# FS.WSCommService™

The *Factory Systems Network Parser Interface*

# User's Manual

For FS.WSCommService 1.10.1.X

*Version 1.10.1.27*

© 2018 Symbrium, Inc. All rights reserved.

# Contents


Introduction ..... 3

Terminology and Data Schema ..... 3

Plant-level Tags ..... 3

Workstation-level Tags ..... 3

Data Point-level Tags ..... 4

System Requirements ..... 5

Minimum Server Requirements ..... 5

Minimum Client Requirements ..... 5

Creating New Parser ..... 6

Add Parser ..... 6

Import Parser ..... 6

Export Parser ..... 6

Editing Parser ..... 7

Details ..... 7

Defaults ..... 8

Datapoints ..... 9

Variable Data ..... 10

Event ..... 11

Other Features ..... 12

Message Log ..... 12

Regex Tester ..... 12

Contact Information ..... 14

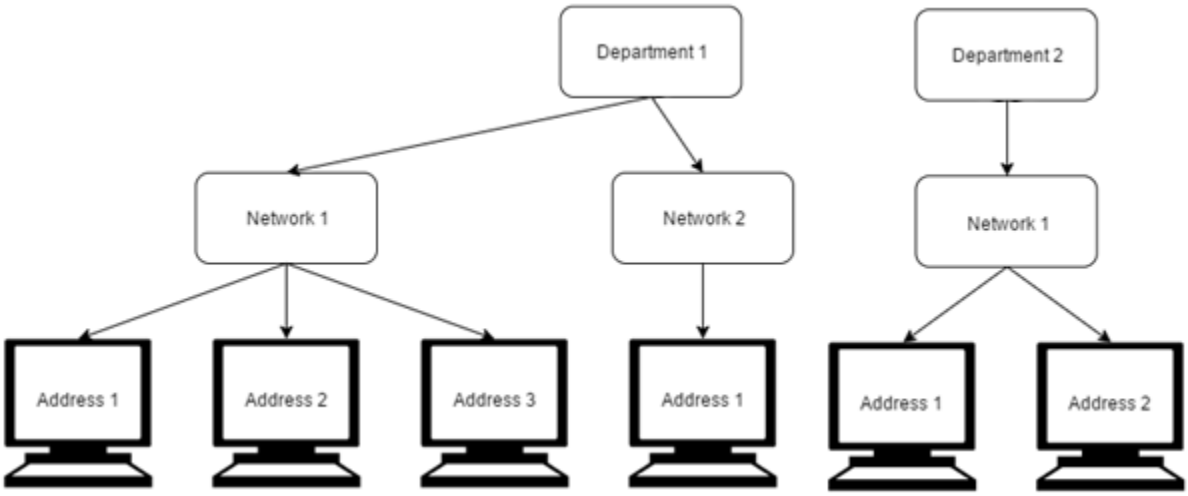
# Introduction

## Terminology and Data Schema

The Factory Systems Software Suite (***FSWorks***™, ***FS.Net***™, and related products) classifies your data using a hierarchical set of tags. These tags then allow you to sort large amounts of data into meaningful groups at multiple levels.

### Plant-level Tags

Our most general categorization comes at the Plant level. At this level, the tag hierarchy looks like the following:




A Plant can have any number of DEPARTMENTS. Each Department can contain up to 99 NETWORKS, which each can contain up to 99 individual ADDRESSES.

A Department, Network, and Address then uniquely identify a WORKSTATION—the data collection point for one or more Machines on the Plant floor.

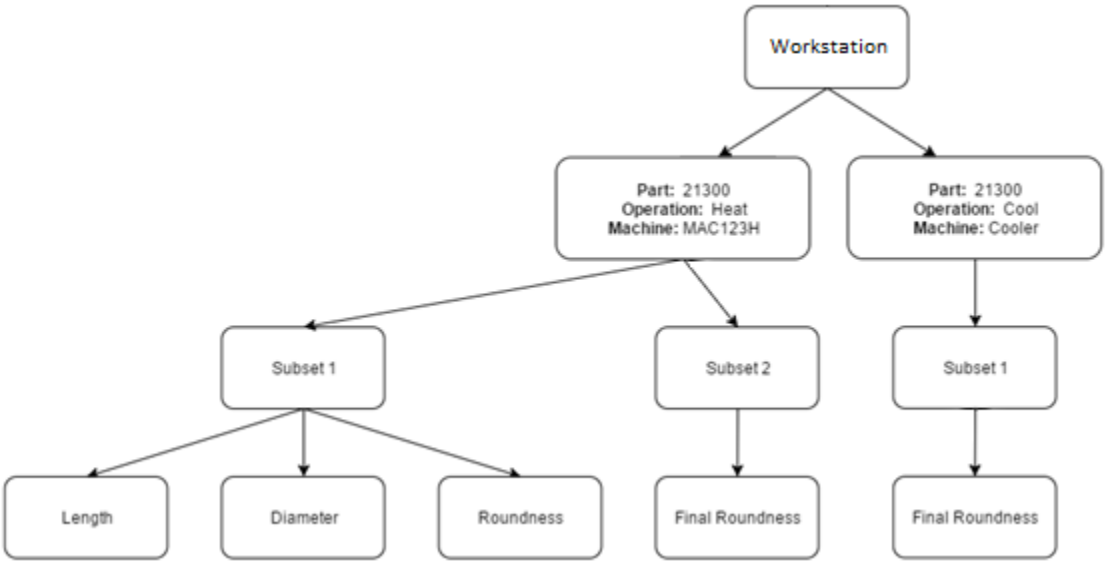
### Workstation-level Tags

At each Workstation, you must define Specifications (SPECS) for the data that will be collected by that Workstation. Each Spec is identified by a PART, OPERATION, and MACHINE—a combination of tags that we call a POM GROUP (or simply POM).

NOTE: While the labels “Part”, “Operation”, and “Machine” are fixed, you are also allowed to defined custom labels called “Categories” which can group data in ways uniquely tailored to your situation.

A POM Group contains one or more SUBSETS, which are used to group FEATURES. A Feature represents the kind of measurement that was taken. Often, data is grouped by Feature in addition to the standard Part, Operation, and Machine. In those cases, we refer to the group as a POMF.

An example of the Workstation hierarchy can be seen below:




## Data Point-level Tags

Individual data points receive the following tags by default:

- Date/Time
- Subgroup #
- Subgroup Index

Additionally, you can add custom tags called EVENTS to your data to create custom classifications.

# System Requirements

## Minimum Server Requirements

- Windows XP Pro, Windows Server 2000/2003/2008/2012 (recommend 3 cals)
- Microsoft Internet Information Services (IIS)
- .NET Framework 4.0
- Microsoft Message Queues
- 2.0 gigabytes of RAM
- 500 megabytes of free hard drive space (to install the application)

NOTE: The server must be accessible to all users who want to view the ***FS.Net*** application. Additionally, the server must be able to access a database dedicated to Factory Systems products (database software not included) for data storage and retrieval.

## Minimum Client Requirements

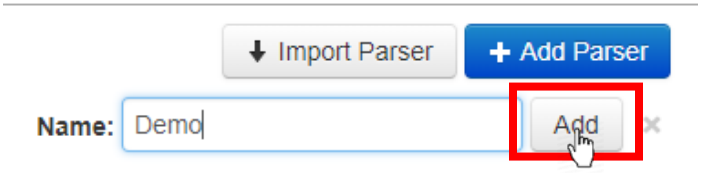
- Any modern browser (Chrome, Firefox, Safari, etc.), or Internet Explorer 8.
    - If you are using Internet explorer, make sure you turn off *Compatibility View*. Press the ALT key, then select TOOLS > COMPATIBILITY VIEW SETTINGS and make sure *Display intranet sites in Compatibility View* is not checked.

NOTE: Some ***FS.Net*** Modules may require version 9 or above for Internet Explorer users. See the "Modules" section for individual details.

# Creating New Parser

## Add Parser

New parsers can be made by clicking on the +Add Parser button on the upper right corner of the screen.

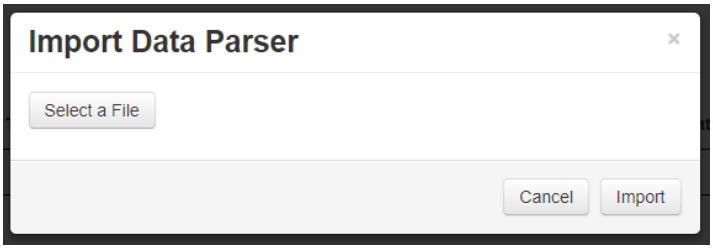



Fill in the new parser name and click Add.

## Import Parser

You can also import a parser from a JSON file.

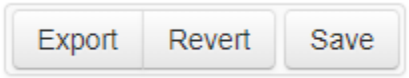
To import a parser, click on the Import Parser button on the upper right corner of the screen.



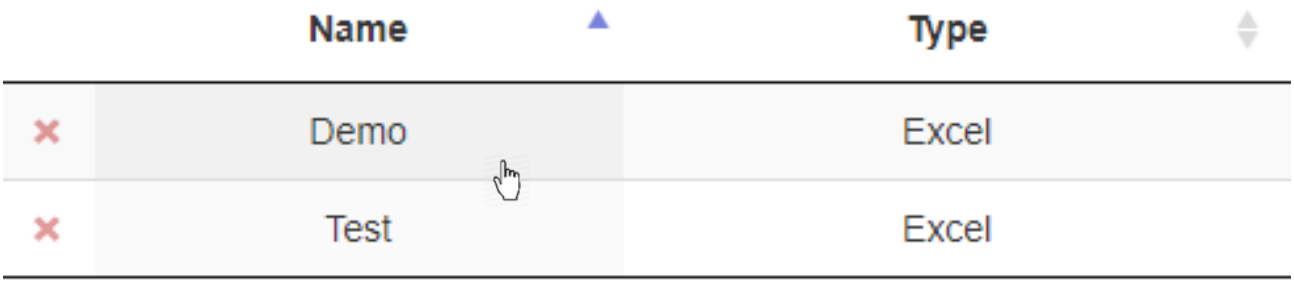

Select a JSON file and click Import to add the parser

## Export Parser

Once selected, a parser can be exported to a JSON file to be imported elsewhere.

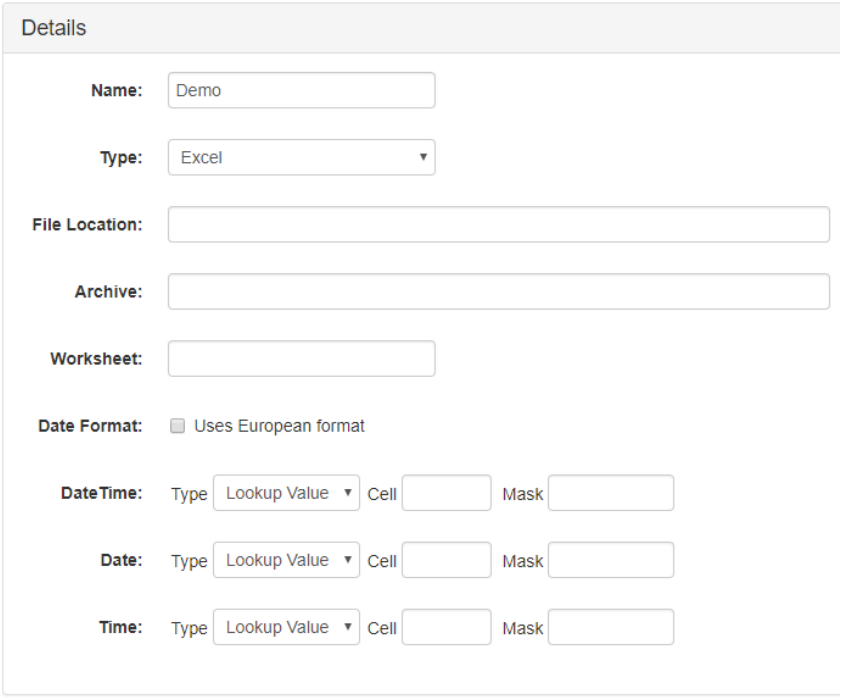


# Editing Parser



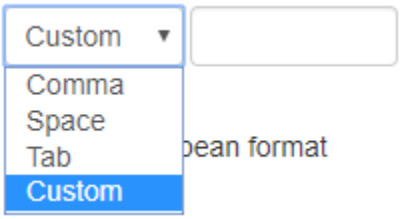

Select the parser that needs to be configured by clicking on the row the parser is on.

## Details




- NAME: The name of the parser
- Type: The file being read can be an excel file or a csv file.
- File Location: The location where the parser would look for the file would be read.
- Archive: The location where the file would go after it has been parsed. If this is left blank, the file will be deleted after it has been parsed.

- Worksheet (For Excel Files): (Optional) Which worksheet the data would be taken from if there are multiple worksheets.  This can be the worksheet index or its name.
- Delimiter (For CSV Files): Select the character that would separate the text in the file.
- Date Format: If selected, the DD/MM/YYYY format for the date the data will be used instead of the default MM/DD/YYYY.



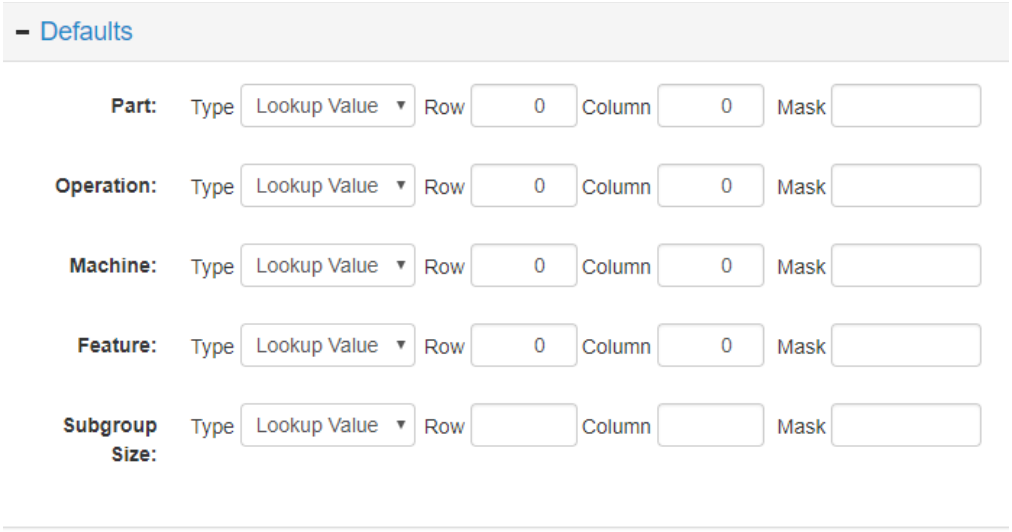

- DateTime: The cell where both date and time exist.
- Date: The cell where only the date exists.
- Time: The cell where only the time exists.

NOTE: You can use only DateTime or Date and Time. If no time data exist, the time would be the time the data is parsed.

## Defaults

This section is optional. The values assigned here are for the POMF and can be applied to all the datapoints. The type of value can be a Lookup Value, Static Value, and File Name.

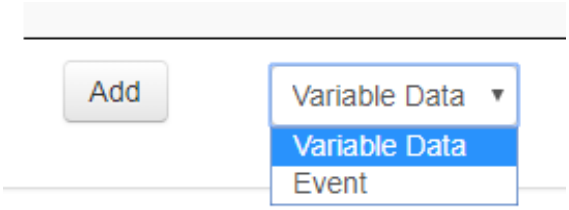
- Lookup Value: Assign a cell for the parser to look value.
- Static Value: Assign a value manually.
- File Name: Assign the file name as the value.




A mask can be set to Lookup Value Cells. The mask takes a regex input to select the portion of the cell you want.

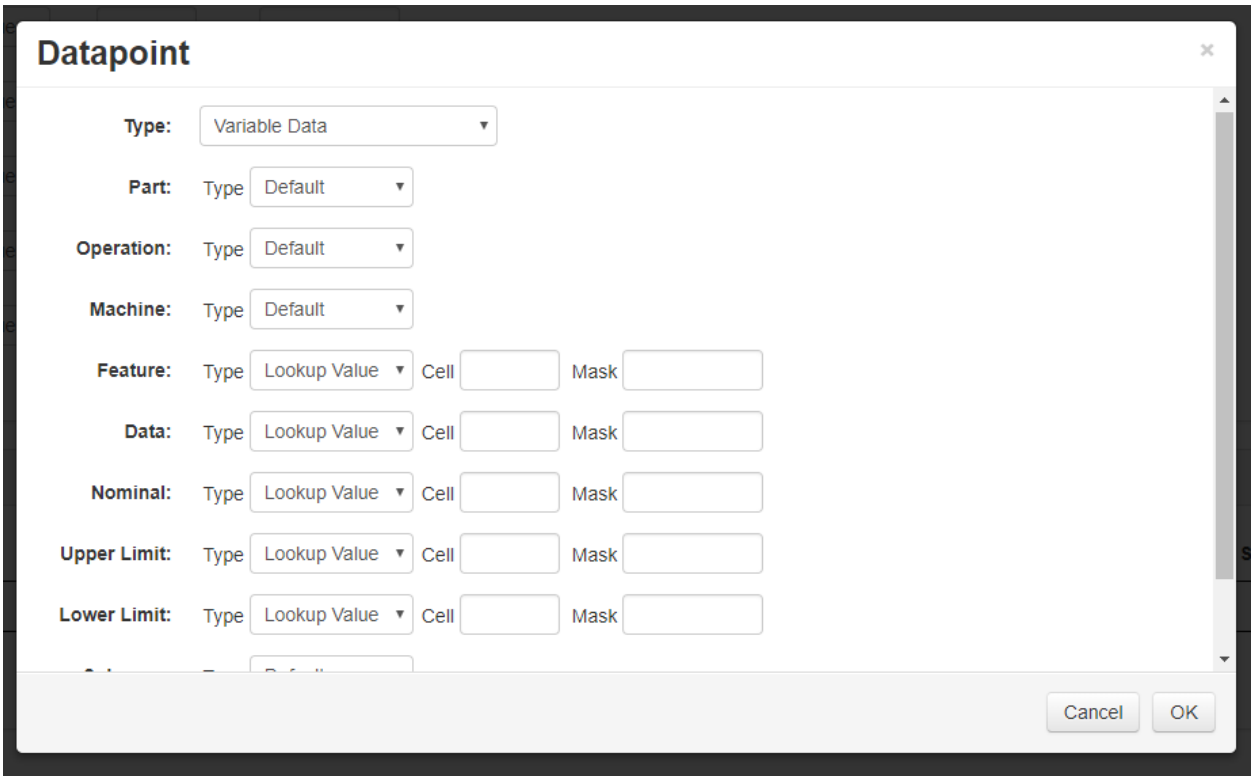
## Datapoints

The data parsed can be a Variable Data or Event. Select the type of data being parsed from the drop-down menu by the Add button.




Add a data point by clicking on the Add button.

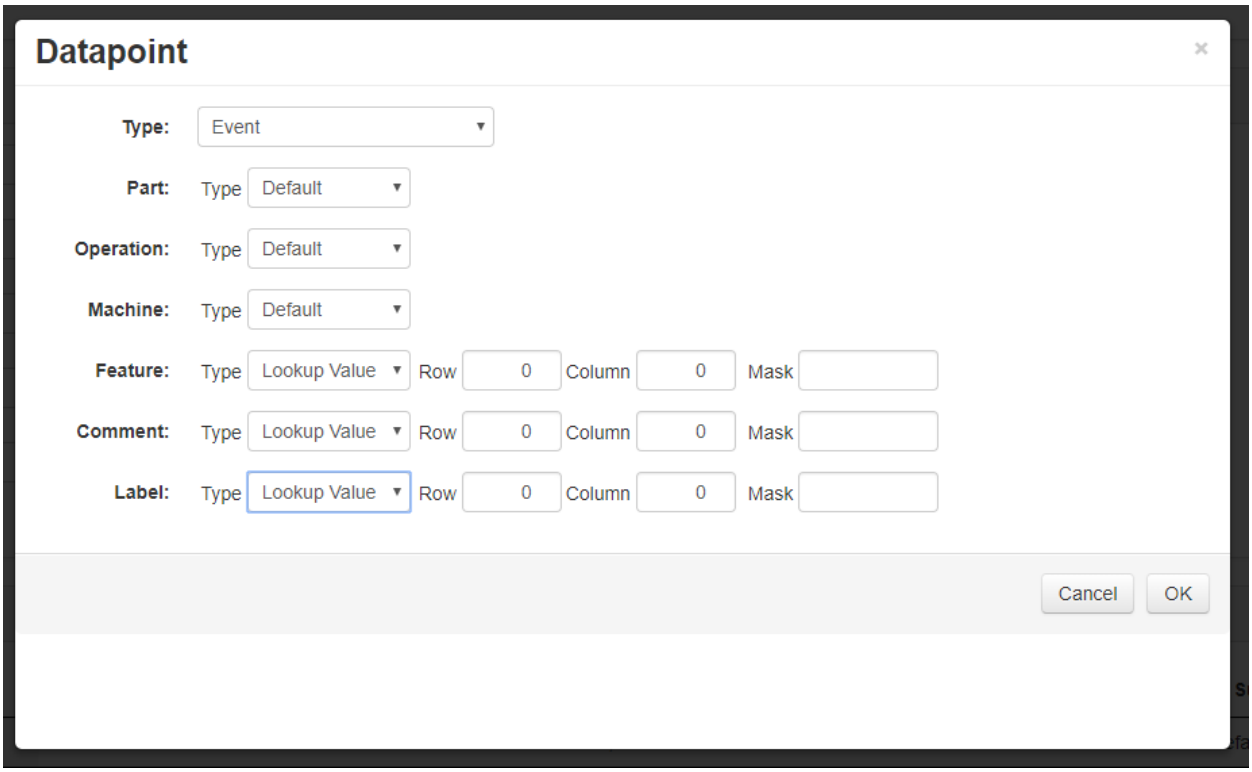
## Variable Data




The type of value can be assigned as Lookup Value, Static Value, or File Name. Parts, Operation, Machine, Feature, and Subgroup Size can also be assigned the Default value which was assigned in the default section.

NOTE: The cells can also be applied with a mask in regex.

## Event




The setup is the same with Variable Data. The type can be assigned as Lookup Value, Static Value, or File Name. The Feature field of Event Datapoints can also be assigned the value type of All.

- All: This Event will be collected once for each of the other Variable Datapoint's POMF. This allows there to be X Variable Datapoints that all get tagged with an Event (like "Serial Number") without having to also create X Event Datapoints.

Parts, Operation, Machine, Feature, and Subgroup Size can also be assigned the Default value which was assigned in the default section.

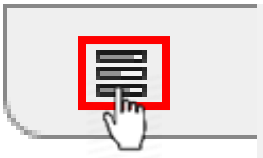
NOTE: The cells can also be applied with a mask in regex.

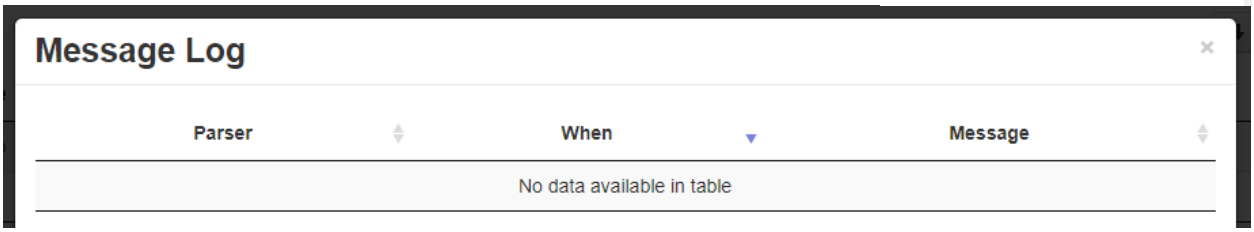
# Other Features

## Message Log

The Message Log will display events and errors that occurs in the parser.

To view the log, click on the icon on the upper right corner.





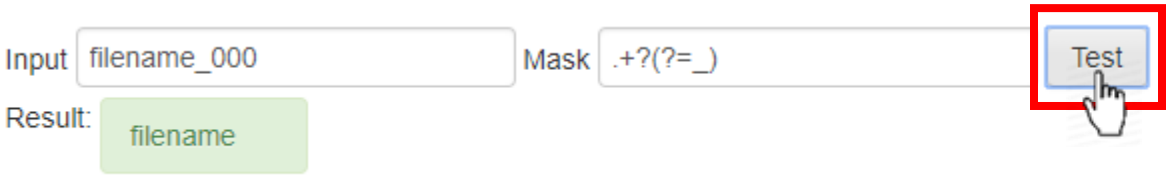

The log will display when an action took place and what the action was with which parser.

Any error messages will also be displayed here

## Regex Tester

This can be used to test regexes that can be applied to masks to see the result of the mask.

The Regex Tester can be found at the bottom of the message log.




- Input: The value the parser would receive from the data file.
- Mask: The regex that would be applied on the input.
- Result: The value that would be parsed using the mask.

Click on Test to apply the Mask on the Input.

# Contact Information

If you have any questions about features not covered in this manual, or want clarification on any topic, don't hesitate to contact us at support@factorysystems.net, or visit www.factorysystems.net.