

FEDERATION

ENOVIA Studio Federation Toolkit



ENOVIA® Studio Federation Toolkit provides documentation and examples for writing custom programs that use the Adaplet® libraries available in ENOVIA® Live Collaboration. An Adaplet is a ENOVIA proprietary technology used to communicate with non-ENOVIA data sources. It represents this third-party data as if it is native to the ENOVIA system. The ENOVIA Studio Federation Toolkit enables customers to extend standard ENOVIA product capabilities to create a Product Lifecycle Management (PLM) federation with other enterprise systems.

Key Benefits

- Access data from multiple systems through a single interface
- Extend legacy systems with additional capabilities that are available by the ENOVIA system such as additional meta-data, workflow, file management, and other services
- Integrate to multiple systems such as transferring ENOVIA data to other systems (e.g. Enterprise Resource Planning) based on triggers that are executed during business processes
- Migrate legacy data very quickly and efficiently

Product Overview

ENOVIA Adaplets enable real-time interoperability between ENOVIA and other non-ENOVIA systems providing integrated information from multiple sources while causing no disruption of the other systems and little burden to IT. When Adaplets are employed, ENOVIA users have access to the information stored in other systems as if it were actually part of the ENOVIA system. The external information is indistinguishable from native ENOVIA data. Each adapted external data source is mapped as its own unique data vault.

The same ENOVIA Application Programming Interfaces (APIs) and functions that are used to search and query the ENOVIA data can be used to query the adapted vaults. Edit operations on the adapted vaults can also be performed depending on the setup options.

Adaplets enable implementers to virtually model and access any external non-ENOVIA data source and make it part of the ENOVIA system. One or more enterprise systems may be adapted. Once Adaplets are in place, the ENOVIA applications may be used to access, create, manage files, and modify all the data in both native and foreign, non-ENOVIA systems.

Only ENOVIA publicly exposed schema and/or customized schema should be mapped with the legacy systems. At this time, ENOVIA® VPM Central™, ENOVIA® VPM Team Central™, and their optional products do not fully publish their schema and should not be populated with an Adaplet.

Adaplets may operate in one of the following modes:

- “readonly” - No changes to foreign data are allowed. The ENOVIA system can simply display the data from the foreign system.
- “readwrite” - Changes made to the data from ENOVIA are stored against the external data source. In this mode, either ENOVIA or the foreign system may change the foreign data.
- “extend” - Extends the definition of the foreign data in addition to the “readwrite” capability. In this mode, the ENOVIA system can update the foreign data, and also extend its definition with services provided by the ENOVIA system such as additional attributes, lifecycle, workflow, relationships, etc., not available in the foreign system. ENOVIA stores the extended data while the foreign system updates its data.
- “migrate” - This mode is ideal for situations that require legacy system replacement, but it is necessary to run the legacy system in parallel with ENOVIA. In ‘migrate’ mode, data is deleted individually from the foreign system and written to ENOVIA.

In addition, the Adaplet functionality can quickly load legacy data into ENOVIA. When a “readonly” Adaplet is configured, the data can be retrieved from a foreign data source and written to a properly structured set of files that can be executed against an ENOVIA supported database e.g. Oracle, DB2, etc.; to load millions of objects into the ENOVIA system very quickly.

Administrators can configure the Adaplet interface using two different architectures. When using a direct connection, the Adaplet interface is implemented and configured using a text based mapping file. In addition, Adaplets can also be implemented using Web services APIs. For Web services Adaplets, the configuration is based on Java.

Product Highlights

ENOVIA Studio Federation Toolkit enables companies to create a synchronous integration between ENOVIA and other foreign non-ENOVIA systems. Key features and capabilities include:

Single Interface including Adapted Data

When deploying other enterprise solutions, ENOVIA Adaplet technology enables users to access all their data needs from a single interface rather than requiring users to retrieve data from multiple systems. Accessing foreign data from the ENOVIA interface is transparent and similar to accessing native data.

Bi-directional Integration

ENOVIA Adaplet technology integrates the ENOVIA system with other systems to provide aggregated information from multiple data sources. SQL-based databases can be adapted through direct connectivity uses a mapping file that -- a C++ program interprets. The source code for this program is available to extend the mapping logic with additional processing details. A Java based Web Services API can integrate the foreign, non-ENOVIA systems where direct connectivity is not preferred. Create a synchronous integration approach by using "readwrite" Adaplets to write data to a foreign system.

Extending Foreign Data

Administrators can extend ENOVIA services to foreign data and use the Adaplets in extend mode, to expand the foreign non-ENOVIA data with additional attributes and properties, files, relationships, and other business object services. Also, administrators can search and connect foreign data as reference material, just like any other native object.

Data Migration

Shutting off a legacy system and making it completely obsolete is not possible always. Adaplets configured in "migrate" mode enable the gradual transfer of foreign data to ENOVIA whenever the foreign data is updated by end users or background scripts.

Data Bulk Loading

Adaplets also provide an efficient mechanism to bulk load large amount of data into ENOVIA very quickly. All the supported ENOVIA databases provide SQL-based utilities to import large amounts of data quickly and efficiently. With a properly configured Adaplet, administrators can extract the foreign data to ASCII files that can in turn be imported into ENOVIA. ENOVIA automatically generates the appropriate SQL-formatted files based on the configured database to mass import the legacy data.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA Studio Federation Toolkit supports PLM 2.0, product lifecycle management online for everyone, and the ENOVIA V6 values: global collaborative innovation, single PLM platform for intellectual property (IP) management, online creation and collaboration, ready to use PLM business processes, and lower cost of ownership.



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