



Template File Specification

Preps 5.1

template file specification.doc

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1. TEMPLATE FILE SPECIFICATION

Template files contain details of an imposition layout (pages, marks, tiles, etc.). A template file is created by Preps whenever the template design window has focus, and the user invokes the **File > Save** or **File > Save As** menu option. Template files always reside in the **Template** directory (below the Preps code file directory), and the filename suffix is always **.TPL**.

1.1 Template File Structure

Each template file is comprised of the following tags, in the order shown:

Table 1 Template File Tags

Tag Name	Occurrences per File
%!PS	One
%%Creator	One
%SsiPrepsVer	One
%SsiLayout	One
The next two lines establish defaults for the template:	
%SsiPressSheet	One to establish defaults
%SsiPrshPage	One to establish defaults
The remaining lines are repeated for each signature in the template.	
%SsiSignature	One for each signature in the template design
%SsiPressSheet	One for each press sheet (web) in the current signature
%SsiPrshMark	One for each sheet mark on the current press sheet
%SsiTileGroup	One for each media size that has "custom tiling" defined for the press sheet that this tag applies to.
%SsiTileBreak	One for each custom tile for the current device
This group of tags defines an imposition including pages on the current press sheet:	
%SsiPrshMatrix	Imposition geometry (gutter & page dimensions)
%SsiPrshPage	One for each imposed page on the current press sheet
%SsiPrshMark	One for each crop mark for current page
%SsiMatrix	End of imposition geometry
This group of tags is repeated for each independent page on the current press sheet:	
%SsiPrshPage	One for each independent page on the current press sheet
%SsiPrshMark	One for each crop mark for current page

Note: A press sheet can have either imposed or independent pages, or both. Imposed pages are those having the same size and laid out in a uniform matrix, for example a 4x2 array of 6x9" pages for a book. Independent pages are those with any size and laid out in an arbitrary pattern, as for gang-up work.

The hierarchy of the various objects associated with templates is indicated by indentation levels in the following table:

Table 2 Hierarchy of Template Objects

Object Type	Associated Tag
Template	
Creator (1)	%SSiCreator:
Spec version (1)	%SSiPrepsVer:
Layout (1)	%SSiLayout:
Default press sheet spec (1)	%SSiPressSheet:
Default page spec (1)	%SSiPrshPage:
Signatures (1 or more)	%SSiSignature:
Press sheets (1 or more)	%SSiPressSheet:
Sheet marks (0 or more)	%SSiPrshMark:
Imposed page arrays (0 or more)	
Page count (1)	%SSiPrshMatrix: 1
Page width & height (1)	%SSiPrshMatrix: 8/9
Fold mark width & length (1)	%SSiPrshMatrix: 10/11
Page orientations (1)	%SSiPrshMatrix: 12
Matrix layout (horiz & vert)	%SSiPrshMatrix: 13/14
Gutter & page sizes (N)	%SSiPrshMatrix: 4/5
Pages (1 or more)	%SSiPrshPage:
Crop marks (0 or more)	%SSiPrshMark:
End of imposition marker (1)	%SSiPrshMatrix: 7
Independent pages (0 or more)	%SSiPrshPage:
Crop marks (0 or more)	%SSiPrshMark:

1.2 Template File Tag Specifications

This section describes the tags and their parameters in the order outlined in Table 1.

1.2.1 %%Creator:

%%Creator: <Creator>

This tag identifies the file's creator, for example, Preps 3.0a Windows.

1.2.2 %SSiPrepsVer:

%SSiPrepsVer: <Version>

This tag provides the version of this specification that was used when creating the file.

For Preps 4.x and earlier, this value is 1.

For Preps 5.x and later, this value is 2.

1.2.3 %SSiLayout:

%SSiLayout: <Name> <Filename> <FullSig> <PartPos> <PageH> <PageW> <Flags>

This tag provides basic template information that applies to all signatures.

<Name>	Text string that provides the name assigned to the template by the Preps user, for example, Tutorial-16 Page.
<Filename>	<p>Previous to 4.1, this was a text string that provides the path and file name for the current template file, for example, c:\scenic\template\tutor_16.tpl.</p> <p>In Preps 4.1 and later, this field is ignored by Preps, which now derives this information from the external file name. When Preps 4.1 writes this field out it is identical to the <Name> field.</p>
<FullSig>	This parameter no longer used.
<PartPos>	Integer indicating where partial signatures are to be located when flowing a job through the template in autoselect mode; for example, 1 means one signature from the back of the signature list.
<PageH>	Dimension that provides the default page width for the template. Not used.
<PageW>	Dimension that provides the default page height for the template. Not used.
<Flags>	<p>Integer that encodes the following options:</p> <p>One of the first five options is selected to specify the template's binding style:</p> <p>FLATWORK = \$0000</p> <p>PERFECTBOUND = \$0001</p> <p>SADDLESTITCH = \$0002</p> <p>COME-N-GO = \$0003</p> <p>CUT-N-STACK = \$0004</p> <p>The other two options specify bit flags that are bitwise or'd with the binding style to represent each option if true.</p> <p>The first flag indicates that partial signatures are placed relative to the last of the job's signatures rather than to the first (see <PartPos>).</p> <p>LAYOUT_FLAGS_PART_BACK = \$0008</p> <p>The second flag indicates that this template has multiple deliveries specified in it.</p> <p>LAYOUT_FLAGS_HAS_MULTIPLE_DELIVERY = \$0010</p>

1.2.4 %SSiSignature:

%SSiSignature: <Name> <PageCount> <Flags> <Webs> <DeliveryCount>

This tag provides the basic parameters applicable to one of the template's signature layouts.

<Name> Text string that provides the name assigned to the signature template by the Preps user, for example Tutorial-16 Page. **Note:** A Preps template can contain layouts for more than one signature.

<PageCount> Integer number that provides the number of pages in the signature layout. For example, with a 2x4-up imposition, the value is "8".

Technically, the value is calculated as the highest page number minus the lowest page number plus 1. For multiple delivery signatures, each delivery is calculated this way, and then they are all added together.

<Flags> Integer number coded to control how a signature is used:

```
SIG_FLAGS_LOCKED = $0001;    { Do not allow editing. }
SIG_FLAGS_AUTOUSE = $0002;    { Use in automatic layout. }
SIG_FLAGS_AUTONBR = $0004;    { Automatically count pages. }
```

The AUTOUSE option allows the signature to be used when the Preps AutoSelect feature is being used to flow a job through a template. These options can be combined by adding the hexadecimal values shown. The LOCKED and AUTONBR options are not honored or implemented at this time.

<Webs> Integer number that provides the number of press sheets or webs in the signature.

<DeliveryCount> Integer that represents the number of deliveries in this signature.

1.2.5 %SSiPressSheet:

%SSiPressSheet: <Width> <Height> <PunchX> <PunchY> <Style> <GuideDist>
<Flags> <CtrMarkLen> <SmartCount>

This tag provides the basic parameters associated with one press sheet in the current template signature.

<Width> Dimension that provides the width of the press sheet.

<Height> Dimension that provides the height of the press sheet.

<PunchX> This parameter is no longer used. Punch coordinates are always centered horizontally on the sheet.

<PunchY> Dimension that provides the punch mark's vertical location relative to the sheet's bottom edge.

<Style>	<p>Integer number that provides the workstyle of the signature, coded as follows:</p> <p>SHEETWISE = 0</p> <p>WORKNTURN = 1</p> <p>WORKNTUMBLE = 2</p> <p>SINGLE_SIDED = 3</p> <p>PERFECTOR = 4</p> <p>These options are mutually exclusive.</p>
<GuideDist>	<p>Dimension that provides the distance of the side guide marks from the edge of the sheet identified by the next parameter.</p>
<Flags>	<p>Integer number that provides the sheet edge from which the side guide location is measured, encoded as follows:</p> <p>PRSH_GUIDE_LEFT = 0</p> <p>PRSH_GUIDE_BOTTOM = 1</p> <p>PRSH_GUIDE_RIGHT = 2</p> <p>PRSH_GUIDE_TOP = 3</p> <p>PRSH_GUIDE_NONE = 4</p> <p>PRSH_GUIDE_MASK = 7</p> <p>PRSH_FLAGS_DEFAULT = PRSH_GUIDE_BOTTOM</p> <p>These options are mutually exclusive.</p>
<CtrMarkLen>	<p>Dimension that provides the length of the center mark printed on each press sheet.</p>
<SmartCount>	<p>Integer that represents the number of SmartMarks defined in this press sheet. This number of SmartMark definitions (see Chapter 2, page 16) immediately follow this line in the file.</p>

1.2.6 %SSiTileGroup:

%SSiTileGroup: <TileW> <TileH> <GroupX> <GroupY> <GroupFlags>

A template can contain tiling layouts for more than one media size. This tag specifies one such tiling layout. Individual tiles in the layout are specified by the %SSiTileBreak tag.

<TileW>	Dimension that provides the width of each tile (i.e. the media width).
<TileH>	Dimension that provides the height of each tile (i.e. the media height).
<GroupX>	Integer that provides the maximum number of tiles horizontally needed to tile an entire press sheet.
<GroupY>	Integer that provides the maximum number of tiles vertically needed to tile an entire press sheet.

<GroupFlags> Integer that controls various tile options, encoded as follows:

```
TILEGROUP_VARIABLE_LEN    =  $0001
TILEGROUP_MAJOR_HORIZ     =  $0002
TILEGROUP_MIRROR_BACK     =  $0004
TILEGROUP_HAS_PUNCH       =  $0008
TILEGROUP_FINALGROUP      =  $0010
TILEGROUP_FLAGS_DEFAULT   =  $0000
```

These options can be combined by adding the hexadecimal values shown.

Note: With variable-length roll-fed devices, either <TileW> or <TileH> will define the *maximum* variable dimension supported by the device.

1.2.7 %SSiTileBreak:

%SSiTileBreak: <PosRX> <PosRY> <Width> <Orientation> <XNo> <YNo> <Flags>
<ImageLLRX> <ImageLLRY> <SizeRDX> <SizeRDY>

This tag defines a single tile associated with the current tile group (see %SSiTileGroup:).

<PosRX>	Dimension that specifies the horizontal position of the lower left corner of the tile.
<PosRY>	Dimension that specifies the vertical position of the lower left corner of the tile.
<Width>	Dimension that provides the actual width of the tile. This is only used with variable-length roll-fed devices.
<Orientation>	<p>Integer number that provides the orientation of the tile, encoded as follows:</p> <pre>ORIENTATION_LEFT = 0 ORIENTATION_DOWN = 1 ORIENTATION_RIGHT = 2 ORIENTATION_UP = 3</pre> <p>Tiles can have any of the four orientations when associated with a punch device.</p>
<XNo>	Integer that provides the horizontal index for the tile. The leftmost tile has an index of 1.
<YNo>	Integer that provides the vertical index for the tile. The uppermost tile has an index of 1.

<Flags>	Integer parameter that encodes the following tile options: HARD_EDGE = 0 FILM_JOINT = 1 OPEN = 2 The FILM_JOINT option is used with certain capstan devices where two tiles are mounted side-by-side, with their adjacent edges abutting.
<ImageLLRX>	Dimension that specifies the horizontal position of the lower left corner of the lower left page on the tile, relative to the lower left corner of the tile.
<ImageLLRY>	Dimension that specifies the vertical position of the lower left corner of the lower left page on the tile, relative to the lower left corner of the tile.
<SizeRDX>	Dimension that provides the cumulative width of the pages and gutters appearing on the tile.
<SizeRDY>	Dimension that provides the cumulative height of the pages and gutters appearing on the tile.

1.2.8 %SSiPrshMark:

%SSiPrshMark: <PointRX> <PointRY> <ExtentRDX> <ExtentRDY> <Type> <Size>
 <Name> <Rotation> <ColorType> <Color1> <Color2> <Color3> <Color4>
 <DupFlags> <SigMod> <SigStart> <Delivery> <SmartIndex> <RParam1> <RParam2>

This tag specifies the type, location, and other parameters of a mark. Marks can be associated with either the current press sheet or with the current page. Mark locations are specified relative to the associated object's 0, 0 origin, except in the case of page crop marks, which are positioned relative to a specific page corner.

<PointRX>	Real number that provides the horizontal position of the mark's lower-left corner.
<PointRY>	Real number that provides the vertical position of the mark's lower-left corner.
<ExtentRDX>	Real number that provides the mark's width.
<ExtentRDY>	Real number that provides the mark's height.
<Type>	Integer number that describes the mark type, encoded as one of the following: MARKTYPE_LINE = \$0000 MARKTYPE_SHADEDRECT = \$0001 MARKTYPE_SIGSLUG = \$0002 MARKTYPE_STRING = \$0003 MARKTYPE_LLCROP = \$0004 MARKTYPE_LRCROP = \$0005 MARKTYPE_URCROP = \$0006

	MARKTYPE_ULCROP = \$0007
	MARKTYPE_HORIZTILE = \$0008
	MARKTYPE_VERTTILE = \$0009
	MARKTYPE_DOTLINE = \$000A
	MARKTYPE_DASHLINE = \$000B
	MARKTYPE_SIGSLUG1 = \$0010
	MARKTYPE_SIGSLUG2 = \$0011
	MARKTYPE_FLATIDSTRING = \$0012
	MARKTYPE_UNKNOWN = \$0013
	MARKTYPE_RLEXPOSURE = \$0014
	MARKTYPE_TDEXPOSURE = \$0015
	MARKTYPE_LREXPOSURE = \$0016
	MARKTYPE_BUEXPOSURE = \$0017
	MARKTYPE_LAST = \$0018
	MARKTYPE_USERCUSTOM = \$4000 (see <Name> parameter)
	MARKTYPE_USERSTEPPER = \$4001 (see <Name> parameter)
<Size>	Dimension that provides the step distance for collation marks. This parameter is not used with other mark types.
<Name>	Text string that provides the file name for an external mark (type USERCUSTOM or USERSTEPPER) or the text string to be printed in a text mark.
<Rotation>	Specifies mark rotation around the lower left corner of the mark position. Only 90 degree increments are currently supported for text marks. For line marks, arbitrary rotation is supported.
<ColorType>	<p>Integer number that specifies the color separations on which the mark will appear, encoded as follows:</p> <p>BLK = \$0000 {all separations}</p> <p>SPOT = \$0001 {use custom mark color}</p> <p>PROCESS = \$0002 {use custom mark process color build}</p> <p>These options correspond to the radio button choices in the Preps Template Mark Color dialog box.</p>
<ColorN>	<p>The function of these four integer parameters (<Color1> through <Color4>) depend on which <ColorType> has been selected.</p> <p>With a <ColorType> of BLK, <Color1> specifies the screen density of the mark in percent, and the remaining three parameters are not used.</p> <p>With a <ColorType> of SPOT, <Color1> specifies the screen density of the mark in percent, <Color2> specifies the SSiCustomColor number, and the remaining two parameters are not used.</p>

With a <ColorType> of PROCESS, the four parameters provide the cyan, magenta, yellow and black screen densities respectively.

<DupFlags> Integer number that controls when and how a mark appears on a press sheet, encoded as follows:

```
DUP_FRONT = $0001 {Mark is shown on front of Press Sheet}
DUP_BACK = $0002 {Mark is shown on back of Press Sheet}
CENTERED = $0004 {Show user center of mark in dialog only}
UNMIRROREDPOS = $0008 {This mark does not mirror position
front to back}
MIRROR_IMAGE = $0010 {Mark does mirror front to back}
BRING_TO_FRONT = $0020 {Mark will image over page imagery}
DUP_DEFAULT = PRSHMARK_DUP_FRONT + PRSHMARK_DUP_BACK
```

The FRONT and BACK options cause the mark to be printed on the front and back of the press sheet, respectively.

The CENTERED option centers the mark on the point defined by the <PointRX> and <PointRY> parameters (corresponding to the Center Mark on Point check box in the Preps Template Mark Information dialog box).

The UNMIRRORED option is not supported at this time.

These options can be combined by adding the values shown.

<SigMod> Integer field that specifies which signatures the mark is printed on. For example, 3 specifies that the mark is to be printed on every third signature.

<SigStart> Integer field that specifies the first signature number the mark is printed on.

<Delivery> Integer that indicates which delivery this mark will be printed on. 1 represents the first delivery.

<SmartIndex> Always zero. PrshMarks generated by SmartMarks are not read from or written to template files.

<RParamN> The real parameters <RParam1> and <RParam2> are reserved for future use.

1.2.9 %SSiPrshMatrix:

%SSiPrshMatrix: <Type> <IMargin1> <IMargin4> <Flags>

This tag is used for a variety of often unrelated purposes, depending on the value of the <Type> parameter.

<Type>	Integer field that specifies the purpose of the tag and how it is to be interpreted.
COUNT	= 1 {Total pages in an imposition}
HORIZ	= 2 {Start horiz imposition dimensions}
VERT	= 3 {Start vert imposition dimensions}

MARGIN	=	4 {Specify a margin or gutter width}
OBJECT	=	5 {Specify a page width}
END	=	7 {Mark the end of an imposition spec}
PGWIDTH	=	8 {Specify page width in imposition}
PGHEIGHT	=	9 {Specify page height in imposition}
FOLDWID	=	10 {Specify fold mark width}
FOLDLEN	=	11 {Specify fold mark length}
ORIENTS	=	12 {Specify page orientations}
CENTERVERT	=	13 {Start vert imposition dimensions}
CENTERHORIZ	=	14 {Start horiz imposition dimensions}
<IMargin1>	The use of this real parameter depends on the <Type> parameter value (see the %SSiPrshMatrix: <Type> Descriptions subsection)..	
<IMargin4>	The use of this real parameter depends on the <Type> parameter value (see the %SSiPrshMatrix: <Type> Descriptions subsection). Unless otherwise stated, <IMargin4> is always 0.	
<Flags>	The use of this integer parameter depends on the <Type> parameter value (see the %SSiPrshMatrix: <Type> Descriptions subsection). The parameter is encoded as follows:	
HORIZ	=	0
VERT	=	1
FOLDOFF	=	2
DEFAULT	=	0

Unless otherwise stated, this parameter always has a value of 1.

Note: The VERT and HORIZ options are similar to the CENTERVERT and CENTERHORIZ options respectively, except that the first pair is used when an imposition is not centered on the sheet, and the second pair is used when an imposition is centered on the sheet.

1.2.9.1 %SSiPrshMatrix: <Type> Descriptions

The following sections explain the use of the %SSiPrshMatrix tag with different <Type> parameter values.

%SsiPrshMatrix: 1	<IMargin1> provides the total number of pages in the current imposition.
%SsiPrshMatrix: 2	Indicates the start of that specifies the margin/gutter and page widths across an imposition. Thus, for a 4x2 array of pages, there will be a sequence of %SSiPrshMatrix commands with the following type: 14, 4, 5, 4, 5, 4, 5, 4, 5, 4. This tag is used only when the imposition is not centered on the press sheet.
%SsiPrshMatrix: 3	Indicates the start the series of %SSiPrshMatrix commands that specify the margin/gutter and page widths across an imposition. Thus, for

a 4x2 array of pages, there will be a sequence of %SSiPrshMatrix commands with the following types: 13, 4, 5, 4, 5, 4. This tag is used only when the imposition is not centered on the press sheet.

%SSiPrshMatrix: 4	<p><IMargin1> and <IMargin4> provide the widths of either of the following:</p> <ol style="list-style-type: none"> A margin between the imposition and the adjacent sheet edge. <ul style="list-style-type: none"> When specifying the left or top margin, put the margin width in <IMargin1>. When specifying the right or bottom margin, put the margin width in <IMargin4>. The two halves of a gutter between the two adjacent pages in the imposition. <ul style="list-style-type: none"> <IMargin1> provides the left- or top-most half. <IMargin4> the right- or bottom-most half.
%SSiPrshMatrix: 5	<IMargin5> provides the width of one page in the imposition.
%SSiPrshMatrix: 6	[Not used]
%SSiPrshMatrix: 7	Indicates the end of the current imposition specification. <IMargin1> is set to -1.
%SSiPrshMatrix: 8	<IMargin1> provides the width of a page in the current imposition.
%SSiPrshMatrix: 9	<IMargin1> provides the height of a page in the current imposition.
%SSiPrshMatrix: 10	<IMargin1> specifies the fold mark width.
%SSiPrshMatrix: 11	<IMargin1> specifies the fold mark length.
%SSiPrshMatrix: 12	<IMargin1> specifies how imposition pages are oriented. For example, a value of 7 indicates that the lower left page is head-up, and adjacent rows of pages are head-to-head or foot-to-foot.
%SSiPrshMatrix: 13	Identical to %SSiPrshMatrix: 3, except it is used when the imposition is centered on the press sheet.
%SSiPrshMatrix: 14	Identical to %SSiPrshMatrix: 2, except it is used when the imposition is centered on the press sheet.

1.2.10 % SSiPrshPage:

%SSiPrshPage: <PointRX> <PointRY> <ExtentRDX> <ExtentRDY> <Orientation> <Front> <Back> <BleedLLX> <BleedLLY> <BleedURX> <BleedURY> <ShingledIR> <ShingleAmt> <Scaling> <Angle> <BottleAbout> <BottleArbX> <BottleArbY> <Delivery>

<PointRX> Real number that provides the horizontal location of the page's lower left corner, relative to the sheet's 0, 0 origin.

<PointRY> Real number that provides the vertical location of the page's lower left corner, relative to the sheet's 0, 0 origin.

<ExtentRDX>	Real number that provides the width of the page.
<ExtentRDY>	Real number that provides the height of the page.
<Orientation>	Integer number indicating the orientation of the page, encoded as follows: ORIENTATION_LEFT = 0 ORIENTATION_DOWN = 1 ORIENTATION_RIGHT = 2 ORIENTATION_UP = 3 ORIENTATION_MASK = 3 ORIENTATION_DEFAULT = ORIENTATION_UP ORIENTATION_IMPOSE = 4 {bit to indicate part of an imposition}
<Front>	Integer number that provides the page number on the front of the sheet. Note: This is the page number in the template, not the number of a job page.
<Back>	Integer number that provides the page number on the back of the sheet. Note: This is the page number in the template, not the number of a job page.
<BleedLLX>	Real number that provides the custom bleed width at the page's left edge.
<BleedLLY>	Real number that provides the custom bleed width at the page's bottom edge.
<BleedURX>	Real number that provides the custom bleed width at the page's right edge.
<BleedURY>	Real number that provides the custom bleed width at the page's top edge.
<ShingledIR>	Integer number that provides the shingling direction, encoded as follows: SHINGLE_LEFT = 0 SHINGLE_DOWN = 1 SHINGLE_RIGHT = 2 SHINGLE_UP = 3 SHINGLE_BINDING = 4 SHINGLE_FACE = 5 SHINGLE_MASK = \$000F SHINGLE_DEFBLEED = \$2000 SHINGLE_AUTO = \$4000 SHINGLE_DEFAULT = SHINGLE_BINDING + SHINGLE_AUTO + SHINGLE_DEFBL
<ShingleAmt>	Real number that provides the shingling amount for the current page.
<Scaling>	This parameter is no longer used. Page scaling factors are now controlled by the job file.
<Angle>	Real number indicating the page rotation in degrees, as used for bottling compensation. Positive numbers rotate pages counterclockwise (when viewed from the front of the sheet).

<BottleAbout>	Integer number indicating the center of rotation when the page is rotated through the angle provided by <Angle>, encoded as follows: BOTTLE_CENTER = 0 BOTTLE_LL = 1 BOTTLE_LR = 2 BOTTLE_UL = 3 BOTTLE_UR = 4 BOTTLE_ARB = 5
<BottleArbX>	Real number that provides the horizontal location of the center of rotation, relative to the page's 0, 0 origin. Only used when <BottleAbout> = 5.
<BottleArbY>	Real number that provides the vertical location of the center of rotation, relative to the page's 0, 0 origin. Only used when <BottleAbout> = 5.
< Delivery >	Integer that indicates the delivery that this press sheet page is ON. The value 1 will represent the first delivery. This parameter is optional. For completeness it should always be excluded and set to 1 by default.

1.3 Sample Template File

```
%!PS
% This: Template File: c:\scenic\template\tutor_16.tpl
%%Comment: Preps 3.0b for Windows
%SSiPrepsVer: 1
%SSiLayout: |Tutorial-16 Page| |c:\scenic\template\tutor_16.tpl| 1 1 792.0000
612.0000 9
%SSiPressSheet: 2736.0000 1800.0000 0.0000 72.0000 0 324.0000 1 18.0000
%SSiPrshPage: 0.0000 0.0000 0.0000 0.0000 3 1 1 0.0000 0.0000 0.0000 0.0000
24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiSignature: |16 Page| 16 6 1
%SSiPressSheet: 2736.0000 1800.0000 0.0000 72.0000 0 324.0000 1 18.0000
%SSiPrshMark: 720.0000 882.0000 576.0000 27.0000 2 27.0000 |Sig: $sig Side:
$side $color| 0.0000 0 60 60 100 100 1 1 1 0 0 0.0000 0.0000
%SSiPrshMark: 0.0000 -72.0000 432.0000 25.7040 18 0.0000 |$comment| 0.0000 0
100 100 100 100 11 1 1 0 0 0.0000 0.0000
%SSiPrshMark: 2376.0000 -72.0000 360.0000 25.7040 18 0.0000 |Sig: $sig-$side
$color| 0.0000 0 100 100 100 100 11 1 1 0 0 0.0000 0.0000
%SSiPrshMatrix: 1 8.0000 0.0000 1
%SSiPrshMatrix: 8 612.0000 0.0000 1
%SSiPrshMatrix: 9 792.0000 0.0000 1
%SSiPrshMatrix: 11 36.0000 0.0000 1
%SSiPrshMatrix: 10 0.0000 0.0000 1
```

```

%SSiPrshMatrix: 12 7.0000 0.0000 1
%SSiPrshMatrix: 2 58.5000 0.0000 1
%SSiPrshMatrix: 4 0.0000 0.0000 1
%SSiPrshMatrix: 5 612.0000 0.0000 1
%SSiPrshMatrix: 4 13.5000 13.5000 1
%SSiPrshMatrix: 5 612.0000 0.0000 1
%SSiPrshMatrix: 4 58.5000 58.5000 1
%SSiPrshMatrix: 5 612.0000 0.0000 1
%SSiPrshMatrix: 4 13.5000 13.5000 1
%SSiPrshMatrix: 5 612.0000 0.0000 1
%SSiPrshMatrix: 4 0.0000 0.0000 1
%SSiPrshMatrix: 3 54.0000 0.0000 1
%SSiPrshMatrix: 4 0.0000 0.0000 0
%SSiPrshMatrix: 5 792.0000 0.0000 0
%SSiPrshMatrix: 4 54.0000 54.0000 0
%SSiPrshMatrix: 5 792.0000 0.0000 0
%SSiPrshMatrix: 4 0.0000 0.0000 0
%SSiPrshPage: 58.5000 54.0000 612.0000 792.0000 7 16 15 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 697.5000 54.0000 612.0000 792.0000 7 1 2 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 1426.5000 54.0000 612.0000 792.0000 7 4 3 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 2065.5000 54.0000 612.0000 792.0000 7 13 14 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 58.5000 954.0000 612.0000 792.0000 5 9 10 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 697.5000 954.0000 612.0000 792.0000 5 8 7 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 1426.5000 954.0000 612.0000 792.0000 5 5 6 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 2065.5000 954.0000 612.0000 792.0000 5 12 11 0.0000 0.0000
0.0000 0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshMatrix: 7 -1.0000 0.0000 0
%SSiSignature: |8 Page W/T| 8 6 1
%SSiPressSheet: 2736.0000 1800.0000 0.0000 72.0000 1 324.0000 1 18.0000
%SSiPrshMark: 2376.0000 -72.0000 360.0000 25.7040 18 0.0000 |Sig: $sig-W/T
$color| 0.0000 0 100 100 100 100 9 1 1 0 0 0.0000 0.0000

```

```

%SSiPrshMark: 0.0000 -72.0000 432.0000 25.7040 18 0.0000 |$comment| 0.0000 0
100 100 100 100 9 1 1 0 0 0.0000 0.0000
%SSiPrshMark: 720.0000 882.0000 576.0000 27.0000 2 27.0000 |Sig: $sig Side:
$side $color| 0.0000 0 60 60 100 100 1 1 1 0 0 0.0000 0.0000
%SSiPrshMatrix: 1 4.0000 0.0000 1
%SSiPrshMatrix: 8 612.0000 0.0000 1
%SSiPrshMatrix: 9 792.0000 0.0000 1
%SSiPrshMatrix: 11 36.0000 0.0000 1
%SSiPrshMatrix: 10 0.0000 0.0000 1
%SSiPrshMatrix: 12 7.0000 0.0000 1
%SSiPrshMatrix: 2 58.5000 0.0000 1
%SSiPrshMatrix: 4 0.0000 0.0000 1
%SSiPrshMatrix: 5 612.0000 0.0000 1
%SSiPrshMatrix: 4 13.5000 13.5000 1
%SSiPrshMatrix: 5 612.0000 0.0000 1
%SSiPrshMatrix: 4 0.0000 0.0000 1
%SSiPrshMatrix: 3 54.0000 0.0000 1
%SSiPrshMatrix: 4 0.0000 0.0000 0
%SSiPrshMatrix: 5 792.0000 0.0000 0
%SSiPrshMatrix: 4 54.0000 54.0000 0
%SSiPrshMatrix: 5 792.0000 0.0000 0
%SSiPrshMatrix: 4 0.0000 0.0000 0
%SSiPrshPage: 58.5000 54.0000 612.0000 792.0000 7 8 7 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 697.5000 54.0000 612.0000 792.0000 7 1 2 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 58.5000 954.0000 612.0000 792.0000 5 5 6 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshPage: 697.5000 954.0000 612.0000 792.0000 5 4 3 0.0000 0.0000 0.0000
0.0000 24580 0.0000 1.0000 0.0000 1 0.0000 0.0000
%SSiPrshMatrix: 7 -1.0000 0.0000 0

```

2. SMARTMARK (SMK) DEFINITION FORMAT

SmartMarks were introduced into Preps with the 5.0 release. The format is found both in .SMK files and in .TPL (template) files with very slight differences. The format is internal and proprietary and may change without notice to external partners. However, such changes will be accompanied by a change in version number (see the General Format section) on the first line.

2.1 General Format

The general format of a SmartMark is a series of lines, each of which contains a keyword prefix, a colon, a space, and then zero to two parameters, depending on the keyword.

The box to the right shows a sample SmartMark for a perfect-bound collation mark.

2.1.1 Keywords overview

The first and last keywords are unique in that they start with the “%” character. Except for the first and last keywords, all keywords are written in lowercase but are recognized as case-insensitive.

The first keyword, %SSiSmartMarkStart also takes as its first parameter the version of the definition being used. For the release version of Preps 5.0, this version number is 2.

The second parameter of this first line indicates the particular type of SmartMark being defined. For more details about the legal values, see Table 5 on page 20.

2.1.2 Parameter formats overview

Now a word about parameter formats. There are three types of parameters: integers, floating point, and strings. Integers are always represented in decimal form, floating point is always represented conventionally (that is without exponential notation). Strings are delimited by a single nonblank character which does not appear in the string. The default string delimiter is the vertical bar. The last-chance string delimiter is the unprintable character whose hex value is 1F.

There is no provision for comments in a SmartMark definition, but embedded empty lines are skipped.

```
%SSiSmartMarkStart: 2 4
name: |Perfect-bound
collation|
text: ||
dupflags: 35
sigstart: 1
sigmod: 1
colortype: 0
color1: 100
color2: 100
color3: 100
color4: 100
rotation: 0
smartoffsetx: 0.0000
smartoffsety: 360.0000
refentity: 2
refanchor: 7
```

2.2 SmartMark Keyword Descriptions

The following table describes the various keywords that appear in a SmartMark definition. Not all keywords will appear in all SmartMark definitions. The keywords in the table are presented in alphabetical order. Except for %SSiSmartMarkStart and %SSiSmartMarkEnd, the order in which the keywords appear (one per line) is **not** significant.

Table 3 SmartMark Keywords

SmartMark Keyword	Description	Parameters
%SSiSmartMarkStart	Always the first line of a SmartMark definition	Version (of SmartMark definition) and Mark Type (see Table 5))
%SSiSmartMarkEnd	Always the last line in a SmartMark definition.	None.
Collsize	Only present for collation marks. Currently unused. Represents the length of the collation mark (along the direction of the step).as a percentage of the length of the adjacent page edges. In Preps 5.0, the size of all collation marks are statically determined.	One floating-point parameter in the range 0 to 100
Collstart	Used only for collation marks. Represents the offset of the collation mark from the reference edge.	One floating-point parameter
Color1	Same as corresponding %PrshMark parameter (see page 7)	One unsigned integer parameter
Color2	Same as corresponding %PrshMark parameter (see page 7)	One unsigned integer parameter
Color3	Same as corresponding %PrshMark parameter (see page 7)	One unsigned integer parameter
Color4	Same as corresponding %PrshMark parameter (see page 7)	One unsigned integer parameter
Colortype	Same as corresponding %PrshMark parameter (see page 7)	One unsigned integer parameter
Dupflags	Same as corresponding %PrshMark parameter(see page 7)	One unsigned integer parameter
Flatid	Only used for text marks. If TRUE then the text mark is a Flat-Identifier mark. Otherwise, it is a simple text mark. The difference is the backside placement.	One boolean parameter
Gapfrompage	Only present for collation marks. Currently ignored.	One floating-point parameter
Height	Height for fixed-height dupmark and rectangle marks	One floating-point parameter
Linestyle	Only used for line marks	0 = SOLID

SmartMark Keyword	Description	Parameters
		1 = DOTTED 2 = DASHED
Markanchor	Anchor for the mark	Anchor index (see Table 4)
Name	Name of the SmartMark as shown in the UI.	One string parameter
Opttext	Only used for collation marks. Represents the optional text that one can place for collation marks	One string parameter
Origingroup	Name of the group from which this mark was imported. Only present for imbedded SmartMarks.	One string parameter
Outsideonly	Only used for crop marks	One boolean parameter
Refanchor	The reference anchor associated with refentity. Not used for collation marks.	Anchor index (see Table 4)
Refanchorb	The reference anchor associated with refentityb. This may be different than refanchor value only for variable width or variable height marks (e.g. line, rectangle, or dupmark).	Anchor index (see Table 4)
Refentity	The rectangle on the signature used as the basis for positioning the mark. Not used for collation marks.	Entity index (see Table 6)
Refentityb	The second rectangle on the signature used as the basis for positioning “two-point” marks, i.e. the line, rectangle, and dupmark marks. In Preps 5.0 refentityb, when defined, is always the same as refentity.	Entity index (see Table 6)
Rotation	Rotation in degrees of a text, custom, or dupmark.	One unsigned integer parameter
Section	Either zero or the same as the “delivery” %PrshMark parameter(see page 7) Zero indicates that the mark is to be included in all sections of a multi-section signature.	One unsigned integer parameter
Sigmod	Same as corresponding %PrshMark parameter (see page 7)	One unsigned integer parameter
Sigstart	Same as corresponding %PrshMark parameter (see page 7)	One unsigned integer parameter
Smartoffsetb	Offset in points (and PostScript space) from refanchorb of refentityb. This value is used only for “two-point” marks, meaning line marks, rectangle marks, and	Two floating-point parameters (the X,Y pair)

SmartMark Keyword	Description	Parameters
	dupmarks. In the case of fixed-sized marks, it represents the far corner of a conceptual bounding rectangle from the point defined by (Smartoffsetx,Smartoffsety).	
Smartoffsetx	Horizontal Offset in points (and PostScript space) from refanchor of refentity	One floating-point parameter
Smartoffsety	Vertical offset in points (and PostScript space) from refanchor of refentity.	One floating-point parameter
Stepsize	Only used for collation marks. Same as the "size" %PrshMark parameter(see page 7)	One floating-point parameter
Text	Either the simple name of the eps file for a dupmark or custom mark or the text for a text mark ¹ Substitution of the PDF equivalent of the EPS mark file happens automatically for PDF->PDF jobs.	One string containing possible substituors
Usealternatededge	Used only for collation marks. Interpretation depends on the binding style of the collation mark, but it generally represents which of two edges of the high/low folio pages to measure the collstart value from.	One boolean parameter
Width	Width for fixed-width dupmark and rectangle marks. For collation marks, this is the width of the collation mark (meaning the dimension orthogonal to the stepping direction).	One floating-point parameter

¹ For collation marks, the text represents the three non-eps-based collation marks by using the texts: 'SIGNATURE COLLATION MARK A', 'SIGNATURE COLLATION MARK B' and

'SIGNATURE COLLATION MARK C'. The default value for collation marks when the TEXT parameter is empty is 'SIGNATURE COLLATION MARK A'.

2.3 SmartMark Ordinal Definitions

The tables in this section describe the meanings of ordinal numbers found in SmartMark definitions.

The following table describes the assigned numeric value that identifies each of the nine points for anchoring a SmartMark.

Table 4 SmartMark Anchor Points

Value	Meaning
1	Top left corner
2	Center point of top edge
3	Top right corner
4	Center point of right edge
5	Bottom right corner
6	Center point of bottom edge
7	Bottom left corner
8	Center point of left edge
9	Center point of rectangle
0	Unspecified. Used when anchors are not meaningful (e.g. in collation marks)

The following table specifies the assigned numeric values that identify each type of SmartMark. These values appear as the second parameter to the %SSiSmartMarkStart keyword.

Table 5 SmartMark Type Values

Value	Meaning
1	Text Mark
2	Custom Mark
3	SideGuide (unused in Preps 5.0)
4	Perfect Collation Mark
5	Saddle-stitch Collation Mark
6	Fold Mark
7	Line
8	Rectangle
9	Dupmark
10	Crop Mark

The following table describes the assigned definition and numeric values that identify each of the rectangles used for placing SmartMarks on a surface of a signature.

Table 6 SmartMark Rectangle Identities

Value	Rectangle Identity	Definition
0	None	Placeholder for use in line, rectangle, and dupmark and collation SmartMarks.
1	Media	Page size and position as given by the current device. The media rectangle is the only rectangle that is sensitive to the settings of the current device. If it is determined that the media rectangle is too small to fit the entire signature (meaning it will not fit on a single tile), then media-based SmartMarks will not image.
2	Press sheet	Sheet size as given by the signature definition
3	Imposition	Farthest extents of the trim boxes of all pages in an imposition
4	Imposition-with-bleeds	Farthest extents of the bleed boxes of all pages in an imposition ²
5	Top Margin	Rectangle from the imposition top to the press-sheet top, and from the imposition left edge to the imposition right edge.
6	Bottom Margin	Rectangle from the imposition bottom to the press-sheet bottom, and from the imposition left edge to the imposition right edge.
7	Left Margin	Rectangle from the imposition left to the press-sheet left, and from the imposition top edge to the imposition bottom edge.
8	Right Margin	Rectangle from the imposition right to the press-sheet right, and from the imposition top edge to the imposition bottom edge.
9	Top Right Margin	Rectangle from the imposition right to the press-sheet right, and from the imposition top edge to the press-sheet top edge.
10	Top Left Margin	Rectangle from the imposition left to the press-sheet left, and from the imposition top edge to the press-sheet top edge.
11	Bottom Right Margin	Rectangle from the imposition right to the press-sheet right, and from the imposition bottom edge to the press-sheet bottom edge.
12	Bottom Left Margin	Rectangle from the imposition left to the press-sheet left, and from the imposition top edge to the press-sheet top edge.
13	Vertical Gutters	Set of vertical gaps between trim boxes of the pages of an imposition. Each gutter is a rectangle that crosses directly from one side of the imposition to the other and extends to the edge of the imposition-with-bleeds rectangle.
14	Horizontal Gutters	Set of horizontal gaps between trim boxes of the pages of an imposition. Each gutter is a rectangle that crosses directly from one side of the imposition to the other and extends to the edge of the imposition-with-bleeds rectangle.

² Note that bleed margins are set on a per-job basis. This means that the shapes of bleed-related reference entities (Imposition-with-bleeds, VerticalGutters, and HorizontalGutters) might be different in the template editor than in a preview or print operation. In the template editor, the bleeds are determined by either METRIC_BLEED_MARGIN or AMERICAN_BLEED_MARGIN settings in the current profile.