



**SIMPLIFY
ACCESS &
CONTROL**

**ISConnect v4.0.x Suite
User's Guide**

ISConnect v4.0.x Guide

Intelli-Site

Security Management Software

ISConnect v4.0.x Suite

User's Guide

For Windows 7 Professional and Ultimate,
Windows 8.1 Pro and Enterprise,
Windows 10 Pro and Enterprise,
Server 2008 R2, and
Server 2012 R2

Copyright

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When calling, please be at the computer prepared to provide the following information:


- Product version number, found by selecting the  **About** button from the Intelli-Site Application Menu.
- The type of computer being used including, operating system, processor type, speed, amount of memory, type of display, etc.
- Exact wording of any messages that appear on the screen.
- What was occurring when the problem was detected?
- What steps have been taken to reproduce the problem?
- It is highly recommended that the user generate a support package for transmission to Intelli-Site technical support staff. To generate the package, run the Intelli-Site Configuration Utility. *Create Support Package...* is the last option in the **Tools** menu.

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1 Introduction

ISConnect v4.0.x Suite is the Intelli-Site software tool set used to import information from an external data source (database or file) into the Intelli-Site software system. There are two parts to this suite. ISConnect.exe is used to create configurations that define data mappings from the source material to the Intelli-Site database. It can also be used to perform the import. ISImporter.exe is command line program to import the data using a configuration file created with ISConnect.exe.

ISConnect v4.0.x is expected to be used as part of an automated process to import information from a system that is outside the Intelli-Site software suite. This information is integral to site security and usage; therefore, a customer may need to have the data imported on an ongoing basis.

The integrity of the source data by its very nature is the responsibility of the provider of the source data. It is required that the data be generated and verified by their database system.

It is expected that during the creation of the ISConnect v4.0.x configuration any discrepancy in the data definitions will be addressed. Minimal automatic data validation can be performed.

2 Installation Guide

ISConnect is a component module in Intelli-Site. It must be installed. No external software is needed.

Note: *ISConnect can be installed as a remote client. No other components are required. All necessary software will be installed when ISConnect is selected.*

If Intelli-Site has been installed without the ISConnect component, run the Intelli-Site installer again and select **Modify**.

During the initial installation, a **Complete** install will include ISConnect. If only ISConnect is to be installed, select ISConnect. Otherwise, select **Custom** to check the various components needed.

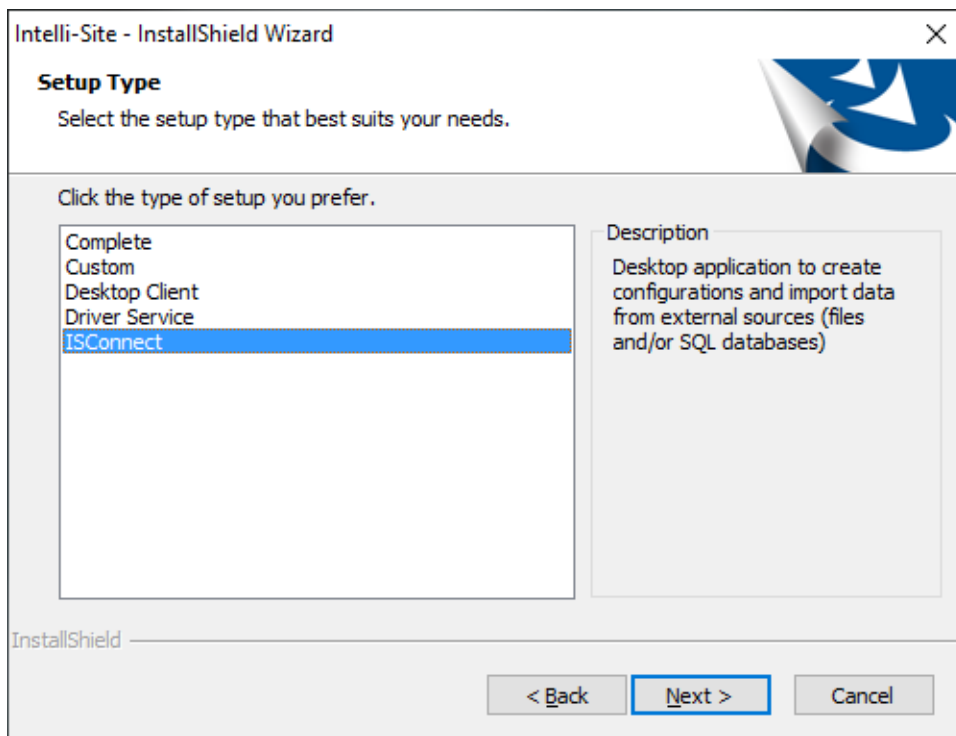


Figure 1 - Installation Setup Type window

For modify installation process, you are presented with the **Select Features** window.

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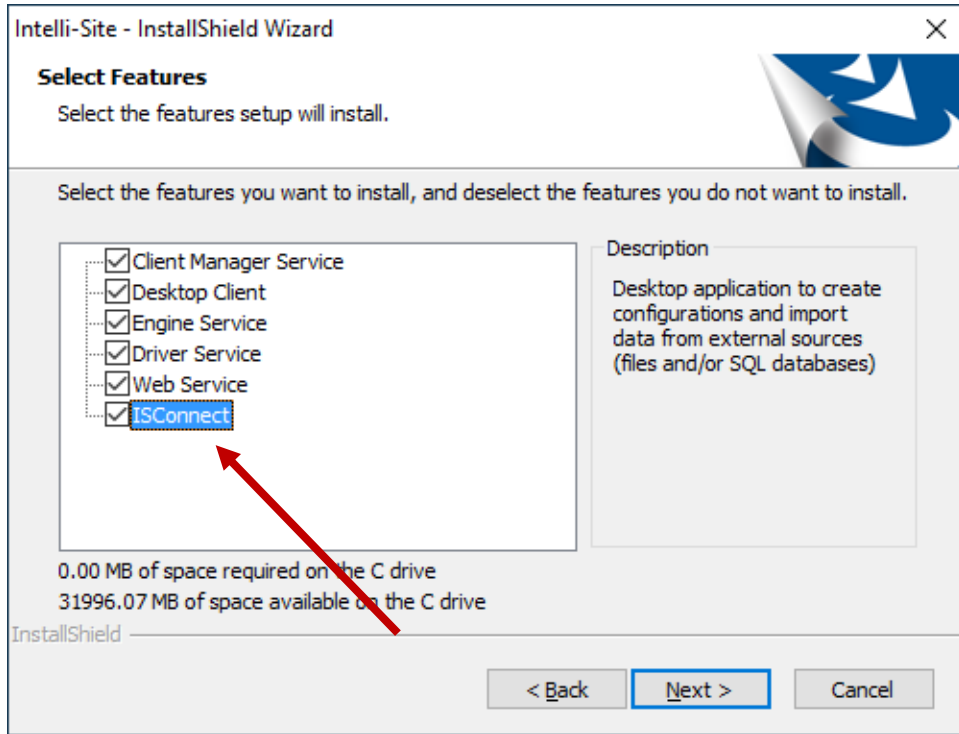


Figure 2 - Select the components you want to install

Ensure the **ISConnect** option is checked then continue with the installation or modification.

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3 Licensing

Configurations can be created without the ISConnect module being licensed. But the license is required before an import can take place. Contact your sales representative to add the ISConnect module to the license.

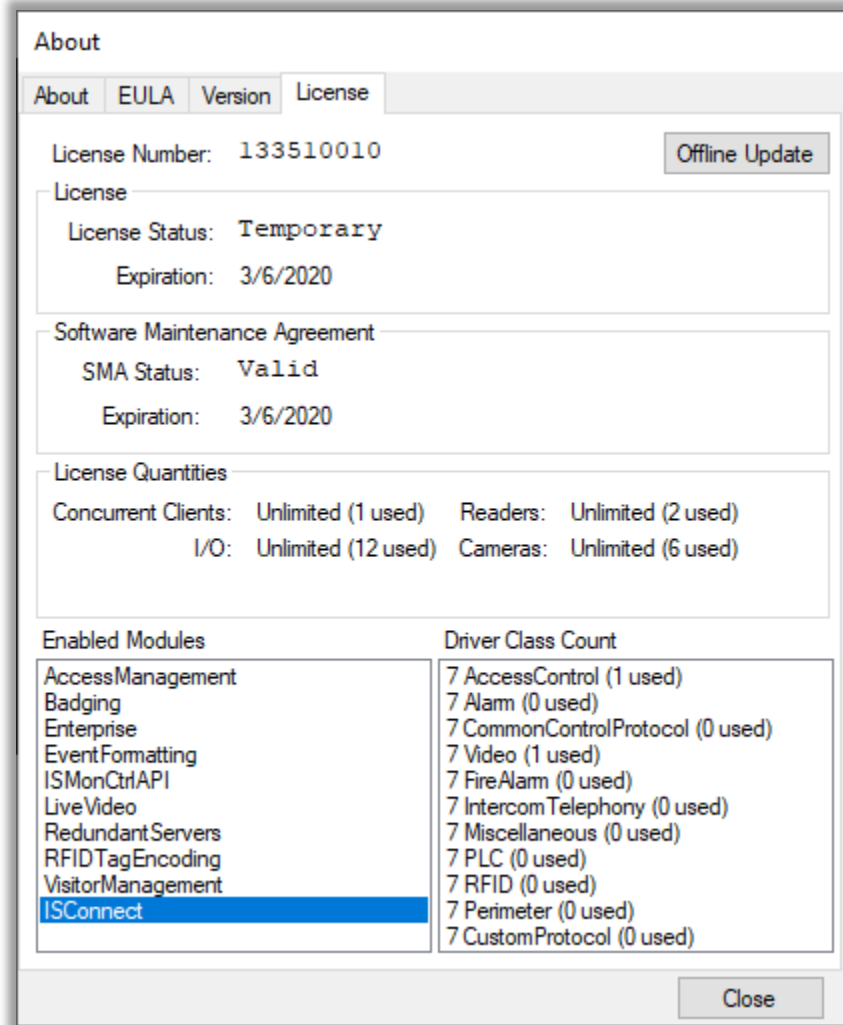


Figure 3 - License tab of the About dialog with ISConnect module

4 UAC Requirements

ISConnect v4.0.x must write to the Intelli-Site logs folder. This is a protected, system folder. Therefore, both ISConnect.exe and ISImporter.exe must "Run as Administrator". Import will not begin otherwise. The installer will set the appropriate properties allow the programs to run at the elevated privilege no matter who executes them.

5 ISConnect Configuration

Before data can be imported into Intelli-Site, a data import configuration file must be created. This section explains:

- Creating or opening a configuration
- Designating the source data
- Designating the destination Intelli-Site Engine location and login credentials
- Mapping the source data to the Intelli-Site data

5.1 Creating or Opening a Configuration

Before data can be imported, there is information the tool needs. The data source and the destination Intelli-Site Engine location must be defined. Once defined, the data mapping can be defined. This information is stored in an XML configuration file.

5.1.1 Create a New Configuration File

Run ISConnect. In the *File* menu, select *New...* The **Data Import Project** window displays. The name of the configuration is in the title bar. The default name for a new configuration is "ImportProject".

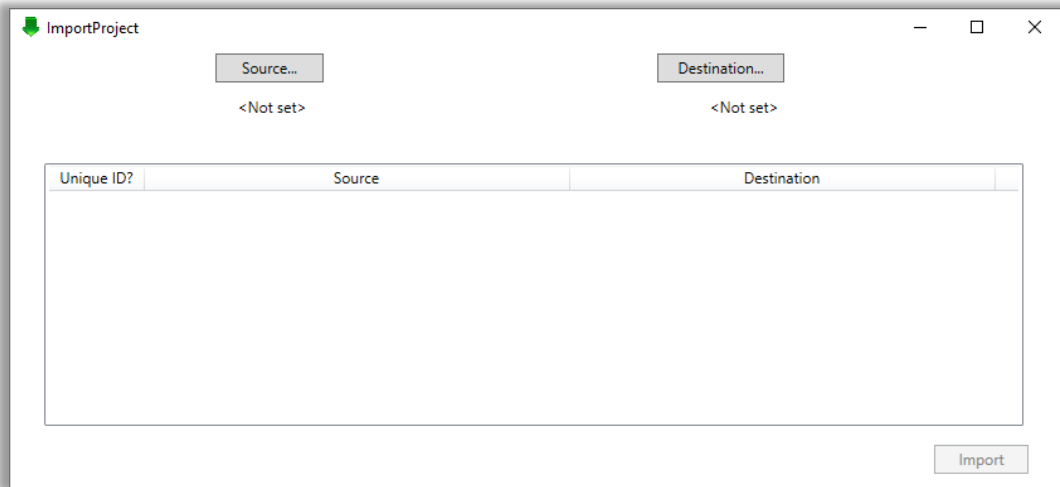


Figure 4 - New Data Import Project Window

Notice under both the **Source...** and **Destination...** buttons is "<Not set>". This indicates that the data source and destination have not been defined.

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5.1.2 Open an Existing Configuration

Run ISConnect. In the *File* menu, select *Open...* Using the standard **Open** dialog, navigate to and select an existing configuration file. The **Data Import Project** dialog displays. The name of the configuration is in the title bar.

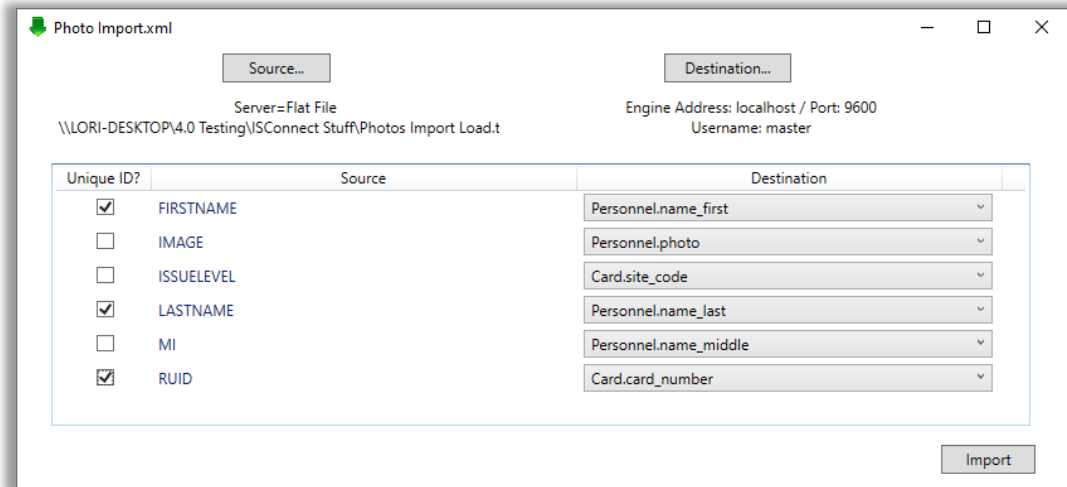


Figure 5 - Data Import Project dialog

Loading the file may take some time as the source data or destination Engine may reside locally or on a different computer. If the source is a database, the network is polled to find all available SQL servers. The Engine is logged into and the possible database fields are loaded. A status window may pop up to explain the delay.

Notice that in the above example, the data source is a flat file and the destination is localhost, meaning Intelli-Site is running on the same computer as ISConnect.

5.1.3 Save a configuration file

To save a configuration file, use the *File* menu on the main window. Select *Save* or *Save As...*

5.2 Designating the Source

The source data is the repository from which the data to import comes. To designate the source, click the **Source...** button on the **Data Import Project** dialog. The **Data Source Setup** dialog will appear.

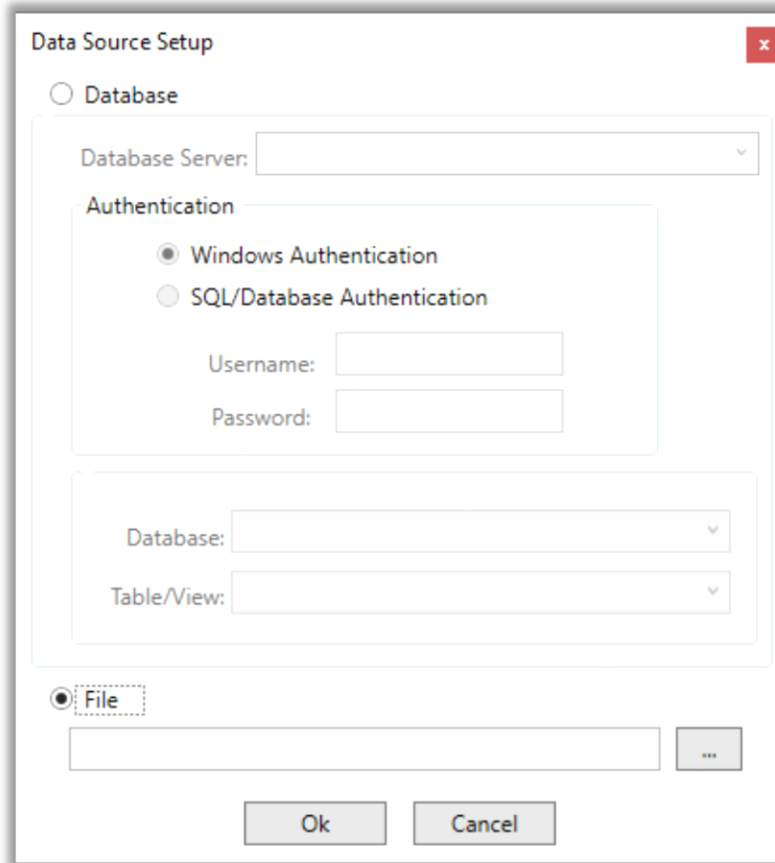


Figure 6 - Data Source Setup dialog

The data source can be either a database or a file. Click the appropriate radio button, **Database** or **File**, according to the source type.

5.2.1 Database Source Type

If the data source is a database, click the radio button next to **Database**. The fields associated with defining a database become enabled. And the fields associated with **File** are disabled and greyed-out.

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First designate the source **Database Server**. Either type in the <server name>\<instance> (e.g., LATWin10SQL\SQLEXPRESS or .\SQLEXPRESS) or locate and select the appropriate database server in the **Database Server** drop down list.

Note: *If it has not done so already, ISConnect may need to load the available SQL Servers. This process takes time. Even if there is only one SQL Server, the discovery software will poll the network for any available servers. It doesn't always find all or any of them. Microsoft even admits it. Therefore, it is best to type in the name of the SQL Server and instance <server name>\<instance>.*

Then in the **Authentication** group box, define the authentication credentials for the selected database server.

The tool will then query the database server for a list of possible databases. Select the database from the list in the **Database** drop-down list.

The list of tables in the selected database will populate the drop-down list next to **Table**. Select the desired table.

If any of these steps are attempted outside the order given an error message window will appear. Clicking on OK will bring the user back to the **Data Source Setup** window.

Once the data source is defined, press the OK button. The window disappears and the **Source** column of the data mapping table is filled in with the possible columns from the specified source database and tables.

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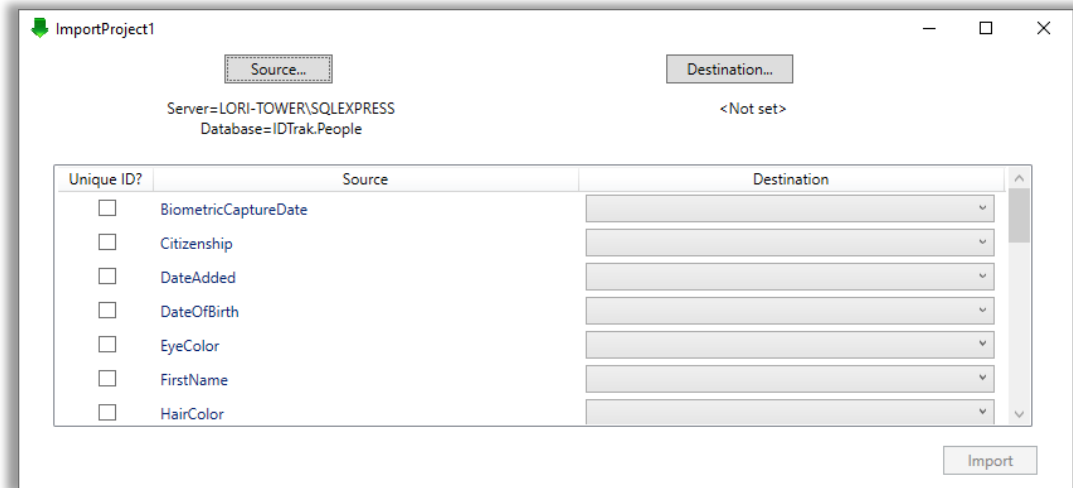


Figure 7 - Data Import Project dialog with Database as source

Notice the text below the **Source...** button. It shows that the source is database by displaying both the server and database names.

5.2.2 File Source Type

For a file to be a valid data source, it must be either a tab-delimited or comma-delimited text file. The first line of the file must define the columns of data.

To select a file as the source, click the radio button next to **File**. The **Database** and **Table** fields will be disabled and grayed-out.

Type in the name of the file or use the **...** button to browse.

Then press the **Ok** button.

ISConnect will read the first line of the file to fill in the **Source** column on the **Data Import Project** dialog.

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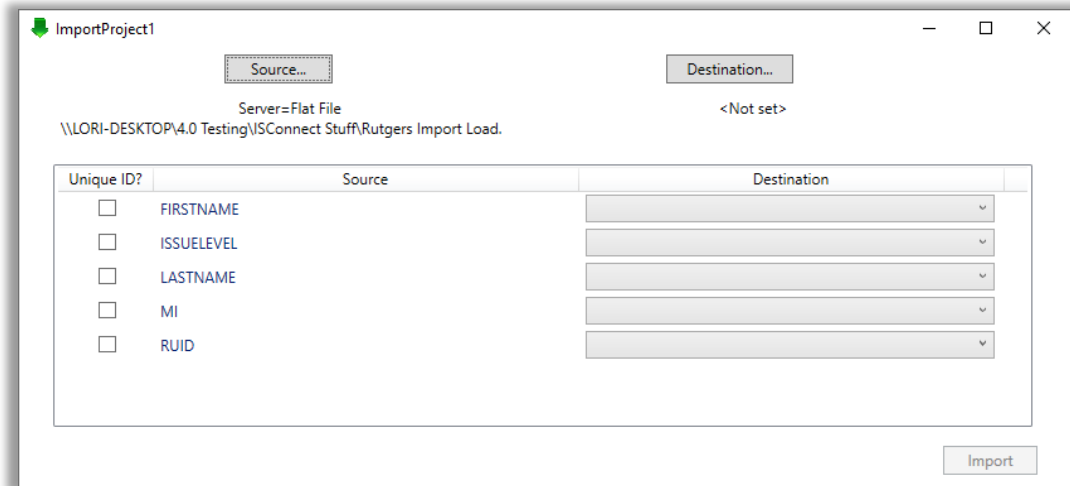


Figure 8 - Data Import Project dialog with File as source

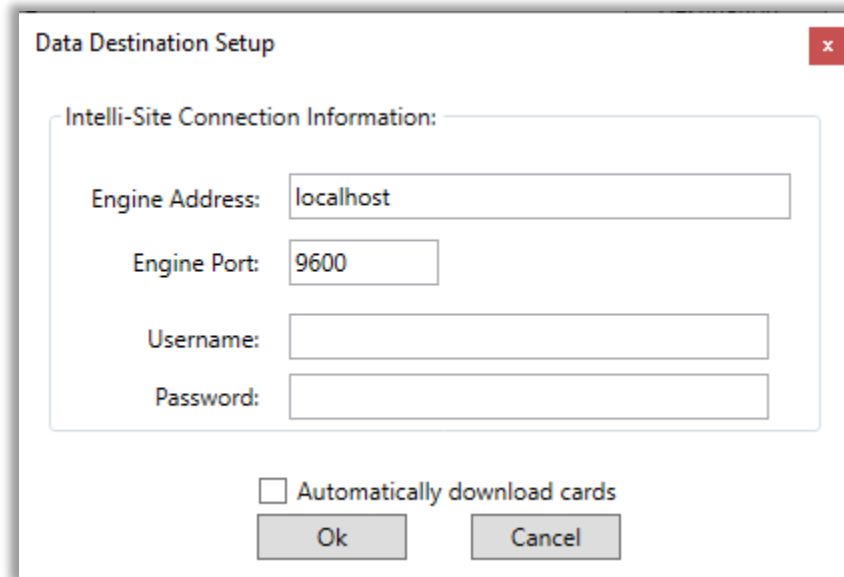
Notice the text below the **Source...** button. It shows that the data source is a flat file and it displays the name of the file using the full path. As you can see, the source file is not on the local machine but on LORI-DESKTOP.

In addition, the **Source** column has been filled in with the column headers from the file.

5.3 Designating the Destination

To specify the Intelli-Site destination, press the **Destination...** button on the **Data Import Project** dialog. The **Data Destination Setup** dialog appears.

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The screenshot shows a dialog box titled "Data Destination Setup". It contains a section for "Intelli-Site Connection Information:" with the following fields:

- Engine Address: localhost
- Engine Port: 9600
- Username: (empty)
- Password: (empty)

Below the fields is a checkbox labeled "Automatically download cards" which is unchecked. At the bottom are "Ok" and "Cancel" buttons.

Figure 9 – Data Destination Setup dialog

ISConnect does not have to run on the same computer as the Intelli-Site Engine. ISConnect and ISImporter are clients of the Engine just like the Desktop Client or the web client. In the **Engine Address** type the IP address or host name of the computer on which the Engine is running. The default value is localhost. The **Engine Port** field is set to the default Engine port. If the Engine port is different, set the **Engine Port** field to the correct port number. The **Engine Address** and **Engine Port** can be found in the **Setup Services** dialog in the Intelli-Site Configuration Utility.

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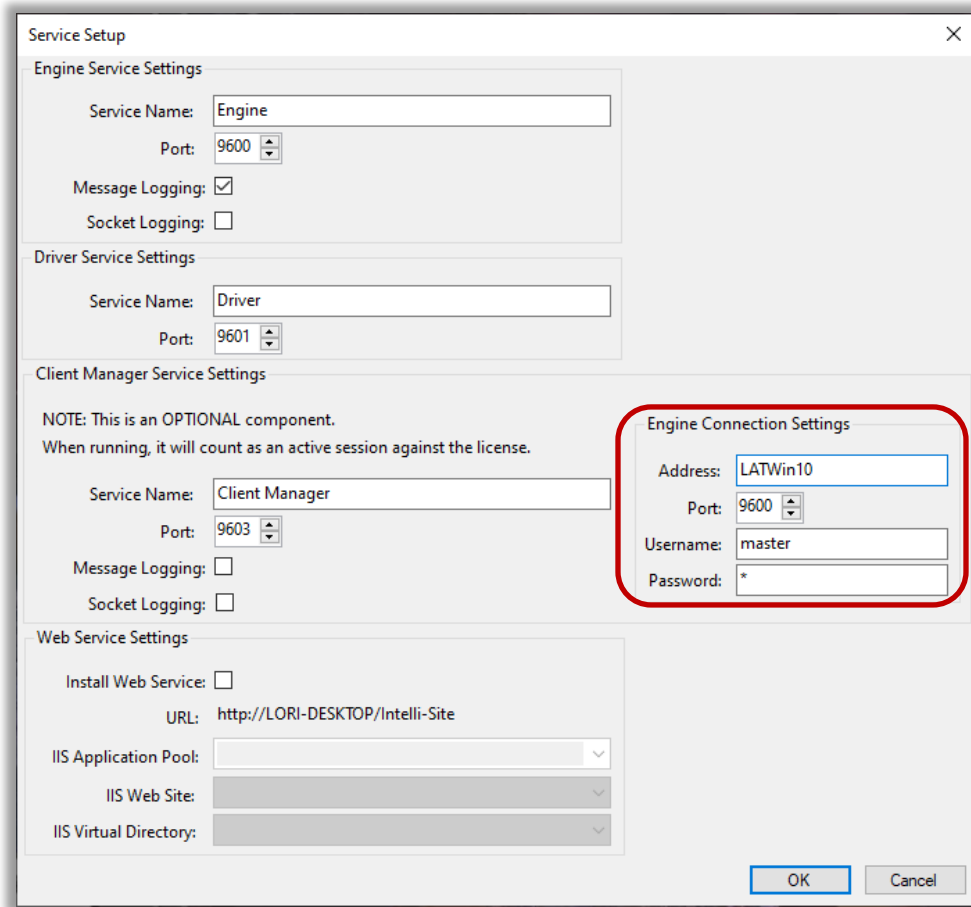
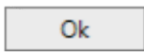


Figure 10 – Engine Connection Settings group box in the Configuration Utility: Service Setup dialog

Provide a valid username and password. It is strongly suggested that a user be added to Intelli-Site specifically for ISConnect.

If the imported cards are to be downloaded as they are imported, check **Automatically download** cards.

Click the  button on the **Data Destination Setup** dialog. ISConnect will use this information to login to Intelli-Site to load the names of the database fields then logout. A status window will display while this information is being gathered.

Note: Because ISConnect is a client, it affects and is affected by the Concurrent Connections limit of the license. Ensure the license accommodates at least two concurrent connections.

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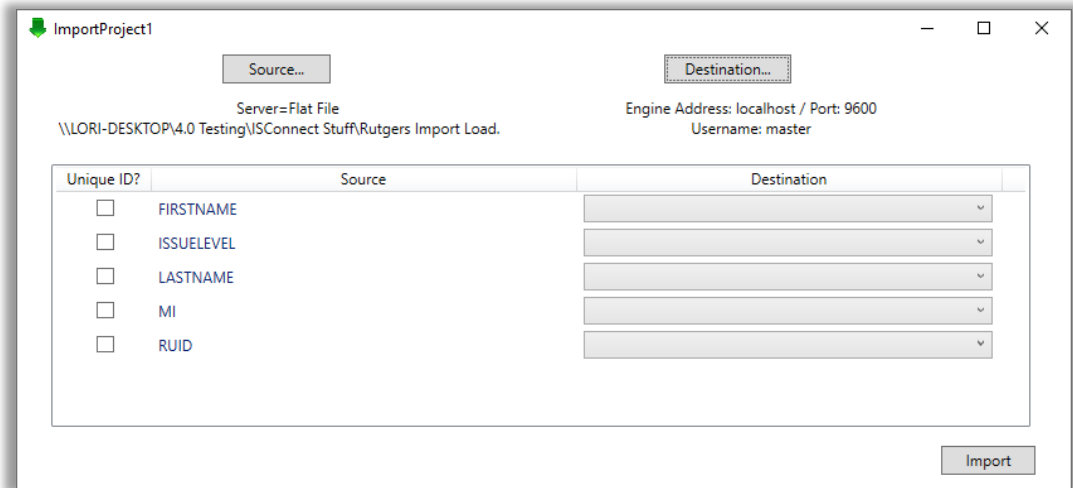


Figure 11 - Data Import Project dialog with the Destination set

Notice the text below the **Destination...** button. It shows that the data destination Engine Address is localhost, the Engine Port is 9600 and the username is 'master'.

Clicking on a drop-down list in each row of the **Destination** column reveals the list of database fields available for mapping. There are two database tables used for the destination fields. They are *Card* and *Personnel*.

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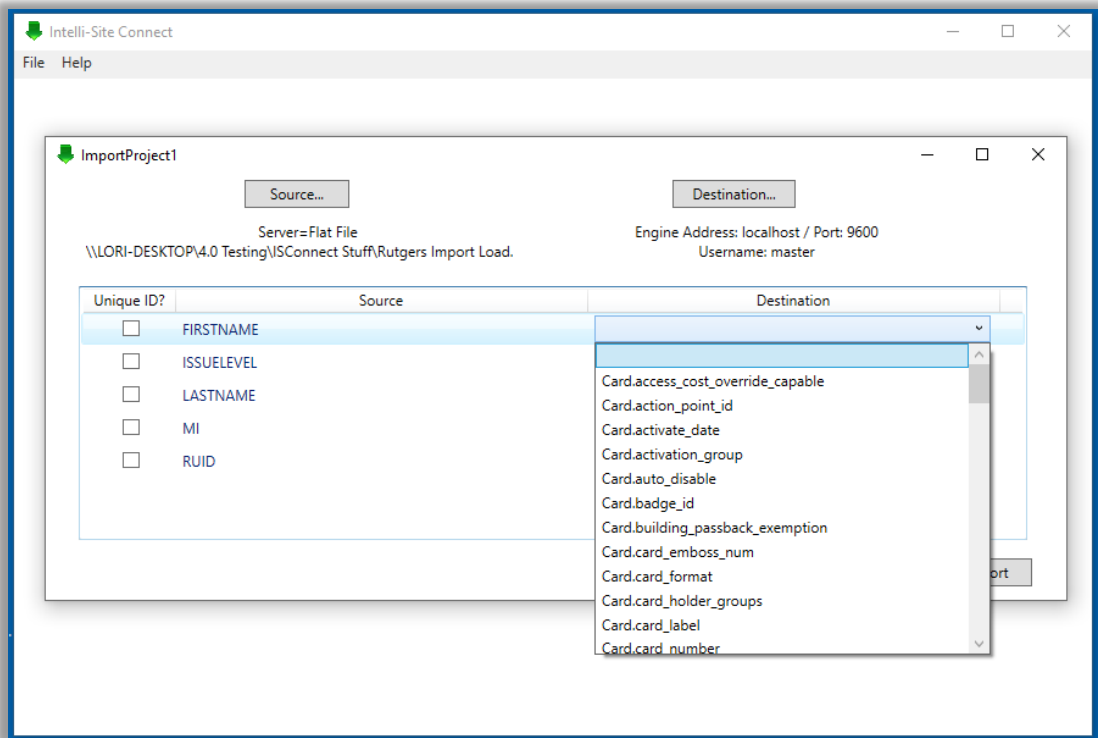


Figure 12 - Destination database drop-down list

5.4 Mapping Source Data Fields to Destination Data Fields

There are three columns in the data mapping table on the **Data Import Project** dialog. They are **Unique ID**, **Source**, and **Destination**.

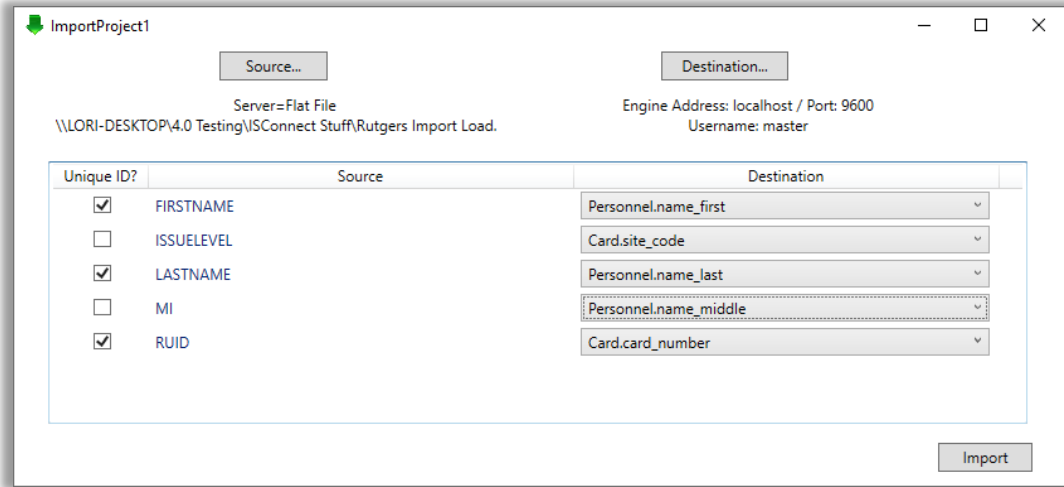


Figure 13 - Data Import Project dialog with mappings

Unique ID – checkbox; when checked this mapping row will be used to search the Intelli-Site data for an existing record. There are two database tables to which mappings can be made. They are *Card* and *Personnel*. If a card is being added, or modified or assigned an access set, the **Unique IDs** designated by the user must include *Card.card_number*. If a person is being added or modified, at least one **Unique ID** must be mapped to the *Personnel* table. This field or field combination should be the means by which an individual is uniquely defined in your system. It could be *Personnel.name_last* and *Personnel.name_first*. Or it could be a field added by your administrator to for employee number (e.g., *Personnel.employee_id*)

Note: It is strongly suggested that all configurations contain a Unique ID for each table.

Source – fixed; the Source data fields. If the source data is a file, this column contains the field names supplied in the first row of the designated file. If the source is a database table, the column contains the fields from the table

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Destination – drop-down lists; the list of fields in the destination database tables. For each row of the table, if there is a destination element selected, then the mapping exists and is defined. If a destination element is not selected, then the row is not part of the mapping specification even if the **Unique ID** is checked.

5.5 Mapping Access Sets

At the bottom of the list of possible destinations is the generic access set. This is a place holder for the possible access sets that the customer can map to. As an access set is added to the mappings, a new generic access set is added to the list. The real names for the access sets are in the data itself. The fields mapped to these Access Sets must be the name of an "Access Set" defined in Intelli-Site. They must match perfectly.

Note: Access Sets from the source data are matched to the Intelli-Site access sets by name. Therefore, the names for the Access Sets must be unique across the whole project. If there is a duplicate name, the import will abort.

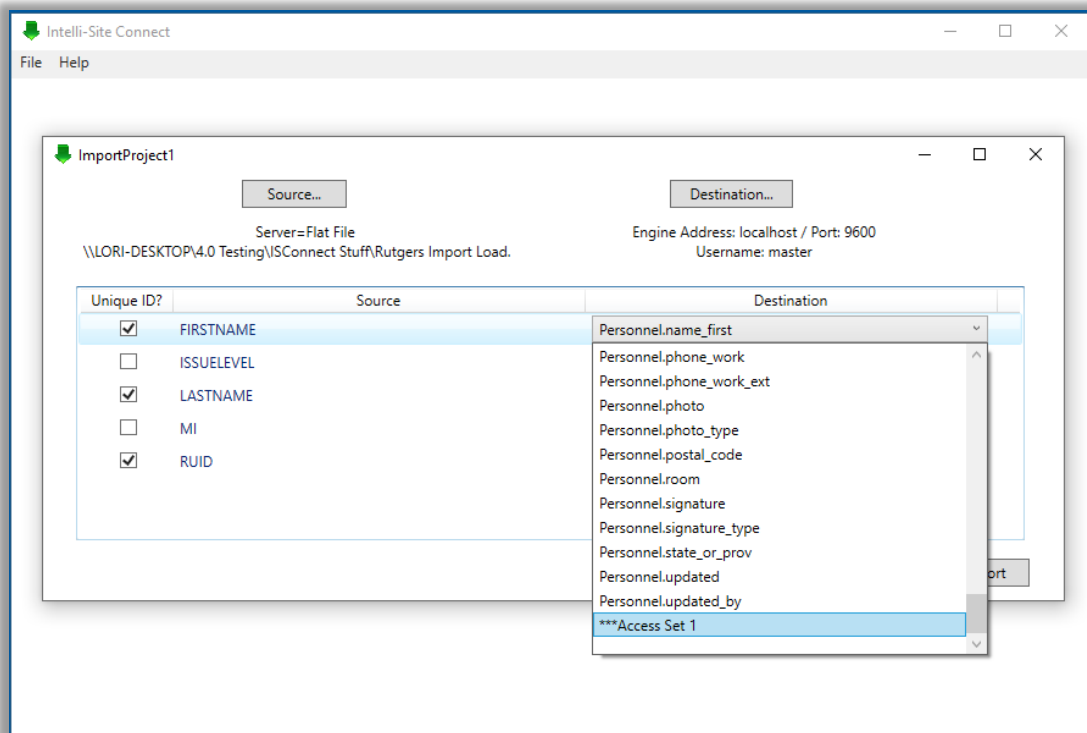
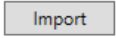


Figure 14 - Access Set in the Destination data drop-down list

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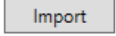
Once the mappings are defined, you may save the configuration using the *Save As...* option of the *File* menu in the main window. You may also import the data immediately using the  button. You may also run ISImporter using this configuration.

6 Import

Import can be done via both the ISConnect user interface and the ISImporter invoked from the command line or as a Windows Task. Once a configuration is created and tested, the standard usage will be ISImporter as a Windows Task that runs at regular intervals such as nightly, hourly, once a minute, etc. depending on the needs of your installation.

If the source data is a flat file, it will be renamed when the import is done, successful or not, to prevent importing the same data repeatedly. The date and time is appended to the file's name (e.g., Rutgers Import Load 09-29-2019 01_02_33.txt).

6.1 Using ISConnect

Once a configuration is opened or defined, press the  button. The import will proceed. A status window will pop up to inform you when the import is done and if it succeeded or not.

A log file, ISImporter.log, is appended to for each import performed whether the import is done via the ISConnect or the ISImporter tool. If it does not exist, it will be created.

If any error occurs during the import process, a detailed message is written to ISImport.err. Not all errors are fatal. ISImporter will quit processing the current record and move on to the next if the error is specific to the current record. If the error is related to the whole import process, then it will be abandoned. The ISImport.err file is for debugging purposes and may be asked for by the Intelli-Site support team if there is an issue.

6.2 Using ISImporter

The ISImporter command is found in the Intelli-Site install folder. It is a command line executable and must be run from there. It has one parameter, the configuration file. This is a required parameter. The syntax is:

```
ISImporter [Data Import Configuration XML File]
```

where [Data Import Configuration XML File] is the fully qualified name for the desired configuration file.

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A log file, `ISImporter.log`, is appended to for each import performed whether the import is done via the ISConnect or the ISImporter tool. If it does not exist, it is created. This file contains progress messages and any error messages.

If any error occurs during the import process, a detailed message is written to `ISImporter.err`. Not all errors are fatal. ISImporter will quit processing the current record and move on to the next if the error is specific to the current record. If the error is related to the whole import process, then it will be abandoned. The `ISImporter.err` file is for debugging purposes and may be asked for by the Intelli-Site support team if there is an issue.

6.3 Data Validation

The only field in the Intelli-Site database that has a specific format that we can be 100% assured will not be violated is the `Card.card_number`, `Card.site_code`, and `Card.card_format`. If these fields contain anything but numbers, the record will be skipped.

Because we do not have control of the source data or how the data in either database is defined, we can have very little control when it comes to data validation. The source database may store information in one format but it may map to a field of a different format. It is up to the user to ensure the data is properly formed.

When the source data doesn't match the destination database field type, an error will be logged and the record will be skipped.

The only other destination field types that we can attempt to validate are image types.

6.4 Importing Images

The image type supported by Intelli-Site are the Windows image files (`*.png`, `*.jpg`, `*.gif`, `*.tif`, `*.tiff`, `*.bmp`, and `*.wmpf`). When ISConnect or ISImporter detects that the destination field is an image, it assumes the source data is an image. How that assumption is handled is different depending on the source type.

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6.4.1 Flat File Source Type

When the destination database field is an image type, ISConnect and ISImporter assume the source data contains the fully qualified filename of an image file. It will open the file, read it in as a byte array, and send it as a byte array. If any part of this fails, a message will be written to the log and the whole source line will be abandoned.

6.4.2 Database Source Type

When the source data is read, a blob, `system.byte[]`, may be detected. ISConnect and ISImport read in the byte array and sends it to the destination as such. If it doesn't match the data type of the destination database field, an error will be logged and the record skipped.

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7 Logs

There are two log files associated with ISConnect. They are ISImporter.log and ISImporter.err. ISImporter.err contains only error message. ISImporter.log contains the progress messages for each import. These files are appended to if they exist.

Each time an import is begun, a header is written to ISImporter.log.

```
9/23/2019 5:11:10 PM *****
9/23/2019 5:11:10 PM *****
9/23/2019 5:11:10 PM ***** Import initiated for configuration: C:\Users\admin\Documents\ISConnect\Configs\Nightly.xml
9/23/2019 5:11:10 PM *****
9/23/2019 5:11:10 PM *****
```

When the import ends, a footer is written too.

```
9/23/2019 5:11:10 PM *****
9/23/2019 5:11:10 PM *****
9/23/2019 5:11:10 PM ***** Import COMPLETED for configuration: C:\Users\admin\Documents\ISConnect\Configs\Nightly.xml
9/23/2019 5:11:10 PM *****
9/23/2019 5:11:10 PM *****
```

These log files are written to the Intelli-Site logs folder.

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Revision History

2019-10-23 Creation Date