



Creating IBM P8 Annotations Displayable in the Image Viewer

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This document provides information necessary to enable programmatic creation of IBM P8 Content Engine annotations which can be viewed by users through the P8 Image Viewer applet. This document formally describes the generic XML schema used to describe annotations, and less formally, describes which XML attributes are required on a per annotation type. Annotation security is also described.

P8 Annotations

Annotations are P8 objects that can be created via the Content Engine Java and .NET APIs. Annotations are *dependent objects* in that their life cycle is controlled by another type of P8 object, specifically *containable* objects – Documents, Folders and Custom Objects. Like Documents, Annotations may contain content via one or more content elements. Unlike Documents, the set of content elements can be changed during the Annotation's life.

The P8 Image Viewer applet allows users to create, modify, delete and of course display a variety of annotation types. Each annotation created by the Image Viewer is stored as a separate Content Engine Annotation object with a single content element containing an XML encoding of the annotation's attributes, e.g. position, color, text. Each Content Engine Annotation object is separately securable and the Image Viewer applet allows the end user to specify security on individual annotations which is reflected in the security settings on the Content Engine Annotation object.

In order to programmatically create P8 Annotations that can be viewed, modified, or deleted via the P8 Image Viewer applet, the programmer needs to understand (a) the generic XML schema used for Annotation object content, (b) the semantics of the various XML attributes and elements used within the Annotation XML Schema, and (c) how to appropriately secure Annotation objects.

P8 Annotation XML Schema

P8 Annotation object content must conform to the following XML Schema Definition. Each P8 Annotation object consists of a single <FnAnno> element with a single embedded <PropDesc> element.

```
<?xml version="1.0" encoding="utf-8" ?>
<xsd:schema id="FnAnno" targetNamespace="http://tempuri.org/FnAnno.xsd"
elementFormDefault="qualified" xmlns="http://tempuri.org/FnAnno.xsd"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">

  <!--
    Define the annotation type.
  -->
  <xsd:element name="FnAnno" minOccurs="1" maxOccurs="1">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="PropDesc" type="PropDescType" />
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

  <!--
    The complex type defines the structure for the F_POINTS property. Currently it is not
    used. ListofFnByte is used instead.
  -->
  <xsd:complexType name="FnPoints">
    <xsd:sequence>
      <xsd:element name="point" minOccurs="0" maxOccurs="300">
        <xsd:complexType>
          <xsd:attribute name="X" type="xsd:short" />
          <xsd:attribute name="Y" type="xsd:short" />
        </xsd:complexType>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>

  <!--
    Definition of a byte that has a value from 0 to 255.
  -->
```

```

<xsd:simpleType name="FnByte">
  <xsd:restriction base="xsd:integer">
    <xsd:minInclusive value="0" />
    <xsd:maxInclusive value="255" />
  </xsd:restriction>
</xsd:simpleType>
<!--
  This defines a list of bytes to be used by F_POINTS and F_CUSTOM_BYTE.
-->
<xsd:simpleType name="listOfFnByte">
  <xsd:list itemType="FnByte" />
</xsd:simpleType>
<!--
  This complex type defines the annotation properties.
-->
<xsd:complexType name="PropDescType">
  <xsd:sequence>
    <xsd:element name="F_CUSTOM_BYTES" type="listOfFnByte" />
    <xsd:element name="F_POINTS" type="listOfFnByte" />
    <xsd:element name="F_TEXT" type="xsd:string" />
  </xsd:sequence>
  <xsd:attribute name="F_ANNOTATEDID" type="xsd:string" />
  <xsd:attribute name="F_ARROWHEAD_SIZE" type="xsd:short" />
  <xsd:attribute name="F_BACKCOLOR" type="xsd:long" />
  <xsd:attribute name="F_BORDER_BACKMODE" type="xsd:short" />
  <xsd:attribute name="F_BORDER_COLOR" type="xsd:long" />
  <xsd:attribute name="F_BORDER_STYLE" type="xsd:short" />
  <xsd:attribute name="F_BORDER_WIDTH" type="xsd:short" />
  <xsd:attribute name="F_BRUSHCOLOR" type="xsd:long" />
  <xsd:attribute name="F_CLASSNAME" type="xsd:string" />
  <xsd:attribute name="F_CLASSID" type="xsd:string" use="required" />
  <xsd:attribute name="F_CREATOR" type="xsd:string" use="required" />
  <xsd:attribute name="F_ENTRYDATE" type="xsd:dateTime" />
  <xsd:attribute name="F_FONT_BOLD" type="xsd:boolean" />
  <xsd:attribute name="F_FONT_ITALIC" type="xsd:boolean" />
  <xsd:attribute name="F_FONT_NAME" type="xsd:string" />
  <xsd:attribute name="F_FONT_SIZE" type="xsd:short" />
  <xsd:attribute name="F_FONT_STRIKETHROUGH" type="xsd:boolean" />
  <xsd:attribute name="F_FONT_UNDERLINE" type="xsd:boolean" />
  <xsd:attribute name="F_FORECOLOR" type="xsd:long" />
  <xsd:attribute name="F_HASBORDER" type="xsd:boolean" />
  <xsd:attribute name="F_HEIGHT" type="xsd:double" />
  <xsd:attribute name="F_ID" type="xsd:long" use="required" />
  <xsd:attribute name="F_LEFT" type="xsd:double" />
  <xsd:attribute name="F_LINE_BACKMODE" type="xsd:short" />
  <xsd:attribute name="F_LINE_COLOR" type="xsd:long" />
  <xsd:attribute name="F_LINE_END_X" type="xsd:double" />
  <xsd:attribute name="F_LINE_END_Y" type="xsd:double" />
  <xsd:attribute name="F_LINE_START_X" type="xsd:double" />
  <xsd:attribute name="F_LINE_START_Y" type="xsd:double" />
  <xsd:attribute name="F_LINE_STYLE" type="xsd:short" />
  <xsd:attribute name="F_LINE_WIDTH" type="xsd:short" />
  <xsd:attribute name="F_MODIFYDATE" type="xsd:dateTime" />
  <xsd:attribute name="F_MULTIPAGETIFFPAGENUMBER" type="xsd:short" />
  <xsd:attribute name="F_NAME" type="xsd:string" use="required" />
  <xsd:attribute name="F_PAGENUMBER" type="xsd:short" use="required" />
  <xsd:attribute name="F_ROTATION" type="xsd:short" />
  <xsd:attribute name="F_SUBSTRING" type="xsd:string" />
  <xsd:attribute name="F_TEXT_BACKMODE" type="xsd:short" />
  <xsd:attribute name="F_TOP" type="xsd:double" />
  <xsd:attribute name="F_WIDTH" type="xsd:double" />
</xsd:complexType>

</xsd:schema>

```

P8 Annotation Semantics

While the P8 Annotation XML Schema defines what is generically permissible within the P8 Annotation object's content, it does not adequately describe which XML attributes are required for particular annotation types nor what information the value of those attributes convey.

The following table provides a description of each of the PropDescType attributes:

Name	Data Type/Description
F_ANNOTATEDID	String. Applies to all annotations. For P8, the GUID of the annotation object itself.
F_ARROWHEAD_SIZE	Short. Applies to arrow annotations. The size of the arrowhead. Can be none (value=0), small (the default, value=1), medium (value=2), or large (value=3).
F_BACKCOLOR	Long. Applies to text and stamp annotations. Indicates the color of the background in RGB format (COLORREF type).
F_BORDER_BACKMODE	Short. Applies to text and stamp annotations. Indicates whether the annotation border is transparent (value=1) or opaque (value=2). Viewer does not change this value and it is always set to 2.
F_BORDER_COLOR	Long. Applies to text and stamp annotations. Indicates the color of the annotation's bounding borderline in RGB format (COLORREF type).
F_BORDER_STYLE	Short. Applies to text and stamp annotations. Indicates the style of the border line. When F_LINE_WIDTH is 1 pixel, supported styles are solid, dash, dot, dash dot, dash dot dot. When F_LINE_WIDTH is > 1 pixel, the only supported style for pen annotations is solid. However, the Viewer GUI does not allow for anything but solid.
F_BORDER_WIDTH	Short. Applies to text and stamp annotations. Indicates the width of the annotation's bounding border line measured in pixels.
F_BRUSHCOLOR	Long. Applies to highlight annotations. Indicates the color of the highlight in RGB format (COLORREF type).
F_CLASSID	String. Applies to all annotations. A string formatted GUID that uniquely identifies the annotation type.
F_CLASSNAME	String. Applies to all annotations. The type of annotation. Can be: Arrow, Highlight, Pen, StickyNote, Stamp, Text, Custom
F_CREATOR	String. The name of the security principal who created the annotation.
F_ENTRYDATE	Date. Applies to all annotations. The date the annotation was saved to the library server in the format of "YYYY-MM-DDTHH:MM:SS.0000000-HH:MM" where "T" indicates time, and the [+]"HH:MM" is the timezone offset from GMT.
F_FONT_BOLD	Boolean. Applies to text and stamp annotations. Indicates whether the annotation's text appears in a regular (false) or bold (true) font.
F_FONT_ITALIC	Boolean. Applies to text and stamp annotations. Indicates whether the annotation's text appears in an upright (false) or italic (true) font.
F_FONT_NAME	String. Applies to text and stamp annotations. Indicates the style of font used by the annotation's text.
F_FONT_SIZE	Short. Applies to text and stamp annotations. Indicates the size of font used by the annotation's text.
F_FONT_STRIKETHROUGH	Boolean. Applies to text and stamp annotations. Indicates whether the annotation's text uses strike-through characters (true) or not (false). Often used to indicate revisions to text.
F_FONT_UNDERLINE	Boolean. Applies to text and stamp annotations. Indicates whether the annotation's text is underlined (true) or not (false).
F_FORECOLOR	Long. Applies to text and stamp annotations and represents the color of the text in RGB format (COLORREF type).
F_HASBORDER	Boolean. Applies to text and stamp annotations. Indicates whether the annotation has a bounding borderline (true) or not (false).
F_HEIGHT	Double. Applies to all annotations and represents the height, in inches, of an annotation relative to F_TOP.
F_ID	String. Applies to all annotations. For P8, the GUID of the annotation object itself.
F_LEFT	Double. Applies to all annotations. The location of the left side of the annotation box, in inches, relative to the left edge of the page.
F_LINE_BACKMODE	Short. Applies to arrow and pen annotations. Indicates whether the line is transparent (value=1) or opaque (value=2). Viewer does not change this value and it is always set to 2.
F_LINE_COLOR	Long. Indicates the color of the line in RGB format (COLORREF type).
F_LINE_END_X	Double. Applies to arrow annotations. Indicates the location on the x-axis where the arrow line ends. Measured in inches and relative to the left edge of the page.
F_LINE_END_Y	Double. Applies to arrow annotations. Indicates the location on the y-axis where the arrow line ends. Measured in inches and relative to the top edge of the page.
F_LINE_START_X	Double. Applies to arrow annotations. Indicates the location on the x-axis where the arrow line begins. Measured in inches and relative to the left edge of the page.
F_LINE_START_Y	Double. Applies to arrow annotations. Indicates the location on the y-axis where the arrow line begins. Measured in inches and relative to the top edge of the page.
F_LINE_STYLE	Short. Applies to arrow and pen annotations. Indicates the style of the line. Supported styles are solid (value=PS_SOLID), dash (value=PS_DASH), dash dot (value=PS_DASHDOT), dash dot dot (value=PS_DASHDOTDOT). When F_LINE_WIDTH is > 1 pixel, the only supported style for pen annotations is solid. However, the Viewer GUI does not allow for anything but solid.
F_LINE_WIDTH	Short. Applies to arrow and pen annotations. The width of the line measured in pixels.
F_MODIFYDATE	Date. Applies to all annotations. The date on which modifications applied to the annotation were saved to the library server in the format of "YYYY-MM-

	DDTHH:MM:SS.000000-HH:MM" where "T" indicates time, and the "--HH:MM" is the time from GMT.
F_MULTIPAGETIFFPAGENUMBER	Short. Applies only to multi-page TIFF documents and all annotations. Use this property to specify the page number of the multi-page TIFF where the annotation will appear. Note that a multi-page TIFF is stored as a single page document. In this case F_PAGENUMBER is set to 1. The F_MULTIPAGETIFFPAGENUMBER property does not apply to standard documents, and must remain set to the default value of 0.
F_NAME	String. Applies to all annotations. For P8, it is comprised of the page number on which the annotation appears, and a number identifying the annotation within the page formatted with hyphen characters as "--<page number>-<annotation number>", e.g. "-1-6"
F_PAGENUMBER	Short. The page number where the annotation is displayed.
F_ROTATION	Short. Applies to stamp annotations. Indicates the orientation, in degrees, in which the stamp annotation is applied to the document page. Valid values are 0 through 360; 45 is the default.
F_SUBCLASS	String. Used to further specialize within a particular F_CLASSNAME value.
F_TEXT_BACKMODE	Short. Applies to text and stamp annotations. Indicates whether the area within the annotation border is or transparent (value=1) or opaque (value=2).
F_TOP	Double. Applies to all annotations. The location of the top of the annotation box, in inches, relative to the top of the page.
F_WIDTH	Double. Applies to all annotations. The width, in inches, of the annotation box relative to F_LEFT.

The following table provides a description of each of the PropDescType elements:

F_CUSTOM_BYTES	Array of Bytes. Applies to all annotations. Use this custom property to extend the functionality of annotations. You are responsible for managing (getting, setting, and interpreting) the data. The data will be ignored by Panagon software.
F_POINTS	Array of Bytes. Applies to pen annotations. When scaling occurs, each pen annotation rectangle is divided into 256 x 256 cells. F_Points contains an array of pairs of bytes. Each pair of bytes represents an x and y location within the annotation rectangle. Maximum size is 300 pairs of points.
F_TEXT	String. Applies to annotations that contain text. The text that appears on annotations.

COLORREFs

Various color related attributes, e.g. F_BACK_COLOR, have long integer values of type COLORREF. The values of these attributes should be set as:

$$\text{RED_VALUE} + (256 * (\text{GREEN_VALUE} + (256 * \text{BLUE_VALUE})))$$

Where RED_VALUE, GREEN_VALUE and BLUE_VALUE have values between 0 and 255.

Page Numbers

Two attributes, F_PAGENUMBER and F_MULTIPAGETIFFPAGENUMBER, are used in combination to specify the page number that the annotation applies to.

If the document is a multi-page TIFF image document, then all of the pages are stored in a single P8 document content-element. F_PAGENUMBER should be set to 1 and the F_MULTIPAGETIFFPAGENUMBER value will be used to determine the page number that the annotation applies to, with values starting at 1.

If the document is not a multi-page TIFF image document but has multiple content elements, e.g. a traditional federated Image Services document, then F_MULTIPAGETIFFPAGENUMBER should be set to 0 and the F_PAGENUMBER value will be used to determine the page number that the annotation applies to, with values starting at 1.

If the document is not a multi-page TIFF image document and has a single content element, then F_MULTIPAGETIFFPAGENUMBER should be set to 0 and F_PAGENUMBER set to 1. The F_PAGENUMBER value will be used to determine the page number that the annotation applies to.

The following table describes which attributes and elements are required for some of the types of annotations. Not all annotation types may be documented here. Specifically missing are the Rectangle, Polygon, Open Polygon, Redaction, Polygon Redaction, Oval and Image Stamp annotation types.

Attribute or Element	Arrow	Highlight	Pen	Stamp	StickyNote	Text	v1-Highlight Polygon	v1-Line	v1-Open Polygon	v1-Oval	v1-Polygon	v1-Rectangle
F_ANNOTATEDID	X	X	X	X	X	X	X	X	X	X	X	X
F_ARROWHEAD_SIZE	X											
F_BACKCOLOR				X		X						
F_BORDER_BACKMODE				X		X						
F_BORDER_COLOR				X		X						
F_BORDER_STYLE				X		X						
F_BORDER_WIDTH				X		X						
F_BRUSHCOLOR		X					X					
F_CLASSID	X	X	X	X	X	X	X	X	X	X	X	X
F_CLASSNAME	X	X	X	X	X	X	X	X	X	X	X	X
F_CREATOR	X	X	X	X	X	X	X	X	X	X	X	X
F_ENTRYDATE	X	X	X	X	X	X	X	X	X	X	X	X
F_FONT_BOLD				X		X						
F_FONT_ITALIC				X		X						
F_FONT_NAME				X		X						
F_FONT_SIZE				X		X						
F_FONT_STRIKETHROUGH				X		X						
F_FONT_UNDERLINE				X		X						
F_FORECOLOR				X	X	X						
F_HASBORDER				X		X						
F_HEIGHT	X	X	X	X	X	X	X	X	X	X	X	X
F_ID	X	X	X	X	X	X	X	X	X	X	X	X
F_LEFT	X	X	X	X	X	X	X	X	X	X	X	X
F_LINE_BACKMODE	X		X									
F_LINE_COLOR	X	X	X				X	X	X	X	X	X
F_LINE_END_X	X							X				

Attribute or Element	Arrow	Highlight	Pen	Stamp	StickyNote	Text	v1-Highlight Polygon	v1-Line	v1-Open Polygon	v1-Oval	v1-Polygon	v1-Rectangle
F_LINE_END_Y	X							X				
F_LINE_START_X	X							X				
F_LINE_START_Y	X							X				
F_LINE_STYLE	X		X									
F_LINE_WIDTH	X	X	X				X	X	X	X	X	X
F_MODIFYDATE	X	X	X	X	X	X	X	X	X	X	X	X
F_MULTIPAGETIFFPAGENUMBER	X	X	X	X	X	X	X	X	X	X	X	X
F_NAME	X	X	X	X	X	X	X	X	X	X	X	X
F_PAGENUMBER	X	X	X	X	X	X	X	X	X	X	X	X
F_POINTS			X				X		X		X	
F_ROTATION				X								
F_SUBCLASS							X	X	X	X	X	X
F_TEXT				X	X	X						
F_TEXT_BACKMODE		X		X		X	X		X	X	X	X
F_TOP	X	X	X	X	X	X	X	X	X	X	X	X
F_WIDTH	X	X	X	X	X	X	X	X	X	X	X	X

Annotation Type	F_CLASS_NAME	F_CLASSID
Line	Proprietary	{A91E5DF2-6B7B-11D1-B6D7-00609705F027}
Arrow	Arrow	{5CF11946-018F-11D0-A87A-00A0246922A5}
Transparent Text	Text	{5CF11941-018F-11D0-A87A-00A0246922A5}
Solid Text	Text	{5CF11941-018F-11D0-A87A-00A0246922A5}
Sticky Note	StickyNote	{5CF11945-018F-11D0-A87A-00A0246922A5}
Highlight	Highlight	{5CF11942-018F-11D0-A87A-00A0246922A5}
Highlight(Poly)	Proprietary	{A91E5DF2-6B7B-11D1-B6D7-00609705F027}
Rectangle	Proprietary	{A91E5DF2-6B7B-11D1-B6D7-00609705F027}
Close Poly	Proprietary	{A91E5DF2-6B7B-11D1-B6D7-00609705F027}
Open Poly	Proprietary	{A91E5DF2-6B7B-11D1-B6D7-00609705F027}

Oval	Proprietary	{A91E5DF2-6B7B-11D1-B6D7-00609705F027}
Free-hand Line	Pen	{5CF11949-018F-11D0-A87A-00A0246922A5}
Stamp	Stamp	{5CF1194C-018F-11D0-A87A-00A0246922A5}

P8 Annotation Security

The P8 Image Viewer applet allows setting the following hierarchical permission settings for one or more security principals (users or groups):

- Owner Control
- Modify Content
- View Content

View Content is the least privileged permission setting and corresponds to granting the P8 *View All Properties + View Content + Read Permissions* security permission settings.

Modify Content adds grants for the P8 *Modify All Properties + Create Instance* security permission settings.

Owner Control adds grants for the P8 *Delete + Modify Permissions + Modify Owner* security permission settings.

The P8 Image Viewer also allows specifying Denies on permission settings. (These were not explored)

Do we need to warn against setting the security on the annotation such that no one can delete the annotation, which would then prevent deletion of the annotated document?

Applications that are programmatically creating annotations should take care to set the security on the annotation objects to achieve the desired behaviour.

Creating P8 Annotations

Refer to the P8 documentation, e.g. http://publib.boulder.ibm.com/infocenter/p8docs/v5r0m0/nav/10_2_3_12, for a description of how to use the P8 Content Engine APIs to create an annotation on a document.

Appendix A – P8 5.1 Example Annotations

Note: The following annotation examples were drawn from examining annotation content created with the P8 Image Viewer running on a P8 5.1 and WorkPlace XT 1.1.5 system.

Proprietary / v1-Rectangle Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{E8DFD72E-37D6-44F6-9B78-2C6AB1F7AE1E}" F_CLASSID="{A91E5DF2-6B7B-11D1-B6D7-00609705F027}"
  F_CLASSNAME="Proprietary" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:29:43.0000000-07:00" F_HEIGHT="2.25" F_ID="{E8DFD72E-37D6-
  44F6-9B78-2C6AB1F7AE1E}" F_LEFT="17.55" F_LINE_COLOR="255" F_LINE_WIDTH="4" F_MODIFYDATE="2011-08-16T17:29:43.0000000-07:00"
  F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-6" F_PAGENUMBER="1" F_SUBCLASS="v1-Rectangle" F_TEXT_BACKMODE="2" F_TOP="11.24"
  F_WIDTH="4.73">
    <F_CUSTOM_BYTES/>
    <F_POINTS/>
    <F_TEXT/>
  </PropDesc>
</FnAnno>

<skip #2>
```

Text Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{EAA65A40-B25D-4DA5-B1BB-C261D2A84FCF}" F_BACKCOLOR="16777215" F_BORDER_BACKMODE="2"
  F_BORDER_COLOR="255" F_BORDER_STYLE="0" F_BORDER_WIDTH="1" F_CLASSID="{5CF11941-018F-11D0-A87A-00A0246922A5}"
  F_CLASSNAME="Text" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:28:45.0000000-07:00" F_FONT_BOLD="true" F_FONT_ITALIC="false"
  F_FONT_NAME="arial" F_FONT_SIZE="62" F_FONT_STRIKETHROUGH="false" F_FONT_UNDERLINE="false" F_FORECOLOR="255"
  F_HASBORDER="false" F_HEIGHT="2.99" F_ID="{EAA65A40-B25D-4DA5-B1BB-C261D2A84FCF}" F_LEFT="2.4" F_MODIFYDATE="2011-08-
  16T17:28:45.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-1" F_PAGENUMBER="1" F_TEXT_BACKMODE="1" F_TOP="8.22"
  F_WIDTH="6.05">
    <F_CUSTOM_BYTES/>
    <F_POINTS/>
    <F_TEXT Encoding="unicode">005400720061006E00730070006100720065006E007400200054006500780074</F_TEXT>
  </PropDesc>
</FnAnno>
```

Proprietary / v1-Polygon

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{6A01E545-C9BF-40AA-9041-F6E70FC68A60}" F_CLASSID="{A91E5DF2-6B7B-11D1-B6D7-00609705F027}"
  F_CLASSNAME="Proprietary" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:29:48.0000000-07:00" F_HEIGHT="128" F_ID="{6A01E545-C9BF-
  40AA-9041-F6E70FC68A60}" F_LEFT="2251" F_LINE_COLOR="255" F_LINE_WIDTH="4" F_MODIFYDATE="2011-08-16T17:29:48.0000000-07:00"
  F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-7" F_PAGENUMBER="1" F_SUBCLASS="v1-Polygon" F_TEXT_BACKMODE="2" F_TOP="887"
  F_WIDTH="264">
    <F_CUSTOM_BYTES/>
    <F_POINTS> 2251 899 2339 1015 2515 887</F_POINTS>
    <F_TEXT/>
  </PropDesc>
</FnAnno>
```

Proprietary / v1-Line Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{9B7DC449-0831-467B-AA51-A2013C65D355}" F_CLASSID="{A91E5DF2-6B7B-11D1-B6D7-00609705F027}"
  F_CLASSNAME="Proprietary" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:28:04.0000000-07:00" F_HEIGHT="2.92" F_ID="{9B7DC449-0831-
  467B-AA51-A2013C65D355}" F_LEFT="4.74" F_LINE_COLOR="255" F_LINE_END_X="4.74" F_LINE_END_Y="1.59" F_LINE_START_X="19.06"
  F_LINE_START_Y="4.51" F_LINE_WIDTH="16" F_MODIFYDATE="2011-08-16T17:28:04.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0"
  F_NAME="-1-3" F_PAGENUMBER="1" F_SUBCLASS="v1-Line" F_TOP="1.59" F_WIDTH="14.32">
    <F_CUSTOM_BYTES/>
```

```
        <F_POINTS/>
        <F_TEXT/>
    </PropDesc>
</FnAnno>
```

Proprietary / v1-Open Polygon

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{587F975B-0880-4A10-AED3-E24EB7B4DCA0}" F_CLASSID="{A91E5DF2-6B7B-11D1-B6D7-00609705F027}"
  F_CLASSNAME="Proprietary" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:29:56.0000000-07:00" F_HEIGHT="174" F_ID="{587F975B-0880-
  4A10-AED3-E24EB7B4DCA0}" F_LEFT="2615" F_LINE_COLOR="255" F_LINE_WIDTH="4" F_MODIFYDATE="2011-08-16T17:29:56.0000000-07:00"
  F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-8" F_PAGENUMBER="1" F_SUBCLASS="v1-Open Polygon" F_TEXT_BACKMODE="2"
  F_TOP="563" F_WIDTH="264">
    <F_CUSTOM_BYTES/>
    <F_POINTS> 2615 563 2666 737 2879 683</F_POINTS>
    <F_TEXT/>
  </PropDesc>
</FnAnno>
```

Arrow Annotation

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<FnAnno>
  <PropDesc F_ANNOTATEDID="{0CFF7571-91DA-4835-B57A-6B5967087919}" F_ARROWHEAD_SIZE="1" F_CLASSID="{5CF11946-018F-
  11D0-A87A-00A0246922A5}" F_CLASSNAME="Arrow" F_CREATOR="suser" F_ENTRYDATE="2011-08-15T16:18:54.0000000-07:00" F_HEIGHT="0.81"
  F_ID="{0CFF7571-91DA-4835-B57A-6B5967087919}" F_LEFT="7.2" F_LINE_BACKMODE="2" F_LINE_COLOR="255" F_LINE_END_X="9.07"
  F_LINE_END_Y="6.32" F_LINE_START_X="7.2" F_LINE_START_Y="5.51" F_LINE_STYLE="0" F_LINE_WIDTH="4" F_MODIFYDATE="2011-08-
  15T16:18:54.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-2" F_PAGENUMBER="1" F_TOP="5.51" F_WIDTH="1.87">
    <F_CUSTOM_BYTES/>
    <F_POINTS/>
    <F_TEXT/>
  </PropDesc>
</FnAnno>
```

Proprietary / v1-Oval Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{2888D375-1EF7-457F-8B27-7C75E9BDA722}" F_CLASSID="{A91E5DF2-6B7B-11D1-B6D7-00609705F027}"
  F_CLASSNAME="Proprietary" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:30:05.0000000-07:00" F_HEIGHT="2.14" F_ID="{2888D375-1EF7-
  457F-8B27-7C75E9BDA722}" F_LEFT="1.45" F_LINE_COLOR="255" F_LINE_WIDTH="4" F_MODIFYDATE="2011-08-16T17:30:05.0000000-07:00"
  F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-9" F_PAGENUMBER="1" F_SUBCLASS="v1-Oval" F_TEXT_BACKMODE="2" F_TOP="12.37"
  F_WIDTH="1.44">
    <F_CUSTOM_BYTES/>
    <F_POINTS/>
    <F_TEXT/>
  </PropDesc>
</FnAnno>
```

Pen Annotation

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<FnAnno>
  <PropDesc F_ANNOTATEDID="{D110FF8D-0A2A-435A-B16C-F9D5BFB055F7}" F_CLASSID="{5CF11949-018F-11D0-A87A-00A0246922A5}"
  F_CLASSNAME="Pen" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:30:12.0000000-07:00" F_HEIGHT="3.52" F_ID="{D110FF8D-0A2A-435A-
  B16C-F9D5BFB055F7}" F_LEFT="19.08" F_LINE_BACKMODE="2" F_LINE_COLOR="255" F_LINE_STYLE="0" F_LINE_WIDTH="4">
```

```
F_MODIFYDATE="2011-08-16T17:30:12.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-10" F_PAGENUMBER="1" F_TOP="5.47"
F_WIDTH="5.68">
  <F_CUSTOM_BYTES/>
  <F_POINTS>119 22 119 22 123 17 131 9 134 8 138 7 144 3 148 3 155 1 160 0 165 0 171 0 175 0 182 0 186 0 192 1 197 3 203 4 208
9 211 12 214 15 217 18 221 22 226 27 230 33 233 37 237 41 240 47 242 52 246 59 247 65 251 71 251 76 253 84 253 91 254 97 255 103 255 108 255 113
255 118 255 123 255 128 254 135 253 141 251 148 250 155 247 160 244 165 240 168 234 172 231 172 228 172 224 173 219 177 214 177 210 177 206 177
201 177 195 177 192 177 186 177 182 177 178 177 175 177 172 177 183 174 188 177 193 178 200 181 205 185 210 188 217 190 225 192 231 192 236
193 242 193 247 190 252 185 255 182 255 178 255 174 255 169 255 163 255 159 255 152 255 146 252 140 249 132 246 122 244 114 241 105 237 97 234
90 232 83 231 76 229 68 227 59 225 50 222 44 220 37 215 28 212 20 209 13 207 9 207 5 207 2 207 0 200 0 193 0 187 0 180 3 173 3 168 5 161 9 158 9 153
12 148 17 140 20 135 23 131 25 126 29 123 35 116 39 111 44 109 48 109 51 108 55 106 58 104 61 104 67 104 70 104 75 104 78 104 82 104 86 104 90 101
93 96 95 91 95 86 97 79 98 71 99 62 101 57 102 52 103 47 105 41 109 33 113 27 116 27 119 22 123 18 128 15</F_POINTS>
  <F_TEXT/>
</PropDesc>
</FnAnno>
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Highlight Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{f82acc8e-afce-4dc3-95d4-eff85f46d707}" F_BRUSHCOLOR="65535" F_CLASSID="{5CF11942-018F-11D0-A87A-00A0246922A5}"
F_CLASSNAME="Highlight" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T23:04:19.0000000-07:00" F_HEIGHT="2.62"
F_ID="{f82acc8e-afce-4dc3-95d4-eff85f46d707}" F_LEFT="12.04" F_LINE_COLOR="65535" F_LINE_WIDTH="0" F_MODIFYDATE="2011-08-
16T23:06:52.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-{f82acc8e-afce-4dc3-95d4-eff85f46d707}" F_PAGENUMBER="1"
F_TEXT_BACKMODE="1" F_TOP="5.84" F_WIDTH="5.4">
  <F_CUSTOM_BYTES/>
  <F_POINTS/>
  <F_TEXT/>
</PropDesc>
</FnAnno>
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Text Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{4BB49CBA-07E6-4027-84B3-4C950FC49311}" F_BACKCOLOR="10092543" F_BORDER_BACKMODE="2"
F_BORDER_COLOR="255" F_BORDER_STYLE="0" F_BORDER_WIDTH="1" F_CLASSID="{5CF11941-018F-11D0-A87A-00A0246922A5}"
F_CLASSNAME="Text" F_CREATOR="suser" F_ENTRYDATE="2011-08-15T16:18:23.0000000-07:00" F_FONT_BOLD="true" F_FONT_ITALIC="false"
F_FONT_NAME="arial" F_FONT_SIZE="93" F_FONT_STRIKETHROUGH="false" F_FONT_UNDERLINE="false" F_FORECOLOR="255"
F_HASBORDER="true" F_HEIGHT="2.5" F_ID="{4BB49CBA-07E6-4027-84B3-4C950FC49311}" F_LEFT="2.92" F_MODIFYDATE="2011-08-
15T16:18:23.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-1" F_PAGENUMBER="1" F_TEXT_BACKMODE="2" F_TOP="4.56"
F_WIDTH="4.21">
  <F_CUSTOM_BYTES/>
  <F_POINTS/>
  <F_TEXT Encoding="unicode">0052006F0074006F0072</F_TEXT>
</PropDesc>
</FnAnno>
```

StickyNote Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{E28BD7D7-28EE-4C7E-A0CA-19DC110D824D}" F_CLASSID="{5CF11945-018F-11D0-A87A-00A0246922A5}"
F_CLASSNAME="StickyNote" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:29:08.0000000-07:00" F_FORECOLOR="10092543"
F_HEIGHT="0.5" F_ID="{E28BD7D7-28EE-4C7E-A0CA-19DC110D824D}" F_LEFT="23.49" F_MODIFYDATE="2011-08-16T17:29:08.0000000-07:00"
F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-2" F_PAGENUMBER="1" F_TOP="2.55" F_WIDTH="0.5">
  <F_CUSTOM_BYTES/>
  <F_POINTS/>
  <F_TEXT Encoding="unicode">0053007400690063006B00790020004E006F00740065</F_TEXT>
</PropDesc>
</FnAnno>
```

Proprietary / v1-Highlight Polygon Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{9DB080E4-D5E3-44F4-801B-872B1C5036A6}" F_BRUSHCOLOR="65535" F_CLASSID="{A91E5DF2-6B7B-11D1-B6D7-00609705F027}" F_CLASSNAME="Proprietary" F_CREATOR="suser" F_ENTRYDATE="2011-08-16T17:29:26.0000000-07:00" F_HEIGHT="306" F_ID="{9DB080E4-D5E3-44F4-801B-872B1C5036A6}" F_LEFT="650" F_LINE_COLOR="65535" F_LINE_WIDTH="1" F_MODIFYDATE="2011-08-16T17:29:26.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-5" F_PAGENUMBER="1" F_SUBCLASS="v1-Highlight Polygon" F_TEXT_BACKMODE="1" F_TOP="1138" F_WIDTH="503">
    <F_CUSTOM_BYTES/>
    <F_POINTS> 785 1207 1067 1138 1153 1372 843 1444 650 1335 687 1265</F_POINTS>
    <F_TEXT/>
  </PropDesc>
</FnAnno>
```

Stamp Annotation

```
<FnAnno>
  <PropDesc F_ANNOTATEDID="{0FD01012-4CDC-4073-86CA-BB8B8E085589}" F_BACKCOLOR="16777215" F_BORDER_BACKMODE="2" F_BORDER_COLOR="255" F_BORDER_STYLE="0" F_BORDER_WIDTH="1" F_CLASSID="{5CF1194C-018F-11D0-A87A-00A0246922A5}" F_CLASSNAME="Stamp" F_CREATOR="suser" F_ENTRYDATE="2011-08-17T13:33:48.0000000-07:00" F_FONT_BOLD="true" F_FONT_ITALIC="false" F_FONT_NAME="arial" F_FONT_SIZE="12" F_FONT_STRIKETHROUGH="false" F_FONT_UNDERLINE="false" F_FORECOLOR="255" F_HASBORDER="false" F_HEIGHT="0.25" F_ID="{0FD01012-4CDC-4073-86CA-BB8B8E085589}" F_LEFT="2.05" F_MODIFYDATE="2011-08-17T13:35:24.0000000-07:00" F_MULTIPAGETIFFPAGENUMBER="0" F_NAME="-1-1" F_PAGENUMBER="1" F_ROTATION="0" F_TEXT_BACKMODE="1" F_TOP="1.19" F_WIDTH="2.85">
    <F_CUSTOM_BYTES/>
    <F_POINTS/>
    <F_TEXT
Encoding="unicode">004100750067007500730074002000310037002C00200032003000310031002C002000310033003A00330033003A00340031002C0020005000440054</F_TEXT>
  </PropDesc>
</FnAnno>
```

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