

# TIBCO Foresight® Products

## Validation Profile Files (APF)

*August 2017*

Two-Second Advantage®



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### General Contact Information

TIBCO Software Inc.  
3303 Hillview Avenue  
Palo Alto, CA 94304 USA  
Tel: +1 650 846 1000  
Fax: +1 650 846 1005

### Technical Support

E-mail: [support@tibco.com](mailto:support@tibco.com)  
Web: <https://support.tibco.com>

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## ***Document Purpose***

This document describes the contents of TIBCO Foresight's APF file for TIBCO Foresight® Instream®, TIBCO Foresight® HIPAA Validator® Desktop, and TIBCO Foresight® Studio®, and explains how to change it.

## ***Audience***

This document is for experienced or Instream®, HIPAA Validator® Desktop, or Foresight® Studio® users.

## ***What is an APF File?***

Your APF file contains configuration information for HIPAA Validator Desktop or Instream. Each time you validate, an APF file is read to determine what is to be checked and what is to be displayed on the screen or written to output files.

The default APF file is installed in the **Bin** directory as **\$fsdeflt.apf**. You can customize your validations by copying \$fsdeflt.apf to a new filename and then telling Instream, HIPAA Validator Desktop, or Foresight Studio to use it.

## ***Cautions***

Changing an APF file affects the results you will receive from validations. The changes have consequences for all Instream modules including DocSplitter and Response Generator. If in doubt, please contact TIBCO Foresight Technical Support.

Do not add comments to your APF file. They will disappear the first time you edit it with HIPAA Validator Desktop. If you want to log changes, do so in a separate file.

## ***Creating your own APF File(s)***

Important:

- Make changes to a unique APF file, not the default \$fsdeflt.apf, which is overwritten each time you update Instream or HIPAA Validator Desktop.
- Keep all APF files in Instream's Bin directory.
- After updating your validation program to a new version, run HVUpdate or HVUpdateManager, which create updated versions of your customized .APF files with the new TIBCO Foresight changes.

## Creating a new APF using HIPAA Validator Desktop

HIPAA Validator Desktop provides a dialog box for editing APF files. To use it:

1. Open HIPAA Validator Desktop.
2. Choose **Options | Validator Profile**.
3. Make changes on any or all of the tabs.

Important: Use the **Save As** button at the bottom. Save to a new name with file type APF, rather than overwriting \$fsdeflt.apf, and keep all APF files in Instream's Bin directory.

Validator Options Profile

Analysis | Colors | Filter | Messages

General

- Ignore standard-specific profiles
- Use One Standard
- Ask for Standard Name
- Allow Decimal In ICD9
- Allow Leading Zeroes In DRG
- Check CCI Edits
- Check CAQH Core III Edits
- Allow Trailing Delimiters
- Padding Between Interchanges:
- Segment Terminator:
- X12 ST Control Number Unique in IC
- UserCharacterSet
- Continue validating after SQL errors

Segments

- Check Unused Segments Present
- Check Envelopes Only
- Check Segment Placement

Elements

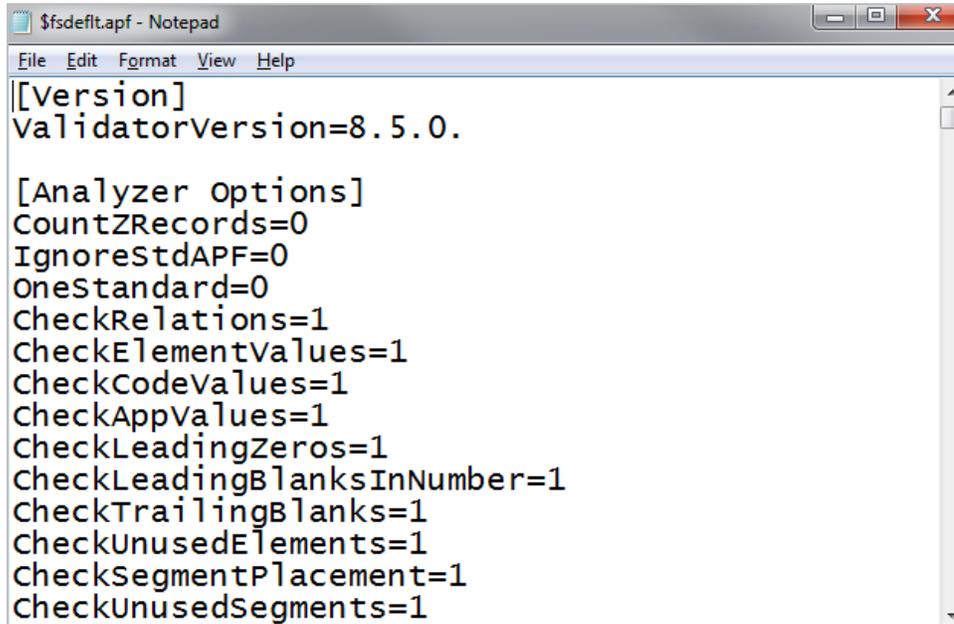
- Check Relationals
- Check Element Values
- Check Code Values
- Check App. Data Values
- Check Leading Zeros
- Check Blanks In Numerics
- Check Leading Blanks In Alpha
- Check Trailing Blanks
- Check Unused Elements
- Use X12 Character Set
- Allow Delimiters within data
- X12 R Type Strict
- Allow newline characters within data

Load... Save As... OK Cancel Help

## Creating a new APF using Instream

If you have HIPAA Validator Desktop, set up the profile there (see [Creating a new APF using HIPAA Validator Desktop on page 4](#)) and then copy the file to Instream's Bin directory. The formats are the same.

If you do not have HIPAA Validator Desktop, copy \$fsdeflt.apf (in Instream's Bin directory) to a new name, also in the Bin directory. You can then use a text editor like Notepad or VI to edit the new APF file directly.



```
File Edit Format View Help
[Version]
ValidatorVersion=8.5.0.

[Analyzer Options]
CountZRecords=0
IgnoreStdAPF=0
OneStandard=0
CheckRelations=1
CheckElementValues=1
CheckCodeValues=1
CheckAppValues=1
CheckLeadingZeros=1
CheckLeadingBlanksInNumber=1
CheckTrailingBlanks=1
CheckUnusedElements=1
CheckSegmentPlacement=1
CheckUnusedSegments=1
```

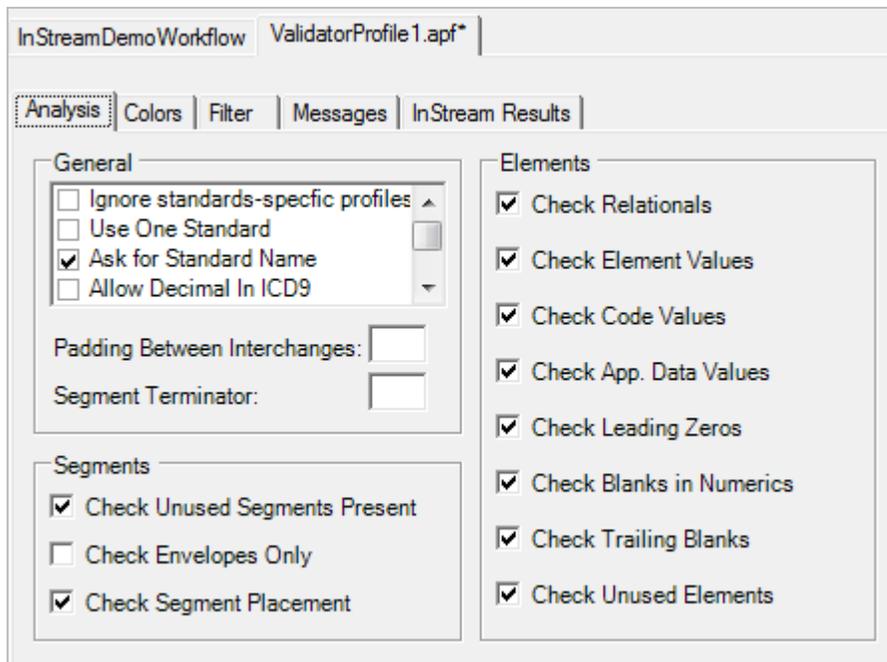
See [APF File Format on page 8](#) for details.

## Creating a new APF using TIBCO Foresight Studio

You can also set up a profile from within Foresight Studio:

1. Click the system where the new validation profile will be used.
2. Choose **File | New | Validator Profile**.
3. In the left pane, type a name for the profile. Use file extension **apf**.

The work area will display a tab for the new profile. Each profile has its own tabs for Analysis, Colors, Filter, Messages, and InStream Results.



For additional information, refer to **ForesightStudio.pdf**.

## Specifying which APF File to Use

### Instream

---

Use the **s** parameter when starting Instream:

```
C:\Foresight\InStream\Bin\HVInStream.exe" -i"C:\Data\Tutorial837IA.txt" -smyusual.apf
```

Include a path in quotation marks if the APF file is not in Instream's Bin directory:

```
-s"c:\profiles\myusual.apf"
```

### HIPAA Validator Desktop

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Before validating, load the desired APF file with **Options | Validator Profile | Load**. For more information, check the HIPAA Validator Desktop documentation.

### Foresight Studio

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For information about specifying and/or importing validation profiles with Foresight Studio, refer to **ForesightStudio.pdf**.

### Standard-Specific Profiles

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You can save the profile you want to use for a specific standard or guideline and have Instream or HIPAA Validator Desktop automatically load it whenever you use that standard for validation.

1. Create an APF file with the same name as the guideline and use file type **.apf**.

#### Example

For a profile that is to be used whenever guideline PDSA837I is used, create PDSA837I.apf.

2. Save it to the **Bin** directory for Instream or HIPAA Validator Desktop.
3. Be sure that \$fsdeflt.apf has **IgnoreStdAPF=0**.

To override this automatic load for a particular validation:

#### Instream

Use the **-s** qualifier when validating with Instream.

#### HIPAA Validator Desktop

Choose **Options | Validator Profile | Ignore standard-specific profiles**.

You can modify and re-save standard-specific profiles as with any other profile.

# APF File Format

## APF File Sections

Section	Purpose	Product	Details
Version Option	Displays the corresponding version of the apf file.	Instream, HIPAA Validator Desktop	
Analyzer Options	Customizes basic validation options	Instream, HIPAA Validator Desktop, Foresight Studio	Page <a href="#">9</a>
Warning Allow	Filters messages by severity	Instream, HIPAA Validator Desktop, Foresight Studio	Page <a href="#">18</a>
Warning Colors	Specifies colors used to display each severity	HIPAA Validator Desktop, Foresight Studio	Page <a href="#">21</a>
Detail Record Output	Specifies which records will appear in the Instream validation results file	Instream	Page <a href="#">23</a>
Types Allow	Filters messages by type	Instream, HIPAA Validator Desktop, Foresight Studio	Page <a href="#">27</a>
Warning Levels	Changes characteristics (severity, type, etc.) of particular messages	Instream, HIPAA Validator Desktop, Foresight Studio	Page <a href="#">30</a>
RespGen Overrides	Instructs Response Generator to substitute a custom value when creating certain segments in the detail file.	Instream	Appendix H: Response Generator Overrides File in <b>TIB_fsp-instream_&lt;n.n&gt;_respgen.pdf</b>

## APF Line Format

APF entries normally have this format:

keyword=value

where *value* is usually one of these:

**0** for disabled or No

**1** for enabled or Yes

### Example

**CheckLeadingZeros=0** will **not** check for leading zeros in numeric fields

**CheckLeadingZeros=1** will check for leading zeros in numeric fields

## HIPAA Validator Desktop and Foresight Studio's Analyzer Options Section

The [Analyzer Options] section of the APF file corresponds to:

- Desktop's **Options | Validator Profile | Analysis** tab
- Foresight Studio's **File | New | Validator Profile | Analysis** tab.

Most options can be toggled on and off by selecting and unselecting the corresponding checkboxes. Some options require input and are presented as blank fields by default (e.g., Segment Terminator).

### HIPAA Validator Desktop

Analysis | Colors | Filter | Messages

**General**

- Ignore standard-specific profiles
- Use One Standard
- Ask for Standard Name
- Allow Decimal In ICD9
- Allow Leading Zeroes In DRG
- Check CCI Edits
- Check CAQH Core III Edits
- Allow Trailing Delimiters
- Padding Between Interchanges:
- Segment Terminator:
- X12 ST Control Number Unique in IC
- UserCharacterSet
- Continue validating after SQL errors

**Segments**

- Check Unused Segments Present
- Check Envelopes Only
- Check Segment Placement

**Elements**

- Check Relations
- Check Element Values
- Check Code Values
- Check App. Data Values
- Check Leading Zeroes
- Check Blanks In Numerics
- Check Leading Blanks In Alpha
- Check Trailing Blanks
- Check Unused Elements
- Use X12 Character Set
- Allow Delimiters within data
- X12 R Type Strict
- Allow newline characters within data

## Foresight Studio

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
[Analyzer Options]	Analysis Tab	
AllowDecimalInICD9=0	Allow Decimal In ICD9 Default = unselected	Allow decimals in HIPAA code table ICD9. For guidance on HIPAA requirements for the ICD9, see <a href="http://www.cms.gov">www.cms.gov</a> .  0 will not allow decimals 1 will allow decimals  This setting usually only applies with HIPAA guidelines that use certain business rules.
AllowDelimiterAsPartOf Data=0	Allow Delimiters Within Data Default = unselected  <b>Note:</b> Option not available in Foresight Studio.	Allow delimiters in HL7 data fields. 0 (default) Validation will present errors when delimiters are in data fields. 1 Validation will not present errors when delimiters are in data fields.  This setting applies only to HL7 data.

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
AllowExtendedASCII=0	<i>none</i>	<p>This option does not appear in \$fsdefault.apf, but can be added if desired. Please note that TIBCO Foresight does not recommend the use of ExtendedASCII characters.</p> <p>By default, TIBCO Foresight validators allow the lower 128 standard ASCII characters. This option determines whether the extended ASCII characters are also valid.</p> <p>0 (default) Allows only the lower 128 ASCII characters.</p> <p>1 Also allow ASCII characters.</p>
AllowLeadingZerosInDRG=0	Allow Leading Zeroes In DRG Default = unselected	<p>Allow leading zeros in HIPAA DRG code table? For guidance on HIPAA requirements for the DRG, see <a href="http://www.cms.gov">www.cms.gov</a>.</p> <p>0 will not allow leading zeros</p> <p>1 will allow leading zeros</p> <p>This setting usually only applies with HIPAA guidelines that use certain business rules.</p>
AllowTrailingDelimiter=0	Allow Trailing Delimiters Default = unselected	<p>Should trailing delimiters be considered an error? This determines whether trailing delimiters should be allowed at end-of-segment (or end-of-record for flat files) and end-of-composite.</p> <p>This is primarily for flat files.</p> <p>This should always be set to 0 for EDI data, which does not allow trailing delimiters.</p> <p>0 no</p> <p>1 yes</p> <p><b>EDI Example</b></p> <p>Should the *~ be allowed: N3*22 MAIN ST*~</p> <p><b>Flat File Example</b></p> <p>Should the    be allowed: ADDR 22 MAIN ST  </p>
AlwaysAskStandard=1	Ask for Standard Name Default = selected	<p>Controls whether Instream or HIPAA Validator Desktop asks for a guideline name each time a new functional group is encountered.</p> <p>0 you will be asked only if there is an ambiguity about which guideline to use</p> <p>1 you will be asked at each functional group</p>
CheckAppValues=1	Check App. Data Values Default = selected	<p>Check application values.</p>

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
CheckCCIEdits=0	Check CCI Edits Default = unselected	Should Correct Coding Initiatives (CCI) rules be enforced? 0 will not enforce CCI 1 will enforce CCI (slows down validation) Guidelines that enforce CCI are marked in <b>ForesightHIPAAguidelinelist.pdf</b> .
CheckCodeValues=1	Check Code Values Default = selected	Check internal code lists. If X12 provides a code list, is the value actually allowed by the code list? This does not affect HIPAA external code lists.
CheckCore3Edits=0	Check CAQH Core III Edits Default = unselected <b>Note:</b> Option not available in Foresight Studio.	Enforce Phase III CORE 360 Uniform Use of Claim Adjustment Reason Codes and Remittance Advice Remark Codes (835) Rule. If you are validating with a guideline that incorporates the Phase III CORE Rule, set this parameter to 1 (yes). 0 (default) will not enforce Phase III CORE Rule 1 will enforce Phase III CORE Rule
CheckElementValues=1	Check Element Values Default = selected	Check element type and length. If it is a numeric field with a minimum and maximum length of 5, does it contain a 5-digit number?
CheckEmbeddedNewlines=0	Allow newline characters within data Default = unselected <b>Note:</b> Option not available in Foresight Studio.	Specify handling of linefeeds or carriage return-linefeeds within data elements. 0 (or if entry is omitted from the .apf file) ignores linefeeds or carriage return-linefeeds unless they are used as segment terminators. 1 enables the following behavior: - recognizes linefeeds or carriage return-linefeeds within data elements and may report them as invalid characters (depending on the defined character set). - does not handle 'wrapped' data properly, because wrapped data is data with linefeeds or carriage return-linefeeds inserted every <n> characters. - may flag linefeeds or carriage return-linefeeds with character set errors in binary data.
CheckLeadingBlanksInNumber=1	Check Blanks in Numerics Default = selected	Flag real or numeric elements that have leading blanks that are not necessary to meet the minimum length.

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
CheckLeadingBlanksIn Alpha =0	Check Leading Blanks in Alpha  Default = unselected	Should leading blanks in alphanumeric elements be flagged with warnings?  0 no 1 yes
CheckLeadingZeros=1	Check Leading Zeroes  Default = selected	Flag numeric elements that have leading zeros that are not necessary to meet the minimum length.
CheckRelations=1	Check Relationals  Default = selected	Check X12 element relationals (or "syntax rules"), such as "If you use this element, you must also use element xxx." This setting does not affect HIPAA-defined or user-defined business rules
CheckSegmentPlacement =1	Check Segment Placement  Default = selected	Check segments as defined at a particular location within a transaction set.  0 will check only against the generic dictionary definitions  1 will check the segment as defined at a particular location
CheckTrailingBlanks=1	Check Trailing Blanks  Default = selected	Flag trailing blanks in alphanumeric fields that are not needed to meet the minimum length.
CheckUnusedElements=1	Check Unused Elements  Default = selected	Check for the presence of elements that are marked unused in the guideline.
CheckUnusedSegments= 1	Check Unused Segments Present  Default = selected	Check for the presence of segments that are marked unused in the guideline.
ContinueAfterSQLErrors= 0	Continue validating after SQL errors  Default = unselected  <b>Note:</b> Option not available in Foresight Studio.	Communication issues between the following business rules and the SQL database may cause validation to stop/fail. <ul style="list-style-type: none"> <li>▪ DBOpen</li> <li>▪ DBClose</li> <li>▪ DBExecute</li> <li>▪ DBQuery</li> </ul> If you prefer that validation continue when a communication issues is encountered, enable this option.  0 validation will stop/fail 1 validation will continue
CountZRecords=0	N/A	Unless TIBCO Foresight support directs you to change this setting, leave it at 0 so that system Z messages 31990 and 31991 are not included in severity and error counts.

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
IgnoreStdAPF=0	Ignore standard-specific profiles  Default = unselected	<p><b>Future Enhancement</b></p> <p>A standard-specific profile is one that automatically activates when using a specific guideline. To make one, create a profile in your BIN directory with the same name as the guideline.</p> <p>Example: Profile PDSA837I.apf will automatically activate when validating EDI with guideline PDSA837I.</p> <p>0 allows automatic activation 1 prevents automatic activation</p>
InterchangePadChar=-1	Padding between Interchanges  Default = blank (indicates default behavior will be used)	<p>Sometimes EDI has padding characters (blanks, etc.) after the IEA to fill it out to a certain length. If validation is failing due to this padding, type the ASCII equivalent of the pad character here.</p> <p>By default InterchangePadChar=-1 or a blank field means there is no special pad character</p> <p>Example: If the IEA is padded with dot characters, use: InterchangePadChar=46</p>
OneStandard=0	Use One Standard  Default = unselected	<p><b>HIPAA Validator Desktop only. For EDI files with multiple groups or interchanges.</b></p> <p>0 allows each functional group to be validated against a separate guideline 1 causes the entire EDI file to be validated against the first guideline selected</p> <p>Instream ignores OneStandard, but you can use Instream's Partner Automation feature to specify which guidelines should be selected according to the contents of the enveloping.</p> <p>See <b>TIB_fsp-instream_&lt;n.n&gt;_tpa.pdf</b>.</p>
SegmentTerminator=-1	Segment Terminator  Default = blank (indicates default behavior will be used)	<p>By <b>default</b> HIPAA Validator Desktop and Instream identify the segment terminator from the ISA.</p> <p>If the ISA contains an error or is not the normal ISA, include the ASCII value of the terminator here.</p> <p>SegmentTerminator=-1 means to identify the segment terminator from the ISA</p> <p>Example: if the problem segment terminator is &amp;, use: SegmentTerminator=38</p>

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
SkipApp=0	Check Envelopes Only Default = unselected	0 all segments are checked 1 only enveloping is checked: interchange and group enveloping, and transaction set headers and trailers
STControlUniqueWithin Interchange =0	X12 ST Control Number Unique in IC Default = unselected <b>Note:</b> Option not available in Foresight Studio.	A Transaction Set Control (ST) number must be unique within a transaction (ISA-IEA structure), as well as within a functional group (the GS-GE structure). If your transaction contains multiple functional groups, you must specify that the ST number will be unique within the interchange rather than just the functional group. 0 (default) The Transaction Set Control number is unique within the functional group. 1 The Transaction Set Control number is unique within the interchange.

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
<p>UserCharacterSet= (-)&lt;hexcharacter&gt;</p>	<p>UserCharacterSet Default = blank <b>Note:</b> Option not available in Foresight Studio.</p>	<p>This setting allows you to add or remove characters from the default character set for a transaction set. Entry is in the form UserCharacterSet=(-)&lt;hexcharacter&gt; Where: &lt;hexcharacter&gt; allows the character and - &lt;hexcharacter&gt; disallows the character. By default, this parameter is blank. It is ignored by Instream and HIPAA Validator Desktop unless it is populated. Note: Hex character conversion charts are readily available on the Internet. Example 1: "COMPANY's NAME" appears in the data. Instream and HIPAA Validator Desktop produce an error because lowercase 's' is not allowed in the transaction per the default character set. You want to allow lowercase 's'. UserCharacterSet=0x73 This tells Instream and HIPAA Validator Desktop to allow hex character 0x73, which is equal to lowercase 's'. Example 2: "COMPANY NAME, INC" appears in the data. Instream and HIPAA Validator Desktop does not produce an error because the character ',' is allowed in the transaction per the default character set. You do not want ',' to be allowed. UserCharacterSet=-0x2c This tells Instream and HIPAA Validator Desktop to disallow hex character 0x2c, which is equal to ' '</p>

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
X12CharacterSet=0	Use X12 Character Set Default = unselected	<p>Which character sets should be allowed in X12 alphanumeric elements:</p> <p>0 (default) Allows characters defined in the X12 basic and extended character sets. Please see <a href="http://www.wpc-edi.com/content/view/609/1/">http://www.wpc-edi.com/content/view/609/1/</a> .</p> <p>1 Restricts the character set to those defined in the HIPAA implementation guides. This includes: A-Z a-z 0-9 !"&amp;'()*+,-./:;?=%~@[_{} &lt;&gt;# \$" and spaces</p> <p>Not allowed: ^ and `</p>
X12RTypeStrict=0	X12 R Type Strict Default = unselected <b>Note:</b> Option not available in Foresight Studio.	<p>Should insignificant leading and trailing zeroes be allowed in X12 data?</p> <p>0 (default) Allows insignificant leading and trailing zeroes.</p> <p>1 Enforces "strict" processing – does not allow insignificant leading and trailing zeroes. <b>Note:</b> When this setting is set to 1, zeroes used to pad to a field's minimum length requirement <b>are considered significant and are allowed.</b></p> <p>Examples:</p> <p>.01 contains a significant (meaningful) zero. Allowed with X12RTypeStrict set at 0 or 1.</p> <p>.01<u>00</u> contains two insignificant trailing zeroes. Allowed with X12RTypeStrict set at 0 Not allowed with X12RTypeStrict set at 1.</p> <p><u>0</u>.01<u>0</u> contains both an insignificant leading and trailing zero. Allowed with X12RTypeStrict set at 0 Not allowed with X12RTypeStrict set at 1.</p>

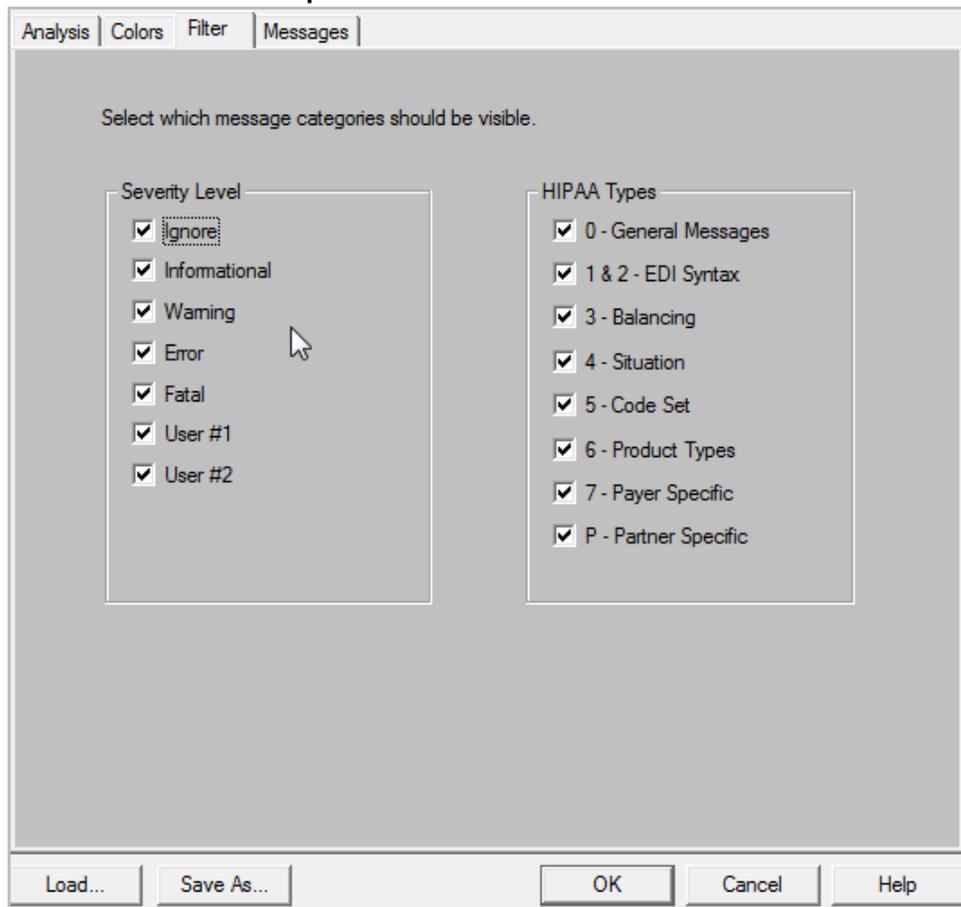
## Warning Allow Section

The **[Warning Allow]** section of the APF file corresponds to the **Severity Level** column of HIPAA Validator Desktop's **Options | Validator Profile | Filter** tab. Each message has a severity (Warning, Error, etc.), and this section lets you filter HIPAA Validator Desktop and Instream messages by severity. Z (custom) records do not filter out.

You can change the severity for individual messages in the [Warning Levels] section of the APF file.

**Caution:** TIBCO BusinessConnect™ customers should **NOT** change the WT\_ parameters in the **[Warning Allow]** section. The settings must be left at their default values of 1.

## HIPAA Validator Desktop



## APF File Default Settings

```
[Warning Allow]
WT_Message=1
WT_NonCritical=1
WT_Warning=1
WT_Error=1
WT_Fatal=1
WT_User1=1
WT_User2=1
```

## Foresight Studio

InStreamDemoWorkflow ValidatorProfile1.apf\*

Analysis | Colors | **Filter** | Messages | InStream Results

Select which message categories should be visible.

Severity Level	HIPAA Types
<input checked="" type="checkbox"/> Ignore	<input checked="" type="checkbox"/> 0 - General Messages
<input checked="" type="checkbox"/> Informational	<input checked="" type="checkbox"/> 1 & 2 - EDI Syntax
<input checked="" type="checkbox"/> Warning	<input checked="" type="checkbox"/> 3 - Balancing
<input checked="" type="checkbox"/> Error	<input checked="" type="checkbox"/> 4 - Situation
<input checked="" type="checkbox"/> Fatal	<input checked="" type="checkbox"/> 5 - Code Set
<input checked="" type="checkbox"/> User #1	<input checked="" type="checkbox"/> 6 - Product Types
<input checked="" type="checkbox"/> User #2	<input checked="" type="checkbox"/> 7 - Payer Specific
	<input checked="" type="checkbox"/> P - Partner Specific

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile	Result
[Warning Allow]	Filter Tab	This section lets you filter messages by severity. Note: You can change the severity level of a particular message in the <a href="#">Warning Levels Section</a> (see page 30). <b>Caution:</b> TIBCO BusinessConnect™ customers should <b>NOT</b> change the WT_ parameters in the <b>[Warning Allow]</b> section. The settings must be left at their default values of 1.
WT_Message=1	Ignore Default = selected	Should HIPAA Validator Desktop or Instream include messages marked as Ignore in the [Warning Levels] section? 0 do not include Ignore messages 1 include Ignore messages
WT_NonCritical=1	Informational Default = selected	Should HIPAA Validator Desktop or Instream include informative messages about finding enveloping segments, etc.? If using this profile to create input to DocSplitter, set WT_NonCritical=1.

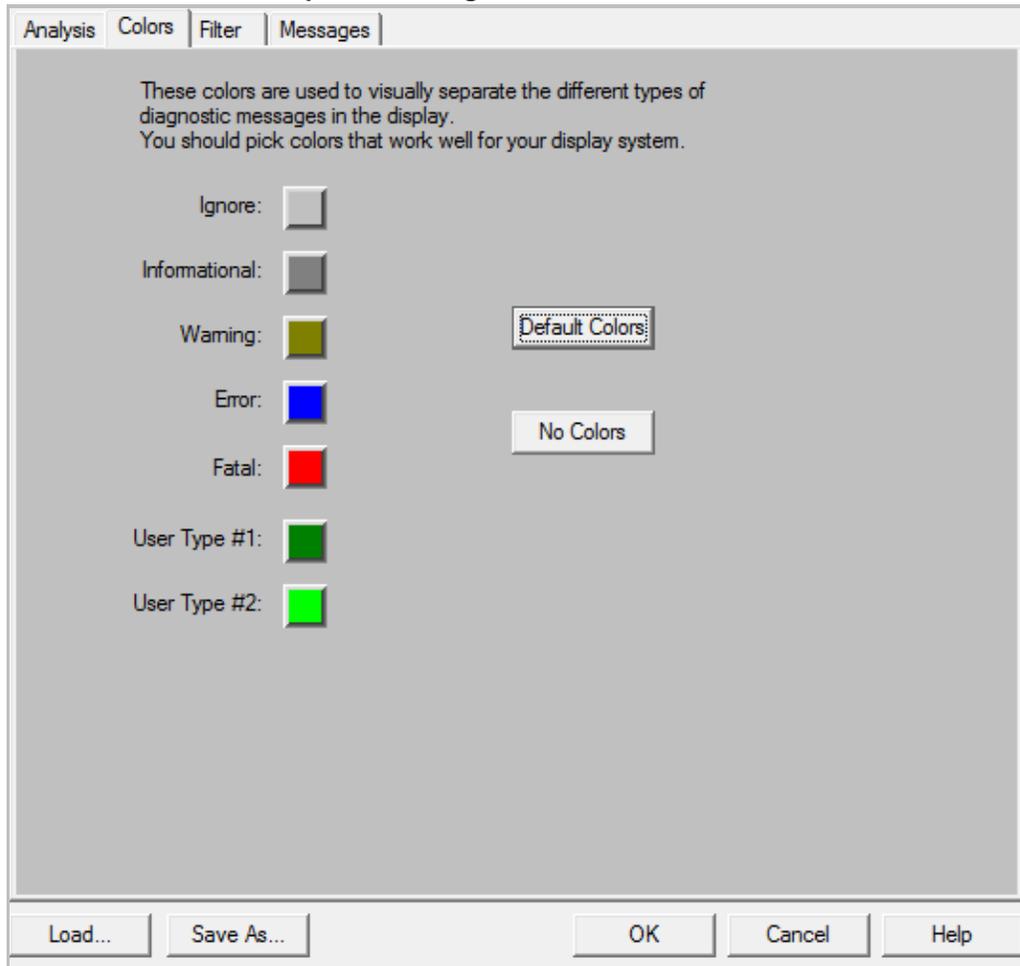
In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile	Result
WT_Warning=1	Warning Default = selected	Should HIPAA Validator Desktop or Instream display messages marked as warnings in the [Warning Levels] section? These are usually about minor EDI data errors such as leading zeros in numeric elements, or assumptions that it had to make when data was ambiguous?
WT_Error=1	Error Default = selected	Should HIPAA Validator Desktop or Instream display messages marked as errors in the [Warning Levels] section? These are about typical EDI data errors such as wrong codes, missing mandatory items, etc.  If using this profile to create input to DocSplitter, set WT_Error=1.
WT_Fatal=1	Fatal Default = selected	Should HIPAA Validator Desktop or Instream display messages marked as fatal in the [Warning Levels] section? These are about serious errors that your application may consider fatal. These errors do not halt validation. You can designate which messages are fatal in the Warning Levels Section.  If using this profile to create input to DocSplitter, set WT_Fatal=1.
WT_User1=1	User 1 Default = selected	Should HIPAA Validator Desktop or Instream display messages marked as User1 in the [Warning Levels] section? User1 is for your own use. TIBCO Foresight only uses them for debugging messages.
WT_User2=1	User 2 Default = selected	Should HIPAA Validator Desktop or Instream display messages marked as User2 in the [Warning Levels] section? User2 is for your own use. TIBCO Foresight does not use it.

## Warning Colors Section

The **[Warning Colors]** section of the APF file corresponds to HIPAA Validator Desktop's **Options | Validator Profile | Colors** tab. It specifies which colors are used to display each error type.

**Note:** This section affects HIPAA Validator Desktop only. Instream output does not use colors.

### HIPAA Validator Desktop and Foresight Studio



### APF File Default Settings

```
[Warning Colors]
WT_Message=12632256
WT_NonCritical=8421504
WT_Warning=32896
WT_Error=16711680
WT_Fatal=255
WT_User1=32768
WT_User2=65280
```

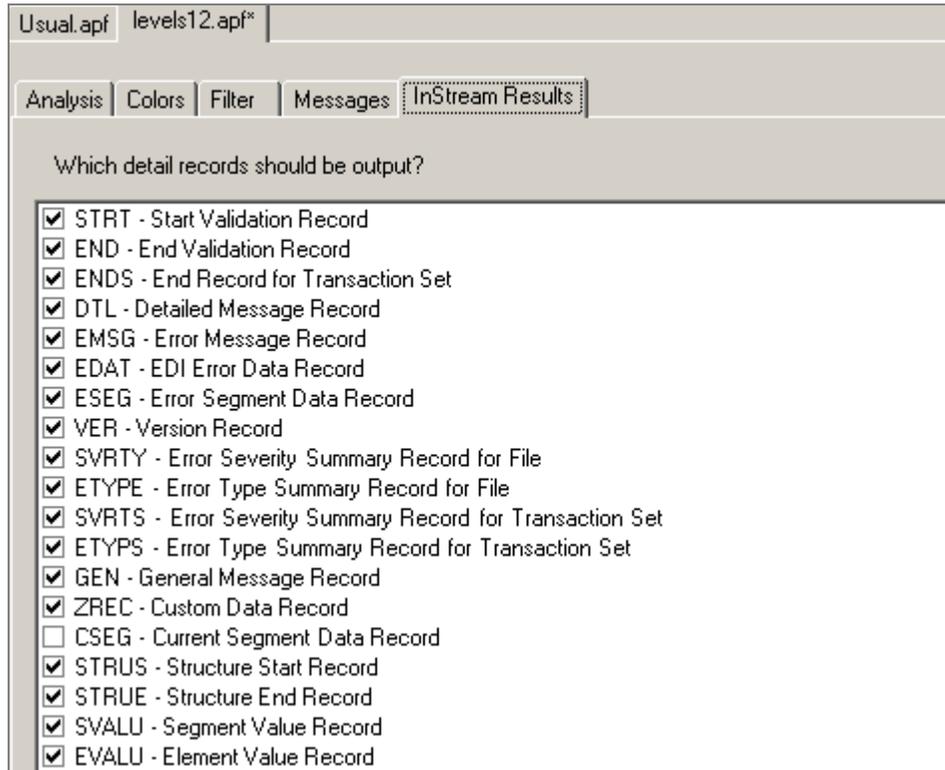
In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
[Warning Colors]	Colors Tab	Instream ignores these settings. HIPAA Validator Desktop uses them in the top pane.
WT_Message=12632256	Ignore	Change colors via HIPAA Validator Desktop: <b>Options   Validator Profile   Colors</b>
WT_NonCritical=8421504	Informational	
WT_Warning=32896	Warning	
WT_Error=16711680	Error	
WT_Fatal=255	Fatal	
WT_User1=32768	User Type #1	
WT_User2=65280	User Type #2	

## Detail Record Output Section

The **[Detail Record Output]** section of the APF file determines which records will appear in the InStream validation results file.

**Note:** HIPAA Validator Desktop ignores this section and provides no place to edit these settings.

**Foresight Studio** (Does not apply to HIPAA Validator Desktop)



The screenshot shows a software window titled 'Usual.apf levels12.apf\*' with a tabbed interface. The 'InStream Results' tab is active. Below the tabs, the text 'Which detail records should be output?' is displayed. A list of checkboxes follows, each with a label: STRT - Start Validation Record, END - End Validation Record, ENDS - End Record for Transaction Set, DTL - Detailed Message Record, EMSG - Error Message Record, EDAT - EDI Error Data Record, ESEG - Error Segment Data Record, VER - Version Record, SVRTY - Error Severity Summary Record for File, ETYPE - Error Type Summary Record for File, SVRTS - Error Severity Summary Record for Transaction Set, ETYPS - Error Type Summary Record for Transaction Set, GEN - General Message Record, ZREC - Custom Data Record, CSEG - Current Segment Data Record, STRUS - Structure Start Record, STRUE - Structure End Record, SVALU - Segment Value Record, and EVALU - Element Value Record. All checkboxes are checked except for CSEG.

### APF File Default Settings

[Detail Record Output]

CSEG=0	GEN=1
CTX=0	IDENT=0
DTL=1	STRT=1
EDAT=1	STRUE=1
ELOC=0	STRUS=1
EMSG=1	SVALU=1
END=1	SVRTS=1
ENDS=1	SVRTY=1
ESEG=1	UID=0
ETYPE=1	VER=1
ETYPS=1	ZREC=1
EVALU=1	

In APF File (Default Settings Shown)	In Foresight Studio Profile Box	Result
[Detail Record Output]	Instream Results tab	
CSEG=0	CSEG Default = unselected	Should the detail results file contain a Current Segment Data (CSEG) record for each segment in the EDI file? These echo the actual contents of each EDI segment as it is read.  CSEG=1 will inflate the size of the detail results file.
CTX=0	N/A	Should the detail results file contain segment context CTX segments? CTX=1 creates these segments, which are used by Response Generator to create 999 segment context CTX segments.  This setting does not affect business unit identifier CTX segments in Response Generator 999s.  Refer to Appendix H: CTX Segments in Response Generator 999s in <b>TIB_fsp-instream_&lt;n.n&gt;_respgen.pdf</b> for complete information.
DTL=1	DTL Default = selected	Should the detail results file contain Detailed Message (DTL) records for warnings, errors, or information messages?  <b>Important:</b> Use caution when changing this setting to DTL=0 (off), as both Response Generator and DocumentSplitter rely on DTL records.  If DTL is set to 0 (off):  - Response Generator will not find errors in a document, even if they are present.  - DocumentSplitter will not find invalid loops in a document, possibly causing an invalid document to be considered valid.
EDAT=1	EDAT Default = selected	Should the detail results file contain an EDI Error Data (EDAT) record after each DTL record? These show the actual contents of the EDI data element that caused the warning, error, or information message.

In APF File (Default Settings Shown)	In Foresight Studio Profile Box	Result
ELOC=0	ELOC Default = unselected	Should the detail results file contain an Error Location (ELOC) record for errors in the 10000-29999 range? These appear after each EMSG record, and show location information - the names of the element, composite, segment, and loop referred to by the DTL record.  Response Generator uses these with the %Error_NonTech% custom report variable to create non-technical error messages in custom reports.  TIBCO Foresight® Transaction Insight® uses ELOC records to provide non-technical wording if the user selects non-technical error messages.
EMSG=1	EMSG Default = selected	Should the detail results file contain an Error Message (EMSG) record after each DTL record? These show the actual text of warnings, errors, or information messages.
EMSGSEVERITY=#	N/A	EMSG is suppressed in the Instream detail results file when its severity is greater or equal to #.  Example: EMSGSEVERITY=3 causes EMSG to show up only if the Severity for a DTL record is at least 3.  EMSG is checked first. If EMSG=0, then EMSGSEVERITY is ignored.
END=1	END Default = selected	Should the detail results file contain an End (END) record at the end of the file? This shows the date and time when validation ended, and the name and size of the EDI file validated.  HIPAA Validator Online users should leave this set to 1.
ENDS=1	ENDS Default = selected	Should the detail results file contain an End Record for Transaction Set (ENDS) record at the end of each transaction set?  It shows the number of lines and segments, and the transaction set control number.  HIPAA Validator Online users should leave this set to 1.
ESEG=1	ESEG Default = selected	Should the detail results file contain an Error Segment Data (ESEG) record for each DTL record? These show the actual contents of the EDI segment that caused the corresponding DTL record's warning, error, or information message.
ETYPE=1	ETYPE Default = selected	Should the detail results file end with an Error Type (ETYPE) record? This contains counters for each message type for the entire file.

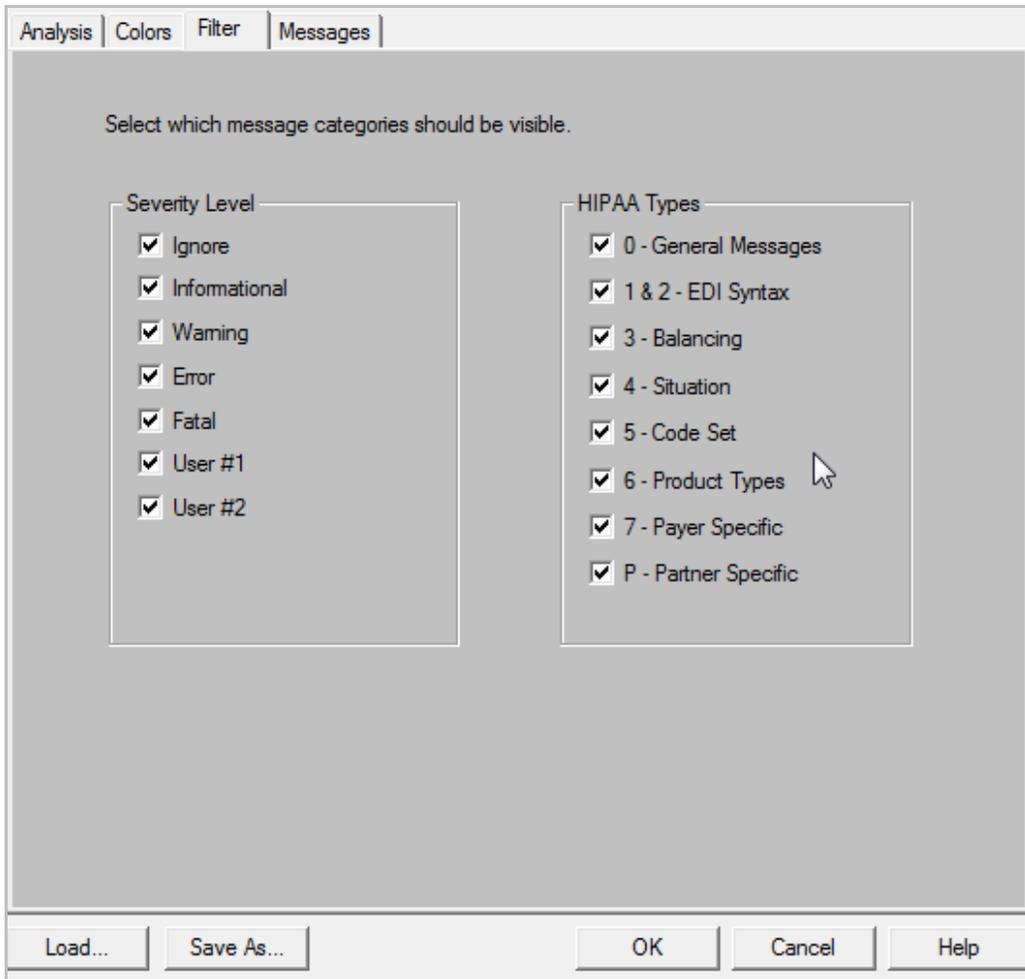
In APF File (Default Settings Shown)	In Foresight Studio Profile Box	Result
ETYP=1	ETYP Default = selected	Should the detail results file contain a Set Error Type Summary (ETYP) record at the end of each transaction set? This contains counters for each error type found in the preceding transaction set.
EVALU=1	EVALU Default = selected	For future enhancement.
GEN=1	GEN Default = selected	Should the detail results file contain General Message (GEN) records? These contain informational messages.  Currently, some errors may be reported in GEN records. These GEN record errors will be migrated to DTL records in a future release.
IDENT=0	N/A	For internal TIBCO Foresight use. Turns on the generation of IDENT records in the validation detail results file.
STRT=1	STRT Default = selected	Should the detail results file contain a Start (STRT) record? This shows information about the validation such as the date and time when the validation started, and the name and size of the EDI file being validated.  0        No 1        Yes  HIPAA Validator Online users should leave this set to 1.  If you are using Trading Partner Automation, the setting of STRT in \$fsdeflt.apf will be used, even if your CSV file points to another APF file.
STRUE=1	STRUE Default = selected	Should the detail results file contain Structure End Records?  Used by DocSplitter and Response Generator.
STRUS=1	STRUS Default = selected	Should the detail results file contain Structure Start Records?  Used by DocSplitter and Response Generator.
SVALU=1	SVALU Default = selected	Should the detail results file contain Segment Value Records?  Used by DocSplitter and Response Generator.
SVRTS=1	SVRTS Default = selected	Should the detail results file contain a Set Error Severity Summary (SVRTS) record after every transaction set? This contains counters for each severity found in the preceding transaction set.
SVRTY=1	SVRTY Default = selected	Should the detail results file contain an Error Severity Summary (SVRTY) record? This contains counters for each severity levels for the entire file.

In APF File (Default Settings Shown)	In Foresight Studio Profile Box	Result
UID=0	UID Default = unselected	You can activate your guideline's GenerateFSUID business rules by setting the UID=1 line in the [Detail Record Output] section of the APF file being used for Instream validation. See "GenerateFSUID" in <b>BusinessRules.pdf</b> .
VER=1	VER Default = selected	Should the detail results file contain a Version (VER) record as the first record? This shows the version of the detail results file.
ZREC=1	ZREC Default = selected	Should the detail results file contain Custom Data (Z) records? These display the contents of actual data elements.  If using DocSplitter with content-based splitting, or if you are using your own custom records or are using content-based splitting.

## Types Allow Section

The **[Types Allow]** section of the APF file corresponds to the HIPAA Types column in HIPAA Validator Desktop's **Options | Validator Profile | Filter** tab. Each message has a type (Example: type 3 for Balancing errors). The [Types Allow] section allows you to filter HIPAA Validator Desktop and Instream messages by type.

### HIPAA Validator Desktop and Foresight Studio



### APF File Default Settings

[Types Allow]

Type0=1

Type1=1

Type2=1

Type3=1

Type4=1

Type5=1

Type6=1

Type7=1

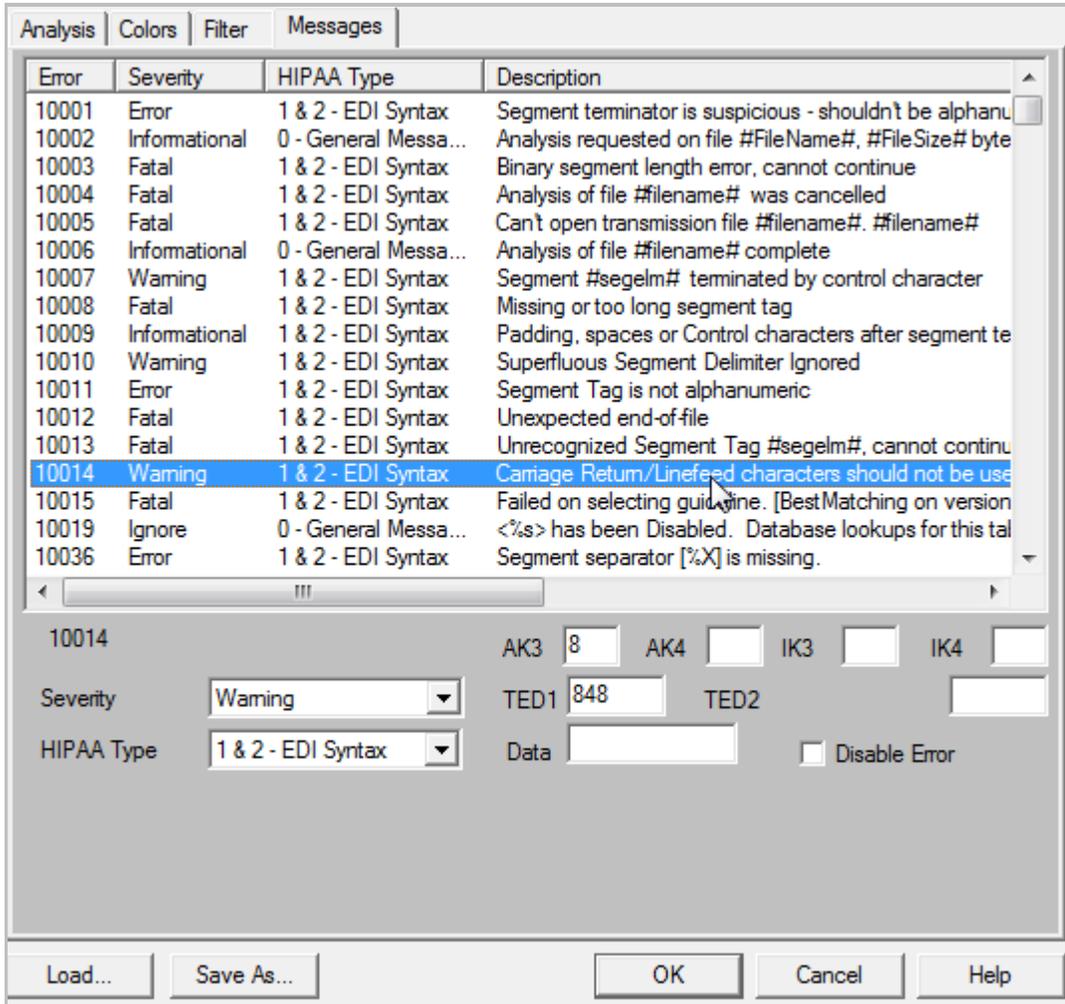
Type8=1

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
[Types Allow]		
Type0=1	0 - General Messages Default = selected	Should Type 0 messages be output? 0 No 1 Yes  This is a system informational message, not a WEDI/SNIP type. If Type 0 is disabled, neither DocSplitter nor Response Generator will work.  The option is intended for use in viewing HIPAA Validator Desktop output, since general messages are not significant to that application.
Type1=1	1 & 2 - EDI Syntax (one HIPAA Validator Desktop checkbox controls both APF file lines) Default = selected	Should Type 1 messages be output?
Type2=1		Should Type 2 messages be output?
Type3=1	3 – Balancing Default = selected	Should Type 3 messages be output?
Type4=1	4 - Situation Default = selected	Should Type 4 messages be output?
Type5=1	5 - Code Set Default = selected	Should Type 5 messages be output?
Type6=1	6 - Product Types Default = selected	Should Type 6 messages be output?
Type7=1	7 - Payer Specific Default = selected	Should Type 7 messages be output?
Type8=1	P - Partner Specific Default = selected	Instream: Should Type 8 messages be output? HIPAA Validator Desktop: Should Type P messages be output?

## Warning Levels Section

The [Warning Levels] section of the APF file corresponds to HIPAA Validator Desktop's **Options | Validator Profile | Messages** tab.

### HIPAA Validator Desktop



### APF File Example:

```
[Warning Levels]
10001=3,1,8,6,,,,,
10002=1,0,,,,,
10003=4,1,8,,848,,,,
.
.
.
35314=3,4,8,,011,,148,,,
35315=3,4,8,,011,,128,,,
.
.
```

## Foresight Studio

The screenshot shows the 'Messages' tab in the Foresight Studio interface. At the top, there are tabs for 'Analysis', 'Colors', 'Filter', 'Messages', and 'InStream Results'. Below the tabs is a table of messages with columns for Error, Severity, HIPAA Type, and Description. The first message (10001) is selected and highlighted in blue. Below the table is a filter panel with fields for Error (10001), Severity (Error), HIPAA Type (1 & 2 - EDI Syntax), and various codes (AK3, AK4, IK3, IK4, TED1, TED2, STC277). There is also a 'Data' field and a 'Disable Error' checkbox. The description of the selected message is 'Segment terminator is suspicious - shouldn't be alphanumeric'.

Error	Severity	HIPAA Type	Description
10001	Error	1 & 2 - EDI Syntax	Segment terminator is suspicious - shouldn't be alphanumeric
10002	Informational	0 - General Messages	Analysis requested on file #FileName#, #FileSize# byte
10003	Fatal	1 & 2 - EDI Syntax	Binary segment length error, cannot continue
10004	Fatal	1 & 2 - EDI Syntax	Analysis of file #filename# was cancelled
10005	Fatal	1 & 2 - EDI Syntax	Can't open transmission file #filename#. #filename#
10006	Informational	0 - General Messages	Analysis of file #filename# complete
10007	Warning	1 & 2 - EDI Syntax	Segment #segelm# terminated by control character
10008	Fatal	1 & 2 - EDI Syntax	Missing or too long segment tag
10009	Informational	1 & 2 - EDI Syntax	Padding, spaces or Control characters after segment te
10010	Warning	1 & 2 - EDI Syntax	Superfluous Segment Delimiter Ignored
10011	Error	1 & 2 - EDI Syntax	Segment Tag is not alphanumeric
10012	Fatal	1 & 2 - EDI Syntax	Unexpected end-of-file
10013	Fatal	1 & 2 - EDI Syntax	Unrecognized Segment Tag #segelm#, cannot continue
10014	Warning	1 & 2 - EDI Syntax	Carriage Return/Linefeed characters should not be use

Filter panel details:

- Error: 10001
- Severity: Error
- HIPAA Type: 1 & 2 - EDI Syntax
- AK3: 8
- AK4: 6
- IK3:
- IK4:
- TED1:
- TED2:
- STC277:
- Data:
- Disable Error:

Description: Segment terminator is suspicious - shouldn't be alphanumeric

In APF File (Default Settings Shown)	In HIPAA Validator Desktop and Foresight Studio Profile Boxes	Result
[Warning Levels]		This section describes the characteristics of each diagnostic message as displayed in HIPAA Validator Desktop's top pane and in Instream's detail results file.  Some fields supply values that are used by Response Generator when it creates 997s, 999s, and 824s.
List of error and warnings messages.	These fields: Error, Severity, HIPAA TYPE, AK3, AK4, TED1, TED2, STC-01-02, IK304, IK403, Application Data  See Format of Warning Levels Lines information section for format.	

## Format of Warning Levels Lines

---

*errornumber* = severity , type , AK3 , AK4 , TED1 , TED2 , STC-01-02 , IK3 , IK4 , data

Where:

*errornumber* Each error has a unique ID number. Their ranges are shown in **ErrorMessageNumbers.pdf**.

Please see **ErrorMessageNumbers.pdf** for a chart of where each error message is located.

,

Commas separate each field. Always include all of the commas.

*severity* The severity of this error, a number from 0 to 6:

Severity	Meaning
0	Ignore
1	Informational
2	Warning
3	Error
4	Fatal Error
5	User Level 1
6	User Level 2

Putting a minus sign in front of an individual error's severity (right after the equals sign) causes the error to be omitted from the validation detail file:

```
79972=-3,8,8,7,024,X1,,
```

↑

The effects of changing a message's severity include:

- **Colors:** HIPAA Validator Desktop displays the message in a different color.
- **Validation:** The change will affect what HIPAA Validator Desktop or Instream flags as an error.
- **Filtering:** HIPAA Validator Desktop or Instream filters according to the severity level.
- **DocSplitter** sends data to the invalid file if it generated messages with severities of 3-6.
- **Response Generator** uses severity to determine its response. By default, it:
  - Ignores messages with severity levels 0 and 1

- Treats messages with severity 2 as warnings, but still accepts the data
- Treats messages with severity 3 or higher as error and issues a rejection

*type*

The error type, a number from 0 to 8. HIPAA Validator Desktop shows a P next to its checkbox for Partner-specific errors, while Instream uses 8 to represent Partner-specific errors.

Type	Meaning	Notes
0	General messages	This is not a WEDI SNIP type. These are messages that should not be included in any error counts generated during validation.
1	EDI Syntax	Messages dealing with basic X12 integrity.
2	Syntactical Requirement	Messages dealing with basic X12 integrity. Within HIPAA Validator Desktop this is combined with 1.
3	Balancing	Messages dealing with balancing segment and transaction counts, financial balancing, and summary data elements.
4	Situation	Messages dealing with situations between segments, defined in the HIPAA implementation guides.
5	Code Set	Messages dealing with HIPAA external code sets such as taxonomy codes.
6	Product Types or Lines of Service	Messages dealing with health care lines of business like ambulance, home healthcare, etc.
7	Payer Specific	Messages dealing with HIPAA requirements specific to Medicare, Medicaid, and Indian Health.
8	Partner Specific	This is not a WEDI SNIP type. These are errors or warnings generated by rules that you set up with TIBCO Foresight® EDISIM® (usually, error messages in the 32000-32999 range).

The effects of changing a message's type include:

- **Filtering:** HIPAA Validator Desktop and Instream filter according to the type.
- **Validation:** The change may affect what HIPAA Validator Desktop or Instream flags as an error. Example: If you change a message from type 3 to type 6, and then you filter so that only types 1-4 are being checked, you will no longer see the error message.
- **DocSplitter** results may differ. It splits according to what is flagged during validation. If you change the message's type to something being filtered, for example, it will no longer cause a split. The valid and invalid files will be different than they would have been if you'd not changed the type.

- **Response Generator** results may differ. In 'strict' mode, an error's type dictates which transaction (i.e. the 997/999 or the 824) is used to report the error. To use strict mode, put **-s** strict option on the command line, or request 997/999 *and* 824 responses. In these cases, Response Generator puts Type 1 and 2 errors into the 997/999 response, and the other types into the 824 response.

**AK3**

*Affects Response Generator 997s and 999s only.* This value appears in Instream's DTL record and is used by Response Generator to populate the contents of the AK304 element. For valid values, see the X12 code list for AK304.

If the APF file includes no value for the AK3, and therefore the validation DTL record contains no value for it, Response Generator will use these default values in the AK3:

- If the error is not related to a specific element: default AK304 value is **1**
- If the error is related to a specific element: default AK304 value is **8**

**AK4**

*Affects Response Generator 997s and 999s only.* This value appears in Instream's DTL record and is used by Response Generator to populate the contents of the AK403 element. For valid values, see the X12 code list for AK403.

If the APF file includes no value for AK4, and therefore the validation DTL record contains no value for it, Response Generator will use a default value of **7**.

**TED1**

*Affects Response Generator 824s only.* This value appears in Instream's DTL record and is used by Response Generator to populate the contents of the TED01 element in an 824. For valid values, see the X12 code list for TED01. If a TED02 is to be included, then the TED01 should contain code value 024.

If the APF file includes no value for TED1, and therefore the validation DTL record contains no value for it, Response Generator will use a default value of **024**.

**TED2**

*Affects Response Generator 824s only.* This value appears in Instream's DTL record and is used by Response Generator to prefix the contents of the TED02 element in an 824. For HIPAA transactions, see the HIPAA 824 code list for valid values.

If the APF file includes no value for TED2, and therefore the validation DTL record contains no value for it, Response Generator will not include a value for the TED02.

**STC-01-02**

Affects Response Generator only. (This cannot be set in the HIPAA Validator Desktop Profile dialog box. You must edit the APF file directly to put in STC-01-02 overrides.)

When creating an unsolicited 277, the first error in each claim will generate a STC segment. You can put in a value here for the STC-01-02 for this particular error number. If omitted, the STC-01-02 will contain 21.

Assume a claim has 3 errors:

1. First error number has no STC-01-02 specified in the APF so it defaults to 21
2. Second error number has STC-01-02 value of 24 in the APF file
3. Third error number has no STC-01-02 specified in the APF so it defaults to 21

The value in the STC-01-02 generated by Response Generator will be 24, which is the first user-specified value. If none of the three errors had STC-01-02 values specified in the APF, the STC-01-02 would be 21.

We recommend that you NOT specify 21 in the APF. It is already the default, and inserting it might interfere with Response Generator's ability to use another value that you specified.

**IK3** Affects Response Generator only. This value appears in Instream's DTL record and is used by Response Generator to populate the contents of the IK304 in a 999. See the IK304 code value list for valid values.

If the APF file includes no value for IK304, and therefore the validation DTL record contains no value for it, Response Generator will use these default values in the 999's IK304:

- If the error is not related to a specific element: default value is **1**
- If the error is related to a specific element: default value is **8**

**IK4** Affects Response Generator only. This value appears in Instream's DTL record and is used by Response Generator to populate the contents of the IK403 element in a 999. See the IK403 code value list for valid values.

If the APF file includes no value for AK403, and therefore the validation DTL record contains no value for it, Response Generator will use a default value of 7.

**data** This value appears at the end of Instream's DTL record and is for your own use. Example use: Display your own internal error number for use by one of your application programs.

### Example 1

```
10001=3,1,8,6,,,,,,,,,
```

This line describes error number 10001, which is in the range for built-in messages triggered by basic X12 rules. The rest of the line describes error 10001:

- Severity is 3, indicating an error.
- HIPAA type is 1, indicating EDI syntax error.
- AK3 is 8. The AK304 contains 8, which means "Segment has Data Element Errors."
- AK4 is 6. The AK403 contains 6, which means "Invalid Character in Data Element."
- The trailing commas are placeholders for TED1, TED2, STC-01-02, IK3-04, IK4-03 and data, which are empty.

## Example 2

38117=3,6,8,10,012,,,,,L42

This line describes error number 38117, which is in the range for messages triggered by HIPAA rules. The rest of the line describes error 38117:

- Severity is 3, indicating an error.
- Type is 6, indicating the message pertains to Product Types or Lines of Service.
- AK3 is 8. The AK304 contains 8, which means “Segment has Data Element Errors.”
- AK4 is 10. The AK403 contains 10, which means “Exclusion Condition Violated.”
- TED1 is 012. The TED101 contains 012, which means “Invalid Combination.”
- The commas are placeholders for TED2, IK3-04, IK4-03 and STC-01-02.
- Data is L42 and is for your company’s use. TIBCO Foresight does not use it.

## Example Warning Levels Tab in HIPAA Validator Desktop

The screenshot shows the 'Messages' tab in the HIPAA Validator Desktop. A table lists various error messages with columns for Error, Severity, HIPAA Type, and Description. Error 30015 is highlighted. Below the table, a configuration panel for error 30015 is visible, showing fields for AK3 (8), AK4 (7), IK3, IK4, Severity (Error), TED1 (0246), TED2 (X77), HIPAA Type (4 - Situation), and Data (11). There is also a 'Disable Error' checkbox.

Error	Severity	HIPAA Type	Description
30003	Error	4 - Situation	The Billing Provider Secondary Identification number (L
30004	Informational	4 - Situation	The Pay-To Provider (Loop 2010AB NM109) should nc
30005	Error	4 - Situation	The Pay-To Provider Secondary Identification (Loop 20
30006	Error	4 - Situation	The Subscriber Secondary Identification number (Loop
30007	Error	4 - Situation	The Claim Filing Indicator Code (Loop 2000B SBR09) v
30008	Error	4 - Situation	The Related-Causes Information Code #Current_Eleme
30009	Error	4 - Situation	The Claim Filing Indicator code (Loop 2320 SBR09) wa
30010	Error	4 - Situation	The Diagnosis Code #FS_FindCodeValue# has been u
30011	Error	6 - Line of Service	The segment indicating DATE OF ACCIDENT (DTP01
30012	Error	4 - Situation	The Procedure Code #FS_FindCodeValue# has been
30013	Informational	4 - Situation	The Occurrence Span Code #FS_FindCodeValue# ha
30014	Informational	3 - Situation	The Occurrence Code #FS_FindCodeValue# has been
30015	Error	4 - Situation	The Value Code #FS_FindCodeValue# has been used
30016	Error	4 - Situation	The social security number may not be used for Medica
30017	Error	4 - Situation	The Treatment Code #FS_FindCodeValue# has been u
30018	Error	4 - Situation	The Quantity Qualifier code (Loop 2300 QTY01) #FS_f
30019	Error	6 - Line of Service	The CR1 segment in loop 2300 is required on all claims

Configuration for Error 30015:

- AK3: 8
- AK4: 7
- IK3:
- IK4:
- Severity: Error
- TED1: 0246
- TED2: X77
- HIPAA Type: 4 - Situation
- Data: 11
- Disable Error:

## APF File

30015=3,4,8,7,024,X7,463,,,,

1 2 3 4 5 6 7 8 9 10 11

Not on dialog box

## RespGen Overrides Section

The **[RespGen Overrides]** section of the APF file instructs Response Generator to substitute a custom value when creating certain segments in the detail file. This allows you to generate response documents with more customized information about errors encountered in the data.

Refer to Appendix H: Response Generator Overrides File in **TIB\_fsp-instream\_<n.n>\_respgen.pdf** for complete information.

## Severities and Types

Each TIBCO Foresight error message has a severity and type that indicates how serious the error is to be considered.

You can:

- See each error message's severity and type.
- In HIPAA Validator Desktop applications, they are color-coded. You can also see them by right-clicking on an error.
- In command-line applications, they are displayed in the message.
- Modify the severity or type of any error. This lets you strengthen or weaken compliance checking by moving errors to different severities and types.
- Filter reports or displays by severity and type. This lets you suppress any message by assigning it to a severity or type that is being filtered.

### Severities

Severity	Explanation	Examples
Ignore 0	No TIBCO Foresight errors are assigned to Ignore. You can change an item to Ignore for your own use.	Typically, you change a message to ignore and then stop displaying it by filtering Ignore messages.
Informational 1	Informational messages convey information that is not indicative of a problem.	Start of a new transaction set with control number <i>nnn</i> . Naming the guideline used for validation.
Warning 2	Warnings describe EDI data imperfections that are not normally cause for rejection of the transaction set.	Lower case letters found in xxx. Leading zeros in numeric data. Leading blanks in alphanumeric item.
Error 3	Errors describe EDI data errors that normally cause rejection of the transaction set.	Code value xxx not used in code set. Functional group count incorrect. Segment is present in data but was marked unused.
Fatal 4	Fatal errors caused the analysis to not complete properly.	Cannot open data file. Missing or too long segment tag. Can't interpret enveloping. Missing mandatory segment.
User 1 5	No TIBCO Foresight errors are assigned to User 1. It is a place to temporarily put errors or special interest or of no interest.  Do not use this level with Instream if you are using DocSplitter or Response Generator.  The TIBCO Foresight debugger uses User 1 for its debug messages.	Debug messages.

Severity	Explanation	Examples
User 2 6	No TIBCO Foresight errors are assigned to User 2. It is a place to temporarily put errors or special interest or of no interest.  Do not use this level with Instream if you are using DocSplitter or Response Generator.	Messages that you want to separate.

You can adjust a message's severity by editing the validation APF file.

## Types

Type	Explanation	Examples	Validated by ...
0	General messages.	Name of file being checked and guideline being used.	Programs: All TIBCO Foresight Validators  Guidelines: All guidelines
1	EDI Syntax Integrity	Invalid segments, segment order, element attributes, testing for numeric values in numeric data elements, validation of X12 syntax and compliance with rules of the standards body.	Programs: All TIBCO Foresight Validators  Guidelines: All guidelines
2	Syntactical requirement (within TIBCO Foresight® HIPAA Validator® Desktop, this is combined with 1)	Violation of guideline-specific requirements, such as repeat counts, codes included and omitted, required or intra-segment situational data elements and values in a code list from the standards body.	Programs: All TIBCO Foresight Validators  Guidelines: All guidelines
3	Balancing (HIPAA error)	Data that should add up is not adding up:  The CLM02 does not equal the sum of the SV203.  The segment counts are incorrect.	Programs: HIPAA Validators (Instream/ HIPAA Validator Desktop)  Guidelines: HIPAA guidelines, those merged with them
4	Situational	Violations of specific inter-segment situations described in the guideline, such that: If A occurs, then B must be populated.	Programs: HIPAA Validators (Instream/ HIPAA Validator Desktop)  Guidelines: HIPAA guidelines, those merged with them

Type	Explanation	Examples	Validated by ...
5	External Code Set	Invalid guideline-specific code set values: The facility code is not in the external code list.	Programs: HIPAA Validators (Instream/ HIPAA Validator Desktop) Guidelines: HIPAA guidelines, those merged with them
6	Product Types or Lines of Service (HIPAA only)	Specialized testing required by certain health care specialties. Data included a date of accident but not related causes.	Programs: HIPAA Validators (Instream/ HIPAA Validator Desktop) Guidelines: HIPAA guidelines, those merged with them
7	Payer Specific (HIPAA only)	Specific requirements for partners per the Implementation Guides, such as Medicare and Indian Health: The value is an invalid UPIN ID number.	Programs: HIPAA Validators (Instream/ HIPAA Validator Desktop) Guidelines: HIPAA guidelines, those merged with them
8	Partner Specific (in HIPAA Validator Desktop, this is shown as a P)	Edits that let partners pass a payer's adjudication system: The ST03 must equal ABC. The value should match a specified pattern.	Programs: EDISIM® Guidelines: EDISIM guidelines and those merged with them

You can adjust a message's type by editing the validation APF file.

TIBCO Foresight guidelines that are labeled "Types 1-7" ship with HIPAA products and are encrypted. EDISIM cannot open encrypted guidelines. After you create your own edits with EDISIM, you can use GuideMerge to merge them into the encrypted TIBCO Foresight guidelines. The resulting guideline can be used with Instream and other programs that can use encrypted guidelines.

## Changing the Severity or Type

To change an error's severity or type, or to filter by severity or type, use:

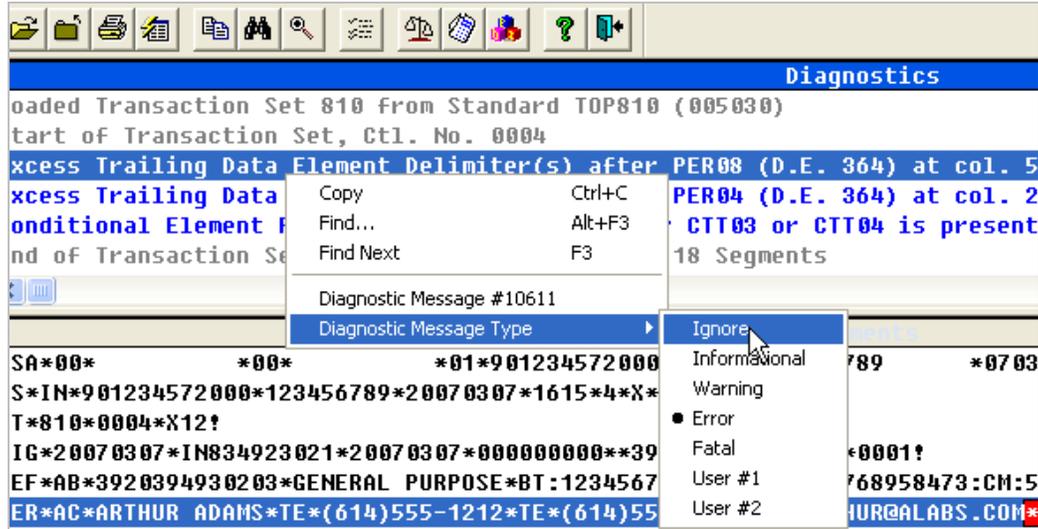
Product	Method to Change Severity	For Details...
HIPAA Validator Desktop, EDISIM Analyzer and Validator components	Options   Validator Profile   Filter  Options   Validator Profile   Messages	<b>TIB_fsp_edisim_&lt;n.n&gt;_fsvalidator.pdf</b>  <b>TIB_fsp_edisim_&lt;n.n&gt;_fsanalyz.pdf</b>
All TIBCO Foresight validators	APF file	This document.

## Example

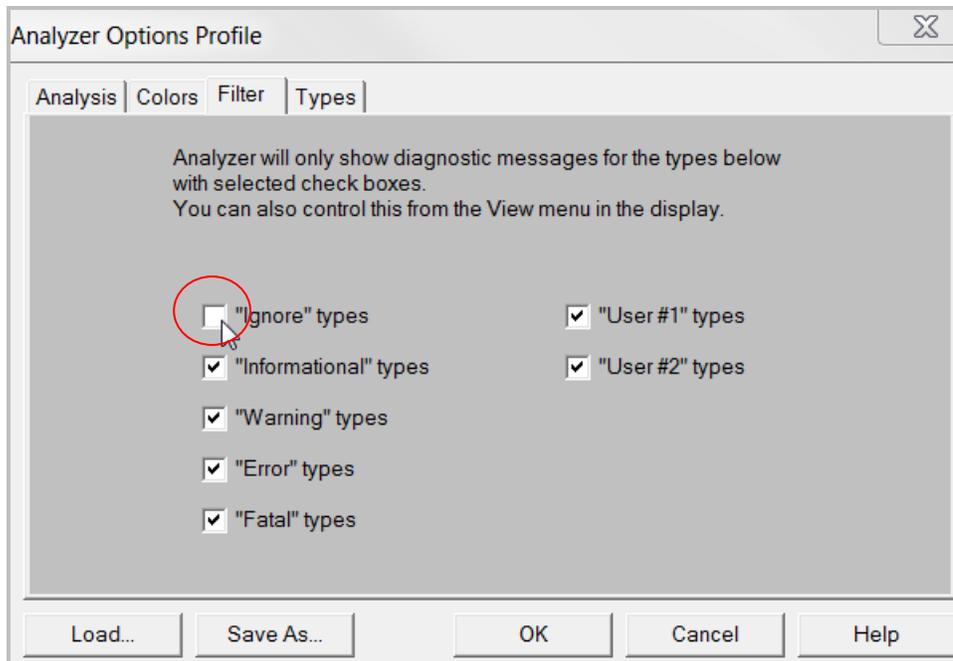
HIPAA Validator Desktop, EDISIM Analyzer and Validator

"Type" in these products matches "severity" in Instream programs.

This example shows a trailing delimiters message that had a severity of Error. The user has right-clicked on the message and is changing the severity to Ignore.



The user can then filter Ignore messages, thus suppressing display of the trailing delimiters message:



## HVUpdate: Moving your APF changes to a new Version

If you have created your own APF files to customize your validations, you can update them to work with newer versions of HIPAA Validator Desktop and TIBCO Instream.

HVUpdate and HVUpdateManager let you merge the changes from the newly installed \$fsdeflt.apf into your existing custom APF files. This includes adding any new error numbers and merging any format changes.

During the update, new sections or entries may be added to your APF files. Nothing is removed from your custom APF file. If your error numbers are out of order, they are automatically resorted.

Any differences in existing entries are reported without changing the actual values.

For information about creating a custom validation profile, see [Creating your own APF File\(s\)](#) on page 3.

### Updating from the command line

1. Be sure that these files are in the same directory:

- **HVupdate.exe** from the new version's Bin directory (if using command line to update)
- **\$fsdeflt.apf** from the new version's Bin directory
- All APF files that you want to update (their file extension must be **apf**)

#### Examples:

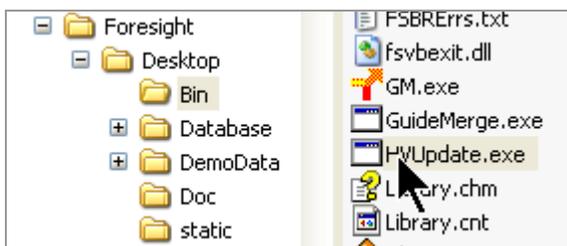
Ourprofile.apf --> will update on all platforms  
Ourprofile.APF --> will update on Windows, but not UNIX  
Ourprofile.APFbackup --> will not update

For convenience, you may want to keep your APF files in the Instream or HIPAA Validator Desktop Bin directory since that is where HVupdate.exe and \$fsdeflt.apf are installed.

2. Run **HVUpdate** by using one of these methods:

- Express method: If you are not specifying the severity for new records and don't need to see a log file:

Double-click on **HVupdate.exe**.



- Execute HVUpdate from the command line:

```
path\HVUpdate {-v} {-nb} {-st} {> hvupdate.log}
```

Where:

<b>-v</b>	Version information displays. Optional.
<b>-nb</b>	<b>No Backup.</b> Changed <b>APF</b> files are not backed up first. If <b>-nb</b> is omitted, HVupdate backs up your custom APF files into a subdirectory <b>backup_ymmddyy_bmmm</b> that it creates below the one where HVupdate.exe is located. Optional.
<b>-st</b>	<b>Severity from Type</b> for new records. You can specify the severity for each type as described in <a href="#">Setting the severity of new records</a> on page 49 and <a href="#">Format of the -st parameter</a> on page 43. Optional.
<b>&gt; hvupdate.log</b>	Results go in file hvupdate.log, not the screen. Optional.

## Command Line Examples

---

This example updates all custom APF files in the Bin directory without creating a log. Backups are in a subdirectory:

```
C:\> C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.
C:\DOCUMENTS\LBROWN\DESKTOP>hvupdate
```

This example updates all custom APFs in the Bin directory without backing them up. It writes changes to the custom APF files to a log:

```
C:\> C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.
C:\FORESI\DESKTOP\BIN>hvupdate -nb > hvupdate.log
```

## Format of the -st parameter

After the -st, you have nine characters – one for each type:

```
HVUpdate -stppppppppp
                ↑↑↑↑↑↑↑↑↑
                0 1 2 3 4 5 6 7 8
Type
```

*p* is either a:

- hyphen - use the default severity for that type message
- number - assigns a specific severity to the type

## Examples of `-st` parameter

---

### Example 1

This gives a severity of 2 (Warning) to all new records with a type of 8 (Partner-specific), and writes a log file:

```
C:\ C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.
C:\FORESI~1\DESKTOP\BIN>hvupdate -st-----2 > hvupdate.log
```

Notice the eight hyphens, meaning HVupdate will use default severities for types 0-7 for all for new error messages added to the user profiles.

The 2 in the last position means that HVupdate will use a severity of 2 for type 8 errors for all new error messages added to the user profiles.

### Example 2

This gives a severity of 2 (Warning) to all new records with types of 6, 7, and 8, and writes a log file:

```
C:\ C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.
C:\FORESI~1\DESKTOP\BIN>HVUupdate -st-----222 > hvupdate.log
```

### Example 3

This gives a severity of 0 (Ignore) to all new records with types of 0 (Informational), and writes a log file:

```
C:\ C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.
C:\FORESI~1\DESKTOP\BIN>HVUupdate -st0----- > hvupdate.log
```

### Example 4

This gives a severity of 2 (Warning) to all new records with types of 3 (Balancing), and writes a log file:

```
C:\ C:\WINDOWS\system32\command.com
Microsoft(R) Windows DOS
(C)Copyright Microsoft Corp 1990-2001.
C:\FORESI~1\DESKTOP\BIN>HVUupdate -st---2----- > hvupdate.log
```

## Updating from a graphical user interface

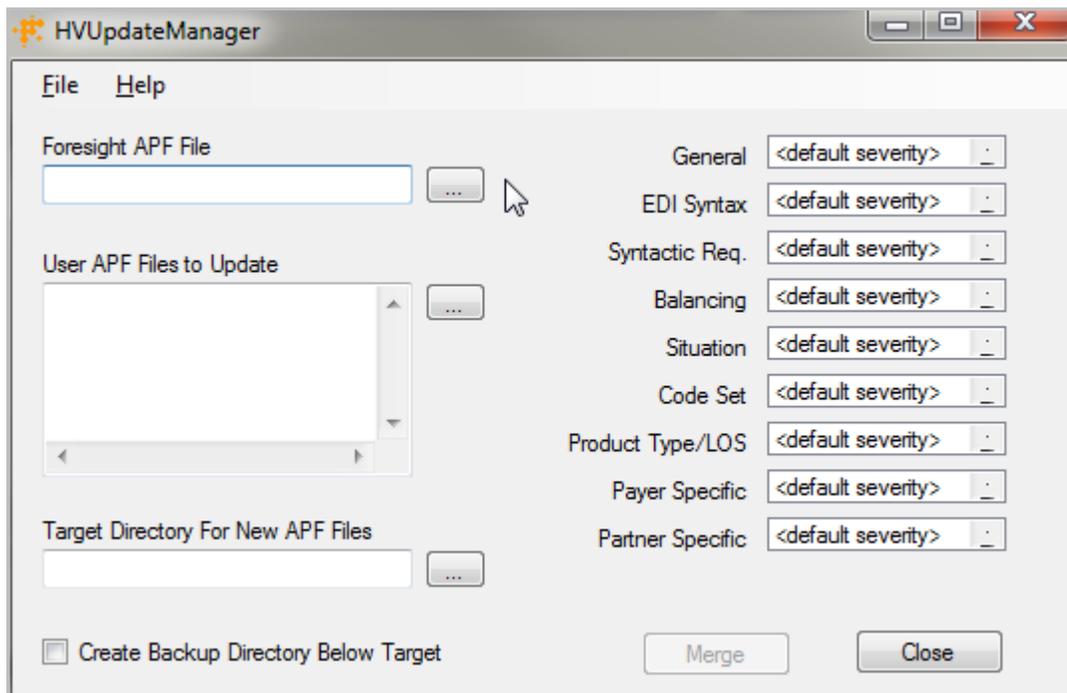
HVUpdateManager lets you select files and options from a user interface and then update your custom **APF** files.

**Requirements** Unlike command-line HVUpdate, this method requires .Net Framework version 2.0 or better.

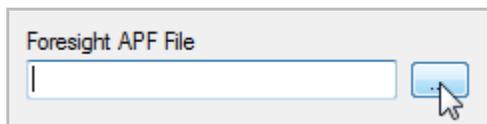
HVUpdateManager will also need permission to create a temporary directory on your machine.

### To update:

1. Execute **HVUpdateManager.exe** from Instream's Bin directory to display the main window:



2. Click the browse button for **Foresight APF File** and select the new **\$fsdeflt.apf** from Instream's Bin directory:



This contains the new entries to be merged into your custom APF files.

3. Click the browse button for **User APF Files to Update** and select one or more APF files that you want to update with the new version's information.
4. Browse to a **Target Directory For New APF Files**.

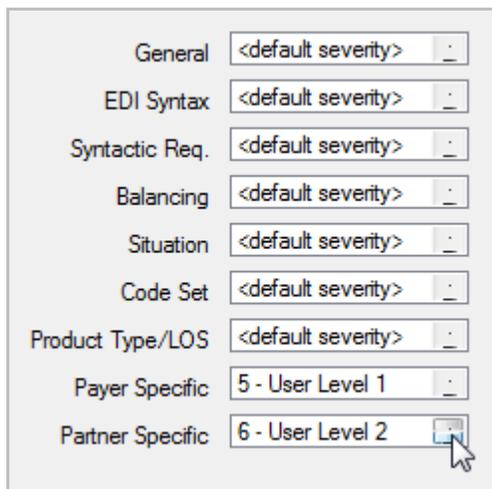
This is where HVUpdateManager will write the newly-merged APF files. If this is the directory where the target APFs currently reside, they are overwritten.

5. If you want HVUpdateManager to back up your custom APFs, choose **Create Backup Directory Below Target**.

If checked, this creates a directory HVUpdate\_ArchivedFiles\_<CurrentDateTime> (in YYYYMMDDhhmmsssttt format) and copies the un-updated custom APFs to it.

6. If desired, use the fields at the right to change the default severities for new errors being added to your custom APFs. This does not affect errors that are already in your custom APFs.

Each type has a separate field. You can click the controls at the end of a field, or click in the field and type a severity number:



The screenshot shows a settings dialog box with a list of error types and their corresponding default severity levels. Each entry consists of a label on the left and a text box on the right containing the severity value. The text boxes have a small downward arrow on the right side, indicating they are dropdown menus. The entries are:

General	<default severity>
EDI Syntax	<default severity>
Syntactic Req.	<default severity>
Balancing	<default severity>
Situation	<default severity>
Code Set	<default severity>
Product Type./LOS	<default severity>
Payer Specific	5 - User Level 1
Partner Specific	6 - User Level 2

See [Setting the severity of new records](#) on page 49 for details.

7. Click **Merge** to update your custom APFs.

This launches HVUpdate.exe in the Bin directory of the most recently-installed Instream (using the registry key HKEY\_LOCAL\_MACHINE\SOFTWARE\Foresight\Instream).

8. After the update completes, note the results.

See [Understanding the results](#) on page 47 for details.

9. Click **Save** if you want to save the results report.

10. Click **OK** and then **Close**.

Check your custom APFs should for the new version number and newly added information.

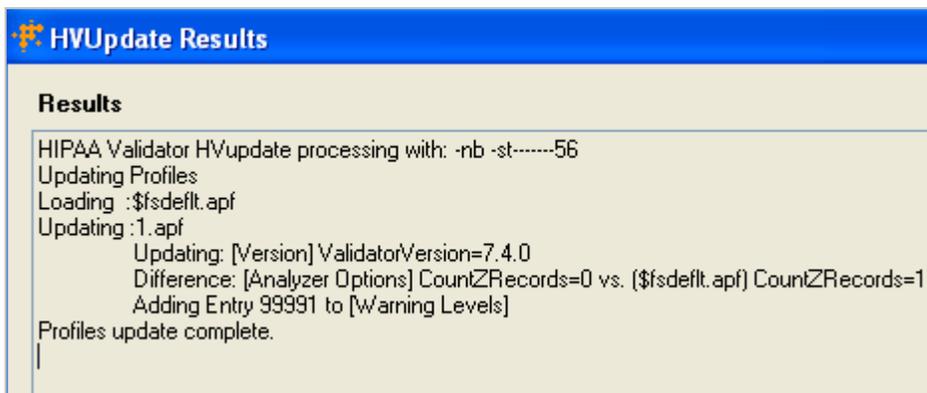
## Troubleshooting

Any of these will prevent HVUpdateManager from merging:

- .Net 2.0 or better not installed
- TIBCO Foresight registry key does not exist or is not pointing to the Instream directory
- One or more of the files selected are not valid APF files
- A custom APF file is write-only
- A custom APF file is in use by another application, such as a word-processor or text editor
- You do not have the privilege to create a temporary working directory for HVUpdateManager

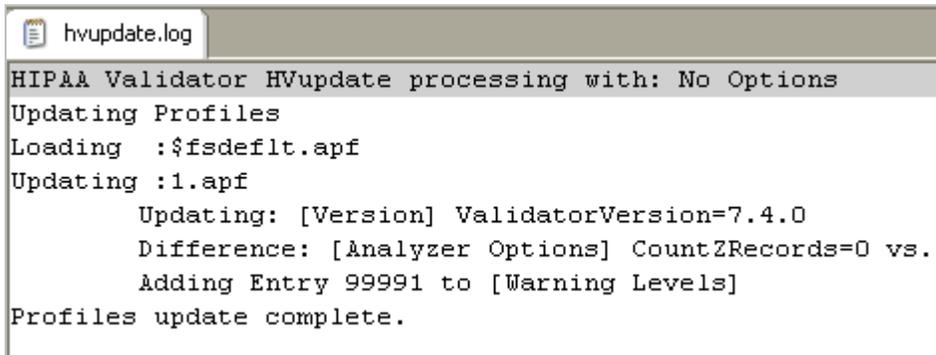
## Understanding the results

HVUpdateManager automatically displays a report on the screen:

A screenshot of a software window titled "HVUpdate Results". The window has a blue header bar with a gear icon and the text "HVUpdate Results". Below the header, the word "Results" is displayed in bold. The main content area shows a text-based report of the update process.

```
HIPAA Validator HVupdate processing with: -nb -st-----56
Updating Profiles
Loading :$fsdeflt.apf
Updating :1.apf
    Updating: [Version] ValidatorVersion=7.4.0
    Difference: [Analyzer Options] CountZRecords=0 vs. ($fsdeflt.apf) CountZRecords=1
    Adding Entry 99991 to [Warning Levels]
Profiles update complete.
```

When updating from the command line, you can create a log file by adding **> hvupdate.log** to the command line.

A screenshot of a text file named "hvupdate.log". The file contains the same text-based report as the screenshot above, but with a slightly different header.

```
HIPAA Validator HVupdate processing with: No Options
Updating Profiles
Loading :$fsdeflt.apf
Updating :1.apf
    Updating: [Version] ValidatorVersion=7.4.0
    Difference: [Analyzer Options] CountZRecords=0 vs.
    Adding Entry 99991 to [Warning Levels]
Profiles update complete.
```

Either method reports the same information.

## Example 1

---

The examples above show that two changes were made to 1.apf:

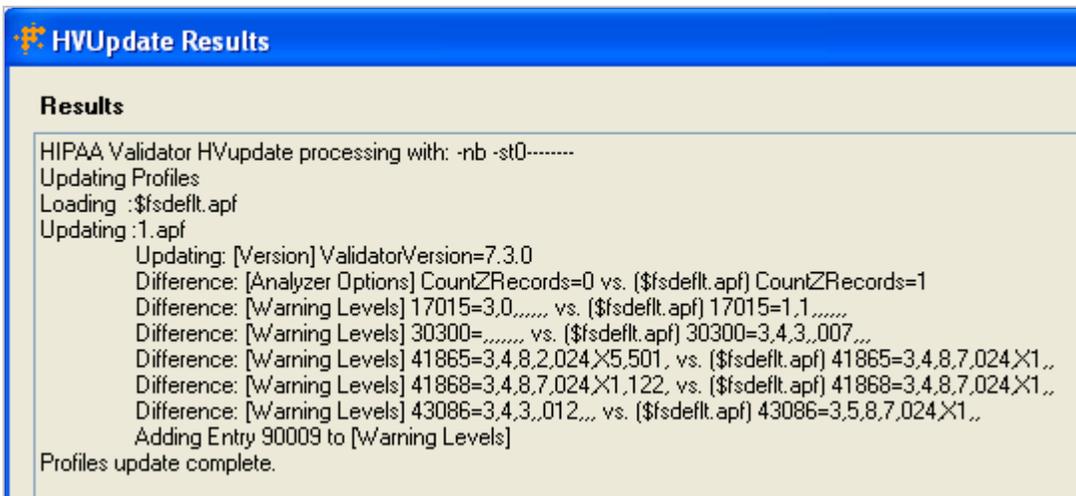
- The version line at the top of the file was updated to 7.4.0
- An error message 99991 was added

## Example 2

---

This example:

- Changed the version at the top of the custom APF files to 7.3.0.
- Reported differences in many records. Since they were records that already existed in the custom APF files, they were not changed.
- Added a record for error number 90009.



```
HVUpdate Results
Results
HIPAA Validator HVupdate processing with: -nb -st0-----
Updating Profiles
Loading :$fsdeflt.apf
Updating :1.apf
Updating: [Version] ValidatorVersion=7.3.0
Difference: [Analyzer Options] CountZRecords=0 vs. ($fsdeflt.apf) CountZRecords=1
Difference: [Warning Levels] 17015=3,0,,,,, vs. ($fsdeflt.apf) 17015=1,1,,,,,
Difference: [Warning Levels] 30300=,,,,, vs. ($fsdeflt.apf) 30300=3,4,3,,007...
Difference: [Warning Levels] 41865=3,4,8,2,024X5,501, vs. ($fsdeflt.apf) 41865=3,4,8,7,024X1,,
Difference: [Warning Levels] 41868=3,4,8,7,024X1,122, vs. ($fsdeflt.apf) 41868=3,4,8,7,024X1,,
Difference: [Warning Levels] 43086=3,4,3,,012,,, vs. ($fsdeflt.apf) 43086=3,5,8,7,024X1,,
Adding Entry 90009 to [Warning Levels]
Profiles update complete.
```

## Setting the severity of new records

In the APF file's [Warning Levels] section, each error number has a record in the APF file's, as described in Warning Levels Section on page 30.

This example shows message 99999 in an APF file. It has a severity of 3 and a type of 8:

```
99999=3, 8, 8, 7, 024, X1, ,  
Severity  ↑  Type
```

When you use HVUpdate's -st parameter, you can specify severity for any error types for new message numbers added to the custom APF.

Without the -st command line parameter, **new** message numbers are added to your custom APF files with default severities.

With HVUpdateManager, use the fields to the right to specify the severities for each type.

References:

- For information on Types see the [Types Allow Section](#) on page 27.
- For information on severities see Format of Warning Levels Lines in the [Warning Levels Section](#) on page 30.
- For information about the -st parameter see Format of the -st parameter on page 43.