

IBM AFP Fonts



# Font Summary



IBM AFP Fonts



# Font Summary

**Note!**

Before using this information and product it supports, be sure to read the general information in "Notices" on page ix.

**Fourth Edition (March 1996)**

This edition applies to the version, release, and modification levels of the products shown in Table 1 on page xvii and to all subsequent releases and modifications until otherwise indicated in new editions or technical newsletters. See the Summary of Changes for the changes made to this publication. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change. Be sure to use the correct edition for the level of the product.

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# Contents

<b>Notices</b> .....	ix
<b>Trademarks</b> .....	xi
<b>Preface</b> .....	xiii
<b>Summary of Changes</b> .....	xv
Fourth Edition (March 1996) .....	xv
Third Edition (March 1995) .....	xv
<b>Summary of Releases</b> .....	xvii
<b>IBM Font Concepts</b> .....	1
Font Definitions .....	1
Representation of Characters .....	2
IBM Font Structure .....	3
Coded Font .....	4
Character Set .....	4
Code Page .....	6
Format of IBM Character Sets .....	9
Spacing Characteristics of IBM Fonts .....	11
Point and Pitch Sizes .....	12
Point Differences .....	12
Pitch Differences .....	13
How IBM Supplies Fonts .....	14
Supported Languages .....	16
IBM Font Naming Conventions .....	17
IBM Expanded Core Fonts (Raster and AFP Outlines) .....	18
IBM Compatibility Fonts .....	20
IBM Proprinter Emulation Fonts and Other Font Licensed Programs .....	21
IBM 4028 Font Metrics, Uniformly Spaced and Mixed-Pitch .....	22
IBM 4028 Font Metrics, Typographic .....	23
IBM CJK AFP Outline Font Character Sets .....	24
IBM CJK CID-Keyed Outline Font Character Sets .....	24
IBM Code Page Naming Conventions .....	25
Single-Byte Code Pages Used with Single-Byte Character Sets .....	25
Single-Byte Code Pages Used with Double-Byte Character Sets .....	26
Double-Byte Code Pages .....	26
<b>Font Summary Tables</b> .....	27
IBM Expanded Core Fonts .....	29
IBM Compatibility Fonts .....	37
IBM 4028 Font Metrics .....	44
Uniformly Spaced and Mixed-Pitch Fonts .....	44
Typographic Fonts .....	50
IBM CJK Fonts .....	52
IBM Font Licensed Programs .....	54
Uniformly Spaced and Mixed-Pitch Fonts .....	54
Typographic Fonts .....	56

<b>Code Pages</b> . . . . .	59
APL Code Pages . . . . .	63
Arabic Code Pages . . . . .	63
Chinese, Japanese, and Korean Code Pages . . . . .	64
Cyrillic Greek Code Pages . . . . .	65
Document Composition Facility and Desktop Publishing Code Pages . . . . .	66
Format Code Pages . . . . .	66
Hebrew Code Pages . . . . .	67
Katakana Code Pages . . . . .	67
Latin1 EBCDIC Country Extended and BookMaster Code Pages . . . . .	68
Latin1 EBCDIC Publishing and BookMaster Code Pages . . . . .	69
Latin1 ASCII Code Pages . . . . .	70
Latin2345 EBCDIC and ASCII Code Pages . . . . .	71
Migration Code Pages . . . . .	72
OCR Code Pages . . . . .	73
Symbols Code Pages . . . . .	73
Text Code Pages . . . . .	74
Thai Code Pages . . . . .	75

I

---

# Figures

1.	Helvetica Type Family . . . . .	1
2.	Print Resolution Examples . . . . .	2
3.	Print Direction and Character Rotation Combinations (Print Orientations) . . . . .	3
4.	Font Components . . . . .	3
5.	Composition of a Character Set . . . . .	4
6.	Translation of a Keyboard Character into a Printed Character . . . . .	6
7.	IBM Code Page T1V10037 . . . . .	7
8.	Bounded Character Box . . . . .	9
9.	Unbounded Character Box . . . . .	10
10.	Type Size in Pitch . . . . .	11
11.	Type Size in Points . . . . .	11
12.	Summary of the Naming Convention for IBM Expanded Core Fonts (Raster and AFP Outline) . . . . .	18
13.	Summary of the Naming Convention for IBM Compatibility Fonts Except for Proprinter Emulation Fonts . . . . .	20
14.	Summary of the Naming Convention for IBM Proprinter Emulation Fonts and Other IBM Font Licensed Programs . . . . .	21
15.	Summary of the Naming Convention for Uniformly Spaced and Mixed-Pitched 4028 Font Metrics . . . . .	22
16.	Summary of the Naming Convention for Typographic 4028 Font Metrics . . . . .	23
17.	Summary of the Naming Convention for CJK AFP Outline Font Character Sets . . . . .	24
18.	Summary of the Naming Convention for CJK CID-Keyed Outline Font Character Sets . . . . .	24
19.	Component and Format . . . . .	25
20.	Code Page Name and Category or Version Level . . . . .	25
21.	Summary of the Naming Convention for Single-Byte Code Pages Used with Double-Byte Character Sets . . . . .	26
22.	Summary of the Naming Convention for Double-Byte Code Pages . . . . .	26



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## Tables

1.	Summary of Font Releases	xvii
2.	Point and Pitch Identifiers	29
3.	IBM Expanded Core Fonts	30
4.	IBM Compatibility Fonts	37
5.	Point and Pitch Identifiers	44
6.	IBM 4028 Uniformly Spaced and Mixed-Pitch (MP) Fonts	44
7.	Point Identifiers	50
8.	IBM 4028 Typographic Fonts	50
9.	IBM CJK Fonts	52
10.	IBM Font Licensed Programs (Uniformly Spaced and Mixed-Pitch)	54
11.	Point Identifiers	56
12.	IBM Font Licensed Programs Typographic Fonts	56
13.	APL Code Pages	63
14.	Arabic Code Pages	63
15.	Chinese, Japanese, and Korean Code Pages	64
16.	Cyrillic Greek Code Pages	65
17.	Document Composition Facility and Desktop Publishing Code Pages	66
18.	Format Code Pages	66
19.	Hebrew Code Pages	67
20.	Katakana Code Pages	67
21.	Latin1 EBCDIC Country Extended and BookMaster Code Pages (CECP)	68
22.	Latin1 EBCDIC Publishing and BookMaster Code Pages	69
23.	Latin1 ASCII Code Pages	70
24.	Latin2345 Code Pages	71
25.	Migration Code Pages	72
26.	OCR Code Pages	73
27.	Symbols Code Pages	73
28.	Text Code Pages	74
29.	Thai Code Pages	75



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Operating System/400	OS/400
Print Services Facility	PSF
Proprinter	

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ITC ITC Avant Garde Gothic ITC Boutros Modern Rokaa ITC Boutros Setting ITC Souvenir	International Typeface Corporation
Microsoft	Microsoft Corporation
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The following IBM fonts are functional equivalents of fonts developed by Monotype.

<b>IBM Font</b>	<b>Functional Equivalent</b>
Sonoran Display	Monotype Old English
Sonoran Petite	Monotype Elfin
Sonoran Sans Serif	Monotype Arial
Sonoran Serif	Monotype Times New Roman

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## Preface

This publication summarizes font information for the IBM Expanded Core Fonts, IBM Compatibility Fonts, IBM 4028 Font Metrics, IBM CJK Fonts, and other IBM font licensed programs. See “Summary of Releases” on page xvii for information about these font products.

**Note:** The IBM Expanded Core Fonts contain what were identified as IBM Core Interchange Fonts, the IBM Coordinated Fonts, and the BookMaster fonts.

This publication is organized as follows:

- “IBM Font Concepts” explains some basic font concepts, explains the difference between pitch and point size, identifies the languages supported by the various fonts, and provides figures that explain the naming conventions for fonts and code pages.
- “Font Summary Tables” contains tables that identify the operating systems, media shipped on, formats available, major font types, code page identifiers, coded font identifiers, character set identifiers, and available point or pitch size for the following:
  - IBM Expanded Core Fonts

**Note:** Fonts contained within IBM Expanded Core Fonts are Boldface, Courier, Courier APL2, BookMaster Latin1, BookMaster Reverse, BookMaster Specials, BookMaster Specials Reverse, Gothic Katakana, Gothic Text, Helvetica, IBM Logo, Letter Gothic, Monthob, OCR-A, OCR-B, Prestige, Times New Roman.
  - IBM Compatibility Fonts
  - 4028 Font Metrics
  - IBM CJK Fonts
  - Other font licensed programs
- “Code Pages” contains tables identifying the code pages.

For more information about character sets, code pages, coded fonts, warranty, and usage information, refer to the following publications:

- *IBM AFP Font Collection for IBM Operating Systems: Licensed Program Specifications*, G544-5229
- *IBM AFP Fonts: Technical Reference for Code Pages*, S544-3802
- *IBM AFP Fonts: Technical Reference for IBM Expanded Core Fonts*, S544-5228
- *ABOUT TYPE: IBM's Technical Reference for 240-Pel Digitized Type*, S544-3516
- *ABOUT TYPE: IBM's Technical Reference for 4028 Font Metrics*, S544-3709
- *IBM AFP Fonts: Font Samples*, G544-3792
- *IBM AFP Fonts: Technical Reference for IBM Chinese, Japanese, and Korean Fonts*, S544-5330

For more information about Type Transformer, refer to *IBM AFP Fonts: Type Transformer User's Guide*, G544-3796.

For information about the font formats supported by IBM printers, refer to *Advanced Function Presentation: Printer Information*, G544-3290.

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# Summary of Changes

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## Fourth Edition (March 1996)

This publication has:

- Added information about the IBM CJK Fonts and associated code pages.
- Added the Type 1 typeface names and file names to the table of IBM Expanded Core Fonts, Table 3 on page 30.
- Removed information about the Type Transformer naming conventions because this information is available in *IBM AFP Fonts: Type Transformer User's Guide*.
- Moved the information formerly contained in “Editorial and Style Conventions” to “Font Summary Tables” on page 27.
- Removed the table of supported printers. For this information, see *Advanced Function Presentation: Printer Information*, G544-3290.

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## Third Edition (March 1995)

This publication has:

- Combined the information from the following publications:
  - *ABOUT TYPE: IBM's Quick Reference for IBM-Supplied Compatibility Fonts*, G544-3803
  - *ABOUT TYPE: IBM's Quick Reference for IBM Core Interchange Fonts*, G544-3804
  - *ABOUT TYPE: IBM's Quick Reference for IBM-Supplied Coordinated Fonts*, G544-3947
  - *Licensed Program Specification for Advanced Function Printing: IBM LaserPrinter 4028 Font Metrics Available with Print Services Facility*, G544-3706
- Combined the information concerning IBM Core Interchange Fonts and IBM Coordinated Fonts into a group called IBM Expanded Core Fonts and added the IBM BookMaster fonts to that group.
- Added information concerning AFP outline fonts.
- Added information about font concepts and naming conventions for:
  - 4028 Font Metrics
  - AFP outline fonts
  - BookMaster fonts
  - IBM Logo font
  - Fonts produced by Type Transformer



# Summary of Releases

This publication reflects the following licensed program releases:

*Table 1. Summary of Font Releases*

<b>Licensed Program</b>	<b>Description</b>	<b>Release Level</b>
5648-113	IBM AFP Font Collection for IBM Operating Systems (contains Type Transformer, IBM Expanded Core Fonts, IBM Compatibility Fonts, IBM 4028 Font Metrics, IBM CJK Fonts)	1.1.0
5799-FCQ	RPQ 8A8080, AFP CJK Metric-Only Fonts	1.1.0
5688-021	Bar Code/OCR	1.1.1
5763-FNT	AFP Fonts/400 Version 2	3.1.0
5771-ABC	Pi and Specials	1.1.1
5771-ADA	DATA1	1.1.2
5771-ADB	APL2	1.1.2
5771-ADJ	Century Schoolbook	1.1.0
5771-ADL	ITC Avant Garde Gothic	1.1.0
5771-ADQ	ITC Souvenir	1.1.0
5771-ADT	Mathematics and Science	1.1.0
5771-ABA	Sonoran Serif	1.1.1
5771-ABB	Sonoran Sans Serif	1.1.1
5771-ADW	Sonoran Serif Headliner	1.1.1
5771-ADX	Sonoran Sans Serif Headliner	1.1.1
5771-AFK	Monotype Garamond	1.1.0
5771-AFL	Sonoran Sans Serif Condensed	1.1.1
5771-AFN	Sonoran Sans Serif Expanded	1.1.1
5799-DGX	Postal Bar Codes (RPQ)	1.2.0
5799-FLK	Sonoran 300-pel Equivalent	1.1.0



## IBM Font Concepts

This section introduces you to font terminology and how characters are represented in digitized type. The structure of IBM fonts is then presented along with the format of the fonts and spacing characteristics. In addition, the ways in which IBM supplies fonts are described, and the naming conventions for the fonts are included.

### Font Definitions

To understand IBM font structure, you must first understand some definitions about fonts. Figure 1 shows the basic components of a type family, including typeface, style, weight, width, complement, type font, and type size. These terms are illustrated and defined in this section.

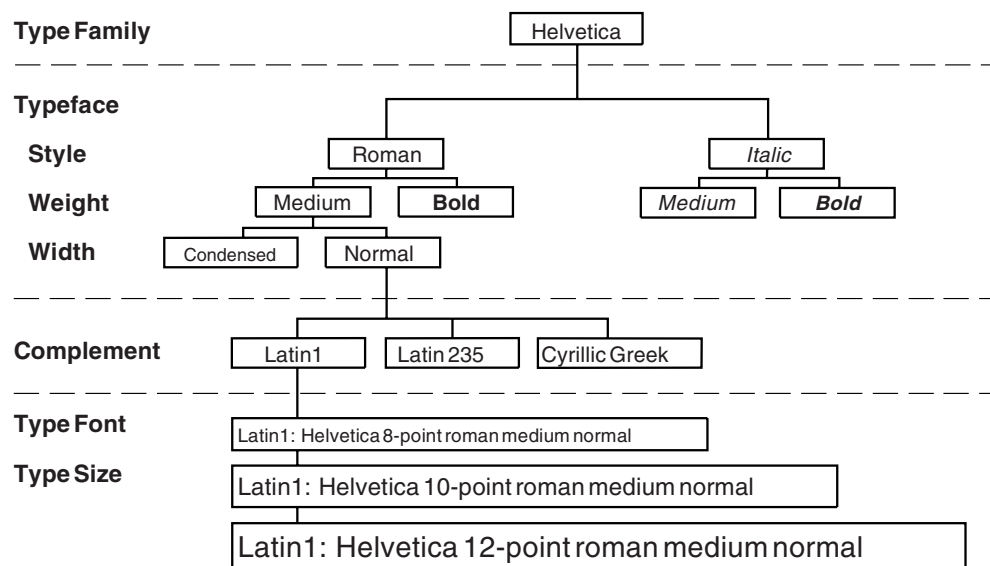


Figure 1. Helvetica Type Family

#### Type Family

A *type family* is a group of typefaces that share basic design characteristics and encompass many size and style variations. Examples of type families include:

Courier  
 Helvetica (Figure 1)  
 Times New Roman

#### Typeface

A *typeface* is a collection of characters having the same style, weight, and width. Examples of these attributes are shown in Figure 1.

- *Style* is the inclination of a letter around a vertical axis; for example, roman (upright) or *italic* (slanted).
- *Weight* is the degree of boldness of a typeface; for example, medium or **bold**.
- *Width* is the horizontal variation in a character design; for example, normal or condensed.

## Font Concepts

*Type Font, Type Size, and Complement*

A *type font*, or font, is a collection of characters sharing the same type family, typeface, and type size. Collections of characters for IBM Expanded Core Fonts are referred to as *complements*.

**Note:** In IBM Type Transformer, complements are called *character lists*.

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## Representation of Characters

An important concept to understand is how fonts are represented. For the fonts printed by page printers using Advanced Function Presentation (AFP) licensed programs, characters are represented by mathematical formulas or by data describing each dot to be printed.

*Pels and Print Resolution*

A dot is called a *picture element* or pel. The sequence of dots forming a character is called a *raster pattern*. The number of dots per inch that a printer generates is called the *print resolution*, or density. A resolution of 240 pels means that a printer prints 240 pels per inch both vertically and horizontally, or 57 600 pels per square inch (240 × 240).

Figure 2 shows two images of different print resolutions. The image on the right has more pels per inch and greater print resolution than the image on the left.



Figure 2. *Print Resolution Examples*

The ability to print at a given pel density is determined by the type of printer. Because IBM fonts are provided for specific resolutions, different fonts are available for printers with different resolutions (for example, 240-pel and 300-pel printers).

*Rotation of Characters*

The ability to print in different directions and with different character rotations is also determined by the type of printer. *Print direction* shows the direction in which characters are added to a line of text. *Character rotation* is the clockwise rotation of a character with respect to the character baseline. The *character baseline* is a reference on which characters are aligned as they are added to the page in the print direction. The character baseline is always parallel to the print direction.

Figure 3 shows how print direction and character rotation can be combined to print in many orientations.

Print Direction	Character Rotation (in degrees)			
	0	90	180	270
Across (0)	ABCD <b>1</b>	▷ D C B A <b>5</b>	∨ D C B A <b>9</b>	∧ B C D <b>D</b>
Down (90)	A B C D <b>2</b>	A B C D <b>6</b>	D C B A <b>A</b>	A B C D <b>E</b>
Back (180)	D C B A <b>3</b>	▷ D C B A <b>7</b>	DCBA <b>B</b>	∧ B C D <b>F</b>
Up (270)	A B C D <b>4</b>	D C B A <b>8</b>	D C B A <b>C</b>	D C B A <b>G</b>

Figure 3. Print Direction and Character Rotation Combinations (Print Orientations)

Some printers require that characters be rotated in the font before the printer receives the font. Other printers rotate characters just before printing them (see “Format of IBM Character Sets” on page 9). Therefore, different fonts are available from IBM for different printers.

## IBM Font Structure

In IBM AFP terminology, a font has three components (Figure 4). They are:

- Coded font
- Character set
- Code page

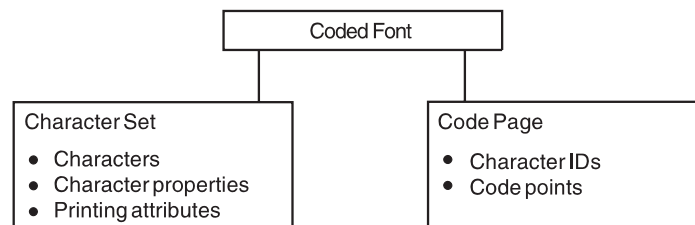


Figure 4. Font Components

### Coded Font

In IBM font structure, a *coded font* translates your request for type (for example, text you previously entered at a computer terminal) into characters for printing. A raster coded font consists of two parts:

- References to specific character sets
- References to specific code pages

A character must be included in the specified character set and listed on the specified code page before it can be printed. A coded font pairs a specific code page with a specific character set.

An outline coded font consists of three parts:

- References to specific character sets
- References to specific code pages
- References to point size

Many coded fonts are shipped with the IBM AFP Font Collection for IBM Operating Systems and the IBM font licensed programs. Typically, a coded font is provided for each 10-point roman medium character set and code page combination. For certain primary code pages, such as code page 500, a coded font is provided for all character sets and code page combinations.

**Note:** BookMaster does not use coded fonts, so none are provided.

### Character Set

In IBM font structure, a *character set* corresponds to the definition of a font; it contains the characters of a single type family, typeface, and type size. In addition, a character set specifies *character properties* and printing attributes (Figure 5).

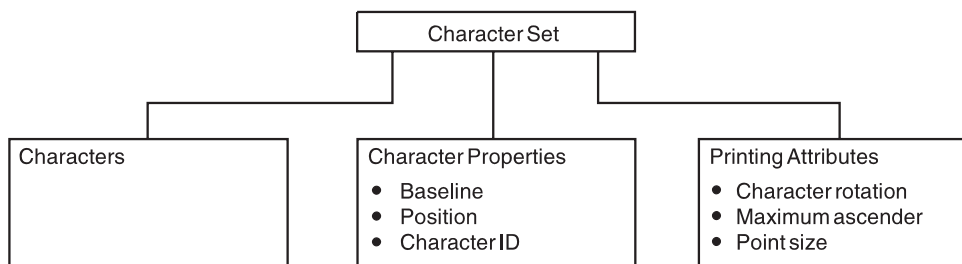


Figure 5. Composition of a Character Set

#### *Characters*

Characters are the letters, numerals, punctuation marks, or other 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* (or graphic character ID). Each character is assigned a character ID; for example, the character A (uppercase A) is assigned the character ID LA020000.

The purpose of a character ID is to distinguish the character from similar characters. For example, the following characters look similar; however, they are different and are assigned different character IDs.

Minus sign (-)	Character ID SA000000
Hyphen (-)	Character ID SP100000
Em dash (—)	Character ID SM900000

For a list of character IDs, the character each represents, and the code pages where the characters are found, refer to *IBM AFP Fonts: Technical Reference for Code Pages*.

*Printing Attributes*

The printing attributes define how the character set will be printed. Some printing attributes include rotation of characters, maximum ascender, and point size.

| *Single- and*  
| *Double-Byte*  
| *Character Sets*

A single-byte character set (SBCS) is a font character set intended for use with a single-byte code page (see page 7).

A double-byte character set (DBCS) is a font character set intended for use with a double-byte code page. Double-byte character sets contain some single-byte characters, usually romaji (Western characters) and katakana. Single-byte code pages are used with these characters.

## Code Page

In IBM font structure, a *code page* maps each character of text to the characters in a character set (Figure 6). As you enter your text at a computer terminal, each keyboard character is translated into a *code point*. When the text is printed, each code point is matched to a character ID on the code page you specified. The character ID is then matched to the image (*raster pattern* or *outline pattern*) of the character in the character set you specified. The image in the character set is the image that is printed in your text. To be a valid code page for a particular character set, all character IDs in the code page must be included in that character set.

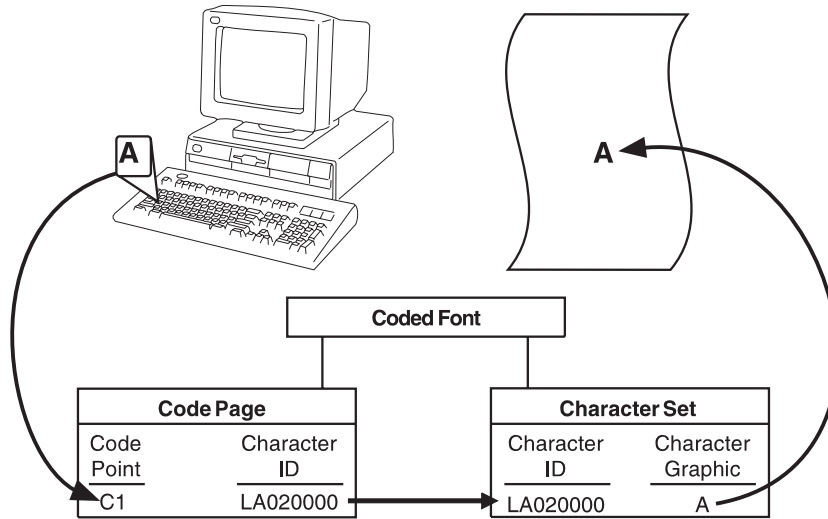


Figure 6. Translation of a Keyboard Character into a Printed Character

A character ID is an 8-byte character data string. A code point is an 8-bit binary number representing one of 256 potential characters (the maximum number of characters available on a code page). Code points are usually shown as hexadecimal representations of their binary values.

Binary	11000001
Decimal	193
Hexadecimal	C1

Figure 7 on page 7 shows an example of a code page. When the printer receives hexadecimal code point C1 for the code page shown (code page T1V10037), it prints an uppercase A (character ID LA020000).

T1V10037 Country Extended: United States, Canada

CPGID	GCSGID
37	697

Hex Codes 1st→ 2nd↓	4-	5-	6-	7-	8-	9-	A-	B-	C-	D-	E-	F-
<b>-0</b>	SP010000	& SM030000	- SP100000	ø LO610000	Ø LO620000	° SM190000	μ SM170000	^ SD150000	{ SM110000	} SM140000	\ SM070000	0 ND100000
<b>-1</b>	SP300000	é LE110000	/ SP120000	É LE120000	a LA010000	j LJ010000	˘ SD190000	Œ SC020000	A LA020000	J LJ020000	÷ SA060000	1 ND010000
<b>-2</b>	â LA150000	ê LA150000	Â LA160000	Ê LE160000	b LB010000	k LK010000	s LS010000	¥ SC050000	B LB020000	K LK020000	S LS020000	2 ND020000
<b>-3</b>	ä LA170000	ë LE170000	Ä LA180000	Ë LE180000	c LC010000	l LL010000	t LT010000	· SD630000	C LC020000	L LL020000	T LT020000	3 ND030000
<b>-4</b>	à LA130000	è LE130000	À LA140000	È LE140000	d LD010000	m LM010000	u LU010000	© SM520000	D LD020000	M LM020000	U LU020000	4 ND040000
<b>-5</b>	á LA110000	í LI100000	Á LA120000	Í LI120000	e LE010000	n LN010000	v LV010000	§ SM240000	E LE020000	N LN020000	V LV020000	5 ND050000
<b>-6</b>	ã LA190000	î LI150000	Ã LA200000	Î LI160000	f LF010000	o LO010000	w LW010000	¶ SM250000	F LF020000	O LO020000	W LW020000	6 ND060000

Figure 7. IBM Code Page T1V10037

*Different Code Pages*

Code pages accommodate various national languages by using characters and special symbols appropriate to the language. Different code pages can have identical character IDs assigned to different code points.

For example, the character é (lowercase e accent acute, character ID LE110000) has the following code point assignments in two different code pages:

- Hexadecimal code point 51 in code page T1V10037 (Country Extended: United States, Canada)
- Hexadecimal code point 5A in code page T1V10280 (Country Extended: Italy)

| *Single- and Double-Byte Code Pages*

A *single-byte code page* contains 256 or fewer one-byte code points. Single-byte code pages are large enough for languages with alphabetic writing systems, such as English, Greek, and Arabic.

|  
|  
|

A *double-byte code page* can contain as many as 65 536 two-byte code points. Languages with non-alphabetic writing systems, such as Chinese, Japanese, and Korean, require double-byte code pages.

|  
|  
|  
|  
|

Double-byte character sets contain some single-byte characters, usually romaji (Western characters) and katakana. Single-byte code pages are used with these characters. Because the characters are either half-width (see “Box Size” on page 11) or proportionally spaced, these code pages are sometimes called *half-width* code pages.

## Font Concepts

- | *Code Page*
- | *Sections*
- |
- |
- | Raster coded fonts treat double-byte code pages this way. The coded font is divided into sections, each with its own single-byte code page. Each character in the section has a single-byte code point.
- |
- |
- | Outline coded fonts treat double-byte code pages as single large code pages. Each character has a double-byte code point.
- |

## Format of IBM Character Sets

IBM supplies character sets in these formats:

- 240-pel Bounded-box raster format
- 240-pel Unbounded-box raster format
- 300-pel raster format
- Type 1 outline format for IBM Type Transformer
- CID-keyed outline format for IBM Type Transformer
- AFP outline format
- Metrics-only format

**Note:** Not all fonts are available in all formats.

The format of the character set does not affect the way it looks when it is printed, but it does affect the amount of storage required to store it.

### *Bounded Box and Unbounded Box*

*Bounded box* and *unbounded box* are terms that specify the way in which a font is structured for a printer. For example, the IBM 3900 Advanced Function Printer and the IBM LaserPrinter 4028 use bounded-box fonts, while the IBM 3800 Printing Subsystem Model 3 uses unbounded-box fonts.

One difference between bounded-box and unbounded-box fonts is that a single bounded-box font can be used for all combinations of character rotation and text orientation; however, separate unbounded-box fonts are required for each combination of character rotation and text orientation. A second difference is the *character box* for each format. For bounded-box fonts, the character box generally contains no white space around the character, so the box is the same size as the character (Figure 8). For unbounded-box fonts, the character box includes white space for character positioning (Figure 9).

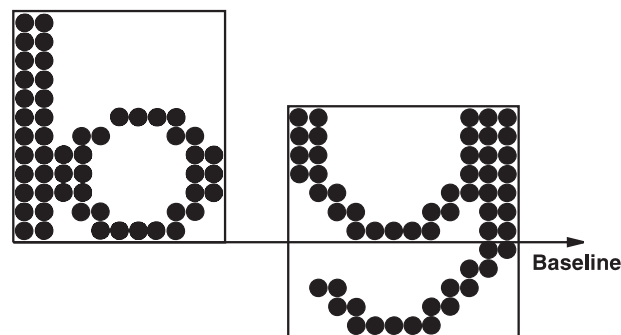


Figure 8. Bounded Character Box

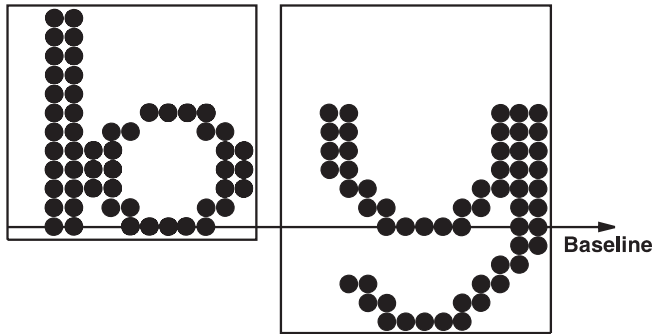


Figure 9. Unbounded Character Box

Both bounded-box and unbounded-box fonts look the same on the printed page; however, unbounded-box fonts usually require more storage than bounded-box fonts.

### 300-pel Raster

The *300-pel raster* format is a higher resolution font that uses the bounded-box format. The 300-pel raster is not supported in the unbounded-box format.

### Type 1 Outline

*Type 1 outline* is the format used with IBM Type Transformer for SBCS fonts. This format includes outlines of the various type families, which can be transformed for use by advanced function printers in sizes from 1–999 points (outline output fonts) or from 1–72 points (raster output fonts). For more information, refer to *IBM AFP Fonts: Type Transformer User's Guide*.

### CID-Keyed Outline

*CID-keyed outline* is the format used with IBM Type Transformer for DBCS fonts. This format includes outlines of the various type families, which can be transformed for use by advanced function printers in sizes from 1–999.9 points (outline output fonts) or from 1–72 points (raster output fonts). For more information, refer to *IBM AFP Fonts: Type Transformer User's Guide*.

### AFP Outline

*AFP outline* is the format by which PSF and other AFP applications can identify Type 1 outline fonts. The Type 1 or CID-keyed outlines are encapsulated in Font Object Content Architecture (FOCA) wrappers which allow them to be accessed as AFP resources.

### Metric Only

*Metric-only* fonts contain all the information needed to format text, but not the actual characters. They can be used to activate fonts resident in a printer, but they cannot be used without the printer fonts for printing or display. They can represent either raster or outline fonts.

## Spacing Characteristics of IBM Fonts

Fonts can be classified according to their spacing characteristics as well as by their format.

### *Uniformly Spaced Fonts*

*Uniformly spaced fonts*, or monospaced fonts, are similar to typewriter fonts, for which each character increment<sup>1</sup> is the same width. Thus, the lowercase “i” and the “.” each occupy as much space as the uppercase “M.” Examples of uniformly spaced fonts include Courier and Monothob.

i.M.i.M.i.M.i.M.i.M.i.M.i.M.

### *Typographic Fonts*

*Typographic fonts* are proportionally spaced fonts. The character increment<sup>1</sup> is part of the design and varies on a character-by-character basis. Thus, the lowercase “i” and the “.” occupy narrow spaces. The uppercase “M” occupies a wide space. Examples of typographic fonts include Helvetica and Times New Roman.

i.M.i.M.i.M.i.M.i.M.i.M.i.M.

### *Pitch*

Uniformly spaced fonts are often described or referred to in *pitch*, or the number of characters printed in 1 horizontal inch (Figure 10).

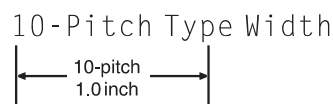


Figure 10. Type Size in Pitch

### *Points*

All fonts are measured in *points*, the vertical size of the font. One inch is equal to approximately 72 points. Point size is a baseline-to-baseline measurement, which includes minimal white space. The *baseline* is the line upon which the characters rest. Thus, the actual height of the characters in an 18-point font is less than 18 points (Figure 11). The line spacing usually includes one or more additional points of white space between lines of type.



Figure 11. Type Size in Points

### *Box Size*

DBCS raster fonts were formerly measured in *box size*, the number of pels in the character box. Box size can be either a horizontal or a vertical measurement. Usually both dimensions are given, the box width first. If only one dimension is given, it is the box height. In full-width fonts, the box width is equal to the box height. In half-width fonts, the box width is one-half the box height.

<sup>1</sup> A character increment is the distance that the current print position is increased for the particular character printed.

---

## Point and Pitch Sizes

This section illustrates various point and pitch sizes. See Figure 12 on page 18, Figure 13 on page 20, and Figure 14 on page 21 for the character position within the font naming conventions that represent the point or pitch size.

Uniformly spaced SBCS fonts are measured horizontally in pitch and specified as points in the coded font or character set name. Proportionally spaced and mixed-pitch fonts are measured vertically in points. Although the CJK fonts are uniformly spaced, they are measured vertically in points.

## Point Differences

Point size is a vertical measurement.

This is 6 points.

This is 7 points.

This is 8 points.

This is 9 points.

This is 10 points.

This is 11 points.

This is 12 points.

This is 14 points.

This is 16 points.

This is 18 points.

This is 20 points.

This is 24 points.

This is 30 points.

This is 36 points.

6 7 8 9 10 11 12 14 16 18 20 24 30 36

## Pitch Differences

Pitch size is a horizontal measurement.

1234567890

This is 10 pitch or 10 characters per inch.

123456789012

This is 12 pitch or 12 characters per inch.

1234567890123

This is 13.3 pitch or 13.3 characters per inch.

123456789012345

This is 15 pitch or 15 characters per inch.

123456789012345678

This is 18 pitch or 18 characters per inch.

12345678901234567890

This is 20 pitch or 20 characters per inch.

123456789012345678901234567

This is 27 pitch or 27 characters per inch.

---

### How IBM Supplies Fonts

Four IBM font groups that can be used with advanced function printers are included in the IBM AFP Font Collection for IBM Operating Systems licensed program:

- IBM Expanded Core Fonts
- IBM Compatibility Fonts
- IBM 4028 Font Metrics
- IBM CJK Fonts

Other fonts are available separately as licensed programs.

#### *IBM Expanded Core Fonts*

The IBM Expanded Core Fonts include the following font families; Boldface, BookMaster Latin1, BookMaster Latin1 Reverse, BookMaster Specials, BookMaster Specials Reverse, Courier, Courier APL2, Gothic Katakana, Gothic Text, Helvetica, IBM Logo, Letter Gothic, Monthob, OCR-A, OCR-B, Prestige, and Times New Roman.

The IBM Expanded Core Fonts are summarized in “IBM Expanded Core Fonts” on page 29.

#### *IBM Compatibility Fonts*

The IBM Compatibility Fonts include the following font families; APL, Boldface, Courier, Document, Essay, Format, Gothic, Letter Gothic, Orator, Prestige, Roman, Script, Serif, Symbols, and Text.

**Note:** Additional fonts, such as Proprinter Emulation fonts, are available with Version 2 of PSF/MVS, PSF/VSE, and PSF/VM. These additional fonts are also available with OS/400 Version 2 and PSF for OS/2.

The IBM Compatibility Fonts are summarized in “IBM Compatibility Fonts” on page 37.

#### *IBM 4028 Font Metrics*

The IBM 4028 Font Metrics contain font values, or *metrics*, that correspond to those found in the IBM LaserPrinter 4028 printer-resident fonts. Printer-resident fonts are those internal to the printer or those provided on IBM LaserPrinter 4028 font cards, which are inserted into the printer. The IBM 4028 Font Metrics allow you to format text on the host and to print the formatted text on the IBM LaserPrinter 4028. Font metrics contain all the information needed for formatting text, but they do not contain the characters themselves. Therefore, the 4028 Font Metrics cannot be downloaded for printing.

The IBM 4028 Font Metrics are summarized in “IBM 4028 Font Metrics” on page 44.

#### *IBM CJK Fonts*

The IBM Chinese, Japanese, and Korean (CJK) Fonts include the following font families: Heisei Gothic, Heisei Mincho, Gothic, Myengjo, Fang Song, Hei, Kai (Simplified Chinese), Kai (Traditional Chinese), Song, and Sung. They are all DBCS fonts.

The IBM CJK Fonts are summarized in “IBM CJK Fonts” on page 52.

*IBM Font Licensed Programs*

IBM font licensed programs are sold separately.

IBM font licensed programs include the APL2, Bar Code, Century Schoolbook, DATA1, ITC Avant Garde Gothic, ITC Souvenir, Math Format, Math Symbols, Monotype Garamond, Optical Character Recognition, Pi, Sonoran Sans Serif, and Sonoran Serif type families.

The IBM font licensed programs are summarized in “IBM Font Licensed Programs” on page 54.

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### Supported Languages

Language groups identified in items 1 through 9 are defined in the International Organization for Standardization (ISO) standard 8859.

**Note:** Not every font provides characters for every language listed.

1. The Latin/Arabic language group contains characters for Latin and Arabic scripts.
2. The Latin/Cyrillic language group contains characters for Bulgarian, Byelorussian, Macedonian, Russian, Serbian, Ukrainian, and English.
3. The Latin/Greek language group contains characters for Latin and Greek scripts.
4. The Latin/Hebrew language group contains characters for Latin and Hebrew scripts.
5. The Latin1 language group contains characters for the following languages: Danish, Dutch, English, Faeroese, Finnish, French, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Spanish, and Swedish.
6. The Latin2 language group contains characters for the following languages: Albanian, Czech, English, German, Hungarian, Polish, Romanian, Serbocroatian, Slovak, and Slovenian.
7. The Latin3 language group contains characters for the following languages: Afrikaans, Catalan, Dutch, English, Esperanto, French, German, Italian, Maltese, Spanish, and Turkish.
8. The Latin4 language group contains characters for the following languages: Danish, English, Estonian, Finnish, French, German, Greenlandic, Lappish, Latvian, Lithuanian, and Norwegian.
9. The Latin5 language group contains characters for the following languages: Danish, Dutch, English, Finnish, French, Irish, Italian, Norwegian, Portuguese, Spanish, Swedish, and Turkish.
10. The Monthob fonts contain characters for the Thai language.
11. Katakana/Gothic Katakana contains phonetic syllabic characters used for writing non-Japanese words and for emphasis in Japanese.
12. The CJK Fonts contain characters for Simplified Chinese, Traditional Chinese, Japanese, and Korean.

## IBM Font Naming Conventions

You can select a font from the tables in this publication without understanding the naming conventions. However, if you want to know how the IBM naming conventions identify a specific font and its characteristics, this section helps you.

Naming conventions for the code pages are described under “IBM Code Page Naming Conventions” on page 25.

### *First Character in the IBM Naming Convention*

The following list shows the first letter of the naming convention and the type of font component that each letter represents.

First Character	Font Component
<b>C</b>	Character set
<b>X</b>	Coded font
<b>T</b>	Code page

### *Remaining Characters in the IBM Naming Convention*

The remainder of each name has been assigned according to different conventions, for each of the following IBM font groups:

- IBM Expanded Core Fonts
- IBM Compatibility Fonts
- IBM 4028 Font Metrics
- IBM font licensed programs

Character set and coded font names are usually distinctive and can be used to determine whether a font is an IBM Expanded Core Font, an IBM Compatibility Font, a 4028 Font Metric, an IBM font licensed program, or a CJK Font.

Code page names are usually not distinctive enough to determine for which IBM font group the code page is supplied.

This section contains diagrams showing summaries of the naming conventions for the different font groups:

- IBM Expanded Core Fonts (see Figure 12 on page 18)
- IBM Compatibility Fonts (see Figure 13 on page 20)
- IBM Font Licensed Programs (see Figure 14 on page 21)
- IBM 4028 Font Metrics (see Figure 15 on page 22 and Figure 16 on page 23)
- IBM CJK fonts (see Figure 17 on page 24 and Figure 18 on page 24). No CJK raster font character sets or coded fonts are provided. Refer to *IBM AFP Fonts: Type Transformer User's Guide* for the suggested naming conventions to use in creating your own raster font character sets and coded fonts.

**Note:** For the naming conventions for fonts produced by IBM Type Transformer, refer to *IBM AFP Fonts: Type Transformer User's Guide*.

For a full list of font names, see “IBM Expanded Core Fonts” on page 29, “IBM Compatibility Fonts” on page 37, “IBM 4028 Font Metrics” on page 44, “IBM CJK Fonts” on page 52, and “IBM Font Licensed Programs” on page 54.

# Naming Summary

## IBM Expanded Core Fonts (Raster and AFP Outlines)

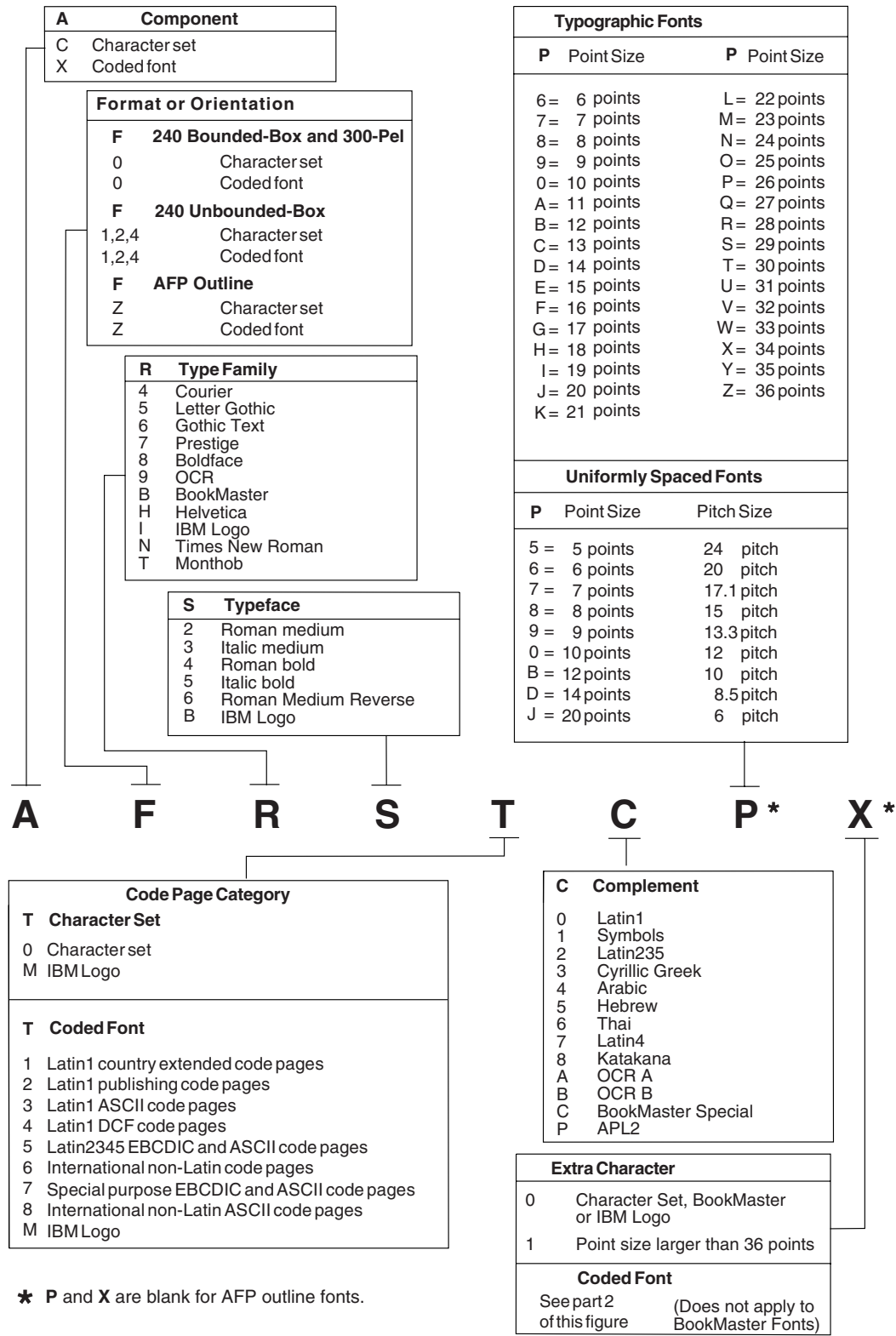


Figure 12 (Part 1 of 2). Summary of the Naming Convention for IBM Expanded Core Fonts (Raster and AFP Outline)

**A F R S T C P X**

Extra Character	Extra Character
Latin1 Country Extended Code Pages (T=1)	Latin2345 EBCDIC and ASCII Code Pages (T=5)
<b>X C</b> 1 0 T1V10037 United States, Canada 2 0 T1V10273 Austria, Germany 3 0 T1V10274 Belgium 4 0 T1V10275 Brazil 5 0 T1V10277 Denmark, Norway 6 0 T1V10278 Finland, Sweden 7 0 T1V10280 Italy 8 0 T1V10281 Japan (Latin) 9 0 T1V10282 Portugal 0 0 T1V10284 Spain, Latin America A 0 T1V10285 United Kingdom B 0 T1V10297 France C 0 T1V10500 International #5 D 0 T1V10871 Iceland	<b>X C</b> 1 2 T1000870 Latin2 EBCDIC 2 2 T1000905 Latin3 EBCDIC 3 2 T1001026 Latin5 EBCDIC 4 2 T1000852 Personal Computer: Latin2 5 2 T1000853 Personal Computer: Latin3 6 2 T1000857 Personal Computer: Latin5 7 2 T1000912 ISO/ANSI 8-Bit: Latin2 8 2 T1000920 ISO/ANSI 8-Bit: Latin5 9 7 T1001069 Latin4 EBCDIC 0 7 T1000914 ISO/ASCII: Latin4
Latin1 Publishing Code Pages (T=2)	International Non-Latin Code Pages (T=6)
<b>X C</b> 1 0 T1000361 International Set #5 2 0 T1000382 Austria, Germany, Switzerland 3 0 T1000383 Belgium 4 0 T1000384 Brazil 5 0 T1000385 Canada (French) 6 0 T1000386 Denmark, Norway 7 0 T1000387 Sweden, Finland 8 0 T1000388 France, Switzerland 9 0 T1000389 Italy, Switzerland (Italian) 0 0 T1000390 Japan (Latin) A 0 T1000391 Portugal B 0 T1000392 Spain, Philippines C 0 T1000393 Latin America (Spanish) D 0 T1000394 United Kingdom, Australia, Ireland, Hong Kong, New Zealand E 0 T1000395 United States, Canada (English)	<b>X C</b> 1 4 T1000420 Arabic Bilingual 2 3 T1000423 Greece 183 3 5 T1000424 Hebrew 4 5 T1000803 Hebrew 5 3 T1000875 Greece 6 8 T1V10290 Japan (Katakana) 7 3 T1000880 Cyrillic Multilingual 8 6 T1000838 Thailand 9 6 T1001025 Cyrillic Multilingual 0 5 T1001028 Hebrew Publishing A 8 T1001027 Japanese (Latin) Extended
Latin1 ASCII Code Pages (T=3)	Special Purpose EBCDIC and ASCII Code Pages (T=7)
<b>X C</b> 1 0 T1000437 Personal Computer 2 0 T1000850 Personal Computer: Multilingual 3 0 T1000860 Personal Computer: Portugal 4 0 T1000861 Personal Computer: Iceland 5 0 T1000863 Personal Computer: Canadian French 6 0 T1000865 Personal Computer: Nordic 7 0 T1001004 IBM PC Desktop Publishing 8 0 T1000819 ISO/ANSI 8-Bit: Latin1	<b>X C</b> 1 1 T1000259 Symbols, Set 7 2 P T1000293 APL (USA) 3 P T1000310 Graphic Escape APL 4 A T1000892 OCRA 5 B T1000393 OCRB 6 1 T1000899 ASCII: Symbols, Set 7 7 1 T1001087 Symbols, Adobe 8 1 T1001038 ASCII: Symbols, Adobe 9 1 T1001091 Symbols, Set 7 Modified 0 1 T1001092 ASCII: Symbols, Set 7 Modified A 1 T1000363 Symbols, Set 8 B 1 T1000829 Symbols, Math Symbols C P T1000910 APL ASCII D A T1000876 OCR-A ASCII E B T1000877 OCR-B ASCII
Latin1 DCF Code Pages (T=4)	International Non-Latin ASCII Code Pages (T=8)
<b>X C</b> 1 0 T1001002 DCF Release 2 Compatibility 2 0 T1001003 U. S. Text Subset 3 0 T1001068 Text with Numeric Spacing 4 0-7 T1001039 GML List Symbols	<b>X C</b> 1 3 T1000813 ISO/ASCII 8-Bit: Greece 2 3 T1000851 Personal Computer: Greek 3 3 T1000855 Personal Computer: Cyrillic 4 5 T1000856 Personal Computer: Hebrew 5 5 T1000862 Personal Computer: Hebrew 6 4 T1000864 Personal Computer: Arabic 7 3 T1000869 Personal Computer: Greece 8 6 T1000874 Personal Computer: Thailand 9 3 T1000915 ISO/ASCII 8-Bit: Cyrillic 0 5 T1000916 ISO/ASCII 8-Bit: Hebrew A 4 T1001008 ISO/ASCII 8-Bit: Arabic B 4 T1001029 ISO/ASCII 8-Bit: Arabic C 4 T1001046 ISO/ASCII 8-Bit: Arabic Extended D 3 T1000866 Personal Computer: Cyrillic #2 E 8 T1000897 Japan PC #1 F 8 T1001041 Japanese Extended-PC

Figure 12 (Part 2 of 2). Summary of the Naming Convention for IBM Expanded Core Fonts (Raster and AFP Outline)

# IBM Compatibility Fonts

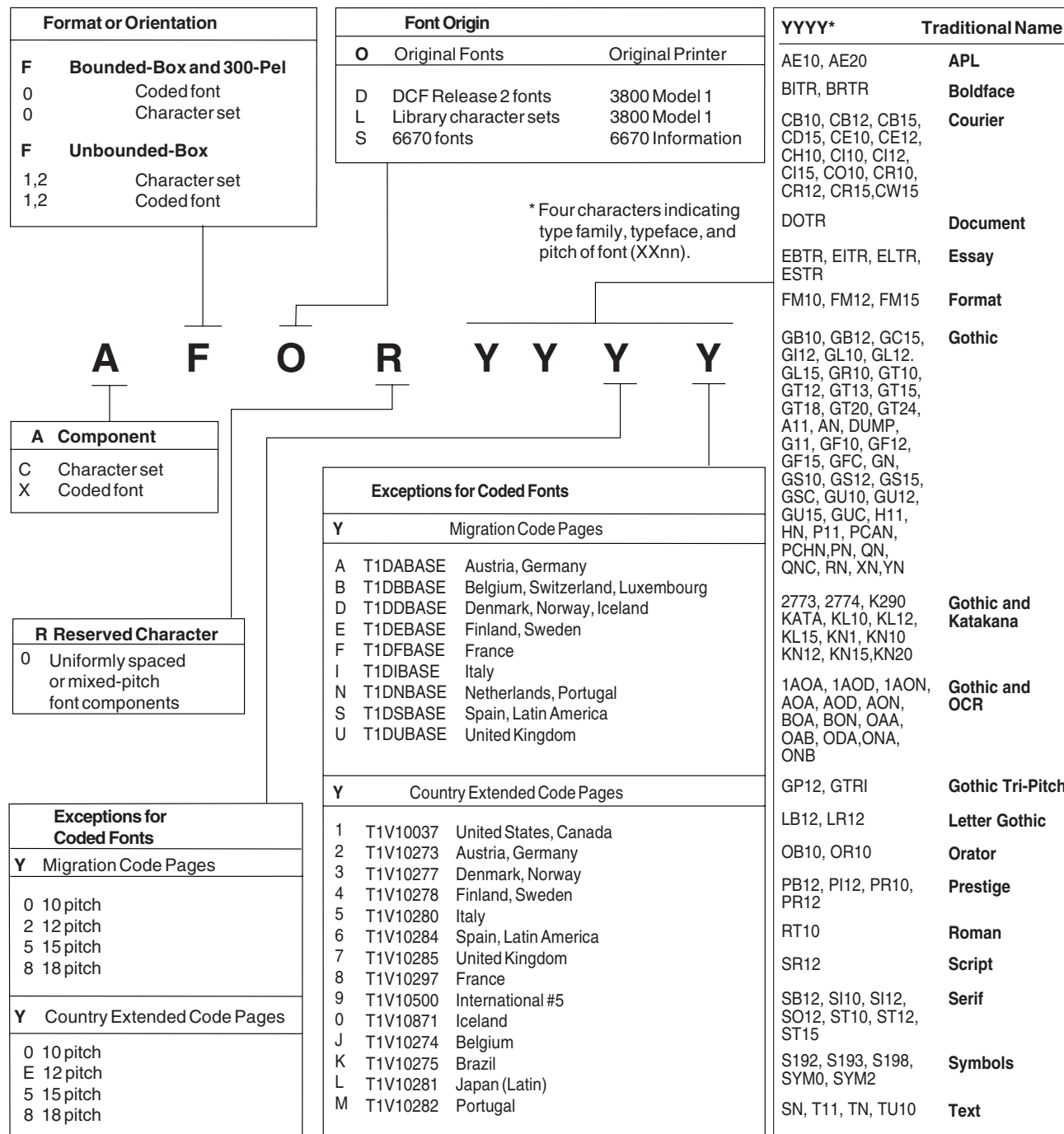


Figure 13. Summary of the Naming Convention for IBM Compatibility Fonts Except for Proprinter Emulation Fonts

# IBM Proprinter Emulation Fonts and Other Font Licensed Programs

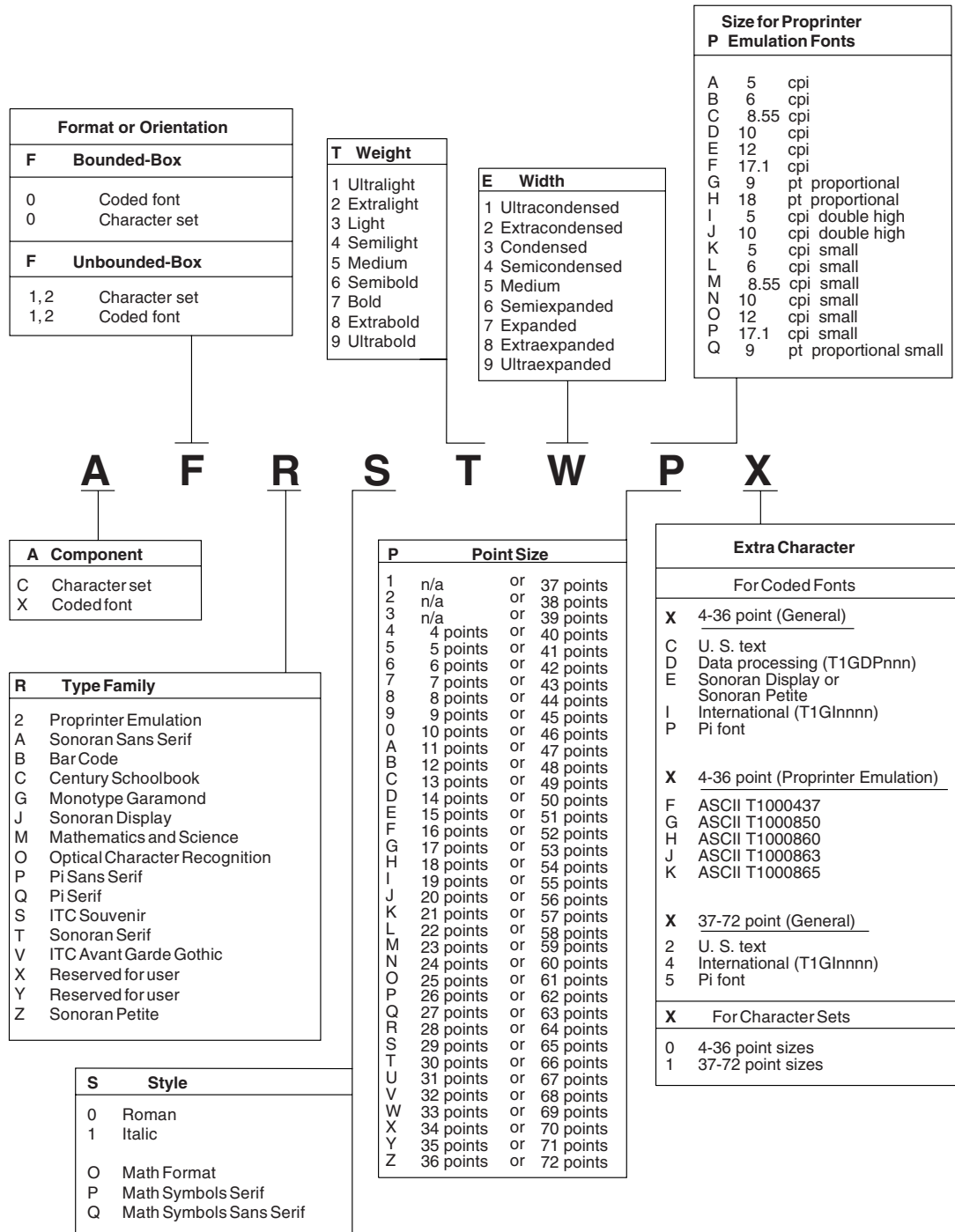


Figure 14. Summary of the Naming Convention for IBM Proprinter Emulation Fonts and Other IBM Font Licensed Programs

# IBM 4028 Font Metrics, Uniformly Spaced and Mixed-Pitch

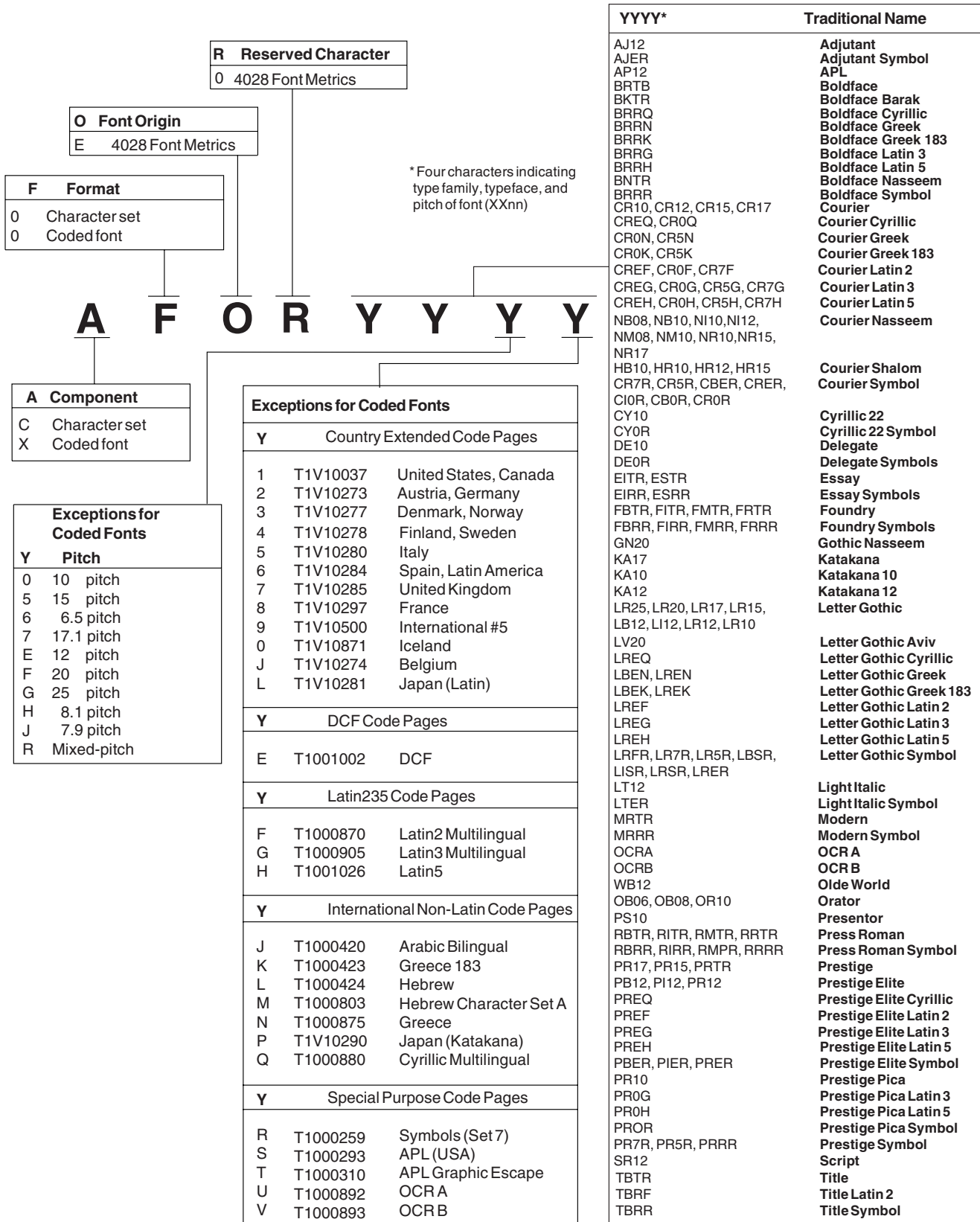


Figure 15. Summary of the Naming Convention for Uniformly Spaced and Mixed-Pitched 4028 Font Metrics

# IBM 4028 Font Metrics, Typographic

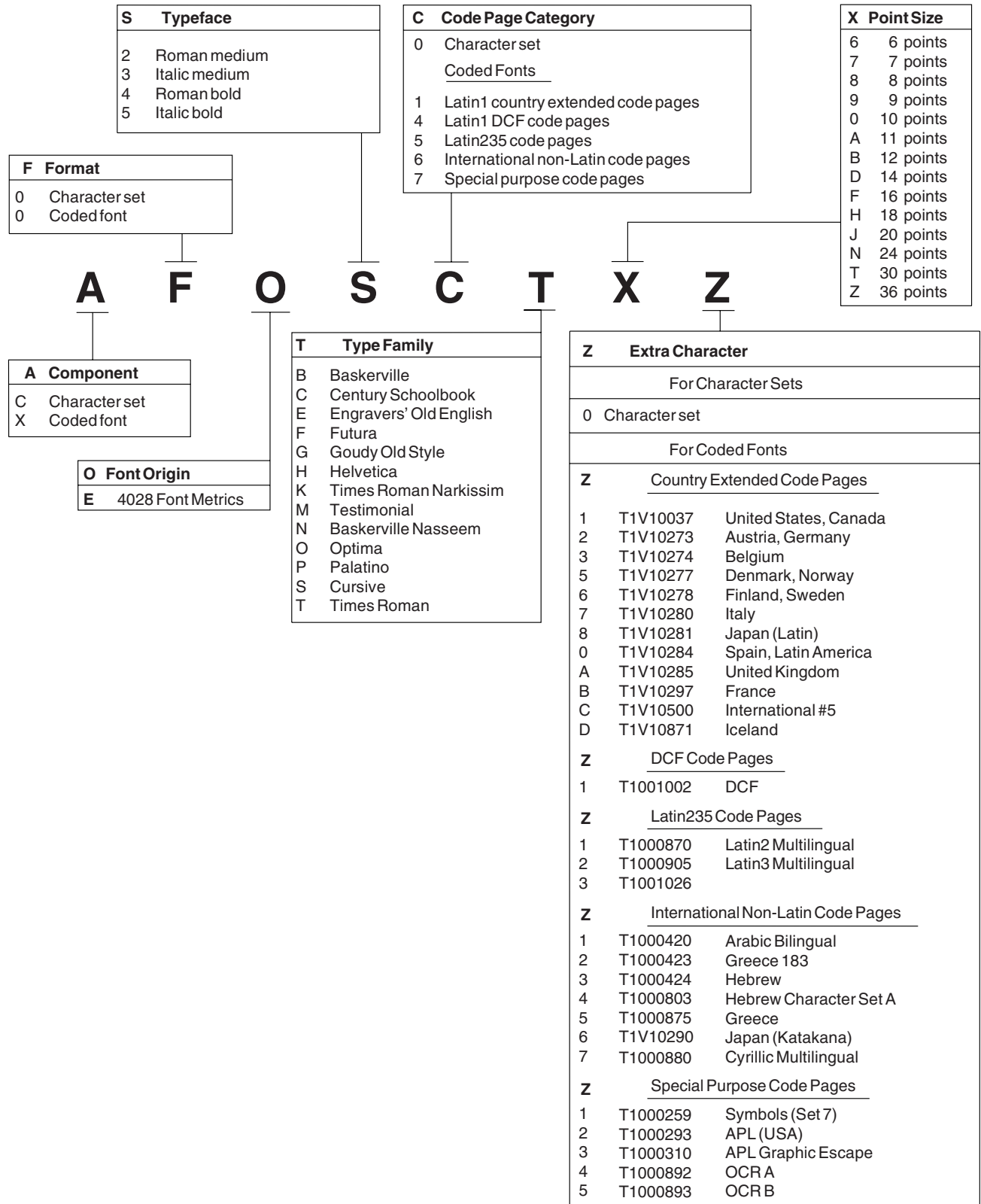


Figure 16. Summary of the Naming Convention for Typographic 4028 Font Metrics

## IBM CJK AFP Outline Font Character Sets

<b>AA</b>	<b>XXXX</b>
<b>AA</b> Font Object	<b>XXXX</b> Language and Typeface
CZ AFP outline font character set	HKG2 Korean Gothic
	HSM2 Korean Myengjo
	JHKG Japanese Heisei Gothic
	JHMN Japanese Heisei Mincho
	SFSG Simplified Chinese Fang Song
	SHEI Simplified Chinese Hei
	SKAI Simplified Chinese Kai
	SSNG Simplified Chinese Song
	TKAI Traditional Chinese Kai
	TSNG Traditional Chinese Sung

Figure 17. Summary of the Naming Convention for CJK AFP Outline Font Character Sets

## IBM CJK CID-Keyed Outline Font Character Sets

<b>AA</b>	<b>XXXX</b>	<b>WW</b>
<b>AA</b> Font Object	<b>XXXX</b> Language and Typeface	<b>WW</b> Weight
IB CID outline font character set	HKG2 Korean Gothic	W3 Light
	HSM2 Korean Myengjo	W4 Semilight
	JHKG Japanese Heisei Gothic	W5 Medium
	JHMN Japanese Heisei Mincho	W6 Semibold
	SFSG Simplified Chinese Fang Song	
	SHEI Simplified Chinese Hei	
	SKAI Simplified Chinese Kai	
	SSNG Simplified Chinese Song	
	TKAI Traditional Chinese Kai	
	TSNG Traditional Chinese Sung	

Figure 18. Summary of the Naming Convention for CJK CID-Keyed Outline Font Character Sets

## IBM Code Page Naming Conventions

The name of an IBM code page makes it possible to recognize it as a code page. The first character (A) of the code page ID is always T, which indicates a code page. The second character (F) is always 1.

### Single-Byte Code Pages Used with Single-Byte Character Sets

The name of a single-byte code page used with single-byte character sets makes it possible to identify its version level and code page number or name. For more detailed information, refer to *IBM AFP Fonts: Technical Reference for Code Pages*.

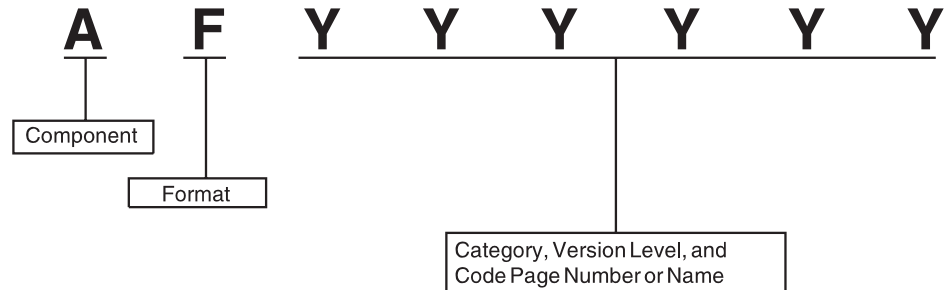


Figure 19. Component and Format

The last 6 characters of the code page ID indicate the code page name, as well as its category or version level (Figure 20).

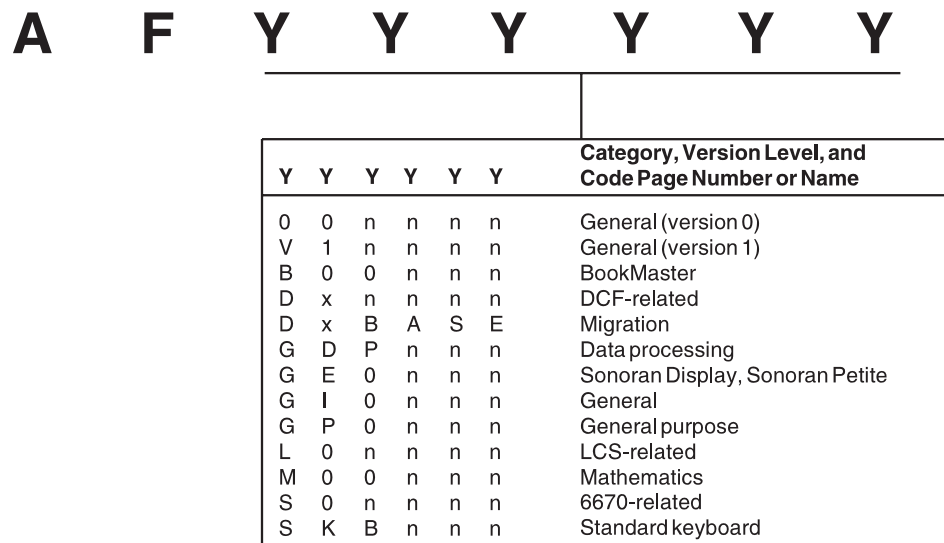


Figure 20. Code Page Name and Category or Version Level

## Naming Summary

### Single-Byte Code Pages Used with Double-Byte Character Sets

You can recognize a new single-byte code page used with double-byte character sets because the third and fourth characters of its name are H0. Some older code pages follow a different naming convention.

**AF**

AF Font Object

T1 Code page

**H0**

H0 Always H0

**XXXX**

XXXX Code page global identifier (CPGID)

Figure 21. Summary of the Naming Convention for Single-Byte Code Pages Used with Double-Byte Character Sets

### Double-Byte Code Pages

The names of double-byte code pages supplied for use with IBM CJK fonts follow a new convention, so you may see some older double-byte code pages with different names.

You can recognize a double-byte code page used with an outline font because its name is only 6 characters long instead of the usual 8.

**AF**

AF Font Object

T1 Code page

**XXXX**

XXXX Code page global identifier (CPGID)

**SS**

SS Section number

SS Code page used with a raster font

blank Code page used with an outline font

Figure 22. Summary of the Naming Convention for Double-Byte Code Pages

## Font Summary Tables

The font summary tables list the following information for the IBM AFP Font Collection (IBM Expanded Core Fonts, IBM Compatibility Fonts, IBM 4028 Font Metrics, and IBM CJK Fonts), and for all IBM font licensed programs:

- **AFP Typeface Name.** This is the IBM name for the typeface.
- **Type 1 Typeface Name.** This is the Adobe name for the typeface. It is used in the **Typefaces** window of SBCS Type Transformer.
- **Style and Weight.** Possible values are:

<b>RB</b>	Roman Bold	<b>SB</b>	Roman Semibold
<b>RC</b>	Roman Condensed	<b>IL</b>	Italic Light
<b>RL</b>	Roman Light	<b>ISB</b>	Italic Semibold
<b>RM</b>	Roman Medium	<b>IM</b>	Italic Medium
<b>RSL</b>	Roman Semilight	<b>IB</b>	Italic Bold

- **Code Page or Double-Byte Code Page, Single-Byte Code Page.** Alphabetic script and symbol fonts (IBM Expanded Core Fonts, IBM Compatibility Fonts, IBM 4028 Font Metrics, and IBM Font Licensed Programs) use only single-byte code pages. IBM CJK Fonts use both double-byte and single-byte code pages.
- **Character Set Identifier.** In a character set or coded font identifier, the second position designates the format and orientation of the font. When applicable to the figures contained in this publication, substitute the following values for n:
 

<b>0</b>	240 bounded box and 300 pel
<b>1</b>	240 unbounded box, 0° rotation (normal)
<b>2</b>	240 unbounded box, 90° rotation
<b>4</b>	240 unbounded box, 270° rotation
<b>Z</b>	AFP outline
- **Type 1 File Name.** Extensions are AFM, INF, and PFB.
- **CID-Keyed File Name.** Extensions are CID and CMP.
- **Coded Font Identifier.** The n in the second position has the same values as in the character set identifier.

- **Alternate Coded Font Identifier** Certain operating environments, such as JES, limit coded font identifiers (names) to 6 characters. (Sometimes you will be asked for only 4 characters: the other 2 are supplied for you.)

An alternate coded font identifier is required to operate within these environments; some of the fonts within the IBM Expanded Core Font group are provided with both a coded font and an alternate coded font identifier. For other fonts, you will need to create the alternate coded font identifier if you will use that font within those operating environments. See *IBM AFP Fonts: Technical Reference for IBM Expanded Core Fonts* for information on how to create the alternate coded font identifiers.

- **Graphic Character Set Global Identifier (GCSGID).** The GCSGID is a registered number that is sometimes used to identify fonts, especially by AS/400.

## Font Summary Tables

- **Font Global Identifier (FGID).** The FGID is a registered number that is sometimes used to identify fonts, especially by AS/400.
- **Size in Pitch or Points, Size in Pitch, or Size in Points.** MP indicates a mixed-pitch font.

Not all information applies to all font groups. For example, alternate coded font identifiers are provided only for IBM Expanded Core Fonts.

Because all of the possible coded fonts are not shipped, additional coded fonts may need to be created. See *IBM AFP Fonts: Technical Reference for IBM Expanded Core Fonts* for information on which coded fonts are provided and how to create additional coded fonts.

## IBM Expanded Core Fonts

This section describes the IBM Expanded Core Fonts available for use with IBM Print Services Facility (PSF) licensed programs. These fonts contain various typefaces and font sizes (include typographic and uniformly spaced typeface families) suitable for printing a variety of documents. They are provided in the following formats:

Format	Operating System
Bounded-box 240-pel fonts	MVS, VSE, VM, OS/400, AIX, OS/2
Unbounded-box 240-pel fonts	MVS, VSE
300-pel fonts	MVS, VSE, VM, OS/400, AIX, OS/2
Type 1 outline fonts	AIX, OS/2
AFP outline fonts	MVS, VSE, VM, OS/400, AIX, OS/2

Table 2 shows the values to be used in Table 3. Substitute the point size identifier (listed under the columns headed **p**) shown in Table 2 for the lowercase p shown in the seventh position of the **Character Set Identifier**, **Coded Font Identifier**, or the last position of the **Alternate Coded Font Identifier** in Table 3. The pitch or point sizes available for that font are identified in the column **Sizes in Points or Pitch**.

Typographic Fonts				Uniformly Spaced Fonts		
p	Point Size	p	Point Size	p	Point Size	Pitch Size
5	5 points	D	14 points	5	5 points	24 pitch
6	6 points	F	16 points	6	6 points	20 pitch
7	7 points	H	18 points	7	7 points	17.1 pitch
8	8 points	J	20 points	8	8 points	15 pitch
9	9 points	N	24 points	9	9 points	13.3 pitch
0	10 points	T	30 points	0	10 points	12 pitch
A	11 points	Z	36 points	B	12 points	10 pitch
B	12 points			D	14 points	8.5 pitch
				J	20 points	6 pitch

Certain operating environments, such as JES, limit coded font identifiers (names) to 6 characters (Xn plus four characters). An example is X0GT10. The IBM Expanded Core Fonts include 6-character coded font identifiers for use in these environments. These 6-character code font identifiers are shown in Table 3 under the column heading **Alternate Coded Font Identifier**.

In Table 3 the lowercase n in the second position of the **Coded Font Identifier**, the **Alternate Coded Font Identifier**, and the **Character Set Identifier** identifies the font format or orientation; see Figure 12 on page 18 for details.

IBM BookMaster Fonts do not have a Coded Font Identifier because BookMaster does not use coded fonts.

Table 3 (Page 1 of 7). IBM Expanded Core Fonts

APL										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier APL2	Courier APL2	RM	T1000293	Cn420PB0	APL	Xn427PB2	Xn480B	1304	307	10 pitch
	" Bold	RB	T1000293	Cn440PB0	APLB	Xn447PB2	Xn481B		322	
Arabic										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Boutros Typing	Typing	RM	T1000420	Cn4204p1	COU_A	Xn4264p1	Xn427p	1264	416	6 8.5 10 12 15
	" Bold	RB	T1000420	Cn4404p1	COU_AB	Xn4464p1	Xn449p		420	17.1 pitch
	" Italic	IM	T1000420	Cn4304p1	COU_AI	Xn4364p1	Xn438p		424	
	" Bold Italic	IB	T1000420	Cn4504p1	COU_ABI	Xn4564p1	Xn45Ap		428	
ITC Boutros	Rokaa	RM	T1000420	CnH204p1	HEL_A	XnH264p1	XnH27p	1264	2304	6 7 8 9 10 11
	" Bold	RB	T1000420	CnH404p1	HEL_AB	XnH464p1	XnH49p		2305	12 14 16 18 20
	" Italic	IM	T1000420	CnH304p1	HEL_AI	XnH364p1	XnH38p		2306	24 30 36
	" Bold Italic	IB	T1000420	CnH504p1	HEL_ABI	XnH564p1	XnH5Ap		2307	points
ITC Boutros	Setting	RM	T1000420	CnN204p1	TNR_A	XnN264p1	XnN27p	1264	2308	6 7 8 9 10 11
	" Bold	RB	T1000420	CnN404p1	TNR_AB	XnN464p1	XnN49p		2309	12 14 16 18 20
	" Italic	IM	T1000420	CnN304p1	TNR_AI	XnN364p1	XnN38p		2310	24 30 36
	" Bold Italic	IB	T1000420	CnN504p1	TNR_ABI	XnN564p1	XnN5Ap		2311	points
BookMaster Specials										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
BookMaster	BookMaster Specials	RM	T1B00BGS	CnB20Cp0	EDFBS	N/A	N/A	1241	335	5 6 7 8 9 10
	" Bold	RB	T1B00BGS	CnB40Cp0	EDFBSB	N/A	N/A		336	11 12 14 16 18
	" Italic	IM	T1B00BGS	CnB30Cp0	EDFBSI	N/A	N/A		337	20 24 30 36
	" Bold Italic	IB	T1B00BGS	CnB50Cp0	EDFBSBI	N/A	N/A		338	points
BookMaster	BookMaster Specials	RM	T1B00BGS	CnB60Cp0	EDFBSR	N/A	N/A	1241	339	5 6 7 8 9 10
	Reverse									11 12 14 16 18
										20 24 30 36
										points

Table 3 (Page 2 of 7). IBM Expanded Core Fonts

Cyrillic										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier Cyrillic Greek	Courier Cyr Grk	RM	T1001025	Cn4203p0	COU_CG	Xn4263p9	Xn45Cp	1300	416	6 8.5 10 12 15
	" Bold	RB	T1001025	Cn4403p0	COU_CGB	Xn4463p9	Xn45Ep		420	17.1 pitch
	" Italic	IM	T1001025	Cn4303p0	COU_CGI	Xn4363p9	Xn45Dp		424	
	" Bold Italic	IB	T1001025	Cn4503p0	COU_CGBI	Xn4563p9	Xn45Fp		428	
Helvetica Cyrillic Greek	Helvetica Cyr Grk	RM	T1001025	CnH203p0	HEL_CG	XnH263p9	XnH5Cp	1300	2304	6 7 8 9 10 11
	" Bold	RB	T1001025	CnH403p0	HEL_CGB	XnH463p9	XnH5Ep		2305	12 14 16 18 20
	" Italic	IM	T1001025	CnH303p0	HEL_CGI	XnH363p9	XnH5Dp		2306	24 30 36
	" Bold Italic	IB	T1001025	CnH503p0	HEL_CGBI	XnH563p9	XnH5Fp		2307	points
Times New Roman Cyrillic Greek	Times New Roman Cyr Grk	RM	T1001025	CnN203p0	TNR_CG	XnN263p9	XnN5Cp	1300	2308	6 7 8 9 10 11
	" Bold	RB	T1001025	CnN403p0	TNR_CGB	XnN463p9	XnN5Ep		2309	12 14 16 18 20
	" Italic	IM	T1001025	CnN303p0	TNR_CGI	XnN363p9	XnN5Dp		2310	24 30 36
	" Bld It	IB	T1001025	CnN503p0	TNR_CGBI	XnN563p9	XnN5Fp		2311	points
Greek										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier Cyrillic Greek	Courier Cyr Grk	RM	T1000875	Cn4203p0	COU_CG	Xn4263p5	Xn448p	1300	416	6 8.5 10 12 15
	" Bold	RB	T1000875	Cn4403p0	COU_CGB	Xn4463p5	Xn44Ap		420	17.1 pitch
	" Italic	IM	T1000875	Cn4303p0	COU_CGI	Xn4363p5	Xn449p		424	
	" Bold Italic	IB	T1000875	Cn4503p0	COU_CGBI	Xn4563p5	Xn44Bp		428	
Helvetica Cyrillic Greek	Helvetica Cyr Grk	RM	T1000875	CnH203p0	HEL_CG	XnH263p5	XnH48p	1300	2304	6 7 8 9 10 11
	" Bold	RB	T1000875	CnH403p0	HEL_CGB	XnH463p5	XnH4Ap		2305	12 14 16 18 20
	" Italic	IM	T1000875	CnH303p0	HEL_CGI	XnH363p5	XnH49p		2306	24 30 36
	" Bold Italic	IB	T1000875	CnH503p0	HEL_CGBI	XnH563p5	XnH4Bp		2307	points
Times New Roman Cyrillic Greek	Times New Roman Cyr Grk	RM	T1000875	CnN203p0	TNR_CG	XnN263p5	XnN48p	1300	2308	6 7 8 9 10 11
	" Bold	RB	T1000875	CnN403p0	TNR_CGB	XnN463p5	XnN4Ap		2309	12 14 16 18 20
	" Italic	IM	T1000875	CnN303p0	TNR_CGI	XnN363p5	XnN49p		2310	24 30 36
	" Bld It	IB	T1000875	CnN503p0	TNR_CGBI	XnN563p5	XnN4Bp		2311	points

Table 3 (Page 3 of 7). IBM Expanded Core Fonts

Hebrew										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	Alternate Coded Font Identifier
Shalom Hebrew	Shalom Hebrew	RM	T1000424	Cn4205p0	COU_H	Xn4265p3	1265	416	6 8.5 10 12 15	Xn42Cp
	" Bold	RB	T1000424	Cn4405p0	COU_HB	Xn4465p3		420	17.1 pitch	Xn42Ep
	" Italic	IM	T1000424	Cn4305p0	COU_HI	Xn4365p3		424		Xn42Dp
	" Bold Italic	IB	T1000424	Cn4505p0	COU_HBI	Xn4565p3		428		Xn42Fp
Narkiss Tam Hebrew	Narkiss Tam Hebrew	RM	T1000424	CnH205p0	HEL_H	XnH265p3	1265	2304	6 7 8 9 10 11	XnH2Cp
	" Bold	RB	T1000424	CnH405p0	HEL_HB	XnH465p3		2305	12 14 16 18 20	XnH2Ep
	" Italic	IM	T1000424	CnH305p0	HEL_HI	XnH365p3		2306	24 30 36	XnH2Dp
	" Bold Italic	IB	T1000424	CnH505p0	HEL_HBI	XnH565p3		2307	points	XnH2Fp
Narkissim Hebrew	Narkissim Hebrew	RM	T1000424	CnN205p0	TNR_H	XnN265p3	1265	2308	6 7 8 9 10 11	XnN2Cp
	" Bold	RB	T1000424	CnN405p0	TNR_HB	XnN465p3		2309	12 14 16 18 20	XnN2Ep
	" Italic	IM	T1000424	CnN305p0	TNR_HI	XnN365p3		2310	24 30 36	XnN2Dp
	" Bold Italic	IB	T1000424	CnN505p0	TNR_HBI	XnN565p3		2311	points	XnN2Fp
IBM Logo										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	Alternate Coded Font Identifier
IBM Logo	IBM Logo	RM	T1001093	CnIBM0p0	LOGOIBM	N/A	2040	51767	10 12 14 16 18 20 24 28 32 36 40 48 points	N/A
Katakana										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	Alternate Coded Font Identifier
Gothic Katakana	Gothic Katakana	RM	T1000897	Cn6208p0	GOT_K	Xn6288pE	1306	304	6 8.5 10 12 15	Xn699p
	" Bold	RB	T1001027	Cn6208p0	GOT_K	Xn6288pA			17.1 20 pitch	Xn69Ap
	" Italic	IM	T1001041	Cn6208p0	GOT_K	Xn6288pF				Xn69Bp
	" Bold Italic	IB	T1V10290	Cn6208p0	GOT_K	Xn6288p6				Xn698p

Table 3 (Page 4 of 7). IBM Expanded Core Fonts

Latin1										
AFF Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Boldface Latin1	Boldface	RB	T1V15000	Cn8400p0	BFC	Xn8410pC	Xn80Fp	2039	20224	12 points
BookMaster Latin1	BookMaster " Bold " Italic " Bold Italic	RM RB IM IB	T1B00500 T1B00500 T1B00500 T1B00500	CnB200p0 CnB400p0 CnB300p0 CnB500p0	EDFBL EDFBLB EDFBLI EDFBLBI	N/A N/A N/A N/A	N/A N/A N/A N/A	2039	335 336 337 338	5 6 7 8 9 10 11 12 14 16 18 20 24 30 36 points
BookMaster Latin1 Reverse	BookMaster Reverse	RM	T1B05000	CnB600p0	EDFBLR	N/A	N/A	2039	339	5 6 7 8 9 10 11 12 14 16 18 20 24 30 36 points
Courier Latin1	Courier " Bold " Italic " Bold Italic	RM RB IM IB	T1V10500 T1V10500 T1V10500 T1V10500	Cn4200p0 Cn4400p0 Cn4300p0 Cn4500p0	COU COUB COUI COUBI	Xn4210pC Xn4410pC Xn4310pC Xn4510pC	Xn40Dp Xn40Fp Xn40Ep Xn410p	2039	416 420 424 428	6 8.5 10 12 15 17.1 pitch
Gothic Text Latin1	Gothic Text	RM	T1V15000	Cn6200p0	GOT	Xn6210pC	Xn60Dp	2309	304	6 8.5 10 12 13.3 15 17.1 20 24 pitch
Helvetica Latin1	Helvetica " Bold " Italic " Bold Italic	RM RB IM IB	T1V10500 T1V10500 T1V10500 T1V10500	CnH200p0 CnH400p0 CnH300p0 CnH500p0	HEL HELB HELI HELBI	XnH210pC XnH410pC XnH310pC XnH510pC	XnH0Dp XnH0Fp XnH0Ep XnH10p	2309	2304 2305 2306 2307	6 7 8 9 10 11 12 14 16 18 20 24 30 36 points
Letter Gothic Latin1	Letter Gothic " Bold	RM RB	T1V15000 T1V15000	Cn5200p0 Cn5400p0	LGO LGOB	Xn5210pC Xn5410pC	Xn50Dp Xn50Fp	2039	400 404	6 8.5 10 12 15 17.1 20 pitch
Prestige Latin1	Prestige " Bold " Italic	RM RB IM	T1V15000 T1V15000 T1V15000	Cn7200p0 Cn7400p0 Cn7300p0	PRS PRSB PRSI	Xn7210pC Xn7410pC Xn7310pC	Xn70Cp Xn70Fp Xn70Ep	2039	432 318 319	6 8.5 10 12 15 17.1 pitch
Times New Roman Latin1	Times New Roman " Bold " Italic " Bold Italic	RM RB IM IB	T1V10500 T1V10500 T1V10500 T1V10500	CnN200p0 CnN400p0 CnN300p0 CnN500p0	TNR TNRB TNR I TNRBI	XnN210pC XnN410pC XnN310pC XnN510pC	XnN0Dp XnN0Fp XnN0Ep XnN10p	2039	2308 2309 2310 2311	6 7 8 9 10 11 12 14 16 18 20 24 30 36 points

Table 3 (Page 5 of 7). IBM Expanded Core Fonts

Latin2										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier Latin235	Courier	RM	T1000870	Cn4202p0	COU	Xn4252p1	Xn444p	1261	416	6 8.5 10 12 15
	" Bold	RB	T1000870	Cn4402p0	COUB	Xn4452p1	Xn446p		420	17.1 pitch
	" Italic	IM	T10008700	Cn4304p0	COUI	Xn4354p1	Xn445p		424	
	" Bold Italic	IB	T10008700	Cn4502p0	COUBI	Xn4552p1	Xn447p		428	
Helvetica Latin235	Helvetica	RM	T1000870	CnH2O2p0	HEL	XnH252p1	XnH44p	1261	2304	6 7 8 9 10 11
	" Bold	RB	T1000870	CnH4O2p0	HELB	XnH452p1	XnH46p		2305	12 14 16 18 20
	" Italic	IM	T1000870	CnH3O2p0	HELI	XnH352p1	XnH45p		2306	24 30 36
	" Bold Italic	IB	T1000870	CnH5O2p0	HELBI	XnH552p1	XnH47p		2307	points
Times New Roman Latin235	Times New Roman	RM	T1000870	CnN202p0	TNR	XnN252p1	XnN44p	1261	2308	6 7 8 9 10 11
	" Bold	RB	T1000870	CnN402p0	TNRB	XnN452p1	XnN46p		2309	12 14 16 18 20
	" Italic	IM	T1000870	CnN302p0	TNRI	XnN352p1	XnN45p		2310	24 30 36
	" Bold Italic	IB	T1000870	CnN502p0	TNRBI	XnN552p1	XnN47p		2311	points
Latin3										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier Latin235	Courier	RM	T1000905	Cn4202p0	COU	Xn425202	Xn44E0	1261	416	6 8.5 10 12 15
	" Bold	RB	T1000905	Cn4402p0	COUB	N/A	N/A		420	17.1 pitch
	" Italic	IM	T1000905	Cn4302p0	COUI	N/A	N/A		424	
	" Bold Italic	IB	T1000905	Cn4502p0	COUBI	N/A	N/A		428	
Helvetica Latin235	Helvetica	RM	T1000905	CnH202p0	HEL	XnH25202	XnH4E0	1261	2304	6 7 8 9 10 11
	" Bold	RB	T1000905	CnH402p0	HELB	N/A	N/A		2305	12 14 16 18 20
	" Italic	IM	T1000905	CnH302p0	HELI	N/A	N/A		2306	24 30 36
	" Bold Italic	IB	T1000905	CnH502p0	HELBI	N/A	N/A		2307	points
Times New Roman Latin235	Times New Roman	RM	T1000905	CnN202p0	TNR	XnN25202	XnN4E0	1261	2308	6 7 8 9 10 11
	" Bold	RB	T1000905	CnN402p0	TNRB	N/A	N/A		2309	12 14 16 18 20
	" Italic	IM	T1000905	CnN302p0	TNRI	N/A	N/A		2310	24 30 36
	" Bold Italic	IB	T1000905	CnN502p0	TNRBI	N/A	N/A		2311	points

Table 3 (Page 6 of 7). IBM Expanded Core Fonts

Latin4										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier Latin4	Courier	RM	T1001069	Cn4207p0	COU	Xn4257p9	Xn473p	1261	416	6 8.5 10 12 15
	" Bold	RB	T1001069	Cn4407p0	COUB	Xn4457p9	Xn475p		420	17.1 pitch
	" Italic	IM	T1001069	Cn4307p0	COUI	Xn4357p9	Xn474p		424	
	" Bold Italic	IB	T1001069	Cn4507p0	COUBI	Xn4557p9	Xn476p		428	
Helvetica Latin4	Helvetica	RM	T1001069	CnH207p0	HEL	XnH257p9	XnH73p	1261	2304	6 7 8 9 10 11
	" Bold	RB	T1001069	CnH407p0	HELB	XnH457p9	XnH75p		2305	12 14 16 18 20
	" Italic	IM	T1001069	CnH307p0	HELI	XnH357p9	XnH74p		2306	24 30 36
	" Bold Italic	IB	T1001069	CnH507p0	HELBI	XnH557p9	XnH76p		2307	points
Times New Roman Latin4	Times New Roman	RM	T1001069	CnN207p0	TNR	XnN257p9	XnN73p	1261	2308	6 7 8 9 10 11
	" Bold	RB	T1001069	CnN407p0	TNRB	XnN457p9	XnN75p		2309	12 14 16 18 20
	" Italic	IM	T1001069	CnN307p0	TNRI	XnN357p9	XnN74p		2310	24 30 36
	" Bold Italic	IB	T1001069	CnN507p0	TNRBI	XnN557p9	XnN76p		2311	points
Latin5										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier Latin235	Courier	RM	T1001026	Cn4202p0	COU	Xn4252p3	Xn460p	1261	416	6 8.5 10 12 15
	" Bold	RB	T1001026	Cn4402p0	COUB	Xn4452p3	Xn462p		420	17.1 pitch
	" Italic	IM	T1001026	Cn4302p0	COUI	Xn4352p3	Xn461p		424	
	" Bold Italic	IB	T1001026	Cn4502p0	COUBI	Xn4552p3	Xn463p		428	
Helvetica Latin235	Helvetica	RM	T1001026	CnH202p0	HEL	XnH252p3	XnH60p	1261	2304	6 7 8 9 10 11
	" Bold	RB	T1001026	CnH402p0	HELB	XnH452p3	XnH62p		2305	12 14 16 18 20
	" Italic	IM	T1001026	CnH302p0	HELI	XnH352p3	XnH61p		2306	24 30 36
	" Bold Italic	IB	T1001026	CnH502p0	HELBI	XnH552p3	XnH63p		2307	points
Times New Roman Latin235	Times New Roman	RM	T1001026	CnN202p0	TNR	XnN252p3	XnN60p	1261	2308	6 7 8 9 10 11
	" Bold	RB	T1001026	CnN402p0	TNRB	XnN452p3	XnN62p		2309	12 14 16 18 20
	" Italic	IM	T1001026	CnN302p0	TNRI	XnN352p3	XnN61p		2310	24 30 36
	" Bold Italic	IB	T1001026	CnN502p0	TNRBI	XnN552p3	XnN63p		2311	points

Table 3 (Page 7 of 7). IBM Expanded Core Fonts

Optical Character Recognition (OCR)										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
OCRA	OCR A	RM	T1000892	Cn920AB0	OCR_A	Xn927AB4	Xn9B0B	968	305	10 pitch
OCRB	OCR B	RM	T1000893	Cn920BB0	OCR_B	Xn927BB5	Xn9B1B	969	306	10 pitch
Symbols										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Courier Symbols	Courier Symbols " Bold	RM RB	T1000259 T1000259	Cn4201p0 Cn4401p0	COU_S COU_SB	Xn4271p1 Xn4471p1	Xn412p Xn413p	1275	416 420	6 8.5 10 12 15 17.1 pitch
Helvetica Symbols	Helvetica Symbols " Bold	RM RB	T1000259 T1000259	CnH201p0 CnH401p0	HEL_S HEL_SB	XnH271p1 XnH471p1	XnH12p XnH13p	1275	2304 2305	6 7 8 9 10 11 12 14 16 18 20 24 30 36 points
Times New Roman Symbols	Times New Roman Symbols " Bold	RM RB	T1000259 T1000259	CnN201p0 CnN401p0	TNR_S TNR_SB	XnN271p1 XnN471p1	XnN12p XnN13p	1275	2308 2309	6 7 8 9 10 11 12 14 16 18 20 24 30 36 points
Thai										
AFP Typeface Name	Type 1 Typeface Name	Style and Weight	Code Page	Character Set Identifier	Type 1 File Name	Coded Font Identifier	Alternate Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points
Monthob Thai	N/A	RM RB IM	T1000838 T1000838 T1000838	CnT206p0 CnT406p0 CnT306p0	N/A N/A N/A	XnT266p8 XnT466p8 XnT366p8	XnT7Bp XnT7Dp XnT7Cp	1266	328 326 327	8 10 12 15 pitch

## IBM Compatibility Fonts

This section describes the 240- and 300-pel IBM Compatibility Fonts, which include uniformly spaced, mixed-pitch, and Proprinter Emulation fonts. Uniformly spaced fonts are measured horizontally in pitch. Proportionally spaced and mixed-pitch fonts are measured vertically in points.

IBM Compatibility Fonts offer various typefaces and font sizes. They are provided in the following formats:

Format	Operating System
Bounded-box 240-pel fonts	MVS, VSE, VM, OS/400, AIX, OS/2
Unbounded-box 240-pel fonts	MVS, VSE
300-pel fonts	MVS, VSE, VM, OS/400, AIX, OS/2

Table 4 lists the IBM Compatibility Fonts. In Table 4 the lowercase n in the second position of the **Character Set Identifier** and the **Coded Font Identifier** identifies the font format or orientation; see Figure 13 on page 20 for details.

<i>Table 4 (Page 1 of 7). IBM Compatibility Fonts</i>								
<b>APL</b>								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
APL	RM	T1S0AE10	CnS0AE10	XnAE10	2029	45	10	pitch points
	RM	T1S0AE10	CnS0AE20	XnAE20		280	20	pitch points
							5	points
<b>Boldface</b>								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Book	RB	T1D0BASE	CnS0BRTR	XnBRTR	2023	159	MP	pitch points
Book	IB	T1D0BASE	CnS0BITR	XnBITR	2023	155	MP	pitch points
							10	points
<b>Courier</b>								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Courier	RM	T1D0BASE	CnS0CR10	XnCR10	2023	11	10	pitch points
	RM	T1D0BASE	CnS0CR12	XnCR12		85	12	pitch points
	RM	T1D0BASE	CnS0CR15	XnCR15		223	9	pitch points
	RM	T1D0BASE	CnS0CE12	XnCE12		85	15	pitch points
							8	points
Courier	RB	T1D0BASE	CnS0CB10	XnCB10	2023	46	10	pitch points
	RB	T1D0BASE	CnS0CB12	XnCB12		108	12	pitch points
	RB	T1D0BASE	CnS0CB15	XnCB15		214	9	pitch points
							15	pitch points
							8	points

## IBM Compatibility Fonts

<i>Table 4 (Page 2 of 7). IBM Compatibility Fonts</i>								
Courier	IM	T1D0BASE	CnS0CI10	XnCI10	2023	18	10	pitch points
	IM	T1D0BASE	CnS0CI12	XnCI12		92	12	pitch points
	IM	T1D0BASE	CnS0CI15	XnCI15		215	15	pitch points
							8	pitch points
Courier (Double Wide)	RM	T1D0BASE	CnS0CD15	XnCD15	2023	417	15	pitch points
							8	pitch points
Courier (Double Wide Italic)	IM	T1D0BASE	CnS0CW15	XnCW15	2023	425	15	pitch points
							8	pitch points
Courier (Overstruck)	RM	T1D0BASE	CnS0CO10	XnCO10	2025	302	10	pitch points
							10	pitch points
Courier (Overstruck) elongated	RM	T1D0BASE	CnS0CH10	XnCH10	2025	37	10	pitch points
							10	pitch points
Courier extended	RM	T1D0BASE	CnS0CE10	XnCE10	2036	85	10	pitch points
							10	pitch points
Document								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Book	RM	T1D0BASE	CnS0DOTR	XnDOTR	2023	175	MP	pitch points
							10	pitch points
Essay								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Essay	RB	T1D0BASE	CnS0EBTR	XnEBTR	2023	160	MP	pitch points
							10	pitch points
Essay (Italic)	IM	T1D0BASE	CnS0EITR	XnEITR	2023	162	MP	pitch points
							10	pitch points
Essay (Light)	RL	T1D0BASE	CnS0ELTR	XnELTR	2023	173	MP	pitch points
							10	pitch points
Essay (Overstruck)	RM	T1D0BASE	CnS0EOTR	XnEOTR	2028	196	MP	pitch points
							10	pitch points
Essay	RM	T1D0BASE	CnS0ESTR	XnESTR	2023	160	MP	pitch points
							10	pitch points
Format								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Format	RM	T1L00FMT	CnL0FM10	XnFM10	2027	30	10	pitch points
							10	pitch points
	RM	T1L00FMT	CnL0FM12	XnFM12		80	12	pitch points
							9	pitch points
	RM	T1L00FMT	CnL0FM15	XnFM15		225	15	pitch points
							8	pitch points
Gothic								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Gothic (Bold)	RB	T1D0BASE	CnD0GB10	XnGB10	2023	39	10	pitch points
							10	pitch points
	RB	T1D0BASE	CnD0GB12	XnGB12		69	12	pitch points
							9	pitch points

<i>Table 4 (Page 3 of 7). IBM Compatibility Fonts</i>								
Gothic Uppercase	RC	T1L038BA	CnL00GSC	XnGSC	2038	398	15 6	pitch points
Gothic (Italic)	IM	T1D0BASE	CnD0GI12	XnGI12	2023	68	12 9	pitch points
Gothic Reverse	RM	T1D0BASE	CnD0GR10	XnGR10	2023	310	10 10	pitch points
Gothic	RSL	T1D0BASE	CnD0GL10	XnGL10	2023	303	10 10	pitch points
	RSL	T1D0BASE	CnD0GL12	XnGL12		303	12 9	pitch points
	RSL	T1D0BASE	CnD0GL15	XnGL15		303	15 8	pitch points
Gothic	RM	T1D0BASE	CnD0GT10	XnGT10	2023	40	10 10	pitch points
	RM	T1D0BASE	CnD0GT12	XnGT12		66	12 9	pitch points
Gothic13	RM	T1D0BASE	CnD0GT13	XnGT13	2037	203	13.3 8	pitch points
Gothic	RM	T1D0BASE	CnD0GC15	XnGC15	2037	231	15 7	pitch points
Gothic	RM	T1D0BASE	CnD0GT15	XnGT15	2023	230	15 8	pitch points
	RM	T1D0BASE	CnD0GT18	XnGT18		275	18 6	pitch points
Gothic	RM	T1D0BASE	CnD0GT20	XnGT20	2037	281	20 5	pitch points
	RM	T1D0BASE	CnD0GT24	XnGT24		290	27 4	pitch points
Gothic Uppercase	RM	T1L038BA	CnL0GU10	XnGU10	2038	312	10 10	pitch points
	RM	T1L038BA	CnL0GU12	XnGU12		312	12 9	pitch points
	RM	T1L038BA	CnL0GU15	XnGU15		312	15 8	pitch points
	RM	T1L038BA	CnL00GUC	XnGUC		311	15 6	pitch points
DUMP	RM	T1L0DUMP	XnDUMP	CnL0DUMP	2022	230	15 8	pitch points
<b>Gothic and Katakana</b>								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Katakana	RM	T1000290	CnL0KN12	XnKN12	2031	433	12 9	pitch points
	RM	T1000290	CnL0KN15	XnKN15		433	15 8	pitch points
	RM	T1000290	CnL0KN20	XnKN20		433	20 5	pitch points
	RM	T1000290	CnL0KATA	XnKATA		433	10 10	pitch points
Katakana	RSL	T1000290	CnL0KL10	XnKL10	2031	521	10 10	pitch points
	RSL	T1000290	CnL0KL12	XnKL12		521	12 9	pitch points
	RSL	T1000290	CnL0KL15	XnKL15		521	15 8	pitch points

# IBM Compatibility Fonts

<i>Table 4 (Page 4 of 7). IBM Compatibility Fonts</i>								
<b>Gothic and Optical Character Recognition-A (OCR-A)</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
OCR AOA1	RM	T1L0OCR1	CnL01AOA	Xn1AOA	2034	19	10 10	pitch points
OCRA AOA	RM	T1L0OCR1	CnL00AOA	XnAOA	2034	19	10 10	pitch points
OCR A AON1	RM	T1L0OCR1	CnL01AON	Xn1AOD	2035	19	10 10	pitch points
OCRA AON	RM	T1L0OCR1	CnL00AON	XnAOD	2035	19	10 10	pitch points
<b>Gothic and Optical Character Recognition-B (OCR-B)</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
OCRB BOA	RM	T1L0OCRB	CnL00BOA	XnBOA	2032	3	10 10	pitch points
OCRB BON	RM	T1L0OCR1	CnL00BON	XnBON	2032	3	10 10	pitch points
OCRB OAB	RM	T1L0OCR1	CnL00OAB	XnOAB	2032	3	10 10	pitch points
<b>Gothic Tri-Pitch</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
Gothic Proportional	RM	T1D0GP12	CnD0GP12	XnGP12	2023	174	MP 9	pitch points
<b>Letter Gothic</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
Letter Gothic	RM	T1D0BASE	CnS0LR12	XnLR12	2023	87	12 9	pitch points
Letter Gothic (Bold)	RB	T1D0BASE	CnS0LB12	XnLB12	2023	110	12 9	pitch points
<b>Orator</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
Orator	RM	T1D0BASE	CnS0OR10	XnOR10	2025	5	10 10	pitch points
Orator (Bold)	RB	T1D0BASE	CnS0OB10	XnOB10	2025	38	10 10	pitch points
<b>Prestige</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
Prestige	RM	T1D0BASE	CnS0PR10	XnPR10	2023	12	10	pitch
	RM	T1D0BASE	CnS0PR12	XnPR12			86	12 9

<i>Table 4 (Page 5 of 7). IBM Compatibility Fonts</i>								
Prestige (Bold)	RB	T1D0BASE	CnS0PB12	XnPB12	2023	111	12 9	pitch points
Prestige (Italic)	IM	T1D0BASE	CnS0PI12	XnPI12	2023	112	12 9	pitch points
Proprinter Emulation								
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points	
Proptr Emul 5 CPI Small	RM	T1000437	Cn2059L0	Xn2059LF	1262	443	5 4.5	pitch points
Proptr Emul 6 CPI Small	RM	T1000437	Cn2058M0	Xn2059MF	1262	444	6 4.5	pitch points
Proptr Emul 8.55 CPI Small	RM	T1000437	Cn2056N0	Xn2056NF	1262	445	8.55 4.5	pitch points
Proptr Emul 10 CPI Small	RM	T1000437	Cn2055P0	Xn2055PF	1262	440	10 4.5	pitch points
Proptr Emul 12 CPI Small	RM	T1000437	Cn2054Q0	Xn2054QF	1262	441	12 4.5	pitch points
Proptr Emul 17.1 CPI Small	RM	T1000437	Cn2051R0	Xn2051RF	1262	442	17.1 4.5	pitch points
Proptr Emul 5 CPI Small (Bold)	RM	T1000437	Cn2079L0	Xn2079LF	1262	448	5 4.5	pitch points
Proptr Emul 6 CPI Small (Bold)	RM	T1000437	Cn2078M0	Xn2079MF	1262	449	6 4.5	pitch points
Proptr Emul 10 CPI Small (Bold)	RM	T1000437	Cn2075P0	Xn2075PF	1262	446	10 4.5	pitch points
Proptr Emul 12 CPI Small (Bold)	RM	T1000437	Cn2074Q0	Xn2074QF	1262	447	12 4.5	pitch points
Proptr Emul 5 CPI	RM	T1000437	Cn2059A0	Xn2059AF	1262	453	5 9	pitch points
Proptr Emul 6 CPI	RM	T1000437	Cn2059B0	Xn2059BF	1262	453	6 9	pitch points
Proptr Emul 8.55 CPI	RM	T1000437	Cn2059C0	Xn2059CF	1262	453	8.55 9	pitch points
Proptr Emul 10 CPI	RM	T1000437	Cn2055D0	Xn2055DF	1262	452	10 9	pitch points
Proptr Emul 12 CPI	RM	T1000437	Cn2055E0	Xn2055EF	1262	452	12 9	pitch points
Proptr Emul 17.1 CPI	RM	T1000437	Cn2055F0	Xn2055FF	1262	452	17.1 9	pitch points
Proptr Emul 5 CPI (Bold)	RM	T1000437	Cn2079A0	Xn2079AF	1262	456	5 9	pitch points
Proptr Emul 6 CPI (Bold)	RM	T1000437	Cn2079B0	Xn2079BF	1262	456	6 9	pitch points
Proptr Emul 10 CPI (Bold)	RM	T1000437	Cn2075D0	Xn2075DF	1262	455	10 9	pitch points
Proptr Emul 12 CPI (Bold)	RM	T1000437	Cn2075E0	Xn2075EF	1262	455	12 8	pitch points
Proptr Emul 5 CPI Dbl High	RM	T1000437	Cn2055J0	Xn2055JF	1262	452	5 18	pitch points
Proptr Emul 10 CPI Dbl High	RM	T1000437	Cn2051K0	Xn2051KF	1262	451	10 18	pitch points

## IBM Compatibility Fonts

<i>Table 4 (Page 6 of 7). IBM Compatibility Fonts</i>									
Proptr Emul 5 CPI Dbl High (Bold)	RB	T1000437	Cn2075J0	Xn2075JF	1262	455	5 18	pitch points	
Proptr Emul 10 CPI Dbl High (Bold)	RB	T1000437	Cn2071K0	Xn2071KF	1262	454	10 18	pitch points	
Proptr Emul 9 PT	RM	T1000437	Cn2059G0	Xn2059GF	1262	24328	9	points	
Proptr Emul 18 PT	RM	T1000437	Cn2055H0	Xn2055HF	1262	24320	18	points	
Proptr Emul 9 PT (Bold)	RM	T1000437	Cn2079G0	Xn2079GF	1262	24329	9	points	
Proptr Emul 18 PT (Bold)	RM	T1000437	Cn2075H0	Xn2075HF	1262	24322	18	points	
Proptr Emul 9 PT Small	RM	T1000437	Cn2055S0	Xn2055SF	1262	24324	4	points	
Proptr Emul 9 PT Small (Bold)	RB	T1000437	Cn2075S0	Xn2075SF	1262	24326	4	points	
Proptr Emul 9 PT Expanded Small	RM	T1000437	Cn2057S0	Xn2057SF	1262	24325	4	points	
Proptr Emul 9 PT Expanded Small (Bold)	RB	T1000437	Cn2077S0	Xn2077SF	1262	24327	4	points	
<b>Roman</b>									
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points		
Roman	RM	T1D0BASE	CnD0RT10	XnRT10	2023	41	10 10	pitch points	
<b>Script</b>									
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points		
Script	RM	T1D0BASE	CnS0SR12	XnSR12	2025	84	12 9	pitch points	
<b>Serif</b>									
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Pitch or Points		
Serif (Bold)	RB	T1D0BASE	CnD0SB12	XnSB12	2023	72	12 9	pitch points	
Serif (Italic)	IM	T1D0BASE	CnD0SI10	XnSI10	2023	43	10	pitch	
	IM	T1D0BASE	CnD0SI12	XnSI12			71	12 9	points points
Serif (Overstruck)	RM	T1D0BASE	CnD0SO12	XnSO12	2023	332	12 9	pitch points	
Serif	RM	T1D0BASE	CnD0ST10	XnST10	2023	42	10	pitch	
	RM	T1D0BASE	CnD0ST12	XnST12			70	12	points
	RM	T1D0BASE	CnD0ST15	XnST15			229	15 8	points points

<i>Table 4 (Page 7 of 7). IBM Compatibility Fonts</i>								
<b>Symbols</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
Symbols	RM	T1S0S198	CnS0S198	XnS198	2024	30	10 10	pitch points
Symbols	RM	T1S0S193	CnS0S193	XnS193	2030	80	12 9	pitch points
Symbols OS6	RM	T1S0S192	CnS0S192	XnS192	2026	80	12 9	pitch points
Symbols7	RM	T1000259	CnS0SYM0	XnSYM0	340	49975	10	points
	RM	T1000259	CnS0SYM2	XnSYM2		49975	12	points
<b>Text</b>								
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>	
Text	RM	T1L038TE	CnL00T11	XnT11	2033	333	10 10	pitch points
Text (Underscored)	RM	T1L038TE	CnL0TU10	XnTU10	2033	334	10 10	pitch points

## IBM 4028 Font Metrics

IBM 4028 Font Metrics include uniformly spaced, mixed-pitch, and typographic type families and are provided only in the 300-pel font metrics.

These font metrics allow you to format text on the host and print the formatted text on the IBM LaserPrinter 4028 and other laser printers. Font metrics contain all the information needed for formatting text, but they do not contain the characters themselves; therefore, the IBM 4028 Font Metrics cannot be downloaded for printing.

Table 5 shows the point size relationship to the pitch size values shown in Table 6.

<i>Table 5. Point and Pitch Identifiers</i>					
<b>Uniformly Spaced Fonts</b>					
<b>p</b>	<b>Point Size</b>		<b>Pitch Size</b>		
0	12	points	10	pitch	
5	9	points	15	pitch	
6	18	points	6.5	pitch	
7	8.5	points	17.1	pitch	
E	10	points	12	pitch	
F	7.5	points	20	pitch	
G	6	points	25	pitch	
H	16	points	8.1	pitch	
J	12	points	7.9	pitch	

## Uniformly Spaced and Mixed-Pitch Fonts

The following table lists the IBM 4028 Font Metrics typefaces, primary code pages, coded font identifier, and available sizes.

<i>Table 6 (Page 1 of 6). IBM 4028 Uniformly Spaced and Mixed-Pitch (MP) Fonts</i>						
<b>APL</b>						
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>FGID</b>	<b>Size in Pitch</b>
Roman	RM	T1000293	C0E0AP12	X0E0APES	76	12
	RB	T1000293	C0E0AP12	X0E0APES	76	12
	IM	T1000293	C0E0AP12	X0E0APES	76	12
<b>APL Graphic Escape</b>						
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>FGID</b>	<b>Size in Pitch</b>
Roman	RM	T1000310	C0E0AP12	X0E0APET	76	12
	RB	T1000310	C0E0AP12	X0E0APET	76	12
	IM	T1000310	C0E0AP12	X0E0APET	76	12
<b>Arabic</b>						
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>FGID</b>	<b>Size in Pitch</b>
Boldface Nasseem	RB	T1000420	C0E0BNTR	X0E0BNRJ	753	MP

<i>Table 6 (Page 2 of 6). IBM 4028 Uniformly Spaced and Mixed-Pitch (MP) Fonts</i>						
Courier Nasseem	RM	T1000420	C0E0NR15	X0E0NR5J	213	15
			C0E0NR17	X0E0NR7J	279	17.1
	RB	T1000420	C0E0NR12	X0E0NREJ	103	12
			C0E0NB08	X0E0NBJJ	266	7.9
IM	T1000420	C0E0NI12	X0E0NIEJ	104	12	
		IB	T1000420	C0E0NM08	X0E0NMJJ	267
Courier Nasseem 10	RM	T1000420	C0E0NR10	X0E0NR0J	61	10
	RB	T1000420	C0E0NB10	X0E0NB0J	63	10
	IM	T1000420	C0E0NI10	X0E0NI0J	62	10
	IB	T1000420	C0E0NM10	X0E0NM0J	64	10
Gothic Nasseem	RM	T1000420	C0E0GN20	X0E0GNFJ	283	20
<b>Cyrillic</b>						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch
Boldface Cyrillic	SB	T1000880	C0E0BRRQ	X0E0BRRQ	159	MP
Courier Cyrillic	RM	T1000880	C0E0CR0Q	X0E0CR0Q	11	10
			C0E0CREQ	X0E0CREQ	85	10
Cyrillic 22	RL	T1000880	C0E0CY10	X0E0CY0Q	10	10
Letter Gothic Cyrillic	RM	T1000880	C0E0LREQ	X0E0LREQ	87	12
Prestige Elite	RM	T1000880	C0E0PREQ	X0E0PREQ	86	12
<b>Greek</b>						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch
Boldface Greek	ISB	T1000875	C0E0BIRN	X0E0BIRN	155	MP
	SB		C0E0BRRN	X0E0BRRN	159	MP
Boldface Greek 183	ISB	T1000423	C0E0BIRK	X0E0BIRK	155	MP
	SB		C0E0BRRK	X0E0BRRK	159	MP
Courier Greek	RM	T1000875	X0E0CR0N	X0E0CR0N	11	10
			X0E0CR5N	X0E0CR5N	223	10
Courier Greek 183	RM	T1000423	X0E0CR0K	X0E0CR0K	11	10
			X0E0CR5K	X0E0CR5K	223	10
Letter Gothic Greek	RM	T1000875	C0E0LREN	X0E0LREN	87	12
	RB		C0E0LBEN	X0E0LBEN	110	12
Letter Gothic Greek 183	RM	T1000423	C0E0LREK	X0E0LREK	87	12
	RB		C0E0LBEK	X0E0LBEK	110	12
<b>Hebrew</b>						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch
Boldface Barak	RB	T1000424	C0E0BKTR	X0E0BKRL	167	MP
	RB	T1000803	C0E0BKTR	X0E0BKRM	167	MP
Courier Shalom	RM	T1000424	C0E0HR10	X0E0HR0L	49	10
			C0E0HR12	X0E0HREL	98	12
			C0E0HR15	X0E0HR5L	226	15
			T1000803	C0E0HR10	X0E0HR0M	49
	C0E0HR12	X0E0HREM		98	12	
	C0E0HR15	X0E0HR5M		226	15	
	RB	T1000424		C0E0HB10	X0E0HB0L	50
		T1000803	C0E0HB10	X0E0HB0M	50	10
Letter Gothic Aviv	RM	T1000424	C0E0LV20	X0E0LVFL	282	20
		T1000803	C0E0LV20	X0E0LVFM	282	20

<i>Table 6 (Page 3 of 6). IBM 4028 Uniformly Spaced and Mixed-Pitch (MP) Fonts</i>							
<b>Katakana</b>							
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>FGID</b>	<b>Size in Pitch</b>	
Katakana	RM	T1V10290	C0E0KA17	X0E0KA7P	249	17.1	
Katakana 10	RM	T1V10290	C0E0KA10	X0E0KA0P	21	10	
Katakana 12	RM	T1V10290	C0E0KA12	X0E0KAEP	78	12	
<b>Latin1 Country Extended and Document Composition Facility</b>							
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>FGID</b>	<b>Size in Pitch</b>	
Adjutant	RM	T1V10500	C0E0AJ12	X0E0AJE9	95	12	
	RM	T1001002	C0E0AJ12	X0E0AJEE	95	12	
Boldface	ISB	T1V10500	C0E0BITR	X0E0BIR9	155	MP	
	ISB	T1001002	C0E0BITR	X0E0BIRE	155	MP	
	SB	T1V10500	C0E0BRTR	X0E0BRR9	159	MP	
	SB	T1001002	C0E0BRTR	X0E0BREE	159	12	
Courier	RM	T1V10500	C0E0CR10	X0E0CR09	11	10	
			C0E0CR12	X0E0CRE9	85	12	
			C0E0CR15	X0E0CR59	223	15	
			C0E0CR17	X0E0CR79	257	17.1	
			T1001002	C0E0CR10	X0E0CR0E	11	10
				C0E0CR12	X0E0CREE	85	12
				C0E0CR15	X0E0CR5E	223	15
	C0E0CR17	X0E0CR7E		254	17.1		
	RB	T1V10500	C0E0CB10	X0E0CB09	46	10	
			C0E0CB10	X0E0CB0E	46	10	
	IM	T1V10500	C0E0CI10	X0E0CI09	18	10	
			C0E0CI12	X0E0CIE9	92	12	
			T1001002	C0E0CI10	X0E0CI0E	18	10
				C0E0CI12	X0E0CIEE	92	12
Delegate	RM	T1V10500	C0E0DE10	X0E0DE09	2	10	
		T1001002	C0E0DE10	X0E0DE0E	2	10	
Essay	RM	T1V10500	C0E0ESTR	X0E0ESR9	160	MP	
		T1001002	C0E0ESTR	X0E0ESRE	160	MP	
	IM	T1V10500	C0E0EITR	X0E0EIR9	162	MP	
		T1001002	C0E0EITR	X0E0EIRE	162	MP	
Foundry	RM	T1V10500	X0E0FRTR	X0E0FRR9	190	MP	
			T1001002	X0E0FRTR	X0E0FRRE	190	MP
	RB	T1V10500	X0E0FBTR	X0E0FBR9	191	MP	
			T1001002	X0E0FBTR	X0E0FBRE	191	MP
	IM	T1V10500	X0E0FITR	X0E0FIR9	194	MP	
			T1001002	X0E0FITR	X0E0FIRE	194	MP
	IB	T1V10500	X0E0FMTR	X0E0FMR9	195	MP	
			T1001002	X0E0FMTR	X0E0FMRE	195	MP

<i>Table 6 (Page 4 of 6). IBM 4028 Uniformly Spaced and Mixed-Pitch (MP) Fonts</i>							
Letter Gothic	RM	T1V10500	C0E0LR10	X0E0LR09	36	10	
			C0E0LR12	X0E0LRE9	87	12	
			C0E0LR15	X0E0LR59	222	15	
			C0E0LR17	X0E0LR79	255	17.1	
			C0E0LR20	X0E0LRF9	281	20	
			C0E0LR25	X0E0LRG9	285	25	
			T1001002	C0E0LR10	X0E0LR0E	36	10
	RB	T1V10500	C0E0LR12	X0E0LREE	87	12	
			C0E0LR15	X0E0LR5E	222	15	
			C0E0LR17	X0E0LR7E	255	17.1	
			C0E0LR20	X0E0LRFE	281	20	
			C0E0LB12	X0E0LBE9	110	12	
			T1001002	C0E0LB12	X0E0LBEE	110	12
			IM	T1V10500	C0E0LI12	X0E0LIE9	109
T1001002	C0E0LI12	X0E0LIEE		109	12		
Light Italic	RSL	T1V10500	C0E0LT12	X0E0LTE9	91	12	
		T1001002	C0E0LT12	X0E0LTEE	91	12	
Modern	RM	T1V10500	C0E0MRTR	X0E0MRR9	158	MP	
		T1001002	C0E0MRTR	X0E0MRRE	158	MP	
Orator	RM	T1V10500	C0E0OR10	X0E0OR09	5	10	
		T1001002	C0E0OR10	X0E0OR0E	5	10	
	RB	T1V10500	C0E0OB06	X0E0OB69	435	6.5	
			C0E0OB08	X0E0OBH9	434	8.1	
Presentor	RM	T1V10500	C0E0PS10	X0E0PS09	25	10	
		T1001002	C0E0PS10	X0E0PS0E	25	10	
Press Roman	RM	T1V10500	C0E0RRTR	X0E0RRR9	186	MP	
		T1001002	C0E0RRTR	X0E0RRRE	186	MP	
	RB	T1V10500	C0E0RBTR	X0E0RBR9	187	MP	
		T1001002	C0E0RBTR	X0E0RBRE	187	MP	
	IM	T1V10500	C0E0RITR	X0E0RIR9	188	MP	
		T1001002	C0E0RITR	X0E0RIRE	188	MP	
	IB	T1V10500	C0E0RMTR	X0E0RMR9	189	MP	
		T1001002	C0E0RMTR	X0E0RMRE	189	MP	
Prestige	RM	T1V10500	C0E0PR15	X0E0PR59	221	15	
			C0E0PR17	X0E0PR79	256	17.1	
			C0E0PRTR	X0E0PRR9	164	MP	
			T1001002	C0E0PR15	X0E0PR5E	221	15
			C0E0PR17	X0E0PR7E	256	17.1	
			C0E0PRTR	X0E0PRRE	164	MP	
			Prestige Elite	RM	T1V10500	C0E0PR12	X0E0PRE9
T1001002	C0E0PR12	X0E0PREE				86	12
RB	T1V10500	C0E0PB12		X0E0PBE9	111	12	
		T1001002		C0E0PB12	X0E0PBEE	111	12
IM	T1V10500	C0E0PI12		X0E0PIE9	112	12	
		T1001002		C0E0PI12	X0E0PIEE	112	12
Prestige Pica	RM	T1V10500	C0E0PR10	X0E0PR09	12	10	
		T1001002	C0E0PR10	X0E0PR0E	12	10	
Script	RM	T1V10500	C0E0SR12	X0E0SRE9	84	12	
		T1001002	C0E0SR12	X0E0SREE	84	12	
Title	RB	T1V10500	C0E0TBTR	X0E0TBR9	157	MP	
		T1001002	C0E0TBTR	X0E0TBRE	157	MP	
<b>Latin2</b>							
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch	
Courier Latin2	RM	T1000870	C0E0CR0F	X0E0CR0F	11	10	
			C0E0CREP	X0E0CREP	85	12	
			C0E0CR7F	X0E0CR7F	254	17.1	

# IBM 4820 Font Metrics

<i>Table 6 (Page 5 of 6). IBM 4028 Uniformly Spaced and Mixed-Pitch (MP) Fonts</i>						
Letter Gothic Latin2	RM	T1000870	C0E0LREF	X0E0LREF	87	12
Prestige Elite Latin2	RM	T1000870	C0E0PREF	X0E0PREF	86	12
Title Latin2	RB	T1000870	C0E0TBRF	X0E0TBRF	157	MP
Latin3						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch
Boldface Latin3	SB	T1000905	C0E0BRRG	X0E0BRRG	159	MP
Courier Latin3	RM	T1000905	C0E0CR0G	X0E0CR0G	11	10
			C0E0CREG	X0E0CREG	85	12
			C0E0CR5G	X0E0CR5G	223	15
			C0E0CR7G	X0E0CR7G	254	17.1
Letter Gothic Latin3	RM	T1000905	C0E0LREG	X0E0LREG	87	12
Prestige Elite Latin3	RM	T1000905	C0E0PREG	X0E0PREG	86	12
Prestige Pica Latin3	RM	T1000905	C0E0PR0G	X0E0PR0G	12	10
Latin5						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch
Boldface Latin5	SB	T1001026	C0E0BRRH	X0E0BRRH	159	MP
Courier Latin5	RM	T1001026	C0E0CR0H	X0E0CR0H	11	10
			C0E0CREH	X0E0CREH	85	12
			C0E0CR5H	X0E0CR5H	223	15
			C0E0CR7H	X0E0CR7H	254	17.1
Letter Gothic Latin5	RM	T1001026	C0E0LREH	X0E0LREH	87	12
Prestige Elite Latin5	RM	T1001026	C0E0PREH	X0E0PREH	86	12
Prestige Pica Latin5	RM	T1001026	C0E0PR0H	X0E0PR0H	12	10
Optical Character Recognition (OCR)						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch
OCR A	RM	T1000892	C0E0OCRA	X0E0OCRA	19	MP
OCR B	RM	T1000893	C0E0OCRB	X0E0OCRB	3	MP
Symbols						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Pitch
Adjutant Symbol	RM	T1000259	C0E0AJER	X0E0AJER	95	12
Boldface Symbol	IB	T1000259	C0E0BIRR	X0E0BIRR	155	MP
	RB		C0E0BRRR	X0E0BRRR	159	MP
Courier Symbol	RM	T1000259	C0E0CR0R	X0E0CR0R	11	10
			C0E0CRER	X0E0CRER	85	12
			C0E0CR5R	X0E0CR5R	223	15
			C0E0CR7R	X0E0CR7R	254	17.1
	RB	C0E0CB0R	X0E0CB0R	46	10	
		C0E0CBER	X0E0CBER	108	12	
	IM	C0E0CI0R	X0E0CI0R	18	10	
		C0E0CIER	X0E0CIER	92	12	
Cyrillic 22 Symbol	RM	T1000259	C0E0CY0R	X0E0CY0R	10	10
Delegate Symbol	RM	T1000259	C0E0DE0R	X0E0DE0R	2	10

<i>Table 6 (Page 6 of 6). IBM 4028 Uniformly Spaced and Mixed-Pitch (MP) Fonts</i>						
Essay Symbol	RM	T1000259	C0E0ESRR	X0E0ESRR	160	MP
	IM		C0E0EIRR	X0E0EIRR	162	MP
Foundry Symbol	RM	T1000259	C0E0FRRR	X0E0FRRR	190	MP
	RB		C0E0FBRR	X0E0FBRR	191	MP
	IM		C0E0FIRR	X0E0FIRR	194	MP
	IB		C0E0FMRR	X0E0FMRR	195	MP
Letter Gothic Symbol	RM	T1000259	C0E0LR0R	X0E0LRSR	87	10
			C0E0LRER	X0E0LRER	87	12
			C0E0LR5R	X0E0LR5R	222	15
			C0E0LR7R	X0E0LR7R	255	17.1
	RB	C0E0LB0R	X0E0LBSR	110	10	
	IM	C0E0LI0R	X0E0LISR	109	10	
Light Italic Symbol	IL	T1000259	C0E0LTER	X0E0LTER	91	12
Modern Symbol	RM	T1000259	C0E0MRRR	X0E0MRRR	158	MP
Press Roman Symbol	RM	T1000259	C0E0RRRR	X0E0RRRR	186	MP
	RB		C0E0RBRR	X0E0RBRR	187	MP
	IM		C0E0RIRR	X0E0RIRR	188	MP
	IB		C0E0RMRR	X0E0RMRR	189	MP
Prestige Elite Symbol	RM	T1000259	C0E0PRER	X0E0PRER	86	12
	RB		C0E0PBER	X0E0PBER	111	12
	IM		C0E0PIER	X0E0PIER	112	12
Prestige Pica Symbol	RM	T1000259	C0E0PR0R	X0E0PR0R	12	10
Prestige Symbol	RM	T1000259	C0E0PR5R	X0E0PR5R	221	15
			C0E0PR7R	X0E0PR7R	256	17.1
			C0E0PRRR	X0E0PRRR	164	MP
Title Symbol	RB	T1000259	C0E0TBRR	X0E0TBRR	157	MP

## Typographic Fonts

Table 7 shows the values to be used in Table 8. Substitute the point size identifier (listed under the column headed **p**) shown in Table 7 for the lowercase p shown in the **Character Set Identifier** and the **Coded Font Identifier** in Table 8.

Typographic Fonts			
p	Point Size	p	Point Size
6	6 points	D	14 points
7	7 points	F	16 points
8	8 points	H	18 points
9	9 points	J	20 points
0	10 points	N	24 points
A	11 points	T	30 points
B	12 points	Z	36 points

The following table lists the IBM 4028 Font Metrics typefaces, primary code pages, character set identifier, coded font identifier, and available sizes.

Arabic						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Points
Baskerville Nasseem	RM	T1000420	C0E20NB0	X0E26NB1	752	12
	RB		C0E40Np0	X0E46Np1	753	12 18 24
	IM		C0E30NB0	X0E36NB1	756	12
	IB		C0E50Np0	X0E56Np1	757	12 18 24
Hebrew						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Points
Times Roman Narkissim	RM	T1000424	C0E20Kp0	X0E26Kp3	12855	8 10 12
		T1000803	C0E20Kp0	X0E26Kp4	12855	8 10 12
	RB	T1000424	C0E40Kp0	X0E46Kp3	12875	8 10 12 18 24
		T1000803	C0E40Kp0	X0E46Kp4	12875	8 10 12 18 24
Latin1 Country Extended						
AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	FGID	Size in Points
Baskerville	RM	T1V10500	C0E20Bp0	X0E21BpC	8503	6 8 10 12
	RB		C0E40Bp0	X0E41BpC	8523	10 14 18
	IM		C0E30B00	X0E31B0C	8361	10
	IB		C0E50B00	X0E51B0C	8651	10
Century Schoolbook	RM	T1V10500	C0E20Cp0	X0E21CpC	16951	6 8 10 12
	RB		C0E40Cp0	X0E41CpC	16971	10 14 18
	IM		C0E30C00	X0E31C0C	17079	10
	IB		C0E50C00	X0E51C0C	17099	10
Cursive	IM	T1V10500	C0E30SB0	X0E31SBC	41783	12
	IB		C0E50Sp0	X0E51SpC	41803	14 18
Engravers Old English	RM	T1V10500	C0E20Ep0	X0E21EpC	37431	12 14 18
Futura Book	RM	T1V10500	C0E20Fp0	X0E21FpC	33591	10 14 18
	IM		C0E20F00	X0E21F0C	33719	10

<i>Table 8 (Page 2 of 2). IBM 4028 Typographic Fonts</i>						
Futura Heavy	RB	T1V10500	C0E40Fp0	X0E41FpC	33601	6 8 10 12
	IB		C0E50F00	X0E51F0C	33729	10
Goudy Old Style	RM	T1V10500	C0E20Gp0	X0E21GpC	4919	6 8 10 12
	RB		C0E40Gp0	X0E41GpC	4939	10 14 18
	IM		C0E30G00	X0E31G0C	5047	10
	IB		C0E50G00	X0E51G0C	5067	10
Helvetica	RM	T1V10500	C0E20Hp0	X0E21HpC	34103	6 8 10 12
	RB		C0E40Hp0	X0E41HpC	34123	10 14 18
	IM		C0E30H00	X0E31H0C	34231	10
	IB		C0E50H00	X0E51H0C	34251	10
Optima	RM	T1V10500	C0E20Op0	X0E21OpC	33335	6 8 10 12
	RB		C0E40Op0	X0E41OpC	33355	10 14 18
	IM		C0E30O00	X0E31O0C	33463	10
	IB		C0E50O00	X0E51O0C	33483	10
Palatino	RM	T1V10500	C0E20Pp0	X0E21PpC	6199	6 8 10 12
	RB		C0E40Pp0	X0E41PpC	6219	10 14 18
	IM		C0E30P00	X0E31P0C	6327	10
	IB		C0E50P00	X0E51P0C	6347	10
Testimonial	RM	T1V10500	C0E20Mp0	X0E21MpC	5943	12 14 18
Times Roman	RM	T1V10500	C0E20Tp0	X0E21TpC	5687	6 8 10 12
	RB		C0E40Tp0	X0E41TpC	5707	10 12 14 18
	IM		C0E30Tp0	X0E31TpC	5815	10 12
	IB		C0E50Tp0	X0E51TpC	5835	10 12

## IBM CJK Fonts

This section describes the IBM Chinese, Japanese, and Korean (CJK) Fonts. IBM CJK fonts are provided in the following formats:

Product	Format	Operating System
RPQ 8A8080	AFP outline metric-only fonts	MVS, VSE, VM, OS/400, AIX, OS/2
IBM AFP Font Collection	CID-keyed outline fonts	OS/2

The IBM CJK metric-only fonts provided in RPQ 8A8080 allow you to activate the CJK fonts resident in printers with the DBCS font feature. Font metrics contain all the information needed for formatting text, but they do not contain the characters themselves; therefore, the IBM CJK metric-only fonts cannot be used without the printer-resident fonts for printing.

Type Transformer can create 240-pel raster fonts and AFP outline fonts from the CID-keyed outline fonts.

The following table lists the IBM CJK Font typefaces, primary code pages, character set identifiers, GCSGIDs, and FGIDs.

*No raster fonts are provided.* The table includes GCSGIDs for full-width raster fonts to help you create your own raster fonts. For half-width fonts, the GCSGIDs are the same for raster and outline formats.

ss in the name of a code page is the code page section number. It is blank when the code page is used with an outline font.

Table 9 (Page 1 of 2). IBM CJK Fonts

Japanese								
AFP Typeface Name	Double-Byte Code Page	Single-Byte Code Page	Character Set Identifier	CID-Keyed File Name	Full-Width Outline GCSGID	Full-Width Raster GCSGID	Half-Width GCSGID	FGID
Heisei Gothic	T10300ss	T1H01002	CZJHKG	IBJHKGW5	1067	1000	1132	53249
		T1H01041						
		T1H00290						
		T1H01027						
Heisei Mincho	T10300ss	T1H01002	CZJHMN	IBJHMNW3	1067	1000	1132	53248
		T1H01041						
		T1H00290						
		T1H01027						
Korean								
AFP Typeface Name	Double-Byte Code Page	Single-Byte Code Page	Character Set Identifier	CID-Keyed File Name	Full-Width Outline GCSGID	Full-Width Raster GCSGID	Half-Width GCSGID	FGID
Gothic	T10834ss	T1H00833	CZHKG2	IBHKG2W5	1091	1010	1173	53816
		T1H01088						
Myengjo	T10834ss	T1H00833	CZHKM2	IBHKM2W5	1091	1010	1173	53560
		T1H01088						

Table 9 (Page 2 of 2). IBM CJK Fonts

Simplified Chinese								
AFP Typeface Name	Double-Byte Code Page	Single-Byte Code Page	Character Set Identifier	CID-Keyed File Name	Full-Width Outline GCSGID	Full-Width Raster GCSGID	Half-Width GCSGID	FGID
Fang Song	T10837ss	T1H00836 T1H01115	CZSFSG	IBSFSGW4	1082	1020	1174 1240	54566
Hei	T10837ss	T1H00836 T1H01115	CZSHEI	IBSHEIW6	1082	1020	1174 1240	54565
Kai	T10837ss	T1H00836 T1H01115	CZSKAI	IBSKAIW5	1082	1020	1174 1240	54568
Song	T10837ss	T1H00836 T1H01115	CZSSNG	IBSSNGW5	1082	1020	1174 1240	54567
Traditional Chinese								
AFP Typeface Name	Double-Byte Code Page	Single-Byte Code Page	Character Set Identifier	CID-Keyed File Name	Full-Width Outline GCSGID	Full-Width Raster GCSGID	Half-Width GCSGID	FGID
Kai	T10835ss	T1H00037 T1H01043 T1H01114	CZTKAI	IBTKAIW5	2070	1030	1175 1189 1238	54568
Sung	T10835ss	T1H00037 T1H01043 T1H01114	CZTSNG	IBTSNGW3	2070	1030	1175 1189 1238	54563

## IBM Font Licensed Programs

Each IBM font licensed program is sold separately. Most font licensed programs are available only in 240-pel bounded-box format. Postal Bar Codes and some of the Sonoran fonts are also available in 300-pel format as an RPQ.

### Uniformly Spaced and Mixed-Pitch Fonts

In Table 10 the lowercase n in the second position of the **Character Set Identifier** and the **Coded Font Identifier** identifies the font format or orientation; see Figure 14 on page 21 for details.

<i>Table 10 (Page 1 of 2). IBM Font Licensed Programs (Uniformly Spaced and Mixed-Pitch)</i>							
<b>APL2</b>							
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>
APL 2 Base	RM	T1L00APL	CnL0APL	XnAPL	2010	45	10 pitch points
APL2	RM	T1L0AD10	CnL0AD10	XnAD10	2001	45	10 pitch points
APL2	RM	T1L0AD10	CnL0AD12	XnAD12	2002	76	12 pitch points
APL2 Gothic	RM	T1L0AG10	CnL0AG10	XnAG10	2010	45	10 pitch points
APL2 Gothic	RM	T1L0AG12	CnL0AG12	XnAG12	2003	76	12 pitch points
APL2	RM	T1L0AG15	CnL0AG15	XnAG15	2004	219	15 pitch points
APL2	RM	T1L0AP10	CnS0AP20	XnAP20	2007	280	20 pitch points
APL2 Text	RM	T1L0AT10	CnL0AT10	XnAT10	2008	45	10 pitch points
APL2 Text	RM	T1L0AT10	CnL0AT12	XnAT12	2009	76	12 pitch points
APL2 (Italic)	IM	T1L0AI10	CnL0AI10	XnAI10	2005	58	10 pitch points
APL2 (Italic)	IM	T1L0AI10	CnS0AI12	XnAI12	2006	105	12 pitch points
APL2 Base10 (Italic)	IM	T1S0AP10	CnS0AP10	XnAP10	2007	58	10 pitch points
APL2 Base13 (Italic)	IM	T1S0AP10	CnS0AP13	XnAP13	2007	206	13.3 pitch points
<b>Bar Code</b>							
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>
Bar Code	RM	T1001300	CnBAR050	XnBC05	1451	53047	36 points
	RM	T1001300	CnBAR100	XnBC10	1451	53047	72 points

<i>Table 10 (Page 2 of 2). IBM Font Licensed Programs (Uniformly Spaced and Mixed-Pitch)</i>							
<b>Data1</b>							
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>
Data1	RM	T1D0BASE	CnS0D224	XnD224	2013	203 203	13.3 pitch 8 points
	RM	T1D0BASE	CnS0D225	XnD225	2014	201	13.3 pitch 8 points
	RM	T1D0BASE	CnS0D226	XnD226	2014	202	13.3 pitch 8 points
	RM	T1D0BASE	CnS0D227	XnD227	2014		13.3 pitch 8 points
<b>Optical Character Recognition (OCR)</b>							
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>
OCR A	RM	T1000892	Cn0OCRA10	XnOCRA10	2017	19	10 pitch 10 points
OCR B	RM	T1000893	Cn0OCRB10	XnOCRB10	2018	3	10 pitch 12 points
<b>Postal Bar Code</b>							
<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Pitch or Points</b>
Postal Bar Code	RM	T1001301	CnBPOSBO	XnBPB0 XnBPOSB0	1261	323	12 points
Postal Bar Code (Semi-condensed)	RM	T1001301	CnBPOSBN	XnBPBN	1261	323	12 points
Postal FIM	RM	T1001302	C0BPOS91	XnBP91 XnBPOS91	1261	323	45 points
Postal Reply	RM	T1001303	C0BPOSA0	XnBPA0	1261	323	11 points

## Typographic Fonts

Table 11 shows the values to be used in Table 12. Substitute the point size identifier (listed under the column headed **p**) shown in Table 11 for the lowercase **p** shown in the seventh position of the **Character Set Identifier** and the **Coded Font Identifier** in Table 12.

<b>p</b>	<b>Point Size</b>	<b>p</b>	<b>Point Size</b>
4	4 or 40 points	K	21 points
6	6 points	L	22 points
7	7 points	M	23 points
8	8 or 44 points	N	24 or 60 points
9	9 points	O	25 points
0	10 points	P	26 points
A	11 points	Q	27 points
B	12 or 48 points	R	28 points
C	13 points	S	29 points
D	14 points	T	30 points
E	15 points	U	31 points
F	16 points	V	32 points
G	17 points	W	33 points
H	18 or 54 points	X	34 points
I	19 points	Y	35 points
J	20 points	Z	36 or 72 points

In Table 12 the lowercase **n** in the second position of the **Character Set Identifier** and the **Coded Font Identifier** identifies the font format or orientation; see Figure 14 on page 21 for details.

<b>AFP Typeface Name</b>	<b>Style and Weight</b>	<b>Code Page</b>	<b>Character Set Identifier</b>	<b>Coded Font Identifier</b>	<b>GCSGID</b>	<b>FGID</b>	<b>Size in Points</b>
Century Schoolbook	RM	T1GI036I	CnC055p0	XnC055pl	2011	16951	6 7 8 9 10 11
	RB	T1GI036I	CnC075p0	XnC075pl		16971	12 14 16 18
	IM	T1GI036I	CnC155p0	XnC155pl		17079	20 24 30 36
	IB	T1GI036I	CnC175p0	XnC175pl		17099	
ITC Avant Garde Gothic	RM	T1GI036I	CnV055p0	XnV055pl	2011	33847	6 7 8 9 10 11
	RB	T1GI036I	CnV075p0	XnV075pl		33867	12 14 16 18
	IM	T1GI036I	CnV155p0	XnV155pl		33975	20 24 30 36
	IB	T1GI036I	CnV175p0	XnV175pl		33995	
ITC Souvenir	RM	T1GI036I	CnS055p0	XnS055pl	2011	28983	6 7 8 9 10 11
	RB	T1GI036I	CnS075p0	XnS075pl		29003	12 14 16 18
	IM	T1GI036I	CnS155p0	XnS155pl		29111	20 24 30 36
	IB	T1GI036I	CnS175p0	XnS175pl		29131	
Math Format	RM	T1M00830	CnMO55p0	XnMO55p0	2015	50231	6 7 8 9 10 11 12 14 16 18 20 22 24 28 30 32 36
Math Format (point size larger than 36)	RM	T1M00830	CnMO55p1	XnMO55p1	2015	50231	40 48 54 60 72
Math Symbols Sans Serif	RM	T1M00829	CnMQ55p0	XnMQ55p0	2016	49719	6 7 8 9 10 11
	RB	T1M00829	CnMQ75p0	XnMQ75p0		49739	12 14 16 18 24 36

*Table 12 (Page 2 of 2). IBM Font Licensed Programs Typographic Fonts*

AFP Typeface Name	Style and Weight	Code Page	Character Set Identifier	Coded Font Identifier	GCSGID	FGID	Size in Points
Math Symbols Serif	RM	T1M00829	CnMP55p0	XnMP55p0	2016	49463	6 7 8 9 10 11
	RB	T1M00829	CnMP75p0	XnMP75p0		49483	12 14 16 18 24 36
Monotype Garamond	RM	T1GI036I	CnG055p0	XnG055pl	2011	4663	6 7 8 9 10 11
	RB	T1GI036I	CnG075p0	XnG075pl		4683	12 14 16 18
	IM	T1GI036I	CnG155p0	XnG155pl		4791	20 24 30 36
	IB	T1GI036I	CnG175p0	XnG175pl		4811	
Pi Sans Serif	RM	T1GPI363	CnP055p0	XnP055pP	2020	49719	6 8 10 12 20
	RB	T1GPI363	CnP075p0	XnP075pP		49739	36
Pi Serif	RM	T1GPI363	CnQ055p0	XnQ055pP	2020	49463	6 8 10 12 20
	RB	T1GPI363	CnQ075p0	XnQ075pP		49483	36
Sonoran Display	RM	T1GE0200	CnJ055p0	XnJ055pE	2012	37431	6 8 10 12 20 36
Sonoran Petite	RM	T1GE0300	CnZ05640	XnZ0564E	2019	33080	4
Sonoran Sans Serif	RM	T1GI036I	CnA055p0	XnA055pl	2021	33079	6 7 8 9 10 11
	RB	T1GI036I	CnA075p0	XnA075pl		33099	12 14 16 18
	IM	T1GI036I	CnA155p0	XnA155pl		33207	20 24 30 36
	IB	T1GI036I	CnA175p0	XnA175pl		33227	
Sonoran Sans Serif (point size larger than 36)	RM	T1GI036I	CnA055p1	XnA055p4	2021	33079	48 60 72
	RB	T1GI036I	CnA075p1	XnA075p4		33099	
	IM	T1GI036I	CnA155p1	XnA155p4		33207	
	IB	T1GI036I	CnA175p1	XnA175p4		33227	
Sonoran Sans Serif (Condensed)	RM	T1GI036I	CnA053p0	XnA053pl	2021	33077	6 7 8 9 10 11
	RB	T1GI036I	CnA073p0	XnA073pl		33097	12 14 16 18
	IM	T1GI036I	CnA153p0	XnA153pl		33205	20 24 30 36
Sonoran Sans Serif (Expanded)	RM	T1GI036I	CnA057p0	XnA057pl	2021	33081	6 7 8 9 10 11
	RB	T1GI036I	CnA077p0	XnA077pl		33101	12 14 16 18 20 24 30 36
Sonoran Serif	RM	T1GI036I	CnT055p0	XnT055pl	2021	4407	6 7 8 9 10 11
	RB	T1GI036I	CnT075p0	XnT075pl		4427	12 14 16 18
	IM	T1GI036I	CnT155p0	XnT155pl		4535	20 24 30 36
	IB	T1GI036I	CnT175p0	XnT175pl		4555	
Sonoran Serif (point size larger than 36)	RM	T1GI036I	CnT055p1	XnT055p4	2021	4407	48 60 72
	RB	T1GI036I	CnT075p1	XnT075p4		4427	
	IM	T1GI036I	CnT155p1	XnT155p4		4535	
	IB	T1GI036I	CnT175p1	XnT175p4		4555	



## Code Pages

The following table lists, in code page ID sequence, all the code pages defined in this chapter with a reference to the page where additional information is located. ss in a double-byte code page name is the section number (blanks for code pages used with outline coded fonts).

Code Page ID	Located On	Description
T1000259	Page 73	Symbols, Set 7
T1000290	Page 67	Gothic Katakana, Katakana 10, Katakana 12
T1000293	Page 63	APL (USA)
T10300ss	Page 64	Japanese DBCS—Host
T1000310	Page 63	APL Graphic Escape
T1000361	Page 69	Publishing: International #5
T1000363	Page 73	Symbols, Set 8
T1000382	Page 69	Publishing: Austria, Germany, Switzerland
T1000383	Page 69	Publishing: Belgium
T1000384	Page 69	Publishing: Brazil
T1000385	Page 69	Publishing: Canada (French)
T1000386	Page 69	Publishing: Denmark, Norway
T1000387	Page 69	Publishing: Finland, Sweden
T1000388	Page 69	Publishing: France, Switzerland
T1000389	Page 69	Publishing: Italy, Switzerland
T1000390	Page 69	Publishing: Japan (Latin)
T1000391	Page 69	Publishing: Portugal
T1000392	Page 69	Publishing: Spain, Philippines
T1000393	Page 69	Publishing: Latin America (Spanish)
T1000394	Page 69	Publishing: United Kingdom, Australia, Hong Kong, Ireland, New Zealand
T1000395	Page 69	Publishing: United States, Canada (English)
T1000420	Page 63	Arabic Bilingual
T1000423	Page 65	Greece 183
T1000424	Page 67	Hebrew
T1000437	Page 70	Personal Computer: ASCII
T1000803	Page 67	Hebrew Character Set A
T1000813	Page 65	ISO/ANSI 8-Bit Greek
T1000819	Page 70	ISO/ANSI 8-Bit Latin1
T1000829	Page 73	Math Symbols
T10834ss	Page 64	Korean DBCS—Host
T10835ss	Page 64	Traditional Chinese DBCS—Host
T1000836	Page 71	People's Republic of China
T10837ss	Page 64	Simplified Chinese DBCS—Host
T1000838	Page 75	Thailand
T1000850	Page 70	Personal Computer: Multilingual
T1000851	Page 65	Personal Computer: Greece
T1000852	Page 71	Personal Computer: Latin2
T1000853	Page 71	Personal Computer: Latin3
T1000855	Page 65	Personal Computer: Cyrillic
T1000856	Page 67	Personal Computer: Hebrew
T1000857	Page 71	Personal Computer: Latin5
T1000860	Page 70	Personal Computer: Portugal
T1000861	Page 70	Personal Computer: Iceland
T1000862	Page 67	Personal Computer: Hebrew (ASCII)
T1000863	Page 70	Personal Computer: France, Canada (French)
T1000864	Page 63	Personal Computer: Arabic

## Code Pages

Code Page ID	Located On	Description
T1000865	Page 70	Personal Computer: Nordic—Denmark, Norway
T1000866	Page 65	Personal Computer: Cyrillic #2
T1000869	Page 65	Personal Computer: Greece
T1000870	Page 71	Personal Computer: Latin2 Multilingual
T1000874	Page 75	Personal Computer: Thailand
T1000875	Page 65	Greece
T1000876	Page 73	OCR-A ASCII
T1000877	Page 73	OCR-B ASCII
T1000880	Page 65	Cyrillic Multilingual
T1000892	Page 73	OCR-A
T1000893	Page 73	OCR-B
T1000897	Page 67	Katakana PC
T1000899	Page 73	ASCII Symbol Set 7
T1000903	Page 71	People's Republic of China (Latin)
T1000904	Page 71	Republic of China (Latin)
T1000905	Page 71	Latin3 Multilingual
T1000910	Page 63	APL ASCII
T1000912	Page 71	Latin2 ISO/ANSI 8-Bit
T1000913	Page 71	Latin3 ISO/ASCII
T1000914	Page 71	Latin4 ISO/ANSI
T1000915	Page 65	Cyrillic ISO/ANSI 8-Bit
T1000916	Page 67	Hebrew ISO/ANSI 8-Bit
T1000920	Page 71	Latin5 ISO/ANSI 8-Bit
T1001002	Page 66	DCF
T1001003	Page 66	United States Text Subset
T1001004	Page 66	Personal Computer: Desktop Publishing
T1001008	Page 63	Arabic ISO/ASCII 8-Bit
T1001025	Page 65	Cyrillic Multilingual
T1001026	Page 71	Latin5
T1001027	Page 67	Katakana
T1001028	Page 67	Hebrew Publishing
T1001029	Page 63	Arabic ISO/ASCII 8-Bit
T1001038	Page 73	ASCII Symbols Abode
T1001039	Page 66	GML List Symbols
T1001041	Page 67	Katakana PC
T1001042	Page 71	Simplified Chinese Extended
T1001043	Page 71	Traditional Chinese Extended
T1001046	Page 63	Arabic Extended ISO/ASCII 8-Bit
T1001068	Page 66	Text with numeric spacing
T1001069	Page 71	Latin4
T1001087	Page 73	Symbols Abode
T1001091	Page 73	Symbols, Set 7 Modified
T1001092	Page 73	ASCII Symbols, Set 7 Modified
T1001093	Page 73	IBM Logo
T1001110	Page 71	Latin2 Multilingual
T1001111	Page 71	Latin3 Multilingual
T1B00037	Page 68	BookMaster: United States, Canada
T1B00273	Page 68	BookMaster: Austria, Germany, Switzerland
T1B00274	Page 68	BookMaster: Belgium
T1B00275	Page 68	BookMaster: Brazil
T1B00277	Page 68	BookMaster: Denmark, Norway
T1B00278	Page 68	BookMaster: Finland, Sweden
T1B00280	Page 68	BookMaster: Italy, Switzerland
T1V00281	Page 68	BookMaster: Japan (Latin)

Code Page ID	Located On	Description
T1B00282	Page 68	BookMaster: Portugal
T1B00284	Page 68	BookMaster: Spain, Latin America
T1B00285	Page 68	BookMaster: United Kingdom
T1B00297	Page 68	BookMaster: France
T1B00382	Page 69	BookMaster: Austria, Germany, Switzerland
T1B00383	Page 69	BookMaster: Belgium
T1B00384	Page 69	BookMaster: Brazil
T1B00385	Page 69	BookMaster: Canada (French)
T1B00386	Page 69	BookMaster: Denmark, Norway
T1B00387	Page 69	BookMaster: Finland, Sweden
T1B00388	Page 69	BookMaster: France, Switzerland
T1B00389	Page 69	BookMaster: Italy, Switzerland
T1B00390	Page 69	BookMaster: Japan (Latin)
T1B00391	Page 69	BookMaster: Portugal
T1B00392	Page 69	BookMaster: Spain, Philippines
T1B00393	Page 69	BookMaster: Latin America (Spanish)
T1B00394	Page 69	BookMaster: United Kingdom, Australia, Hong Kong, Ireland, New Zealand
T1B00395	Page 69	BookMaster: United States, Canada (English)
T1B00500	Page 68	BookMaster: International #5
T1B00871	Page 68	BookMaster: Iceland
T1B00BGS	Page 73	BookMaster: Specials
T1DATABASE	Page 72	Migration: Austria, Germany
T1DDBASE	Page 72	Migration: Belgium, Luxemburg, Switzerland
T1DDBASE	Page 72	Migration: Denmark, Iceland, Norway
T1DEBASE	Page 72	Migration: Finland, Sweden
T1DFBASE	Page 72	Migration: France
T1DIBASE	Page 72	Migration: Italy
T1DNBASE	Page 72	Migration: Netherlands, Portugal
T1DSBASE	Page 72	Migration: Spain, Latin America
T1DUBASE	Page 72	Migration: United Kingdom
T1D0BASE	Page 72	Migration: DCF
T1D0GP12	Page 74	DCF Gothic Tri-Pitch
T1H00037	Page 64	Traditional Chinese EBCDIC
T1H00290	Page 64	Japanese (Katakana) Extended
T1H00833	Page 64	Korean EBCDIC
T1H00836	Page 64	Simplified Chinese EBCDIC
T1H01002	Page 64	Japanese DCF Release 2 Compatibility
T1H01027	Page 64	Japanese (Latin) Extended
T1H01041	Page 64	Japanese PC Extended
T1H01043	Page 64	Traditional Chinese PC
T1H01088	Page 64	Korean PC
T1H01114	Page 64	Traditional Chinese PC, IBM Big 5
T1H01115	Page 64	Simplified Chinese PB, IBM GB
T1L0DUMP	Page 74	LCS Dump Character Set
T1L0FOLD	Page 74	LCS Gothic Folded
T1L0OCR B	Page 73	LCS Gothic and OCR B
T1L0OCR1	Page 73	LCS OCR A
T1L0OCR2	Page 73	LCS Gothic and OCR A
T1L0OCR3	Page 73	LCS Gothic and OCR A
T1L0PCAN	Page 74	LCS Gothic
T1L0PCHN	Page 74	LCS Gothic
T1L00A11	Page 74	LCS Gothic
T1L00FMT	Page 66	LCS Format Characters
T1L00KN1	Page 67	LCS Gothic, Katakana (KN1)

## Code Pages

Code Page ID	Located On	Description
T1L00QNC	Page 74	LCS Gothic
T1L000GN	Page 74	LCS Gothic
T1L000RN	Page 74	LCS Gothic
T1L000SN	Page 74	LCS Text-1 and Text-2
T1L000XN	Page 74	LCS Gothic
T1L038BA	Page 74	LCS Gothic
T1L038TE	Page 74	LCS Text-1 and Text-2
T1L000YN	Page 74	LCS Gothic
T1L02773	Page 67	LCS Gothic, Katakana (2773)
T1L02774	Page 67	LCS Gothic, Katakana (2774)
T1S0AE10	Page 63	APL (AE10)
T1S0S192	Page 73	6670 Symbol Set
T1S0S193	Page 73	6670 Symbol Set
T1S0S198	Page 73	6670 Symbol Set
T1V10037	Page 68	Country Extended: United States, Canada
T1V10273	Page 68	Country Extended: Austria, Germany, Switzerland
T1V10274	Page 68	Country Extended: Belgium
T1V10275	Page 68	Country Extended: Brazil
T1V10277	Page 68	Country Extended: Denmark, Norway
T1V10278	Page 68	Country Extended: Finland, Sweden
T1V10280	Page 68	Country Extended: Italy, Switzerland
T1V10281	Page 68	Country Extended: Japan (Latin)
T1V10282	Page 68	Country Extended: Portugal
T1V10284	Page 68	Country Extended: Spain, Latin America
T1V10285	Page 68	Country Extended: United Kingdom
T1V10290	Page 67	Japan (Katakana)
T1V10297	Page 68	Country Extended: France
T1V10500	Page 68	Country Extended: International #5
T1V10871	Page 68	Country Extended: Iceland

The following figures list the IDs (CPGID stands for code page global ID), descriptions of available code pages, and identifies which font groups the code page (IBM Expanded Core Fonts, IBM Compatibility Fonts, IBM font licensed programs, or 4028 Font Metrics) is supported within. In the column headed **Supported In**, the following legend is used:

**ExpCore** IBM Expanded Core Fonts  
**Comp** IBM Compatibility Fonts  
**4028** IBM 4028 Font Metrics  
**Licp** IBM font licensed programs  
**ABC** All alphabetic script and symbol fonts (IBM Expanded Core Fonts, IBM Compatibility Fonts, IBM 4028 Font Metrics, and IBM font licensed Programs)  
**CJK** IBM CJK Fonts

For additional information about single-byte code pages, including Katakana code pages, refer to *IBM AFP Fonts: Technical Reference for Code Pages*.

For additional information about double-byte code pages, refer to *IBM AFP Fonts: Technical Reference for IBM Chinese, Japanese, and Korean Fonts*.

## APL Code Pages

CPGID	Code Page ID	Description	Additional Information	Supported In
293	T1000293	APL (USA)	N/A	ExpCore 4028
310	T1000310	APL Graphic Escape	N/A	ExpCore 4028
910	T1000910	APL ASCII	N/A	ExpCore
2108	T1S0AE10	APL (AE10)	N/A	Comp Licp 4028

## Arabic Code Pages

CPGID	Code Page ID	Description	Supported Languages	Supported In
420	T1000420	Arabic Bilingual	Arabic	ExpCore 4028
864	T1000864	Personal Computer: Arabic	Arabic	ExpCore
1008	T1001008	ISO/ASCII 8-Bit: Arabic	Arabic	ExpCore
1029	T1001029	ISO/ASCII 8-Bit: Arabic Extended	Arabic	ExpCore
1046	T1001046	ISO/ASCII 8-Bit: Arabic Extended	Arabic	ExpCore

## Chinese, Japanese, and Korean Code Pages

Table 15. Chinese, Japanese, and Korean Code Pages

CPGID	Code Page ID	Description	Supported Languages	Supported In
300	T10300ss	Japanese DBCS—Host	Japanese	CJK
834	T10834ss	Korean DBCS—Host	Korean	CJK
835	T10835ss	Traditional Chinese DBCS—Host	Traditional Chinese	CJK
837	T10837ss	Simplified Chinese DBCS—Host	Simplified Chinese	CJK
37	T1H00037	Traditional Chinese EBCDIC	Traditional Chinese	CJK
290	T1H00290	Japanese (Katakana) Extended	Japanese	CJK
833	T1H00833	Korean EBCDIC	Korean	CJK
836	T1H00836	Simplified Chinese EBCDIC	Simplified Chinese	CJK
1002	T1H01002	Japanese DCF Release 2 Compatibility	Japanese	CJK
1027	T1H01027	Japanese (Latin) Extended	Japanese	CJK
1041	T1H01041	Japanese PC Extended	Japanese	CJK
1043	T1H01043	Traditional Chinese PC	Traditional Chinese	CJK
1088	T1H01088	Korean PC	Korean	CJK
1114	T1H01114	Traditional Chinese PC, IBM Big 5	Traditional Chinese	CJK
1115	T1H01115	Simplified Chinese PB, IBM GB	Simplified Chinese	CJK

## Cyrillic Greek Code Pages

<i>Table 16. Cyrillic Greek Code Pages</i>				
CPGID	Code Page ID	Description	Supported Languages	Supported In
423	T1000423	Greece 183 (EBCDIC) T1000875 is the preferred EBCDIC code page for Greece.	Greek	ExpCore 4028
813	T1000813	ISO/ANSI 8-Bit: Greek T1000869 is the preferred ASCII code page for Greece.	Greek	ExpCore 4028
851	T1000851	Personal Computer: Greece T1000869 is the preferred ASCII code page for Greece.	Greek	ExpCore
855	T1000855	Personal Computer: Cyrillic	Bulgarian, Byelorussian, Macedonian, Russian, Serbian, and Ukrainian	ExpCore
866	T1000866	Personal Computer: Cyrillic #2 (Microsoft version)	Bulgarian, Byelorussian, Macedonian, Russian, Serbian, and Ukrainian	ExpCore
869	T1000869	Personal Computer: Greece This is the preferred ASCII code page for Greece.	Greek	ExpCore
875	T1000875	Greece This is the preferred EBCDIC code page for Greece.	Greek	ExpCore 4028
880	T1000880	Cyrillic Multilingual T1001025 is the preferred EBCDIC code page for Cyrillic.	Bulgarian, Byelorussian, Macedonian, Russian, Serbian, and Ukrainian	ExpCore 4028
915	T1000915	ISO/ANSI 8-Bit: Cyrillic	Bulgarian, Byelorussian, Macedonian, Russian, Serbian, and Ukrainian	ExpCore
1025	T1001025	Cyrillic Multilingual This is the preferred EBCDIC code page for Cyrillic.	Bulgarian, Byelorussian, Macedonian, Russian, Serbian, and Ukrainian	ExpCore

## Document Composition Facility and Desktop Publishing Code Pages

<i>Table 17. Document Composition Facility and Desktop Publishing Code Pages</i>				
CPGID	Code Page ID	Description	Additional Information	Supported In
1002	T1001002	DCF	(Subset of T1D0BASE)	ABC
1003	T1001003	United States Text Subset	(Same as T1DCDCFS)	ExpCore Comp Licp
1004	T1001004	Personal Computer: Desktop Publishing	N/A	ExpCore
1039	T1001039	GML List Symbols	N/A	ExpCore
1068	T1001068	Text with numeric spacing	(Same as T1D0BASE)	ExpCore Comp Licp
<b>Note:</b> ASCII code pages cannot be used with Document Composition Facility (DCF), program number 5748-XX9.				

## Format Code Pages

<i>Table 18. Format Code Pages</i>				
CPGID	Code Page ID	Description	Additional Information	Supported In
2094	T1L00FMT	LCS Format Characters (FM10, FM12, FM15)	N/A	Comp

## Hebrew Code Pages

CPGID	Code Page ID	Description	Supported Languages	Supported In
424	T1000424	Hebrew This is the preferred EBCDIC code page for Hebrew.	Hebrew	ExpCore 4028
803	T1000803	Hebrew Character Set A T1000424 is the preferred EBCDIC code page for Hebrew.	Hebrew	ExpCore 4028
856	T1000856	Personal Computer: Hebrew T1000862 is the preferred ASCII code page for Hebrew.	Hebrew	ExpCore
862	T1000862	Personal Computer: Hebrew This is the preferred ASCII code page for Hebrew.	Hebrew	ExpCore
916	T1000916	ISO/ASCII 8-Bit: Hebrew T1000862 is the preferred ASCII code page for Hebrew.	Hebrew	ExpCore 4028
1028	T1001028	Hebrew Publishing T1000424 is the preferred EBCDIC code page for Hebrew.	Hebrew	ExpCore

## Katakana Code Pages

CPGID	Code Page ID	Description	Supported Languages	Supported In
290	T1000290	Gothic, Katakana, Katakana 10, Katakana 12	Japanese (Katakana)	ExpCore Comp 4028
897	T1000897	Katakana PC	Japanese (Katakana)	ExpCore
1027	T1001027	Katakana	Japanese (Katakana)	ExpCore
1041	T1001041	Katakana PC	Japanese (Katakana)	ExpCore
2095	T1L00KN1	LCS Gothic, Katakana (KN1)	Japanese (Katakana)	Comp
2102	T1L02773	LCS Gothic, Katakana (2773)	Japanese (Katakana)	Comp 4028
2103	T1L02774	LCS Gothic, Katakana (2774)	Japanese (Katakana)	Comp 4028
290	T1V10290	Gothic Katakana	Japanese (Katakana)	ExpCore 4028

**Latin1 EBCDIC Country Extended and BookMaster Code Pages**

The **Code Page ID** in the following table starts with T1xx. Substitute a V1 for the xx for a Country Extended code page or a B0 for a BookMaster code page.

<i>Table 21. Latin1 EBCDIC Country Extended and BookMaster Code Pages (CECP)</i>				
<b>CPGID</b>	<b>Code Page ID</b>	<b>Description</b>	<b>Supported Languages</b>	<b>Supported In</b>
37	T1xx0037	United States, Canada  This is the preferred CECP for: Australia, Brazil, Canada, Portugal, the Netherlands, New Zealand, South Africa, and the United States.	US English, Canadian French, Brazilian Portuguese, Dutch, and Portuguese	ABC
273	T1xx0273	Austria, Germany, Switzerland  T1V10500 is the preferred CECP for Switzerland.	German and Swiss German	ABC
274	T1xx0274	Belgium  T1V10500 is the preferred CECP for Belgium.	Belgian French and Belgian Dutch (Flemish)	ABC
275	T1xx0275	Brazil  T1V10037 is the preferred CECP for Brazil.	Brazilian Portuguese	ABC
277	T1xx0277	Denmark, Norway	Danish and Norwegian	ABC
278	T1xx0278	Finland, Sweden	Finnish and Swedish	ABC
280	T1xx0280	Italy, Switzerland  T1V10500 is the preferred CECP for Switzerland.	Italian and Swiss Italian	ABC
281	T1xx0281	Japan (Latin)	Japanese (Latin)	ABC
282	T1xx0282	Portugal  T1V10037 is the preferred CECP for Portugal.	Portuguese	ABC
284	T1xx0284	Spain, Latin America	Spanish (Castillian) and Latin American Spanish	ABC
285	T1xx0285	United Kingdom	UK English	ABC
297	T1xx0297	France	French and Catalan	ABC
500	T1xx0500	International #5  This is the preferred CECP for: Belgium and Switzerland.	Belgian French, Belgian Dutch (Flemish), Swiss French, Swiss German, and Swiss Italian	ABC
871	T1xx0871	Iceland	Icelandic	ABC
<b>Note:</b> Not all available IBM Compatibility Fonts or licensed programs support the CECP code pages. For detailed information, refer to <i>IBM AFP Fonts: Technical Reference for Code Pages</i> .				

## Latin1 EBCDIC Publishing and BookMaster Code Pages

The **Code Page ID** in the following table starts with T1x. Substitute a 0 for the x for a Publishing code page or a B for a BookMaster code page.

CPGID	Code Page ID	Description	Supported Languages	Supported In
361	T1x00361	International #5 This is the preferred EBCDIC code page for: Belgium and Switzerland.	Belgian French, Belgian Dutch (Flemish), Swiss French, Swiss German, and Swiss Italian	ExpCore
382	T1x00382	Austria, Germany, Switzerland T1000361 is the preferred EBCDIC code page for Switzerland.	German and Swiss German	ExpCore
383	T1x00383	Belgium T1000361 is the preferred EBCDIC code page for Belgium.	Belgian French and Belgian Dutch (Flemish)	ExpCore
384	T1x00384	Brazil	Brazilian Portuguese	ExpCore
385	T1x00385	Canada (French)	Canadian French	ExpCore
386	T1x00386	Denmark, Norway	Danish and Norwegian	ExpCore
387	T1x00387	Finland, Sweden	Finnish and Swedish	ExpCore
388	T1x00388	France, Switzerland T1000361 is the preferred EBCDIC code page for Switzerland.	French, Catalan, and Swiss French	ExpCore
389	T1x00389	Italy, Switzerland T1000361 is the preferred EBCDIC code page for Switzerland.	Italian and Swiss Italian	ExpCore
390	T1x00390	Japan (Latin)	Japanese (Latin)	ExpCore
391	T1x00391	Portugal	Portuguese	ExpCore
392	T1x00392	Spain, Philippines	Spanish (Castillian)	ExpCore
393	T1x00393	Latin America (Spanish speaking)	Spanish	ExpCore
394	T1x00394	United Kingdom, Australia, Hong Kong, Ireland, New Zealand	UK English	ExpCore
395	T1x00395	United States, Canada (English)	US English	ExpCore

Latin1 ASCII Code Pages

*Table 23. Latin1 ASCII Code Pages*

CPGID	Code Page ID	Description	Supported Languages	Supported In
437	T1000437	Personal Computer Austria, Finland, Italy, Germany, Sweden, South Africa, United Kingdom, and the United States	US English, UK English, German, Finnish, Italian, Spanish, and Swedish	ExpCore Comp
819	T1000819	ISO/ANSI 8-Bit: Latin 1	Danish, Dutch, English, Faeroese, Finnish, French, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Spanish, and Swedish	ExpCore Comp Licp 4028
850	T1000850	Personal Computer: Multilingual  This is the preferred ASCII code page for: Belgium, Brazil, Spain, Canada, Iceland, Latin America (Spanish), the Netherlands, Norway, Denmark, Portugal, and Switzerland.	Belgian French, Belgian Dutch (Flemish), Dutch, Spanish, Norwegian, Portuguese, Brazilian Portuguese, Danish, Swiss French, Swiss German, Swiss Italian, Icelandic, and US English	ExpCore Comp 4028
860	T1000860	Personal Computer: Portugal  T1000850 is the preferred ASCII code page for Portugal.	Portuguese	ExpCore Comp
861	T1000861	Personal Computer: Iceland  T1000850 is the preferred ASCII code page for Iceland.	Icelandic	ExpCore Comp
863	T1000863	Personal Computer: France, Canada (French)  T1000850 is the preferred ASCII code page for Canada.	French and Canadian French	ExpCore Comp
865	T1000865	Personal Computer: Nordic—Denmark, Norway  T1000850 is the preferred ASCII code page for Denmark and Norway.	Danish and Norwegian	ExpCore Comp

## Latin2345 EBCDIC and ASCII Code Pages

<i>Table 24 (Page 1 of 2). Latin2345 Code Pages</i>				
<b>CPGID</b>	<b>Code Page ID</b>	<b>Description</b>	<b>Supported Languages</b>	<b>Supported In</b>
836	T1000836	People's Republic of China (PRC)	PRC (Latin)	For use with Latin Type 1 outlines only
852	T1000852	Personal Computer: Latin2	Croatian, Czech, Polish, German, Hungarian, Slovak, Romanian, and Slovenian	ExpCore
853	T1000853	Personal Computer: Latin3 T1000857 is the preferred ASCII code page for Turkish.	Esperanto, Maltese, and Turkish	ExpCore
857	T1000857	Personal Computer: Latin5 This is the preferred ASCII code page for Turkish.	Turkish	ExpCore
870	T1000870	Latin2 Multilingual (EBCDIC)	Croatian, Czech, Polish, German, Hungarian, Slovak, Romanian, and Slovenian	ExpCore 4028
903	T1000903	People's Republic of China (PC)	PRC (Latin)	For use with Latin Type 1 outlines only
904	T1000904	Republic of China (ROC) (PC)	ROC (Latin)	For use with Latin Type 1 outlines only
905	T1000905	Latin3 Multilingual (EBCDIC) T1001026 is the preferred EBCDIC code page for Turkish.	Esperanto, Maltese, and Turkish	ExpCore 4028
912	T1000912	ISO/ANSI 8-Bit: Latin2	Croatian, Czech, Polish, German, Hungarian, Slovak, Romanian, and Slovenian	ExpCore 4028
913	T1000913	Latin 3, ISO/ASCII	Esperanto, Maltese, and Turkish	ExpCore
914	T1000914	ISO/ANSI: Latin4	Estonian, Greenlandic, Lappish, Latvian, and Lithuanian	ExpCore
920	T1000920	ISO/ANSI 8-Bit: Latin5 T1000857 is the preferred ASCII code page for Turkish.	Turkish	ExpCore 4028
1026	T1001026	Latin5 (EBCDIC) This is the preferred EBCDIC code page for Turkish.	Turkish	ExpCore 4028
1042	T1001042	Simplified Chinese Extended (PC)	Chinese (Latin)	For use with Latin Type 1 outlines only
1043	T1001043	Traditional Chinese Extended (PC)	Chinese (Latin)	For use with Latin Type 1 outlines only
1069	T1001069	Latin4 (EBCDIC)	Estonian, Greenlandic, Lappish, Latvian, and Lithuanian	ExpCore
1110	T1001110	Latin2 Multilingual (EBCDIC)	Croatian, Czech, Polish, German, Hungarian, Slovak, Romanian, and Slovenian	ExpCore 4028

## Migration Code Pages

<i>Table 24 (Page 2 of 2). Latin2345 Code Pages</i>				
CPGID	Code Page ID	Description	Supported Languages	Supported In
1111	T1001111	Latin3, Multilingual (EBCDIC)	Esperanto, Maltese, and Turkish	ExpCore 4028

## Migration Code Pages

<i>Table 25. Migration Code Pages</i>				
CPGID	Code Page ID	Description	Supported Languages	Supported In
2055	T1DABASE	Austria, Germany	German	Comp Licp
2056	T1DBBASE	Belgium, Switzerland, Luxemburg	Belgian Dutch (Flemish), Swiss French, Swiss Italian, and Swiss German	Comp
2057	T1DDBASE	Denmark, Norway, Iceland	Danish, Norwegian, and Icelandic	Comp
2058	T1DEBASE	Finland, Sweden	Finnish and Swedish	Comp
2059	T1DFBASE	France	French	Comp Licp
2060	T1DIBASE	Italy	Italian	Comp Licp
2061	T1DNBASE	Netherlands, Portugal	UK English and Portuguese	Comp
2062	T1DSBASE	Spain, Latin America	Spanish (Castilian) and Latin American Spanish	Comp
2116	T1DUBASE	United Kingdom	UK English	Comp Licp
2063	T1D0BASE	DCF	N/A	Comp Licp

## OCR Code Pages

*Table 26. OCR Code Pages*

CPGID	Code Page ID	Description	Additional Information	Supported In
876	T1000876	OCR-A ASCII	OCR	ExpCore
877	T1000877	OCR-B ASCII	OCR	ExpCore
892	T1000892	OCR-A	OCR	ExpCore 4028
893	T1000893	OCR-B	OCR	ExpCore 4028
2087	T1L0OCR1	LCS OCR A (AOA, OAA)	Gothic and OCR	ExpCore Comp Licp 4028
2088	T1L0OCR2	LCS Gothic and OCR A (AON, ONA)	Gothic and OCR	Comp Licp 4028
2089	T1L0OCR3	LCS Gothic and OCR A (ODA)	Gothic and OCR	ExpCore Comp Licp
2086	T1L0OCRB	LCS Gothic and OCR B (BOA, BON, ONB, OAB)	Gothic and OCR	ExpCore Comp Licp 4028

## Symbols Code Pages

*Table 27. Symbols Code Pages*

CPGID	Code Page ID	Description	Supported Languages	Supported In
259	T1000259	Symbols, Set 7	N/A	ExpCore Comp 4028
363	T1000363	Symbols, Set 8	N/A	ExpCore
829	T1000829	Math Symbols	N/A	ExpCore
899	T1000899	ASCII: Symbols, Set 7	N/A	ExpCore
1038	T1001038	ASCII: Symbols, Adobe	N/A	ExpCore
1087	T1001087	Symbols, Adobe	N/A	ExpCore
1091	T1001091	Symbols, Set 7 Modified	N/A	ExpCore
1092	T1001092	ASCII: Symbols, Set 7 Modified	N/A	ExpCore
N/A	T1001093	IBM Logo	N/A	ExpCore
396	T1B00BGS	AFPMaster Specials	N/A	ExpCore
2091	T1S0S192	6670 Symbol Set (S192)	N/A	ExpCore Comp
2092	T1S0S193	6670 Symbol Set (S193)	N/A	ExpCore Comp
2093	T1S0S198	6670 Symbol Set (S198)	N/A	ExpCore Comp

## Text Code Pages

<i>Table 28. Text Code Pages</i>				
CPGID	Code Page ID	Description	Additional Information	Supported In
2085	T1D0GP12	DCF Gothic Tri-Pitch (GP12)	N/A	Comp Licp
2097	T1L000GN	LCS Gothic (GN, G11)	N/A	ExpCore Comp Licp 4028
2098	T1L000RN	LCS Gothic (RN)	N/A	ExpCore Comp Licp
2099	T1L000SN	LCS Text-1 and Text-2 (SN)	N/A	ExpCore Comp Licp
2100	T1L000XN	LCS Gothic (XN)	N/A	ExpCore Comp Licp 4028
2101	T1L000YN	LCS Gothic (YN)	N/A	ExpCore Comp Licp 4028
2087	T1L00A11	LCS Gothic (A11)	N/A	ExpCore Comp Licp 4028
2096	T1L00QNC	LCS Gothic (QNC, QN, PN, P11)	N/A	ExpCore Comp Licp 4028
2104	T1L038BA	LCS Gothic (GS10, GS12, GS15, GSC, GU10, GU12, GU15, GUC)	N/A	ExpCore Comp Licp
2105	T1L038TE	LCS Text-1 and Text-2 (T11, TN, TU10)	N/A	ExpCore Comp Licp
2083	T1L0DUMP	LCS Dump Character Set (DUMP)	N/A	Comp
2084	T1L0FOLD	LCS Gothic Folded (GF10, GF12, GF15, GFC)	N/A	ExpCore Comp Licp 4028
2089	T1L0PCAN	LCS Gothic (PCAN, AN)	N/A	ExpCore Comp Licp
2090	T1L0PCHN	LCS Gothic (PCHN, HN, H11)	N/A	ExpCore Comp Licp 4028

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## Thai Code Pages

<b>CPGID</b>	<b>Code Page ID</b>	<b>Description</b>	<b>Supported Languages</b>	<b>Supported In</b>
838	T1000838	Thailand	Thai	ExpCore
874	T1000874	Personal Computer: Thailand	Thai	ExpCore



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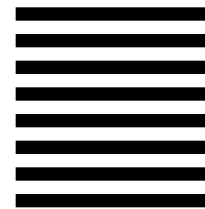
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