Display the View Notes dialog for the current document.
	Note: This shortcut is not supported in Chrome.
Ctrl + P	Displays the Print dialog box.
Ctrl + W	Initiate a cross-reference from the current document.
	Note: This shortcut is not supported in Chrome or Firefox.

Web Viewer Toolbars

The OnBase Web Viewer displays a few toolbars that are used to navigate documents. For more details on available options associated with each toolbar, see Using Web Viewer Toolbars on page 309.

The following toolbars are available:

- The Viewer Control toolbar offers buttons for navigating within the current document, resizing and reorienting its pages, printing the document, and accessing document options. The position of this toolbar is immediately above the document display section. For more information on the specific options available with the Viewer Control toolbar, see Web Viewer Control Toolbar on page 309.
- The PDF and OLE Document Viewer toolbar provides various options that exist in the right-click menu for image and text documents, as the right-click menu is unavailable when viewing a PDF or OLE document in the OnBase Web Viewer. For more information on the specific options available with the PDF and OLE Document Viewer toolbar, see Web Viewer PDF and OLE Document Viewer Toolbar on page 312.
- The Annotations toolbar allows you to create annotations on documents. The
 position of this toolbar is located within the Viewer Control toolbar immediately
 above the document display section. For more information on specific options
 available with the Annotations toolbar, see Web Viewer Annotations Toolbar on page
 314.
- The Internal Text Search toolbar provides buttons for searching a document for a specified text word or phrase. The Internal Text Search toolbar is typically available for documents with a text report format. For more information on specific options available with the Internal Text Search toolbar, see Web Viewer Internal Text Search Toolbar on page 315.
- The Pages toolbar controls the display of thumbnails of the document pages. The
 position of this toolbar is to the right of the document display section. For more
 information on specific options available with the Pages toolbar, see Web Viewer
 Pages Toolbar on page 318.

Using Web Viewer Toolbars

There are different toolbars available in the OnBase Web Viewer. Toolbar buttons are designed to make navigation and document management an easy, point-and-click operation.

See the following topics for more information on toolbars used in the OnBase Web Viewer:

- Web Viewer Control Toolbar on page 309
- Web Viewer PDF and OLE Document Viewer Toolbar on page 312
- Web Viewer Annotations Toolbar on page 314
- Web Viewer Internal Text Search Toolbar on page 315
- Web Viewer Pages Toolbar on page 318

Web Viewer Control Toolbar

The Web Viewer Control toolbar allows you to view the document more efficiently. Use the buttons to navigate within the document, resize and reorient the page, and print.



Note: A different toolbar is displayed when you are viewing PDF or OLE documents. See Web Viewer PDF and OLE Document Viewer Toolbar on page 312 for information about the toolbar that is displayed when you view PDF or OLE documents.

Button	Description
Print	Displays the Print dialog box, if you have user rights to print the document.
Overlay	Applies an overlay to the document, if an overlay is present.
First Page	Displays the first page of the document.
Previous Page	Displays the preceding page of a multi-page document.
4	

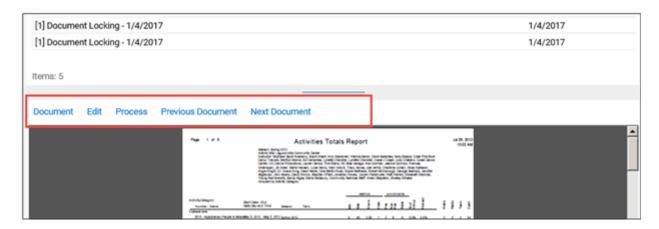
Button	Description
Next Page	Displays the following page of a multi-page document.
D	
Last Page	Displays the last page of the document.
Zoom In	Magnifies the view of a document, reducing the portion that is visible. Every zoom increases magnification by one third.
•	
Zoom Out	Reduces the magnification of a document, increasing the portion that is visible. Every zoom reduces magnification by one quarter.
Q	
Actual Size	Displays the document in its actual size (as it is stored in OnBase). Clicking this button sets the magnification to 100%.
	Note: This zoom level differs from True Size, which takes the monitor's and image's DPI into account when displaying the image.
Fit Width	Resizes the document page so that its width is the same as the width of the
€→	document display area.
Fit Height	Resizes the document page so that its height is the same as the height of the document display area.
1	the document display area.
Fit in Window	Resizes the document page so that it completely fits the document display area.
N 70 M 30	arca.
Rotate Counterclockwise	Rotates the document 90 degrees counterclockwise.
5	
Rotate Clockwise	Rotates the document 90 degrees clockwise.
Ċ	

Button	Description
Show Alternate Rendition	Available only for documents that are allowed to have multiple renditions. This button allows you to view a different rendition of a document when the document has multiple renditions. To view a list of the available renditions, click this button. Select the rendition you want to view from this list.
Text Search	Allows you to search for specific text strings within the document. For more information, see Web Viewer Internal Text Search Toolbar on page 315.
Generate Report	Allows you to generate a system report of internal text search results. For more information, see Web Viewer Internal Text Search Toolbar on page 315.
Toggle Annotation	Enables you to add one or more annotations to the document by selecting the annotation(s) from the adjacent drop-down list of available annotation types. You remain in annotation addition mode until you click the Toggle Annotation button again. For more information, see Web Viewer Annotations Toolbar on page 314.
Scale to Gray	Softens the contrast of text and image documents at zoom levels of less than 100%. This feature is most noticeable on black-and-white images, making it helpful for reading scanned documents containing text that is too dark or too light.
Options	Enables you to set viewer options.

Web Viewer PDF and OLE Document Viewer Toolbar

When you view PDF or OLE (Office) documents in the Web Viewer, a toolbar like the one shown below is displayed.

Note: When viewing OLE documents, this toolbar is only displayed when the Web Viewer is integrated with a Microsoft Office Online Server or Office for the web (Office 365). For more information, see your system administrator.



This toolbar provides you with many of the existing right-click menu options that are available for image and text documents, since the OnBase right-click menu is not accessible when viewing these documents.

Note: PDF and OLE documents are read-only when viewed within the Web Viewer.

The following menus and options are available in the PDF and Office document viewer toolbar:

Button	Description
Document	The following items are available in the Document menu: • Properties Displays the document properties for the open document. • History Displays the document history for the open document. • Cross-References Displays all documents that are cross-referenced to the open document. • Revisions / Renditions Displays the revisions or renditions of the document, if the document type has revisions or renditions. • Show Folder Locations Displays the folders where this document resides. • View in Native Application Displays the document in its native application. Note: The View in Native Application option is only available when viewing OLE documents. This option is only available if the Web Viewer is integrated with Microsoft Office Online Server or Office for the web (Office 365). For more information, see your system administrator.
Edit	The following items are available in the Edit menu: • Re-Index Displays the Re-Index window for the open document. • Keywords Displays the Keywords window for the open document. • Notes Displays the Notes dialog for the open document.
Process	This menu contains options that apply to Workflow and WorkView. For descriptions of these menu items, refer to the Workflow and WorkView help files or module reference guides.
Previous Document	Click the Previous Document button to navigate to the next document in the list.
Next Document	Click the Next Document button to navigate to the next document in the list.

Note: If an Office Business Application (OBA) is installed, you may be prompted to edit the document in its native application.

Web Viewer Annotations Toolbar

The Annotations toolbar allows you to draw annotations on a document.

Note: If you are viewing a document that is locked by Records Management, the Annotations Toolbar is also locked and cannot be used.

To create and place an annotation on a document:

1. In the **Annotations** toolbar, select the type of annotation to add to the document from the drop-down list.



2. Click the Toggle Annotation button.



3. Using your mouse pointer, define the location and size of the annotation by clicking and dragging the pointer over the document. Release the mouse button when finished to display the annotation.

Note: Ensure that the annotation is large enough to be visible. Annotations are required to be a certain size before they can be created and saved.

Moving and Resizing Annotations

If you have appropriate privileges, and if an annotation is configured to be movable, you can move and resize annotations after they have been placed on a document.

To move an annotation on a document, do one of the following:

- Click and drag the annotation to a new location.
- Double-click the annotation, then use the arrow keys on the keyboard to move the annotation to a new location.

Tip: When using the arrow keys on the keyboard to move an annotation, press and hold the **Ctrl** key while pressing the arrow keys to move the note more quickly.

To resize an annotation on a document, do the following:

1. In the Document Viewer, double-click the annotation you want to resize. The annotation is selected.



2. Click and drag the edges or corners of the annotation until the annotation is the correct size. The mouse pointer changes to indicate the direction in which the annotation can be resized.

When you are finished resizing the annotation, click a different area of the screen to deselect the annotation.

Web Viewer Internal Text Search Toolbar



From an open text-based document in the OnBase Web Viewer, use the functions in the Internal Text Search toolbar to search for specific text strings within the document.

Note: You cannot execute an internal text search on a text document that has an overlay applied to it. Remove the overlay in order to execute the internal text search.

You can limit the text string search to one or more consecutive columns (character positions).

See the following topics for information about the available functionality for performing internal text searches in the OnBase Web Viewer:

- · Performing an Internal Text Search on page 316
- · Generating an Internal Text Search Report on page 316

Performing an Internal Text Search

To perform an internal text search in the OnBase Web Viewer:

1. Click the Text Search button.



The Text Search box is displayed.



- 2. Click in the text entry field and type the characters to search for. As you type, results that match the search string are highlighted on the document.
- 3. Click the **Find Next** button or press **Enter** to find subsequent occurrences of the text. Occurrences of the specified search string are highlighted on the document.
- 4. To limit the search between specific columns, click the **Expand** button:



5. Select Column Search.



- 6. Specify values for the **Start Column** and **End Column**.
- 7. Click the **Find Next** button or press **Enter**. Occurrences of the specified search string are highlighted on the document.

Generating an Internal Text Search Report

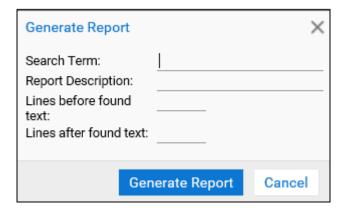
You can generate a system report of internal text search results. This system report is stored as a document under the SYS Search Reports Document Type.

To generate an internal text search report in the OnBase Web Viewer:

1. Click the Generate Report button:



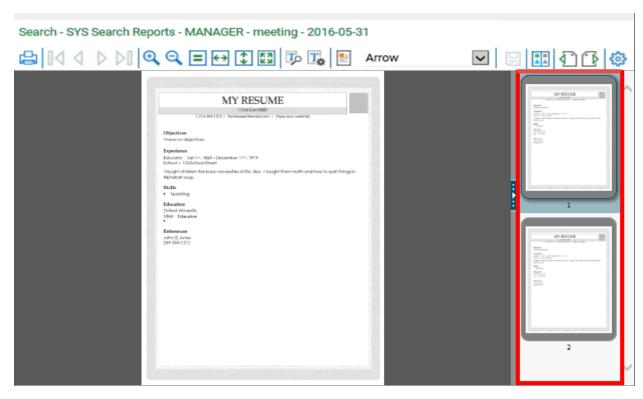
The Generate Report window is displayed.



- 2. Enter a search term in the **Search Term** field. This is the search term that will be searched on the document.
- 3. Enter a name for the report in the **Report Description** field. The text entered in this field will be used as the **Description** keyword value on the report.
- 4. If applicable, enter the number of lines of text to show above and below the found text in the **Lines before found text** and the **Lines after found text** fields.
- 5. Click the **Generate Report** button. The search report is created and stored as a document under the **SYS Search Reports** document type.

Web Viewer Pages Toolbar

Document Thumbnails are miniature representations of the document pages, which provide a method of document navigation. Document Thumbnails display in the Pages toolbar window in the OnBase Web Viewer.



You can easily navigate between the pages of a document by selecting a page in the pages toolbar.

See the following topics about performing actions when using the Pages toolbar:

- Reordering Pages in a Document Using Thumbnails on page 318
- Deleting Pages From Documents Using Thumbnails on page 320

Reordering Pages in a Document Using Thumbnails

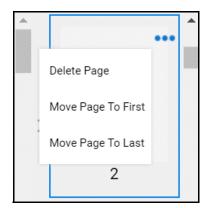
You can reorder pages in a multi-page image document using thumbnails in the **Pages** toolbar in the OnBase Web Viewer. Only the **Modify** privilege is required to reorder pages in a non-revisable document. The **Modify** and **Create Revisions** privileges are required to reorder a page in a revisable document.

Note: You cannot reorder pages if a document is read-only.

To reorder pages in a multi-page image document:

- 1. Open the document you want to reorder.
- 2. Locate the **Pages** toolbar. By default, the **Pages** toolbar is displayed along the right edge of the OnBase Web Viewer in a vertical column.

- 3. Perform one of the following actions to reorder the document:
 - Click on the thumbnail of the page you want to move, then drag the thumbnail to its new position and release it. When you release the thumbnail, the **Pages** toolbar is updated to reflect the new sequence.
 - Hover the mouse pointer on the thumbnail of the page you want to reorder and click
 the ellipsis icon on the top-right corner of the thumbnail. Then select Move Page To
 First or Move Page To Last to move a page to the first or to the last position within a
 document.



Note: The **Move Page To First** option is disabled when a page is in the first position in the existing sequence. The **Move Page To Last** option is disabled when a page is in the last position in the existing sequence.

Deleting Pages From Documents Using Thumbnails

You can delete pages from revisable and non-revisable multi-page image documents in the OnBase Web Viewer. Since deletion is a part of document modification, you need the following user privileges that relate to modifying documents.

User Privilege	Description
Modify	To delete pages from a document.
	Note: If Document modify right does not imply right to delete document pages is selected under the Global Client Settings, users also need the Delete privilege with the Modify privilege to be able to delete pages from a document.
Create Revisions	To save a modified document as a revision, if the Document Type of the document is configured as revisable.
Create	To save a modified document as a new document, if the Document Type of the document is configured as revisable.

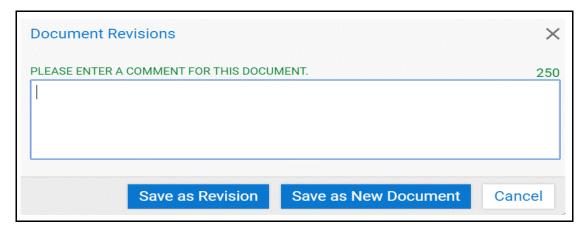
Tip: For complete details on revisions and renditions, see the **EDM Services** documentation. For details on configuring user privileges and Document Types, see the **System Administration** documentation.

To delete pages from a document using thumbnails:

- 1. Hover the mouse pointer on the thumbnail of the page you want to delete and click the ellipsis icon on the top-right corner of the thumbnail.
- 2. Select **Delete Page**. You are prompted to confirm this action.

Note: The **Delete Page** option is disabled if a document is read-only.

3. Click **Yes**. If the document is not revisable, the page is deleted. If the document is revisable, the **Document Revisions** dialog box is displayed.



4. Enter a comment and click one of the following buttons.

Note: The comment field accommodates no more than 250 characters. Depending how revisions are configured for your system, the comment field may be disabled.

Button	Description
Save as Revision	Saves the modified document as a revision. If you save the document as a revision, the new revision of the document omits the deleted page. Any text you enter in the comment field is saved as a comment for the revision.
Save as New Document	Saves the modified document as a new document. You are given the option to select a Document Type Group and a Document Type, and to specify a Document Date and Keyword Values, if available. If you save the document as a new document, the new document omits the deleted page, but the original document remains unchanged.
	Note: The Create From Pages option is disabled because you are deleting pages from the original document and saving it as a new document.
Cancel	Cancels the revision and does not save the changes to the document.

Suppressing Blank Pages

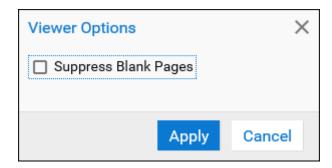
Depending on a document's configuration, you may be able to suppress the viewing of blank page thumbnails in the **Pages** toolbar. When this option is enabled, the thumbnails of pages that were marked as blank will not be displayed in the **Pages** toolbar.

To suppress blank page thumbnails in the OnBase Web Viewer:

- 1. Open a document in the OnBase Web Viewer.
- 2. From the Web Viewer Control toolbar, click the **Options** button.



The Viewer Options dialog box is displayed.



- 3. Do one of the following:
 - Select the Suppress Blank Pages option to remove blank pages from the Pages toolbar.
 - Clear the Suppress Blank Pages option if you want blank pages to remain in the Pages toolbar.
- 4. Click **Apply**. Thumbnails in the **Pages** toolbar are updated based on whether the **Suppress Blank Pages** option is selected.

Web Viewer Right-Click Menu Options

The following options are available when right-clicking on an open document in the OnBase Web Viewer:

Option	Description
Keywords	Displays the Add/Modify Keywords dialog box to review Keyword Values for the selected document. For more information on viewing the Keyword Values of a document, see Access a Document's Keyword Values on page 345.
History	Displays the document history for the selected document.
Cross-References	Displays all documents that are cross-referenced to the open document.
Notes	Displays options for creating notes and viewing existing notes. For more information on adding, viewing, and editing notes, see
Print	Displays the Print dialog box to print the current document. For more information on printing documents, see Printing Documents from the Web Viewer on page 346.
Send To	This option is unavailable when using the OnBase Web Viewer.
Delete Document	Deletes the selected document from your OnBase database if you have the appropriate user privileges.
Navigate	Displays the Go To Page option. Select Go To Page and type the page number of the page you want to display.
	Tip: You can also enter the page number of the page you want to display in the Page field at the bottom of the viewer.
Process	Displays options that alter how the document is displayed in the OnBase Web Viewer. For more information on processing options, see Accessing Document Processing Options on page 326.
Properties	Displays the Document Information dialog box. Properties of the selected document are displayed. For more information on document properties, see Accessing Document Properties on page 324.
	Note: Your User Group must have the Document Properties privilege to access this feature. For additional information, see your system administrator.
Encoding	Displays character encoding options when viewing a text document. For more information on character encoding, see Encoding a Text Document on page 326.

Accessing Document Properties

You can access the property information of a selected document by right-clicking the open document in the OnBase Web Viewer and selecting **Properties**. The **Document Information** dialog box is displayed.

The following is a list of document properties that are displayed in the **Document Information** dialog box.

Property	Description
Document Handle	The document number assigned to the document when it was brought into the system. This is the only place in the system where the internal document handle for a document is displayed. The document handle can be used to retrieve a specific document and to troubleshoot problems with the document.
Document Name	The Auto-Name string of the document.
	The number of the batch in which the document was brought into the system. A batch number is displayed if the document was brought into the system through a process such as COLD.
Document Date	The date used by the system to refer to the document. This date is used during searches limited by date. The document date is assigned to a document during import.
	Note: If the has been open overnight, the system date and Document Date may reflect the previous day's date. If this has occurred, close and re-open the so that the correct Document Date is stored.
	The date on which the document was imported into the system. If an invoice from December 28, 1996 was brought into the system on March 11, 1997, December 28, 1996 is the document date and March 11, 1997 is the date stored. This date is used for internal tracking. You cannot search for documents based on the date stored.
Document Type Number	The internal number associated with documents of this Document Type.
Document Type	The name of the Document Type to which the document belongs.
Document Status	Displays the document's position in the system. If the document is retrievable, a status of 0 is displayed. If the document is in the system, but not yet available for retrieval, a status of 1 is displayed. If the document has been deleted, a status of 16 is displayed.

Property	Description
	Displays which revision of the Document Type the document is using. Different Document Type revisions can have different configurations.
	If the document is revisable, the Revision field displays the latest revision number of the document. For non-revisable documents, this field is always set to 1.
	The name of the user who processed the document into the system.
Security Value	For internal use only.
Page	The internal page number for a document. Page numbers start at 0, and are indicative of the number of files used to display the document. Text documents typically have only one page, while image documents typically have several. Virtual E-Forms have no pages, so on a Virtual E-Form this field would display the tag Virtual E-Form> instead of a page number.
Disk Group	The number associated with the Disk Group in which the document is stored.
Volume	The volume number in the Disk Group in which the file is stored.
	The characteristics of the document within the file. These values are useful for text documents. Non-text documents display the number of pages as 1 and the number of lines as 0 .
File Format	The number associated with a configured file format. This number determines how a document is displayed and printed.
	Describes the physical storage of the document within the file. The Item Offset is the byte offset into the file for the starting point of this particular document. The Item Size is the number of bytes in the file that make up this document.
	Lists a partial path to the document. The beginning of the path depends on the location configured for the document's Disk Group.

Encoding a Text Document

While viewing a text document, you can change the document's character encoding format. With additional rights, you can also save the selected encoding format as the default encoding format for that document.

- 1. Right-click on an open text document and navigate to **Encoding**.
- Select one of the available encoding formats.
 The document is refreshed to display in the selected format. To save this encoding format as the default for this document, right-click and navigate back to **Encoding**.
- 3. Click **Save Encoding**. The selected encoding format is saved as the default for this document.

Accessing Document Processing Options

There are several process options available when viewing documents. These processing options alter the way a document is displayed in the OnBase Web Viewer.

To access document processing options:

- 1. From an open document in the OnBase Web Viewer, right-click and select **Process**.
- 2. Select one of the following process options:

Option	Description
Rotate All Pages 180	Rotates all pages of the document 180 degrees from their current positions.
Rotate Right	Rotates the image 90 degrees to the right.
Rotate Left	Rotates the image 90 degrees to the left.
Invert	Reverses the colors in the color palette. For example, black pixels become white and white pixels become black. A document is inverted only for the duration of its viewing session. When the document is closed, it resumes its default color properties. Selecting Save Rotation does not save the inverted document.
Flip Horizontally	Displays the document as a mirror image across the vertical axis.
Flip Vertically	Displays the document as a mirror image across the horizontal axis.

3. Right-click and select Process | Save Rotation. A confirmation message is displayed.

Note: Clicking **Save Rotation** saves each individual page of the document with any rotations that were applied to it.

If your system is not configured to autosave your rotation and you do not select **Save Rotation**, the document retains the rotation for the current viewing session and resumes its default display properties upon closing. The document is displayed with its default properties the next time the document is opened.

Note: You can only save rotations on image documents.

Notes

Notes can be added to, edited, or deleted from documents. Before you start working with notes, ensure you have appropriate privileges for adding, editing, or deleting them.

Note: If you have privileges to create a note but do not have privileges to modify it, you can modify the note's text and position only during the same viewing session that you created the note. After you close the document, the note's text becomes read-only. You can reposition the note while viewing the document, but the note will return to its original position when you close the document.

Notes may contain messages that can be displayed and edited. If you have appropriate privileges, you can delete notes from the **Notes** right-click menu.

Adding Notes

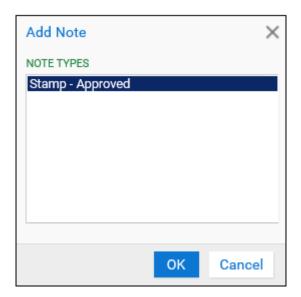
You can add notes to HTML documents and E-Forms when viewing them in the OnBase Web Viewer.

Note: You cannot add annotations to HTML documents.

To add a note:

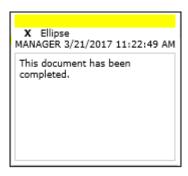
1. Right-click on the document and select **Note** | **Add Note**, or press **Ctrl + N**. The **Add Note** dialog box lists the available Note Types.

Note: The Ctrl + N shortcut is not supported in Chrome.



2. Select a Note Type and double-click, or click **OK** to add the note.

The note is placed in the upper left-hand corner of the document. You can move the note by clicking and dragging the note or note icon on the document. The new position of the note is saved when an action is performed in either the document viewer toolbar or the right-click menu.



- 3. Edit or type a message in the note's text box. Notes are limited to 250 characters.
 - To minimize a note on an HTML document, double-click the note's title bar. The
 note's icon is displayed while the note is minimized. To view the note's text, doubleclick the note's icon.
 - To delete a note from an HTML document, click the **X** in the note's title bar. Click **Yes** to verify that you want to delete the note.

To change the note type, right-click the note and select **Change Note Type**. Select a new note type for the note.

Deleting a Note

To delete an existing note in the OnBase Web Viewer, do one of the following:

- Open the note and click the X in the note title bar.
- Click the Notes section at the bottom of the viewer. Select the note you want to delete and click **Delete Note**.

Working in the Notes Dialog Box

If you have appropriate privileges, you can add, view, edit, or delete notes using the **Notes** dialog box. The **Notes** dialog box is available in the following ways:

- Right-click an open image document in the OnBase Web Viewer and select Notes |
 View Notes.
- Click the **Note(s)** section of the status bar of the Document Viewer (HTML Web Client only).

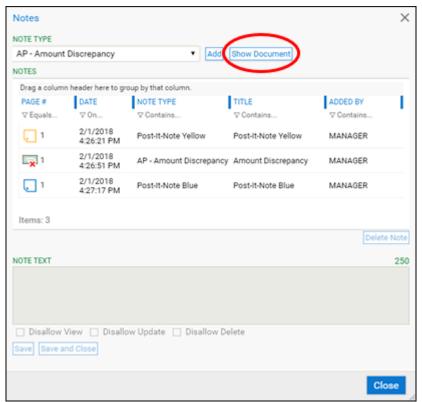
- For OLE documents (such as Microsoft Office documents or PDFs):
 - Select Edit | Notes from the OLE viewer menu.
 - · Click Edit on an open note in the Notes pane.
 - Click the Add Note button in the Notes pane.

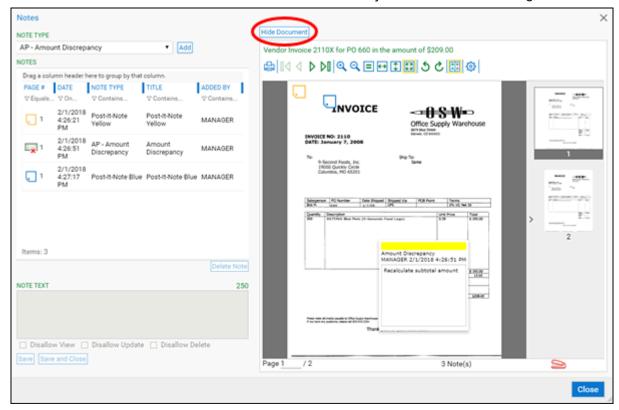
The **Notes** dialog box is the only way to add, edit, and delete notes on OLE documents in the Web Client. You can view the number of notes on an OLE document in the **Note(s)** section of the status bar or in the heading of the **Notes** pane in the Document Viewer. See Notes Pane Viewer for OLE Documents on page 339 for more information on viewing notes on OLE documents.

Note: If you have privileges to create a note but do not have privileges to modify it, you can modify the note's text only during the same viewing session that you created the note. After you close the document, the note's text becomes read-only.

Viewing a Document in the Notes Dialog Box

While working in the **Notes** dialog box, you can click the **Show Document** button to view the document alongside the notes in the dialog box.





Click Hide Document to hide the document and show only the notes in the dialog box.

Note the following limitations with viewing a document alongside notes in the **Notes** dialog box:

- Notes can only be added to the first page of a multi-page document in the Notes dialog box.
- · Annotations cannot be drawn on a document being viewed in the **Notes** dialog box.

To accomplish any of these actions, perform them in the Document Viewer, not in the **Notes** dialog box.

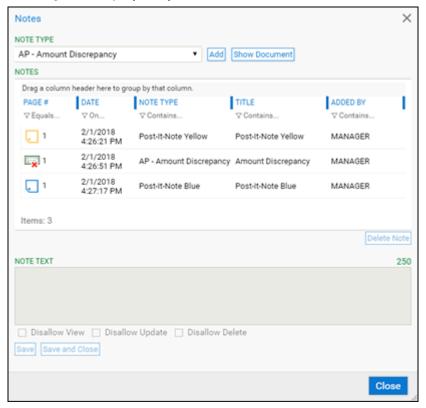
Viewing a Note in the Notes Dialog Box

To view a note in the **Notes** dialog box:

- 1. Open the **Notes** dialog box using one of the following methods:
 - · Right-click a document in the Document Search Results list and select Notes.
 - Right-click an open document in the Document Viewer and select Notes | View Notes (HTML Web Client only).
 - Click the Note(s) section of the status bar (HTML Web Client only).

- From an open OLE document (such as a Microsoft Office document or PDF):
 - Select Edit | Notes from the OLE viewer menu.
 - Click Edit on an open note in the Notes pane.

The **Notes** dialog box displays any notes on the document.



2. Select a note to view any note text in the **Note Text** box.

Adding a Note in the Notes Dialog Box

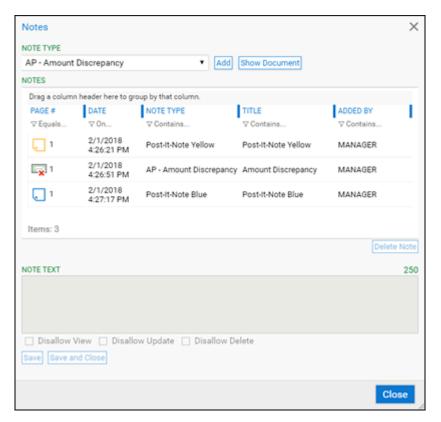
The **Notes** dialog box allows you to add, view, edit, or delete notes on an open document.

To add a note using the **Notes** dialog box:

- 1. Open the **Notes** dialog box using one of the following methods:
 - · Right-click a document in the Document Search Results list and select Notes.
 - Right-click an open document in the document viewer and select Notes | View Notes (HTML Web Client only).
 - Click the Note(s) section of the status bar (HTML Web Client only).

- From an open OLE document (such as a Microsoft Office document or PDF), do one
 of the following:
 - · Select Edit | Notes from the OLE viewer menu.
 - Click the Add Note button in the Notes pane.

The **Notes** dialog box is displayed.



- 2. Select a note type from the **Note Type** drop-down list, and click **Add**. The new note is added to the **Notes** list. If the note type is configured to include default text, it is displayed in the **Note Text** field.
- 3. Enter or modify the text of the note in the **Note Text** field. The character counter displays the remaining characters allowed in the note.

4. Select the privacy options to enable or disable for the selected note. The following privacy options are located below the **Note Text** field:

Note Privacy Option	Description
Disallow View	Prohibits all other users from viewing the note.
	Note: If this option is selected, other users can still successfully search for text in the note using the OnBase Client, but they will not be able to view the note.
Disallow Update	Prohibits all other users from editing the note.
Disallow Delete	Prohibits all other users from deleting the note.

Note: Depending on the configuration of the note type, you may be unable to modify some privacy options. For more information on note privacy options, see Setting Note Privacy Options on page 337.

5. Click **Save** to save the note to the document and keep the **Notes** dialog box open, or click **Save and Close** to save the note and close the **Notes** dialog box.

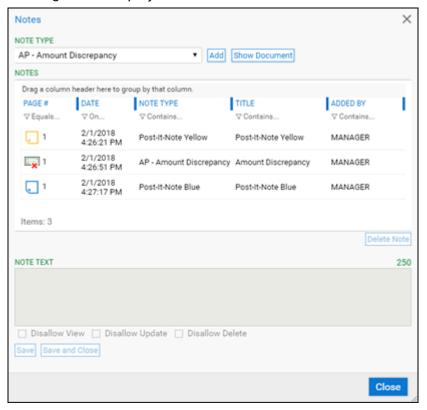
Editing a Note in the Notes Dialog Box

To edit a note in the **Notes** dialog box:

- 1. Open the **Notes** dialog box using one of the following methods:
 - · Right-click a document in the Document Search Results list and select Notes.
 - Right-click an open document in the Document Viewer and select **Notes** | **View Notes** (HTML Web Client only).
 - Click the Note(s) section of the status bar (HTML Web Client only).

- From an open OLE document (such as a Microsoft Office document or PDF):
 - Select Edit | Notes from the OLE viewer menu.
 - · Click **Edit** on an open note in the **Notes** pane.

The **Notes** dialog box is displayed.



- 2. Select the note to be edited from the **Notes** list.
- 3. Edit the text in the **Note Text** box. Right-click for additional text editing options. The character counter displays the remaining characters allowed in the note.
- 4. Click **Save** to save the note to the document and keep the **Notes** dialog box open, or **Save and Close** to save the note and close the **Notes** dialog box.

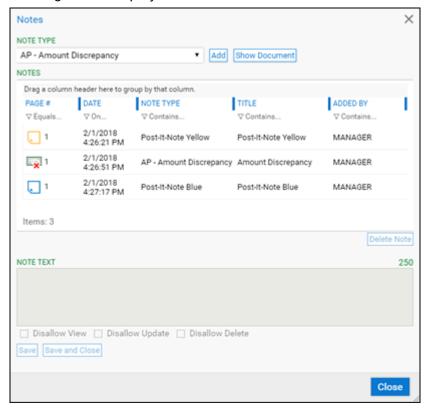
Deleting a Note in the Notes Dialog Box

To delete a note from the **Notes** dialog box:

- 1. Open the **Notes** dialog box using one of the following methods:
 - · Right-click a document in the Document Search Results list and select Notes.
 - Right-click an open document in the Document Viewer and select Notes | View Notes (HTML Web Client only).
 - Click the **Note(s)** section of the status bar (HTML Web Client only).

- From an open OLE document (such as a Microsoft Office document or PDF):
 - Select Edit | Notes from the OLE viewer menu.
 - · Click **Edit** on an open note in the **Notes** pane.

The **Notes** dialog box is displayed.



- 2. Select the note to be deleted from the **Notes** list.
- 3. Click **Delete Note**. You are prompted to confirm the deletion.
- 4. Click Yes to delete the note.

Note: If you delete a Staple note from the Notes list on one document, the corresponding staple that was attached to the deleted staple is still displayed on the other corresponding document. If you do not want the staple on the corresponding document, you must delete it also.

Setting Note Privacy Options

Depending on your system's configuration, you may be able to set privacy options for notes that you have created. Privacy options are used to determine whether or not other users can view, change, or delete a note that you have created.

Consider the following when setting note privacy options in the Web Client:

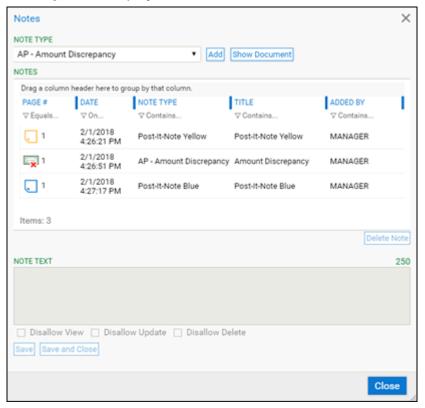
- Users with administrative rights are always able to view, update, and delete all notes and to view and set note privacy options for all notes.
- Only the creator of a note (and any users with administrative rights) can view and set the privacy options of that note.
- If a document is locked, the privacy options for all notes on that document cannot be modified by any other users. This includes any users with administrative rights.
- The privacy options for a note type may be set by default by your system administrator.

In the Web Client, note privacy options are set in the **Notes** dialog box. To set note privacy options:

- 1. Open the **Notes** dialog box using one of the following methods:
 - · Right-click a document in the Document Search Results list and select Notes.
 - Right-click an open document in the Document Viewer and select Notes | View Notes (HTML Web Client only).
 - Click the **Note(s)** section of the status bar (HTML Web Client only).

- From an open OLE document (such as a Microsoft Office document or PDF):
 - Select Edit | Notes from the OLE viewer menu.
 - · Click **Edit** on an open note in the **Notes** pane.

The **Notes** dialog box is displayed.



- 2. Select the note that you want to modify from the **Notes** list.
- 3. Select the privacy options to enable or disable for the selected note. The privacy options are located below the **Note Text** field. The following privacy options are available:

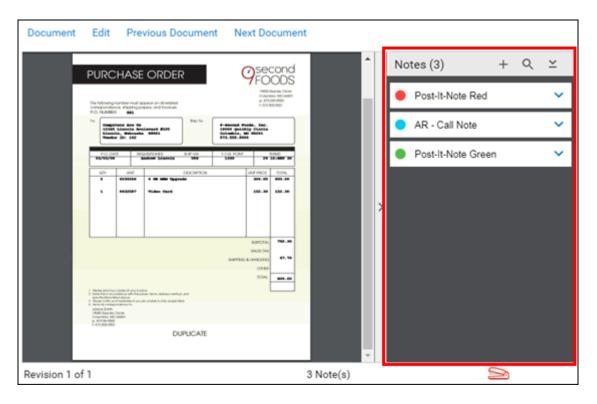
Note Privacy Option	Description
Disallow View	Prohibits all other users from viewing the note.
	Note: If this option is selected, other users can still successfully search for text in the note using the OnBase Client, but they will not be able to view the note.
Disallow Update	Prohibits all other users from editing the note.
Disallow Delete	Prohibits all other users from deleting the note.

Click **Save** to save the note to the document and keep the **Notes** dialog box open, or **Save and Close** to save the note and close the **Notes** dialog box.

Notes Pane Viewer for OLE Documents

When viewing a document in the OLE document viewer, the notes on the document are listed in the **Notes** pane of the viewer. The OLE document viewer is used to display OLE documents such as Microsoft Office documents and PDF documents (depending on your configuration).

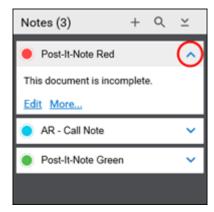
The **Notes** pane displays all of the notes on the document, and each note's color is displayed next to the name of the Note Type. The total number of notes is also displayed in the heading of the pane.



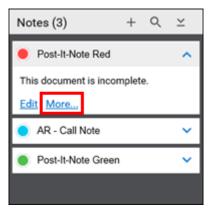
Note: The **Notes** pane only allows you to view the notes on the OLE document. To add, edit, or delete notes, you must use the **Notes** dialog box by clicking **Edit** on a note in the **Notes** pane, or clicking the **Note(s)** section of the status bar. For more information on using the **Notes** dialog box, see Working in the Notes Dialog Box on page 329.

The following functions are available in the **Notes** pane of the Document Viewer:

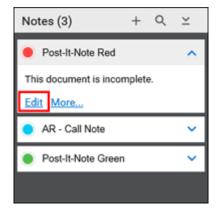
• To expand a note and view its contents, click the note in the **Notes** pane. Click the heading of the note again to collapse the note.



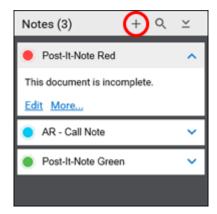
• To view additional information on a note, expand it and then click **More**. The note's icon, creation date and time, and creator's user name are displayed.



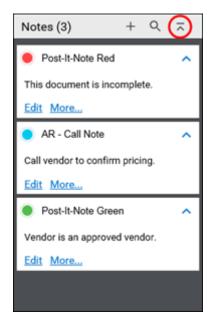
 To edit a note, expand the note and click Edit. The Notes dialog box is displayed, which allows you to edit the note.



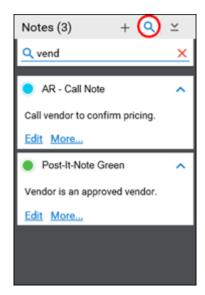
• To add a new note, click the **Add Note** button at the top of the **Notes** pane. The **Notes** dialog box is displayed, which allows you to create a new note.



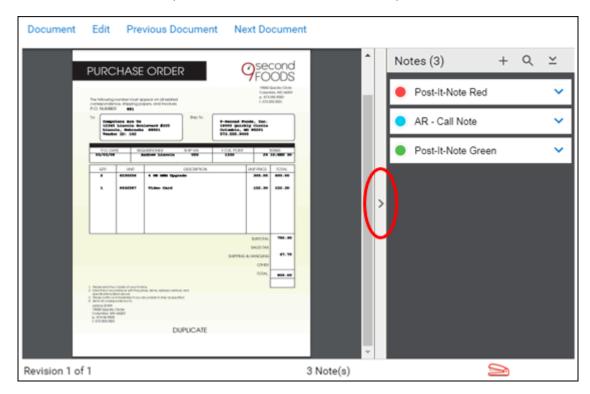
• To expand all notes, click the **Expand All** button at the top of the **Notes** pane. Click the button again to collapse all notes.



• To filter the list of notes, click the filter button at the top of the **Notes** pane and enter search terms into the **Note Text** field. The list is filtered to display only the notes that contain matching text. Click the red **X** to remove the filter.



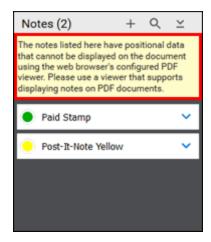
• To hide the **Notes** pane, click the handle next to the pane.



Click the handle again to expand the Notes pane.



If any notes have specific positions on a PDF document, the **Notes** pane contains a
notice explaining that the document viewer cannot display the position of these
notes on the PDF. To display the positions of notes and note icons on a PDF
document, use the Web Client PDF viewer instead of the web browser's PDF viewer.
See your system administrator for more information.



Access a Document's Keyword Values

Some documents have one or more Keyword Values displayed automatically when you open the document. You can also view Keyword Values that are not auto-displayed. Depending on your system's configuration, these Keyword Values may be masked or read-only.

To access a document's Keyword Values, do one of the following:

- From an open image or text document, right-click and select Keywords to display the Add/Modify Keywords dialog box.
- From an open OLE or PDF document, click the **Keywords** button from the viewer control toolbar.

From the **Add/Modify Keywords** dialog box, you can view or edit Keyword Values, depending on your assigned privileges and the Document Type of the document. Some Document Types are configured to disallow editing of Keyword Values, which renders a document's Keyword Values read-only.

Note: When editing keyword values that are displayed automatically on an opened document, it may be necessary to close and reopen the document to correctly auto-display those values.

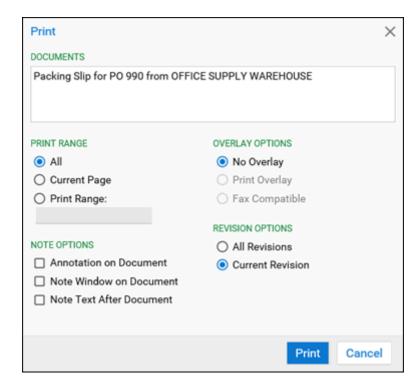
Printing Documents from the Web Viewer

You can print documents using the HTML document viewer if you have sufficient privileges. Documents are first converted to a PDF, which you can then print using the PDF viewer's print option.

Note: If the document is open in an external application, such as Microsoft Word, use the print option in the external application. For example, select **File | Print** from the application. In this case, OnBase print options are not used.

To print a document using the HTML viewer:

From an open document, click the **Print** toolbar button.
 The **Print** dialog box is displayed.



2. Select the appropriate print options. See the following table for descriptions of the available print options.

Option	Description
Print Range	All: Prints all pages of the document(s).
	Note: The All Print Range option is the only option available when printing PDF documents, or when printing from a Document Search Results list. To print a range of pages for a non-PDF document, you must open the document and print using the Print toolbar button.
	Current Page: Prints the current page. Print Range: Prints a range of pages in the document. Enter page numbers and/or page ranges, separated by commas. For example: 1,3,5-12.
	Note: If you enter a complex range into this field, the pages are printed in the order entered. For example, if you entered 5 , 1-3 , 9 , then page 5 of the document would be printed first, followed by pages 1, 2, 3, and 9. You cannot enter complex ranges when printing to a server print queue.
Overlay Options	No Overlay: Prints the document without the associated overlay. Print Overlay: Prints the document with the associated overlay. The overlay that is printed may be different than the overlay that is displayed, depending on the configuration of the Document Type. Fax Compatible: Select this option if you are printing to a fax machine.
	OnBase arranges the overlay image in a way that faxing software can properly interpret. The overlay that is faxed may be different than the overlay that is displayed or printed, depending on the configuration of the Document Type.
Note Options	Annotation on Document: Prints the note annotation (graphical representation of a note) on the document.
	Note Window on Document: Prints the title and text of any notes in that note's location on the document, the name of the user that created the note, the date and time it was created, and the Print Title configured for the selected Document Type. This option is not respected for HTML documents, OLE documents, or PDF documents. This option is not respected by Overlapped Text annotations.
	Note Text After Document: Prints the title and text of any notes, the name of the user that created the note, the date and time it was created, and the Print Title configured for the selected Document Type on a separate page.
	Note: Depending on your system's configuration, some note icons or text may not be printed no matter what Notes Options you have selected. See your system administrator for more information.
	Note: The Annotation on Document and Note Window on Document options do not apply to E-Forms, HTML forms, or XML documents.

Option	Description
Revision Options	These options are only respected if your database is licensed for EDM Services. For more information, see the EDM Services documentation.
	Note: The Current Revision option is automatically selected.

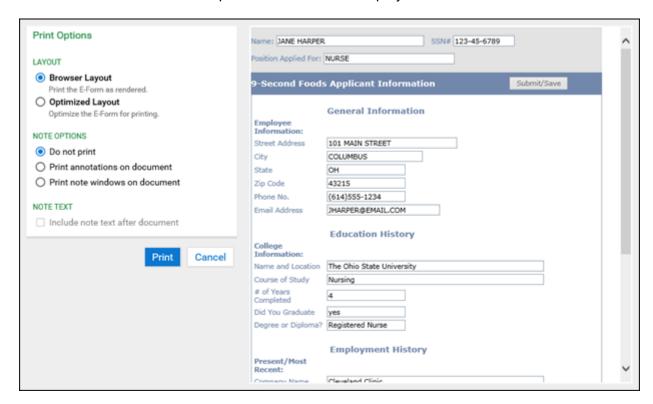
- 3. Click **Print**. A new window is displayed, containing a PDF version of the document with your page range selection applied.
 - Depending on your configuration settings, your browser's print dialog box may also be displayed.
- 4. Click **Print** to continue printing the document.

Printing E-Forms from the Web Viewer

If you have rights to print E-Form documents, prior to printing an E-Form, you can select an optimized print layout for the form. This process renders the E-Form in a more print-friendly layout.

To optimize an E-Form for printing:

- 1. Right-click on an open E-Form in the document viewer.
- 2. Select the **Print** menu option. The E-Form is displayed in a new window:



From this window, you can select an optimized print layout for the E-Form. By default, the **Browser Layout** print option is selected. This option prints the E-Form as it is rendered by your Web browser. A preview of how the E-Form will print is displayed on the right side of the screen.

- 3. To choose an optimized print layout, select **Optimized Layout**. The following options become available:
 - In-Place: Removes the form field boxes from the print view, leaving behind the text values from the form fields. The styling of the E-Form is retained.
 - Row-Based: Removes the styling of the E-Form, leaving behind only the form field titles and their field values.

• **Tabular-Based**: Removes the styling of the E-Form, and places the form field titles and their field values into a table layout.

The E-Form print preview is updated based on the optimized layout setting that you select.

4. Select an option in **Note Options** to specify how to print notes on the E-Form:

Note: The Note Options are not available for row-based or tabular-based optimized layouts.

- The **Do not print** option does not allow notes to be printed on the E-Form.
- The **Print annotations on document** option prints the note annotation (graphical representation of a note) on the E-Form.
- The Print note windows on document option prints the title and text of any notes in that note's location on the E-Form, the name of the user that created the note, and the date and time it was created.

The E-Form print preview is updated based on the **Note Options** that you select.

5. Select the **Include note text after document** option to print the title and text of any notes, the name of the user that created the note, and the date and time it was created below the printed form field titles and values.

Note: The **Include note text after document** option is only available for row-based or tabular-based optimized layouts.

- 6. When you are finished selecting a print layout, click **Print**. Your Web browser's print dialog box is displayed.
- 7. Click **Print** to continue printing the document.

The licenses listed in the following sections are applicable if you are upgrading from a version of OnBase prior to OnBase Foundation EP5.

Overview

The Integration for Epic solution requires the following licenses:

- Client (Concurrent, Named User, or Concurrent Client for EMR Integrations)
- · Integration for Epic
- HL7 Listener or Basic HL7 Listener
- Web Server

See the following topics for more information:

- Concurrent Client for EMR Integrations on page 351
- Document Imaging on page 352
- Front Office Scanning on page 352
- Workflow on page 352
- Workstation Client for Epic Welcome Kiosk on page 353

Check your current licensing status by selecting **Utils** | **Product Licenses** from the Configuration module.

For additional information on licensing, please contact your OnBase service provider.

Concurrent Client for EMR Integrations

The Concurrent Client for EMR Integrations license works in conjunction with the Medical Emergency Concurrent Client license, which allows a user to log on to OnBase even if all Concurrent Client for EMR Integrations licenses have been consumed. The combination of these two licenses allows clinical solutions to remain highly available without the risk of clinical users or physicians from being shut out of OnBase due to insufficient licenses.

In situations where the Medical Emergency Concurrent Client license is invoked to grant access to a new user connection, the lack of licenses is logged so that the system can be audited to ensure that the proper quantity of Concurrent Client for EMR Integrations licenses exist to support the user community.

For more information on configuring the Application Server for EMR licensing, see Configuring the Application Server for EMR Licensing on page 352.

Configuring the Application Server for EMR Licensing

By default, the Application Server uses standard Concurrent Client licenses for connections. The virtual directories on an Application Server can be configured to use the Concurrent Client for EMR Integrations license.

The following procedure describes how to configure the Application Server to change its default licensing strategy. It should be used only for virtual directories that support clinical users, so that they can take advantage of the Medical Emergency Concurrent Client license from a high availability perspective.

Caution: Back-office OnBase users should not connect to a virtual directory on the Application Server configured with this switch. Doing so will result in over-consumption of the Concurrent Client for EMR Integrations licenses. Perform this procedure only for the virtual directory on the Application Server being used by OnBase medical applications.

- 1. Open the Application Server's Web.config file.
- Under appSettings, add the following key:

<add key="MedicalApplicationServer" value="true"/>

Ensure the value is set to **true**. Setting the value to **false** is the same as omitting the key altogether.

3. Save the file.

Document Imaging

To let users scan or sweep documents into OnBase, OnBase must be licensed for the Document Imaging module.

- The Scan Acquisition Server requires a Desktop Document Imaging license (less than or equal to 15 pages per minute) for each scanning workstation.
- Production scanning requires a Production Document Imaging license for each scanning workstation.

Front Office Scanning

Each workstation that will use the Front Office Scanning integration requires a Front Office Scanning license, and the Front Office Scanning client must be installed on the scanning workstations.

See the **Front Office Scanning** module reference guide for information about licensing the Front Office Scanning module.

Workflow

To let users send documents to a Workflow life cycle using document correction actions, OnBase must be licensed for Workflow.

See the Workflow module reference guide for information about available licenses.

Workstation Client for Epic Welcome Kiosk

A Workstation Client for Epic Welcome Kiosk license is required for each kiosk that will use the Epic Welcome integration. Kiosks are registered in OnBase automatically the first time a document is uploaded.