

***Cleo* Clarify**TM

Getting Started with the Clarify Studio

Version 5



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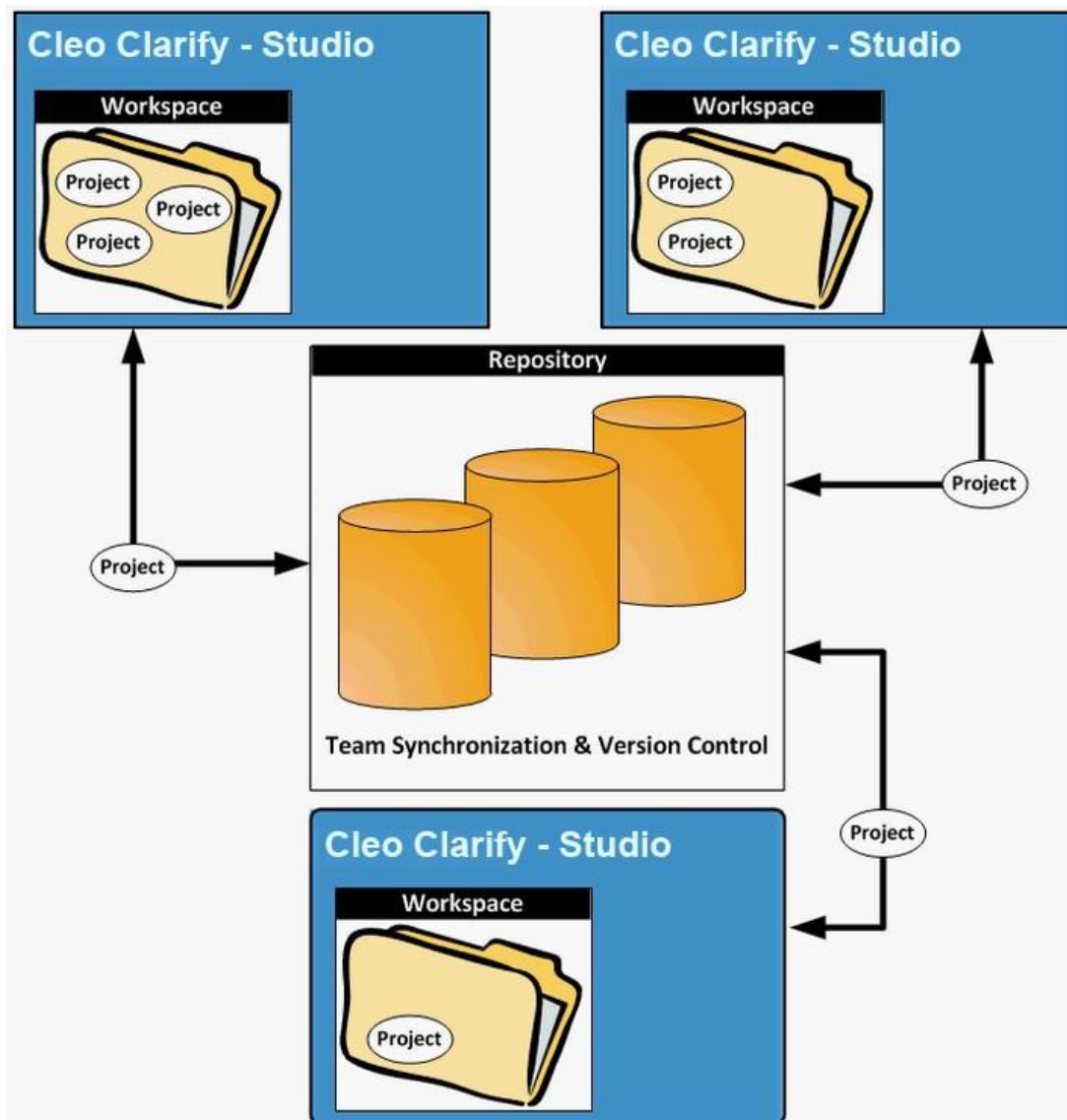
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Getting Started with the Cleo Clarify Studio

Welcome to the Getting Started with the Clarify v5 Studio Guide. This document describes the process, procedures, requirements, and recommendations you'll need to understand to install and begin using the Clarify Studio.

The Studio allows for building, maintaining, and monitoring integration projects for the Server. The Studio allows multiple team members to work collaboratively on Projects via team synchronization and a version control system.

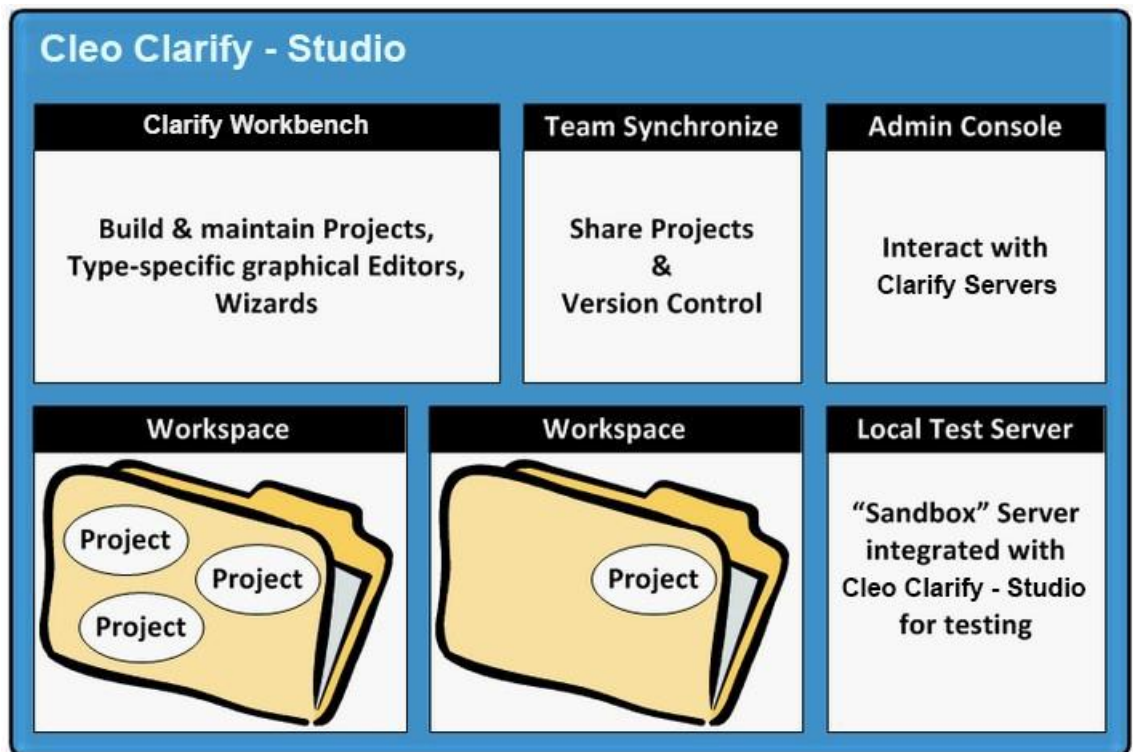
The Studio uses *perspectives* to separate major concerns: building, deploying and monitoring, and synchronizing integration Projects with team members. Each team member installs their own copy of the Studio, and then connects to the Servers of interest, as well as the team synchronizing and versioning service. The Studio runs in its own "sandbox" server for internal testing, and you connect to shared services only when you are ready to interact with them.



The Studio provides an editor for each type of configuration object. Examples of these objects are Database Adapters, Rulesets, Business Processes, and Schemas.

The Studio supports team interactions, so you can easily share resources with team members, compare versions, and work together to bring your Projects to a production state.

The Studio contains an integrated *Local Test Server* so you can safely develop and test your integration processes in your own environment without being connected to a remote Server. The Studio's *Admin Console* perspective allows for deploying and monitoring integration processes.



Projects, Packages, and Objects

A hierarchical organization of Projects, Packages, and objects lends itself to a modular approach for developing Clarify solutions.

A **Project** is the primary hierarchical level, or *parent* folder, used for organizing design-time objects. It is the deployable unit when distributing solutions to remote Servers, and the shareable unit when collaborating with other team members via an SVN Repository.

In this example, all resources (objects and other files) for your company's transactions with one trading partner are all contained in **ProjectA**, while **ProjectB** houses all resources necessary for doing business with another trading partner.



Projects and their resources are built and maintained in the Studio's *Clarify Workbench* perspective.

Projects are placed in a version control system so they can be shared with other team members. Once you place a Project in version control, you can synchronize changes, resolve differences, keep track changes, and see project history.

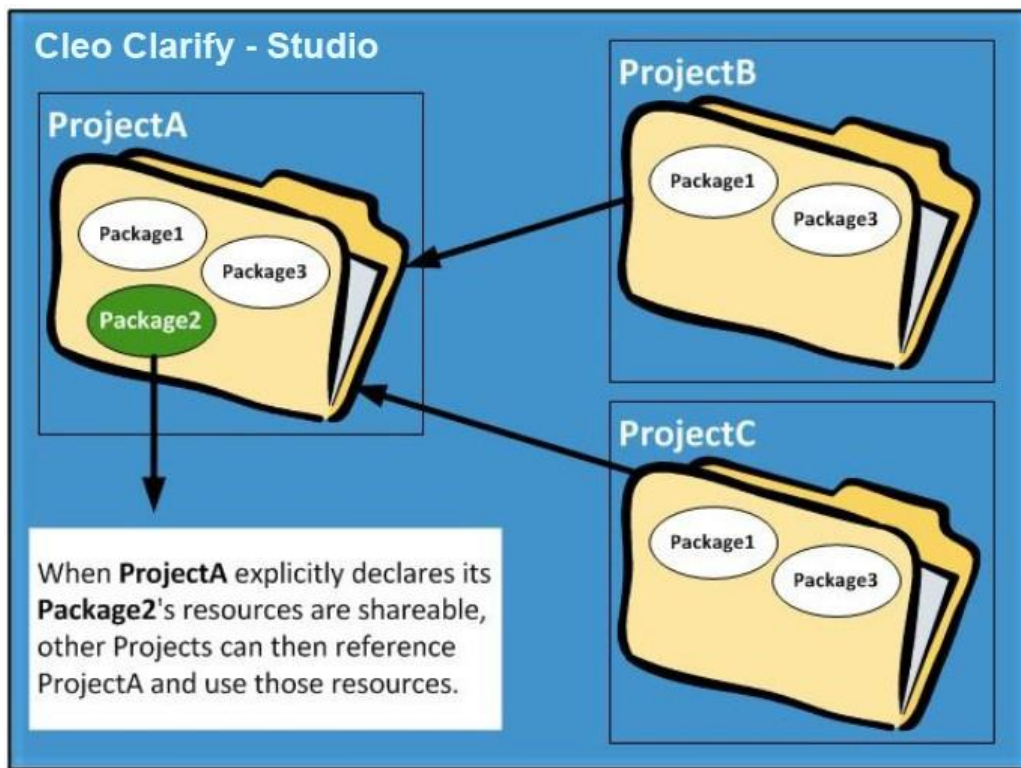
A **Package** is the secondary hierarchical level, or *child* folder, used for organizing objects. A Project can contain one or more Packages. For example, you can create different Packages according to their functionality, usability, or category.

An **individual object**, or *resource*, is located within one Package. An object is in only one place at one time.

Modular Approach

All resources for one trading partner can be easily found, deployed, modified, and re-deployed. if organized within a single Project. These resources are separate from other trading partners.

Despite being separate, a Project may reference a Package in another Project. Therefore, although an object only exists in one place, it can be used in multiple Projects.



In the above diagram, *Package2* might contain a Database Adapter for a purchase orders database. If the Package that the Database Adapter resides is made available to other Projects, other Projects that need to interact with that database can reference that single Database Adapter.

Cleo recommends that a separate Project, called *Core*, be created for common resources. That Project should contain objects that can be used by multiple trading partners.

If a Project is to make its resources available to other Projects, you must explicitly declare the Packages in the Project to be shared.

System Requirements

The following are the minimum system requirements for the Studio. Actual requirements will depend on the needs of your business.

Attribute	Description
Processor	64-bit dual-core processor.
Operating System	<p>Windows</p> <ul style="list-style-type: none"> • Windows Server 2012 Server R2 (Recommended) • Windows Server 2016 Server • Windows Server 2008 Server R2 • Windows 8.1 • Windows 10 (Recommended) <p>Linux</p> <ul style="list-style-type: none"> • Red Hat Enterprise Linux v6 • Red Hat Enterprise Linux v7 (Recommended) • CentOS v6 • CentOS v7 <p>MAC</p> <ul style="list-style-type: none"> • MacOS 10.13 (High Sierra) • MacOS 10.14 (Mojave) • MacOS 10.15 (Catalina)
RAM	8 GB or greater.
Disk space	Minimum 2 GB plus storage for user integration projects and related objects.
Display	Minimum 1280 x 1024 resolution.

Cleo Products that are compatible with this release

For current compatibility levels between Clarify and other Cleo products, please refer to the latest Cleo Clarify Release Notes available on the Solution Center.

Need Help?

Please refer to the different contacts based on your issue at hand.

For questions on...	Contact
All Cleo products; installation and general usage	International: +1 815-282-7894 US Toll-free: 1-866-444-CLEO (2536) UK: 02038653439 Email: pasupport@cleo.com
For any of these needs for either product: <ul style="list-style-type: none"> • Professional Services • Project Assistance • Questions about product licenses or delivery 	Sales/Customer Account Management: (1.888.334.3986)

Product Help and Supporting Documentation

In addition to this Getting Started guide, a comprehensive Help system is available in the Studio. This same help system is also made available on the Solution Center of Cleo.com. Updates are maintained and published, which may cover enhanced procedures, updates on bugs or feature enhancements, and other useful information.

Note: A good practice is to check for updates regularly.

Take Advantage of the Demos

A series of demos provide typical transformation examples, use cases, and step-by-step procedures that illustrate how Clarify can be used to build and implement integration solutions for several common business needs.

The demos and their supporting resources (Projects, objects, sample data, documentation, etc.) are available for download through a Cleo-hosted repository.

Available Demos

- Demo 01 - Single-format flat file to single-format flat file
- Demo 02 - Multiple-format flat file to multiple-format flat file
- Demo 03 - Spreadsheet to flat file
- Demo 04 - Flat file to database
- Demo 05 - Database to spreadsheet
- Demo 06 - Web Services SOAP provider
- Demo 07 - Web Services SOAP consumer
- Demo 08 - Web Services REST provider
- Demo 09 - Web Services REST consumer
- Demo 10 - XML to spreadsheet
- Demo 11 - EDI to flat file (Inbound EDI)
- Demo 12 - Flat file to EDI (Outbound EDI)

Registered with the Support Portal on Cleo.com?

You also have access to technical documentation, training materials, support, and other helpful content by being registered with the Support Portal on Cleo.com. Please contact Customer Support at 1-866-444-CLEO (2536) or PAsupport@cleo.com if you require assistance or more information.

Installing the Studio

This topic provides detailed steps to install the Studio. Please review the minimum System Requirements. Note that the specifics of your implementation may require more resources than outlined here. Consult your Customer Account Manager or Technical Support for more information.

Installation Procedures

The Clarify v5 Studio can be installed on Windows, Linux, and MAC operating systems. Specific references to each are noted below where necessary; however, procedures generally apply to all. These steps follow an Install Wizard which guides you through the process.

1. **Launch the install:** Locate and use the install file based on your operating system. (Installs are downloaded from the Support Portal on Cleo.com)

OS	Install filename
Windows Notes: Run as Administrator	Clarify_Studio_5_<##>_Win64_<DateTimeStamp>.exe
MAC	Clarify_Studio_5_<##>_Mac64_<DateTimeStamp>.zip
Linux Notes: Install must be performed as a non-root user.	Clarify_Studio_5_<##>_Linux64_<DateTimeStamp>.bin

2. **Introduction:** Read all instructions and recommendations.
3. **License Agreement:** Read the License Agreement. Click the **I accept the terms of the License Agreement** radio-button to enable the **Next** button.
4. **Choose Install Folder:** Either accept the proposed default install folder location or click **Choose** to indicate another location.
5. **Memory Allocation:** Either accept the proposed values for the *Studio Memory Value* and *Local Test Server Memory Value*, or change either or both. As noted, the format is **####m**, where **####** is your memory allocation and **m** represents megabytes.
6. **SMTP Server:** If intending to use Clarify to generate email, you must provide the SMTP Server IP address and port. Otherwise, these settings may be left blank. Should you decide to configure this setting later, you can do so from within the *Admin Console* perspective's Settings view
7. **Choose Shortcut folder:** Both the *All Users Desktop* and *Start Menu* checkboxes are checked by default – modify if necessary. (This does not exist for Linux)
8. **Pre-Installation Summary:** Review all selections. If a choice must be changed, click **Previous** (as many times as necessary) to return to the appropriate earlier step, modify the selection, and then click **Next** (as many times as necessary) until you return here.
9. **Installing...:** While the product installs, banners appear describing different features and functionality. The process generally requires less than 10 minutes.
10. **Install Complete:** Click **Done** to complete the process.

Starting the Studio

This describes how to start the Studio. Clarify Studio currently supports Windows, Linux, and MAC operating systems.

1. Start the Studio by clicking the *Clarify Studio* shortcut icon (if selected during Installation), or by clicking the *Ebi.exe* file (or *Ebi.app*) found in directory where you've installed the Studio. A splash screen appears momentarily, before prompting you to select a Workspace.
2. From the *Workspace Launcher* screen, select a Workspace to use for your Studio session.

The Workspace is a folder in which Clarify stores your Projects. A workspace must be specified each time you launch the Studio. It may be any directory in the file system. Multiple workspaces may be created.

Note for first-time users: A Welcome screen appears with multiple icons that link to different help topics. To view the Workspace and other perspectives in Clarify, simply close the Welcome tab. This Welcome screen appears each time a new Workspace is created.

3. Click **OK** to complete this process.

Check for Studio Updates

A good practice at this point is to check for recent updates that may be available. Please see System Updates for more information.

Managing Studio Connections to Servers

The Server Environment toolbar on the Admin Console perspective provides several useful options to manage and configure the Studio's connection to the Servers – both the Local Test server and remote Servers.



Some options may not apply to all remote server (Single/Cluster) types.

Adding a Server Connection

This only applies to remote Servers, which must be running in order for a connection to be established.

- Click the **New Server** button to identify a remote Server. A new window appears.
- Complete the *Name*, *Address*, and *Admin Port*. Click **OK**.

Note for Server Cluster: If adding a Server that is part of a Cluster, the Admin Port must be 8500.

Selecting a Server Connection

Select a server using the *Server Environment* drop-down, which displays all the servers previously identified to the Studio; this includes, at a minimum, the *Local Test* server, but can also contain additional remote Servers.

Once you've selected a specific server, the following options may be available.

Editing a Server Connection

This only applies to remote Servers.

- Click the **Edit Server** button to produce a window.
- Make required modifications and click **OK**.




Removing a Server Connection

This only applies to remote Servers.

- Click the **Remove Server** button and confirm. This action does not uninstall the selected Server, but merely makes it unavailable to the Studio.

Starting, Suspending, Stopping a Server (*Local Test and Single Server only*)



This action does not actually start, stop, or suspend the selected Server, but affects its connection to the Studio.

- To start a server, click the **Start/Resume Server** button. 
- To suspend a server, click the **Suspend Server** button. 
- To stop a server, click the **Stop Server** button.  *This applies to local test server only.*

Note: This does not apply for Servers in a Cluster. See the *Stop, Suspend, and Resume the Server Cluster* topic in the *Getting Started with the Server Cluster* installation guide or Product Help specific procedures.


Logging In/Out

This only applies to remote Servers.

Logging in and out is the means for connecting and disconnecting from that server. Two buttons are used to login  and logout  of a remote Server.

A valid user ID and password combination are required for server access. (By default, User ID = *ebiadmin*, and Password = *password*)

Licensing Information and Options

To see important licensing information and options for the selected server, click the **View Server Information** button.  Directly next to this is the **Apply Server License** button, which is also used to update and apply licensing changes. Please refer to Licensing help content or contact your Customer Account Representative for more information.

Licensing

Both the Server and Studio (including its companion *Local Test* server) are supplied with default *Install-restrictive* licenses. While these licenses enable you to start the Server and Studio, they are temporary and powerless; nothing can be deployed or installed until permanent or subscription licenses have been requested and applied to each Studio and Server installation.

Licensing checks occur each time a server is selected from the *Server Environment* drop-down in the Admin Console. Clarify begins prompting you 15 days prior to the expiring license. A remote Server with an expired license will not start.

These topics discuss the processes required to view, request, and apply different licenses to Studio installations.

Requesting Licenses

Once a license has been requested, Cleo provides a new license file, which is then applied to either a Studio or Server installation. This topic discusses how to request the license for the Studio.

For the Studio

From the main menu, select *Help | View Studio Information*. The *Studio Information* screen appears. You can now process the request.

Process the Request

A **Request License** button is available on both Information screens.

Licensing a Studio

Both the Studio and its Local Test server are licensed together through this process. This topic explains how to apply a license to a Studio installation. This task takes place from the Admin Console's *Server Environment* toolbar.

1. Stop the Local Test server.
2. Close the Studio.
3. Place the license file (license.txt) into the <Clarify_Studio install>\runtime directory.
4. Open the Studio.
5. Start the Local Test server.

Studio Information screens

Licensing screens provide information related to license type and edition, expiration, platform, and other information specific to your Studio or Server installation. They also provide the means to electronically request a license.

Studio Information

The Studio license screen provides product, version, and build information specific to your Studio installation. This also includes expiration date as well as the operating system.

In addition, the screen provides the following license information:

Number of Maps: the number of Rulesets available for your particular licensing agreement.

License Type: the type of license that has been applied to the Studio or Server.

Syntax: the syntax categories currently supported by your particular licensing agreement.

Connectors: This section displays names of any Application Connectors available to the license.

Node Data: This section displays system data required by Cleo to assign a permanent license.

Types

Clarify supports several different types of licensing depending on the purpose to which you will use the Studio and Server installations. Some types are included with default installations, while others are not. This topic provides a general description of these license types. For more information, please contact your Customer Account Manager.

Type	Description
Install	The default, limited license provided with the Studio or Server installations. Users should apply permanent licenses immediately after launching the Studio.
Studio (Local Test)	The Studio license allows users to test integration projects and objects by deploying to the local test server.
Test and Production	The Test and Production licenses provide complete deployment and installment capabilities for test or production servers.
Log Warehouse	The Log Warehouse license supports offline storage, reporting, and analysis of log data using the separate Log Warehouse Server.
Web Services	In the case of a production server failure, this license provides the ability to immediately shift to a backup environment that you've created, using your own replication systems and methodologies.
Disaster Recovery	This license supports use of Web Service resources and tools needed to implement web services without programming.
Subscription	A subscription license provides users with the option to purchase licenses based on an agreed upon amount of time.

System Updates

This topic discusses processes to select and install system updates for the Studio, as well as EDI Standards.

System updates are made available for download periodically. These updates may provide feature enhancements, bug fixes, updated EDI Standards, and other advances and improvements.

Some licensing requirements may apply.

Updating EDI Standards to the Studio

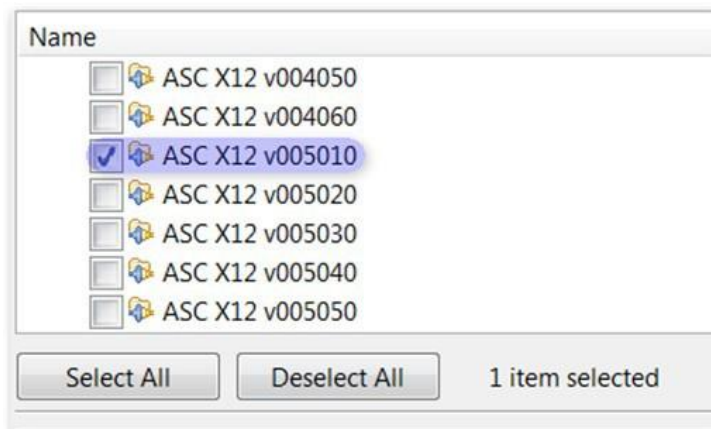
Take these steps to update EDI Standards to the Studio. EDI Standards specify segment and element names, as well as usage for transaction types and envelope construction. As part of the default Studio install, the following EDI Standards are provided:

(X12) - 004010
(EDIFACT) - D02A

Additional EDI Standards (including TRADACOMS) can be updated by taking these steps.

1. From the Studio's main menu, select *Help/Update Studio...* The *Update Studio* window appears, showing all available EDI Standards.
2. Select the EDI Standard by clicking the related checkbox. Expanding the parent folder displays all available EDI Standards. Click **Next**.

In this example, the X12 5010 Standards have been selected.



3. From the *Update Studio* window, review the updates to be installed and click **Next**.
4. You will be prompted and required to restart the Studio in order to complete the update process.

Applying software updates to the Studio

Studio software updates are made available periodically and can be accessed directly from within the Studio. Follow these steps to select, download, and install updates.

Before you Begin:

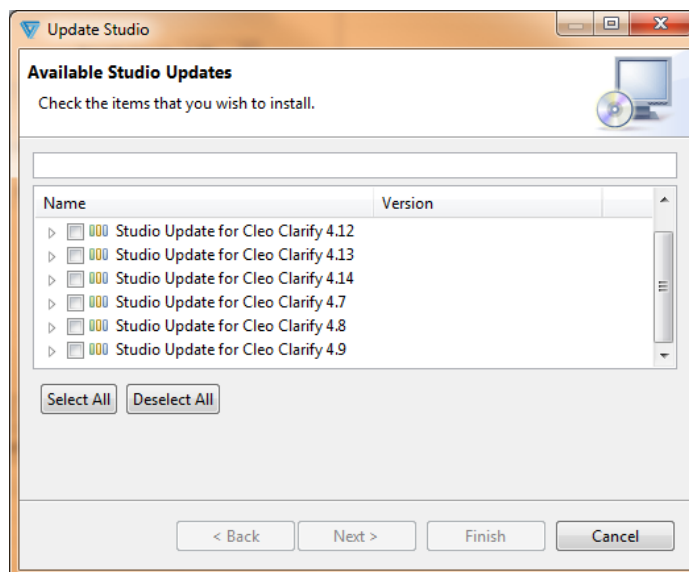
- Make sure all Projects and related resources in your Workspace have been committed to an SVN repository.
- Stop any testing being done within your Studio; the update process requires a Studio restart. This means the Local Test server will be stopped.
- Back up your Studio installation directory.
- Temporarily stop external notifications being sent to Clarify during the update process; this includes the Clarify/Secure Exchange messaging framework, if integrated.

1. From the Studio's main menu, select *Help/Update Studio....*

The *Update Studio* window appears. If a software update is available, it is displayed in this window.



Note: If any updates are available to EDI Standards, they also appear.



2. Select the update by clicking its related checkbox. The most current will always include previous updates to that point. Click **Next**.



Note: An update that displays a red plus sign indicates an update that has not yet been installed.

3. From the *Update Studio* window, review the updates to be installed and click **Next**.
4. You will be prompted and required to restart the Studio in order to complete the update process.

Errors during a Studio update


Should an error or some type of system failure occur during the update process, the actual download of the update may stop, and thereby not complete successfully. Reasons for an error could include network connectivity or capacity issues, or a non-graceful shutdown (i.e., a hard stop).

You may receive error messages similar to these:

- Connection reset: unable to read repository
- Problems downloading artifact

In the case of network connectivity, the update process should resume and complete once connectivity has been re-established.

In the case of a hard stop, you may be required to start the update process from the beginning.

Clicking the **Progress** view  at the bottom right of the Studio displays the actual status of your update (download).