ARCHIBUS, Inc.
COBie Data Connectors

Gary Siorek, Technical Applications Engineer
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
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<th><strong>product name:</strong></th>
<th>ARCHIBUS</th>
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<tr>
<td><strong>product version:</strong></td>
<td>20.1</td>
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<td><strong>PC or Cloud:</strong></td>
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<td><strong>Core offering:</strong></td>
<td>ARCHIBUS Smart Client and Web Central</td>
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<tr>
<td><strong>website:</strong></td>
<td><a href="http://www.archibus.com">www.archibus.com</a></td>
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## challenge scope

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<tr>
<th>Information</th>
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<td>PM schedules</td>
<td>Job</td>
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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 handing.
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.
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.
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
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
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**
“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

COBie support

name: Nick Stefanidakis
phone: 617-227-2508
email: Nick_Stefanidakis@archibus.com
web: www.archibus.com

Marketing POC

name: Brad Peterson
phone: 757-431-0367
email: Brad_Peterson@archibus.com

NFMT booth number (if applicable): 922