

ARCHIBUS, Inc.

COBie Data Connectors

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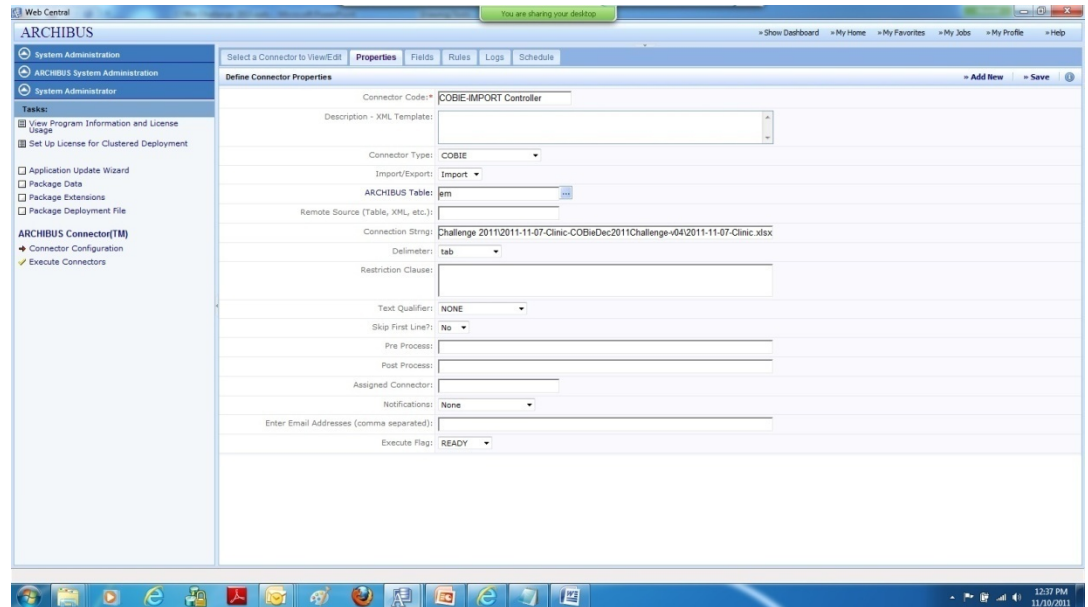


product description

ARCHIBUS has developed Connector tools to import COBie Excel data files.

These can employ Web Services interfaces to leverage service-oriented enterprise architectures.

The Connectors use configurable rule sets and meta-data mapping to provide data transformation services. They can perform extract, load, and transfer (ETL) operations in real-time, event-based, or batched processing.

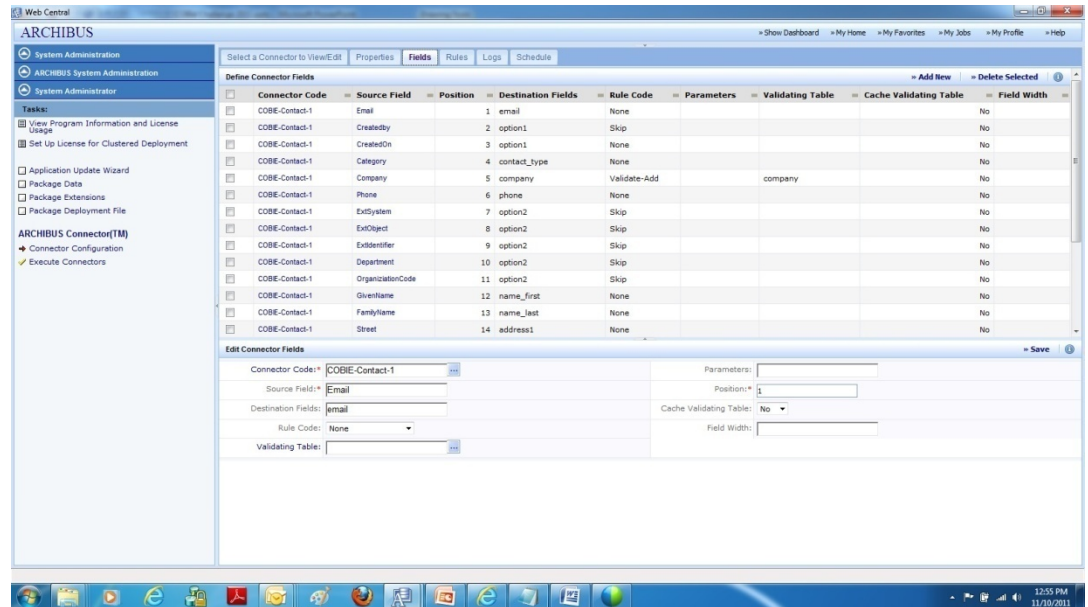


product features

Configurable for any COBie Excel data worksheet (Contact, Facility, Floor, Space, etc.) that matches a comparable ARCHIBUS data dictionary table. (Contact, Building, Floor, Room, etc.).

Configurable for different data storage locations on the network.

Can incorporate schedule runtime events, or on demand import of COBie data into the ARCHIBUS database.



user base

users

- user count: Over 4,000,000 users
- facility count: Over 5,000,000 buildings
- public sector: (15%+/- of users) major facility types
- private sector: (85%+/- of users) major facility types

customers

- name: US Internal Revenue Service
- name: US National Institutes of Health
- name: US Food and Drug Administration

tested product

product name: ARCHIBUS

product version: 20.1

PC or Cloud: Cloud/Web

Core offering: ARCHIBUS Smart Client and
Web Central

website: www.archibus.com

challenge scope

information	COBie.Sheet	Imported
spaces and equipment	Space, Type, Component	<input checked="" type="checkbox"/>
PM schedules	Job	<input checked="" type="checkbox"/>
safety procedures	Job	<input checked="" type="checkbox"/>
systems	System	<input checked="" type="checkbox"/>
materials, tools, training	Resource	<input checked="" type="checkbox"/>
associated documents	Document	<input checked="" type="checkbox"/>
replacement parts	Spare	<input checked="" type="checkbox"/>
space and equipment properties	Attribute	<input checked="" type="checkbox"/>
space zones	Zone	<input checked="" type="checkbox"/>

configuration

Using the Connectors:

To create, modify, or delete an ARCHIBUS Connector, you use a series of tabbed Web forms. A Connector consists of:

- Connector Properties, which define the datasource for importing, exporting, or accessing data.
- Connector Fields, which define the meta-data mapping, transformation and per-field validation rules. For example, EmployeeID might map to em_id in ARCHIBUS.
- Connector Custom Rules, optional custom rules for scripting elements of the transfer.
- Connector Log, the log that holds the results from the previous invocation of the connector.

You can obtain powerful results by defining the Connector Properties and Fields, and the Web forms contain a wide variety of standard options for mapping, lookups, masks, transformations and error handling.

configuration

Most Connector configurations are straightforward; however, there are some Connector properties and configurations that warrant more discussion.

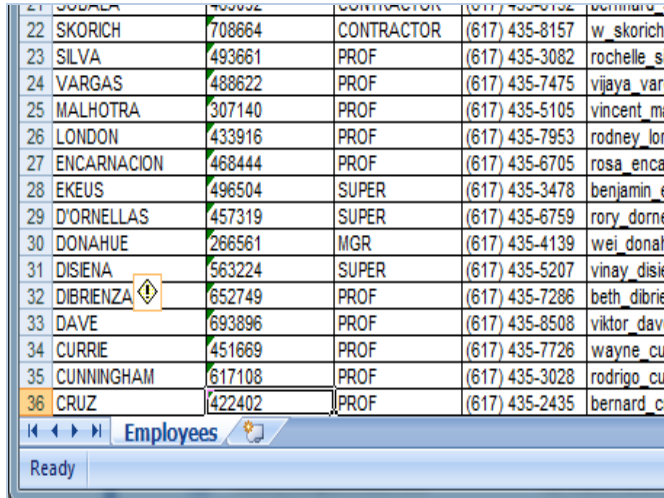
File Imports/Exports (Excel)

The Connector must specify the type of COBie Connector as an "Excel File".

In order to access the file to export or import, the location of the file must be specified in the Connection String property of the Connector. Typically, this location is a network location where the Connector will read a file that another system has generated. For example, the data from COBie will be written to a file which, in turn, the Connector reads. Conversely, on Exports, this is the location where the Connector will write a file.

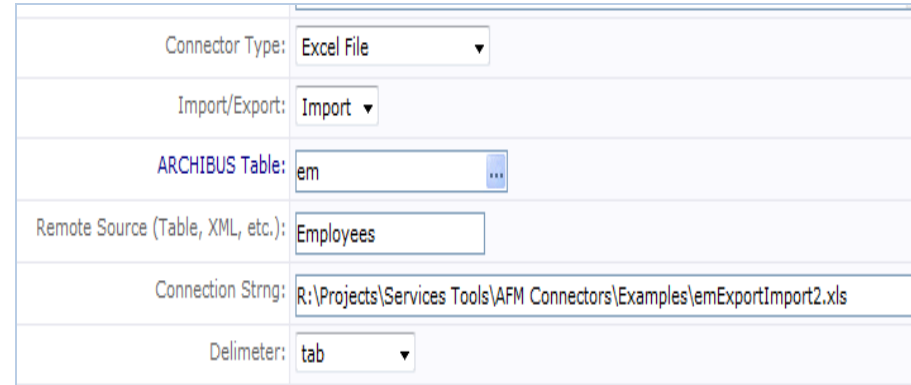
configuration

When working with Excel files, you may need to access or write data to a specific worksheet in an Excel workbook that has one or more worksheets. In these cases simply specify the worksheet name in the "Remote Source (Table, XML, etc.)" field as shown in the images below.



The screenshot shows an Excel spreadsheet with a grid of employee data. The columns contain employee ID, name, job title, phone number, and email address. The 'Employees' worksheet is selected, and the status bar at the bottom indicates 'Ready'.

22	SKORICH	708864	CONTRACTOR	(617) 435-8157	w_skorich
23	SILVA	493661	PROF	(617) 435-3082	rochelle_s
24	VARGAS	488622	PROF	(617) 435-7475	vijaya_var
25	MALHOTRA	307140	PROF	(617) 435-5105	vincent_mi
26	LONDON	433916	PROF	(617) 435-7953	rodney_lo
27	ENCARNACION	468444	PROF	(617) 435-6705	rosa_enca
28	EKEUS	496504	SUPER	(617) 435-3478	benjamin_e
29	D'ORNELLAS	457319	SUPER	(617) 435-6759	rory_dorne
30	DONAHUE	266561	MGR	(617) 435-4139	wei_donah
31	DISIENA	563224	SUPER	(617) 435-5207	vinay_disi
32	DIBRIENZA	652749	PROF	(617) 435-7286	beth_dibri
33	DAVE	693896	PROF	(617) 435-8508	viktor_dav
34	CURRIE	451669	PROF	(617) 435-7726	wayne_cu
35	CUNNINGHAM	617108	PROF	(617) 435-3028	rodrigo_cu
36	CRUZ	422402	PROF	(617) 435-2435	bernard_c



The screenshot shows a configuration dialog box for an Excel connector. The fields are as follows:

- Connector Type: Excel File
- Import/Export: Import
- ARCHIBUS Table: em
- Remote Source (Table, XML, etc.): Employees
- Connection Strng: R:\Projects\Services Tools\AFM Connectors\Examples\emExportImport2.xls
- Delimiter: tab

configuration

The Connector Properties table stores the principle properties for the Connector. This includes the name, description, the source and destination of the data, the connection string to access or write the data and several other properties to define the characteristics of each Connector.

**Figure 1 –
Connector Properties
Dialog**

The screenshot displays the 'Define Connector Properties' dialog box within the ARCHIBUS web application. The interface includes a navigation bar with 'ARCHIBUS' and user options like 'Show Dashboard', 'My Home', 'My Favorites', 'My Jobs', 'My Profile', 'Sign Out', and 'Help'. Below the navigation bar are tabs for 'Select Connector to View/Edit', 'Define Connector Properties', 'Fields', 'Rules', and 'Logs'. The main form area contains the following fields and values:

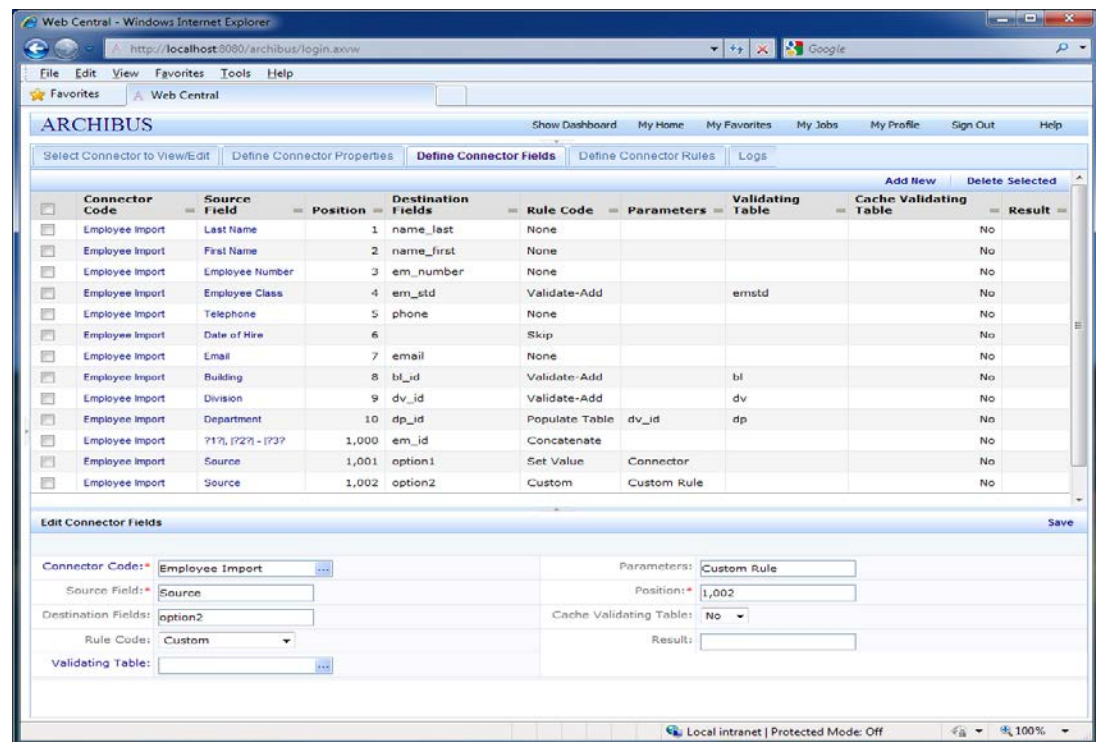
- Connector Code: Employee Export
- Description - XML Template: Example Employee text file feed
- Connector Type: Text File
- Import/Export: Export
- ARCHIBUS Table: em
- Remote Source (Table, XML, etc.):
- Connection String: R:\Projects\Services Tools\AFM Connectors\Examples\emExport.txt
- Delimiter: tab
- Restriction Clause:
- Text Qualifier: NONE
- Skip First Line?: No
- Pre Process:
- Post Process:
- Assigned Connector:
- Notifications: None
- Enter Email Addresses (comma separated):
- Execute Flag: READY

The status bar at the bottom indicates 'Local intranet | Protected Mode: Off' and a zoom level of 100%.

configuration

Once the Connector is defined, you use the Connector Fields to specify the field mapping between the source and destination fields of the two systems. Each Connector can define as many fields as required to transfer data between the systems. Each field mapping can select the mapping properties and rules for how the data should be handled from one system to the other.

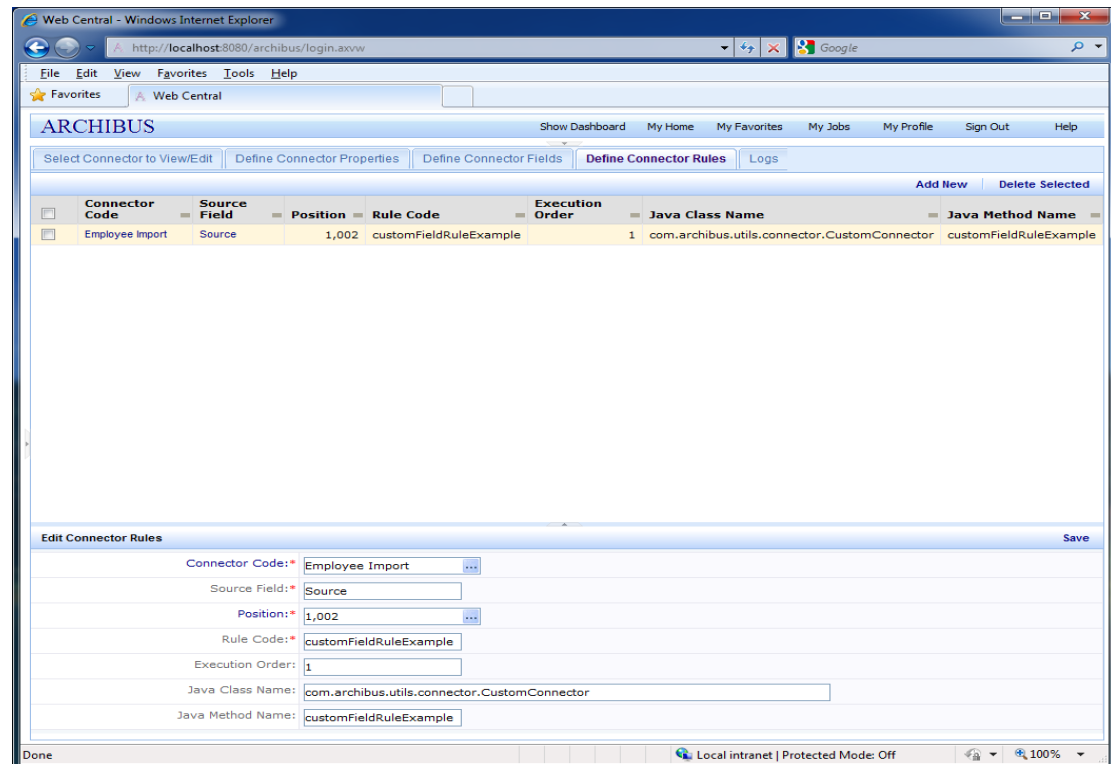
**Figure 2 –
Define Connector
Fields**



configuration

The Connector Rules reference any custom Java workflow rules to execute by Java Class and Method name. The called method will receive 1) a Connector class object with all of the properties; 2) an array of Connector Field class objects with all of the field mapping properties; 3) the full raw (unprocessed) record from the import or export system; 4) the current field position number; and 5) a Java Map object of the processed fields for the current record.

**Figure 3 –
Define Connector
Rules**



value proposition

“Establishing and following an industry standard such as COBie is essential for both seamless information exchange and to fully leverage vital building lifecycle data for greater operational efficiency and lower cost of occupancy”.

ARCHIBUS president and CEO Bruce K. Forbes.

contacts

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