MakeAFP

MakeAFP Form Designer
User's Guide

Version 4.0

This edition applies to the MakeAFP Form Designer.

MakeAFP welcomes your comments and suggestions. You can send your comments and suggestions to:

support@makeafp.com

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Contents

Chapter 1. Designer Overview

MakeAFP Form Designer for Windows provides a truly user-friendly WYSIWYG graphical interface to empower you to visually create superior AFP overlays quickly, reducing your design time and improving your productivity tremendously.

Functions at a Glance

MakeAFP Form Designer provides the following advanced features and functions helping you to create your AFP overlays at ease:

- WYSIWYG GUI in superior presentation quality and High-performance.
- Supports legacy AFP ASCII/EBCDIC/DBCS-PC/DBCS-HOST encoding FOCA bitmap and outline fonts, as well as using a new generation of OpenType/TrueType fonts directly, able to selects a font by the properties of typeface name, style, and size, able to scale outline font width.
- Supports legacy AFP page segment monochrome and full-color images in FS10, FS11, FS42, and FS45 formats.
- Supports data-object containers in AFP page segment, GIF, JPEG, PDF, and TIFF formats.
- Supports ICC profile-based color management natively.
- Supports legacy lines, boxes and shading patterns LED, SCREEN and STANDARD.
- Supports AFP GOCA vector graphic drawings, such as a color graphic table, box, rounded corner box, line, arrow-line, fillet, marker, ellipse, arc, circle, etc.
- Able to control GOCA vector line width and styles; area filling patterns and colors; curves of each corner of the rounded box.
- Able to repeat drawing of line, box, rounded box, shading, color area precisely.
- Accurate positioning of all types of elements/objects with mouse or keyboard input in units of inches, millimeters, centimeters, or points.
- Displays positioning/sizing parameters in real-time along with the element/object.
- Auto-snap positioning while aligning element/object with the relevant element/object.
- Supports ASCII/EBCDIC/DBCS-PC/DBCS-HOST and UTF-8/ UTF-16 texts and paragraph rotations and alignments of left, center, right, and justify.
- Able to enter universal texts by keyboard and copy/paste at ease.
- Supports zoom levels of the entire page, page width, zooming from 25% to 500%, or a user-specify zoom level.
- Able to use grids and guidelines to facilitate AFP overlay design.
- Supports copy/cut/paste, undo/redo, drag and drop elements/objects.
- Supports both legacy monochrome and full-color elements/objects.
- Supports graphic rulers with choice of units.
- Able to use the scan-in image as the form Template with choices of color control.
- Supports all popular types of 1D and 2D barcodes by AFP drawing, including the new US Postal 4-State OneCode barcode.
- Able to import IBM OGL source code.
- Able to export C/C++ source code for MakeAFP Formatter.

Starting MakeAFP Form Designer

To start MakeAFP Form Designer:

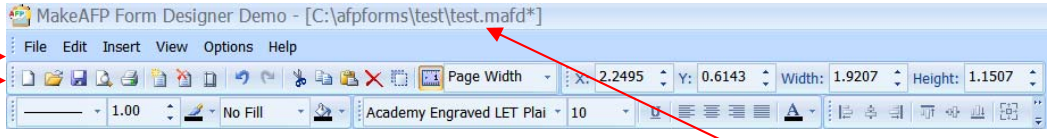
1. Click the **Start** button.
2. Select **Programs**, **MakeAFP Software**, and then **AFP Form Designer**.

   Or, double-click the **AFP Form Designer** icon on your desktop.

Parts of the Form Designer Interface

Form Designer provides all the tools you need to create the elements/objects of texts, vector graphic draws, barcodes, images, etc. The following overview identifies some basic features of the Form Designer interface.

Top Portion of the Interface

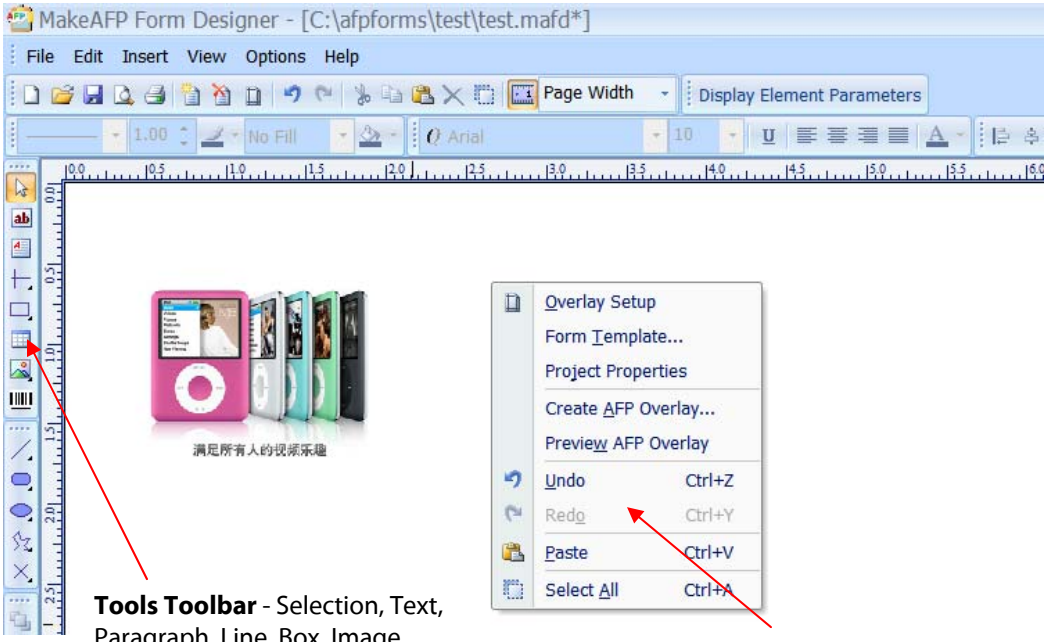


Menu Bar - gives access to most features. Menus are contextual.

Main Toolbar - gives quick access to frequently used functions such as new, open, save, print, cut, copy, paste, undo, redo, zoom, component properties of vector graphic, text, font, etc.

Title Bar - shows the name of the active form project name.

Middle Portion of the Interface



Tools Toolbar - Selection, Text, Paragraph, Line, Box, Image, Barcode and AFP vector graphic drawing tools.

Shortcut Menu - right-click to display. It gives a list of options you can perform on a selected object's

Bottom Portion of the Interface

Status Bar - Gives you information about the current active overlay name, measurement units, position and size of the selecting object.

MakeAFP Form Designer Prerequisites

Here are the prerequisites to run MakeAFP Form Designer:

1. Windows 7 or above.
2. Microsoft Visual C++ 2010 SP1 Redistributable Package (x86).

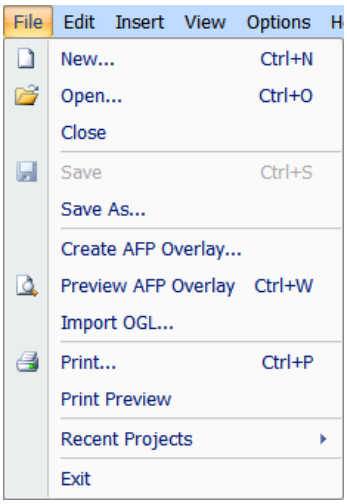
Chapter 2. Designer Menu Bar

The Menu Bar in MakeAFP Form Designer is similar to most Microsoft Windows-based software interfaces. Additional features are available and their purposes are outlined in the following narrative.

Some of the menu bar features appear only after you have opened a project file in Designer, and some options will appear dimmed depending on what items you have made active by selecting them.

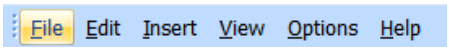
Using the Menu Bar

Click on an item in the Menu Bar to view its options. Available options and shortcut keys are displayed adjacent to the item, and menu options are context-sensitive.

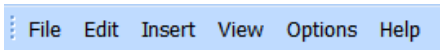


You can also access an item in the Menu Bar by **ALT +** the underscored letter in the Menu Bar. For example, ALT+F brings up the File Menu.

Menu Bar with Underscores



Menu Bar without Underscores

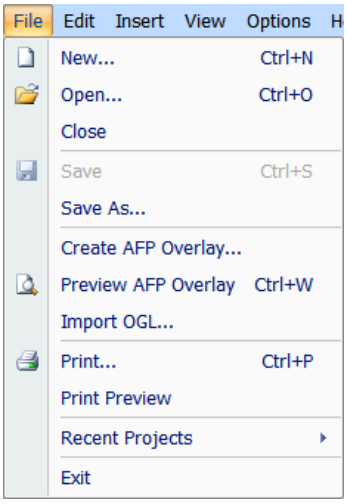
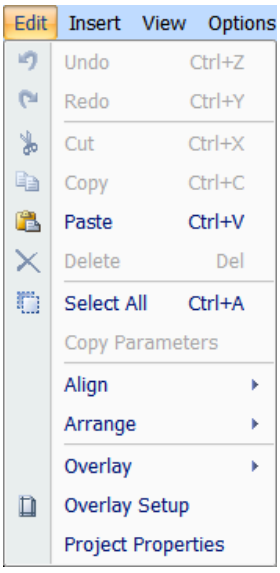


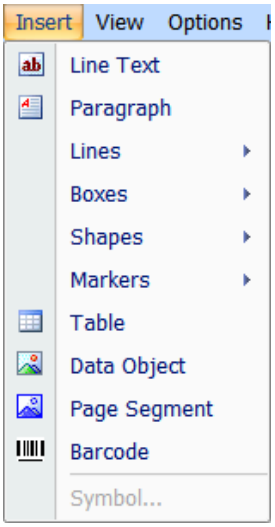
Options Under the Menu Bar

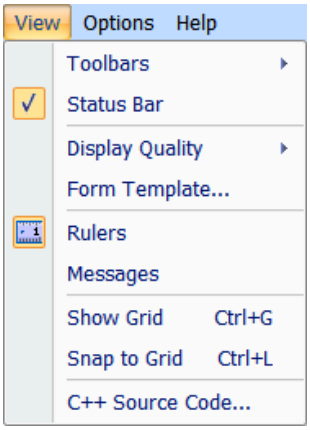
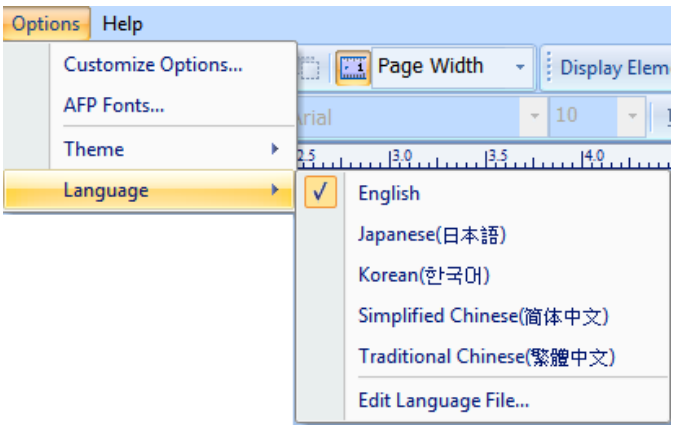
Most of the options under the Menu Bar should be self-explanatory to any experienced computer user. For example, you should be able to comprehend how to open, close, and print a file as in any Microsoft Windows-based program.

Some options may be dimmed as they are not available due to the status of the selected object, or because no object is selected.

The Menu Bar and options are listed in the following tables sequentially:

Menu Option	Functions
File	When there is a project opened, the File Menu options available are: New, Open, Close, Save, Save As, Create AFP Overlay, Preview AFP Overlay, Import OGL, Print, Print Preview, Recent Projects, and Exits.  **New** - begins a new project of Designer. **Open** – opens an existing project of Designer. **Close** - closes the active window, giving you a chance to save the project if it is not saved. **Save** - saves the active project. **Save As** - saves the active project as another project. **Create AFP Overlay** – creates an AFP overlay object from the current active AFP overlay design page. **Preview AFP Overlay** – previews the overlay in AFP format by the MakeAFP Viewer Lite. **Import OGL** – imports a source code file in IBM OGL format. **Print** or **Print Preview** - bring up the print or print preview dialog box. **Recent Projects** - A list of the most recent projects opened in Designer. **Exit** - closes the active window, giving you a chance to save any the unsaved project then exits Designer.
Edit	The Edit Menu offers some basic options for edit overlay, overlay setup, and overlay properties. 

Menu Option	Functions
Edit	**Undo** - takes you one step back in the order of the operations you have performed. **Redo** - takes you one step forward in the order of the operations you have performed. **Cut** - removes the active object/element from your drawing window. **Copy** - makes a copy of the active object/element in your drawing window and keeps it in memory. **Paste** - takes a copy of the object/element in memory and places it in your drawing window. **Delete** - removes the active object/element from your drawing window. **Select All** - selects all of the objects/elements in your drawing window and makes them active. **Copy Parameter** – Let's copy the parameter in C++ source code format. **Align** – Aligns a group of objects selected. **Arrange** – Arranges the presentation layer of the object selected. **Overlay** – Let's insert and delete an overlay. Designer allows you to define multiple overlays within one project. **Overlay Setup** – defines the overlay name and size. **Project Properties** – defines the properties of the project.
Insert	The Insert Menu allows you to insert these objects: Text, Paragraph, Lines, Boxes, Shapes, Picture, Page Segment, Barcode, and Symbol.  **Line Text**- inserts a single-line text. **Paragraph** – inserts a text paragraph. **Lines** - inserts the legacy or vector line(s). **Boxes** – inserts the legacy or vector box(es). **Shapes** – inserts the vector drawing shape(s). **Table** – inserts a table. **Data Object** – inserts a data object in GIF/JPEG/PDF/TIFF formats. **Page Segment** – inserts a legacy monochrome image in AFP page segment format. **Barcode** – inserts a 1D or 2D barcode object. **Symbol** – inserts a special symbol, only available by using UTF-8/UTF-16 encoding with an OpenType/TrueType font.

Menu Option	Functions
View	The View Menu allows you to control the viewing of these options: Toolbars, Status Bar, Display Quality, Form Template, Ruler, Show Grid, Snap to Grid, and C++ Source Code.  **Toolbars** – allows you to select the types of toolbars to be displayed on the design window. **Status Bar** – selects whether to display the status bar at bottom of the design window. **Display Quality** – selects the display quality. **Form Template** – allows the import and display of a scan-in image from preprinted form as the Template. **Rulers** – controls whether display the rulers with the design window. **Messages** – shows the warning and error messages. **Show Grid** – controls whether display the grid. **Snap to Grid** – controls whether snap to the grid line. **C++ Source Code** – shows the MakeAFP Formatter C/C++ source code generated by Design.
Options	The Options Menu allows you to customize the default options, AFP FOCA font library, color management default ICC color profiles; chooses a color theme for your GUI; selects a language for your Menu, edit and create the Language Files.  **Customize Options** – defines the default options to customize your Designer. **AFP Fonts** – customizes the AFP FOCA fonts library. **Theme** – chooses a color theme for your GUI. **Languages** – chooses a preferred language for the Menu, edits or creates the language files.

Chapter 3. Designer Toolbars

MakeAFP Form Designer contains a suite of tools to help you to create AFP overlays at ease. The tools are arranged on toolbars for convenient access, many of them are also available on the menus.

Standard Toolbar

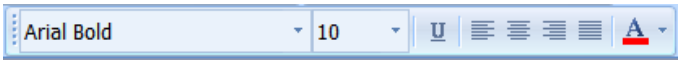
Tool	Function
New Project	Let's open the Create **New Project** dialog box.
Open Project	Let's **Open** an existing project file.
Save Project	Let's **Save** the current project.
Preview AFP Overlay	Let's **Preview** the AFP overlay by the MakeAFP Viewer Lite.
Print	Let's **Print** the designs of the current project.
Insert Overlay	Let's insert a new AFP overlay in the project.
Remove Overlay	Let's remove an AFP overlay from the project.
Overlay Setup	Let's set up an AFP overlay.
Undo	Let's reverse the last action.
Redo	Let's reverse **Undo.**
Cut	Let's **Cut** the selection and put it on the clipboard.

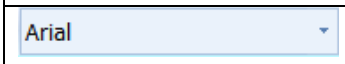
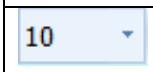
Tool	Function
Copy	Let's **Copy** the current selection to the clipboard.
Paste	Let's **Paste** the last item on the clipboard into the current design window
Delete	Let's **Delete** the current selection.
Select All	Let's select all elements on the current page.
Show Ruler	Let's **Show Ruler** or not.
Page Width **View Scale**	Let's select the zoom level. You can select: Entire Page, Page Width, zooming from 25% to 500%, or specify a user-specify zoom level.

Tools Toolbar

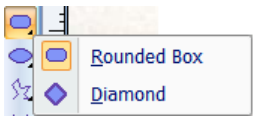
Tool	Function
Select	Let's make objects active or current by clicking on them with this tool.
Line Text	Let's insert a single-line text string.
Paragraph	Let's insert a text paragraph.
Straight Line	Let's draw straight lines, both legacy text line and AFP vector graphic line are supported. You can draw multiple lines successively while holding down the **CTRL** key.
Box	Let's draw boxes, both legacy boxes with shading and AFP vector box with the color background are supported. You can draw multiple boxes successively while holding down the **CTRL** key.
Table	Let's insert a table.
Image	Let's insert an image, both legacy AFP page segment and data-object containers of GIF, JPEG, PDF, and TIFF are supported.
Barcode	Let's to insert linear or 2D barcodes.

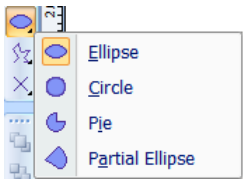
Formatting Toolbar



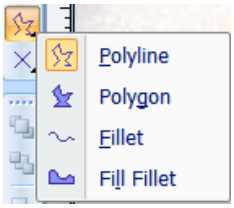
Tool	Function
 **Font Items Drop-Down**	Let's select an OpenType/TrueType or AFP FOCA bitmap/outline font from the font list.
 **Font Size Combo Box**	Let's select from a list of Font sizes or specify a font size for outline font.
 **Underline**	Let's underline the text.
 **Align Left**	Let's align text horizontally left.
 **Align Center**	Let's align text horizontally center.
 **Align Right**	Let's align text horizontally right.
 **Justify**	Let's align paragraph text horizontally justified.
 **Text Color**	Let's change the color of the text. RGB, CMYK, and AFP OCA (Object Content Architectures) colors are supported.

Shapes Toolbar





Tool	Function
 **Skew and Arrow Line**	Let's draw a vector skew line, arrow line, or double arrows line. You can draw multiple skews or arrow lines successively while holding down the **CTRL**-key.
 **Rounded Box and Diamond**	Let's draw a vector rounded box or diamond. You can draw multiple boxes or diamonds successively while holding down the **CTRL**-key.
 **Ellipse, Circle, Pie, and Partial Ellipse**	Let's draw a vector ellipse, circle, pie, or partial ellipse. You can draw multiple ellipses, Circles, Pies, or partial ellipses successively while holding down the **CTRL**-key.

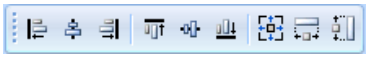


Tool	Function
Polyline, Polygon, Fillet and Fill Fillet	Let's draw a vector poly-line, polygon, fillet, or fill-fillet.
Marker	Let's insert a vector GOCA marker.

Line and Filling Toolbar

Tool	Function
Line Style	Let's select a vector line style.
Line Width	Let's specify the line width as a multiplier of the normal line width (which is approximately 0.01 inches). Supported values for the AFP vector line by your IPDS printers may be up to 13 only, which is about 0.13 inches.
Line Color	Let's select a color for the line. RGB, CMYK, and AFP OCA (Object Content Architectures) colors are supported.
Fill Pattern	Let's select a filling pattern for the area of the AFP vector graphic.
Fill Color	Let's select a filling color for the area of the AFP vector graphic. RGB, CMYK, and AFP OCA (Object Content Architectures) colors are supported.

Layout Toolbar

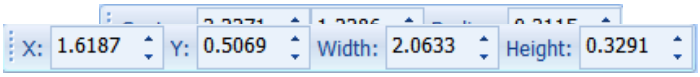


Tool	Function
Align Left	Let's align selected objects horizontally left.
Align Center	Let's align selected objects horizontally center.

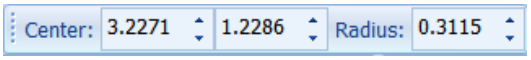
Align Right	Let's align selected objects horizontally right.
Align Top	Let's align selected objects vertically top.
Align Middle	Let's align selected objects vertically middle.
Align Bottom	Let's align selected objects vertically bottom.
Make Same Size	Let's make selected objects the same size.
Make Same Width	Let's make selected objects the same width.
Make Same Height	Let's make selected objects the same height.
Bring to Front	Let's bring the selected vector drawing object to the front of all the vector objects on the screen.
Bring to Back	Let's send the selected vector drawing object to the back of all the vector objects on the screen.
Move Forward	Let's bring a vector object forward one step at a time.
Move Backward	Let's move a vector object backward one step at a time.
Lock	Let's lock an object on the screen. **When an object is locked, it is in an inactive status and cannot be edited.**

Dynamic Parameters Toolbar

For Line

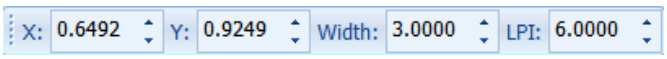


For Box

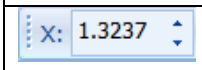
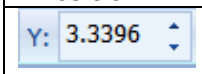
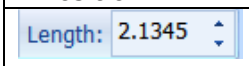
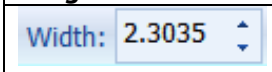
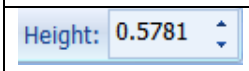
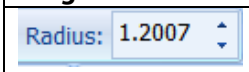
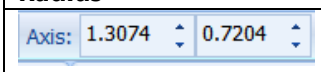
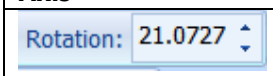
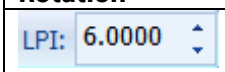


For Circle or Pie

For Ellipse



For Text Paragraph

Tool	Function
 **X Position**	Shows the **X** position of an object, also allows you to enter its position manually.
 **Y Position**	Shows the **Y** position of an object, also allows you to enter its position manually.
 **Length**	Shows the length of the line, also allows you to enter a value manually.
 **Width**	Shows the width of the box or text paragraph, also allows you to enter a value manually.
 **Height**	Shows the height of the box, also allows you to enter a value manually.
 **Radius**	Shows the radius of the circle or pie, also allows you to enter a value manually.
 **Axis**	Shows the axis parameters of the ellipse, also allows you to enter their values manually.
 **Rotation**	Shows the rotation of the ellipse, also allows you to enter a value manually.
 **LPI**	Shows the line spacing of text paragraph by LPI (Lines Per Inch) unit, also allows you to enter a value manually.

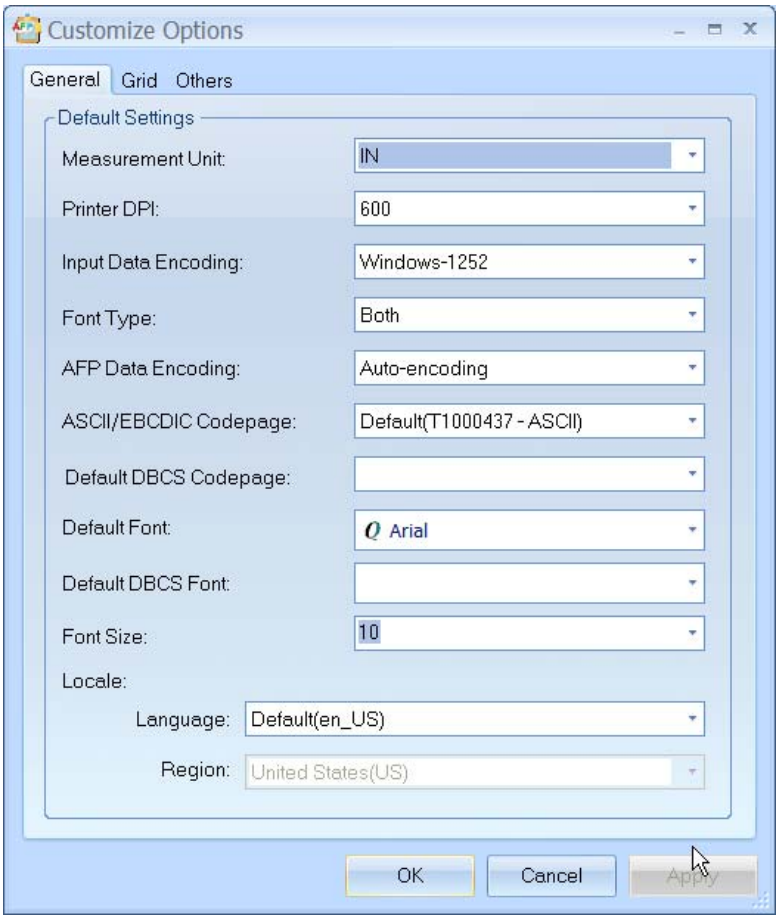
Chapter 4. Customize Options

The Designer Options let you open the dialogs to view and define the default configuration. With option customizations, you can define the general settings for the measurement units, default input data encoding, font types, AFP data encoding, default font, language locale, grid, default ICC RGB/CMYK profiles, as well as customize the AFP FOCA font library, etc.

General Options

You can access the Designer **General** Options by opening the **Options** Menu and then selecting the **Customize Options**.

General Options Tab:



With **General** Options, you **must make sure** the following settings are defined properly:

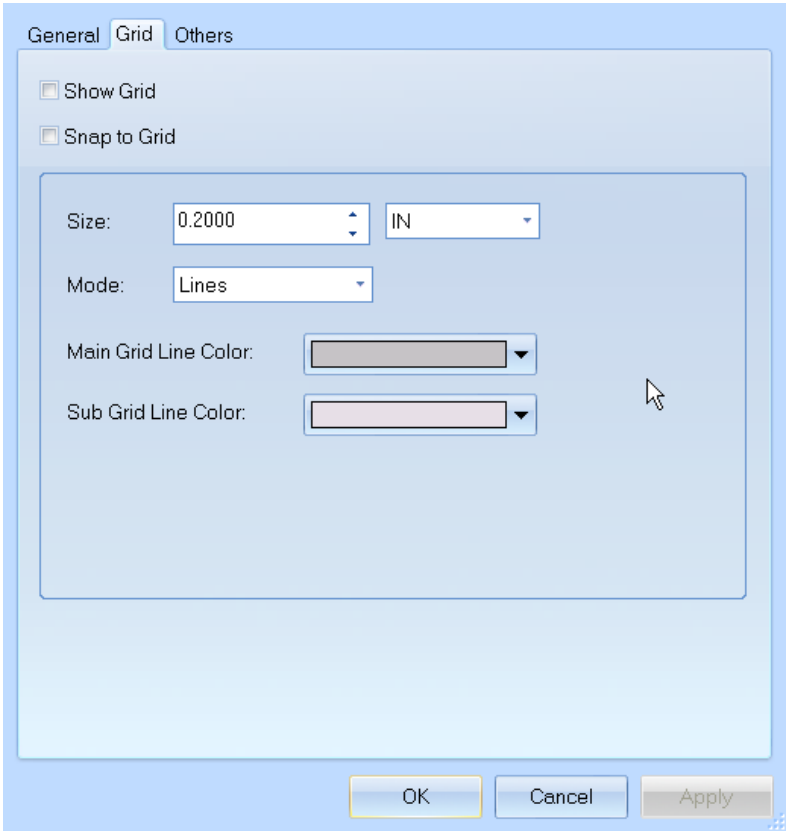
Input Data Encoding	Must match with your default PC text input encoding.
Font Type	Choose whether use OpenType/TrueType fonts, AFP FOCA fonts, or both font types.

AFP Data Encoding	Choose default AFP text data encoding, Auto-Encoding is recommended.
ASCII/EBCDIC Codepage	Choose an AFP 1-byte codepage as the default for the AFP text encoding either in ASCII or EBCDIC. Select an EBCDIC codepage if AFP overlay is created for IBM mainframes and OS/400.
Default DBCS Codepage	Choose an AFP 2-byte codepage as the default to be used for the AFP DBCS texts.
Default Font	Choose an OpenType/TrueType font as the default font for the AFP texts encoding in ASCII/ EBCDIC/UTF16-BE/UTF8, or an AFP 1-byte FOCA font for AFP texts encoding in ASCII/EBCDIC.
Default DBCS Font	Choose an OpenType/TrueType font or AFP 2-byte FOCA Font as the default font for the AFP DBCS-PC/DBCS-HOST texts.
Locale	Must match with your language locale.

Grid Options

You can access the Designer **Grid** Options by opening the **Options** Menu, selecting the **Customize Options** and clicking on tab **Grid**.

Grid Tab:

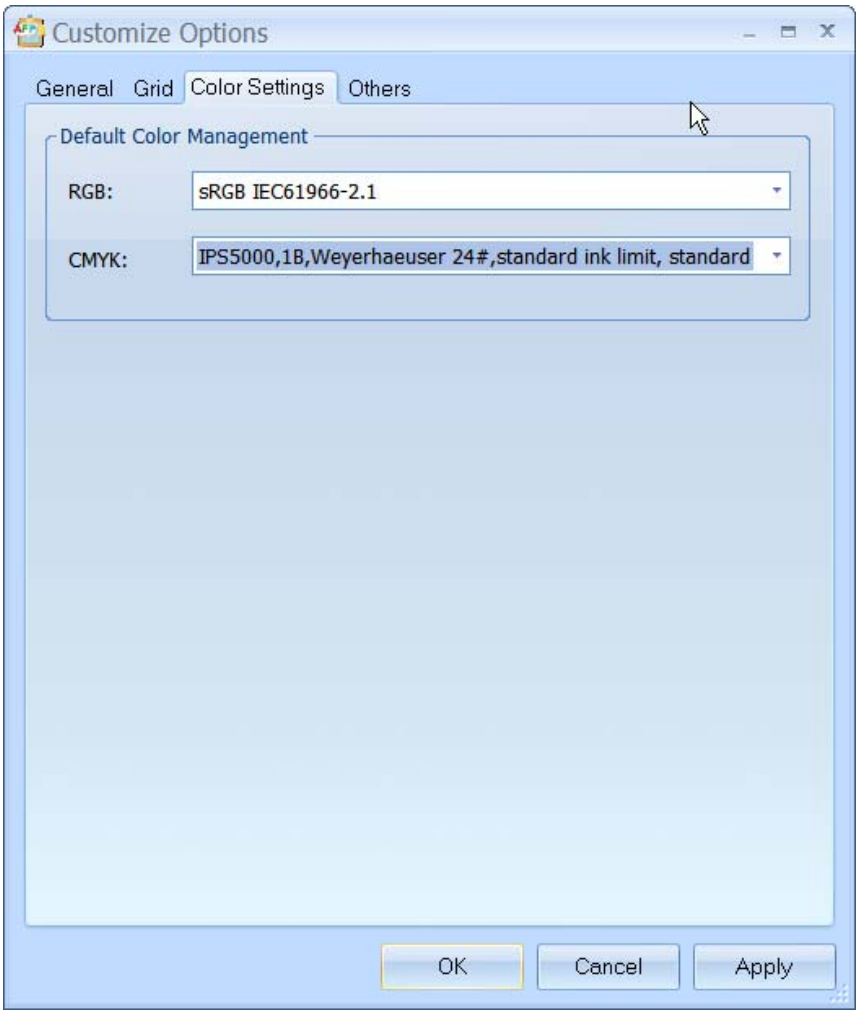


With **Grid** Options, we can set whether to show grid, snap to grid, as well as choose grid type, size and color.

Color Settings

You can access the Designer **Color Settings** Options by opening the **Options** Menu, selecting the **Customize Options** and clicking on tab **Color Settings**.

Color Settings Tab:



With **Color Settings** Options, you can select the default RGB and CMYK ICC profiles for color management.

Designer supports ICC-based color management natively in High-performance for the CMYK texts, GOCA vector graphics, and images, it supports CMYK images embedded with ICC profiles, or use the CMYK ICC profile you selected with the Color Management setting or the default CMYK ICC profile "U.S. Web Coated SWOP v2", if CMYK image did not embed an ICC profile.

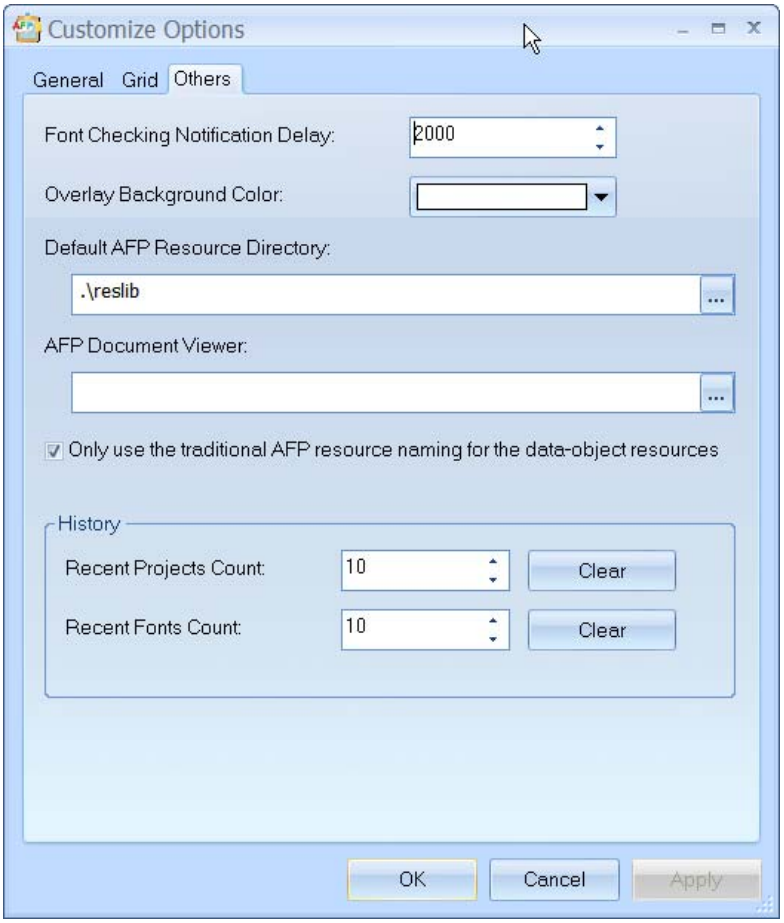
With Windows Explorer, you can right-click your ICC profile files and then install them into your Windows system.

You can download the Adobe ICC profiles for Windows from Adobe website. Check with your AFP printer vendors for the CMYK ICC profile specially developed for your color IPDS printers.

Other Options

You can access the Designer **Others** Options by opening the **Options** Menu, selecting the **Customize Options,** and clicking on tab **Others**.

Others Tab:

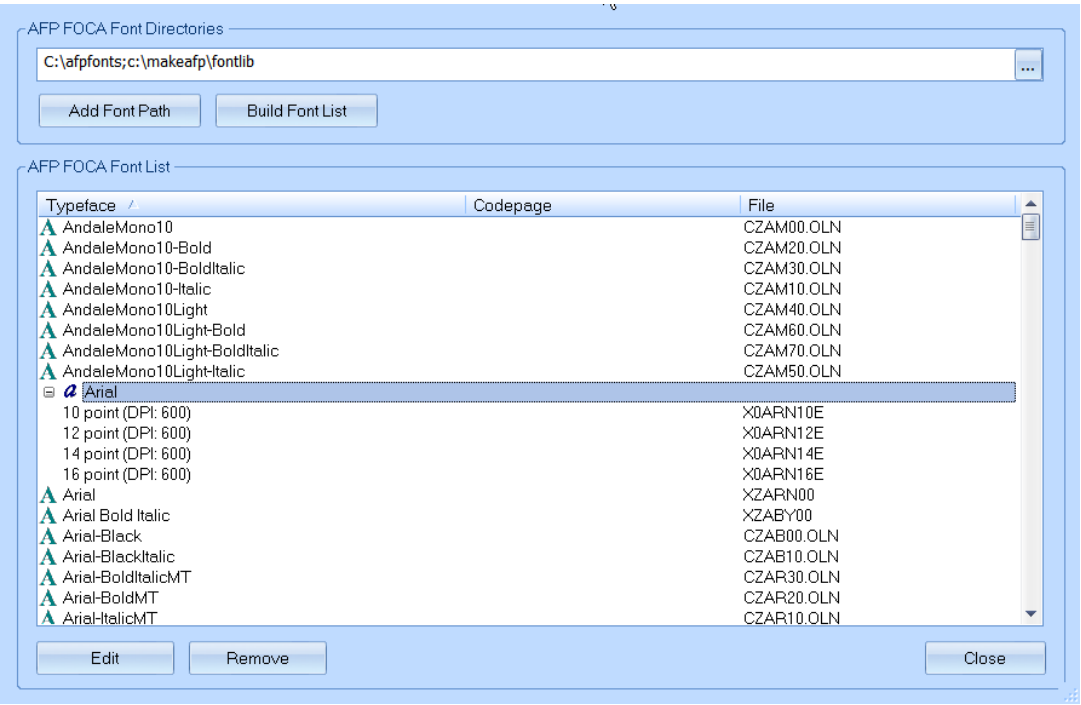


With **Others** Options, you may want to change the following two settings:

Font Checking Notification Delay	Defines the display time of warning message in milliseconds**.** The designer always checks the typing text with the font selected to see whether they are matching, otherwise shows a warning message, for instance, if you are using font Arial with a Chinese, Japanese or Korean text.
Default AFP Resource Directory	Defines the default resource directory of your images and output overlay, you may either define a fully qualified pathname being used as a central resource library of images and overlays or a relative sub-path**.\reslib** under the project file directory.
AFP Document Viewer	Defines a third-party AFP Viewer for previewing of overlay in AFP format, default is using the MakeAFP Viewer Lite integrated within the MakeAFP Form Designer.

Customize AFP FOCA Fonts Library

You can invoke the **AFP FOCA Font Library** by opening the **Options** Menu, and then selecting **AFP FOCA ...**.



With the AFP FOCA Font Library, you can easily define or modify the AFP font directories, build or re-build the AFP FOCA font list, and edit and remove any item under the AFP FOCA Font List. Alternatively, you can also manually edit and improve the.\config\font.xml configuration file of the AFP FOCA font library.

Designer supports AFP ASCII/EBCDIC, DBCS-HOST/DBCS-PC bitmap and outline fonts, as well as AFP FOCA outline font in UTF-16BE encoding.

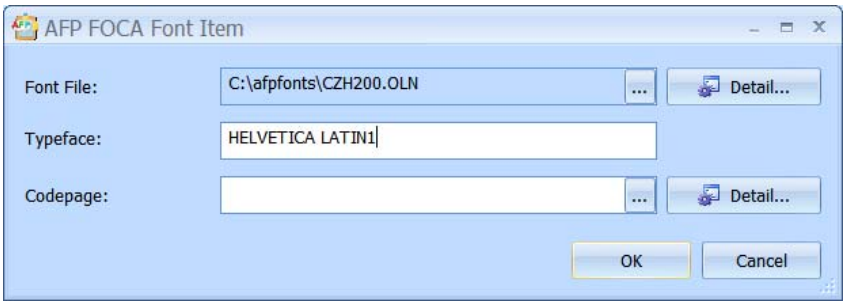
For the 1-byte of ASCII/EBCDIC AFP fonts, Designer not only supports using AFP coded font, but is also able to use an AFP character-set directly with a codepage, either defined by the option of Default ASCII/ EBCDIC Codepage under the project properties or defined under the AFP FOCA Font Library where you can edit an item of the character-set to manually define a codepage to be used with that AFP font character-set.

For the 2-byte of DBCS-PC, DBCS-HOST, and UTF16BE AFP fonts, AFP coded fonts are required by the Designer.

Refer to *Appendix B. AFP Font Basic Concepts*, for some more information about AFP FOCA fonts, and refer to *MakeAFP Fonter User's Guide* on how to create and update AFP FOCA bitmap and outline fonts.

Customize AFP FOCA Font Items

Under **AFP FOCA Font List** on the **AFP FOCA Font Library** window, you may want to edit an AFP font item, for instance, you may change its typeface name if you dislike the original AFP typeface name extracted from the AFP FOCA font files.



With IBM legacy DBCS-HOST 240-dpi bitmap fonts developed before 1990 for Chinese, Japanese, and Korean, you have to manually select the "Map to encoding" option, as these legacy DBCS bitmap fonts used non-standard GCGIDs.

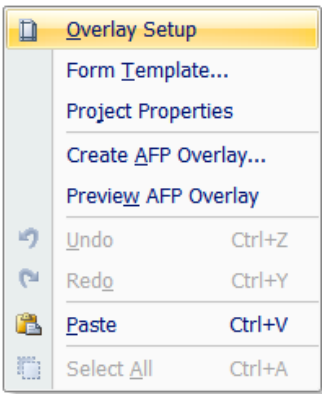
In the IBM AFP fonts standard, each character is assigned a unique 8-character GCGID (Graphic Character Global Identifier), for instance, the character uppercase A is assigned the GCGID LA020000 registered by IBM. These unique GCGIDs are also required by MakeAFP Designer for the mapping with Unicode.

Customize Overlay Setup

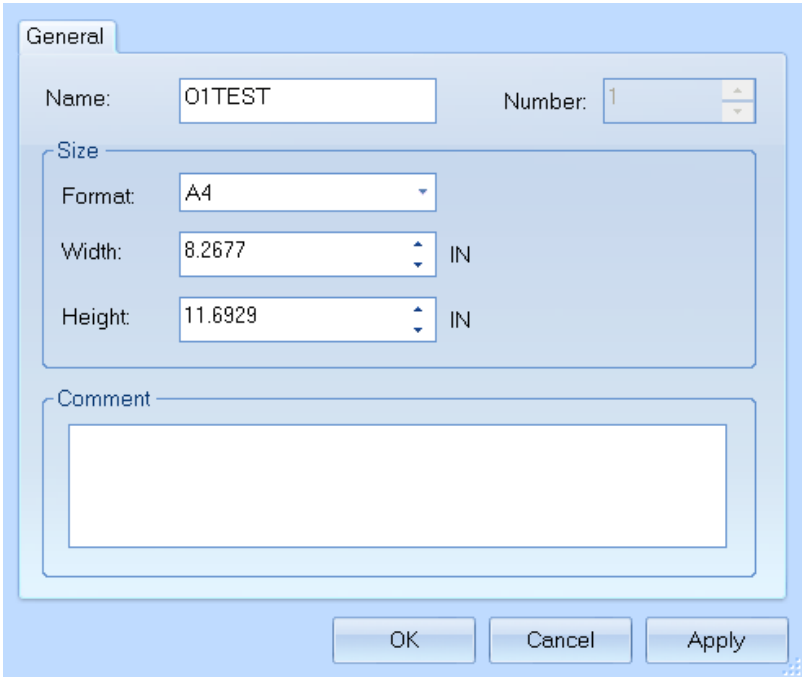
The **Overlay Setup** Let's customize the overlay name and size for an overlay. Designer allows you to create multiple AFP overlays within a project.

Once a new overlay is created, you have two options to access its properties:

1. Opening the **Edit** Menu, selecting the **Overlay Setup.**
2. By right-clicking on a blank area of the design screen, then selecting the **Overlay Setup**.



Overlay Setup:



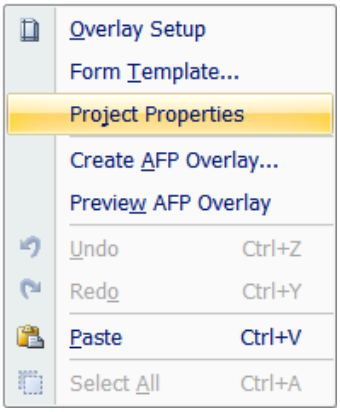
With the **Overlay Setup**, you can define the overlay name and size.

Customize Project Properties

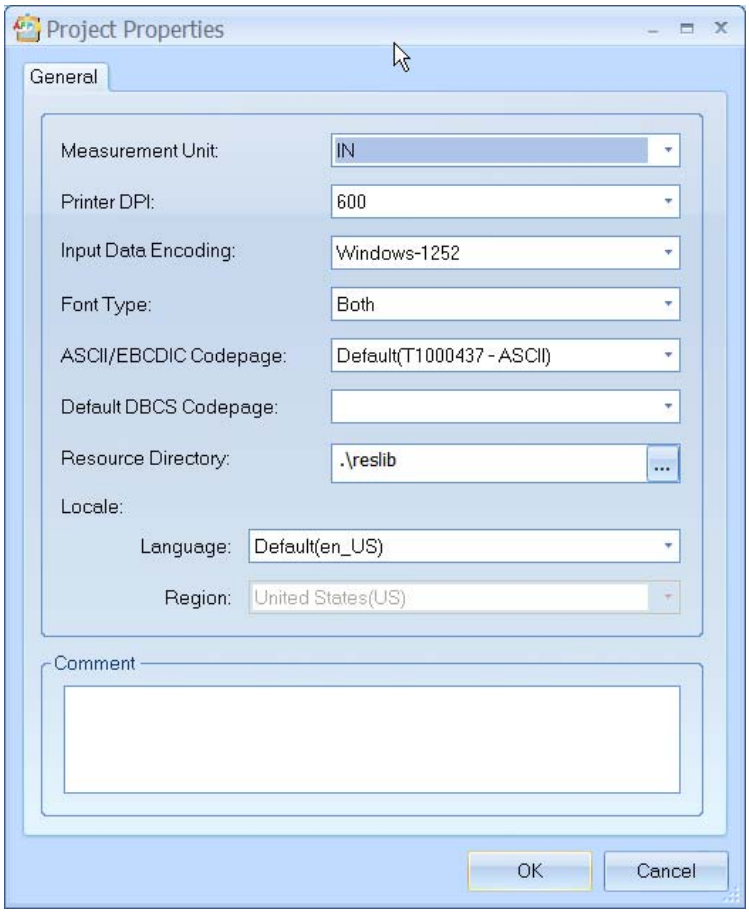
The **Project Properties** let you customize some important options for each project. You may set the default measurement units, input data encoding, font type, default AFP codepage, and language locale.

Once a new project is created, you have two options to access its Project Properties:

1. Opening the **Edit** Menu, then selecting the **Project Properties**.
2. By right-clicking on a blank area of the design screen, then selecting **Project Properties**.



Project Properties:



Make sure the following settings are defined properly:

Input Data Encoding	Must match with your default PC text input encoding.
Font Type	Choose whether to use OpenType/TrueType fonts, AFP FOCA fonts, or both font types.
ASCII/EBCDIC Codepage	Choose an AFP 1-byte codepage as the default for the AFP text encoding either in ASCII or EBCDIC. Select an EBCDIC codepage if AFP overlay is created for IBM mainframes and OS/400.
Default DBCS Codepage	Choose an AFP 2-byte codepage as the default to be used for the AFP DBCS texts.
Resource Directory	Defines the resource directory of your images and output overlay for your current project, you may either define a fully qualified pathname or a relative sub-path**.\reslib** under the project file directory.
Locale	Must match with your current project's language locale.

Chapter 5. Designer Objects and Template

Drawing, image, barcode, text, and table are the objects that can be graphically created, inserted, and manipulated by MakeAFP Designer. All objects have their properties. When objects are created, they come into being with the default Properties.

Basic Object Operations

When you clicking on an object, it becomes an **active object.** You may perform the following operations on an active object.

Copying an Object
To **Copy** an object to a new location, click on the object and press the **CTRL+C** keys down. The object is copied to the clipboard.

Cutting an Object
To **Cut** an object from a location, click on the object and press the **CTRL+X** keys. The object will be removed and placed on the clipboard.

Deleting an Object
To **Delete** an object from a location, click on the object and press the **DELETE** key. The object will be removed.

Moving an Object
When the object is *active,* and you click on it but not on a handle, a *four-pointed arrow* appears. That is the **Move Icon**. When the *move icon* is shown, you can drag the object to a new location. You can also move an object by the keyboard **ARROW** keys.

Pasting an Object
After you **Copy** or **Cut** an object, you can **Paste** it elsewhere by press **CTRL+V** keys. The pasted object is offset from the original when pasted on the current design screen. When pasting to a different design screen, the object remains at the same horizontal position, so that you can easily clone an object from one design screen to another.

Resizing an Object
To resize an object by dragging, select the object and place your pointer over one of the handles on it until it turns to a double-pointed arrow. Drag the handle in or out until the object is in the size you want. You can also resize an object by press **Shift + Arrow** keys.

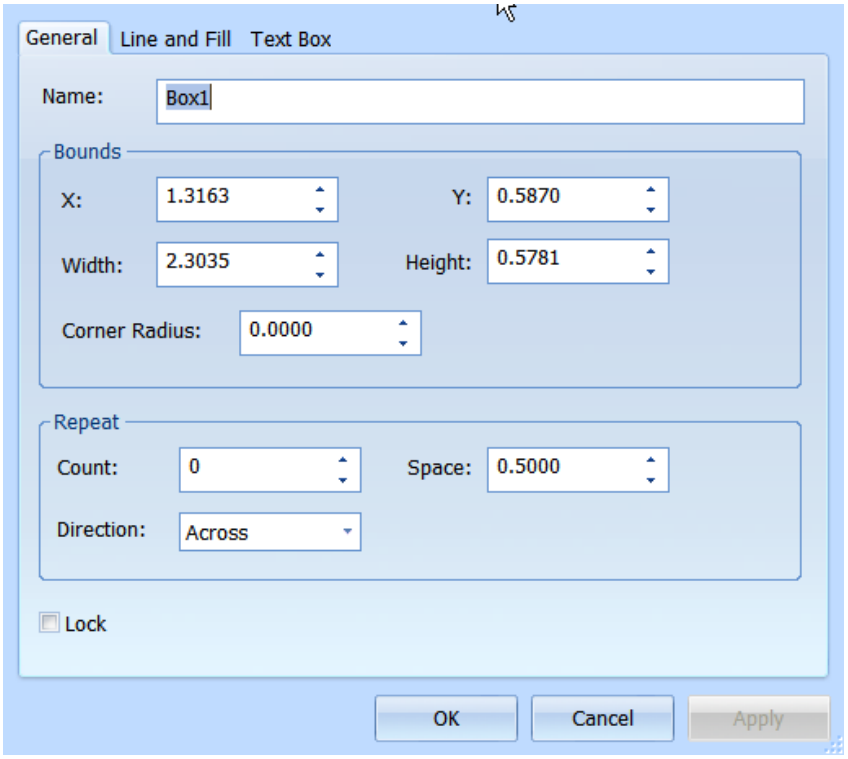
Undo and Redo on an Object
You can undo an operation you have just performed on an object. Just press **CTRL+Z** keys. If you change your mind again, just can redo that operation again by press **CTRL+Y** keys.

Select Multiple Objects
You can drag your pointer diagonally over the objects you want to select, making sure that they are at least partially within the area you are defining. **Handles** will appear around all the objects you have selected. You can add objects to the group that is selected by holding down the **SHIFT** or **CTRL** key while selecting additional objects. You can also select more than one object at a time by holding down the **SHIFT** or **CTRL** key as you click on successive objects. You can select all objects by press **CTRL+A** keys.

Edit an Object Properties

Object properties can be edited anytime once you **double-click** on an object. The designer also allows **right-click** on an object to display a context *shortcut menu* showing the object properties.

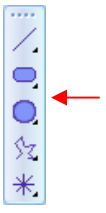
Sample – Vector Graphic Box's Properties



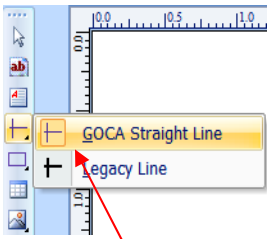
Drawing Objects

Drawing objects are the lines, boxes, polylines, polygons, ellipses, circles, etc. Designer supports not only drawing with AFP vector graphics but also drawing legacy text lines and boxes with AFP monochrome color shading.

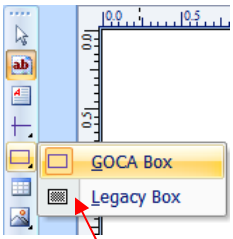
To use a drawing tool on the **Tools Toolbar** and **Shapes Toolbar**, click on a drawing tool and then click on the drawing area to start drawing. You can also access the drawing tools under the **Insert Menu**.



Shapes Toolbar for the AFP vector graphics drawing



Line Tools allow drawing with both vector line and legacy line



Box Tools allow drawing with both vector box and legacy box

With the drawing objects, the Designer is capable of:

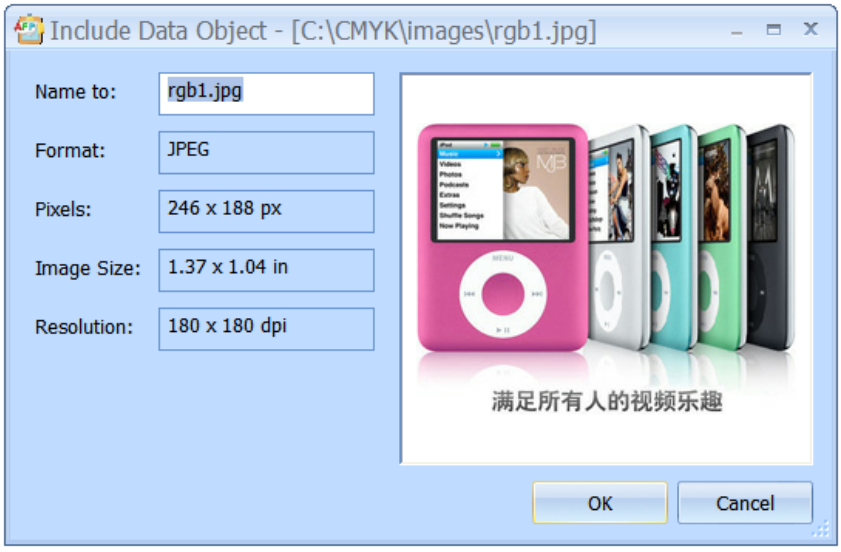
- Set the AFP vector line width and styles, filling patterns and colors, curves of each corner of the rounded box.
- Able to repeat drawing of line, box, rounded box, shading, color area precisely.
- Accurate positioning of all types of elements/objects with mouse or keyboard input in units of inches, millimeters, centimeters, or points.
- Displaying position/size parameters in real-time along with the object.
- Auto-snapping the position while aligning an element/object with the relevant element/object.

Image Objects

The designer supports the data-object containers in GIF, JPEG, PDF, TIFF, and AFP page segment formats, as well as the ICC profile-based color management. Refer to Section *Data Object Container Resources* of *Appendix A* for more information.

To use the image tool on the **Tools Toolbar**, click on either the **Data Object** or **Page Segment** tool and then click on a position of the design screen where you want to place the object. You can also access the **Data Object** or **Page Segment** tool on the **Insert Menu**.

With the **Data Object** Tool, you can include a GIF, JPEG, PDF, TIFF, or AFP page segment as the data-object resource. Using a traditional base-filename up to 8 alphanumeric characters is recommended for the data object file, which should be supported by most of the latest AFP print server.

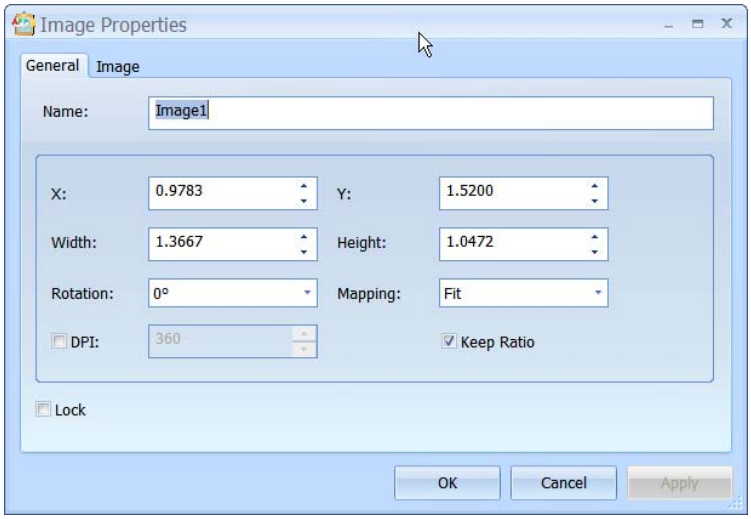


Note: *File extension *.gif, *.jpg, *.pdf and *.tif are allowed in Designer is just for your convenience.*

*Your AFP systems may only support the data object resources with base-filename up to 8 characters, without any file extension or with filename extension *.OBJ.*

With the **Data Object Properties**, the Designer allows you to define the rotation in 0/90/180/270 degree and mapping option of Center/Fill/Fit/Trim.

The following sample shows the Data Object Properties:

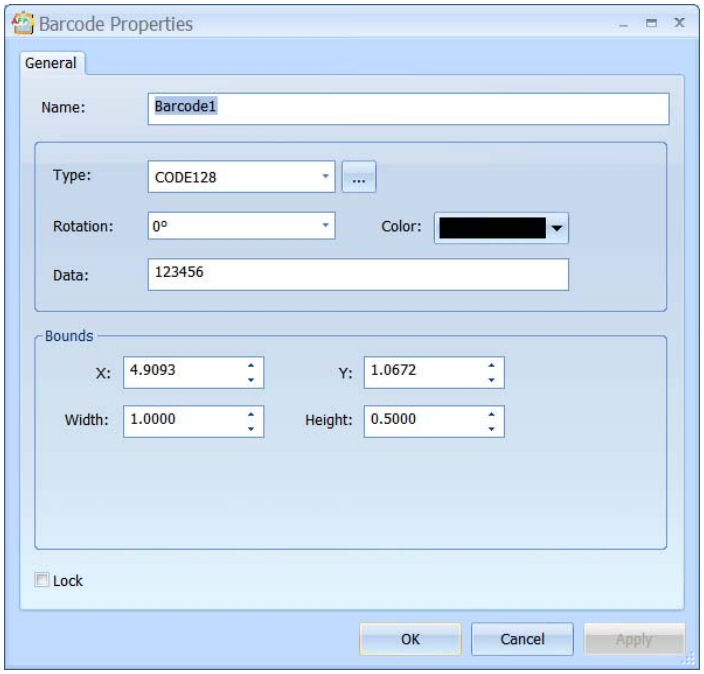


With the **Page Segment** Tool, you can select an AFP page segment image.

Barcode Objects

The designer supports the 1D and 2D barcodes as the special symbol drawing objects. Most of the popular barcode standards are supported, includes the new US Postal 4-State OneCode barcode.
Click on the **Barcode** Tool on the **Tools Toolbar** and then click on the drawing area to start drawing a barcode object. You can also access the **Barcode** Tool on the **Insert Menu**.

With the **Barcode Properties**, you can choose a 1D or 2D barcode type from the barcode type list:

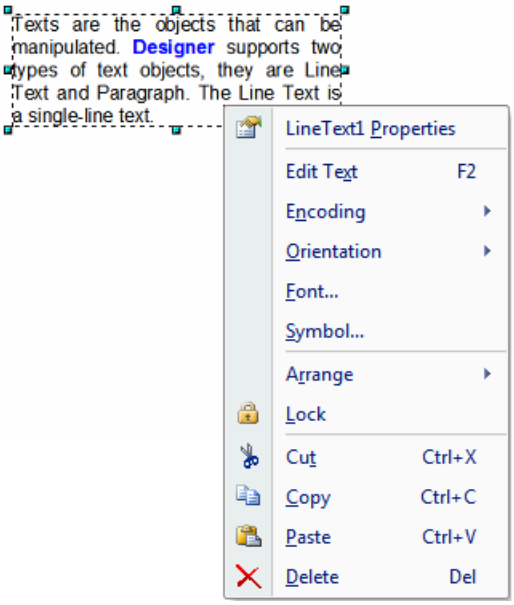


Text Objects

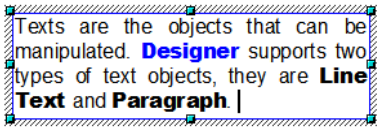
Texts are objects that can be manipulated. The designer supports two types of text objects, they are **Line Text** and **Paragraph**. The Line Text is a single-line text.

To use the text tools under the **Tools Toolbar**, click on either the **Line Text** or **Paragraph** tool and then click on a position of the design screen where you want to place the texts. You can also access the **Line Text** and **Paragraph** tools under the **Insert Menu**.

When you right-click on the text while it is an inactive mode, its shortcut menu appears:



When you double-click on the text while it is inactive, it goes into the text edit mode, then you can make changes to the texts:

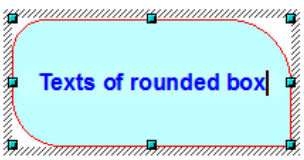


Paragraphs in Designer can be formatted just like with a word processing program. You can align the text by using the alignment buttons on the Text **Formatting Toolbar.** You can change font, text size, text color, line spacing, and so on.

Designer allows you to enter Chinese, Japanese and Korean texts on English (or other non-CJK) Windows by the use of IME (Input Method Editor) for CJK languages.

Designer supports AFP texts in Auto-Encoding, UTF-8, UTF-16, and Legacy Encoding.

With most of the drawing objects, associated paragraph texts can be added easily by pressing shortcut key **F2** after clicking on the drawing object:



When you double-click on the associated paragraph texts while it is inactive, it goes to the text edit mode.

Table Objects

A table object is made up of rows and columns of cells that you can fill with texts. Tables are often used to organize and present information.

Click on the **Table** Tool on the Tools Toolbar, the pop-up table dialog Let's choose the number of rows and columns you want in the table, and then click on the drawing area to start drawing of a table object. You can also access the **Table** Tool on the **Insert Menu**.

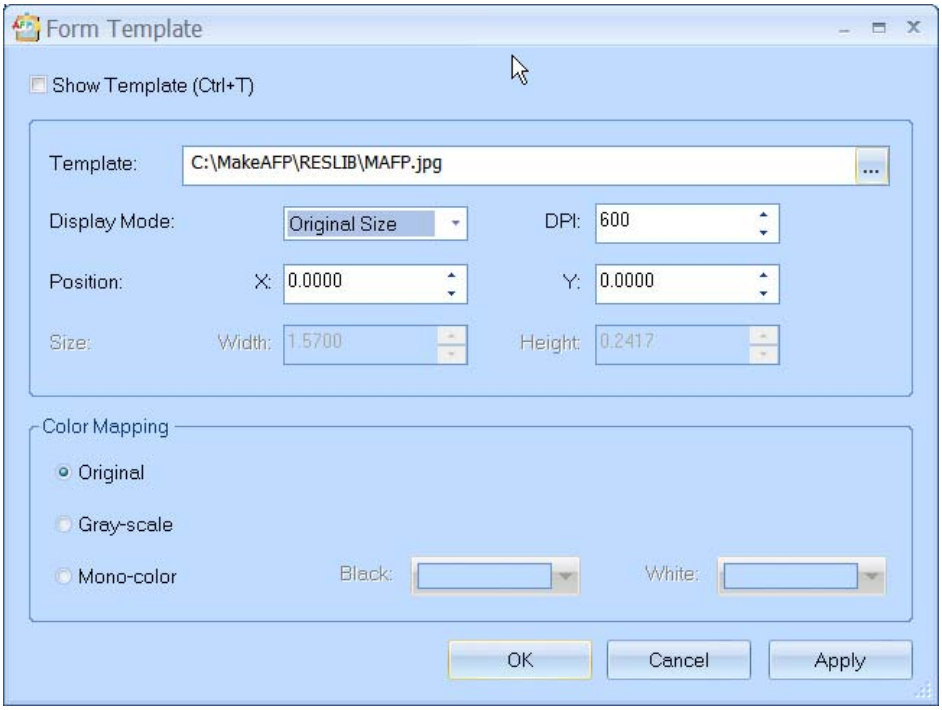
With the **Table Properties**, you can make changes to the table attributes at ease.

Form Template

The designer allows you to use an image scanned from a pre-printed form as the form template. The template does not become part of the new overlay, it is just to be used as a visual guide for the designing of a new overlay.

You have two options to load a template:

1. Opening the **View** Menu, selecting the **Form Template**.
2. By right-clicking on any blank area of the design screen, then selecting the **Form Template.**



PDF and images in BMP, GIF, JPEG, PNG, TIFF, and AFP page segment formats are supported.

With short-cut keys **CTRL+T,** you can easily turn-on/turn-off the form template during your overlay designing.

Chapter 6. Designer Files and Resources

This chapter gives some overviews to the Design project file, configuration files, as well as the AFP overlay creation.

You may need to do some customizations to the Designer's configuration files if required.

Designer Project File

The Designer Project File with the file extension *.mafd is an XML format file. You can open an existing project file by one of the following options:

1. Opening the **File Menu,** then selecting **Open.**
2. Clicking on the **Open Project** Toolbar**.**
3. Double-clicking on a project file by the Windows Explorer.

Designer Configuration Files

The following customizable configuration files in XML format are supplied in the Designer's sub-path..\config:

BARCODE.xml	The configuration file of 1D and 2D barcodes.
CODEPAGE.xml	The configuration file of AFP codepages for ASCII/EBCDIC/ DBCS-PC/DBCS-HOST.
DESIGNER.xml	The configuration file of MakeAFP Form Designer GUI.
ENCODING.xml	The configuration file of encoding conversion alias names.
FONT.xml	The configuration file of AFP FOCA font library, which can be updated easily by the GUI of AFP FOCA Font Library.
LOCALE.xml	The configuration file of the language locales.
OGLFONT.xml	The font mapping table to be used by Importing OGL source code. You may need to do some customizations to this file by a text or XML editor, if you want to replace the legacy AFP bitmap fonts used in OGL with new TrueType/OpenType fonts or AFP FOCA outline fonts, or legacy AFP FOCA outline fonts with TrueType/OpenType fonts. During Importing OGL, the Designer always searches the AFP font from the AFP Font Library first, if it is found then the original AFP font will be used; if the Designer could not find the AFP font from the AFP Font Library, then it searches the AFP font mapping from the OGLFONT.xml mapping table file; otherwise, the AFP font will be auto-mapped to Designer's default font, if it still could not find the AFP font mapping definition from the mapping table.

AFP Overlay Preview

Designer supports previewing of AFP overlay by the MakeAFP Viewer Lite or calling a third-party AFP Viewer. To preview your AFP overlay, open the **File Menu**, and then select **Preview AFP Overlay.**

The designer embeds all required resources inline in an interim AFP file for you to preview the AFP overlay on AFP viewer.

Note: *The resources are not allowed embedding within an AFP overlay, please do not use such an interim AFP file for previewing as your AFP overlay in an AFP production environment.*

Creating AFP Overlay

Once you have completed the design of your overlay, you can create an AFP overlay easily by opening the **File Menu**, and then select the **Create AFP Overlay**.

The AFP overlay name can be one to eight alphanumeric characters (a-z, A-Z, 0–9) and special characters (# $ @), including the two-character prefix O1, O1 prefix is required for the overlay to be used by PSF for z/OS, and it is also recommended for the AFP print servers for multi-platforms.

Resource Files

With the Designer, you have to deal with 5 types of resource objects, AFP overlays, AFP page segments, GIF/JPEG/PDF/TIFF data-object, AFP FOCA outline fonts, and OpenType/TrueType fonts.

The designer directly accesses the OpenType/TrueType fonts installed on your Windows system and the AFP FOCA bitmap and outline fonts under the AFP FOCA Font Library.

Designer gathers the AFP page segments and data-objects under the Resources Directory you defined, and Resources Directory is also the default output destination of your AFP overlay.

C/C++ Source Code

The designer generates C/C++ source for MakeAFP users who are using MakeAFP Formatter. Refer to *MakeAFP Formatter User's Guide* and *MakeAFP Reference* for more information about MakeAFP ultrahigh-speed formatting solution.

Designer provides a very useful and user-friendly feature helping you work with your MakeAFP Formatter programming, it allows to you copy the parameters in C/C++ syntax from the active design element/object with the short-cut keys **CTRL+M**, and then you can quickly paste the C/C++ source code into your MakeAFP Formatter program with the short-cut keys **CTRL+V**.

Appendix A. Using Resources in an AFP System

This Appendix provides some additional overview information on how to use some of AFP resources, such as using the data-object resources of GIF/EPS/JPEG/PDF/TIFF and OpenType/TrueType fonts in an AFP production system.

The information provided in this Appendix is mainly based on the IBM and InfoPrint AFP systems, such as IBM Content Manager OnDemand for Multiplatforms, InfoPrint Manager for Windows and AIX, and InfoPrint ProcessDirector for Linux. You may use the information provided here as your reference if you are using other AFP systems.

OpenType/TrueType Fonts

The latest AFP systems have supported using OpenType/TrueType fonts directly in the AFP systems and IPDS printers.

With your new generation of AFP systems, using OpenType/TrueType fonts directly is strongly recommended. The new support for the OpenType/TrueType font technologies in AFP provides you with significant benefits of:

- Much more choices and flexibility for typefaces, particularly non-Latin typefaces.
- A truly worldwide multilingual presentation environment through the support of Unicode.
- Supporting data encoding directly not only in Unicode UTF-8 and UTF-16 but also legacy ASCII/EBCDIC/DBCS.
- Migration towards a single font technology across all presentation environments.
- Much better font loading and processing performance on the new generation of IPDS controller.
- A much lower cost for typefaces and straightforward to use them at ease.
- Avoid the font copyright issues for such font conversion from OpenType/TrueType font formats to AFP FOCA raster or outline font formats.

MakeAFP Form Designer and MakeAFP Viewer support directly using OpenType/TrueType fonts installed on your Windows system which is recommended for better performance, or OpenType/TrueType fonts embedded inline within AFP document file if you need to embed them inline in AFP.

OpenType/TrueType fonts are not required storing on the servers of IBM Content Manager OnDemand for Multiplatforms, you just need to make sure the relevant OpenType/TrueType fonts are available the Windows workstations of IBM Content Manager OnDemand Client.

The Resource Access Table (RAT) is required by the AFP print server to send the OpenType and TrueType fonts to the IPDS printers if the fonts are not embedded inline within AFP file, RAT may also be required by some AFP application software, like IBM/InfoPrint ACIF if OpenType/TrueType fonts need to be embedded inline within an AFP file. RAT must be updated whenever OpenType/TrueType fonts are updated on the AFP print server.

The RAT resides in the font directories on your AFP print server, and there can be multiple RATs in an AFP system, but only one for each font directory, the filename of the RAT in IBM and InfoPrint AFP print server is hard-coded as **IBM_DataObjectFont.rat.**, to be accessed by the InfoPrint Manager, InfoPrint ProcessDirector, and PSF via the font library searching list.

You can create a RAT table for OpenType/TrueType fonts by the FontRAT utility of MakeAFP, InfoPrint AFP Resource Installer, and Canon PRISMAproduction Resource Preparer, etc.

For the AFP overlays created by the MakeAFP Form Designer using OpenType/TrueType fonts, make sure the relevant OpenType/TrueType fonts are stored in the AFP print server font libraries and RAT tables are updated whenever any new OpenType/TrueType font is added.

Although RAT is not required by the MakeAFP Formatter, which accesses OpenType/ TrueType fonts information directly, and also embed them inline into AFP file as the font resources, RAT is still required by the AFP print server if you do not want to embed such big CJK (Chinese, Japanese and Korean) OpenType/TrueType fonts as the inline resources.

The latest AFP systems allow you to capture the inline OpenType/TrueType fonts embedded in the AFP file. The OpenType/TrueType font capture allows the latest IPDS printer to capture a downloaded font and treat it as if it were a printer-resident font. Treating a downloaded font as a printer-resident font improves performance for future jobs that use the same fonts. Printers retain captured fonts across job boundaries and power cycles.

Refer to Chapter 26. Working with fonts of *InfoPrint Manager for Windows: Procedure* (S500-1073) for more information about how to use and capture OpenType/TrueType fonts.

AFP FOCA Fonts

MakeAFP Form Designer and MakeAFP Viewer support using AFP FOCA fonts from AFP resource libraries directly, and MakeAFP Viewer also supports AFP FOCA embedded inline in the AFP document file.

AFP printing servers sending AFP FOCA fonts from AFP font libraries to IPDS printers directly.

Refer to Chapter 15. Creating and managing resource-context objects of *InfoPrint Manager for Windows: Procedure* (S500-1073) for more information about how to define AFP resource libraries and the file extensions supported for the AFP FOCA fonts.

AFP Page Segments

AFP page segments are the image objects in AFP IOCA image formats, make sure they are available on your AFP systems, under the resources searching lists of AFP resource libraries or AFP page segment libraries.

MakeAFP From Designer and MakeAFP Viewer support AFP IOCA images in FS10, FS11 formats for monochrome images, FS42, and FS45 formats for color images.

AFP page segment name can be one to eight alphanumeric characters (a-z, A-Z, 0–9) and special characters (# $ @), including the two-character prefix S1, if there is one. S1 prefix is required for the page segment to be used by PSF for z/OS, and it is recommended for the AFP print servers for multi-platforms.

When AFP server system finds more than one page-segment with the same base-filename in a resource directory, it selects the matching page segment by the following file extension search order:

1. No filename extension

2. PSEG3820
3. PSEG38PP
4. PSG
5. PSE

Data-object Container Resources

GIF, EPS, JPEG, PDF, TIFF and AFP page segment can be used in the latest AFP systems directly as the data-object container resources. Using a data-object container as an object resource is more efficient when that object appears more than once in an AFP file; resources are downloaded to the IPDS printer or AFP Viewer just once and then repeating referenced as needed.

MakeAFP Form Designer and MakeAFP Viewer support ICC-based color management natively in High-performance for the data objects in CMYK mode, ICC profile can be embedded inline in CMYK image, or use the default CMYK ICC profile you selected with **Color Management s**ettings options if CMYK image did not embed an ICC profile.

With Windows Explorer, you can right-click your ICC profile files and then install them into your Windows system.

You can download the Adobe ICC profiles for Windows from Adobe website. Check with your AFP printer vendors for the CMYK ICC profile specially developed for your color IPDS printers.

MakeAFP Form Designer and MakeAFP Viewer support using the traditional AFP resource naming convention for the filename of the data-object, under which the base-filename can only be one to eight alphanumeric characters (a-z, A-Z, 0–9) and special characters (# $ @).

Using the traditional AFP resource naming is recommended for the data object resources to be used on IBM z/OS mainframe system and across platforms compatibility.

Although MakeAFP Form Designer and MakeAFP Viewer also allow you to use up to 250 characters long filename for the object resources, additional software is required to create the RAT (Resource Access Table) for the long-name data object resources to be used by the AFP printing servers on Windows and Unix. For example, You may create RATs of data object resources by the InfoPrint AFP Resources Installer, Océ PRISMAproduction Resource Preparer, etc.

When the AFP system finds more than one data-object with the same traditional base-filename in a directory, it selects the matching data-object by the following file extension search order:

1. No filename extension
2. OBJ

AFP Overlays

AFP overlays are the collections of coded information describing the elements of boxes, lines, shading, text, logos, and graphics on forms. When printed with variable data from AFP applications, overlays can replace the needs for the pre-printed forms.

Make sure AFP overlays available on your AFP systems, under the resources searching lists of AFP resource libraries or AFP overlay libraries.

AFP overlay name can be one to eight alphanumeric characters (a-z, A-Z, 0–9) and special characters (# $ @), including the two-character prefix O1, if there is one. O1 prefix is required for the overlay to be used by PSF for z/OS, and it is recommended for the AFP print servers for multi-platforms.

When AFP server system finds more than one overlay with the same base-filename in a resource directory, it selects the matching overlay by the following file extension search order:

1. No filename extension
2. OVLY3820
3. OVLY38PP
4. OVL
5. OLY
6. OVR

Transferring AFP Files and Resources

Make sure FTP is in **binary** mode if you need to transfer AFP files and resources across multi-platforms.

For uploading AFP files and resources to z/OS, z/VSE and z/VM, you may need to use IBM AFP Reblocking Utility, more information and downloads are available at IBM webpage for AFP software.

For uploading of AFP resources to OS/400, refer to Appendix D of *Advanced Print Utility User's Guide* (S544-5351) or *AS/400 Guide to Advanced Function Presentation and Print Services Facility* (S544-5319) for more information.

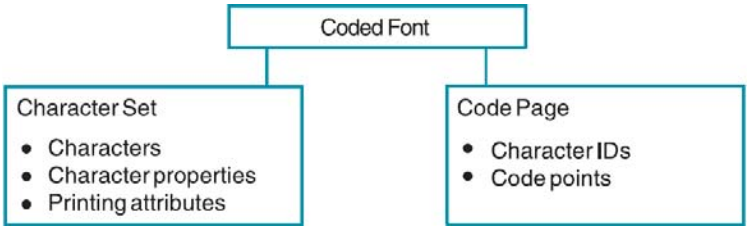
Appendix B. AFP Font Basic Concepts

This appendix introduces some basic AFP font terminology, structure and how characters are represented in digitized presentation type.

AFP Font Structure

In AFP font terminology, an AFP FOCA font has three components:

- Coded font
- Character set
- Codepage



Coded Font

AFP coded font is a font file that associates the AFP character set with AFP codepage.

A bitmap coded font consists of two parts:

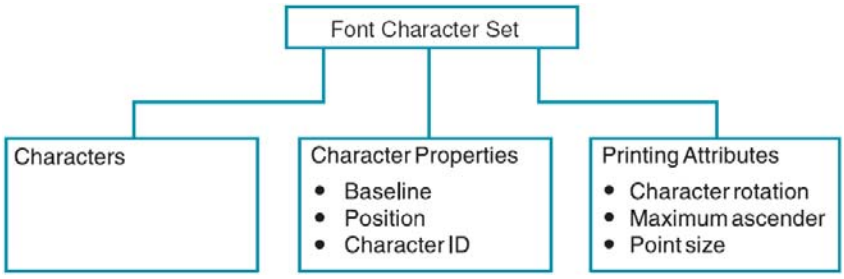
- References to specific character sets
- References to specific codepages

An outline coded font consists of three parts:

- References to specific character sets
- References to specific codepages
- References to point size

Character Set

AFP character set consists of a finite set of characters. It contains information about a font type family, typeface, and point size, and also includes each character properties and its printing attributes, such as baseline positioning, rotation, ascenders, descenders, etc.



Characters

Characters are the letters, numerals, marks, and symbols of a font.

Character Properties

Character properties detail how a character is positioned relative to the characters around it. Some character properties include the following:

- The baseline of a character showing its general alignment
- The dimensions of space in which the character is printed
- The position of the character within that space
- The identifier of the character (the character ID)

One of the character properties is the character ID, named GCGID (graphic character global identifier). Each character is assigned a unique 8-character GCGID; for instance, the character uppercase A is assigned the GCGID LA020000 registered by IBM.

For a list of GCGIDs, the character each represents, and the codepages where the characters are found, refer to *IBM AFP Fonts: Technical Reference for Codepages (S544-3802-02)*.

Printing Attributes

The printing attributes define how the character set will be printed, such as baseline positioning, rotation, ascenders, descenders, and point size, etc.

Single-byte and Double-byte Character Sets

A single-byte character set (SBCS) is a font character set to be used with a single-byte codepage. The maximum number of characters in a character set is 256.

A double-byte AFP bitmap font consists of multiple sections of double-byte character sets (DBCS), to be used with CJK (Chinese, Japanese, Korean).

Bitmap Format of Character Set

AFP font character sets in bitmap format can be in 240/300/600 dpi, some printers and AFP print server may support character sets in 360/480/720 dpi also. The character positioning values in the bitmap character set can be expressed in either fixed-metric or relative-metric.

Outline Format of Character Set

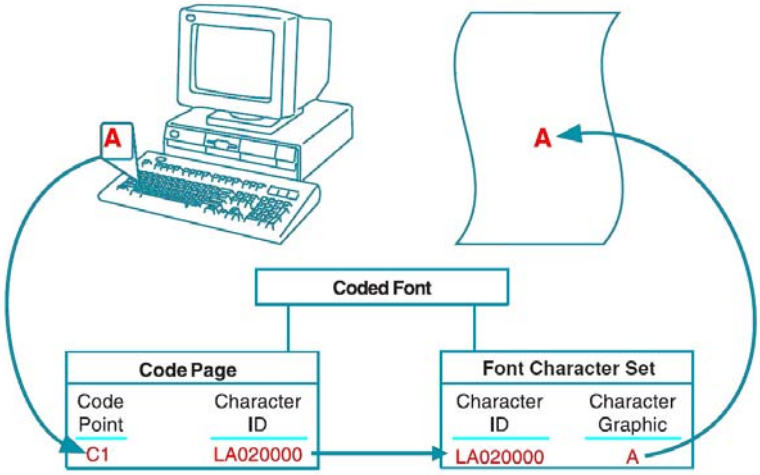
AFP outline character sets can be in SBCS outline format (by Adobe Postscript Type 1 outline font encapsulated in AFP font architecture wrappers), or DBCS outline format (by Adobe Postscript CID-keyed outlines font encapsulated in AFP font architecture wrappers). The character positioning values in the outline character set are expressed in relative-metric.

Codepage

AFP codepage maps each character of text to the characters in an AFP character set. As you enter your text on your keyboard, each key in character is translated into a hexadecimal code point. When the text is printed, each hexadecimal code point is matched to a GCGID on the AFP codepage you specified. The GCGID is then matched to the AFP bitmap pattern or outline vector pattern of the character in the AFP character set you specified. The character pattern in the character set is being finally used for the printing of your character.

The following picture shows an example with AFP EBCDIC codepage T1V10037 for IBM mainframe USA English.

When the IPDS printer receives EBCDIC hexadecimal code point C1, it prints an uppercase A, whose GCGID is LA020000.



A SBCS codepage contains up to 256 one-byte code points. SBCS codepages are good enough for languages with alphabetic writing systems, such as English, Latin, Greek, Thai, and Arabic, etc.

A DBCS codepage can contain up to 65536 double-byte code points for CJK (Chinese, Japanese and Korean) languages.

For bitmap DBCS AFP fonts, AFP treats DBCS codepage as a collection of single-byte codepages, a double-byte is split into two parts, the first byte indicating the section number of the codepage and the second byte indicating a code point within the section.

For outline DBCS AFP fonts, AFP treats DBCS codepage as a single large codepage. Each DBCS character has a 2-byte code point.

AFP Font Naming Convention

Each AFP FOCA component's name is only allowed up to 8 characters. The following list shows the prefix of the AFP font naming convention and the type of font component represents.

AFP Font Name Prefix	Font Component
C0	The character set of AFP bitmap font
CZ	The character set of AFP outline font
T1	AFP codepage
X0	Coded font of AFP bitmap font
XZ	Coded font of AFP outline font

Appendix C. ASCII/EBCDIC AFP Codepages Summary

Name	Description	CPGID	Encoding
T1000038	US-ASCII Character Set	38	EBCDIC
T1000259	Symbols, Set 7	259	EBCDIC
T1000260	Canadian French - 116	260	EBCDIC
T1000276	Canada (French) - 94	276	EBCDIC
T1000286	Austria/Germany F.R., Alt (3270)	286	EBCDIC
T1000287	Denmark/Norway, Alternate (3270)	287	EBCDIC
T1000288	Finland/Sweden, Alternate (3270)	288	EBCDIC
T1000289	Spain, Alternate (3270)	289	EBCDIC
T1000290	Japan (Katakana)	290	EBCDIC
T1000293	APL (USA)	293	EBCDIC
T1000310	Graphic Escape APL/TN	310	EBCDIC
T1000361	International Set 5	361	EBCDIC
T1000363	Symbols, Set 8	363	EBCDIC
T1000367	ASCII	367	ASCII
T1000382	Austria, Germany, Japan	382	EBCDIC
T1000383	Belgium	383	EBCDIC
T1000384	Brazil	384	EBCDIC
T1000385	Canada (French)	385	EBCDIC
T1000386	Denmark/Norway	386	EBCDIC
T1000387	Sweden/Finland	387	EBCDIC
T1000388	France, Japan	388	EBCDIC
T1000389	ITALY, Japan (Italian)	389	EBCDIC
T1000390	Japan (Latin)	390	EBCDIC
T1000391	Portugal	391	EBCDIC
T1000392	Spain/Philippines	392	EBCDIC
T1000393	Latin America (Spanish)	393	EBCDIC
T1000394	U.K., Austral., IRE., H.K., N.Z.	394	EBCDIC
T1000395	United States, Canada (English)	395	EBCDIC
T1000420	Arabic Bilingual	420	EBCDIC
T1000423	Greece - 183	423	EBCDIC
T1000424	Israel (Hebrew)	424	EBCDIC
T1000437	Personal Computer	437	ASCII
T1000803	Hebrew Character Set A	803	EBCDIC
T1000808	PC, Cyrillic, Russian with euro	808	ASCII
T1000813	Greece - ISO/ASCII 8-Bit	813	ASCII
T1000819	Latin1 ISO/ANSI 8-BIT	819	ASCII
T1000829	Math Symbols	829	EBCDIC
T1000836	Peoples Republic of China (PRC)	836	EBCDIC
T1000838	Thai - EBCDIC	838	EBCDIC
T1000848	PC, Cyrillic, Ukraine with Euro	848	ASCII
T1000849	PC, Cyrillic, Belo Russian Euro	849	ASCII
T1000850	PC Multilingual	850	ASCII
T1000851	Greek - Personal Computer	851	ASCII
T1000852	Latin2 Multilingual PC	852	ASCII

T1000853	Latin3 Personal Computer	853	ASCII
T1000855	Cyrillic - Personal Computer	855	ASCII
T1000856	Hebrew - Personal Computer	856	ASCII
T1000857	Latin5 PC	857	ASCII
T1000858	PC - Multilingual with euro	858	ASCII
T1000860	Portugal - Personal Computer	860	ASCII
T1000861	Iceland - Personal Computer	861	ASCII
T1000862	Hebrew - Personal Computer	862	ASCII
T1000863	Canadian French - PC	863	ASCII
T1000864	Arabic - Personal Computer	864	ASCII
T1000865	Nordic - Personal Computer	865	ASCII
T1000866	Cyrillic #2 - Personal Computer	866	ASCII
T1000867	Israel - Personal Computer	867	ASCII
T1000869	Greece - Personal Computer	869	ASCII
T1000870	Latin2 Multilingual	870	EBCDIC
T1000872	Cyrillic PC with Euro	872	ASCII
T1000874	Thai - Personal Computer	874	ASCII
T1000875	Greece	875	EBCDIC
T1000876	OCR-A ASCII	876	ASCII
T1000877	OCR-B ASCII	877	ASCII
T1000880	Cyrillic Multilingual	880	EBCDIC
T1000889	Thailand	889	EBCDIC
T1000892	OCR - A	892	EBCDIC
T1000893	OCR - B	893	EBCDIC
T1000897	Japan PC #1	897	ASCII
T1000899	Symbols, Set 7 ASCII	899	ASCII
T1000901	PC, Baltic - Multilingual w Euro	901	ASCII
T1000902	8-bit Estonia with euro	902	ASCII
T1000903	Peoples Republic of China - PC	903	ASCII
T1000904	Republic of China (ROC) - PC	904	ASCII
T1000905	Latin3 Multilingual	905	EBCDIC
T1000910	APL ASCII	910	ASCII
T1000912	Latin2 ISO/ANSI 8-BIT	912	ASCII
T1000913	Latin 3, ISO/ASCII	913	ASCII
T1000914	Latin4 ISO/ANSI 8-BIT	914	ASCII
T1000915	Cyrillic ISO/ASCII 8-Bit	915	ASCII
T1000916	Hebrew ISO/ASCII 8-Bit	916	ASCII
T1000920	Latin5 ISO/ANSI 8-BIT	920	ASCII
T1000921	PC, Baltic - Multilingual	921	ASCII
T1000922	Estonia PC	922	ASCII
T1000923	Latin 9	923	ASCII
T1000924	Latin 9 EBCDIC	924	EBCDIC
T1001002	DCF REL 2 Compatibility	1002	EBCDIC
T1001003	U.S. Text Subset	1003	EBCDIC
T1001004	IBM PC Desktop Publishing	1004	ASCII
T1001008	Arabic ISO/ASCII 8-Bit	1008	ASCII
T1001025	Cyrillic Multilingual	1025	EBCDIC
T1001026	Latin5	1026	EBCDIC
T1001027	Japanese (Latin) Extended	1027	EBCDIC
T1001028	Hebrew Publishing	1028	EBCDIC
T1001029	Arabic Extended ISO/ACSII 8-Bit	1029	ASCII
T1001032	MICR, E13-B Combined	1032	EBCDIC
T1001033	MICR, CMC-7 Combined	1033	EBCDIC
T1001038	Symbols, Adobe ASCII	1038	ASCII
T1001039	GML List Symbols	1039	EBCDIC
T1001041	Japanese Extended - PC	1041	ASCII
T1001042	Simplified Chinese Extended - PC	1042	ASCII
T1001043	Traditional Chinese Extended PC	1043	ASCII

T1001046	Arabic Extended ISO/ASCII 8-Bit	1046	ASCII
T1001068	Text With Numeric Spacing	1068	EBCDIC
T1001069	Latin4 EBCDIC	1069	EBCDIC
T1001087	Symbols, Adobe	1087	EBCDIC
T1001091	Symbol Set 7, Modified	1091	EBCDIC
T1001092	Symbol Set 7, Modified - PC	1092	ASCII
T1001093	IBM LOGO	1093	EBCDIC
T1001110	Latin2 Multilingual	1110	EBCDIC
T1001111	Latin2 ISO/ANSI 8-BIT	1111	ASCII
T1001112	Baltic - Multilingual, EBCDIC	1112	EBCDIC
T1001122	Estonia, EBCDIC	1122	EBCDIC
T1001123	Cyrillic, Ukraine EBCDIC	1123	EBCDIC
T1001124	Cyrillic, Ukraine ISO-8	1124	ASCII
T1001125	PC, Cyrillic Ukrainian	1125	ASCII
T1001129	Vietnamese ISO-8	1129	ASCII
T1001130	Vietnamese EBCDIC	1130	EBCDIC
T1001131	PC, Cyrillic, Belo Russian	1131	ASCII
T1001132	Lao EBCDIC	1132	EBCDIC
T1001133	Lao ISO-8	1133	ASCII
T1001139	Japan Alphanumeric Katakana	1139	ASCII
T1001140	USA, Canada ECECP	1140	EBCDIC
T1001141	Austria, Germany ECECP	1141	EBCDIC
T1001142	Denmark, Norway ECECP	1142	EBCDIC
T1001143	Finland, Sweden ECECP	1143	EBCDIC
T1001144	Italy ECECP	1144	EBCDIC
T1001145	Spain, Latin America ECECP	1145	EBCDIC
T1001146	UK ECECP	1146	EBCDIC
T1001147	France ECECP	1147	EBCDIC
T1001148	International ECECP	1148	EBCDIC
T1001149	Iceland ECECP	1149	EBCDIC
T1001153	Latin2 Multilingual with Euro	1153	EBCDIC
T1001254	Windows Turkish	1254	ASCII
T1001257	Windows Baltic Rim	1257	ASCII
T1001258	Windows Vietnamese	1258	ASCII
T1001275	Apple Latin 1	1275	ASCII
T1001276	Adobe PS Standard	1276	ASCII
T1001277	Adobe PS ISO Latin 1	1277	ASCII
T1001280	Apple Greece	1280	ASCII
T1001281	Apple Turkey	1281	ASCII
T1001282	Apple Central Europe	1282	ASCII
T1001283	Apple Cyrillic	1283	ASCII
T1001300	GENERIC BAR CODE/OCR-B	1300	EBCDIC
T1005346	Latin 2 – Windows	1250	ASCII
T1005347	Cyrillic – Windows	1251	ASCII
T1005348	Latin 1 – Windows	1252	ASCII
T1005349	Greece – Windows	1253	ASCII
T1005350	Turkey – Windows	1254	ASCII
T1005351	Israel – Windows	1255	ASCII
T1005352	Arabic – Windows	1256	ASCII
T1005353	Latin 4 – Windows	1257	ASCII
T1005354	Vietnamese – Windows	1258	ASCII
T1V10037	USA/Canada - CECP	37	EBCDIC
T1V10273	Germany F.R./Austria- CECP	273	EBCDIC
T1V10274	Belgium - CECP	274	EBCDIC
T1V10275	Brazil - CECP	275	EBCDIC
T1V10277	Denmark/Norway - CECP	277	EBCDIC
T1V10278	Finlandd/Sweden- CECP	278	EBCDIC

T1V10280	ITALY- CECP	280	EBCDIC
T1V10281	Japan (Latin) - CECP	281	EBCDIC
T1V10282	Portugal - CECP	282	EBCDIC
T1V10284	Spain/Latin America - CECP	284	EBCDIC
T1V10285	UNITED KINGDOM - CECP	285	EBCDIC
T1V10290	Japan (Katakana)	290	EBCDIC
T1V10297	France - CECP	297	EBCDIC
T1V10500	International #5	500	EBCDIC
T1V10871	Iceland - CECP	871	EBCDIC

Appendix D. SBCS/DBCS/UTF-16BE AFP Codepages Summary

Name	Description	Encoding
T1H00037	Traditional Chinese EBCDIC	EBCDIC
T1H00290	Japanese Katakana Extended	EBCDIC
T1H00833	Korean EBCDIC	EBCDIC
T1H00836	Simplified Chinese EBCDIC	EBCDIC
T1H01002	Japanese DCF Rel 2 Compatibility	EBCDIC
T1H01027	Japanese Latin Extended	EBCDIC
T1H01030	Japanese Katakana Extended with Box Characters	EBCDIC
T1H01031	Japanese Latin Extended with Box Characters	EBCDIC
T1H01041	Japanese PC Extended	ASCII
T1H01043	Traditional Chinese PC	ASCII
T1H01114	Traditional Chinese PC BIG5 with Euro	ASCII
T1H01115	Simplified Chinese PC (GB)	ASCII
T1H01126	Korean PC	ASCII
T1H01150	Korean EBCDIC with Box Characters	EBCDIC
T1H01151	Simplified Chinese EBCDIC with Box Characters	EBCDIC
T1H01152	Traditional Chinese EBCDIC with Box Characters	EBCDIC
T1H01159	Traditional Chinese EBCDIC with Euro	EBCDIC
T1H01252	Simplified Chinese PC (GB18030)	ASCII
T1HK0037	Japanese English	EBCDIC
T1HK0290	Japanese Katakana	EBCDIC
T10300, T1I300, T1J300, T1K300	Japanese DBCS-HOST	DBCS-HOST
T10834	Korean DBCS-HOST (Small Set)	DBCS-HOST
T10835	Traditional Chinese DBCS-HOST	DBCS-HOST
T10837	Simplified Chinese DBCS-HOST (GB2312)	DBCS-HOST
T10941	Japanese SJIS-PC	DBCS-PC
T10947	Traditional Chinese BIG5-PC	DBCS-PC
T10951	Korean KSC-PC (Small Set)	DBCS-PC
T11200	Unicode UTF-16 Big-endian	UTF-16BE
T11362	Korean KSC-PC (Big Set)	DBCS-PC
T11374	Traditional Chinese HKSCS-PC	DBCS-PC
T11376	Traditional Chinese HKSCS-HOST	DBCS-HOST
T11380	Simplified Chinese GB2312-PC (Small Set)	DBCS-PC
T11385	Simplified Chinese GBK-PC (Big Set)	DBCS-PC
T1K834	Korean DBCS-HOST (Big Set)	DBCS-HOST
T1K837	Simplified Chinese DBCS-HOST (GB18030)	DBCS-HOST