



**Adobe[®] InDesign &
Advanced Typography**
Unicode, OpenType & Top Issues

Thomas Phinney
*Program Manager
Fonts & Core Technologies
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InDesign Typography

“Good typography
is something
everybody sees
but nobody notices.”

– John Warnock, Adobe co-founder

Agenda

- Background
- Unicode
- OpenType
- Demo
- Top OpenType Font Myths
- Top InDesign Type & Font Issues





Background: Elements of the DTP Revolution

- **Apple Macintosh**
- **PageMaker desktop publishing software**
- **Adobe PostScript language**
 - Any output device, from laser printer to imagesetter
- **Adobe's PostScript Type 1 font format**
 - Scalable outline fonts
 - Print on any PostScript device from any vendor
 - Later, with ATM, scalable on screen as well as in print



Background: Hacks for Advanced Typography

- **Expert sets & supplemental fonts**
 - Access to ligatures, fractions, small caps, other stuff
- **Problem: lying about underlying text**
 - Spell-check
 - Search/replace
 - Copy/paste
 - Export text
 - Change font
 - Paragraph/character styles



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Unicode encoding

- Platform-independent
- Multi-lingual support



Unicode

foundation of OpenType

- **What is Unicode?**
 - Universal text character encoding scheme
 - Multi-lingual support
 - Platform-independent
 - Each character gets a unique slot
 - Slots are not re-used
 - Characters, not glyphs
 - Semantic but not typographic distinctions



Unicode

foundation of OpenType

- **How is Unicode used?**
 - Way to encode text
 - Application's files & processing
 - Way to encode glyphs in fonts
- **How is it defined?**
 - Unicode Consortium
 - Microsoft, Apple, Adobe, IBM, Xerox...
 - Evolving specification, now at version 4.0



Unicode

foundation of OpenType

- **Unicode support**
 - Mac OS X
 - Windows NT4/2000/XP
 - Adobe InDesign, Photoshop, Illustrator
 - Premiere, After Effects
 - Microsoft Office
 - Windows version
 - Next major Mac release
 - QuarkXPress 7?
- **NO Unicode support in current versions of. . .**
 - QuarkXPress
 - PageMaker, FrameMaker, Mac Word



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The Font Wars: 1991 to 1996

- **TrueType introduced in 1991**
 - Invented by Apple
 - Licensed to Microsoft
 - **Results**
 - 2 main formats: Type 1 & TrueType
 - ATM brings scalable Type 1 to the screen and non PostScript printers
 - 5 years of cataclysmic battle!
- (IMAGE HERE)



OpenType: end of the Font Wars?

- **Font wars continued until Nov. 1996**
 - Adobe & Microsoft announce OpenType
 - Format to replace Type 1 and TrueType
- **Adobe licenses ATM source code to Microsoft, Apple**
 - Native Type 1 & OpenType support in Mac & Win
- **Years coming to fruition**
 - Needed to revise printer drivers, ATM, some apps
 - First noticeable numbers of OT fonts in 2000
 - InDesign first appl to take advantage of OT features



What is OpenType?

- **Single-file, cross-platform fonts**
 - Same font file works on Mac & Windows
- **Support large character sets which extend...**
 - Language support via Unicode
 - Typographic capabilities via layout features



Who is OpenType?

- **Adobe & Microsoft co-own the format**
 - Also supported by Apple
- **Feedback and submissions from other players**
 - Many type foundries and developers



How OpenType works

- **Advanced typographic features**
 - OpenType layout “feature tags”
- **OpenType text model**
 - Unicode(s) + feature tag(s) = glyph
 - Text + formatting = result
- **Underlying characters always preserved**
 - Spell-check
 - Search/replace, Copy/paste
 - Change font
 - Etcetera...



The OpenType font file

- **One font = one file**
- **Cross-platform font file**
- **Extensible, table-based structure**
 - Based on TrueType .ttf file format
- **Two “flavors” of outlines**
 - Either PostScript or TrueType
 - .otf or .ttf extension
 - Same structure for both
- **Consequences for Font Wars...**

A full-body image of Darth Vader in his iconic black armor and helmet, standing in a control room. He is looking towards the right with his right arm extended. The background is filled with a grid of glowing blue lights, suggesting a futuristic or industrial setting. The text "DARTH TRUETYPE" is overlaid in the center in a bold, white font with a red outline.

**DARTH
TRUETYPE**



**DARTH
TRUETYPE**

**OpenLuke
PostScriptWalker**

“OpenLuke, I am your father!”



Shipping OpenType

- **Adobe has converted its type library**
 - Over 2,200 fonts
 - Font Folio OpenType Edition
 - New OpenType collections
 - Type Basics OpenType Edition (all new font set)
 - Type Classics for Learning (education collection)
- **URW shipping ~2,000 OpenType fonts**
- **Émigré, House and a dozen others shipping OT**
- **Agfa Monotype, Linotype starting to make OT**



OpenType in InDesign/Creative Suite

- InDesign CS has 67 OpenType fonts
- Illustrator CS adds a bunch, for 138 unique fonts
- “Bonus” fonts for buying the suite yield 211 fonts
 - Warnock Pro Opticals
 - 32 fonts
 - Briosio Pro Opticals
 - 42 fonts
 - optional incentive for online registration in US/Can
 - Briosio & Warnock packages: \$648 retail



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- **Demo**
- Top OpenType Font Myths
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Top 6 OpenType Font Myths

- **Special requirements for printing**
- **Solves all cross-platform problems**
- **You have to upgrade all your fonts**
- **Only a few applications work with OpenType**
- **Only Adobe makes OpenType fonts**
- **PostScript is better than TrueType**



#6: Special requirements for printing

- By the time it reaches the output device, an OpenType font is either Type 1 or TrueType



#5: All x-platform problems solved

- Only if you also have Unicode applications
 - InDesign, Illustrator, Photoshop, Premiere, After Effects...



#4: Must upgrade all my fonts

- OpenType fonts work fine alongside Type 1 and TrueType



#3: Only a few apps work with OT

- Virtually all applications use OT fonts like single-byte fonts
- Many applications use Unicode
- Some applications support many advanced OT features
 - InDesign, Illustrator, Photoshop



#2: Only Adobe makes OpenType

- Many other vendors making OpenType fonts
- URW shipping ~2,000 OpenType fonts
- Émigré and a dozen others shipping OpenType fonts
 - Astype, BlueVinyl, Emigre, Elsner+Flake, FontShop, House Industries, LucasFonts, Microsoft, Storm, Jeremy Tankard, Terminal Design, Thirstype and URW
- Agfa Monotype, Linotype starting to make OpenType



#1: Type 1 is better than TrueType & *OT PostScript is better than OT TT*

- Maybe true 10 years ago, but not since
- PostScript Type 1 was the first standard outline font format for desktop computers
- TT natively supported in PostScript for many years now
 - Conversion to PS at print time possible but not req'd
- Adobe tests all apps extensively with TT fonts
- What about third party support?



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- **Top InDesign Type & Font Issues**



Top 6 InDesign type & font issues

- Multiple masters
- Black text is grey!
- Line breaks (paragraph composer)
- Adobefnt.lst files?
- CID fonts in exported PDFs
- Font conflicts & missing fonts



#6: Multiple Master Fonts

- Special kind of Type 1 font with variable values along specified “axes”
- Common axes included weight, width, optical size
- Not supported natively in OS X 10.0 and 10.1
- InDesign 2 couldn't recognize when installed in OS X
 - Workaround: use private InDesign fonts folder
- Fixed in CS apps
- No longer made or sold by Adobe (since 1999 and spring '03)
- Expect future announcements regarding end of support



#5: Black Text is Grey

- Is it really black? Make sure.
- Several solutions
 - Fix color management settings
 - Document space = print space
 - Turn off color management
 - hack: set text to “registration” as color (only if working strictly in B&W!)



#4: Wrestling Paragraph Composer

- Hard to force break at particular point
- Discretionary hyphens rarely help
- Can switch to single line composer
- Can use “no break” formatting to stop breaks



#3: Adobefnt.lst files

- **“Adobefnt.lst” “Adobefnt05.lst” “Adobefnt06.lst”...**
- **Cache files from Adobe font engine**
- **One in every folder that has active fonts**
- **Automatically regenerated if deleted**
 - All it does is slow next enumeration of font menu
- **Can get corrupted or confused**
- **Deleting often suggested as fix because it’s easy and has no significant side effects**



#2: CID fonts in exported PDFs

- CID developed for Asian double-byte fonts
- About 10 years ago
- Basic part of PostScript spec
- Not always implemented in “clone” RIPs
- Fixes available for many clones
- Can avoid problem by using Distiller instead
 - But there are other advantages to exporting



#1: Font Conflicts & Missing Fonts

- **Fonts are there but sorting oddly**
 - Font name may be sorted without foundry (“Adobe Garamond” under “G”)
- **Conflicts with system “dfont” TrueType fonts**
 - Deactivate or delete one or the other.
See Apple white paper for details.
- **Multiple master fonts (see above)**
- **Missing “regular” font for font that has optical size variants**
 - But font is there in InDesign, Illustrator, Photoshop
 - Mac OS X bug, detailed in OpenType readme
 - Fixed in 10.3?



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