



TASK FACTORY | PRODUCT OVERVIEW



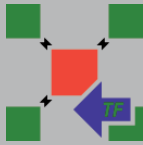


KEY FEATURES

SSIS gives you flexibility and power to manage your simple or complex ETL Projects using native SSIS features. But certain things still cannot be accomplished easily or are impossible to perform without extensive knowledge of programming. Task Factory is a collection of essential, high-performance components and tasks for SSIS that eliminate the need for programming. Using Task Factory can increase productivity and can give you a much higher level of performance.

- Fact Table Destination
- Upsert Destination (Bulk Update/Insert)
- SalesForce Source and Destination
- XML Destination
- Secure FTP Task (Upload/Download/Delete)
- Sharepoint Source and Destination
- Zip Compression Task
- PGP File Encryption Task
- Advanced Email Task (Supports HTML/SMTP and Placeholders)
- Data Validation Transformation
- Email Source (Process emails in DataFlow)
- Address Parse Transform (Validate and Standardize US Mailing Addresses, Detect Quality)
- High performance Dimension Merge SCD Transform (Formally known as KimballSCD)
- Error Description Transformation
- RegX Replace Transformation
- Text Standardization Transformation
- NULL Handling Transformation
- DateFormat Change Transformation
- Batch Delete and Update Transformation
- Replace Unwanted Characters Transformation
- File Properties Task
- Terminator Destination

NEW! FACT TABLE DESTINATION



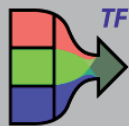
Fact Table Destination can greatly reduce development and run times for SSIS packages with multiple dimension lookups. With Fact Table Destination, developers can now configure the lookups and the mappings to the destination fact table within a single UI. The component uses set-based operations for inserting and updating the dimensions, and eliminates expensive pre-caching of data for dimension lookups. Additionally, users can: choose between insert and update actions for the fact table, configure table join

conditions to dimension tables from their source data, create column aliases for multiple lookups on the same dimension, and define a default value to prevent NULLS from being added. Advanced features like ranged lookups are also supported. Save hours off your fact table load with this component.

Major Benefits:

- » Handles the fact table lookups easily
- » Simpler and faster to configure in SSIS
- » Faster and more scalable
- » Handles ranged lookups

NEW! HASH TRANSFORM



Users can choose from multiple algorithms to easily create hashed values from input columns. Other features include: customizing the order of input, the option to enable padding, adding null replacement character(s), and defining separator character(s).

Major Benefits:

- » Creates a hashed value based on multiple input columns
- » Easier to find changes in a source or destination set of columns

NEW! TIMER TASK



Timer Task can be used to add an absolute or relative delay during SSIS package execution anywhere in the package. The delay can be set for a specific amount of time (days, hours, minutes, seconds) or until a specific point in time is reached.

Major Benefits:

- » Control when your package execution continues when you need to wait for another operation to complete.

NEW! XML OUTPUT DESTINATION



XML Output Destination was created to manage writing large XML files that consume a large amount of input data. The component streams the file to disk, saving on memory usage for large XML documents. The component can be configured by importing an XML Schema (.xsd). Multiple inputs are supported, so that hierarchal XML documents can be output. Parent-child relationships can be configured between inputs, and columns can be mapped to specific XML elements in the output document.

There are also options for Unicode and UTF8 encoding, and whether the component outputs "Pretty" formatting (indentations and line breaks).

Major Benefits:

- » Produces a multi-level XML document using XSD.
- » Streams XML out in chunks, using less memory.
- » Handles multiple inputs for hierarchical data.
- » Organize data into parent and child elements

DYNAMICS CRM DESTINATION



The Dynamics CRM Destination will allow users to Insert, Update, Upsert and Delete data from a Dynamics CRM Server within their SSIS package.

Key Features

- » With this component you will be able to very easily add data from your system into your Dynamic CRM account with very little configuration.
- » The easy to use UI allows mapping of columns from your data to columns in the Dynamic CRM.

DYNAMICS CRM SOURCE



The Dynamics CRM Source will allow users to retrieve data from a Dynamics CRM Server within their SSIS package.

Key Features

- » Easily retrieve the data stored in your Dynamics CRM account with a few simple clicks.
- » Visually edit the Dynamics query.
- » Query can use variables as parameters (e.g. where DateCreate = <@VarDateCreated>).

XML GENERATOR TRANSFORM



The XML Generator gives SSIS developers the ability to map Xml Schemas (XSD's) to columns from one or more source inputs to generate complex Xml documents.

DATA FLOW NUGGET



The Data Flow Nugget Transform brings the ability to setup a single package with business or data rules that can be reused across several packages. When using the Data Flow Nugget Transform you have the ability to change the business rules one time instead of changing the rules in every SSIS package that use the same rules.

Key Features

- » Create reusable dataflow tasks
- » Easily use saved dataflow nuggets across multiple packages to reduce development time

ADVANCED DERIVED COLUMN

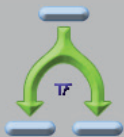


The advanced derived column extends and replaces the native SSIS Derived Column to allow the use of our expanded expression engine and its 180+ functions to create new columns in your dataflow.

Key Features

- » Extended Expression Library allows the user to create new columns based on expressions not available in SSIS.
- » Expression engine supports multi-line expression which allows for more complex derived columns to be created.
- » Unit Tester that comes with the expression editor allows the user to test the derived column expression before running the package.
- » Expression reusability allows the user to define an expression and reuse it in other derived column expressions

ADVANCED CONDITIONAL SPLIT



The Advanced Conditional Split extends and replaces the native SSIS Conditional Split to allow the use of our expanded expression engine and its 180+ functions to create conditional splits in your dataflow.

Key Features

- » Extended Expression Library allows the user to create new conditions based on expressions not available in SSIS.
- » Expression engine supports multi-line expression which allows for more complex conditions to be created.
- » Unit Tester that comes with the expression editor allows the user to test the condition expression before running the package.
- » Expression reusability allows the user to define an expression and reuse it in other derived conditions

ADVANCED AGGREGATOR TRANSFORM



Our advanced aggregator transforms takes aggregation in SSIS to the next level. We extended the based functionality of aggregate functions to allow expression based aggregation and added a few more aggregation functions (First, Last) into the equation. So now you can use something like

SUM(Quantity, UnitPrice > 20) which will only sum the quantity if the price is greater than \$20.

Key Features

- » Advanced aggregate functions allow for conditional inclusion
- » First and Last aggregate functions are available

FILTER ROWS TRANSFORM



Our filter rows transform allows you to filter rows based on an expression. This is similar to a conditional split but now only the rows that match the filter will be sent through to the downflow and the rows that don't match are filtered out.

Key Features

- » Extended Expression Library allows the user to create filter conditions based on expressions not available in SSIS.
- » Expression engine supports multi-line expression which allows for more complex conditions to be created.
- » Unit Tester that comes with the expression editor allows the user to test the condition expression before running the package.
- » Expression reusability allows the user to define an expression and reuse it in other derived conditions
- » Only rows that match the filter are sent through to the down flow



ADVANCED LOOKUP TRANSFORM

Our advanced lookup transform supports all the functionality of the native lookup but allows for easier use of range lookups as well as supporting non-equality lookups without writing a query. One of the biggest features of our expression engine is the use of Disconnected Lookups. With disconnected lookups, you can create a cache and then use that cache across multiple component instances. For instance, you can cache the product table once and then while using an Advanced Conditional Split, lookup the Product Name from the Cache without being connected to the lookup.

Key Features

- » Non equality lookups like greater than and less than can be accomplished without writing a query
- » Disconnected lookups can be used from within any task that is built on our expression engine (advanced derived column, advanced conditional split, etc)
- » Supports both in-memory and SQL CE supported cache stores for more complex and larger data lookups.



EXPRESSION TASK

The expression task allows you to take full advantage of the 180+ functions in our expression engine to set variables, call stand alone functions like CreateFile without any scripting.

Key Features

- » Can set a variable without writing code
- » Has support for replacing placeholders with data created using an expression
- » Can call functions to perform actions like Creating Folders, Sending Emails and Writing files with a single line of code

EXPRESSION ENGINE

The base of the Expression Task, Advanced Derived Column, Advanced Aggregator, Advanced Conditional Split and the Filter Rows transform is our new expression engine. The expression engine brings over 180 functions into SSIS, most of which are not supported in native SSIS without the use of a script task or component. Our new expression engine is the driving force behind the new features like disconnected lookup and the new aggregation functionality.

All of the new expression based tasks are supported by the new Expression Editor which features:

- » **Extended Expression Library**
 - Over 180 functions are now available compared to the 38 native functions available in SSIS (not including CAST functions)
- » **Simplified Expression Syntax**
- » **Multi Line expression Support**
 - No longer do your expressions have to sit on a single line. Now with our expression editor you can have multiline expressions that make it easy to code and easy on the eyes.
- » **Comment Support**
 - Ever forget what an expression does because you can't create comments? Yeah, we have that too. Now you can create comments along with your expression code
- » **Unit Tester for expression**
 - One of the most frustrating things about creating expressions in native SSIS is testing

the the validity of an expression. The usual steps are

- Create the expression
 - Run the package
 - Did the expression work?
 - If not, edit expression
 - If it worked, save package
- Now you can create an expression and test it right in the editor. You will know right away whether the expression will work or not. Plus, you can run the test 1,000,000 times to test the speed of the function with the Total Iterations setting.
- » **Syntax Highlighting and better editor**
 - Creating expressions in SSIS is like writing code in notepad. Now with our advanced editor you have syntax highlighting.
- » **Expression reusability using variables**
 - One of the most unique new features with our expression engine is the ability to define an expression using a variable and reuse it over and over again.
- » **Better debugging and logging support**
 - We have several functions that support debugging like LogBufferRowToFile which will write a row of buffer data to a file and ABORT which will stop the processing of a data flow based on an expression.

DIMENSION MERGE SCD



Key Features:

- » Designed to handle most of the dimension loading scenarios (as per Kimball Method) in few clicks (e.g. Type1 SCD, Type2 SCD, inferred members)
- » Supports very large dimensions (Several millions rows)
- » Up to 10x faster than native Microsoft SCD Component
- » Cleaner and Non-destructive mechanism unlike native Microsoft SCD Component which destroys downstream components when you re-run MS SCD wizard.
- » Inbuilt Surrogate Key management
- » "Special" (unknown) member support, per Kimball Method best practices.
- » Includes a "Row Change Reason" output column on all (except Unchanged) outputs, per Kimball Method best practices.
- » Supports simple and advanced styles of Row Auditing for inserts and updates, per Kimball Method best practices.
- » Flexible SCD 2 "current row" handling - permits specification of the date "endpoints". Comparatively, the only choice with the MS SCD Wizard is to have the "expiry" date be NULL to signify the current record.
- » Flexible SCD 2 date handling - permits specification of what date expired and new rows get marked with. The SCD Wizard leaves that up to a Derived Column component that will get destroyed when the Wizard is run again to adjust other properties.
- » Options to use other data types for the Current Member and Inferred Member columns - not just Boolean types as in the SCD Wizard.
- » Supports "retiring" dimension members that have been deleted from the Source System by marking their "expiry date" with a real date.

SALESFORCE.COM SOURCE



Key Features:

- » Easily retrieve the data stored in your salesforce.com account with a few simple clicks.
- » SOQL (SalesForce query language) can be edited in the UI
- » Query can use variables as parameters (e.g. where DateCreate = <@VarDateCreated>)
- » *Must have an enterprise salesforce.com account to use this task. This is a salesforce.com requirement.

SALESFORCE.COM DESTINATION



Key Features:

- » With this component you will be able to very easily add data from your system into your salesforce.com account with very little configuration.
- » The easy to use UI allows mapping of columns from your data to columns in the salesforce.com
- » *Must have an enterprise salesforce.com account to use this task. This is a salesforce.com requirement.

SHAREPOINT SOURCE



The SSIS Sharepoint Source brings the functionality of consuming data from a Sharepoint Service to SSIS. With an integrated Sharepoint CAML Builder the SSIS Sharepoint Source Adapter in Task Factory is the quickest and easiest way to retrieve data from Sharepoint List.

Key Features:

- » Easily retrieves sharepoint list and view data stored on a sharepoint server
- » Can use windows or password authentication
- » Optional integrated query builder builds CAML queries quickly and easily
- » Preview window displays the data that will be retrieved during execution
- » Connections support proxy servers

SHAREPOINT DESTINATION



The Sharepoint List Destination Adapter allows users to quickly connect to their SSIS packages to sharepoint servers to send data to lists.

Key Features:

- » Easily sends data to a sharepoint list from an SSIS package

- » Can use windows or password authentication
- » Easy to use column mapper makes it easy to see what data will be sent to the sharepoint list
- » Connections support proxy servers

Supports Inserts, Updates or Deletes

XML DESTINATION (V2.0)



The XML Destination allows the user to export the data to an XML File.

Key Features:

- » The name of the column can be customized to output any name needed instead of the column name from the source
- » Column data can be exported as an attribute, element, element with CDATA or Element with XML Data
- » Null data can be handled by exporting an empty xml element / attribute, ignoring the attribute / element or replacing the null data with a custom value.

- » The order in which the column data is exported can be fully customized.

Formatting options:

- » Encoding options are UTF-8, UTF-16, UTF-32 or Ascii
- » The xml header can be included or left out of the xml file
- » Data can be exported on one single line or formatted with a newline after each row, indenting each row and element, adding a newline after each attribute

A preview of the exported file is viewable from the UI

UPSERT DESTINATION (BATCH UPDATE OR INSERT)



Helps synchronize two systems no matter the source or destination. Many companies struggle with the development of loading procedures that determine whether the row is new or to be updated. The Upsert Destination reads the rows coming into the data flow and detects if the row should be inserted or updated. This saves the developer a long development cycle and could save up to 90% on each execution of a package.

Key Features:

- » Conditionally inserts or updates data into a table. Inserts are performed using bulk insert which is significantly faster compared to row-by-row approach. There are four methods in which data can be updated giving the user a great amount of control on whether data should be updated or not.

BULK UPDATE - Updates will be performed in the fastest amount of time because no data compare is performed. This is by far the fastest way to perform updates

COLUMN COMPARE - Updates will only be performed based on what columns the

user selects to compare. If the data in the selected columns does not match, the update will be performed. Otherwise it will be ignored.

DATETIME COMPARE - Updates will only be performed based on a datetime column being compared from the source to a column in the destination.

TIMESTAMP COMPARE - Updates will only be performed based on a timestamp column being compared from the source to a column in the destination.

- » Currently supports SQL 2005 and SQL 2008 as destination
- » Easy to use User Interface

Data Load test (2.5 Million Rows)



SECURE FTP TASK



Brings encrypted security to FTP within SSIS. Many companies transmit files using FTP as a transmission method for highly sensitive files. The Task Factory Secure FTP Task will allow you to transmit files over most common secure channels to your partners safely.

Key Features:

- » Used to interact with a secure ftp site

- » Supports SSH, Implicit SFTP and Explicit SFTP
- » Supports HTTP, SOCKS4, SOCKS4a and SOCKS5 proxies
- » Supports all actions provided by native FTP task
- » Easy to use User Interface

COMPRESSION TASK (ZIP OR UNZIP)

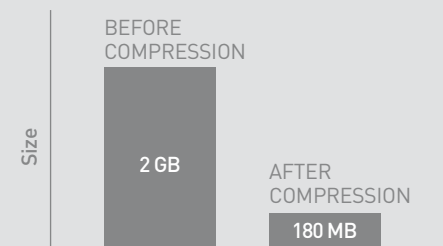


Compresses or decompresses a file or directory. Many companies struggle with transmitting files larger than 1 GB. Our Compression Task will compress files within SSIS by up to 90%, allowing greater speed and less network space.

Key Features:

- » Used to compress and decompress files and directories
- » Supports the use of Zip, Bz2, and GZip compression algorithms
- » Supports creating a self-extracting EXE
- » Supports password protected zip files
- » Easy to use User Interface

Compression test (File Size: 2 GB)



PGP ENCRYPTION TASK



The PGP Task brings easy to use pgp encryption, decryption, file signing and verification to SSIS that is based on OpenPGP technology.

Key Features:

- » **FILE ENCRYPTION** - The PGP Task can encrypt a file that can be sent securely increasing the security available around transporting files through FTP and Email.
- » **FILE DECRYPTION** - The PGP Task can be used to decrypt a file sent to your system.

- » **FILE SIGNING** - The PGP Task can sign a file to allow an end user / system to be able to verify the file being sent was actually created your system.
- » **FILE VERIFICATION** - The PGP Task can verify the signature of a file sent to your system from a client. This will allow you to verify the file actually was created by the client and not hacked by something else and sent to your system.

ADDRESS PARSE TRANSFORM



Key Features:

Used to parse unformatted address data into USPS standardized address data.

EMAIL SOURCE



Key Features:

- » Reads email from a mailbox into a data flow
- » Supports IMAP/POP3
- » Support most email providers (including GMAIL)
- » There is full support for filtering messages based on sender, message to, subject, date received, body and priority.

DATA VALIDATION TRANSFORM



Acts as a gatekeeper for your data. Many companies receive questionable data from various sources, causing a myriad of production problems and inconsistent reporting. The Data Validation Transform verifies that your data is clean prior to insertion. Rows that are suspicious are flagged for later removal or additional business rules.

Key Features:

- » Validates data from a source with the use of regular expressions
- » Validates Email, Phone number, SSN and many other patterns
- » Regular expression editor included as part of the UI
- » Outputs the results of the data check in each row of the transform output.
- » Easy to use User Interface

FILE PROPERTIES TASK



Reads the properties of any file and stores property in variable. Many companies receive large data files from outside their organizations and run the risk of loading the file prematurely during transmission causing an SSIS failure. Our File Properties Task gives you the power to eliminate this problem by determining if the file is in use or transmitted before loading. The File Properties Task additionally saves drive

space by identifying old files ready for archive.

Key Features:

- » Used to read the properties of an existing file.
- » Will read the properties like File Exists, File Size, File Name, File Content, Creation Time, Is File In Use, Hidden, ReadOnly and assign them to SSIS package level variables
- » Easy to use User Interface

SURROGATE KEY TRANSFORM



Key Features:

- » Adds an identifier column to a data flow used to uniquely identify a row. This is useful if your data source does not contain an identifier or you simply want to add a row counter to your data flow.
- » Allows the use of a variable to determine seed and increment

DELETE BATCH TRANSFORM



Key Features:

- » The delete batch transform allows you to easily delete data in a table without writing any SQL statements and then continue on with the other tasks in the data flow.

UPDATE BATCH TRANSFORM



Key Features:

- » The update batch transform allows you to easily update data in a table without writing any SQL statements and then continue on with the other tasks in the data flow.

ADVANCED EMAIL AND SMS TASK



Key Features:

- » Sends emails from within an SSIS package through SMTP
- » Inbuilt HTML editor for HTML email
- » Supports sending SMS messages
- » Template based email (template can be external file, variable, or direct input)
- » Allows use of User/System Variables as placeholders in the email body so variables can be automatically replaced when email is sent.

TERMINATOR DESTINATION



Key Features:

- » This free component allows you to quickly add a destination to your package without any configuration.
- » This is useful when developing your ssis packages and want to quickly add a destination without having to configure a flat file destination or any other destination that will eventually be deleted.

DATA CLEANSING TRANSFORM



Key Features:

- » Used to cleanse data from a source by applying cleansing rules to the data.
- » The Data Cleansing task has 16 built in algorithms that allow you to clean data without any programming or SQL updates.

REPLACE UNWANTED CHARACTERS TASK (V2.0)



The replace unwanted characters transform allows the user to remove unwanted characters or words from source data

Key Features:

- » Two options available to be used to replace unwanted characters

- » Predefined set of characters (alpha, numeric, alpha numeric)
- » Custom characters or words to be removed
- » The replaced data can be outputted to the same column in the transform or a new output column.

NULL HANDLER TRANSFORM (V2.0)



The null handler transform allows the user to replace null or blank values from their source data with a user defined value (e.g. replace null with empty string or vice versa)

Key Features:

- » Three actions available to handle null or blanks values

1. Convert NULL value to user defined value
 2. Convert blank value to NULL
 3. Convert blank value to user defined value
- » Output replaced data to the same column in the transform or to a new output column.

REGEX REPLACE TRANSFORM (V2.0)



The regex replace transform allows the user to define a regular expression to either replace (with user defined value) or extract data from a source column

Key Features:

- » There are two actions that can be used with this transform.
- » The first action is to replace regex matched data with a user defined value. This option allows for the use of capture groups to be part of the replace value. For instance if the regular expression was for a phone number it would look like something like “(\\d{3})[-\\]\\s]?\\d{3}[-\\]\\s]?\\d{4}”. There

are three capture groups in that regular expression and you could use \$1, \$2, \$3 to extract the area code, prefix and line number.

- » The second action allows the user to define a regular expression to extract data from the source column. There are several options when using this action including extracting capture groups, separating multiple values by a delimiter and providing a “no match” value.
- » The replaced data can be outputted to the same column in the transform or a new output column.

ERROR OUTPUT DESCRIPTION TRANSFORM (V2.0)



The error output description allows the user to connect error outputs to it from sources and transforms and get descriptions on why the particular row failed. Normally the user is unable to see the data that caused a failure but with the error output description the user can see not only the exact error but the row data that caused the error.

TRIM PLUS TRANSFORM (V2.0)



The TrimPlus transforms provides a way for users to trim either whitespace or user defined characters from the beginning and end of source columns

Key Features:

There are 6 actions provided to trim characters

- » Whitespace trim actions – Trims whitespace from column data
 - Trim all trailing and leading whitespace characters
- » Specified character trim actions – Allows the user to defined the character(s) to be trimmed from the source column data
 - Trim all trailing whitespace characters
 - Trim all leading whitespace characters
 - Trim specified characters from start and end
 - Trim specified characters from start
 - Trim specified characters from end

CASE TRANSFORM (V2.0)



The Case Transforms provided a way to properly case, upper case or lowercase all the text in a source column

There is a single action which is “Convert string to Proper case” but there are many styles in which the data can be properly cased data.

The styles are:

Key Features:

- » **SIMPLEPROPERCASE** – Capitalize the First Letter of Each Word (reference file is not used so its very fast but no symbol/word replacement is performed like other styles)
 - Text_In : the cOw jumped Over the MOON
 - Text_Out: The Cow Jumped Over The Moon
- » **NAME** – Standardize Prefixes & Suffixes
 - Text_In : MR / MRS JOHN VAN DER CAMP PHD
 - Text_Out: Mr and Mrs John Van der Camp, Ph. D.
- » **ADDRESS** –Eliminate Conflict Between Street Suffix & City / State / Zip
 - Text_In : 1234 SE 41ST CT APT 26E (CT is also the abbreviation for Connecticut)
 - Text_Out: 1234 SE 41st Ct, Apt. 26E
- » **CSZ (CITY STATE ZIP)** – Avoid Confusion Between “Company” & “Colorado”
 - » Text_In : PINE, CO 80470
 - » Text_Out: Pine, CO 80470
- » **TITLE** – Capitalize the First Letter of Each Word, Convert Symbols
 - Text_In : (c) PRAGMATICWORKS, INCORPORATED
 - Text_Out: © Pragmatic Works, Inc
- » **SENTENCE** – Capitalize the First Letter of Each Sentence
 - Text_In : TASKFACTORY(tm) IS A TRADEMARK OF PRAGMATICWORKS INC.
 - Text_Out: TaskFactory™ is a trademark of Pragmatic Works Inc.
- » **UPPERCASE** – Capitalize each letter in the column data
 - Text_In : hi, this is task factory.
 - Text_Out: HI, THIS IS TASK FACTORY.
- » **LOWERCASE** – Lowercase each letter in the column data
 - Text_In : Hi, This is Task Tactory
 - Text_Out: hi, this is task factory.



400 College Dr., Suite 216

Middleburg, FL 32068

(904) 638-5743

support@pragmaticworks.com

sales@pragmaticworks.com

www.pragmaticworks.com

