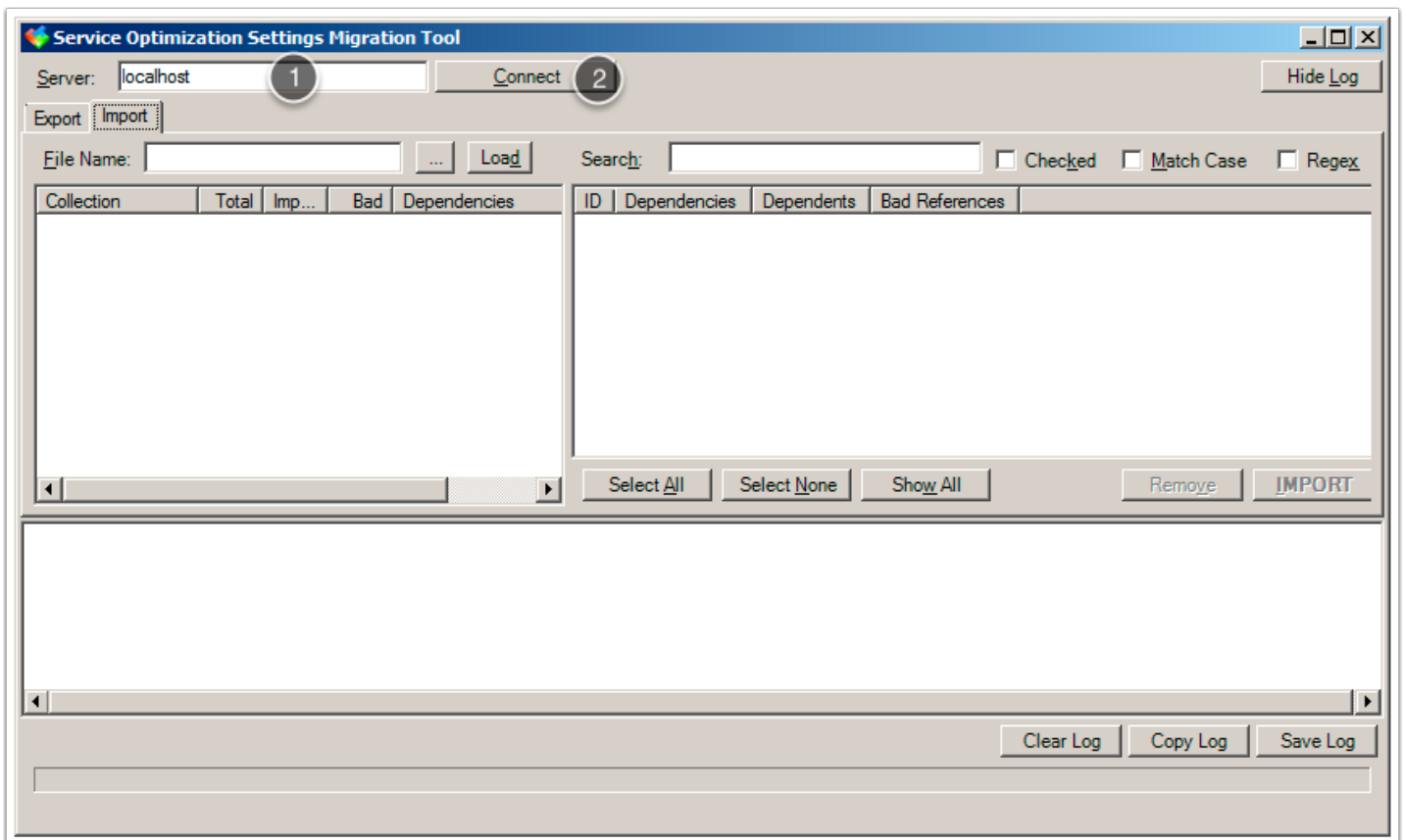


Import using Settings Migration Tool

Setting the server into which to import

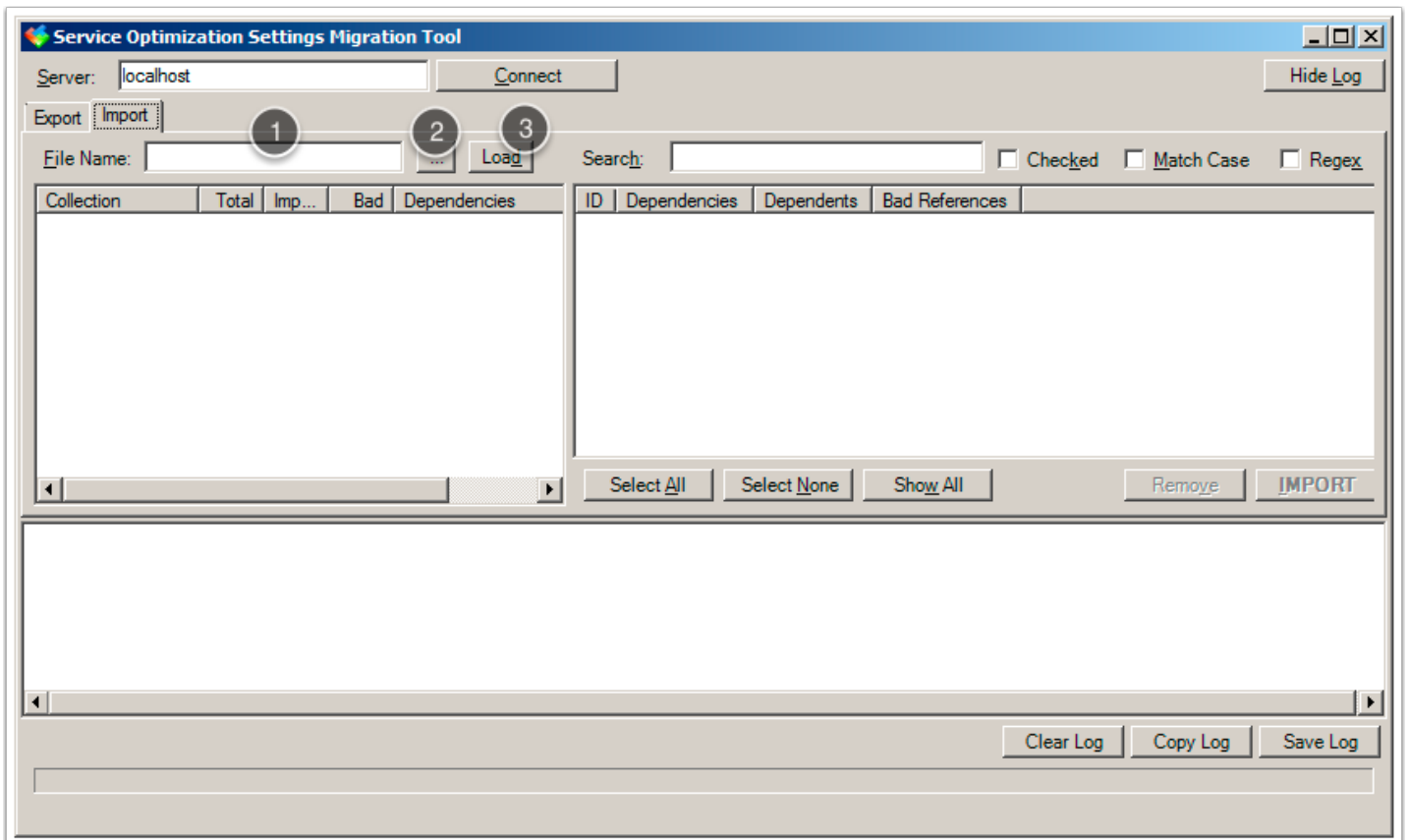
The server to which Settings Migration Tool will connect is specified by entering the server name into text box (1). Clicking on Connect button (2) will test the connection, but it won't create a persistent session for import. Instead, a new session is created for every import related operation in order to make sure that the state seen by Xoom is up-to-date at the time of the import.



Specifying a Xoom file for import

Before any import operation is possible, we need to specify a file that is going to be loaded into Settings Migration Tool. Three controls are intended for this purpose:

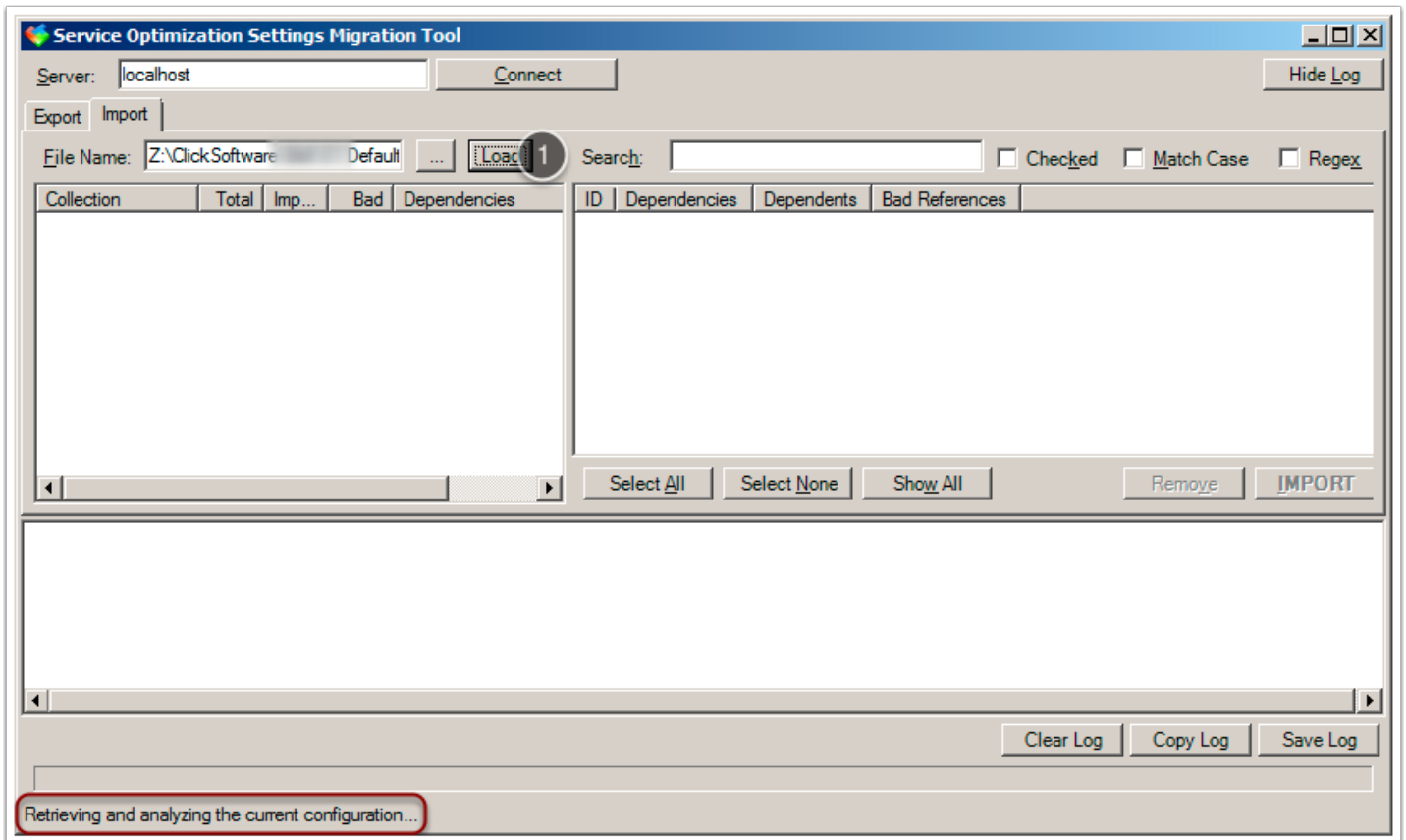
- A text box into which we can enter the file name with full path (1).
- A button (2) that opens the standard Open dialog box and populates text box (1).
- A Load button (3) that opens the standard Open dialog box if text box (1) is empty (in which case the dialog box will populate the text box, just like if button (2) was clicked), and loads the Xoom file specified. See below to see what loading a file entails.



Loading a Xoom file for import

Once the Xoom file for import has been specified, we click on the Load button. The following actions take place when this button is clicked:

- Settings Migration Tool loads the Xoom file in question into memory.
- The tool then send the contents of the file to Xoom server to be analysed for import (see text in circled in red in the status bar).
- The server creates a new session and loads the equivalent part of the configuration from the Service Optimization server.
- Once the configuration has been loaded, it gets compared to the information stored in the Xoom file. The irrelevant or environment specific parts of the configuration (such as for example object Keys or UDP IDs) are ignored for the purpose of comparison, so that when changes are identified, they are the actual, substantive changes.
- The identified changes are sent back to Settings Migration Tool for display and further processing by the user.



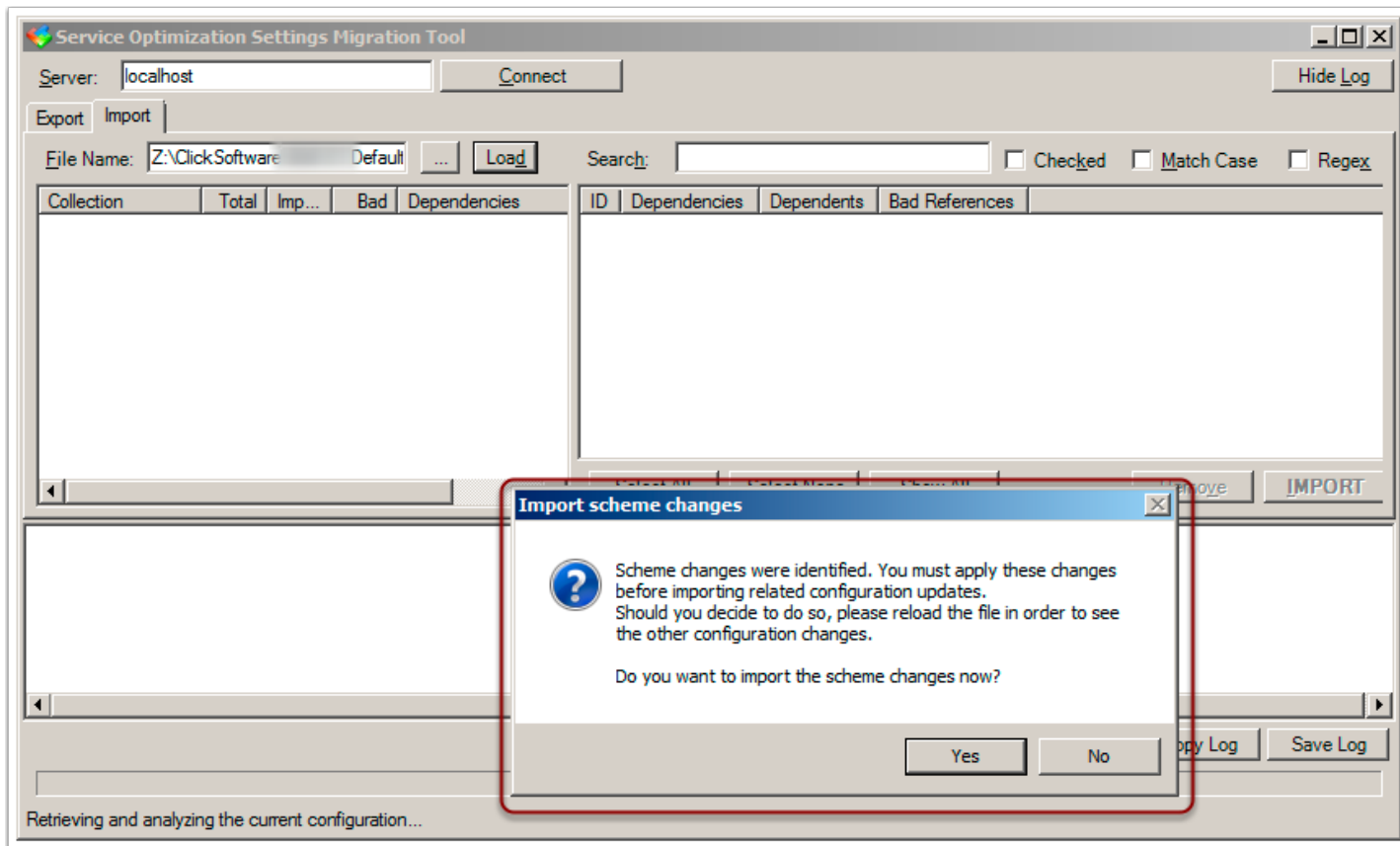
Identification of scheme changes

The analysis is performed in two steps:

1. Initially, Xoom only looks at the scheme (normally accessible via Service Optimization Structure tool) and SXP object references (normally accessible via Service Optimization Administration tool under Central Settings / Integration & Services / SXP Object Reference). The scheme defines the collections and dictionaries that exist in the system, and the properties and indexes that objects have, and therefore needs to be imported first in order to enable Xoom to compare like for like when it gets to importing the actual data. The SXP object references are used by Xoom in order to determine how to identify objects in an environment-independent way (i.e. independent of keys), and therefore also needs to be imported prior to importing the actual objects for which the identifications will be used.
2. If there are no identified scheme changes (or if the changes have been ignored by the user, see below), Xoom analyses the objects that comprise the configuration, such as dictionary items, settings, rules, objectives, user settings etc.

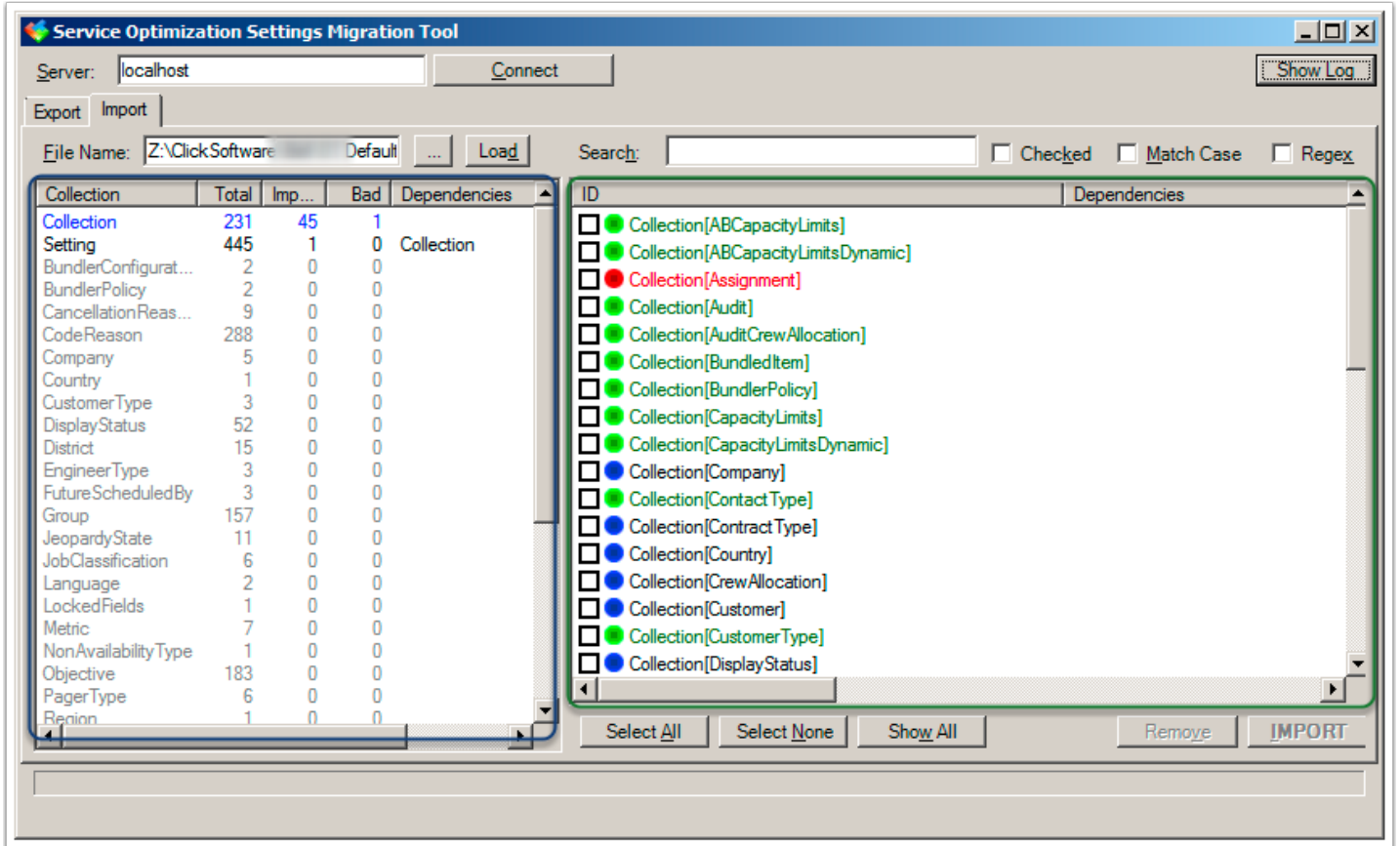
If scheme changes are identified, a dialog box is shown informing the user of this fact (highlighted in red in the screenshot), and asking whether to proceed. The question is posed because scheme import requires all application servers connected to the same Service Optimization database to be locked, which obviously isn't a decision that should be taken automatically. The user can decide to skip to import the scheme changes at the time and proceed to the analysis of the rest of Xoom file (see stage 2 above).

The skipping of the scheme import will only have consequences for the rest of the import if the import would result in any new collections, properties or indexes that are referenced by the rest of the Xoom file, or if such properties are actually defined on objects defined in the Xoom file. In those cases, the unknown properties and collections will be simply ignored, and the references to them will result in bad references in the configuration.



The result of the analysis

Once the analysis (either of the scheme or of the rest of the configuration) has been completed, Settings Migration tool displays the results. The summary of the analysis by type is shown on the left in the collections view (marked in blue), while individual objects with differences are listed on the right in items view (marked in green).



Collections view

The collections view displays the summary of the analysis based on the type of items in the Xoom file. The screenshot below shows two examples of collection view: scheme import on the left, and the import of the rest on the right. (In both cases this is a fairly dramatic import of full customer database into an empty database, so a typical views will be simpler and with less items.)

The Collection column (1) lists all types of items in the Xoom file. The collections are sorted in the following way:

- The collections containing candidates for import (coloured black or blue) are listed first, and sorted in order of dependency and, when mutually independent, alphabetically. For example, in the right collections view we see all independent collections (usually simple dictionaries) on top, followed by collections that depend on them, etc. For example, CodeReason is listed below WorkTypes even though alphabetically later because it depends on JobClassification that, like WorkTypes, has no dependencies. The reason for this order is to enable the user to work from top to bottom in the collections view without having to worry about dependencies.
- The collections without any candidates for import are listed at the bottom in gray (see left collections view) and sorted alphabetically. They are listed so that the user can see the summary of the contents of the Xoom file even in cases when there is nothing to do (i.e. everything has been imported already).

The rest of the columns provide additional information about each collection:

- Total (2) shows the total number of items of the given collection that are in the Xoom file.
- Import (3) shows how many items of each collection are candidates for import, i.e. they are different from their corresponding item in the Service Optimization database, or their corresponding item does not exist.
- Bad (4) shows how many candidates for import have bad references (i.e. they reference something that doesn't exist either in the Service Optimization database or in the Xoom file). Bad references are not necessarily critical (i.e. they don't necessarily invalidate the configuration, such as references that exist in default settings that are not actually used), but they are flagged so they can be checked and rectified if important. The collections with bad references are coloured blue in the collections view, such as Collection in the left collections view below.
- Finally, Dependencies (5) shows a comma-separated list of collections on which one or more items in the collection depend. The dependency is only listed if the items causing the dependency are not yet in the Service Optimization database. For example, a Xoom file that contained a new region and a number of new districts that are **not** located in the new region wouldn't show the dependency between District and Region because the new districts can be imported independently of the import of the new region.

The image displays two side-by-side screenshots of the 'Service Optimization Settings Migration Tool' interface. Both windows show the 'Server' field set to 'localhost' and the 'Import' tab selected. The 'File Name' field in both is 'Z:\ClickSoftw'. The left window has a 'Connect' button, while the right has a 'Refresh Sess' button. The tables below show the state of settings before and after a refresh.

Collection	Total	Imp...	Bad	Dependencies
Collection	231	45	1	
Setting	445	1	0	Collection
BundlerConfigurat...	2	0	0	
BundlerPolicy	2	0	0	
CancellationReas...	9	0	0	
CodeReason	288	0	0	
Company	5	0	0	
Country	1	0	0	
CustomerType	3	0	0	
DisplayStatus	52	0	0	
District	15	0	0	
EngineerType	3	0	0	
FutureScheduledBy	3	0	0	
Group	157	0	0	
JeopardyState	11	0	0	
JobClassification	6	0	0	
Language	2	0	0	
LockedFields	1	0	0	
Metric	7	0	0	
NonAvailabilityType	1	0	0	
Objective	183	0	0	
PagerType	6	0	0	
Region	1	0	0	

Collection	Total	Imp...	Bad	Dependencies
BundlerPolicy	2	2	0	
Company	5	5	0	
Country	1	1	0	
CustomerType	3	3	0	
DisplayStatus	52	52	0	
EngineerType	3	3	0	
FutureScheduledBy	3	3	0	
JeopardyState	11	11	0	
JobClassification	6	6	0	
Language	2	2	0	
LockedFields	1	1	0	
NonAvailabilityType	1	1	0	
PagerType	6	6	0	
Region	1	1	0	
Skill	52	52	0	
TaskStatus	14	14	0	
TaskType	22	22	0	
Tool	55	55	0	
VirtualDistrict	5	5	0	
WorkTypes	1	1	0	
CancellationReas...	9	9	0	JobClassification
CodeReason	288	288	0	JobClassification
District	15	15	0	Region

Items view

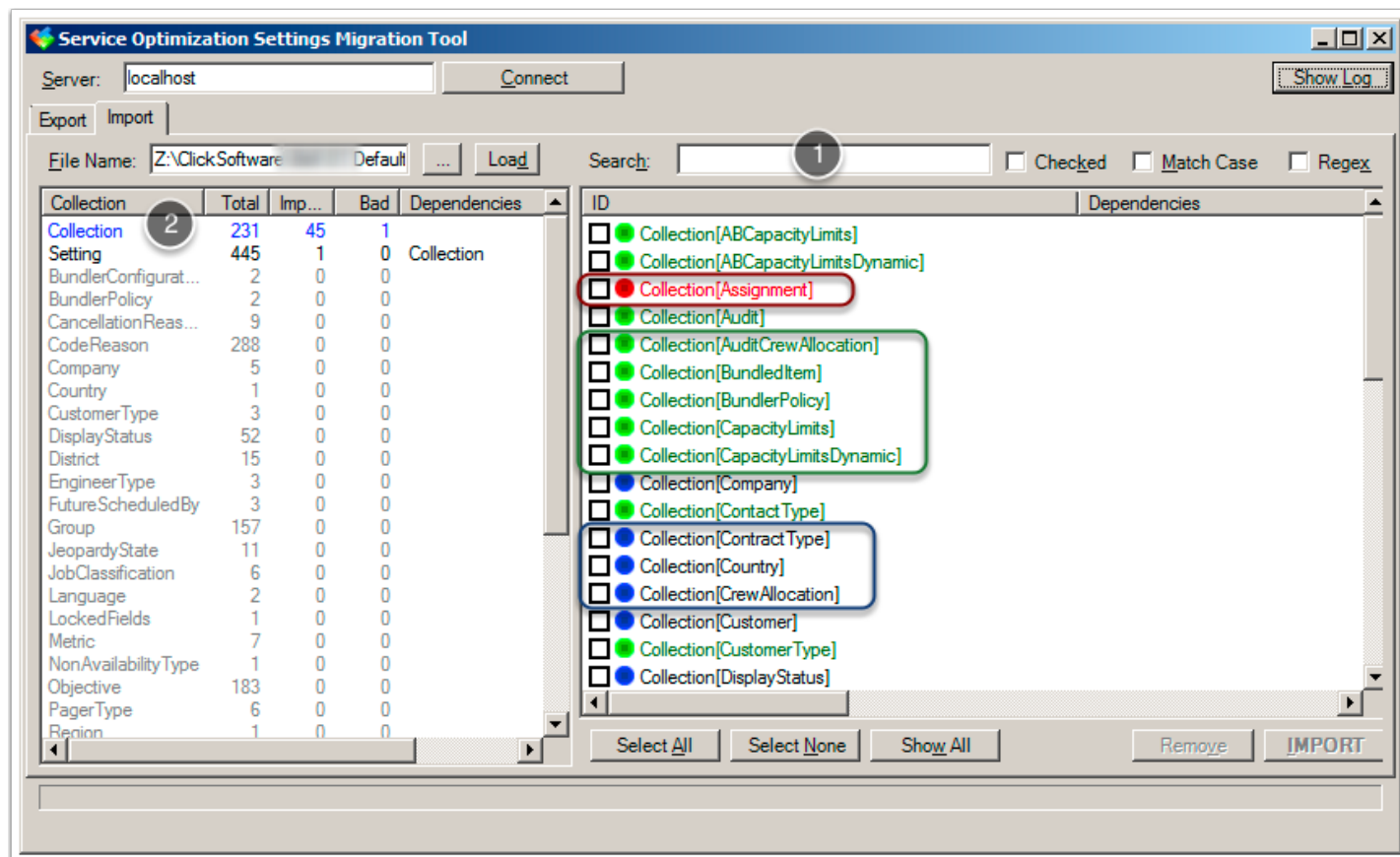
The items view displays the list of individual items that are candidates for import. The items are also sorted by dependency and, when independent of each other, by their [Xoom ID](#). After the completion of the analysis this view is unfiltered, but it is also used to display filtered list of items both when using Search (1) or collections view (2) for filtering.

The items are listed in three colours:

- The items that are in the Xoom file but don't exist in the Service Optimization database are coloured green.
- The items that are in the Xoom file but differ from their counterpart in the Service Optimization database are listed in black and have a blue circle in front of them.
- The items that have bad references (regardless of whether their counterpart exists in the Service Optimization database or not) are coloured red.

The columns in the items view display the following information:

- ID is a Xoom ID of the item in question.
- Dependencies contains a comma-separated list of items (in the Xoom file but not in the database) on which the item depends and therefore need to be imported **before** the item itself is imported.
- Dependents contains a comma-separated list of items that depend on the item and will be imported **after** the item itself is imported.
- Bad References contains a comma-separated list of bad references in the item. In some cases these will be valid Xoom IDs, in others (when the full Xoom ID of the reference can't be determined due to the lack of information in the system from which the Xoom file was exported) only partial Xoom IDs, typically specifying only a type without item identifiers.

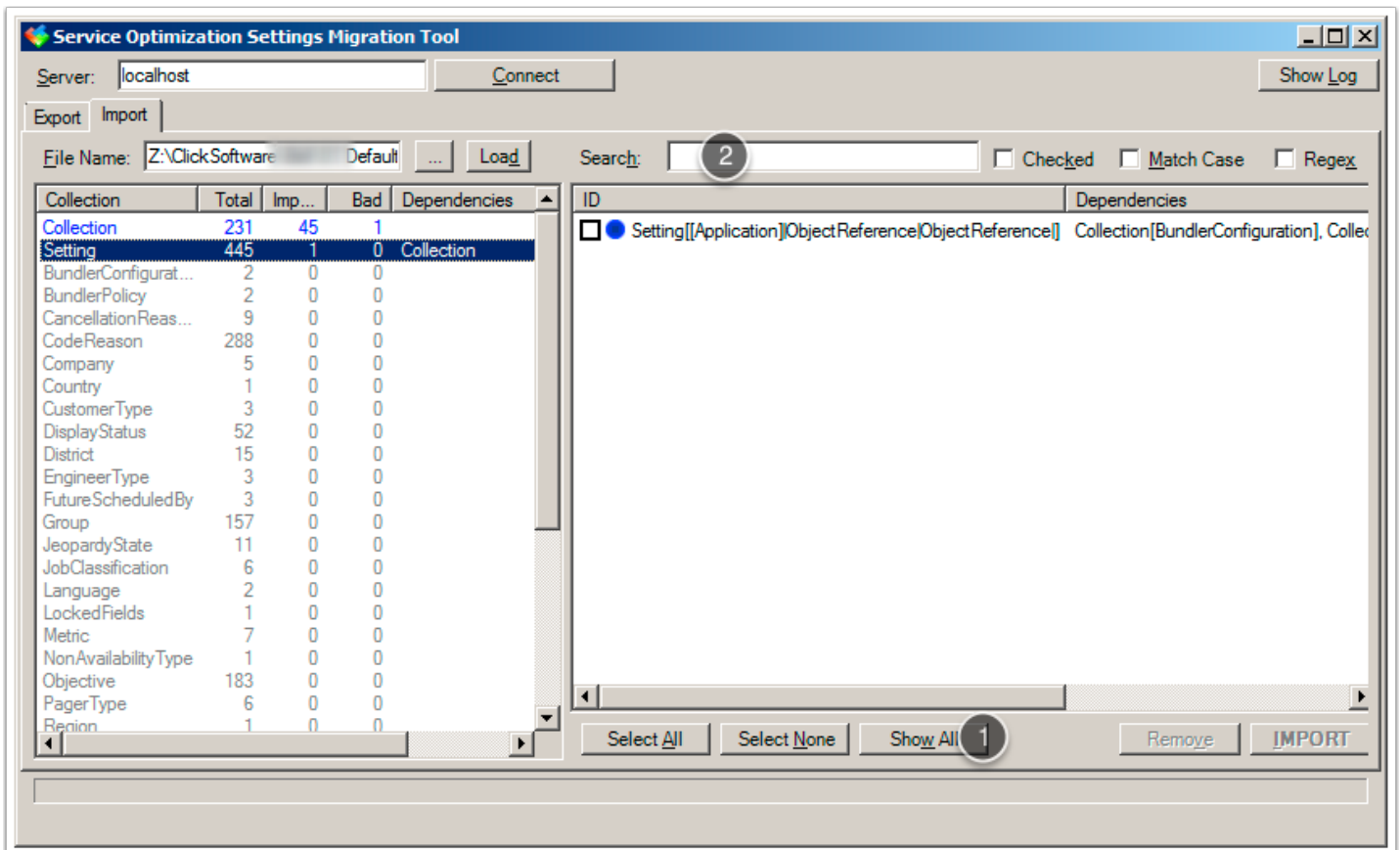


Filter by collection

Collections view can be used to filter the items displayed in the items view. More than one collection can be selected (click while pressing Ctrl key), in which case the items from all selected collections will be shown.

To clear the collections filter, we click on the Show All button (1).

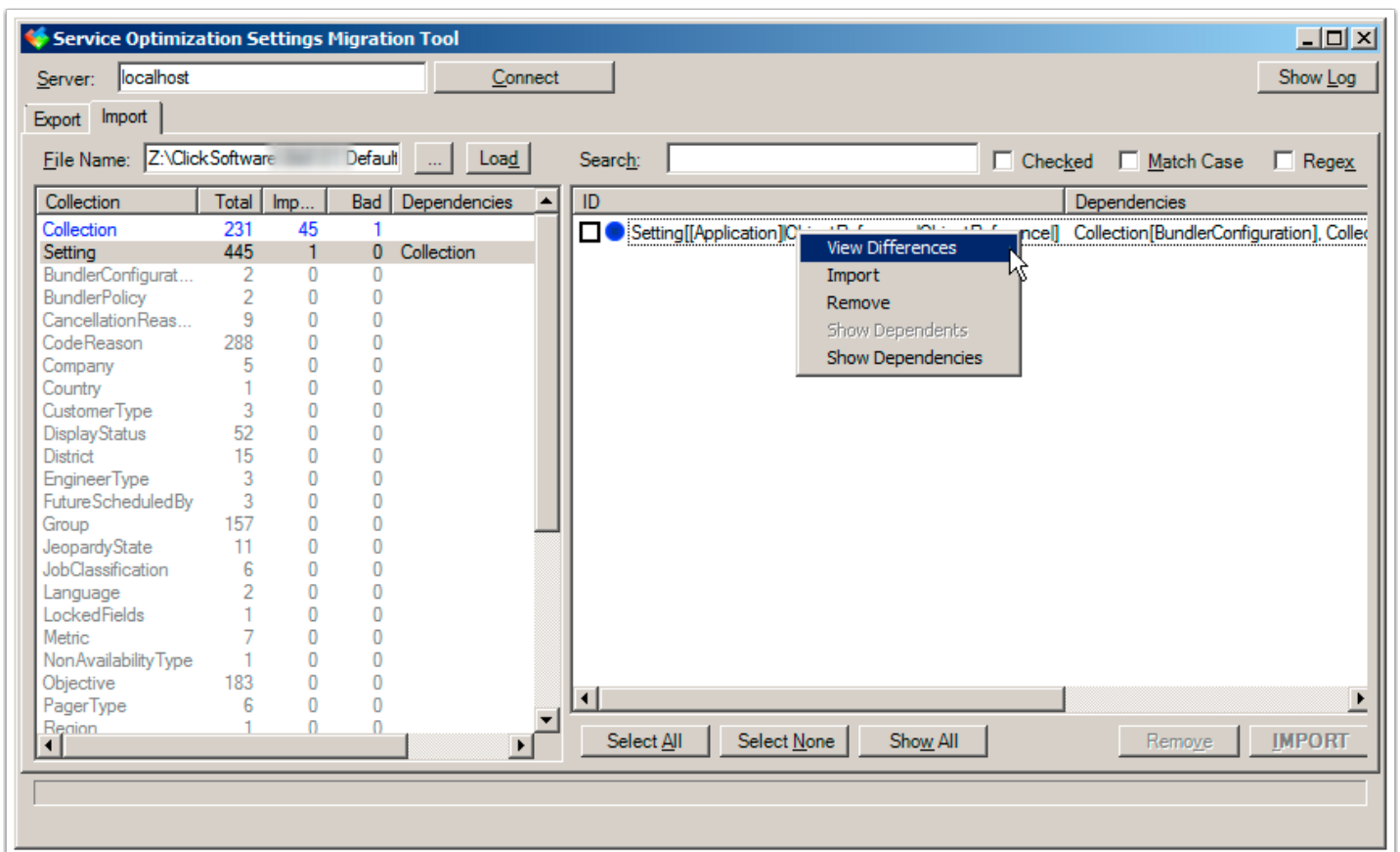
Filtering by collection can be used in conjunction with the Search box (2). When both methods of filtering are used, only items that that fulfill both criteria (i.e. the search terms **and** the selected collections) will be listed.



Items view context menu

Right-clicking on an item in the items view opens a context menu that offers the following options:

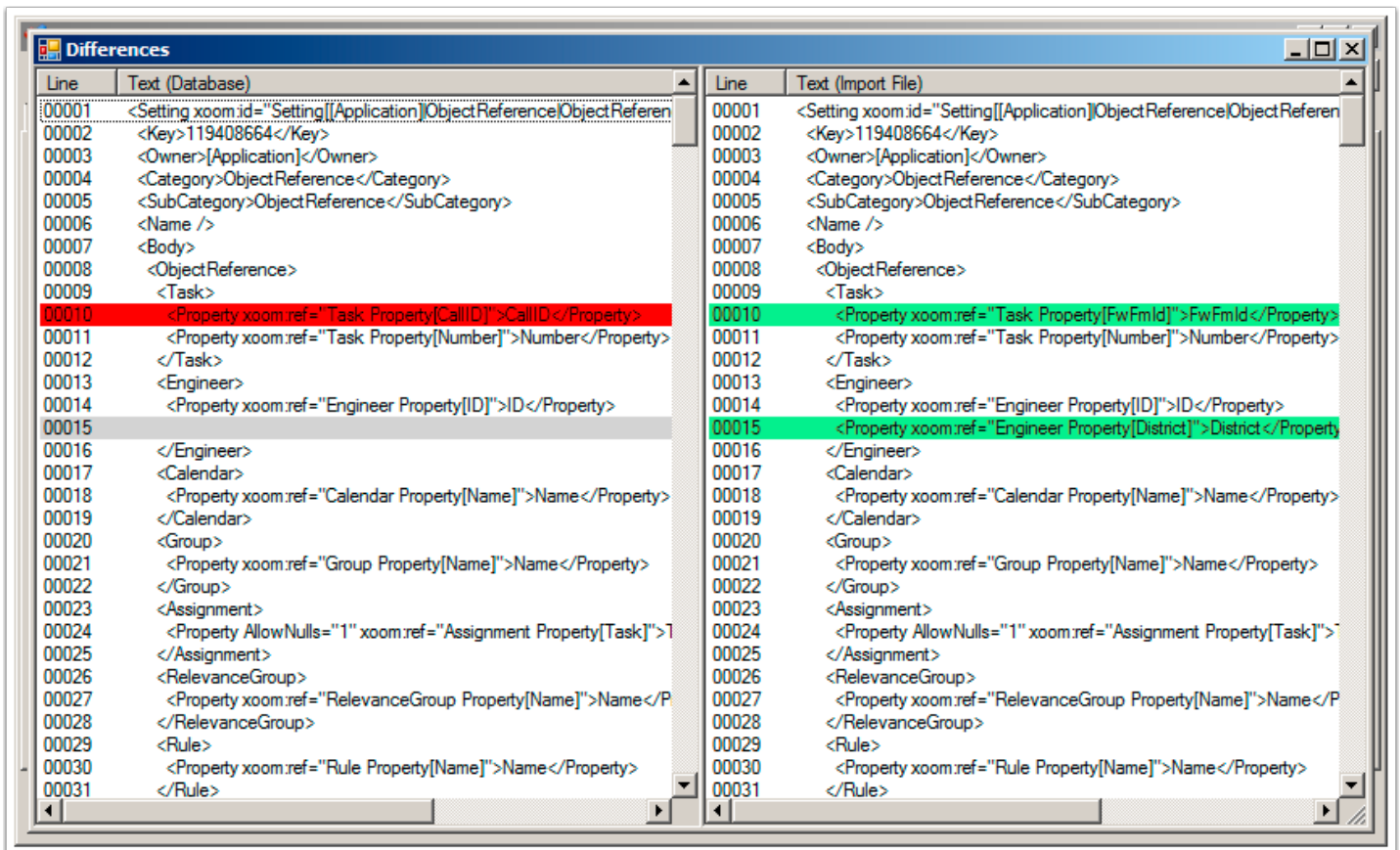
- View Differences - graphically shows the differences between the item in the file and the item in the database. This operation is always available in order to enable the user to see the content of the item that is being imported, but the actual comparison is only meaningful for the items that already exist in the database. This operation can also be triggered by pressing the return key when the item is selected.
- Import - triggers an import of this one item. If the item has dependencies, Settings Migration Tool will open a dialog listing the dependencies and asking the user to import them as well (as import without dependencies would cause bad references in the database).
- Remove - removes the item from the item list. This is useful when there are many items, only some of which should be imported. Once the decision has been made to remove the item from the list, it doesn't have to be considered any more during this import. If the item has dependents, Settings Migration Tool will open a dialog listing the dependents and asking the user to remove them as well (as removal without dependents would cause those dependents to have bad references on import). If an item is erroneously removed from the list, the user can restore it by reloading the Xoom file.
- Show Dependents and Show Dependencies open a dialog listing the items dependents and dependencies, correspondingly. The dialog has the same columns as the items view in the main window, and allows the user to select any number of listed items.



View Differences

If View Differences option is selected on the context menu, a window is opened graphically displaying the differences between the item in the database on the left and the item in the Xoom file on the right. Each line that is different between the two representations is highlighted in order to enable the user to see what exactly has changed, and make the decision whether to import the item or not based on that.

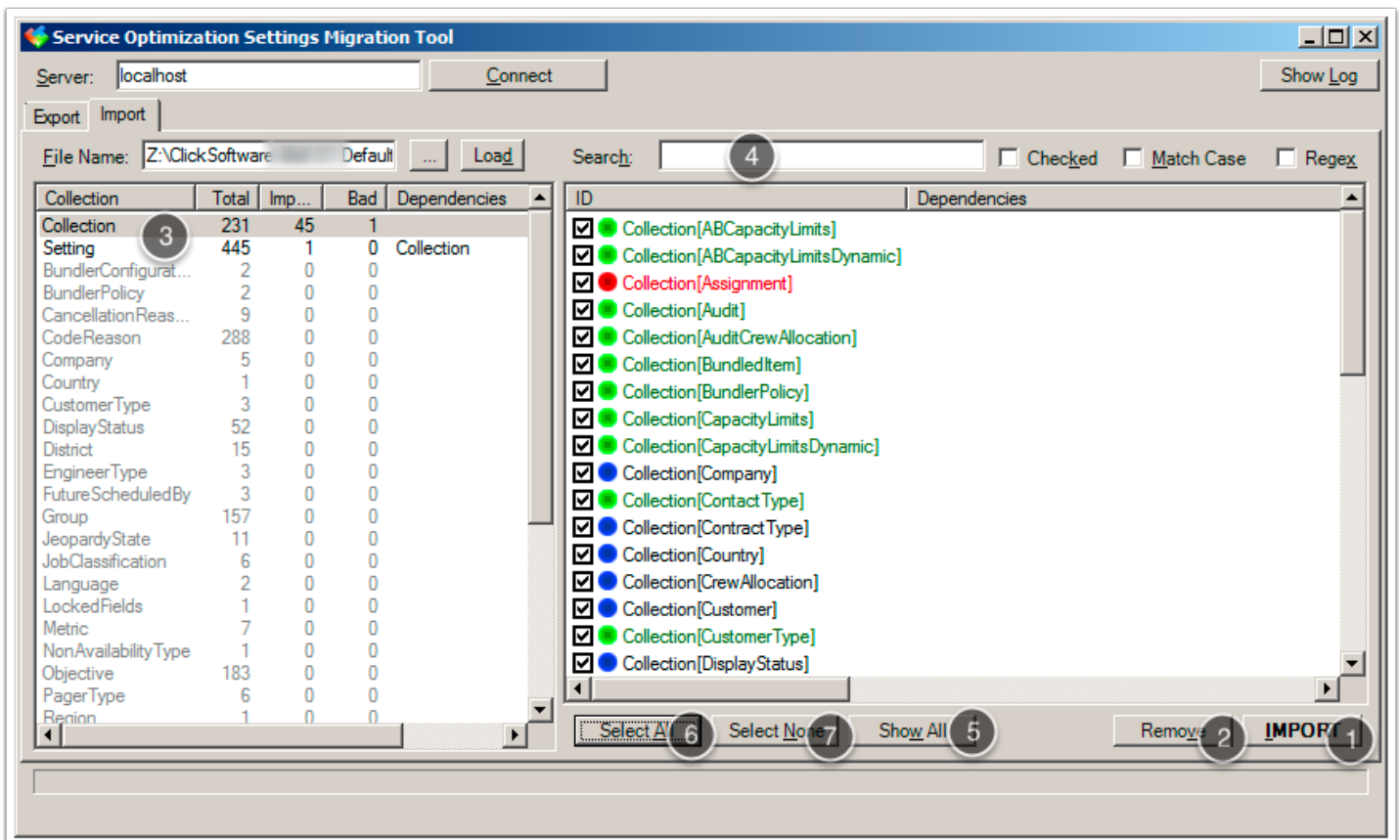
Once the differences have been reviewed, the window can be closed either by using a mouse or by pressing the Esc key.



Selecting the items to import or remove

Clicking Import (1) or Remove (2) button will import or remove all checked items that are currently in the items view. The view is subject to filtering by both the collections view (3) or the search box (4), so importing or removing all checked items would require the user to first remove any text from the search box (4) and click on Show All button (5) to clear the collections view filter.

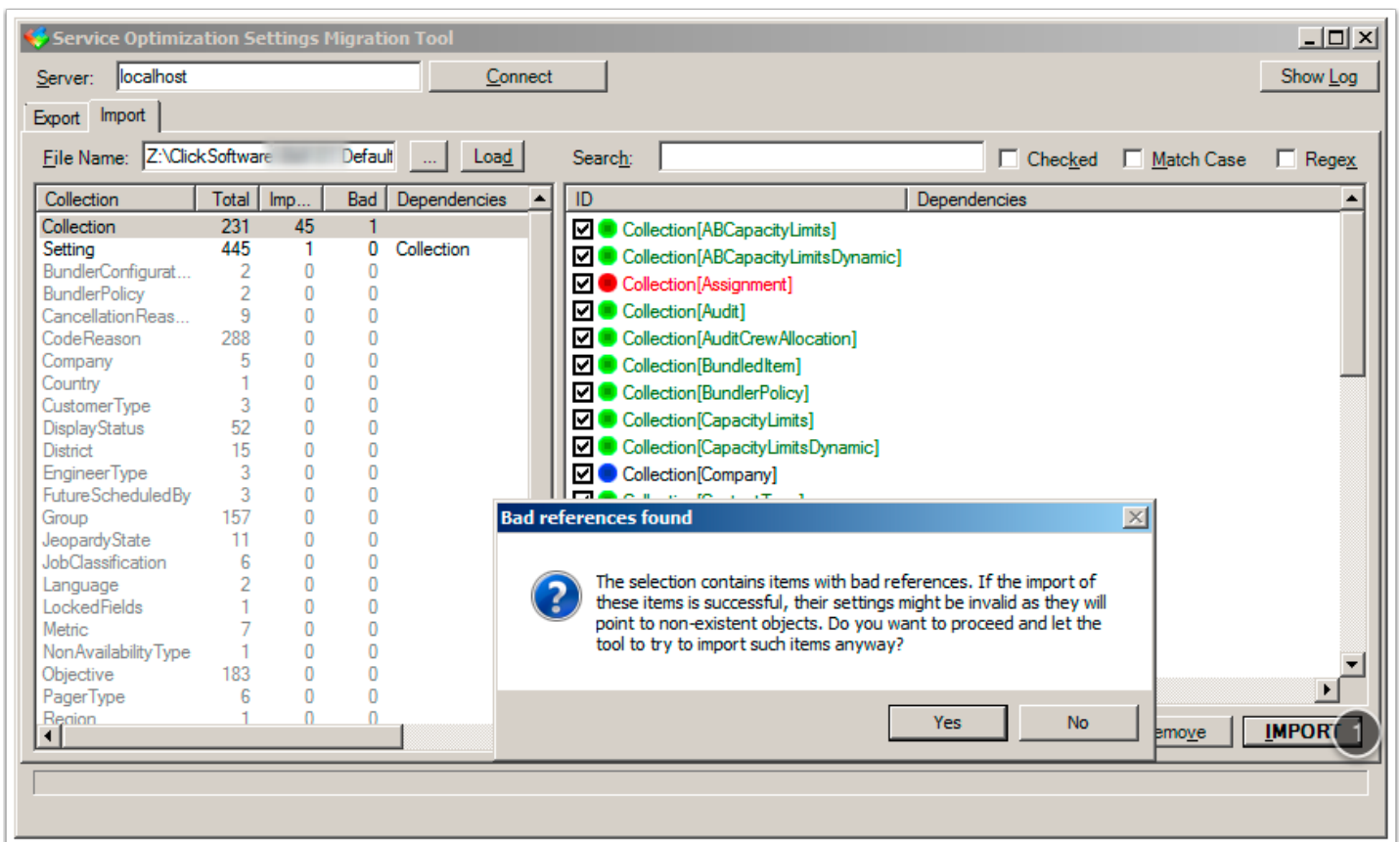
Both filtration mechanisms are very useful for selecting the desired items in conjunction with Select All (6) and Select None (7) buttons, which will check or uncheck respectively all items in the current (filtered) items view.



Importing the checked items

Once we are ready to perform the import, we click on the Import (1) button. This will trigger the following behaviour:

- If any of the checked items contain bad references, a warning will be shown, giving the user the option to abort the import (see the screenshot).
- If the checked items in the current items view depend on items that are either not checked or not in the current items view, a dialog listing all such dependencies will be shown, prompting the user to include those dependencies in the import (as import without dependencies would cause bad references in the database after the import).
- After that, the import itself will start. Xoom will perform all action necessary automatically, including locking all application servers connected to the database in case of scheme changes, and unlocking those same servers after the changes have been successfully imported.



Completion of the import

As the import itself is currently a completely server-side operation, there are currently no updates on the client reporting on the progress of the import. The user interface will be disabled for the duration of the import, and a message box reporting Import Completed Successfully will be shown at the end of the import. The items that were imported successfully will disappear from the items view, while the items that weren't will remain with an error message next to them in a column called Message.

