Fraser Stream Desktop
Output your text reports directly into Excel, PDF or HTML

INTRODUCTION

Fraser Stream Desktop enables Windows-based desktop PC users to output their ERP (or Legacy system) text reports directly into CSV (Microsoft Excel) format. Simply run the report and watch as Excel opens automatically with your newly converted data, ready for sorting and further analysis.

Fraser Stream Desktop (FSD) is a powerful extension of Fraser Stream Integration. FSD utilizes Fraser Stream Integration's data mapping and transformation engine. With FSD the user can output text reports directly into CSV, PDF, HTML, or XML (with style sheet) format.

FSD runs on each user's computer. It works in conjunction with Fraser Stream Integration and Fraser Stream Scheduler. Here is how it works:
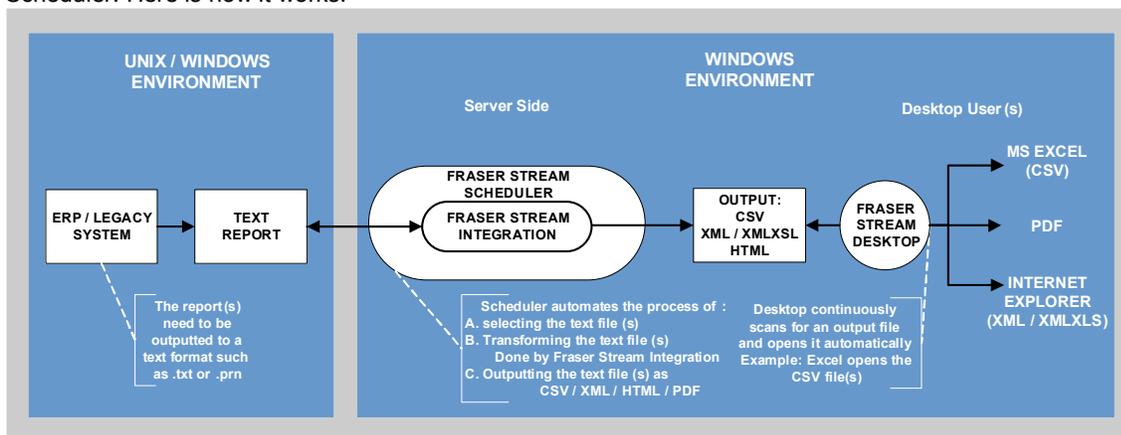
Fraser Stream Desktop relies on Fraser Stream Scheduler and Integration to Extract, Transform, then Output the file to a user's destination folder. This process occurs at the server level. FSS and FSI can support multiple users transforming thousands of reports daily if necessary.
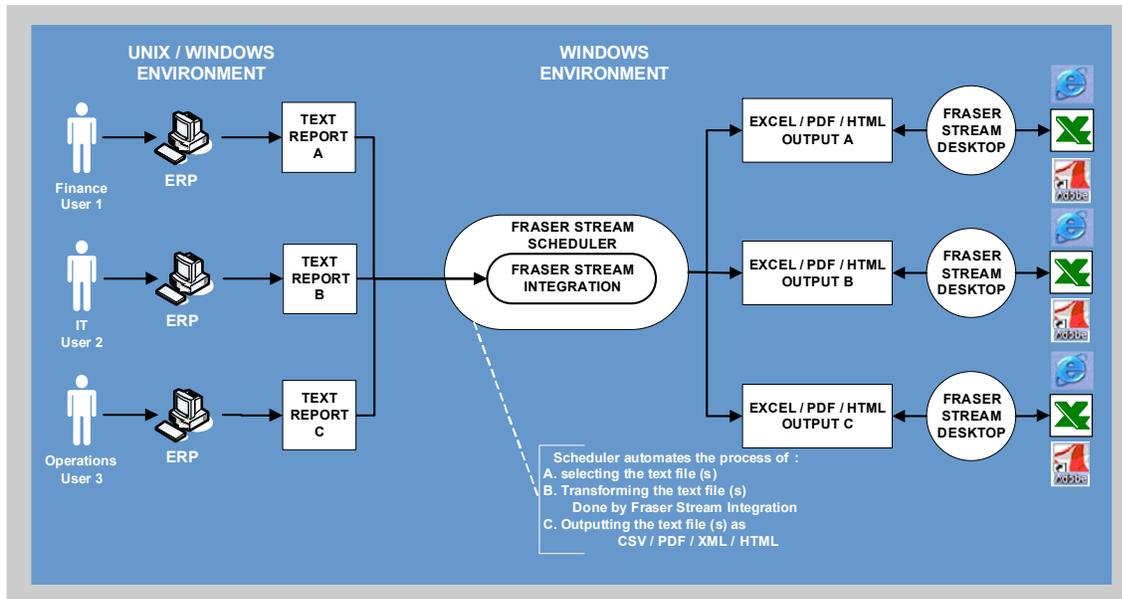
Configuring Fraser Stream Desktop requires **four** key steps.

1. **Creating Transformation Settings with Fraser Stream Integration**

   Transformation Settings instruct the software how to read a text file. The settings identify key elements about the file being processed such as:

   a. Title
   b. Headers fields
   c. Detail fields
   d. Field widths
   e. Instructions on how to read line breaks
   f. Footers
   g. Footer details
   h. Which fields to include / Which fields to skip

   Since a single type of text report always follows the same fundamental structure, transformation settings need only be created once for each distinct type of report. For example, a Summary Purchase Order report will always follow the same structure regardless of the contents, the report may be run for a single month, or a single year, the contents will vary, however the structure of the report will remain the same.

   Conversely, a Detail Purchase Order Report will differ in structure from the Summary Purchase Order Report and will therefore require a whole new set of transformation settings.

   By only creating transformation settings, one could manually use Fraser Stream Integration to transform a text output file into a CSV, PDF, XML, or HTML file. The next step would be manually open this file with the appropriate application ie. Excel for CSV, Internet Explorer for HTML, Adobe for PDF etc…

2. **Creating Batch Transformation Files with Fraser Stream Integration**

   Batch Transformation files instruct Fraser Stream to use a set of predefined transformation settings and to automate the process of selecting, transforming, and outputting those files to select folder(s). The Batch files define:

   a. The folder in which to find the input text file(s)
   b. The transformation settings to use
   c. How to name the output file

d. Where to place the output file
e. Whether or not to archive old files
f. Into what format to transform the file ie. csv, xml, xmlxsl, dataset, html

Each batch file is limited to a **single**:

a. source folder
b. transformation setting
c. destination folder

However, as many batch files as necessary may be created.

For example, if I have three different employees that need to convert 3 completely different reports, ie. a Purchase Order Report, a Sales Order Report, and an Inventory Reconciliation Report, I will need three distinct batch files. These three batch files can be automated to run at the same time and to deposit the Excel output files to three completely different folders on the network for the employees to access. The process of automating these batch files is covered in step 3.

3. **Scheduling the Batch Transformation files to run with Fraser Stream Scheduler**

As mentioned, the Batch Transformation file relies on a source text file that contains the data needed for transformation to Excel. The Batch File specifies the location of this file. When a user runs a report, he or she can specify whether to view the report on screen, print the report, or output the report to text format. In the case of the latter, this file is outputted to a specific folder.

Within the Batch Transformation file, the source folder is specified, the transformation settings are specified including what output format to convert the file to, as well as where to deposit the newly transformed file. This entire process can be scheduled to run at any given interval, every hour or every 5 seconds.

With Fraser Stream Scheduler, the user can specify how often to scan the source folder for the text file(s). If a file is found that meets the criteria of the transformation settings, it will be processed. If no file is found, nothing happens. Scheduler continuously scans the source or input folder for the text file(s).

Once the Scheduler has been turned on and a scan interval has been specified, the process is nearly complete.

a. Transformation settings have been defined, instructing Fraser Stream Integration how to read the text file
b. Batch Transformation file(s) have been created instructing Fraser Stream where to find the text file, which settings to apply, and where to deposit the transformed file. The output folder may in this case be an individual's file folder on their personal PC
c. Scheduler has been activated to scan the input folder for any new text files automatically. If the interval is set to 1 second, each time a text report is generated to the source folder, it will be picked up and automatically transformed, then deposited to the destination or output folder.

All that remains is for the file to automatically open on the users PC. The CSV file may already be sitting in a folder somewhere on the PC, but there is no command to open the file.

4. **Scheduling Fraser Stream Desktop**

Fraser Stream Desktop runs on the users PC and once activated, scans a specified folder on the PC for newly deposited files. The user need only specify which folder to scan and at what interval. Once a file is found, depending on the extension, ie. .xml, .csv, etc…the file will be opened by either Internet Explorer or Excel.

The entire process from start to finish of running the report in the ERP or Legacy system, outputting the contents to a text file, having Fraser Stream Integration process the file, deposit it to the user's folder and have the file opened by Fraser Stream Desktop takes a matter of seconds. For a small file it may take one or two seconds from start to finish.

Once the software is installed, configuring all four of the aforementioned steps takes very little time and little or no technical knowledge.
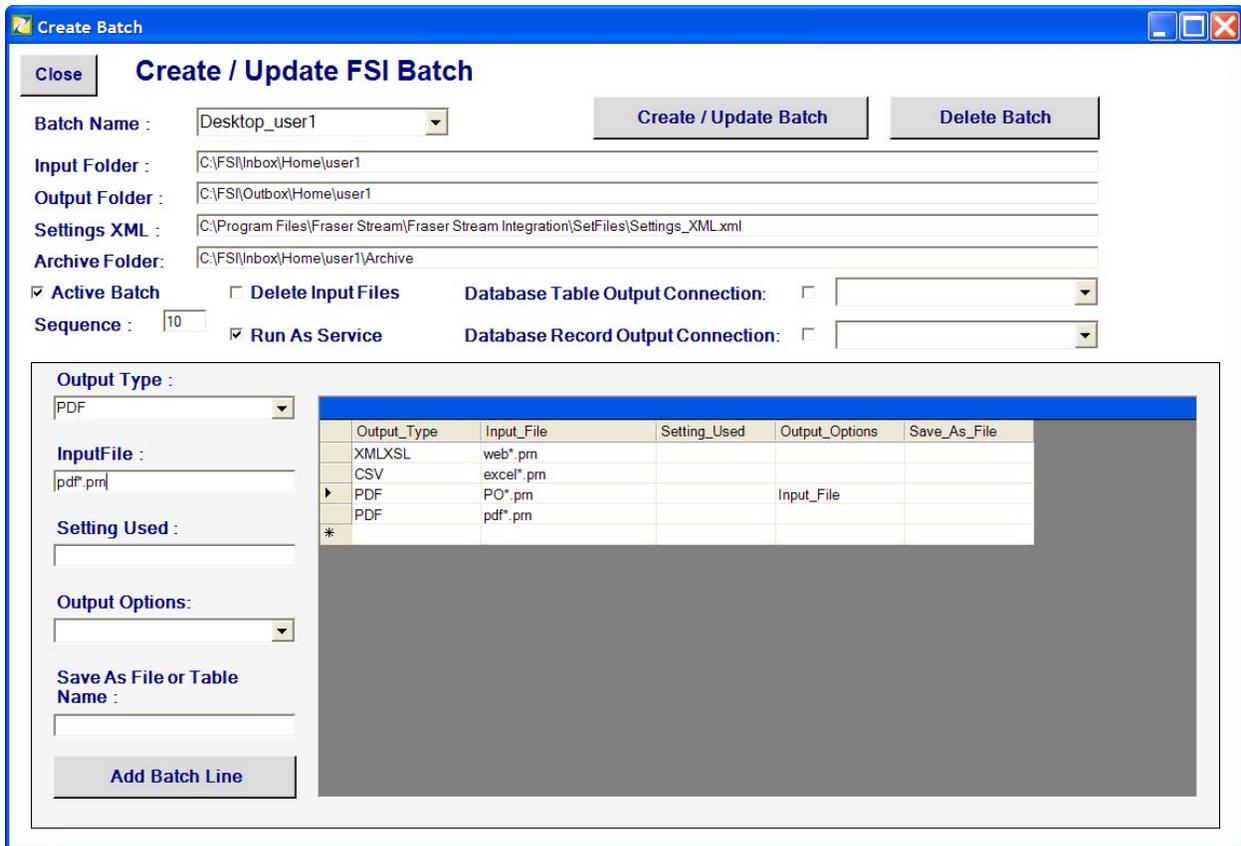
1 Creating Transformation Settings

Transformation Settings instruct the software how to read a text file. To create Transformation Settings please refer to the document Fraser Stream Integration – Transformation Settings. This manual contains a step by step explanation of mapping a text report from start to finish.

2 Creating Batch Transformation Files

Batch Transformation files instruct Fraser Stream Integration to use a set of predefined transformation settings and to automate the process of selecting, transforming, and outputting those files to select folder(s).

An FSI batch file is able to take a text or delimited file from any folder, transform it into XML, HTML, CSV or Dataset format, and deliver the output into any other folder within your network.

2.1 Individual Batch Files

Individual batch files are created through the FSI Batch interface seen above. Each batch file essentially requires 3 elements:

    a. A source folder
    b. A transformation setting
    c. A destination folder

The key is that an <u>individual</u> batch file can process <u>one or thousands of text files</u> provided they all:

- originate in the same input folder, and
- the transformed files are deposited in the same destination folder

An batch file can process the same text file multiple times using different transformation settings as well as transforming the file into various file formats (even with the same transformation settings) such as XML, HTML, and Data Set as long as the output is deposited into the same destination folder.

The moment the input and output destinations change, a new batch file will need to be created.

2.2   Using the FSI Batch Creation Interface – Field Explanations

Each individual batch requires an Input Folder that contains the text files, the Transformation Settings to be used, and the Output Folder where the file(s) are to be deposited.

Please refer to the previous screen shot.

2.2.1   Header Section

This section defines the input, transformation, and output paths.

1. **Batch Name**
    Enter a unique batch name in the Batch Name Combo box that begins with the word "**Desktop**" (see previous screenshot). All batches beginning with this word will be included in a master Batch file that will work directly with Fraser Stream Scheduler (covered in the next chapter).

2. **Input Folder**
    Provide the path to the folder that contains the text or delimited files slated for transformation. You must have access to this folder. This folder may be in a Unix or Windows environment.

3. **Output Folder**
    Provide the path to the output folder where the transformed files will be deposited. You must have access to this folder. This folder must be in a Windows environment.

4. **Settings XML**
    Provide the path including the file name of the file that contains the transformation settings. These setting must first be defined (See chapter 2). The settings file by default will be found:
    C:\Program Files\Fraser Stream\Fraser Stream Integration\SetFiles\Settings XML.xml
    You must copy **Settings_XML.xml** file from **.\Fraser Stream Reports\SetFiles** in the above folder.

5. **Archive Folder (optional)**
    Enter a path if you want to archive each input text file after the transformation process is completed. FSI will automatically move the input text or delimited file into the specified folder.

6. **Active Batch**
    This box must be checked, if the box is unchecked, FSI will still write the command to run this batch into the Main Batch file, but the command will be suspended and therefore skipped when Scheduler is initialized.

7. **Delete Input File**
    If this box is checked, the input file will be deleted after each time it is transformed.

8. **Run as a Service**
    If this box is checked, the batch file will be included in FSI's Windows Service. This is not applicable to Fraser Stream Desktop Users.

9. **Sequence**
    This is an integer number which defines in what order the individual batches within the Main Batch file are to be executed.

Note: The Database Record Output Connections and Database Table Output Connection fields are not applicable to Fraser Stream Desktop users. These fields define the database connection string for the two methods of database output. Outputting to a database is also part of FSI's Windows Service option.

2.2.2 Detail Section

This section defines the input, transformation, and output file details i.e. names, formats, etc…

1. **Output Type**
   Use this combo box to define the type of output file you want generated by the transformation settings. Select from the following list of file types:
   a. XML – The FSI batch transforms the input file into XML
   b. XMLXSL – The FSI batch transforms the input file into an XML that has a reference to a style sheet located in the folder XSLT. The XSLT folder must be in the same output folder where the XML file is to be stored.
   c. XMLDTD – The FSI batch transforms the input file into an XML with a reference to a DTD file stored in the same output folder where the XML file is to be stored.
   d. CSV – The input file is transformed by FSI batch into a CSV file. This file can be opened with MS Excel
   e. DATASET – The ADO Dataset format is generated from the input file.
   f. PDF – The text report is converted into PDF format (See "Fraser Stream – PDF document)

2. **Input File**
   Enter the specific name of the input file or specify a pattern if you require multiple files to be transformed. If you enter *.txt* – FSI will transform all the text files in this folder

3. **Setting Used (optional)**
   If the Fraser Stream Reports transformation setting file (specified in the header section) contains more than one set of transformation settings for this particular input file(s) you must specify which settings to use. Otherwise, by leaving the field blank, FSI will use the first set of setting that match the input file(s).

4. **Output Options**
   The output options will allow you to select a naming convention for your output files.
   a. (blank) – The output file name is generated using the report name and the name of the transformation settings used.
   b. Extend – Use this option if a unique output file name is needed. The Extend option will append the (year, month, day, hour, minute, second, millisecond) to the end of the output file name as define in option *a* thereby creating a unique file name each time.
   c. Input_File – Use this option is you want the output file name to be the same as the input file name (only the file extension will differ according output type (i.e. xml instead of txt).
   d. Save_As – Use this option for a specific output file name. The file name has to be specified in Save As File parameter.

5. **Save As File**
   Enter a specific name for the output file (including file extension). The Output Option parameter must have the value **Save_As**.

2.2.3 Command Buttons

To update the individual and main batch files**:**

Add Batch Line
As mentioned in the previous section, an individual batch can process multiple text files provided they originate in the same folder and are deposited in the same place after transformation. Each batch can convert the input files into multiple file formats utilizing different transformation settings and applying different naming conventions to the final output files.

Use this button to add individual command lines to single batch. For example in the screen shot we see that the user has specified certain text files in the input folder to be processed one way, while files with the extension .prn are processed differently. A specific text file can be transformed using a particular set of transformation settings and saved with a unique name that utilizes the time the file was transformed.

Create / Update Batch
This button will either create or update the individual batch to include all the commands as specified in the detail section. The batch is stored in the folder:
C:\Program Files\Fraser Stream\Fraser Stream Integration\Batch\BatchDetail

This function also updates or (first time) creates the **Main_Batch.bat** batch that contains all the individual FSI batches. The Main_Batch.bat is stored in the folder:
*C:\Program Files\Fraser Stream\Fraser Stream Integration\Batch*
Delete Batch

This button deletes the individual FSI batch. Be sure that the correct batch has been selected from the Batch Name field.

3 Using Fraser Stream Scheduler

Fraser Stream Scheduler automates the process of running Transformation Batch files. With Fraser Stream Scheduler, the user can specify how often to scan the source folder for the text file(s). If a file is found that meets the criteria of the transformation settings, it will be processed. If no file is found, nothing happens.
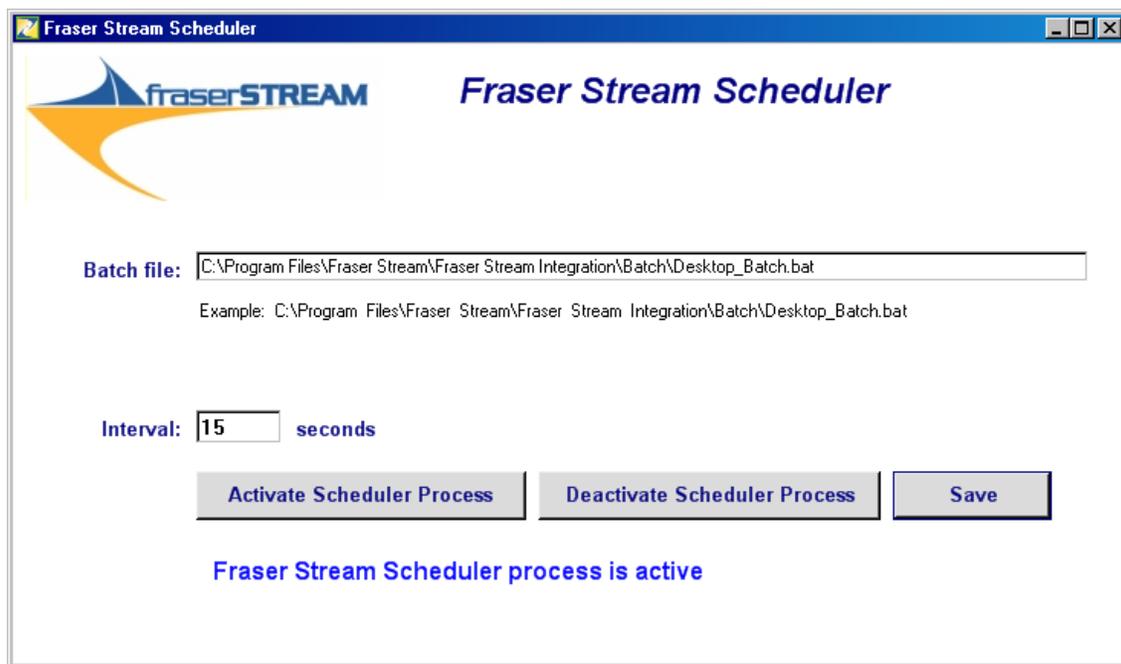
Activating Scheduler involves three steps:

1. **Specifying the Batch Transformation file**
    By default, Fraser Stream Scheduler will list the Desktop_Batch file in the Batch File field. For Desktop users this field does not need to be modified unless a different batch file needs to be scheduled.

2. **Specifying the Interval**
    The interval determines in seconds how often to run the batch. Each time the batch is run it scans the input folder(s), transforms the file(s) if found, and deposits the output file to a specific output folder.
   The scheduler may be set to 1 second or 1 day. The time must be entered in seconds so one day would be 60secondsx60minutesx24hours = 14400 seconds

3. **Activating the Scheduler**
    Simply click on the Activate Scheduler Button to start the process.

4 Using Fraser Stream Desktop

Fraser Stream Desktop runs on the users PC and once activated, scans a specified folder on the PC for newly deposited files. The user need only specify which folder to scan and at what interval. Once a file is found, depending on the extension, ie. .xml, .csv, etc…the file will be opened by either Internet Explorer or Excel.
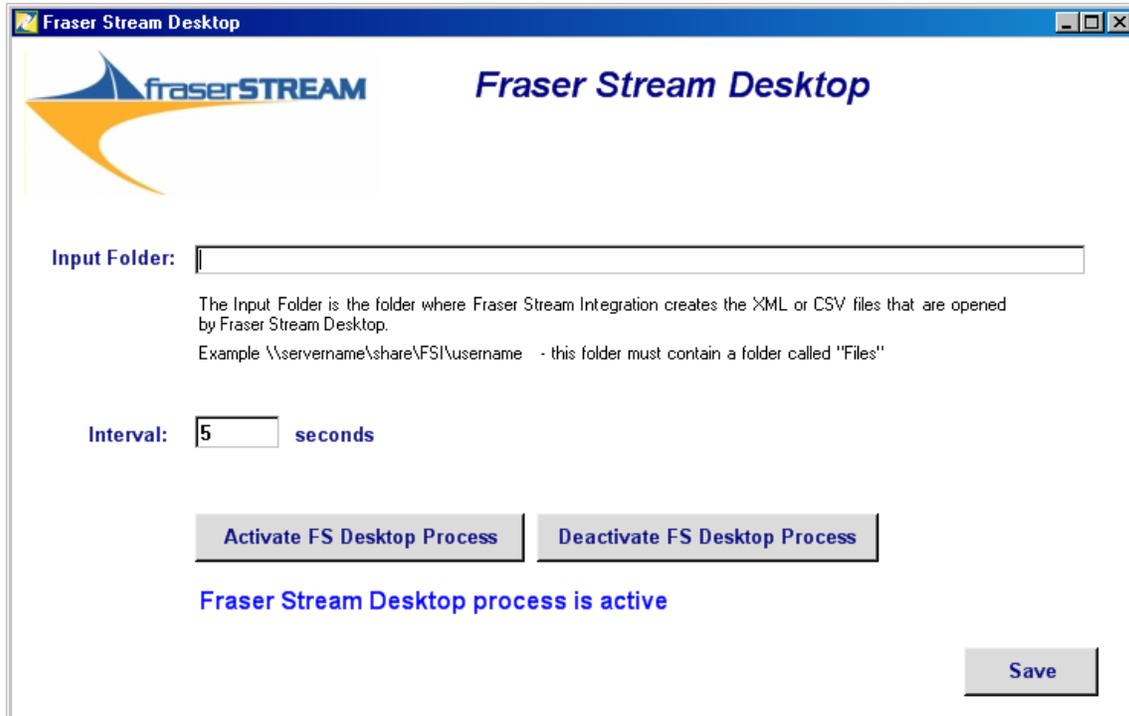
Fraser Stream Desktop closely resembles Fraser Stream Scheduler, the former being the server version of the latter. Desktop sole purpose is to scan the output folder for newly transformed files. If one is found it automatically opens the file with the appropriate application. A .csv file will be opened with Microsoft Excel, and .xml with Internet Explorer.

Activating Desktop involves three steps:

1. **Identifying the Input Folder**
   In this case, the input folder is defined as the folder that contains the transformed file. This is the folder that will be scanned by Desktop. Enter the appropriate path.

2. **Specifying the Interval**
   The interval determines in seconds how often to scan the input folder. If a file is found, it will be opened automatically
   The scheduler may be set to 1 second or 1 day. The time must be entered in seconds so one day would be 60secondsx60minutesx24hours = 14400 seconds. It is recommended to set the interval to 1 second if you want the file to open instantaneously once the text report has been generated out of the ERP system.

3. **Activating the Fraser Stream Desktop Process**
   Simply click on the Activate FS Desktop Process Button to start the process.

The entire process from start to finish of running the report in the ERP or Legacy system, outputting the contents to a text file, having Fraser Stream Integration process the file, deposit it to the user's folder and have the file opened by Fraser Stream Desktop takes a matter of seconds. For a small file it may take one or two seconds from start to finish.