



SOFTWARE
DESIGN SOLUTIONS

CTC BIM Data Admin User Guide

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CTC BIM Data Admin Overview

The CTC BIM Data Admin Tool facilitates the creation and administration of 'Projects' for the Project Activity Logger and Project Snapshot Exporter applications. The tool also allows the user to edit the company-wide settings for the Project Activity Logger add-in.

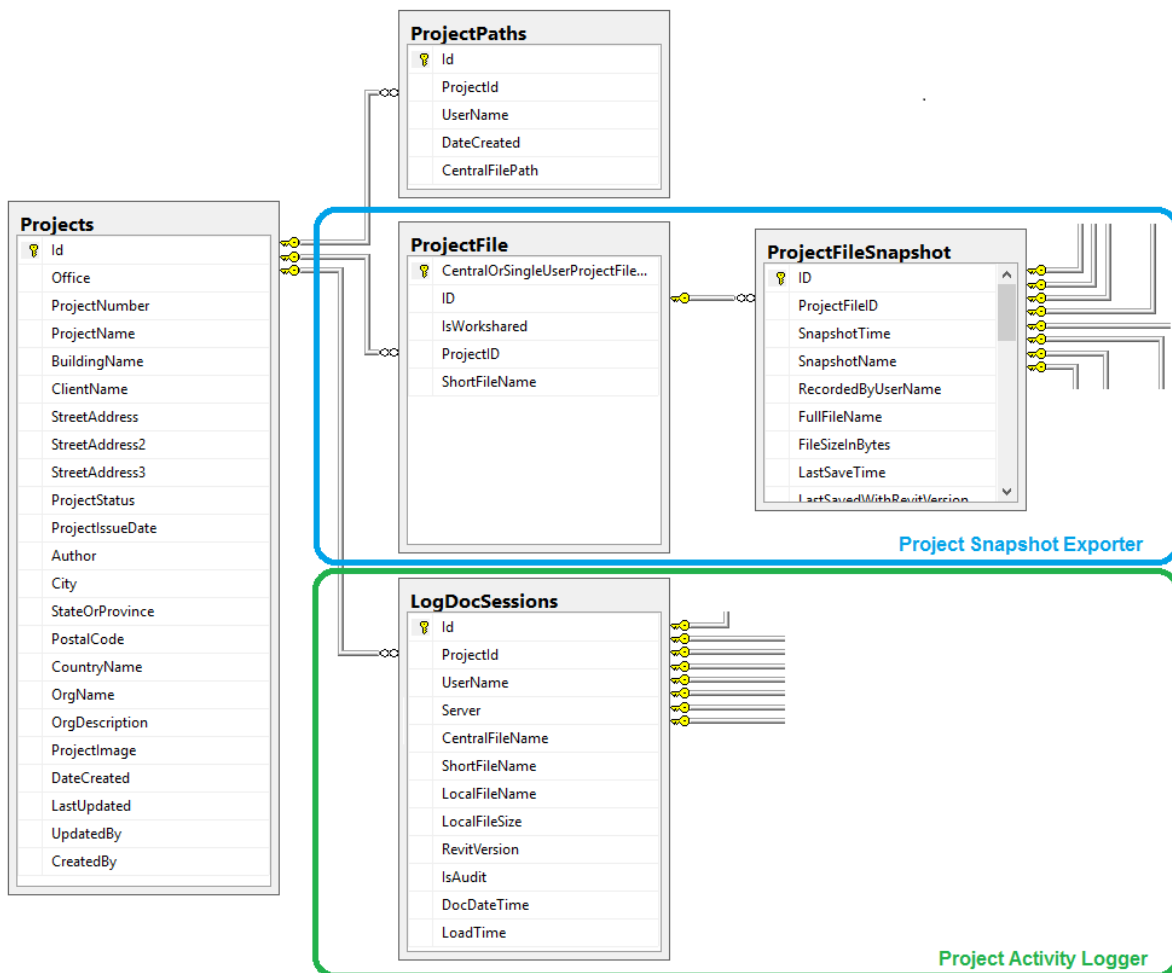
A project is a logical grouping of Revit project files based upon their folder location. Project creation is an administrative task performed by a small number of users and requires no action by a typical Revit user on a client machine.

Terms

- Document Session record - The base record for the Project Activity Logger in the LogDocSession table.
- Project File record – The base record for the Project Snapshot Exporter in the ProjectFile table.

Data Structure

The following image shows the portion of the database which is directly related to the BIM Data Admin tool. These tables are used by both the Project Activity Logger and Project Snapshot Exporter. Child tables are shown to the right of parent tables. Some of the tables shown in this structure are referenced elsewhere in this document.



Project Assignment

The initial ProjectFile or LogDocSession record is written with a *ProjectID*. The *ProjectID* value is determined by querying the **ProjectPaths** table for a record corresponding to the folder location of the Revit model. The folder location is the full path to the folder in UNC format. The fields used vary depending upon the application:

- Project Activity Logger – The LogDocSessions.CentralFileName field.
- Project Snapshot Exporter - The ProjectFile.CentralOrSingleUserProjectFileName field.

If no project is found the 'unassigned' project (0) is returned.

This rather loose association is by design. It allows the movement of project files from one project to another as required. One example scenario would be the re-organizing of an existing project into several sub-projects. Another might be the reuse of an existing model in a future project.

This flexibility has consequences. If you change the paths associated (mapped) to a project, *future* records will receive a new ProjectID. All previously created records will retain their current ProjectID. You may desire that a project file reports in 'Project A' for one time period and 'Project B' for another. However, there may also be times when you wish to reassign all the previously created records for a project file to the new project.

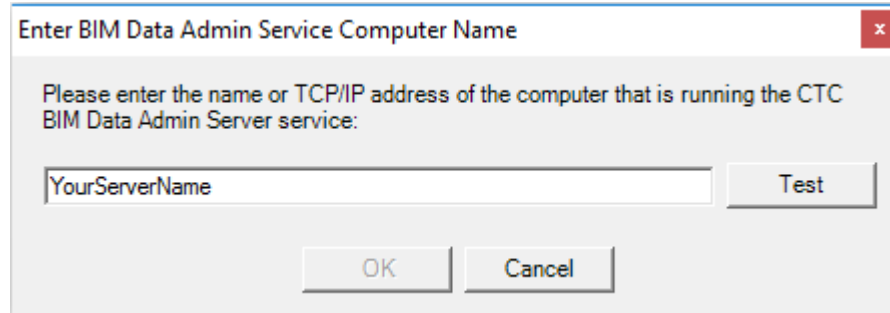
The **BIM Data Admin Tool** gives you the ability to mass edit records as necessary (i.e. LogDocSession records for Project Activity Logger, or ProjectFile records for the Project Snapshot Exporter).

BIM Data Admin Tool

The tool facilitates the creation and editing of projects as well as mapping folders to projects.

Main Form

Launch the BIM Data Admin tool by clicking the '**CTC BIM Data Admin**' shortcut in the start menu under 'CTC Software'. On first launch you will be required to enter the name of the server on which the CTC BIM Data Admin Server service was installed. Press the change button:



Enter BIM Data Admin Service Computer Name

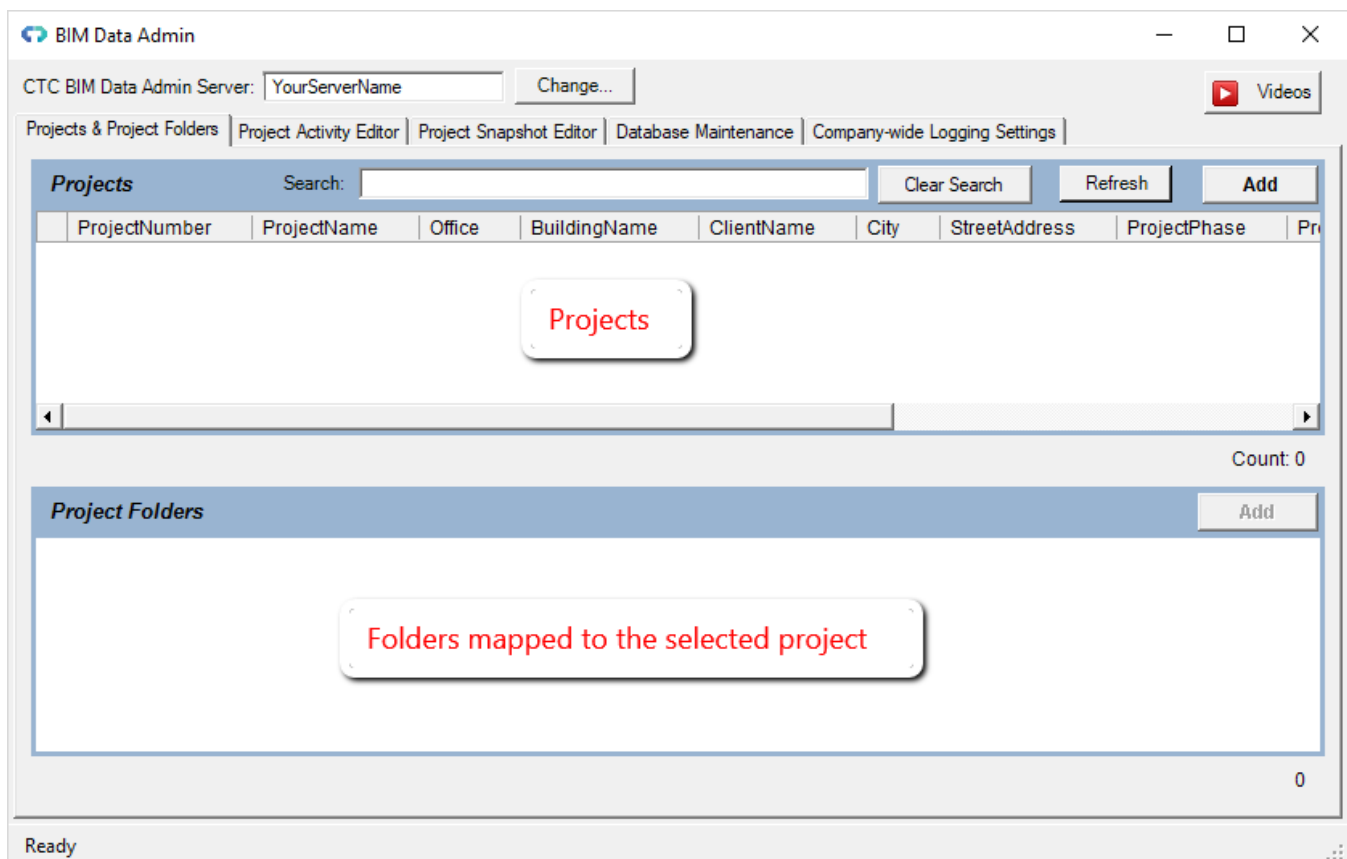
Please enter the name or TCP/IP address of the computer that is running the CTC BIM Data Admin Server service:

YourServerName

Test

OK Cancel

Enter the server name and press the Test button. The test will be successful if the correct server name is entered AND the service is started on the server. The main form will now be able to communicate with the database.



BIM Data Admin

CTC BIM Data Admin Server: YourServerName Change...

Videos

Projects & Project Folders | Project Activity Editor | Project Snapshot Editor | Database Maintenance | Company-wide Logging Settings

Projects Search: Clear Search Refresh Add

ProjectNumber	ProjectName	Office	BuildingName	ClientName	City	StreetAddress	ProjectPhase	Pr
Projects								

Count: 0

Project Folders Add

Folders mapped to the selected project

0

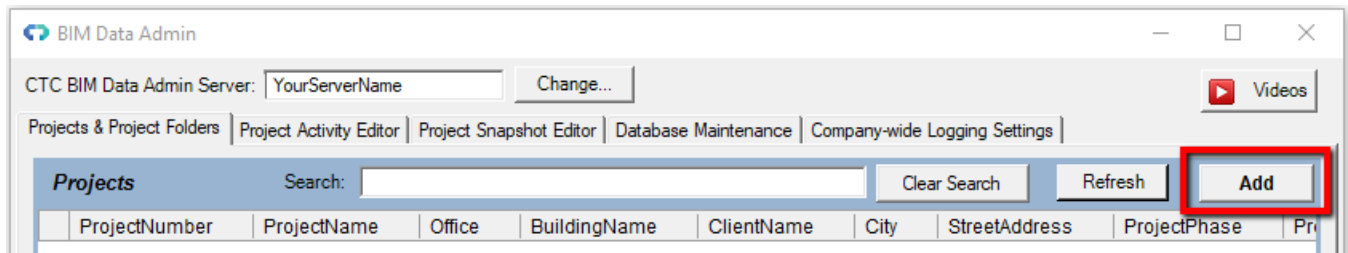
Ready

Projects & Project Folders Tab

Adding and Editing Projects

Add Project

Select the **'Add'** button in the Projects pane:

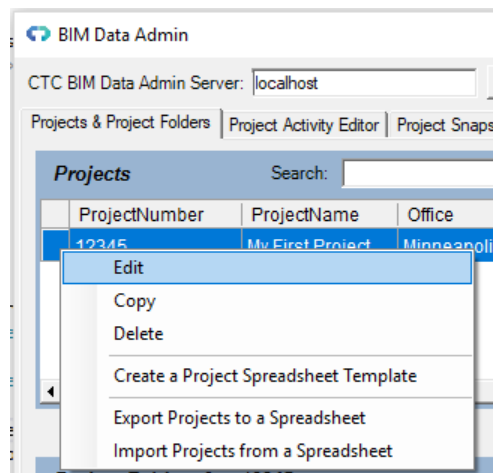


The Office and Project Number are the only required entries in the **Add Project** Form:

The screenshot shows the 'BIM Data Admin - Add Project' form. The 'Office' field (containing 'Minneapolis') and 'Project Number' field (containing '12345') are highlighted with a red rectangle, indicating they are required. Other fields include 'Project Name' (containing 'My First Project'), 'Client Name', 'Org Name', 'Org Description', 'Author', 'Project Phase', 'Project Issue Date' (a date picker set to Thursday, February 7, 2019), 'Building Name', 'City', 'Street Address 1', 'Street Address 2', 'Street Address 3', 'Country Name', 'State Or Province', and 'Postal Code'. There is an 'Add Project Image' button and 'Save' and 'Cancel' buttons at the bottom.

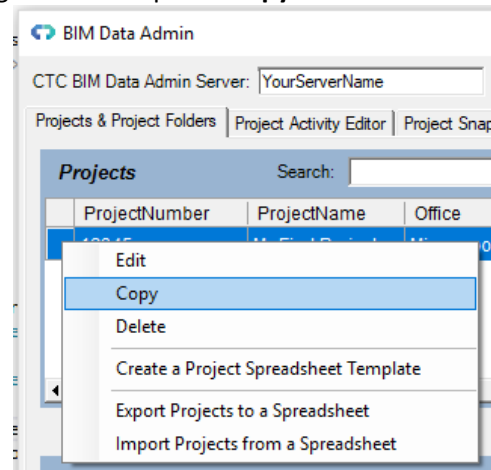
Edit Project Information

Select a project from the project list, right-click and press **'Edit'**. This will launch the **Edit Project** form which is identical to the Add Project form shown previously.



Copy a Project

Select a project from the project list, right-click and press 'Copy':

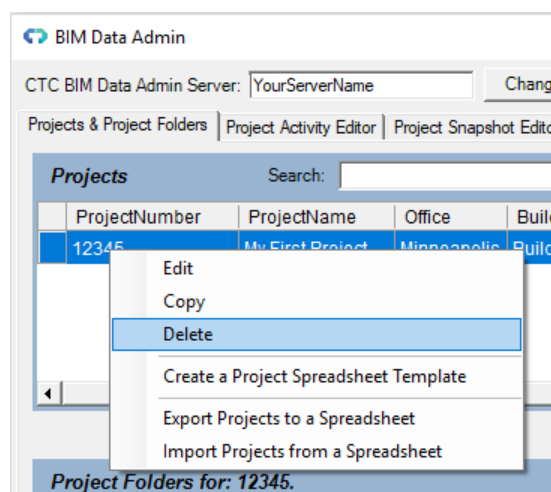


This will launch the **Copy Project** form pre-populated with all the information from the selected project EXCEPT the 'Project Number' value. The Project Number must be unique per project.

A screenshot of the "Copy Project: 12345 (Enter a new Project Number)" form. The form contains several input fields: "Office" (Minneapolis), "Project Number" (highlighted with a red box), "Project Name" (My First Project), "Author" (Use this as you like), "Project Phase" (Active, DD, CD, etc), "Project Issue Date" (Thursday, February 7, 2019), "Building Name" (Build Name), "Client Name" (Client name here), "Org Name" (Org name), and "Org Description" (Org description). There is an "Add Project Image" button on the right. The "Project Number" field is marked as "(required)".

Delete a Project

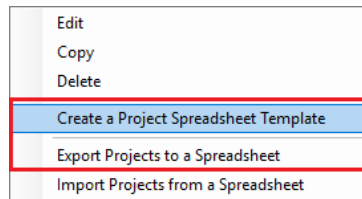
Select a project from the project list, right-click and press 'Delete':



Import Projects from a Spreadsheet

Create/Export a Project Spreadsheet

It is possible to import projects from a formatted spreadsheet. You can obtain a correctly formatted spreadsheet by selecting '**Create a Project Spreadsheet Template**', or '**Export Projects to a Spreadsheet**':

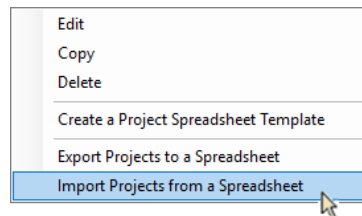


- The template is a spreadsheet with a single row containing the required column headers.
- The project export will contain the column headers as well as all the existing project records.

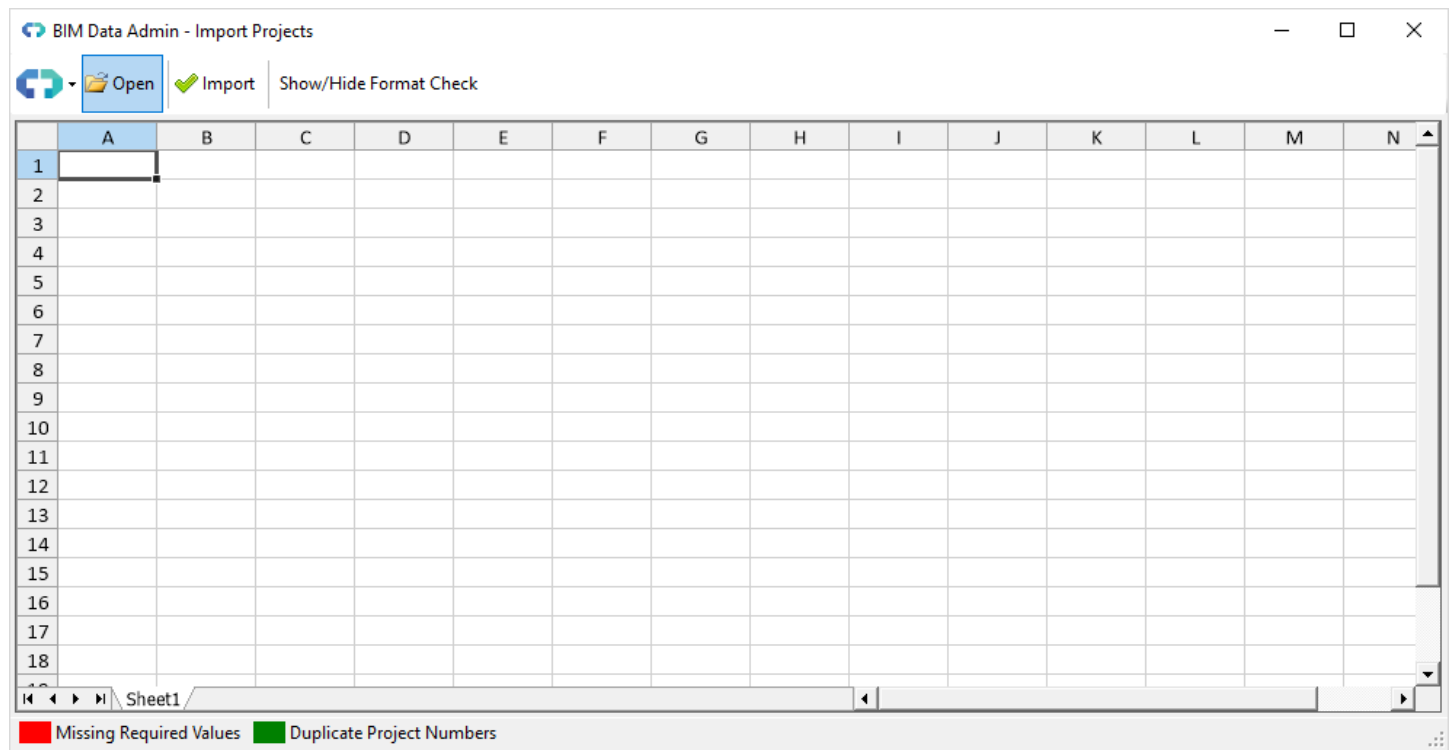
You can now add or edit rows to be imported at a later time.

Import Projects from a Spreadsheet

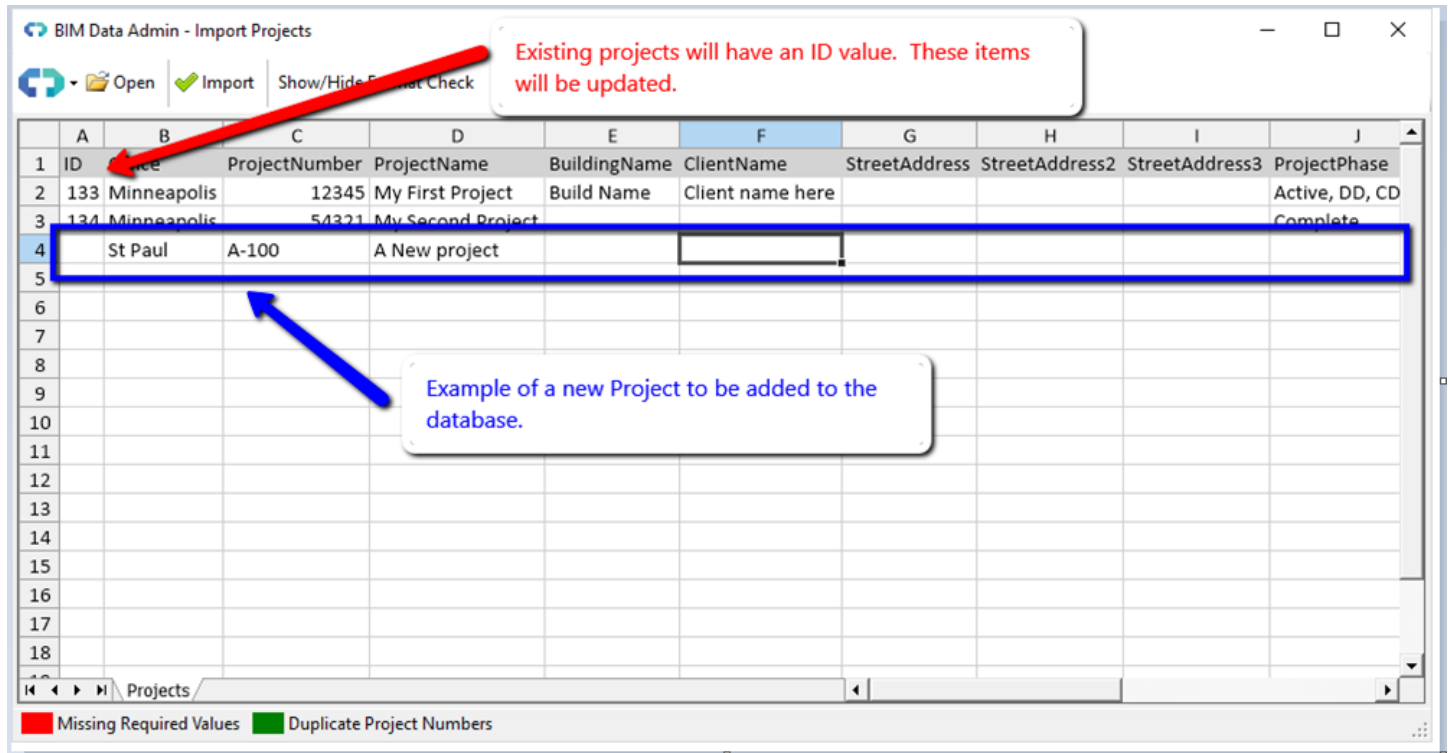
Right-click on the Projects pane and select '**Import Projects from a Spreadsheet**':



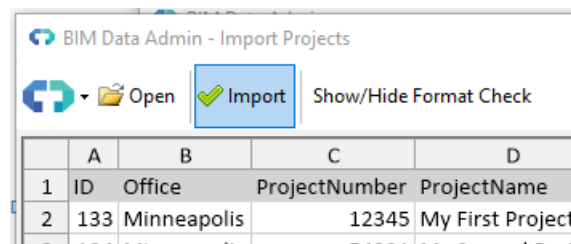
This will launch the Import Projects Form:



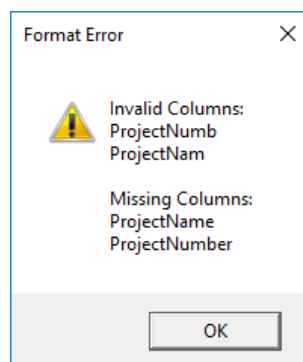
Open your project spreadsheet. The example below was created by exporting an existing spreadsheet. In it, you can see two existing projects and one added to the spreadsheet after the export:



You can also manually add a project into this form. In this case, be sure to leave the ID column blank. When you are finished, press 'Import':



The import process begins by validating the spreadsheet format for the correct column layout. An example spreadsheet format error is shown below. This is the result if the ProjectNumber and ProjectName fields are missing or misspelled:



Simply correct the column names and try again.

The next validation check is for duplicate Project Numbers, which are not allowed. And lastly, a check for the required values (Office and ProjectNumber).

BIM Data Admin - Import Projects

Open Import Show/Hide Format Check

	A	B	C	D	E	F	G	H
1	ID	Office	ProjectNumber	ProjectName	BuildingName	ClientName	StreetAddress	StreetAddress2
2	133	Minneapolis	12345	My First Project	Build Name	Client name here		
3	134	Minneapolis	54321	My Second Project				
4		St Paul	A-100	A New project				
5		St Paul		Another new project				
6		St Paul	12345	Another new project				
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								

Validation Error

There are <2> missing or duplicate values that must be edited before proceeding.

OK

Projects

Missing Required Values Duplicate Project Numbers

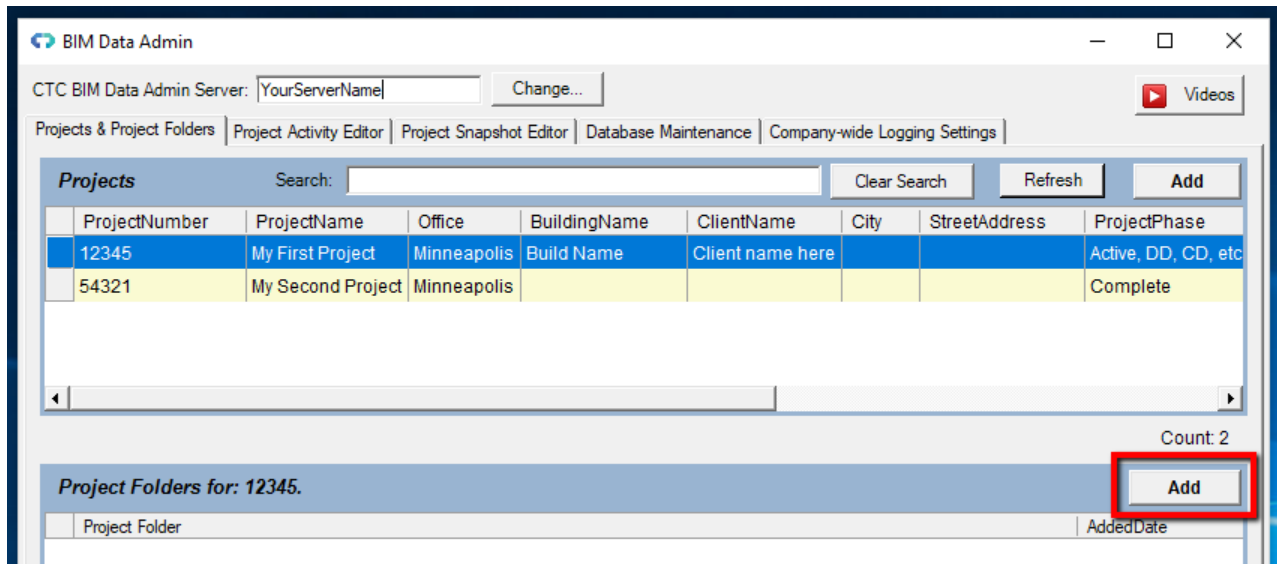
In this case you must enter the missing values shown in red, change or delete the values in green. Then try again.
 NOTE: For existing records (those with Id's), only columns with values in them will be updated. In other words, empty values WILL NOT overwrite existing values in the database.

Mapping Folders to Projects

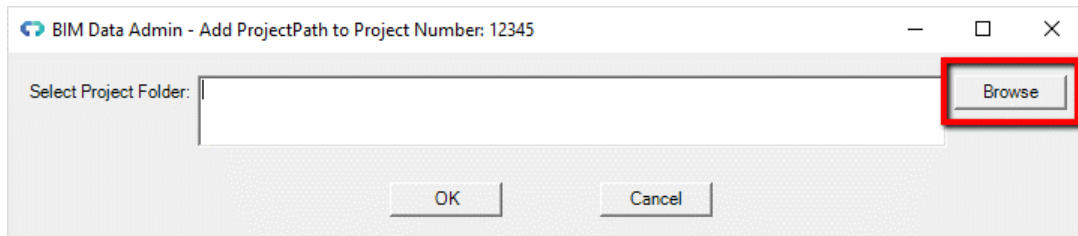
The mapping of a folder to a project is the mechanism by which a LogDocSession or ProjectFile record receives a ProjectID.

Create a Project-Folder Map

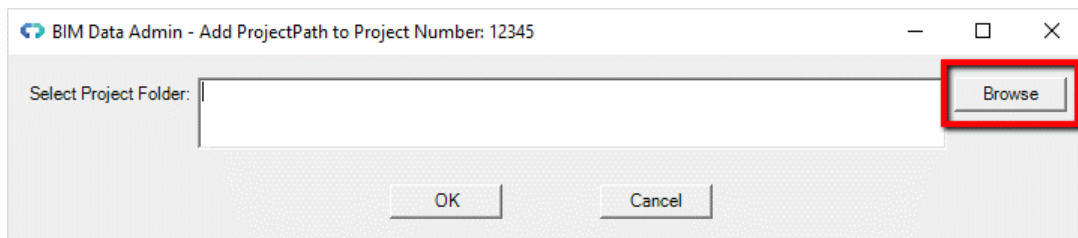
Select the desired project in the Projects pane. Press the **'Add'** button to create a new mapping:



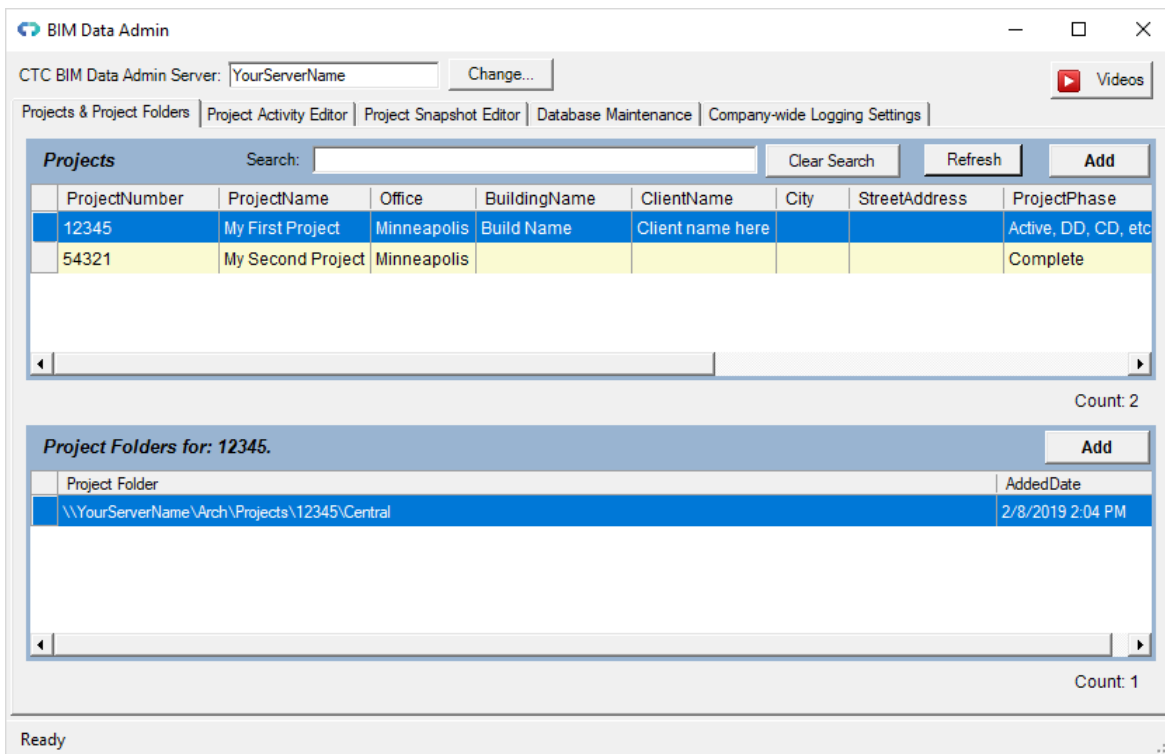
Enter or browse to a folder containing project files for the selected project:



Confirm your selection and press **OK**.

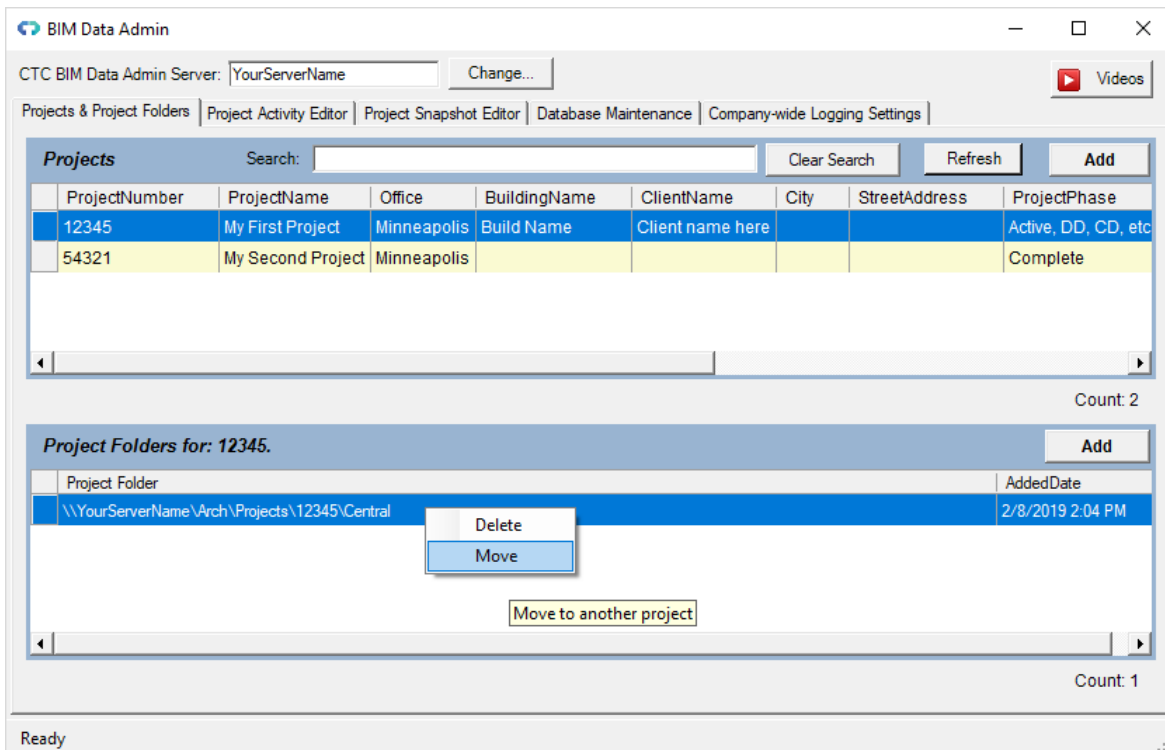


The project files in the selected folder are now mapped to the project:

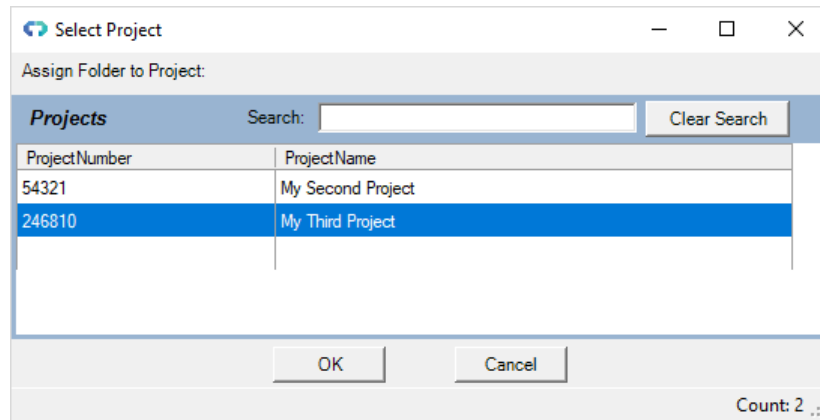


Edit an Existing Folder-Project Map (Move a folder to a new project)

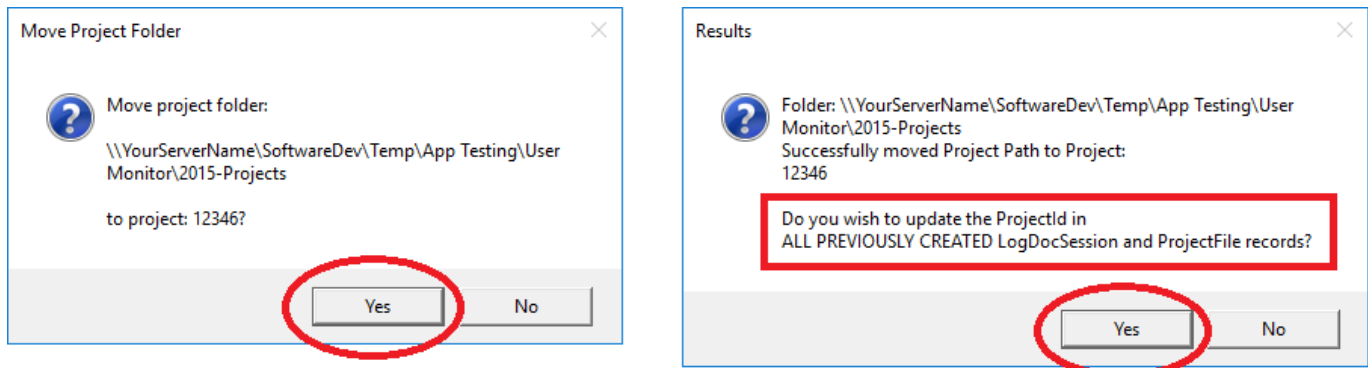
First select the current project in the Projects pane. Next, right-click on the folder in the Project Folders pane. Select **'Move'** from the popup menu:



Select the new project to map the folder:



All future Project File and Document Session records will contain the ProjectID of the newly mapped project. Previously created records will only be updated if you indicate that you wish to do so:



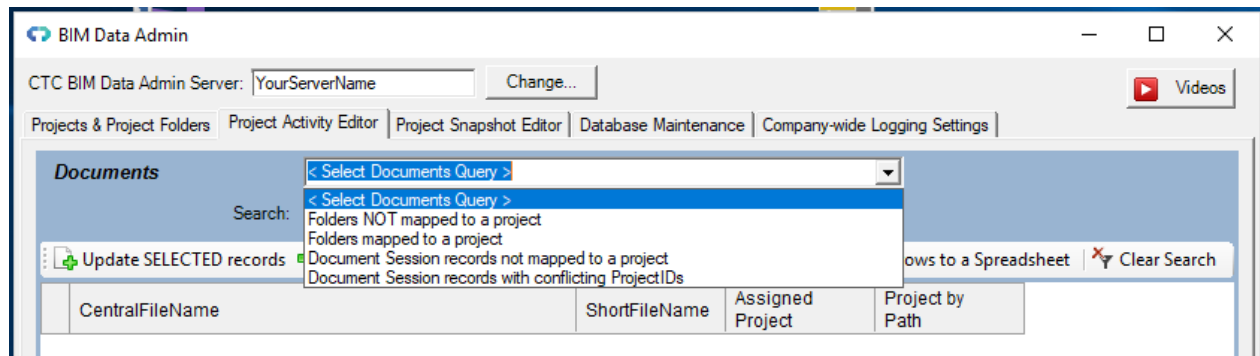
If you select no at this point, the previous document session records will still contain the old ProjectID. If you later wish to update these records, use the tools found in the Project Activity Editor tab and the Project Snapshot Editor tab to do so.

Delete an Existing Folder-Project Map

Right-click on the folder in the Project Folders pane. Select '**Delete**' from the popup menu. Future records will no longer be mapped to the selected project. This has no effect on previously created records. Use the tools found in the project Activity Editor Tab to modify previously created Document Session records.

Project Activity Editor Tab (Project Activity Logger)

Use the Project Activity Editor Tab to edit the mapping of existing folders and Document Session records.



Expand the drop-down list. There are four options listed:

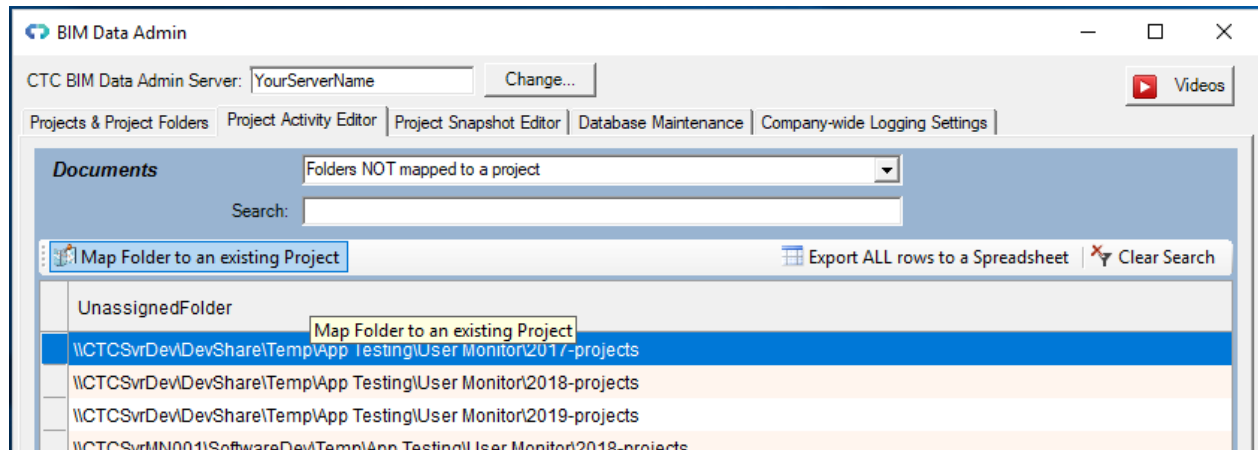
1. **Folders NOT mapped to a project** – A list of the central file folders that have never been mapped to a project.
2. **Folders mapped to a project** – A list of the current folder mappings.
3. **Document Session records not assigned to a project** – LogDocSession records that meet the following criteria:
 - Currently mapped to the unassigned project.
 - A project has subsequently been created AND folder corresponding to the central file's path has been mapped to the project.
4. **Document Session records with conflicting ProjectIDs** – LogDocSession records of central files that have been mapped to another project at some point in time.

Edit Folder-Project Maps

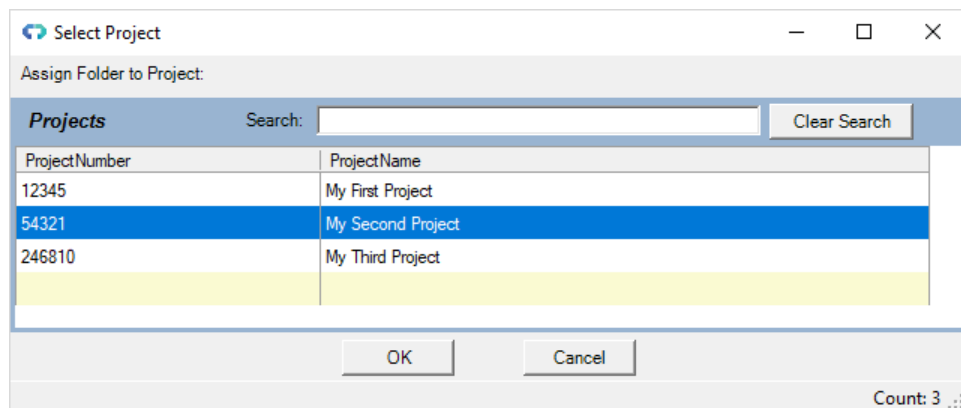
Folders not Mapped to a Project

Select '**Folders NOT mapped to a project**' in the Documents drop-down list. This will display a list of central file folders that have not been mapped to a project. You have the option to map individual folders or export them to a spreadsheet for further analysis.

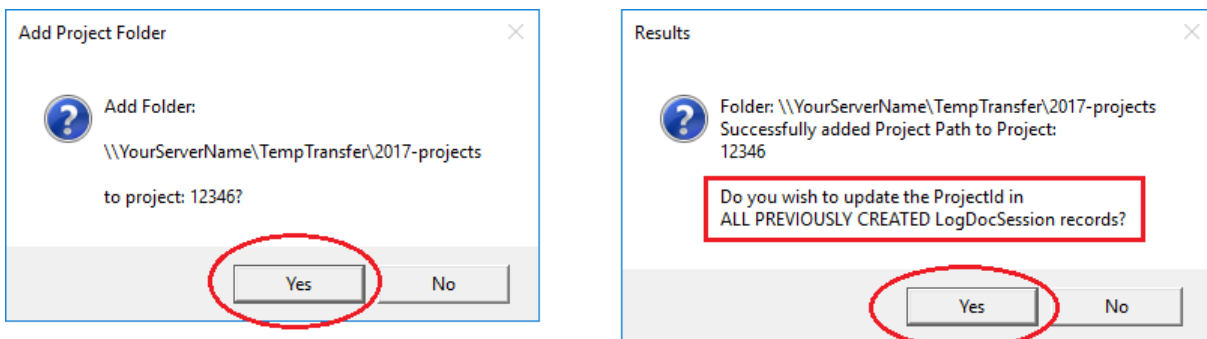
To edit, select an unassigned folder and press '**Map Folder to an existing project**' from the toolbar menu:



Select the new project to map the folder:



All future Document Session records will contain the ProjectID of the newly mapped project. Previously created records will only be updated if you indicate that you wish to do so:

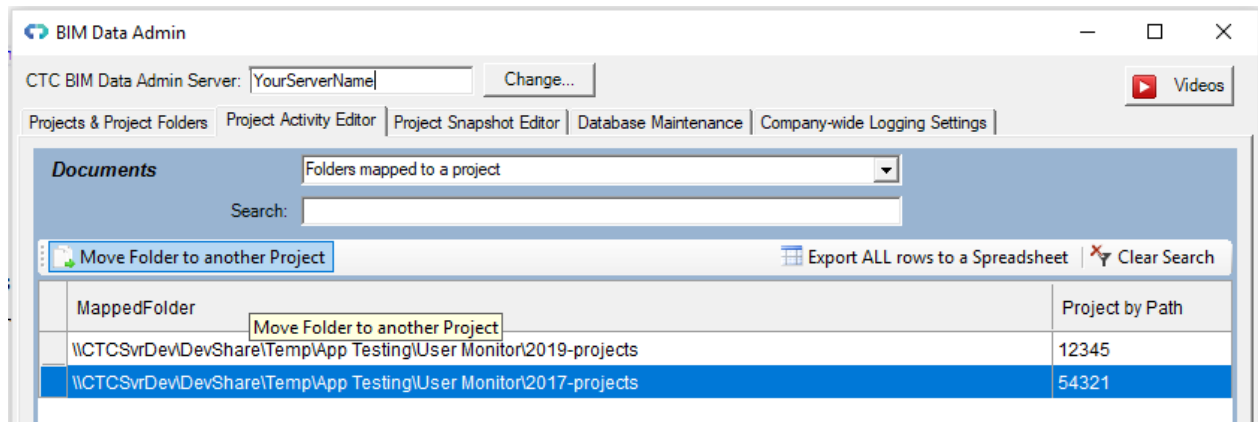


If you select no at this point, the previous document session records will still contain the old ProjectID. If you later wish to update these records, see '[Records not assigned to a Project](#)'.

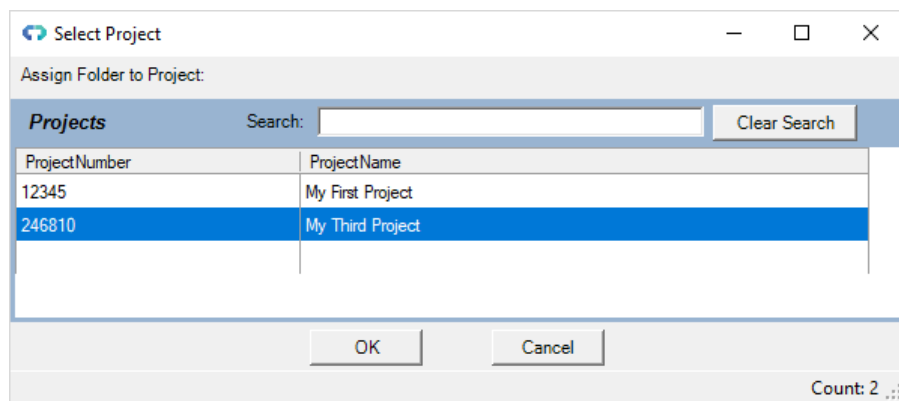
Folders already mapped to a Project (Move to another Project)

Select **'Folders mapped to a project'** in the Documents drop-down list. This will display a list of central file folders that are mapped to projects. You have the option to move the folder mapping to another project or export them to a spreadsheet for further analysis.

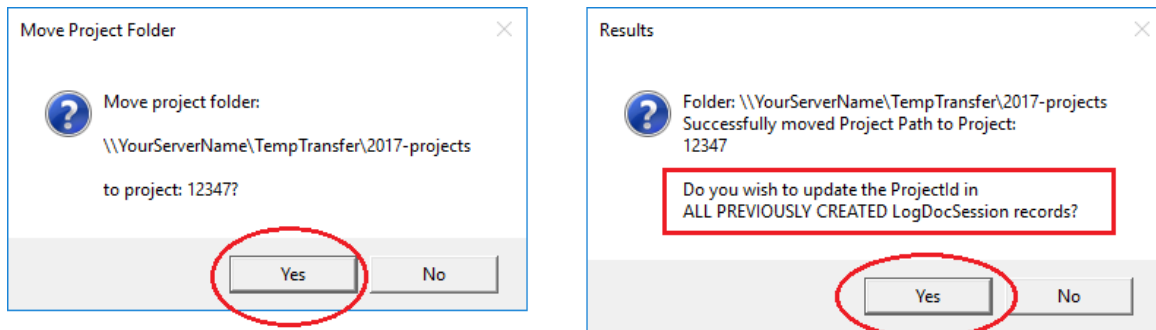
To edit, select a mapped folder and press **'Move Folder to another project'** in the toolbar menu:



Select a project from the popup list:



The folder will be mapped to the selected project. All future Document Session records will contain the ProjectID of the newly mapped project. Previously created records will only be updated if you indicate that you wish to do so by selecting 'Yes' in the Results dialog.



If you select no at this point, the previous document session records will still contain the old ProjectID. If you later wish to update these records, see the **'Records with Conflicting ProjectIDs'** section.

Edit Existing Document Session Records

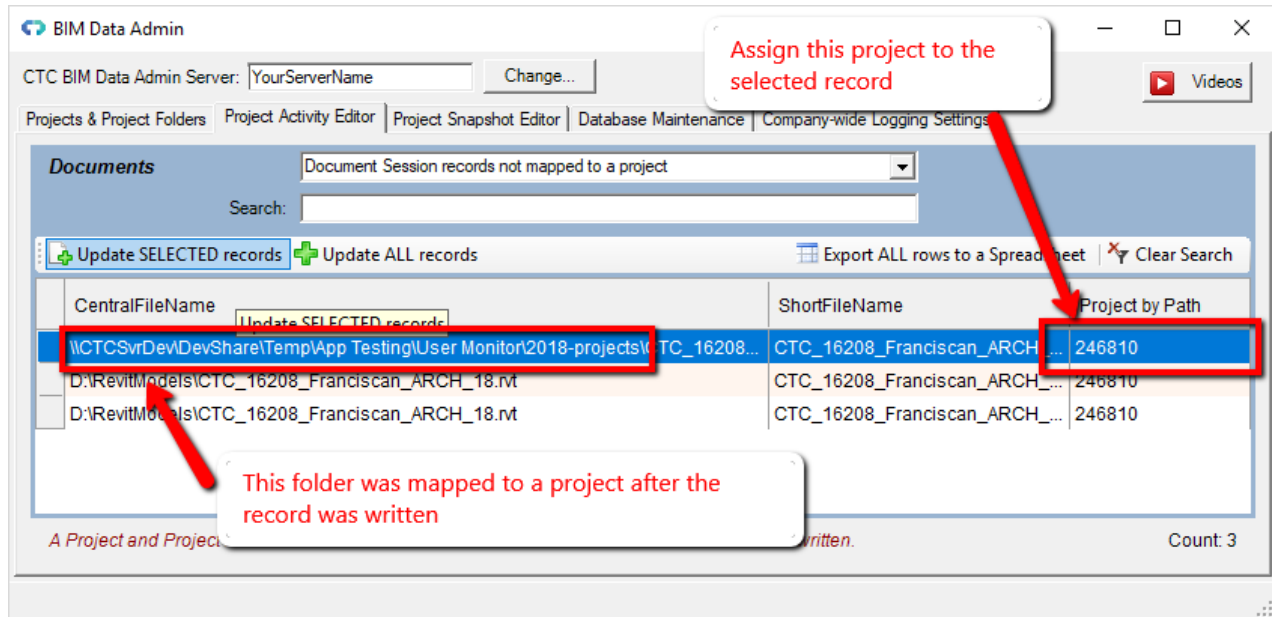
Records not mapped to a Project (Update ProjectID)

Select '**Document Session records not mapped to a project**' from the Documents drop-down list. The resulting display will contain Document Session records created before the central file's path was mapped to a project.

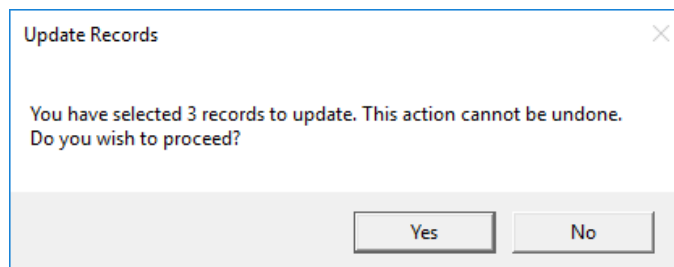
Select one of the following actions from the toolbar menu:

- Update SELECTED records – Select rows from the grid prior to selecting this action.
- Update ALL records.
- Export all rows to a spreadsheet.

The example below updates three selected records:



Confirm the update:



The updated records will be removed from the list.

Records with Conflicting ProjectIDs (Update ProjectID)

Select 'Document Session records with conflicting ProjectIDs' from the Documents drop-down list. The resulting display will contain Document Session records of central files that have been mapped to another project at some point in time.

Select one of the following actions from the toolbar menu:

- Update SELECTED records – Select rows from the grid prior to selecting this action.
- Update ALL records.
- Export all rows to a spreadsheet.

The example below updates the selected record:

The Centralfile's path has subsequently been mapped to another project. Update will assign the selected records to the new project

Records are currently assigned this project's ID

CentralFileName	ShortFileName	Assigned Project	Project by Path
\\CTCSvrDev\DevShare\Temp\App Testing\User Monitor\2018...	CTC_16208_Franciscan_ARCH...	54321	246810
D:\RevitModels\CTC_16208_Franciscan_ARCH_18.rvt	CTC_16208_Franciscan_ARCH...	54321	246810
CTC_16208_Franciscan_ARCH...	CTC_16208_Franciscan_ARCH...	54321	246810
CTC_16208_Franciscan_ARCH...	CTC_16208_Franciscan_ARCH...	12345	54321

The Project and Project Folder association was CHANGED for these files AFTER the records were written.

Count: 4

Confirm the update:

Update Records

You have selected 3 records to update. This action cannot be undone. Do you wish to proceed?

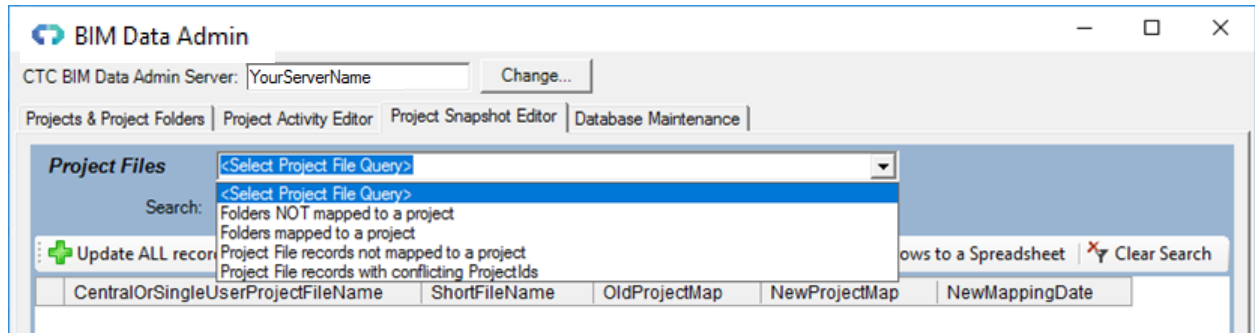
Yes

No

The updated records will be removed from the list.

Project Snapshot Editor Tab (Project Snapshot Exporter)

Use the Project Activity Editor Tab to edit the mapping of existing folders and Project File records.



Expand the drop-down list. There are three options listed:

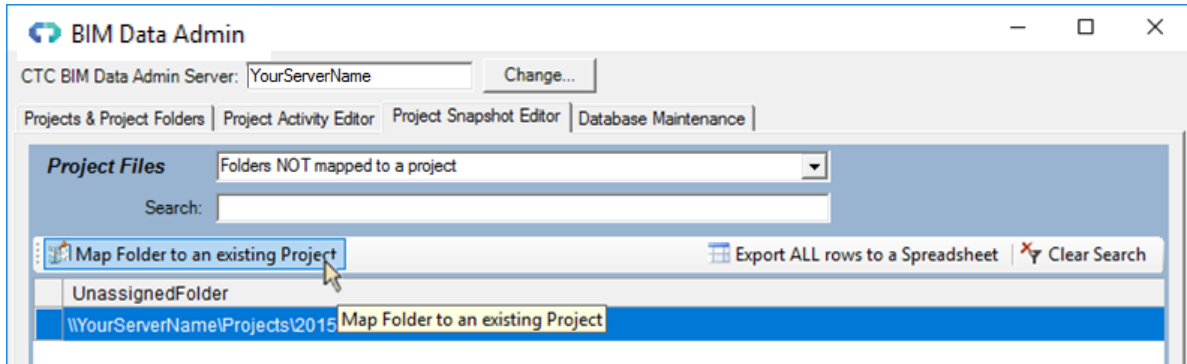
1. Project File Folders not mapped to a project – A list of the project file folders that have never been mapped to a project.
2. Project File records not assigned to a project – A list of Project File records that meet the following criteria:
 - a. Currently mapped to the unassigned project.
 - b. A project has subsequently been created AND folder corresponding to the project file's path has been mapped to the project.
3. Project File records with conflicting ProjectIDs – A list of Project File records of project files that have been mapped to another project at some point in time.

Edit Folder-Project Maps

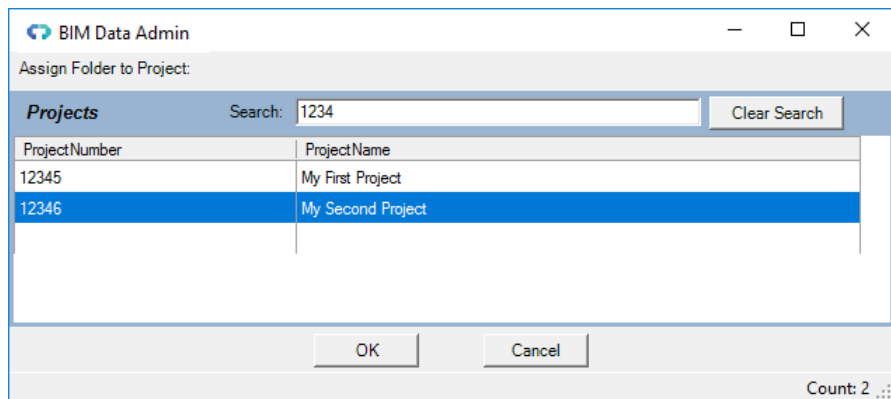
Folders not Mapped to a Project

Select '**Folders NOT mapped to a project**' in the Documents drop-down list. This will display a list of project file folders that have not been mapped to a project. You have the option to map individual folders to a project, or export them to a spreadsheet for further analysis.

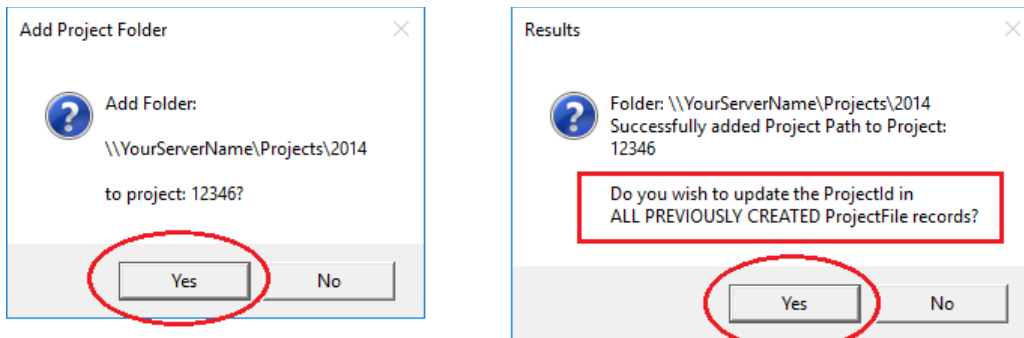
To edit, select an unassigned folder and press '**Map Folder to an existing project**' in the toolbar menu:



Select a project to map the folder:



All future Project File records will contain the ProjectID of the newly mapped project. Previously created records will only be updated if you indicate that you wish to do so:

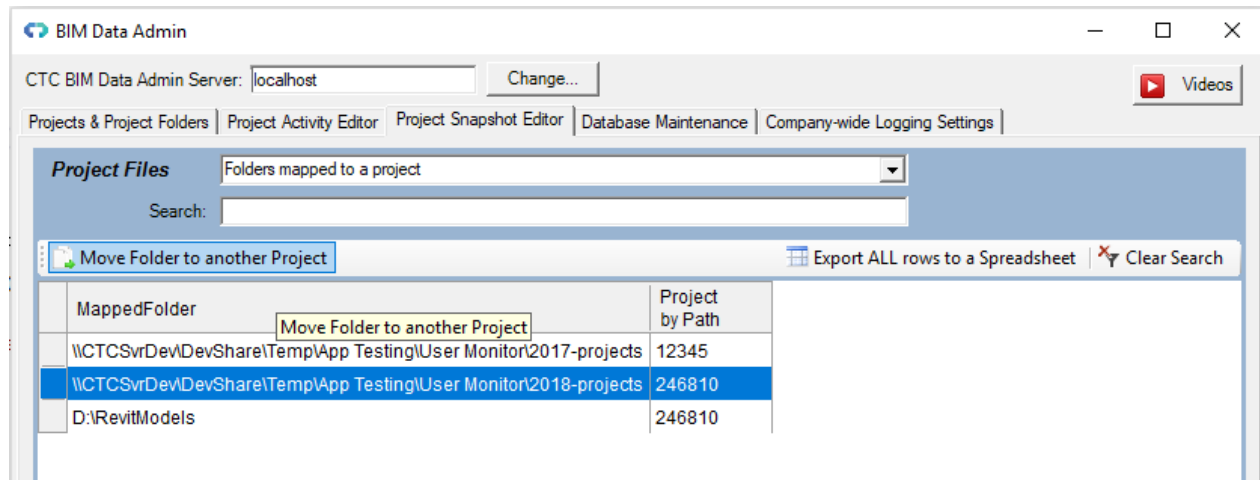


If you select no at this point, the previous Project File records will still contain the old ProjectID. If you later wish to update these records, see '[Records not assigned to a Project](#)'.

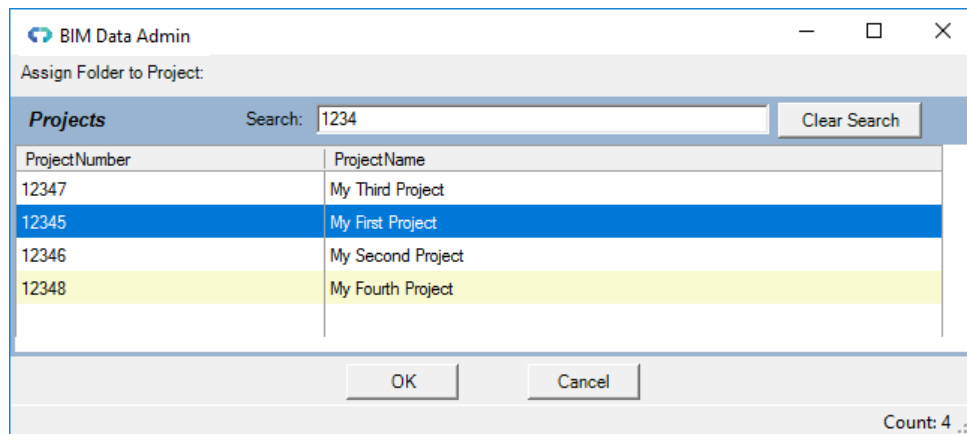
Folders mapped to a Project (Move to another Project)

Select **'Folders mapped to a project'** in the Project Files drop-down list. This will display a list of project file folders that are currently mapped to projects. You have the option to move the folder mapping to another project or export them to a spreadsheet for further analysis.

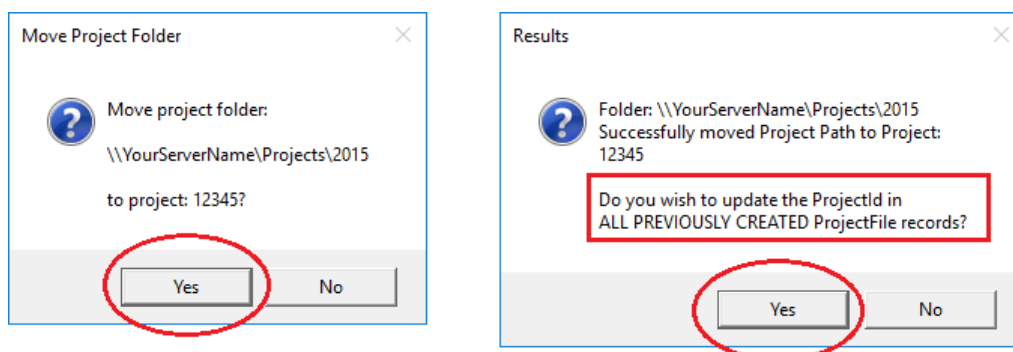
To edit, select a mapped folder and press **'Move Folder to another project'** in the toolbar menu:



Select a project to re-map the folder:



All future Project File records will contain the ProjectID of the newly mapped project. Previously created records will only be updated if you indicate that you wish to do so:



If you select no at this point, the previous project file records will still contain the old ProjectID. If you later wish to update these records, see the **'Records with Conflicting ProjectIDs'** section.

Edit Existing Project File Records

Records not assigned to a Project (Update ProjectID)

Select '**Project File records not mapped to a project**' from the Project Files drop-down list. The resulting display will contain Project File records created before the file's path was mapped to a project.

Select one of the following actions from the toolbar menu:

- Update SELECTED records – Select rows from the grid prior to selecting this action.
- Update ALL records.
- Export all rows to a spreadsheet.

The example below updates two selected records:

Update will assign the selected records to the new project

Update SELECTED records

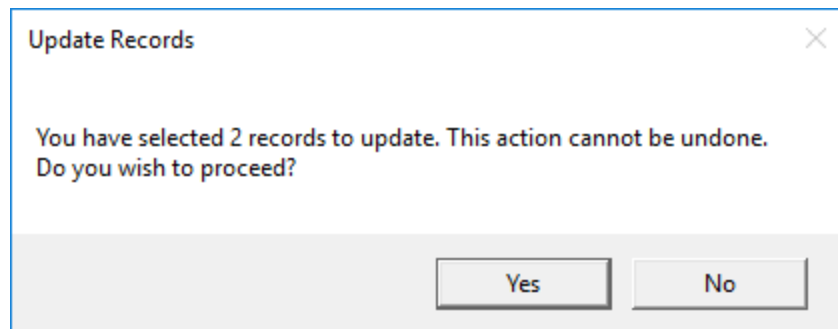
CentralOrSin	ShortFileName	Assigned Project	Assigned Date
D:\RevitModels\CTC_16208_Franciscan_ARCH_18.rvt	CTC_16208_Franciscan_ARCH_18.rvt	246810	2/14/2019 6:21:31 PM
D:\RevitModels\Projects\5521.2107\Demo Building_Central.rvt	Demo Building_Central.rvt	12345	2/14/2019 7:07:16 PM

A Project and Project Folder association was created

this folder was mapped to a project after the record was written

Count: 2

Confirm the update:



The updated records will be removed from the list.

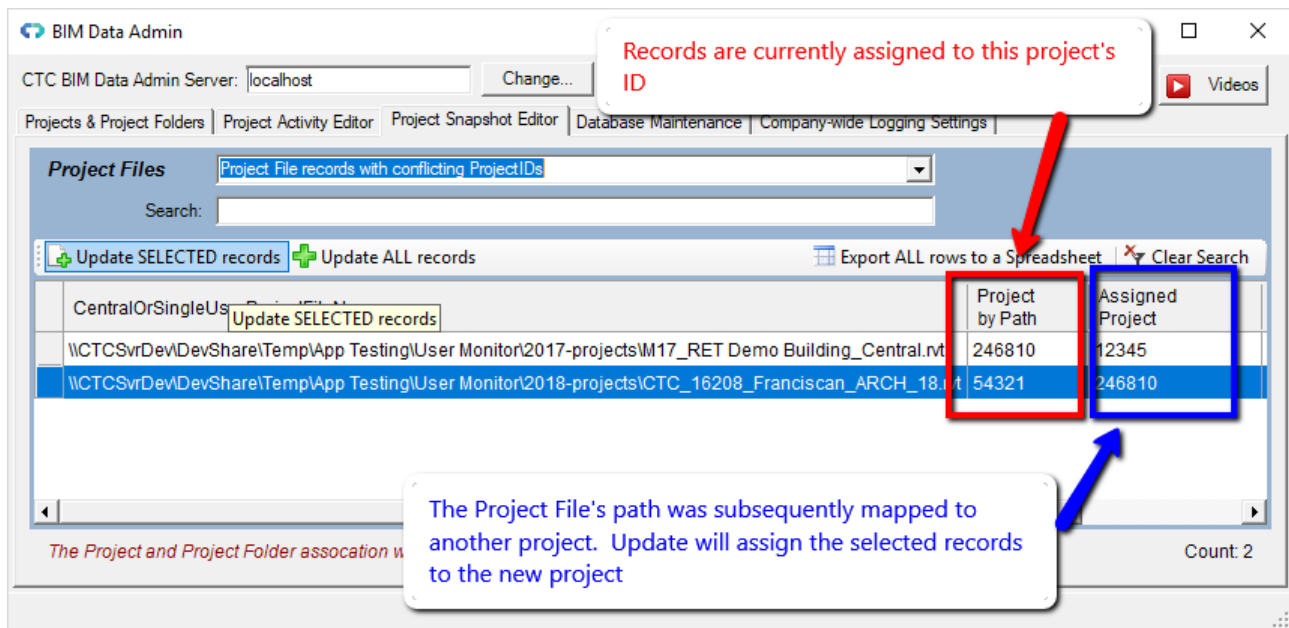
Records with Conflicting ProjectIDs (Update ProjectID)

Select 'Project File records with conflicting ProjectIDs' from the Project Files drop-down list. The resulting display will contain records of project files that have been mapped to another project at some point in time.

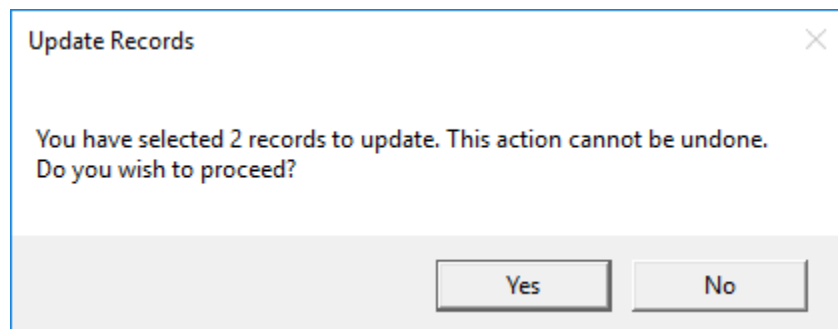
Select one of the following actions from the toolbar menu:

- Update SELECTED records – Select rows from the grid prior to selecting this action.
- Update ALL records.
- Export all rows to a spreadsheet.

The example below updates two selected records:



Confirm the update:



The updated records will be removed from the list.

Database Maintenance Tab

Over time, as the database fills up, it will become necessary to delete records that are no longer needed. The Database Maintenance tab provides the ability to filter and delete Document Session or ProjectFile records by project number and date range. Both the LogDocSession and ProjectFile tables have numerous related child tables. Therefore, records deleted from these tables will trigger cascading deletions in their related child tables.

Delete Snapshot or Project Activity Logger Records

Select 'Project Snapshot Exporter' or 'Project Activity Logger' in the application drop-down list. Next, provide a start and end date and a project number (You can select 'All' in the projects drop-down list to retrieve all records regardless of their ProjectID). Finally, press the 'Refresh Data' button to retrieve your records. The displayed records can be further filtered using the search textbox.

Press either 'Delete Selected Records' or 'Delete All Records'. Note that the delete all selection will delete the records visible in the grid. In other words, if the initial selections returned 50 records, and you filtered the result down to 20 using the search textbox, only 20 records will be deleted.

The **Project Activity Logger** displays records based on the project number and central file name:

The screenshot shows the 'BIM Data Admin' window with the 'Database Maintenance' tab selected. The 'Application' dropdown is set to 'Project Activity Logger'. The 'Start Date' is 'Wednesday, February 13, 2019' and the 'End Date' is 'Friday, February 15, 2019'. The 'Project' dropdown is set to '<ALL>'. The 'Search' field is empty. Below the filters, there are buttons for 'Refresh Data', 'Delete Selected Records', and 'Delete ALL Records'. A table displays the following records:

ProjectNumber	Central File Name	ItemDateTime
12345	\\CTCSvrDev\DevShare\Temp\Testing\User Monitor\2017-projects\17_RET Demo Building_Central.rvt	2/14/2019 5:02...
12345	\\CTCSvrDev\DevShare\Temp\Testing\User Monitor\2017-projects\17_RET Demo Building.rvt	2/14/2019 5:05...
12345	\\CTCSvrDev\DevShare\Temp\Testing\User Monitor\2019-projects\CTC_16208_Franciscan_ARCH_19....	2/14/2019 5:11...
54321	\\CTCSvrDev\DevShare\Temp\Testing\User Monitor\2018-projects\CTC_16208_Franciscan_ARCH_18....	2/14/2019 5:09...
54321	D:\RevitModels\CTC_16208_Franciscan_ARCH_18.rvt	2/14/2019 5:07...

At the bottom, a red message states: 'Delete all records related to the selected central file.' and the 'Count' is 5.

The **Project Snapshot Exporter** displays records based on the project number and snapshot name:

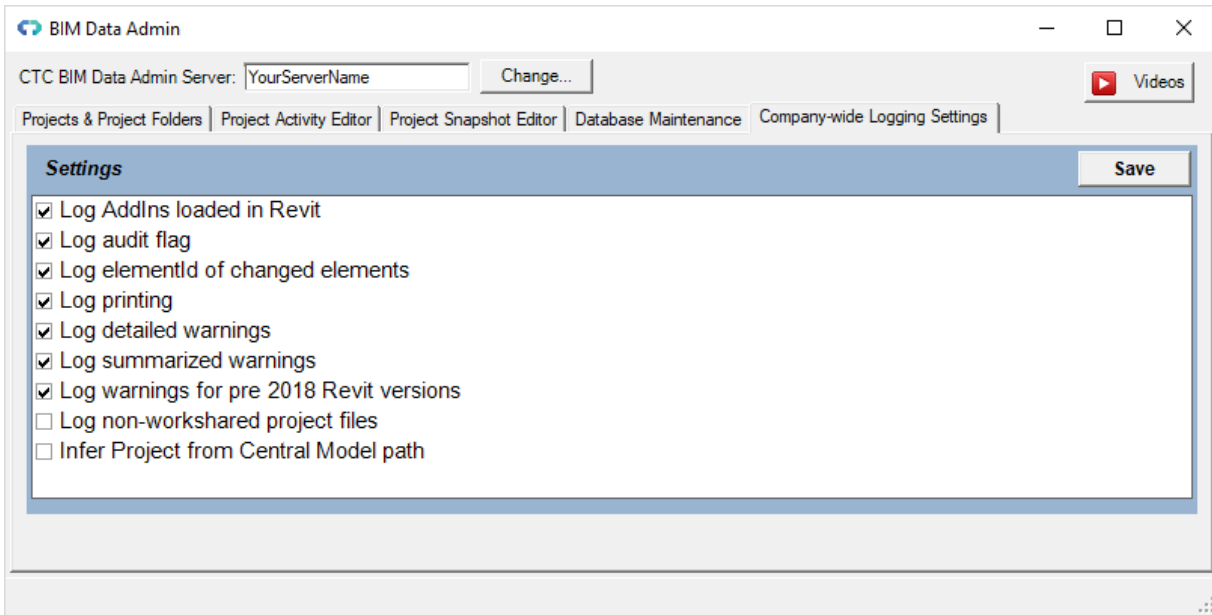
The screenshot shows the 'BIM Data Admin' window with the 'Database Maintenance' tab selected. The 'Application' dropdown is set to 'Project Snapshot Exporter'. The 'Start Date' is 'Thursday, February 14, 2019' and the 'End Date' is 'Friday, February 15, 2019'. The 'Project' dropdown is set to '<ALL>'. The 'Search' field is empty. Below the filters, there are buttons for 'Refresh Data', 'Delete Selected Records', and 'Delete ALL Records'. A table displays the following records:

ProjectNumber	Snapshot Name	ItemDateTime
246810	Snapshot 1	2/14/2019 5:40...
12345	Snapshot 2	2/14/2019 5:40...

At the bottom, a red message states: 'Delete all records related to the selected project file.' and the 'Count' is 2.

Company-wide Logging Settings

Logging settings are centrally managed and stored in the database.



- Log Add Ins – One record is posted into the LogAddin table for each Revit add-in loaded in the current session.
- Log Audit Flag – Checks and records in the LogDocSession table whether the model was opened with the audit feature selected.
- Log Detailed Element Changes – Record the elementId of every added, deleted, or modified element in the LogElement table.
- Log Printing – One record is posted into the LogPrint table for each print job. The start time, end time, and the view names are captured.
- Log Summarized Warnings – One record for every warning message is posted into the LogWarningSummary table. The elementId column contains a list of the affected elementIds.
- Log Warnings for Pre-2018 Revit versions - One record is posted into the LogWarning table for each element affected by the warning.
- Log Detailed Warnings – One record is posted into the LogWarning table for each element affected by the warning.
- Log non-workshared project files.
- Infer Project – The project can be inferred only if a project number exists somewhere in the central model's path. For example, given the following central model full path:

[\\YOURSERVERNAME\Projects\A12345-0\MyFileName.rvt](#)

And a list of project numbers:

- 12345 – Contained in path but not selected.
- 12345-0 – Contained in path but not selected.
- 12345-01 – Contained in path but not selected.
- **A12345-0 – Selected.**
- A12345-01 – Contained in path but not selected.
- ...

Project A12345-0 is inferred because it is the longest project number that is contained in the central model path. Infer Project should be used carefully as errors are possible if the correct project does not yet exist. In the above example, project 12345-0 would have been inferred if A12345-0 did not exist. This feature is off by default.