Minutes of the UPDF Working Group Meeting
October 27, 2000

Meeting Attendees

Mark VanderWiele	IBM
Shawn Flynn	Bitstream
Don Wright	Lexmark
Carl-Uno Manros	Xerox
Dave deBronkart	PODi
Jim Sommer	Granite Systems
Ron Bergman	Hitachi
Lee Farrell	Canon
Norbert Schade	Oak Technology

With the IPP bake-off in the Oak facilities just behind we met in Boston, which I consider my home conference. Therefore I put some extra effort into the preparation. I think it paid out. The general direction for the meeting was to provide the big picture and to move several components together to the big common structure.

Major items discussed

- File structure of the UPDF DTD files
  Please recall some emails on the distributor from October 2000.
  We agreed that we split the big dtd into a technical dtd and a separate dtd for locales. The technical master is split into a master and a number of modules. These modules are realized as external dtd.
  We agreed on the following modules: Font handling, Print media handling, Constraints. Other modules will follow. It is not planned to define more than ten modules. Each module presents a large logical unit.
  It is easier to develop and test those smaller modules by temporarily converting it into a standalone dtd and build sample XML files on top of it. This is quite an easy process.
  We agreed on building one special external module for all entities.
  This file structure has to be checked with the intended XML file structure explained below. It may be necessary to separate the external modules into separate dtd. Consulting requested!
- File structure of the UPDF XML files
  Although XML seems to be weak in this area, the group is leaning towards modular units.
  It is my (Norbert Schade) understanding that each module is exactly based on one external dtd or the master dtd. There are no arbitrary compositions.
  E.g. it would not be allowed to build one XML file for print media sizes and another for finishing features. This has to be assembled into one XML file for print media handling based on the print media handling dtd module.
  This procedure creates reusable modules.
  We have to continue working on the proper references. Do we want to define certain file naming conventions and/or internal references. Something like a module script file would be another alternative. Consulting requested!
  There will certainly be one XML file per locale based on the locale dtd. References to be done.

- Installable options
  We were more or less agreeing to use the same technical dtd for installable options, too. As almost all features in the technical dtd are optional, any installable option description would have the same structure as a basic device description. It would just be much smaller typically. No installable option description would have a reference to any device. It's the other way around. A basic device description has references to installable options.
  That allows reusability of single installable options.
  An installable option would have its own locale descriptions.

I am preparing a picture to demonstrate the different units.

Although this is quite a complex and laborious discussion, I am glad we entered it eventually. That shows that developers have started thinking how to convert their current data into an UPDF format, how quickly a new device description could be created by assembling several pieces from previous descriptions. It also shows how much different people already think about how a driver would best use the information for a specific operating system.

Two other areas drew our attention:
- Reference list for features, which have to be identified by at least one operating system, e.g. paper sizes.
  We certainly need a list for that. Basically we could take any list available in the market or create a new one (only recommended in emergency cases).
  Right now we are looking over our shoulders to the IPP group asking whether they do or are willing to provide these lists.
  Carl-Uno, this is something we should talk about.
- Event handlers
  We talked about the basic idea and it looks, as if it is accepted. It needs some detailed samples to examine the value of this conceptional feature. To be further investigated.

I think the most important item on our to-do list is resolving all the issues with the file structures and the references between the files. Please think about it, wait for some simple pictures I am preparing right now and give me some feedback.

prepared by: Norbert Schade