OpenType & InDesign J

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Adobe

Today's Agenda

- Review of OpenType Format
- Workflow: Today & Tomorrow
- Adobe-Japan 1-4
- InDesign J Demo
- Morisawa OpenType Plans
- Q&A

Adobe's Vision

To create an open publishing system for Japan that meets the demanding typographic and layout requirements of Japanese publishing, and offers graphic designers, production artists, and prepress professionals technology solutions to increase productivity and reduce costs

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What are the current problems with fonts?

- ## Unreliable workflow

  - *Multiple copies of fonts*
  - *Downloader, installer complexity*
  - *High-cost, different versions/formats*

- ## Poor cross-platform support

  - *Different encodings*
  - *sfnt CID vs. naked CID*

- ## Primitive typographic features

  - *Lack of pair kerning*
  - *Lack of proper metrics for vertical text*
  - *Small character set for publishing market*
  - *Poor Gaiji support*

The Digital Process Today
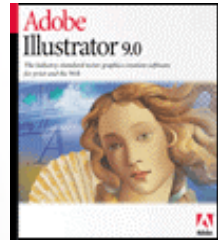
Designer
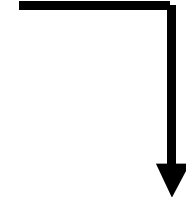
ATM Fonts

Service Bureau

Low-res Fonts

Hi-res Fonts

ATM Fonts

OpenType Advantages

- Host-based
- Dynamic downloading
- No resolution restriction
- PDF embedding and outline access
- Cross-platform font file: same file on Mac OS and Windows
- One file includes the outline, bitmap and metrics information
- Compact file format (CFF structure inside)
- Larger character set (up to 65,000 glyphs)
- Unicode encoding
- Improved support for vertical writing
- Co-exists with current formats (OCF, CID, TTF)

Why Host Fonts?

- **Increased workflow reliability**
  - *Same fonts use for authoring and printing*
- **Increased productivity; easier to use**
  - *Dynamic downloading vs. static downloading*
- **Reduced cost**
  - *No need for specific printer fonts*
- **Freer use of fonts**
  - *No resolution restrictions*
- **Supports increased use of PDF**

The Digital Process Tomorrow

Designer

Host Fonts

Service Bureau

Host Fonts
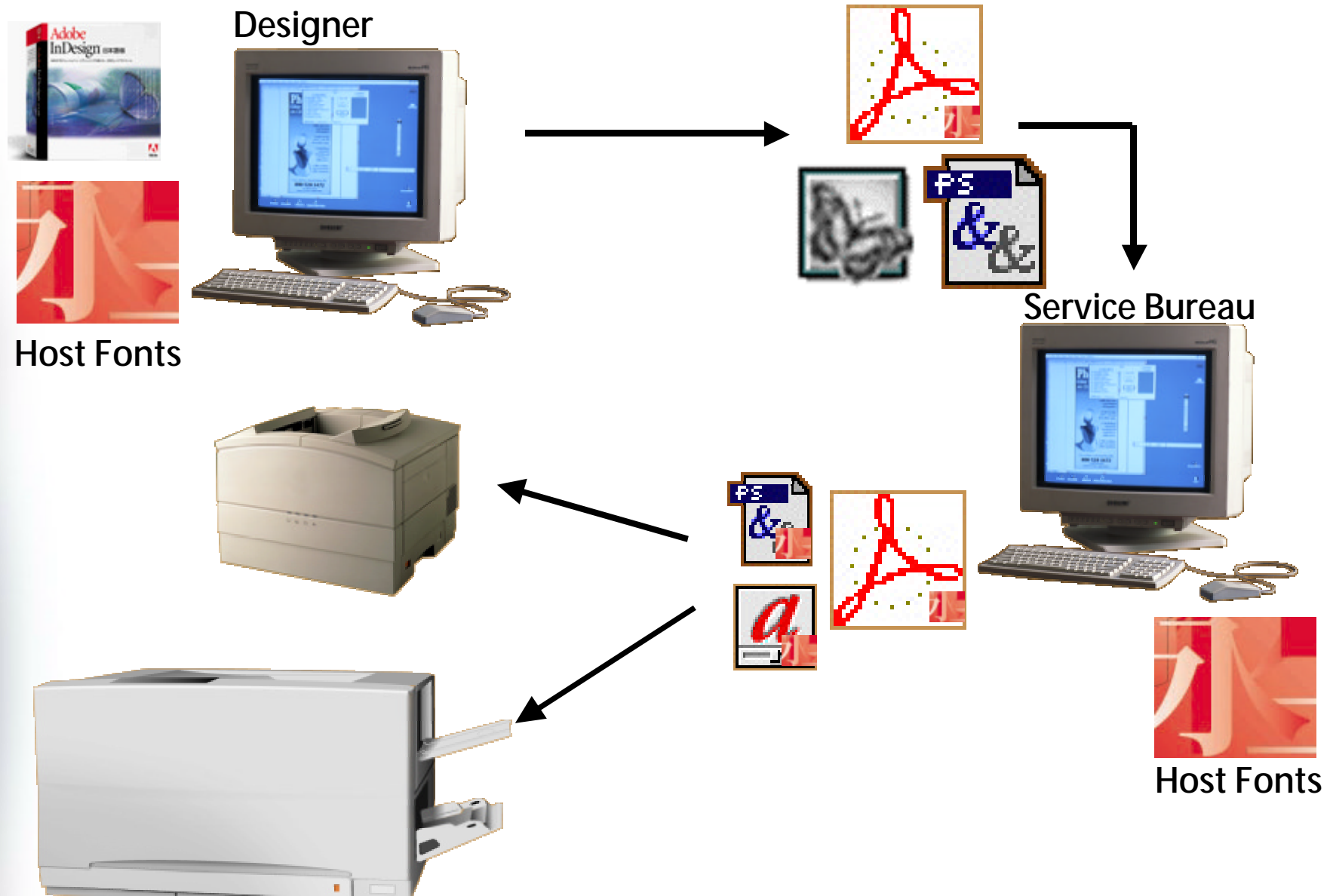
OpenType Implementation

- ## OpenType "Standard" Font

  - *Targeted at low, mid-end DTP customers*
  - *Serves general DTP application purposes*
  - *Comparable in glyph collection and feature capability with the existing sfnt-CID fonts on Mac (8,000 glyphs)*

- ## OpenType "Pro" Font

  - *Targeted at existing high-end DTP users and potential DTP customers from commercial printing and publishing segments*
  - *Serves advanced DTP needs*
  - *New product offering: larger glyph collection (Adobe-Japan 1-4) and more typographic features (15,000 glyphs)*

Adobe-Japan 1-4 Evolution

- **Adobe-Japan 1-0: 8284 CIDs (Character IDs)**
  - *Glyph repertoire found in OCF fonts*
  - *Proportional and half-width Latin*
  - *JIS X 0208-1983*
  - *KanjiTalk6 extensions*
  - *258 JIS78 (JIS C 6226-1978) kanji variants*
  - *42 Fujitsu-specific kanji variants*
- **Adobe-Japan 1-1: +75 CIDs**
  - *JIS X 0208-199 Kanji, and Apple KanjiTalk7 extensions*
- **Adobe-Japan 1-2: +361 CIDs**
  - *IBM Selected Kanji*
- **Adobe-Japan 1-3: +634 CIDs**
  - *Pre-rotated forms for all proportional- and half-width glyphs*
- **Adobe-Japan 1-4: +6090 CIDs**

Adobe-Japan 1-4 Defined

- Created to provide professional publishers with a glyph set that meets their needs

  - *Began in 1996 and involved extensive industry consultation: Morisawa, FontWorks, Apple Computer, Asahi Shimbun, Dainippon Screen, Motoya, TypeBank*

  - *Adobe studied existing glyph set, as well as vendor extensions, proprietary glyph sets, and common "Gaiji" sets*

  - *Not intended to be "Gaiji solution" but designed to meet publishers needs and minimize use of Gaiji characters.*

  - *There will still be a need for Gaiji glyphs*

- Not all glyphs are encoded, but accessed through other technologies, like OpenType feature tables

Adobe-Japan 1-4 Defined

- *Additional Kanji and kanji variants*
- *Latin, hiragina, katakana and kanji ligatures*
- *Additional symbols*
- *Alternate kana for horizontal writing and vertical writing*
- *Ruby glyphs*
- *Annotated forms (parentheses, circles, black circles, squares, black squares, rounded squares, and black rounded squares)—for numerals 00 through 100, upper and lower-case Latin alphabet, kana and some kanji*
- *Third- and quarter-width numerals and punctuation*
- *Pre-rotated forms for proportional, half-, third- and quarter-width glyphs*
- *Fractions*
- *Euro currency symbol*
- *"True" italics for proportional Latin characters*
- *Additional proportional Latin characters, such as macroned vowels for Japanese transliteration*

Adobe-Japan 1-4 Defined

- **Adobe-Japan1-4 kanji and kanji variants**
  - *All JIS X 0208:1997 kanji in Adobe-Japan1-2 will be JIS90 compliant—affects CIDs 1125–7477 and 8284–8285*
  - *Officially-sanctioned traditional kanji*
  - *Additional JIS78 (JIS C 6226-1978) kanji variants*
  - *JIS83 (JIS X 0208-1983) kanji variants—over 200*
  - *Other JIS X 0208:1997 kanji variants—over 750*
  - *IBM Selected Kanji variants—very few*
  - *JIS X 0212-1990 kanji—over 1,000*
  - *JIS X 0212-1990 kanji variants—very few*
  - *Unicode kanji—very few*
  - *K-JIS kanji—complete coverage*

Adobe-Japan 1-4 Defined

- Officially-sanctioned traditional kanji forms:

温器漢者

- JIS78 kanji variants:

冴捌蛛邉

- JIS83 kanji variants:

交使

- JIS X 0208:1997 kanji variants:

吉才沪艹艹艹邉邉邉邉邉邉

Adobe-Japan 1-4 Defined

• K-JIS kanji:

甭亳叢鮏袂訥

Adobe-Japan 1-4 Defined

- IBM Selected Kanji variants:

栞

- JIS X 0212-1990 kanji:

⼟ ⼁ ⺉ 卡 璽 忄 扌 氵 疒 辵 辶

- JIS X 0212-1990 kanji variants:

辶

- Unicode kanji:

俓 棘 畣

Adobe-Japan 1-4 Defined

- Fractions:

$$\frac{0}{3} \quad \frac{1}{3} \quad \frac{11}{12} \quad \frac{1}{100} \qquad \frac{0}{3} \quad \frac{1}{2} \quad \frac{11}{12} \quad \frac{1}{100}$$

- Annotated forms:

0 00 99 100 a z A Z

(い) ろ は に ほ へ と 問 答 例

- Ligatures:

a.m. p.m. さじ じさ ユーロ ユロ ー 㦮 郵便番号 便番号郵

Adobe-Japan 1-4 Defined

- Additional symbols:

- Ruby glyphs:

あいうえお

Adobe-Japan 1-4 Defined

- Proportional Latin characters:

  āīūēō

- Italic Latin characters:

  abcde

- Euro:

  €€

- Third- and quarter-width characters:

  0123 0123

OS & Application Support

- **Support includes rendering and character access**

- **Rendering: Microsoft Windows**

    - *Windows 2000 includes native OpenType/Type1 font driver*

    - *ATM Light 4.1 for Windows 95/98/ME/NT4*

- **Rendering: Mac OS**

    - *ATM Light 4.6.1 for Mac OS 8.1-9.X*

    - *ATM Light 4.6.X for Mac OS X Classic*

    - *Native OpenType/Type 1 font driver for Mac OS X*

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OS & Application Support

- **On both platforms, application must "expose" unencoded glyphs linked to features**

- **Character Access: Microsoft Windows**

  - *Unicode framework of Windows NT4/2000 offers access to all encoded glyphs*

  - *OTLS library for Windows to allow application developers to access unencoded glyphs; freely licensed by Microsoft*

  - *Adobe applications to provide character access*

- **Character Access: Mac OS**

  - *Applications must build their own access to unencoded glyphs*

  - *Adobe applications to provide character access*

- **OTF is compatible with ATC 1.2**

- **Acrobat to support OTF embedding**

Adobe OTF Feature Support

- ## Adobe OTF "Pro" glyphs

  - *<u>All</u> OTF glyphs can be accessed through the InDesign J glyph palette*

  - *Some unencoded glyphs can be automatically inserted by turning on OpenType features in InDesign J user interface*

    - *"aalt" "expt" "jp78" "jp83" "twid" "ruby" "liga"*

    - *More feature support to be added*

Adobe OTF Feature Support

- JIS78 kanji variants ('jp78'):

唖冴蛛邉 → 啞冴蛛邉

- JIS83 kanji variants ('jp83'):

交使 → 交使

- All alternates ('aalt'):

吉第濾 → 吉才沪

辺 → 邉邊邉邉邉邉邉邉邉邉

学 → 學孝㊑㊒

Adobe OTF Feature Support

- Ruby forms ('ruby'):

あいうえお → あいうえお

- Quarter-width forms ('qwid'):

0123 → 0123

- Third-width forms ('twid'):

0123 → 0123

- Traditional kanji ('trad'):

温器学漢者 → 溫器學漢者

Adobe OTF Distribution

- Six weights (EL,L,R,M,B,H) of Kozuka Mincho OpenType "Standard" included with InDesign (8,000 glyphs each)

- One weight (L) of Kozuka Mincho OpenType "Pro" included with InDesign (15,000 glyphs each)

- More Adobe OTF fonts to be available via adobe.co.jp by mid-2001

  - *Kozuka Gothic Pro (six weights)*
  - *Heisei and Kamono Kana OTF*

- Sold by individual weight to keep download small (<4MB)

- All fonts are host-only

What's Next?

- **More OpenType fonts from third parties**

- **More automatic feature support in Adobe J applications**

- **Increased use of PDF as output format**
  - *More than 110 million Acrobat Readers distributed worldwide*
  - *Acrobat E-Book Reader*

- **Focus on user-defined Gaiji solution**
  - *Not creation, but integration and workflow*
  - *Input, registration, searching, porting and output*

InDesign J Demo

Q&A