Schemus InterChange

Knowledge integration – Uniting distributed data from across your organisation

Most business processes and security services rely on accurate and up to date information on users and applications, however the authoritative sources of that information may be scattered between disparate systems or span security boundaries. Schemus InterChange brings together that distributed data from directories, databases and files, transforming and melding it into information usable by a wide range systems and processes.

Key benefits

▶ Unify and enhance data from multiple sources

▶ Filter and transform poor quality data

▶ Efficient incremental updates from change calculation

▶ Graphical task "Designer" with drag 'n' drop interface

▶ Simple stepwise wizard configuration

▶ Safe configuration with verification checking

▶ Configuration "helpers" for problem resolution

▶ Extensible plug-in architecture with range of data source, sink and filtering modules

▶ Easy automation and integration into existing processes

▶ Scheduling of synchronization by integration with operating system

▶ Full reporting on synchronization operations

▶ Multi platform - Windows, Linux, Solaris and Mac OS

Schemus InterChange comprises Designer, Core and Connector components.

- The Designer is a graphical tool providing an intuitive means to build, test and run synchronisation tasks interactively.

- The Core is the synchronisation engine that together with the filter and transformation tasks are driven either by internal scheduling or by invocation from external scheduling services and other third-party applications.

- The Connector components provide access to a wide range of data sources and sinks.

The Designer graphical drag 'n' drop and wizard interfaces guide the user through the configuration steps to establish connection and extraction of data from directory, database or formatted files, with testing and verification of each step.

The extensible plug-in architecture of the Core supports an established range of data source, sink and filtering modules. These modules can be further enhanced by the use of scripted tasks. Further bespoke modules can be provided, including those requiring handling of ASN.1 encodings.

Features

■ **Graphical task builder**
Intuitive drag 'n' drop interface for constructing synchronisation tasks.
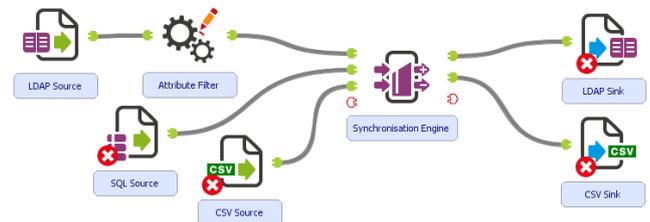
■ **Wizard-based configuration**
Stepwise wizards guide the user through each configuration step. Checking and verification are performed throughout the process.

■ **Multiple data sources and sinks**
A single configuration may combine data from different sources and types of source, before outputting results to one or more data sinks.

■ **Filtering tasks**
Allows specific or "wild-carded" data to be excluded or converted.

■ **Transformation tasks**
New data items may be constructed by combining multiple attributes.

■ **Incremental updates**
Optimised to perform incremental updates of the target data in order to minimise the load on participating systems.

■ **Custom scripts**
Allows custom tasks to be introduced by invocation of industry standard JSR-223 scripts.

■ **Full reporting**
Generates synchronisation reports in PDF format and provides comprehensive logging with optional alerting via email notifications.

■ **Full control of automation**
Built-in scheduling or invocation from task schedulers or by other applications.

■ **Safe test mode**
No modification of live data is performed when using test output to text files.

- **Network agility**
Operates across network proxies and capable of using secured, encrypted connections.

- **Multi-platform operation**
Java application portability offers a wide choice of platforms. Schemus InterChange will operate on the wide range of platforms supported by the Sun Java Runtime Environment (JRE).

Data Source and Sink
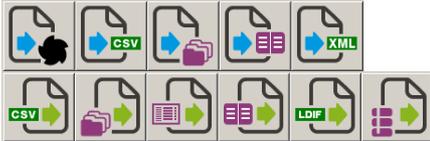
- **CSV Source and Sink**
Extracts and stores formatted data to Comma-Separated Variable (CSV) files.

- **Directory Source and Sink**
Extracts and stores data from or to LDAP directories.

- **Database Source and Sink**
Extracts and stores data from or to SQL databases.

- **LDIF Source**
Extracts data from LDIF files (Lightweight Directory Interchange Format).

- **XML Sink**
Stores data as XML files either in a simple format mirroring the internal structure of the data or filtered through XSLT to save in a custom format.

- **Form Source**
Presents a form dialog to the user when a synchronisation is instigated allowing the dynamic injection of data into the task.

- **File system Source**
A source which extracts the contents of each file in a folder hierarchy and passes through the file name and file content as attributes of the entities. Recursion and handling of binary file content are optional. It is also possible to specify a list of file extensions to be included or excluded.

- **File system Sink**
A sink which outputs to separate files in a folder hierarchy.

Filters and Transforms

- **Match Merger**
A plugin that merges records from different sources into a single entry based on common key values.

- **Splitters**
A variety of splitters for sending data down different processing paths:

  - Duplicating Splitter sends the same data to different sinks

  - Object Class Splitter splits incoming data based on its object class

  - Pattern Splitter selects the destination for each entity based on a regular expression match on one or more of its attributes

- **Rename Filter**
A filter that changes the object class of an entity and change the names of its attributes.

- **Rewrite Filter**
A filter that rewrites the value of an entity's attributes based on regular expressions

- **XML Filter**
A filter providing XSLT capabilities to transform, extract and manipulate XML data.

- **Debugger**
A filter plugin for inspecting data as it travels through the configuration steps. Define breakpoints for certain types of events and specify advanced conditional expressions for breakpoints.

System Requirements

- Schemus InterChange is available on Windows, Linux, Solaris and MacOS X platforms.

- A Java Runtime Environment (JRE) 6 or higher is required.

Evaluation

Evaluations are available for this product, please find contact details at www.schemus.com.

About Us

Schemus Interchange was developed by the expert software team at Schemus Ltd, drawing upon their extensive experience in producing high-assurance software trusted by governmental and defence clients. The underlying technology of Schemus InterChange has been successfully deployed by some of the largest Cloud security providers, with end customers ranging from small businesses to multi-national organisations handling over 500,000 user identities.

Schemus Limited is the product arm of the UK software consultancy Metanate. Schemus specialises in the development of tools for advanced data management in corporate and cloud environments.