TypeTech
TRACK 1

FontLab
TRACK 2

Time	TypeTech — TRACK 1	FontLab — TRACK 2
10.00	**TypeTech Welcome** Thomas Phinney	**Introduction to the Fontlab Ltd. products** Ted Harrison
15	**Status of OpenType Support 2006** Dr. Jürgen Willrodt	**Draw like the Devil: Designing glyphs in FLS5** Yuri Yarmola, Adam Twardoch
30		
45		
11.00		
15		
30		
45	BREAK	BREAK
12.00	**New tech for math fonts & typesetting** Sergey Malkin	**Hint like Hercules: Font screen quality in FLS5** Yuri Yarmola
15		
30		
45	**Advanced MM applications** Tim Ahrens	**Encode like the Emperor: FLS5 Glyph Naming and Encoding** Adam Twardoch
13.00		
15		
30	LUNCH	LUNCH
45		
14.00		
15		
30	**Advanced MM theory** Thomas Phinney	**OpenTypify like Odysseus: OT Layout features in FLS5** Adam Twardoch
45		
15.00	**Is lying OK?** Thomas Phinney	
15		**Trick like a Tsar: Advanced design techniques in FLS5** Yuri Yarmola, Adam Twardoch
30	**URW++'s new OpenType table editor** Jürgen Willrodt	
45		
16.00	BREAK	BREAK
15	**Automating font production using DTL Fontmaster** Frank E. Blokland	**Kern like the King: FLS5 Metrics Window** Yuri Yarmola
30		
45		
17.00	**How DTL FontMaster automatically produces OpenType layout features** Dr. Jürgen Willrodt	**Manufacture like Mozart: Font production in FLS5** Adam Twardoch
15		
30	**Reception** Sponsored by DTL	
45		
18.00		

TypeTech
TRACK 1

DTL FontMaster
TRACK 2

Time	TypeTech — TRACK 1	DTL FontMaster — TRACK 2
10.00	**The ubiquitous EULA** Ted Harrison	**Producing large and complex OpenType fonts** Dr. Jürgen Willrodt
15		
30	**Gathering script information as a collaborative community** Victor Gaultney, Peter Martin	
45		
11.00		**The OpenType layout features file: Structure and editing** Christopher Slye
15	**From degree to 5-tier Vedic Sanskrit** R. K. Joshi	
30		
45	BREAK	BREAK
12.00	**CSS font families** Thomas Phinney	**MS VOLT: Generation and enhancement of OT layout features** Sergey Malkin
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45	**Taming tables** Adam Twardoch	
13.00		**DTL FontMaster 2.5 & further developments** Frank E. Blokland
15		
30	LUNCH	LUNCH
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14.00		
15		
30	**Coming up next: SigMaker 3 & BitFonter 3** Yuri Yarmola, Adam Twardoch, Thomas Phinney	**The automatic production of OT layout features in FM: How it works** Dr. Jürgen Willrodt
45		
15.00		
15	**Adventures in class kerning** Miguel Sousa	**Digitizing techniques: The revival of manual digitizing [Workshop]** Frank E. Blokland
30		
45		
16.00	BREAK	BREAK
15	**Python Scripting tutorial** Ben Kiel	**Editing Features Files and Character Layout Files [Workshop]** Dr. Jürgen Willrodt
30		
45		**Workflow Organizing: Automating Production** Frank E. Blokland
17.00		
15	**End of TypeTech:** Delegates to main conference assemble for keynote and reception	

TypeTech
September 27-28, 2006

ATypI 2006
Typographical Journeys
Lisbon, Portugal

Quick Look Guide

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TypeTech Forum

Status of OpenType Support 2006
Dr. Jürgen Willrodt
The presentation will summarize the status of OpenType support in different applications and on different platforms. We will give an overview of the feature support, the existing bugs, problems and shortcomings related to OpenType fonts. The following issues will be covered in detail and will be demonstrated:
1. Unicode support, Glyph naming and Encoding problems
2. Fontnames and platform compatibility
3. GSUB vs. KERN: Kerning support
4. Ascender, Descender and Linespacing
5. Overview of feature support in different Applications
6. Encoding of symbolic fonts in OTF
7. Summary

URW++'s new OpenType table editor
Dr. Jürgen Willrodt
To be announced.

How DTL FontMaster automatically produces OpenType layout features
Dr. Jürgen Willrodt
With DTL FontMaster the generation of the GPOS and GSUB features can be automated. Basically the system, which makes use of the Adobe OT SDK code, was developed for the Latin script in the first place, but it can for instance also be adapted for Arabic. Dr. Juergen Willrodt, architect and programmer of the OpenType layout features automation, presents a close look at the structure, advantages and possibilities of this system. Amongst other things, the interaction between the OT features file and the character layout file (.cha) will be explained in detail

New tech for math fonts & typesetting
Sergey Malkin
Details on Microsoft's new math typesetting systems and how to make fonts with the new font tables that support them.

Advanced MM applications
Tim Ahrens
This speech presents methods for handling multiple masters beyond the conventional applications such as generating semibold fonts. The "boldness" information in an MM font is used to change the size of glyphs without changing the stroke weight. The method can be used to create small caps, Cyrillic lowercase and — since the horizontal and vertical scale factors can be chosen independently — even true condensed fonts.

Comparisons to existing typefaces show that the output generated by the model is rather close to that of the true glyphs. The method allows for subsequent manual refinements.

As a mathematical tool for the processing and combining of shapes it stands between the theories for the construction and the technologies for the reproduction of glyphs that are designed on the basis of the designer's visual judgements. It integrates the "two

cultures" as described by Matthew Carter, overcoming "that dichotomy [which] is deep in our habits of thought and education – if not in the actual anatomy of the right and left hemispheres of the brain, as it is fashionable to think."

Tim also shows further concepts that improve the quality of interpolations and extrapolations of letter shapes.

The method presented was developed as part of Tim's MA in Typeface Design at the University of Reading.

Advanced MM theory
Thomas Phinney
Advantages and limitations of axis-based approaches to font family development, including some not-very-well-known technical issues around linear interpolation: how can something that's a straight line in all masters be "kinked" in interpolation, and how can this be fixed or avoided?; reasons for deferred overlap removal; problems most severe in heavy weights; why you might want to use intermediate and inside-out masters.

Is lying OK?
Thomas Phinney
An introduction to issues around Unicode encodings and OpenType — Layout features where it may be tempting to construct fonts whose Unicodes/Layout features do not necessarily accurately map to what the font does. Then, open discussion of varying views on the topics.

Gathering script information as a collaborative community
Victor Gaultney, Peter Martin
The development of Non-Latin and complex Latin fonts is hindered by a lack of information. Designers are hesitant to go beyond the common Latin letters because they don't have easy access to technical and design guidance on other scripts. There is actually a great deal of expertise available, but it is either not written down, not available online, or not easily found. Current efforts to gather such information are a good step in the right direction, but are limited in scope.

This session will begin with a brief presentation of the problem and an outline of some ideas for a collaborative site — ScriptSource — that could act as a hub for such information and discussions. The bulk of the session, however, will be an open discussion about how the type and computing communities could best manage and share expertise. Come with creative ideas!"

Automating font production using DTL Fontmaster
Frank E. Blokland
To be announced.

The ubiquitous EULA
Ted Harrison
Ted will demonstrate the use of the Electronic EULA Abstract in protecting your fonts from casual piracy and in improving your font sales. The EEULAA is now being incorporated into Fontlab tools and will be available to all font foundries by the time the next generation of tools appears. With a EEULAA in your fonts you can track licenses, solicit font upgrade sales, and make your customers easily and painlessly aware of their rights and obligations under the EULA.

From degree to 5-tier Vedic Sanskrit
Professor R. K. Joshi
The linear concept and the practice of Hot Metal types was common throughout the world. However in India there was an additional feature attached in case of Degree types. The kerning feature as in f, j and y for Latin script was exhaustively used to compose three tier Devanagari Degree types to accommodate vowel matras (similar to accent marks in Latin) which had to be positioned properly on the top, bottom and both sides of a base glyph. Such loose accent marks of different widths had to be composed and placed securely, using various metal sticks called Degrees. This positioning technique was used in the Degree types.

5-Tier Vedic Sanskrit OpenType by name "RaghuVeda" has been designed recently under Project IndiX at C-DAC, Mumbai. This type has 10 features, 36 substitution lookups, 6 position lookups, 82 ligature rules, 68 glyphs groups, 1174 glyphs inclusive of 253 consonant conjunct ligatures. This was a challenging task of designing a typeface as well as planning a shaping engine architecture in order to process syllabic compositions in Vedic Sanskrit language using Devanagari script.

It is interesting that this positioning feature of degree types from India were revived in the soft rules and tables in Vinyas (1985, NCST, India) and further in the OpenType format. The presentation will draw comparatively analysis between these two font design technologies and present the process of designing the font "RaghuVeda."

CSS font families & OpenType 1.5
Thomas Phinney
Windows Vista introduces a new graphics and text model, Windows Presentation Foundation (WPF), which is also available for Windows XP. WPF borrows from the Web's CSS specification a model of how font families are organized, in that all members of a family are assumed to differ in one or more of weight, width, or slope (WWS for short). Learn about how WPF processes font families to get at WWS information, and what new controls are being made available for OpenType 1.5 to better control this processing and how your fonts' menu names will appear in WPF applications.

TypeTech: Taming tables
Adam Twardoch
OpenType and TrueType fonts are collections of binary tables that serve different purposes: store the glyph information, hinting, OpenType Layout features, kerning, naming etc. When you upgrade existing fonts, develop fonts using other tools such as Microsoft VOLT and VTT, or embed some proprietary data into your fonts, you may want to have closer control over the binary tables in your fonts. Sometimes, copying binary tables between different fonts is easier than setting the same values in the user interface. What if you developed your OpenType Layout features in VOLT but want to do some revisions to your glyphs in FontLab Studio? Adam will present some essential features of FontLab Studio 5 and the free TTX tool that can help to tame and wrangle the binary tables.

Coming up next: SigMaker 3 & BitFonter 3
Yuri Yarmola, Adam Twardoch, and Thomas Phinney
Fontlab Ltd. is working on new versions of two of their products: SigMaker and BitFonter. SigMaker 3 will be the first Fontlab Ltd. application to support SING, a new Adobe technology that allows users to create and use custom characters ("glyphlets") together with existing fonts. Thomas will discuss the principles of SING while Yuri and Adam will show SigMaker 3. BitFonter 3 is the first version of Fontlab Ltd.'s professional bitmap font editor that will be released on both Windows and Mac OS X. Yuri and Adam will show some highlights of the new version.

Adventures in class kerning
Miguel Sousa
Covers some advanced features of class kerning, such as:
- How to optimize the code of the kern feature
- Kerning fonts with large glyphsets/ multiple scripts
- How to solve 'overflow' errors
- Making correct use of the 'subtable;' command

Python Scripting Tutorial
Ben Kiel
Python scripting is the best way to speed up repetitive type design tasks. This tutorial touches on the basics of Python and RoboFab and then detail how they can help the design and production process. The last quarter of the session will be set for questions.

Fontlab Forum

Draw like the Devil: Designing glyphs in FLS5
Yuri Yarmola, Adam Twardoch
Comprehensive overview of tools and techniques for creating glyphs in FontLab Studio 5: importing EPS, autotracing, drawing using Bezier curves, Paint tools, Smart shapes, node types, contour types and directions.

Hint like Hercules: Font screen quality in FLS5
Yuri Yarmola
Hinting essentials for PostScript and TrueType-flavored fonts, stems and alignment zones, autohinting, and manual hinting.

Encode like the Emperor: FLS5 Glyph Naming and Encoding
Adam Twardoch
Glyph naming conventions, encoding modes, Font Info encoding information, Unicode, non-Western fonts

OpenTypify like Odysseus: OT Layout features in FLS5
Adam Twardoch
OpenType Layout tables, writing feature definitions for European scripts, new OpenType options in Fontlab Studio 5

Trick like a Tsar: Advanced design techniques in FLS5
Yuri Yarmola, Adam Twardoch
Shape groups, neighbors, anchors, blending, Multiple Master, changing weight and geometric transformations

Kern like the King: FLS5 Metrics Window
Yuri Yarmola
Overview of tools and techniques for letterfitting and kerning of glyphs, class kerning

Manufacture like Mozart: Font production in FLS5
Adam Twardoch
Generating fonts, font formats, settings, preferences, testing

DTL FontMaster Forum

Producing large and complex OpenType fonts
Dr. Jürgen Willrodt
The production of large and complex glyph sets and subsequently fonts, like for instance for CJK typefaces, asks for very specialised tools. URW++'s Ikarus V4 is such a tool and its powerful capabilities will be demonstrated. Also URW++'s new OT table editor will be presented.

The OpenType layout features file: Structure and editing
Christopher Slye
An in depth presentation on the structure and the editing of the OpenType layout features file.

MS VOLT: Generation and enhancement of OT layout features
Sergey Malkin
A detailed explanation of the functionality of Microsoft VOLT and how this program can be professionally used to accomplish OpenType layout features.

DTL FontMaster 2.5 & further developments
Frank E. Blokland
A presentation of the new version of DTL FontMaster and an overview of planned future developments.

The automatic production of OT layout features in FM: How it works
Dr. Jürgen Willrodt
With DTL FontMaster the generation of the GPOS and GSUB features can be automated. Basically the system, which makes use of the Adobe OT SDK code, was developed for the Latin script in the first place, but it can for instance also be adapted for Arabic. Dr. Jürgen Willrodt, architect and programmer of the OpenType layout features automation, presents a close look at the structure, advantages and possibilities of this system. Amongst other things, the interaction between the OT features file and the character layout file (.cha) will be explained in detail.

Digitizing techniques: The revival of manual digitizing
Frank E. Blokland
Manual digitizing via a Wacom tablet with lens cursor is now supported by the Windows version of DTL IkarusMaster. In an era of blunt type tweaking nothing stands in the way of a revival of true craftmanship anymore. Autotracing and manual digitizing will be compared.

Editing features files and character layout files
Dr. Jürgen Willrodt
The working and editing of the OT layout features file and the character layout file (.cha) in practice.

Workflow organizing and automating production [WORKSHOP]
Frank E. Blokland
Although relatively small with roughly 500 fonts, the DTL type library is ever growing. The support of other scripts and the development of OpenType fonts besides the older font formats ask for a controlable workflow. At DTL this is built around FM.