Centerprise Data Integrator

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Overview

Astera's Centerprise Data Integrator represents a new generation data integration platform that is designed to support the complex, high-volume data integration needs of today's business environment. Astera's customers span a wide range of industries, including financial services, healthcare, automotive, utilities, and government agencies whose integration needs range from high-volume batch data exchanges to complex real-time integration in applications such as building and managing data warehouses, integrating in-house and cloud applications, and managing integration with business partners.

Centerprise's unified and consistent interface helps customers accomplish their goals by delivering the depth of functionality necessary for complex, high-volume data integration projects while maintaining its acclaimed ease of use. This ease of use — and learning — makes Centerprise the tool of choice for a wide spectrum of users, including data analysts, data conversion specialists, extract, transform, and load (ETL) developers, and data warehousing specialists.

This document provides a functionality and technical overview of Centerprise. It is primarily intended for a technical audience. However, it provides valuable information for business decision-makers charged with evaluating and selecting data integration platforms.

While this document provides a description of Centerprise features and usage scenarios, the only way to develop a feel for the product's usability and functionality is to try it (contact us at sales@astera.com to arrange for a product trial).

Key Design Goals

When the development on Centerprise began, the development team collaborated with customers and experts in data management to establish a set of key goals for the product. These goals were grouped into three distinct categories — usability, power, and performance.

Empowering Users

The ability to create and maintain complex integration jobs was considered by the team to be a top design goal. With minimal training, a user must be able to create and deploy complex dataflows and workflows. The goal was to make Centerprise approachable to a broad spectrum of users by focusing on ease of use, consistency, and familiarity of the user interface.

Performance

As the clock speeds in CPUs have plateaued, the number of cores and CPUs are becoming the predominant means of achieving greater hardware performance. Four- and eight-core machines are commonplace and affordable hardware with 16 and 32 processors is on the horizon. To take advantage of these processing capabilities, software must be developed to perform tasks in parallel. While there are data integration products that offer parallel processing, they often demand a hefty premium for this capability. Centerprise, on the other hand, delivers parallelism in an affordable package. The core Centerprise engine features a high degree of parallelism and is designed to minimize blocking and starvation. This enables Centerprise to make optimal use of processing resources and deliver the performance and scalability essential for high-volume data integration jobs.

Another area of performance focus has been database writes. In Centerprise, database writes are optimized in a variety of ways, including support for native bulk inserts, batched updates and deletes, minimizing database updates through diff processing, change data capture, and other techniques.

Usability

Centerprise is well known for its streamlined user interface and superior ease of use. Our goal is to get new users up and running quickly while providing functionality to build, test, and deploy complex jobs. This usability is accomplished through intelligent use of automation, defaults, wizards, and other techniques that are designed to simplify and, in some cases, eliminate common tasks. Key usability features include:

- **Intuitive, clutter-free user interface**
  Continuously tested and refined to provide a natural flow and a familiar look and feel

- **Single click data preview and quick profile capabilities**
  Show a WYSIWYG view of user data at any stage in a flow. These are invaluable debugging tools and bring about enormous productivity improvement in map development and testing.

- **Unlimited undo/redo capability**
  Similar to that found in popular software products. When used in conjunction with data preview, this feature helps users rapidly test and refine their maps.

- **Drag-and-drop capabilities for frequent tasks**
  Create source or targets by dragging files or database tables onto a dataflow, insert actions in the middle of a flow, remove actions from the middle of a flow, and more

- **Right click menus on dataflow and workflow objects**
  Provide handy access to relevant commands including data preview, quick profile, view database table data and schema, edit files

- **Standard cut-copy-paste, auto add fields, automatic mapping, and more**

Features

Integrated Development Environment

Centerprise features an integrated development environment designed from the ground up by a single team. The entire product has a consistent look and feel and a familiar, intuitive, predictable interface and behavior. This promotes a rapid learning curve, resulting in higher productivity for end users. The Centerprise IDE blends data transformation, data profiling, and data profiling functionality in a single seamless user interface.

Visual Drag-and-Drop Interface

Centerprise dataflow and workflow designers present visual drag-and-drop interfaces that provide functionality for development, debugging, and testing. Users can develop highly complex dataflows using a full complement of built-in transformations, single-click data preview, and data profiling.

Integration with Source Control

To facilitate team development, Centerprise provides tight integration with Microsoft's Team Foundation for source control. This integration provides check-in/checkout, compare versions, merging, view history, and other source control features.

ETL - Extract, Transform, and Load

Dataflow is the cornerstone of Centerprise data integration functionality and features a wide array of sources, targets, transformations, and components. Customers consistently rate Centerprise's dataflow designer as the most powerful and easy-to-use integration environment they have ever employed.

Data Extraction

Centerprise enables extraction of data from a large number of sources, including databases, flat and hierarchical files, printed reports, cloud and on-premise applications, web services, and social media platforms.

Databases

Centerprise provides native connectivity to popular databases, including SQL Server, Oracle, DB2, Sybase, MySQL, Teradata, Netezza, MS Access, and others. Other databases can be accessed via ODBC or OLEDB interfaces. Centerprise has three source types for working with databases:
Database Table Source—This object enables reading data from a source table. It provides several optimizations to improve dataflow performance. These include an intelligent query builder that retrieves only the fields that are mapped; change data capture patterns; and table partitioning.

Multi-Table Query

This object features an intelligent query engine that automatically builds queries based on fields mapped from multiple tables. Users can build sophisticated data extracts using drag-and-drop functionality.

Database Query

This object enables users to provide their own query or call a stored procedure.

Flat Files

Centerprise supports popular flat file formats including delimited, fixed length, and Excel. Flat file objects provide functionality to deal with inconsistent headers, out-of-sequence fields, and other format anomalies. For delimited and fixed length, file partitioning enables high-performance data loads.

Hierarchical Files

Centerprise provides built-in support for hierarchical data files. These include XML, EDI, COBOL (read only) and proprietary hierarchical files.

Report Mining

The report mining feature in Centerprise is one of the best in the industry. It provides a visual, drag-and-drop environment to identify and extract data from popular formats such as PDF, DOC, RTF, XLS, HTML, CSV, XML and text-based files. This feature is able to process many different types of report patterns, including flat, master-detail, and multi-level hierarchy. Centerprise can automatically read and convert Monarch report-mining models.

Applications

Centerprise integrates with Salesforce.com and Microsoft Dynamics CRM. Astera adds support for applications on a regular basis. Please contact us to inquire about a specific application.

Web Services

Centerprise supports SOAP and REST web services. This enables users to connect with services within the enterprise as well as integrate with popular web services and social media platforms.

Data Transformation

Centerprise dataflows support a wide array of transformations. These transformations can be strung together to build powerful dataflow jobs. Dataflows support two distinct types of transformations—single record transformations that modify part of a record, and set transformations that operate on a set of records.

Single Record Transformations

Single record transformations operate on a single record and derive new values from values in a single source record. Single transformations include lookups, functions, and expressions.

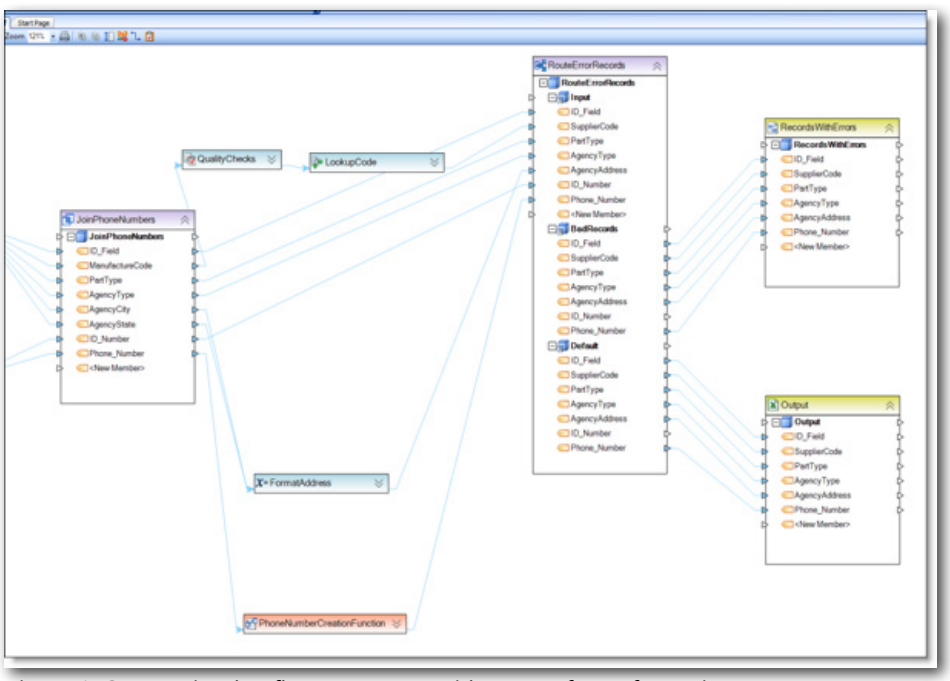

Figure 1. Centerprise dataflows support a wide array of transformations.

Lookups

Dataflows include four different types of lookup transformations, including database table lookups, SQL statement lookups, file lookups, and list lookups. These lookups provide transformation functionality and can be used as data quality checks as well. Centerprise database lookups provide static and dynamic caching options to optimize transformation performance.

Database Lookup provides substantial performance improvements for many common scenarios, including faster caching and improved memory management.

Dynamic Lookup Cache

Dynamic caching enables users to add incoming records to a lookup cache on the fly and utilize an indicator from the lookup to determine whether to insert or update a record in the destination. This feature enables loading of multiple related tables in a single-pass dataflow

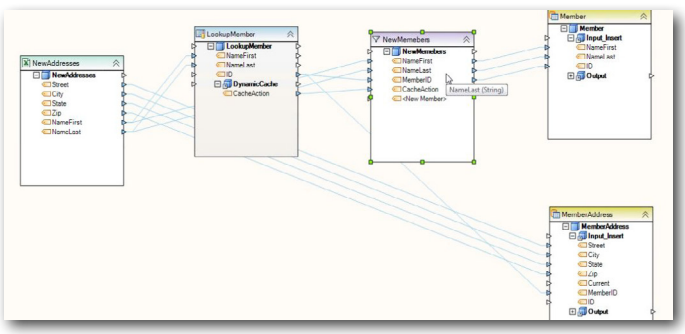

Figure 2. The Dynamic Lookup Cache enables on-the-fly addtion of records to the Lookup Cache.

Persistent Lookup Cache

In situations where a lookup is performed on a large dataset that changes infrequently, a persistent cache can provide a significant boost in performance. The Centerprise Persistent Lookup Cache stores a snapshot of the lookup table on the server's local drive and uses it in subsequent runs. In situations where the lookup table is updated daily, a snapshot can be taken on the first run after update and can be used throughout the day to process incremental data.

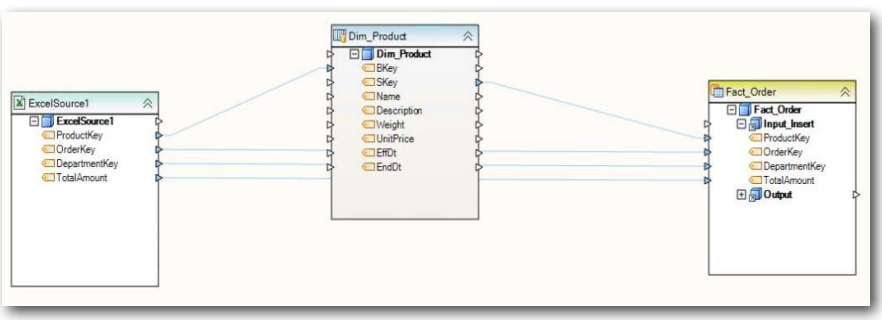

Figure 3. The Persistent Lookup Cache can be used in situations where a lookup is performed on a large datashet with infrequent changes.

Functions

Centerprise has over 150 built-in functions for string, date, financial, math, name and address parsing, address correction and other purposes. Additional functions and external services can be connected quickly using the extensibility APIs.

Expressions

Centerprise rules language can be used to write expression transformations. The Centerprise language is similar to Excel's formula language in syntax. Built-in functions, described above, can be used inside these expressions.

Detached Transformations

Single transformations can be designated as "detached." A detached transformation is not connected to other objects via mapping lines. Instead, it is called as a function from within expressions. With this feature, lookups can be invoked from within expressions, enabling users to write validation rules that use lookups, subflows, and other expressions.

Centerprise enables users to designate selected transformations as detached. Detached Transformations such as file lookup, database lookup, expression, subflow, and others can be used in Centerprise expressions to create powerful validation and conversion functionalities.

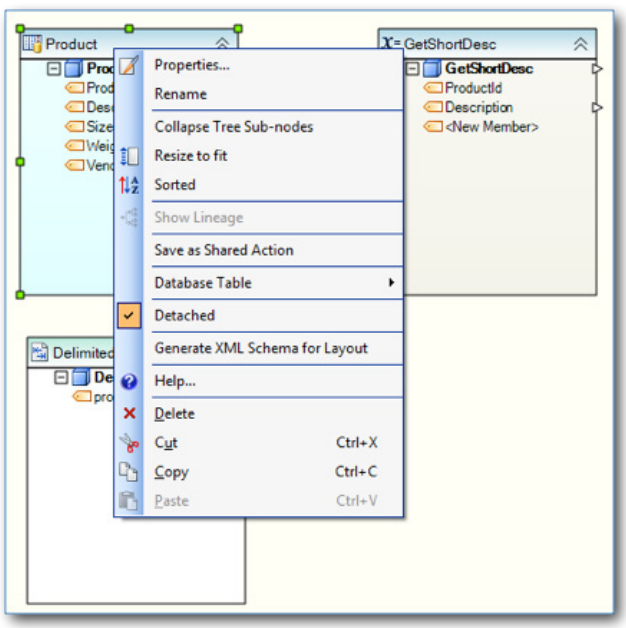

Figure 4. Centerprise Detached Transformations enable users to designate selected transformations as detached.

Expression List Transformation

The Expression List Transformation enables creation of multiple expressions in a single action. This reduces clutter and streamlines dataflows.

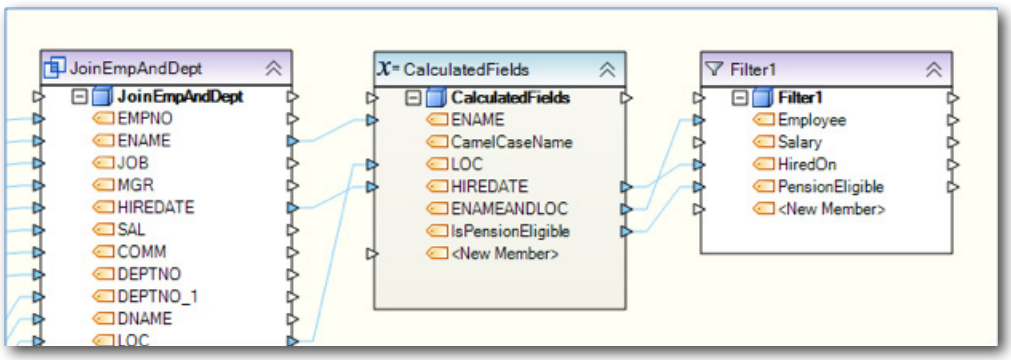

Figure 5. The Expression List transformation outside view.

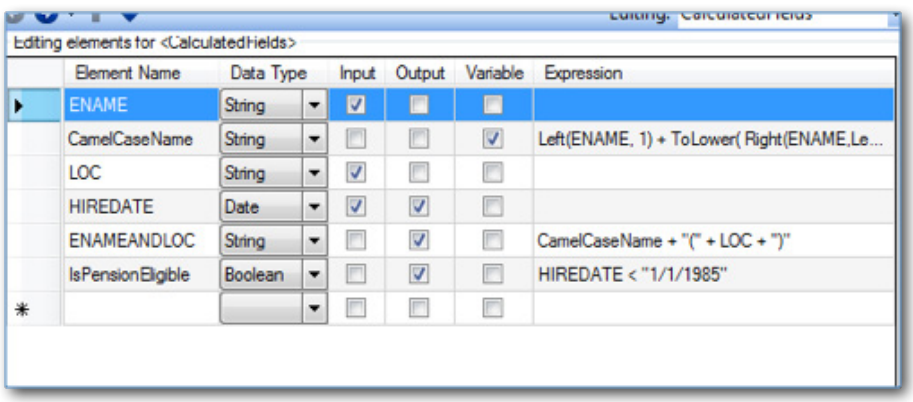

Figure 6. The Expression List inside view.

ApplyToAll

Sometimes, an operation must be applied to every single field of incoming data. For instance, users may need to trim, remove quotes or remove unwanted characters from the incoming data stream. The ApplyToAll Transformation can be used to perform a single operation on all fields in a record. It can be used to remove unwanted characters, perform a specific lookup, convert all values to a string, and parse dates using a specific logic, among other things.

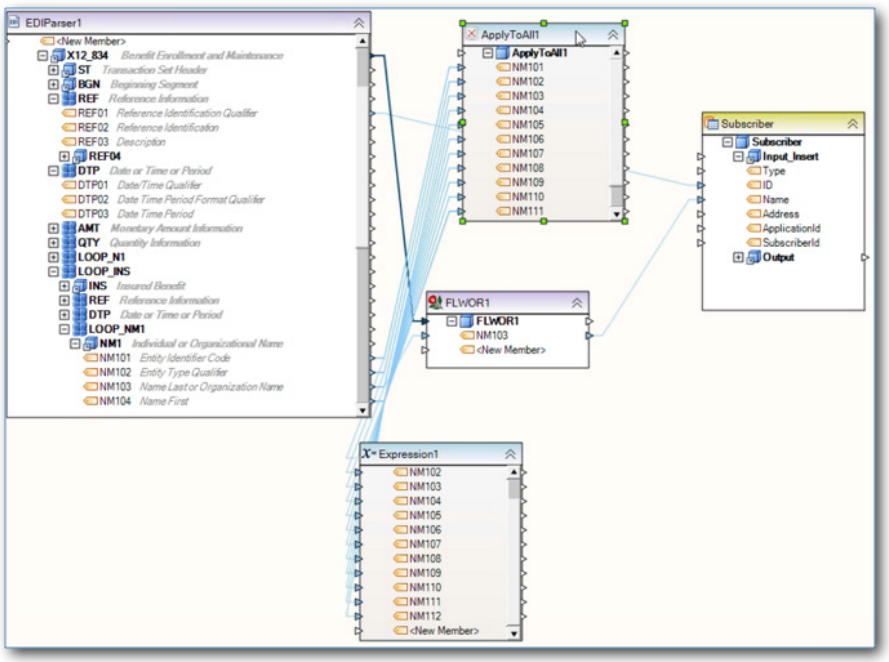

Figure 7. The Centerprise 6 ApplyToAll transformation applies a single function to multiple fields.

Record Set Transformations

Business-to-business (B2B) integration requires the use of electronic data interchange (EDI) transactions, extensible markup language (XML) files, and representational state transfer (REST) or simple object access protocol (SOAP) web services to exchange XML or JavaScript object notation (JSON) data. Frequently, the schemas used are complex hierarchical structures that must be parsed and validated and response structures must be built.

The innovative features in Centerprise enable users to process hierarchical data of any complexity. The Scoped Transformation feature lets users attach any Centerprise transformation to a specific tree node so that transformations such as sort, distinct, join, aggregate, merge, union, normalize, denormalize, lookups, and others can be used to process specific sections of a tree. Centerprise also includes a Tree Join Transformation that can be used to join multiple relational tables to create complex tree structures.

With these features, users can quickly and easily parse and construct hierarchical structures using a visual, code-free environment.

Relational and Tree Joins

The Join Transformation provides functionality for a relational join. It supports inner, left outer, right outer, and full outer joins. The Join transformation can join disparate data sources as well as outputs from prior transformations.

Tree Join Transformations support building complex trees by joining multiple data sources. The key difference is that a relational join returns a flat record while a tree join transformation returns a tree structure. Tree joins are invaluable when building a complex hierarchical structure by joining multiple data sources The Centerprise 6 Tree Join feature enables creation of a tree structure to be built within the dataflow and then that tree can be mapped to a destination using Centerprise mapping features.

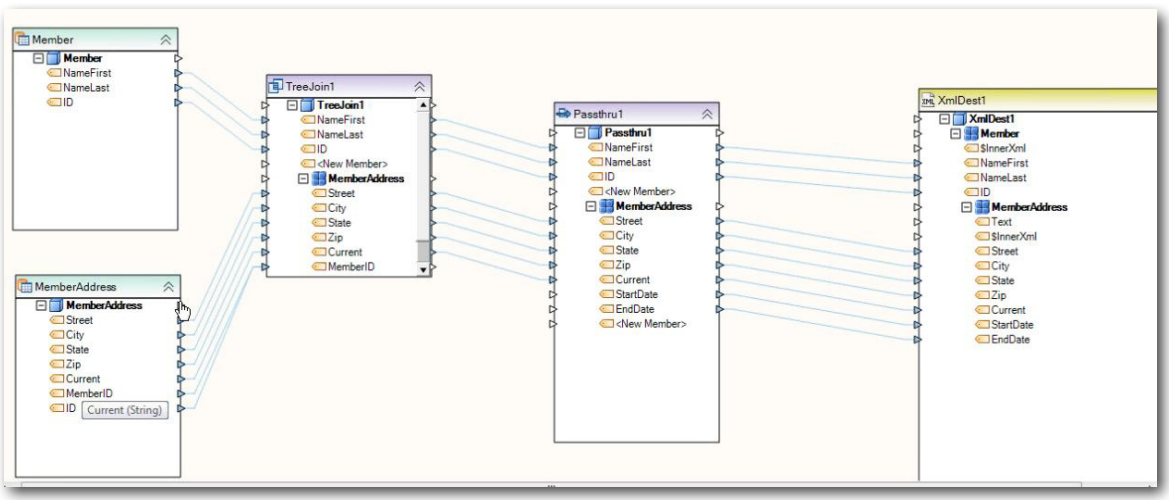

Figure 8. The Centerprise Tree Join Transformation enables creation of a tree structure to be built within the dataflow and then mapped to a destination using Centerprise mapping features.

Scoped Transformations

Centerprise set transformations such as sort, join, merge, union, route, etc. usually work on the entire incoming data set. This means that sort transformations will sort the entire incoming data set before passing on results to succeeding actions. While this approach works well with flat data sets, it is insufficient for hierarchical data.

Centerprise Scoped Transformations can be applied to specific nodes in a hierarchical tree. For instance, a specific tree collection can be sorted or filtered, or used to join two nodes within the same tree. This approach makes it possible to perform sophisticated transformations on complex data trees.

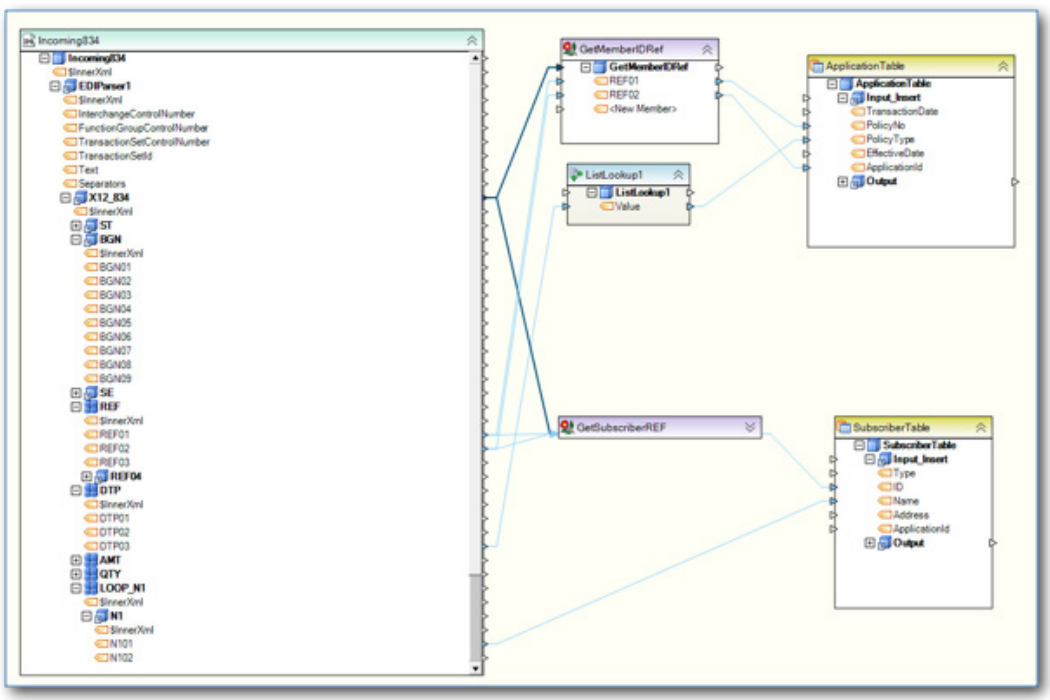

Figure 9. Scoped Transformations can be applied to specific nodes in a hierarchical tree.

In-Database Joins

As with relational joins, the In-Database Join option can be used to significantly improve the performance of data extractions. The Centerprise Join Transformation feature enables users to join data within the transformation engine and retrieve all data from tables to perform joins in the Centerprise server's memory. For large data sets, Centerprise provides an option to perform these joins within the database. For situations where data from multiple tables needs to be extracted and joined, this feature delivers major performance benefits.

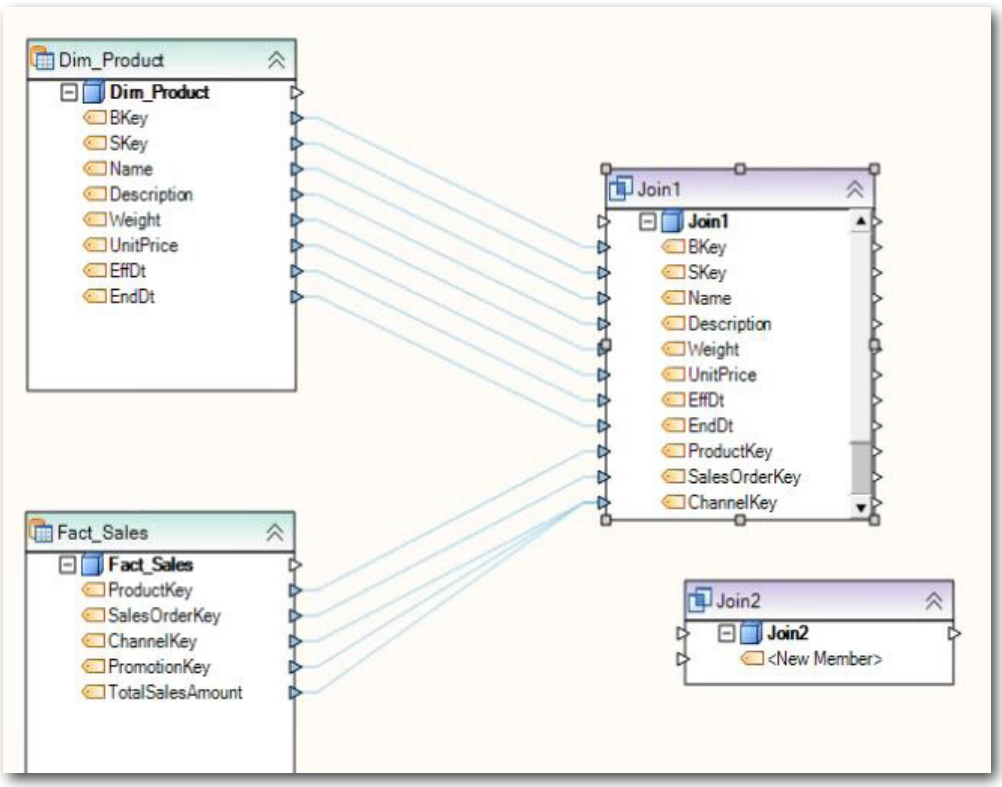

Figure 10. Centerprise 6 provides the option to perform in-database joins within the database, delivering major performance benefits.

Normalize and Denormalize

Often, input from mainframe sources such as COBOL is denormalized and must be transformed before inserting into databases. These transformations support data normalization (unpivoting) and denormalization (pivoting).

Union and Merge

Union combines two or more input streams into a single output stream. The inputs can be from data sources or from prior transformations. Merge is similar to union except inputs to merge are sorted by keys and the output of a merge is also sorted by the same keys.

Route and Filter

Route distributes an input to multiple output streams depending on route conditions. The route conditions can be written on the data values or on record-level error information. Filter has one input and one output and passes along only the records that meet the specified condition.

Sort

The Sort Transformation orders incoming input and passes it onto the next object. Sort supports multiple keys, ascending/descending, and case sensitive options. Users can choose to return all records or only distinct records.

Aggregate

Aggregate Transformations can be used to build data aggregates. Aggregate transformations support sum, count, min, max, average, and other functions.

Distinct

Distinct removes duplicate records from an incoming stream while keeping the duplicate records available for further processing.

Text Processors

Text Processor Transformations provide text parsing and building functionality for delimited, fixed length, XML, and EDI text. These transformations are useful for parsing incoming complex files or building outgoing ones by combining multiple text processor types.

FLWOR

The For-Let-Where-Order-Return (FLWOR) Transformation is similar to the XQuery FLWOR transformation and is used to perform specific operations on a tree structure.

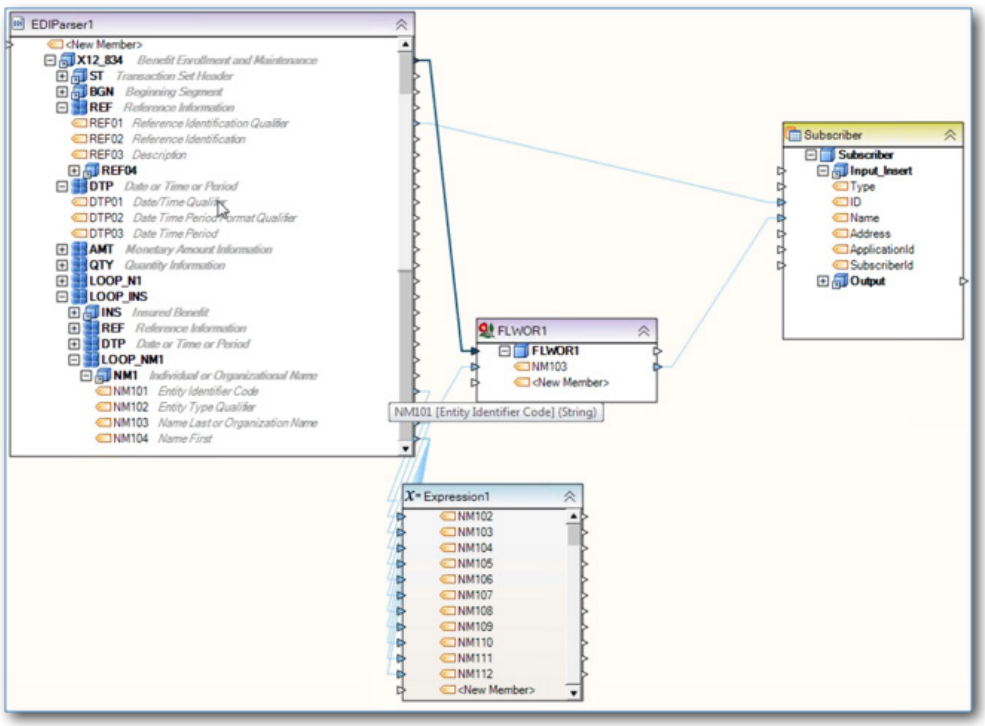

Figure 11. The Centerprise FLWOR transformation can be used to perform specific operations on a tree structure.

Source as Transformation

Centerprise enables selected data sources to be used as transformations. This feature enables processing of multiple small files within a single dataflow. It is useful for situations where a large number of relatively small files are received that must be processed quickly.

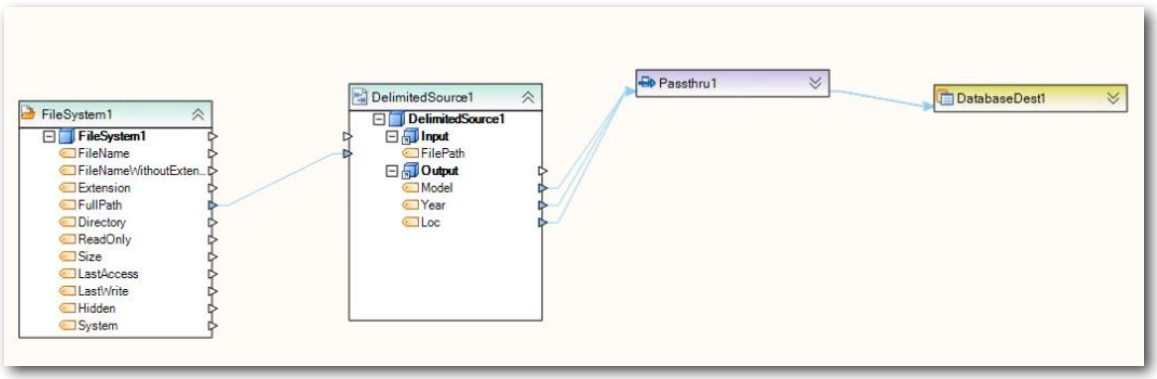

Figure 12. The Source as Transformation allows selected data sources to be used as transformations.

REST Web Service

In addition to SOAP connectivity, Centerprise provides a robust connector for REST web services that can be used as a source, transformation, lookup, or destination. This feature enables connectivity to a wide range of web services, including search engines like Google and Yahoo and social media platforms such as Facebook, LinkedIn, and Twitter, as well as other services like Amazon, Netflix, etc.

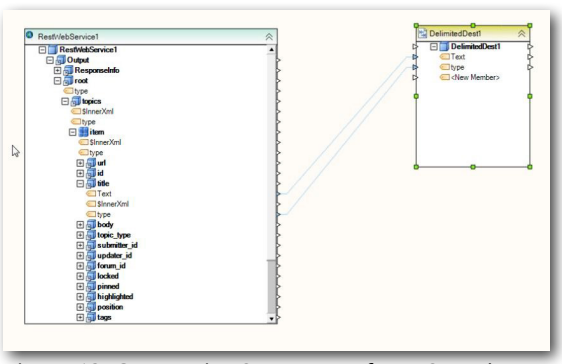

Figure 13. Centerprise 6 connector for REST web services

Data Load

Centerprise data destinations cover databases, flat and hierarchical files, cloud and on-premise applications, web services, and social media platforms.

Databases

Centerprise features a high-performance native interface to SQL Server, Oracle, DB2, Sybase, MySQL, Netezza, and Teradata. For these databases, Centerprise supports high-performance bulk load support, data synchronization, and batch updates. These features have been tested with high data volumes to ensure stellar performance.

Diff Processor transformations and source change-data-capture strategies can significantly influence performance by eliminating unnecessary database writes.

Flat and Hierarchical Files

Centerprise supports all popular file formats including fixed length, delimited, Excel, EDI, XML, and proprietary hierarchical files.

Applications

Supported applications include Salesforce.com and Microsoft Dynamics CRM. Connectors are added on a regular basis. Please check with Astera regarding applications supported.

Web Services and Social Media

Centerprise provides seamless connectivity to SOAP and REST web services. This enables users to integrate social media platforms such as Facebook, LinkedIn, Twitter, and others right into their applications.

Reusability and Modularity

Centerprise facilitates development of complex integration jobs by enabling development of modular components such as shared actions and subflows. Additionally, an extensive parameterization capability ensures that dataflows and workflows can be invoked in multiple situations.

Subflows

Centerprise subflows are reusable components that can be used to encapsulate logic and transformation sequences that are used repeatedly. When used inside a dataflow, these subflows behave similar to built-in transformations. Subflows can also be designated as detached objects and therefore can be invoked from expressions in data quality rules, routers, expression transformations, and others.

Shared Actions

Shared actions are objects that, once created, can be used in multiple dataflows and workflows. If a change is made to a shared action, it is automatically reflected in all the dataflows and workflows that reference that action.

Parameterization

To support reusability and configurability, Centerprise 5 offers multiple parameterization options that can be used to provide runtime values to jobs. Parameters can be specified as part of job scheduling or when invoking dataflows and workflows from within a workflow.

Parameter and Context Objects

Centerprise provides two objects that can be added to a dataflow or workflow: Parameters and Context Information. The Parameters object enables users to define values that can be supplied from outside while Context Information contains values that are populated by Centerprise Server and includes document name, scheduled task, and, if applicable, the dropped file path that triggered the job.

Singleton Objects

In some instances, users may want to supply parameters using a file or database table. Centerprise introduces the concept of a singleton object. A singleton object is any data source marked as singleton. When marked as such, Centerprise retrieves only the first record and retains it in the buffer throughout the job execution. This information can be used by other actions during initialization and mapping. Compared to a traditional parameter file approach, this concept gives users greater control over parameter structure and location.

Job Parameters

The Job Parameters user interface supports replacement of database connections, file paths, and other information at runtime. This feature is designed to enable movement of jobs into production without requiring code changes.

Variables

Variables are an important part of Centerprise dataflows. Two types of variables, action and dataflow, are supported.

Action Variables enable users to store information that can be used and manipulated across records. These variables can be used to keep track of running totals, counts, values from prior records, and more. Currently, these variables are only supported in expression list transformations.

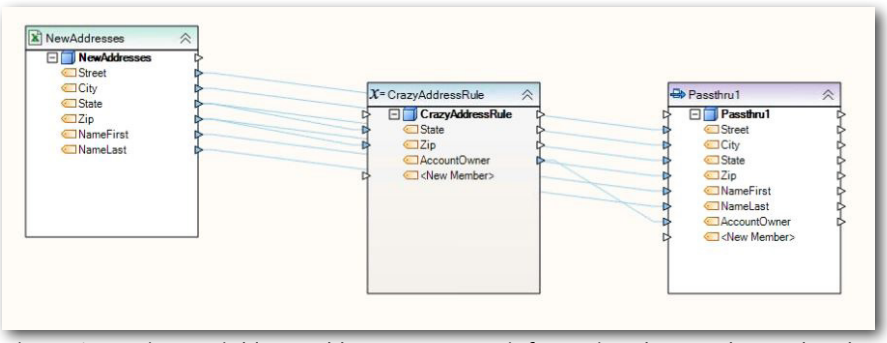

Figure 14. Action Variables enable users to store information that can be used and manipulated across recordes.

Dataflow Variables enable users to exchange data between a dataflow and the containing workflow. These variables can be set or incremented during processing and are passed as return values to the containing workflow.

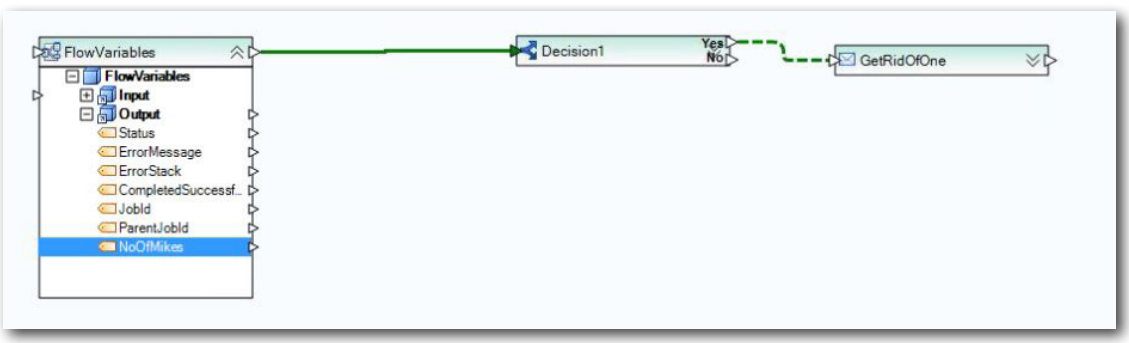

Figure 15. Dataflow Variables enable users to exchange data between a dataflow and the containing workflow.

Data Quality and Profiling

Centerprise brings an integrated approach to data transformation, profiling, and quality functions. These functions are presented in a single unified interface and can interact with each other. For instance, users can define data quality rules as part of a transformation process. These rules add validation error information to records and pass it along to following transformations. When records are mapped as part of transformations such as join, union, sort, etc., field level error information is passed along as part of these mappings. Subsequent transformations can use this error information to route records as well as create an aggregate profile of the records using the Field Profile object.

Data Quality Rules

Data quality rules are used to define validation checks on records during the quality check or transformation process. If any rules fail, the appropriate error information is attached to the corresponding record. In addition to validation rules, lookups can also be used to verify data integrity and add error information to records.

Field Profile

A Field Profile is actually a transformation and accumulates field level statistics such as sum, count, average, standard deviation, duplicate and distinct percentages, minimums, maximums, and other information. This information can be mapped and saved to files or databases or passed along to subsequent transformations.

Data Profile

A Data Profile object can be attached to any source, destination, or transformation and records aggregate information to an XML file. This information can be viewed using Centerprise's profile viewer.

Record Level Log

A Record Level Log can be attached to any source, destination, or transformation and stores individual record level error information to an XML file. This log can be viewed using the profile viewer.

Record Level Messages

The Dataflow designer features a Data Quality mode. In this mode, record level error information and individual messages are available for mapping like data values. Users can use this information to build customized error logs and write them to any destination supported by Centerprise.

Workflow Orchestration

Overview

Centerprise Workflows provide job orchestration and control functionality. The Workflow designer is a drag and drop visual component that is used to create job flows. Users can sequence integration jobs such as dataflows and workflows, which can be executed serially or in parallel on multiple servers.
In addition to job execution, built-in actions include SQL execution, outside program execution, send mail, and file system and FTP actions.

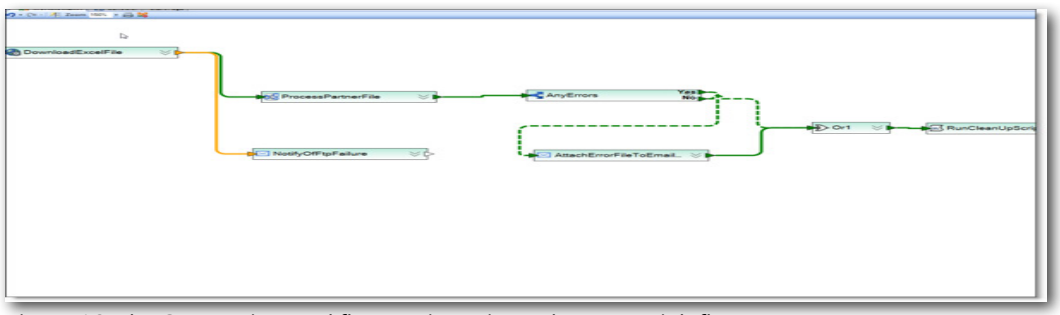

Figure 16. The Centerprise Workflow Designer is used to create job flows.

Run Data and Workflow Jobs

These actions can be used to execute dataflow, workflow, transfer, and batch jobs. These jobs can be executed on the same server or distributed across multiple servers. For workflows and dataflows, job level parameterization enables configuration for database connections, file paths, and other parameters.

Branching and Dependencies

Workflow allows visual creation of job dependencies and branching based on successful completion or abnormal termination of preceding jobs. Additionally, users can define conditional routing using the Decision object.

Iterator Objects

Frequently, there is a need to process a collection of objects in a loop. For instance, users may need to run a job on files in a specific directory or all records within a specific database table. To accomplish this, they can designate a specific source as Iterator and use it to repeatedly execute specific logic.

File System and FTP Actions

These actions can be used to perform standard FTP and file system operations including download, upload, file copy, rename, delete and others.

SQL Execution

These actions execute SQL commands or run a file containing SQL commands. The Run SQL Script task supports parameterization to substitute specific parts of SQL statements.

Program and Batch File Execution

This action is used to invoke outside programs and batch files. The output of these programs and batch files can be redirected to the Centerprise workflow trace. Additionally, users can define a success return code and use it in workflow to determine succeeding actions.

Job Restart and OR Action

Workflow has received several enhancements in Centerprise 6.0. These include the introduction of an OR Action and Start From a Specific Point, as well as Restart After Abnormal Termination. Workflows can now distribute jobs across the server farm.

Figure 17. Job Restart allows a workflow to be started from a specific point.

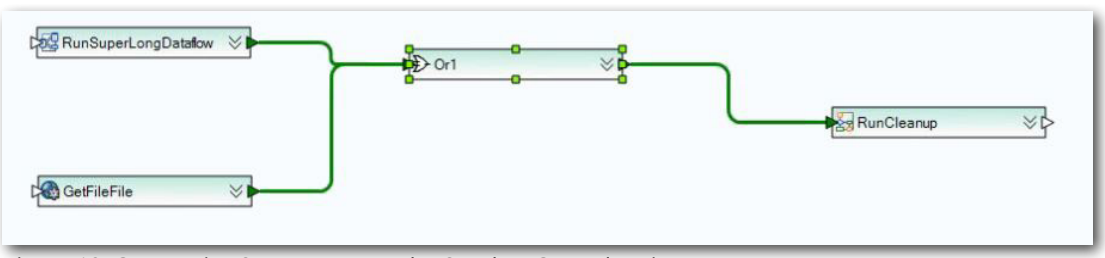

Figure 18. Centerprise 6 now supports the OR Flow Control Action

Job Scheduling and Triggering

Centerprise features a built-in job scheduler that provides the ability to schedule jobs at regular intervals. These intervals can be monthly, weekly, daily, hourly or multiple times an hour. Additionally, jobs can be triggered based on file drops. Jobs can also be triggered using server APIs.

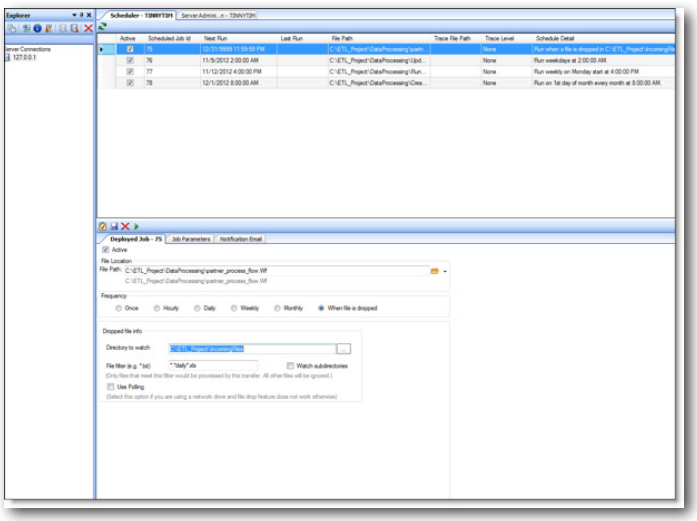

Figure 19. the Centerprise job scheduler provides the ability to schedule jobs at regular intervals.

Job Status Notification

The Centerprise server features email notification for job status. Notification emails can be sent on job start, completion, and abnormal termination. The server maintains metadata about all job execution including trace, error, and profile information. This information can all be sent via email.

Centerprise Integration Server

Unified Server Management

The Centerprise integration server is managed through an innovative unified server management interface that provides a single view of all the servers connected to a repository and shows server load, the health of individual server components, and the server event log.

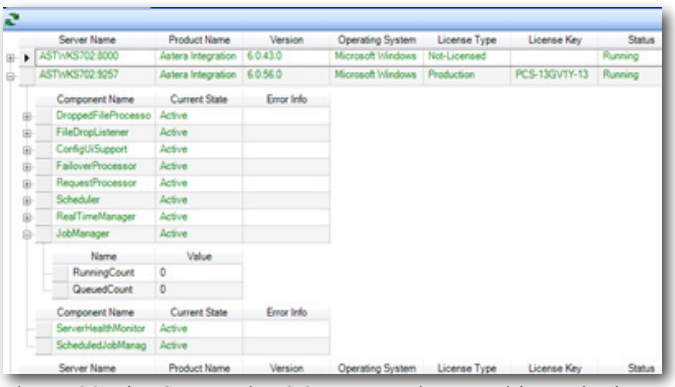

Figure 20. The Centerprise 6 Server Monitor provides a single view of all the servers.

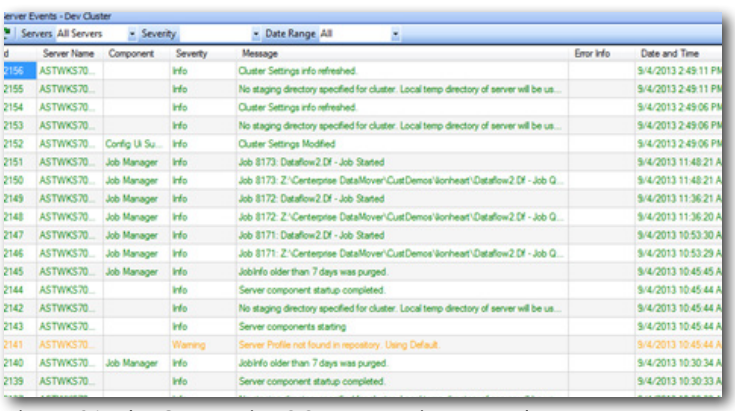

Figure 21. The Centerprise 6 Server Monitor event log.

Scalability

Centerprise enables distribution of workflow components across multiple servers to improve performance and scalability of integration jobs. Improved parallelism and database bulk load optimizations combine to deliver substantial performance improvements in job execution.

High Availability

Centerprise offers high availability capabilities to avoid disruptions to mission-critical business processes due to server or network outages. In the event of an outage, the software automatically reroutes processing to servers unaffected by the outage.

Job Management

The Centerprise job management functionality includes a number of new features, including the addition of job priorities, moving jobs between servers, and more.

Scheduler Blackout Time

The Centerprise scheduler or scheduled jobs can be disabled for specific periods. This is often necessary during regular server backups or maintenance.

Reporting

Lineage and Impact Analysis

Centerprise provides visual lineage and impact analysis that enables users to view the lineage of a data element as well as the impact of any change to that element downstream. Lineage can be seen at table and field levels using simple drag-and-drop functionality. By clicking on any action or element, users can see lineage for that element and all the different sources and transformations used to derive its value. They can also see all the elements that are dependent on that element or action. This visual view of dependencies provides an invaluable tool when building and maintaining complex integration projects.

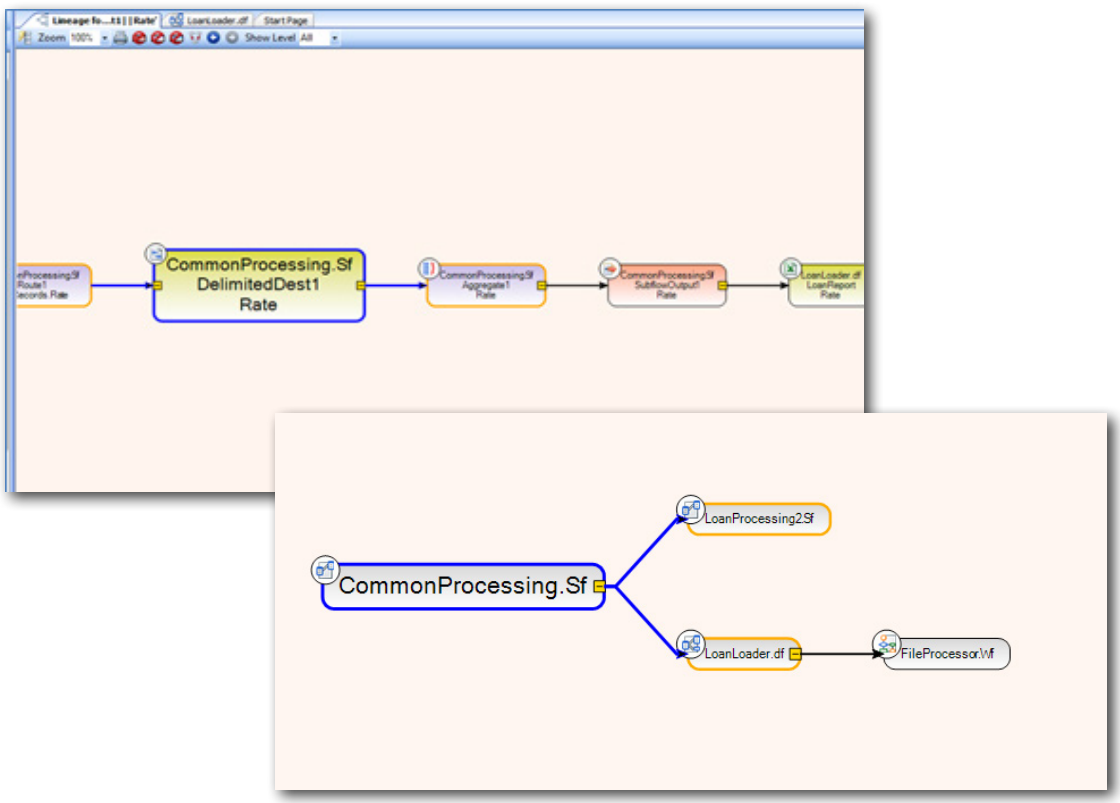

Figure 22. Visual graph showing the lineage of the data element and impact of any change to that element downstream.

Extensibility and APIs

Designed for extensibility and integration into customer and partner products, Centerprise provides APIs covering all aspects of integration and extensibility. Custom objects that can be added include:

- Functions
- Data sources
- Destinations
- Transformations
- Workflow actions

Sample programs and documentation are available to help users in creating custom objects.

Connectivity

Centerprise delivers a wide range of data sources and targets and some of them are listed below:

Databases

- SQL Server
- Oracle
- Sybase
- MySQL
- DB2
- Netezza
- Teradata
- Any data sources ODBC
- Any data sources supporting OLEDB
- File Sources

File Sources

- Fixed length (flat and hierarchical)
- Delimited (flat and hierarchical)
- Excel
- COBOL
- XML
- EDI (X12, HIPPA, EDIFACT, HL7)

Files Destinations

- Fixed length (flat only)
- Delimited (flat and hierarchical)
- Excel
- XML
- EDI (X12, HIPPA, EDIFACT, HL7)

Applications

- Microsoft Dynamics CRM (All deployments)
- Salesforce.com

SOA

- Web Services (REST and SOAP)
- Social Media Platforms
- Message Queue (MSMQ)

Technology

Centerprise is the only major data integration platform designed exclusively for the Microsoft Windows environment. Developed using 100% Microsoft .NET managed code. Centerprise provides enterprise grade performance, scalability, and stability.

The parallel framework introduced in earlier versions has been further enhanced to provide superior performance and scalability and takes full advantage of today's multicore and multiprocessor hardware.

Centerprise is compatible with all versions of windows which support .net 4.0 including Windows XP, Windows Vista, Windows 7, Windows 2008, and Windows 8. For 64-bit Windows platform, Centerprise runs natively in 64-bit mode.

Centerprise Solutions

Data Warehousing

High-performance data warehousing ETL features in a unified, intuitive environment.

CDC

Choose either a batch or real-time change data capture strategy for your particular requirements.

Data Mapping

Transforms advanced mapping, validating, and cleansing tasks into basic drag-and-drop or single-click commands.

ETL

Extract data from any source, transform it to suit your needs, and load it into your database or warehouse.

Data Conversion

Complex doesn't need to be complicated. Visual, code-free parsing, transforming, and loading of data from any source.

Data Integration

A single platform for complex, hierarchical integration the requires no coding.

Data Migration

Unique hierarchical data processing technologies automate and streamline data migration projects.

EDI

Full electronic data interchange functionality combined with Centerprise complex data mapping capabilities.

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Contact us for more information or to request a free trial