TIBCO Foresight® Instream®

ISErrors

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Two-Second Advantage®

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Overview

ISErrors is a command-line program that ships with TIBCO Foresight® Instream®. It searches Instream®'s validation DTL file for an error with a specific severity and type:

- When it finds ***the first*** matching error, it issues a return code of 1. Its work is done at that point so it terminates.
- If it reaches the end of the file without finding a matching error, it issues a return code of 0. Its work is done at this point so it terminates.

You can then look at the return code and take appropriate action with the EDI and/or DTL file. If you are using ISErrors in a workflow run by Automator, you use this return code to decide where to move the EDI and DTL files next.

Audience

This document is intended for those familiar with:

- Instream validation and the format of its detail results file. Please see **TIB_instream_<n.n>_usersguide.pdf** for details.
- The concept of EDI error severity levels. See page 7.

Demos

Instream has the following ISErrors demos in the Scripts directory.

HIPAA Instream	Global Markets Instream
ISErrors-noconfig	V_ISErrors_810_5040_noconfig
ISErrors Demo	V_ISErrors_810_5040_config

Executing ISErrors from the Command Line

Command-line format:

ISerrors.exe -i"*DetailFile***" [-s"***ConfigFile***"][-d]**

Where:

-i Instream detail file; required.

-s Configuration file. See Example 2 on page 4 and Config File on page 5.

-d Echos the return code to the screen. See Example1 below.

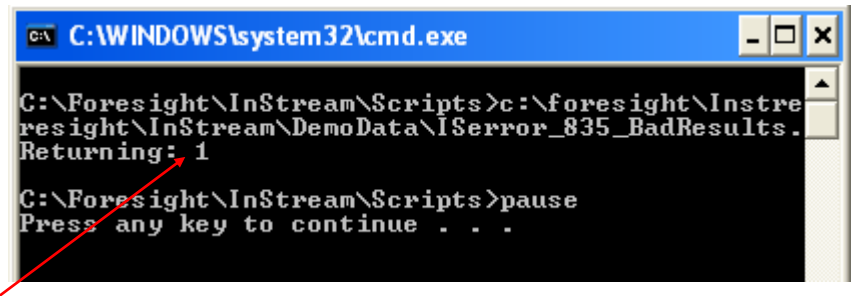
-ver Displays version information for the ISerrors program. Use this without other parameters: `ISerrors.exe -ver`

Command Line Example 1

This simple example checks a detail file to see if the EDI contains an error of severity 3 or 4 and displays the return code:

```
c:\foresight\Instream\bin\ISerrors.exe -d
-i"C:\Foresight\InStream\DemoData\ISerror_835_BadResults.dtl"
```

Results:



Return code is 1 (found an error of severity 3 or 4).

It is displayed because of the –d command line parameter.

Command Line Example 2

This example checks the same detail file using a configuration file:

```
c:\foresight\Instream\bin\ISerrors.exe -d
-i"C:\Foresight\InStream\DemoData\ISerror_835_BadResults.dtl"
-s"C:\Foresight\InStream\DemoData\ISerrorConfig.ini"
```

Executing ISErrors from TIBCO Foresight® Studio®

Foresight® Studio®'s ISerrorRouter component runs ISErrors.exe. Please see **ForesightStudio.pdf** for details.

Return Codes

For information about ISErrors return codes, see Appendix B: Return Codes and Troubleshooting on page 13.

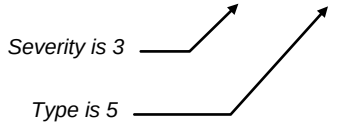
Config File

If you don't use a Configuration File

If you don't use a configuration file, ISErrors checks the detail file for errors with severities of 3 or 4, and any type.

When using these defaults, this example detail file record would cause a return code of 1:

```
ESEG          6CUR*PR*USA*.2939*AC~
STRUS         9|1000A|0|1|401
DTL          11 1000A  N4 116              8 3          1                    30971 3   125 8
```



Using a Configuration File

You can override these defaults with a configuration file, which is identified with the **-s** command line parameter:

```
c:\foresight\Instream\bin\ISerrors.exe -d
-i"C:\Foresight\InStream\DemoData\ISerror_835_BadResults.dtl"
-s"C:\Foresight\InStream\DemoData\ISerrorConfig.ini"
```

Setting up a Configuration File

Example configuration file:

```
[Debugging]
ShowAllDTLRecords=0
ShowOnlyMatchingDTLRecord=1

[Errors]
30973=1|0001100|111111111
ALL=1|0000000|000000000
```

Configuration file format	
Format	**Explanation**
`[Debugging]`	This is the start of the section that contains options controlling the amount of output.
ShowAllDTLRecords=0 **ShowAllDTLRecords=1**	If set to 1, the output will report all DTL records up to and including the first matching error. **Note:** Use this only for files up to 1KB; do not use it in production (for example, in a Foresight Studio workflow). Default is 0. See Entries that affect Display of Results on page 11.

Format	Explanation
ShowOnlyMatchingDTLRecord=0 **ShowOnlyMatchingDTLRecord=1**	If set to 1, the output will report the first DTL record with a matching error. In a Foresight Studio workflow, this will appear in the Automator log. You do **not** need to set this to 1 if you used ShowAllDTLRecords=1, which includes the DTL record with the matching error in its display. Default is 0. See Entries that affect Display of Results on page 11.
`[Errors]`	This is the start of the section that contains options that determine what severities and types are considered matching errors.

ALL=*n*`|`*Severities*`|`*Types*
ErrNum`=`*n*`|`*Severities*`|`*Types*
 	
Examples:
`30973=1|0001100|111111111`
`ALL=1|0000000|000000000`
(*This example will result in only error 30973 being considered*)
	The literal string `ALL` sets the severity and type checking for all error numbers that are not set separately.
	ErrNum is an error number.
	n is a way to turn on or off this line:
	▪ If *n* is **0**, this line is ignored. It is as if the line is not in the INI file at all. This is a convenience – you can leave lines in the INI file and turn them on and off by simply changing one digit.
	Note: If ALL=0, the ALL line is ignored, and the default ALL setting is then used (severities of 3 or 4, and any type).
	▪ If *n* is **1**, this line is used.
	| (the vertical bar) is a separator.
	Severities is the severities mask that turns on (1) or off (0) checking of each severity level. See **Severities Mask** below.
	| (the vertical bar) is a separator.
	Types is the types mask that turns on or off checking of each type. See **Types Mask** on page 8.

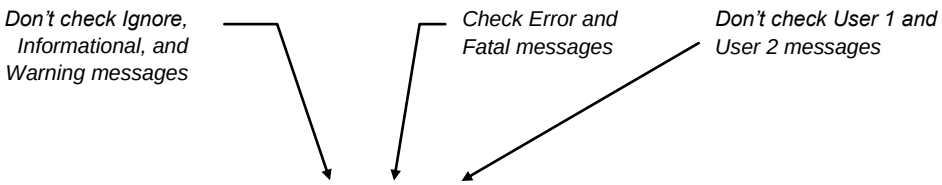
Severities Mask

Each line in the configuration file [Errors] section contains a severities mask:

```
55555=1|0001100|111111111
```

It contains 7 positions, each containing a 0 (off) or 1 (off). Each position represents a severity.

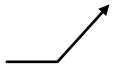
Severities List	
0	Ignore
1	Informational
2	Warning
3	Error
4	Fatal
5	User 1
6	User 2



In the example above, the severity mask is `0001100`.

Example

Must be 1 to have an effect



`55555=1|`**`0011111`**`|111111111`	See if at least one DTL record contains an error number 55555 and is a Warning, Error, Fatal, User1 or User2 severity.
`ALL=1|`**`0001100`**`|111111111`	See if at least one DTL record with any error number contains an Error or Fatal message.

Consider this example DTL record (some data is omitted to save space):

```
DTL          . . .   30971 3   125 8 7024 X7  500
```

This DTL record does not match the 55555 example above because the error number is 30971.

When attempting to match it to the ALL example, we find the DTL record has a severity of 3. The ALL severity mask has a 1 in the fourth position, so we have a match.

See **APF.pdf** for more information about severity levels in TIBCO Foresight products.

Types Mask

Each line in the configuration file [Errors] section contains a types mask:

`55555=1|0001100|111111111`

It contains 9 positions, each containing a 0 (off) or 1 (on).

Each position represents a type.

Types List	
0	General Messages
1	EDI Syntax
2	EDI Syntax
3	Balancing
4	Situational
5	Code Set
6	Product Types
7	Payer Specific (Medicare, etc.)
8	Partner Specific

Types Example 1

This configuration file section yields a return code of 1 if any message has a severity of error or fatal. In addition, return code is 1 if message 55555 has a severity of warning, error, or fatal.

`55555=1|0011100|111111110`	See if at least one DTL line contains an error number 55555 with severity of 2, 3, 4 any type except 8 (Partner Specific).
`ALL=1|0001100|111111111`	All types are checked in all DTL records.

Consider this example DTL record (some data is omitted to save space):

```
DTL          . . .   30971 3   125 8 7024 X7  500
```

This DTL record would not match the 55555 example above because the error number is 30971.

ISErrors next tries to match it to the ALL example. The DTL record has a severity of 3. The severity mask has a 1 in the fourth position so that is a match.

ISErrors now checks the type to see if that might trigger a match. The ALL types mask has a 1 in the sixth position, meaning the type of 5 (Code Set) does trigger a match.

Since the severity and type both match, ISErrors creates a response code of 1 and terminates.

What if the ALL types mask had a 0 in the sixth position instead?
`ALL=1|0011100|111101111`

This DTL record would not have triggered a match and ISErrors would have gone on to the next DTL record.

Types Example 2

Only error 55555 triggers a return code of 1. Other error numbers are not considered.

```
55555=1|0011100|111111110
```

See if at least one DTL line contains an error number 55555 with severity of 2, 3, 4 any type except 8 (Partner Specific).

```
ALL=1|0000000|000000000
```

Must be 1 to have an effect

All zeros mean no types or severities trigger a return code of 1

No other errors are checked. Notice the 1 after the equal sign. This indicates that this line is not a comment. It should be used instead of the default ALL definition. The zeros in all other positions indicate that those severities and types should not trigger a return code of 1.

Note: Using ALL=0 would have caused the line to be ignored and the default ALL of 0001100|111111111 to be used.

See **APF.pdf** for more information about types in TIBCO Foresight products.

Order of Error Checking

1. ISErrors finds the first DTL record in the detail file.
2. It checks the configuration file to see if it has a specific error that matches the error's number.

   If so, the DTL record must match that configuration line for type and severity in order to trigger a return code of 1.

   If the specific error is NOT found, ISErrors looks for the ALL entry in the configuration file. If found, the DTL record must match that configuration line for type and severity in order to trigger a return code of 1.

   Finally, if no specific error or ALL entry is found, the error is compared to the default severity mask of 0001100 and default type mask of 111111111.
3. Once a comparison of a DTL record "matches" a criteria, processing stops and a return code of 1 is triggered.

Appendix A: INI File Entries that affect Display of Results

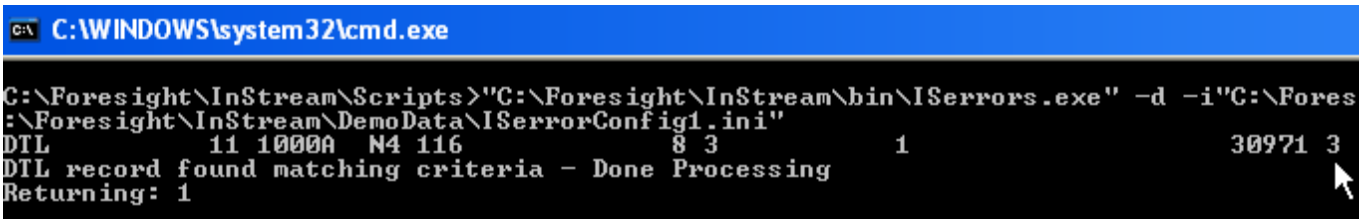
Entry in INI File	Description
ShowAllDTLRecords=0 *or* ShowAllDTLRecords=1	**ShowAllDTLRecords=1** displays all DTL records in the output up to and including the one that matches the criteria in the [Errors] section of the INI file.
ShowOnlyMatchingDTLRecord=0 *or* ShowOnlyMatchingDTLRecord=1	**ShowOnlyMatchingDTLRecord=1** displays only the first DTL record that matched the criteria in the [Errors] section of the INI file. There is no point in setting this to 1 if you have ShowAllDTLRecords=1.

Example 1

```
[Debugging]
ShowAllDTLRecords=0
ShowOnlyMatchingDTLRecord=1
```

Since ShowAllDTLRecords is turned off, and ShowOnlyMatchingDTLRecords is turned on, only the first DTL record that matches the criteria will be displayed. Output will look like this example. Notice the error's severity of 3, marked here by the pointer at the far right.

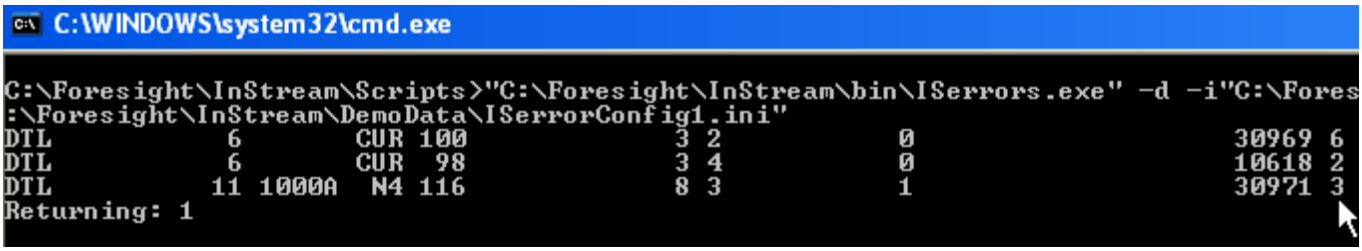
Processing stopped after this matching record was found.



Example 2

```
[Debugging]
ShowAllDTLRecords=1
ShowOnlyMatchingDTLRecord=0
```

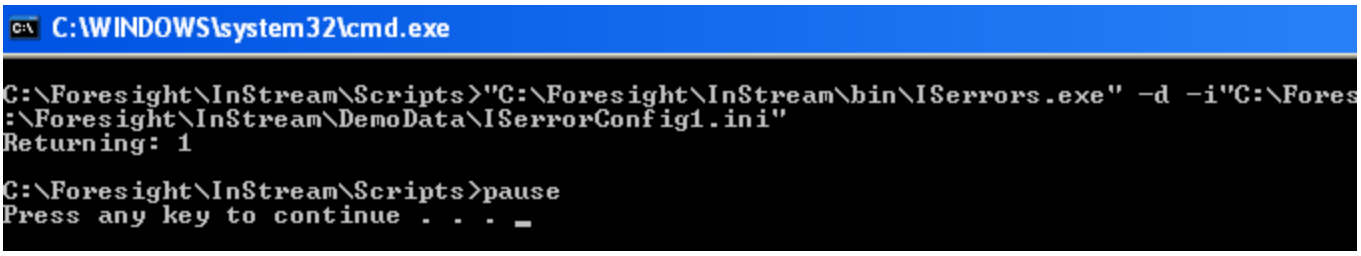
Since ShowAllDTLRecords is turned on, the setting for ShowOnlyMatchingDTLRecords really doesn't matter. All DTL records up to and including the first one that matches the criteria will be displayed. Output will look like this example, which shows three DTL records. The first two did not match the error criteria. The last one contained an error that matched the criteria (in this case, severity 3 as shown by the pointer at the far right).



Example 3

```
[Debugging]
ShowAllDTLRecords=0
ShowOnlyMatchingDTLRecord=0
```

Since both options are turned off, output will look like this example. Although no DTL records are shown, the return code does indicate the presence of errors that match the criteria.



Appendix B: Return Codes and Troubleshooting

Return Code	Meaning
-d echoes the return code to the screen.	
0	No errors matched the criteria.
1	An error matched the criteria. (ISErrors stops after finding one error that matches the criteria).
11	Setup problems such as parsing the config file.

Troubleshooting information	Notes
ShowAllDTLRecords ShowOnlyMatchingDTLRecord	Configuration file entries that control amount of output to the screen.

Seeing Return Codes

To display return codes when you run a script, put this line similar to this in the script right after running the program:

UNIX echo "return code = " $?

Windows @echo [Return Code = %ERRORLEVEL%]

This returns something like: `[Return Code=100]`

Virus Checking and Foresight Products

Exclude all TIBCO Foresight workflow subdirectories from virus checking.