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W3C Workshop on Publishing Using the Open Web Platform

IEEE-ISTO Printer Working Group – Expression of interest in participating in the Workshop on Publishing Using the Open Web Platform

Participant's interest

The Printer Working Group (PWG) is a Program of the IEEE Industry Standard and Technology Organization (ISTO) with members including printer and multi-function device manufacturers, print server developers, operating system providers, print management application developers, and industry experts. Originally founded in 1991 as the Network Printing Alliance, the PWG is chartered to make printers, multi-function devices, and the applications and operating systems supporting them work together better.

The PWG has gone beyond just defining protocols for printing and has created a Semantic Model, which is independent of manufacturers and implementations. It represents both a consistent user perspective of imaging services and a conceptual interface to imaging services as well.

The PWG has expanded this Semantic Model to address the ways that people use printing and other hardcopy imaging services. The original focus on printing was broadened to include all of the imaging services provided by a multi-function device. With the advent of both mobile and cloud based printing applications, the scope of PWG activities has been expanded further to include workflow and the modeling and interface of distributed imaging systems.

One outcome of these activities is IPP Everywhere, the new PWG specification targeting the mobile environment that was recently profiled in the online version of the Wall Street Journal: http://online.wsj.com/article/PR-CO-20130514-912035.html.

For W3C reference purposes, the PWG Semantic Model working group has a link to a diagram showing the historical progression of the semantics documented within the PWG Semantic Model and the environments, which have adapted the PWG Semantic Model elements for their own use:

ftp://ftp.pwg.org/pub/pwg/mfd/white/SemanticEvolution-PWG.pdf

Point of View

The IEEE-ISTO PWG has previously worked in collaboration with the W3C CSS working group in support of their CSS Print 2.x specification activities *(PWG Candidate Standard 5102.2-2003 - CSS Print Profile)* and we therefore feel we are well positioned to help the W3C with the difficult task of deciding on a mechanism for specifying user intent (i.e. job ticketing) when performing publishing related tasks within the web paradigm.

One of the aspects currently limiting the easy implementation of workflow automation is that there is no simple way to transfer user intent from one job ticketing environment to another.

Sample use case – a customer has an existing Microsoft Windows operating system based workflow, which develops output to be printed. The customer now wants to send the output to an outsource print shop that will be able to print the workflow using a modern digital inkjet full color press. The print shop has asked the customer to submit the workflow as PDF with a JDF job ticket.

The issue: How can the customer transform the user intent specified within the Microsoft paradigm (DEVMODE or the Microsoft PrintTicket) into the JDF format?

The Solution: In calendar 2012, the IEEE-ISTO Printer Working Group published a Print Job Ticket (PJT) standard based on the PWG Semantic Model (a widely adopted industry standard). The PWG is currently building a mapping standard linking the PWG PJT format to a number of other known job ticketing standards. This effort will allow customers to use the PWG PJT format as a normalizing agent so that they can convert one job ticketing format to another. In the example above, it would allow a parser for converting the Microsoft PrintTicket format to JDF to be constructed to resolve the issue.

Suggestion

Currently in calendar 2013, there are a wide variety of job ticketing implementations in use throughout the world. As a global standards body, the W3C will most likely need to investigate the job ticketing requirements of the publishing activities it determines will appear within the open web platform context. Once these requirements are known, there can be a more in-depth discussion regarding potential job ticketing semantic frameworks that can support these requirements and which could also be easily implemented in the W3C open web platform environment.

Our suggestion is for the W3C to consider leveraging the previous work of the PWG in the area of job ticketing *(PWG Candidate Standard 5108.07-2012 - PWG Print Job Ticket and Associated Capabilities Version 1.0 (PJT)* in order to build upon this solid foundation when determining how best to support the job ticketing semantic elements involved with the publishing activities deemed appropriate for the open web platform.

The PWG Semantic Model working group is now actively working on the creation of a new PWG mapping specification to support automated workflow integration.

> *Mapping Related Standards to PWG PJT v1.0 (PJTMAP) – purpose is to define in a fully approved PWG specification the mapping of job ticketing elements from other well-known standards environments to the PWG PJT*
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> • *Microsoft PrintTicket – frequently referred to as WS-Print*
> • *CIP4 JDF Interoperability Conformance Specification (ICS) for Integrated Digital Printing (IDP)*
> • *Adobe PostScript Printer Definition (PPD)*
>
> *Mapping Related Standards to PWG PJT v2.0 (PJTMAP) – purpose is to expand the number of mappings initially included in version 1.0 of the specification*
>
> • *Distributed Management Task Force – CIM*
> • *AFP Consortium Mixed Object: Document Content Architecture – Presentation (MO:DCA-P)*
> • *AFP Consortium Intelligent Printer Data Stream (IPDS)*

The IEEE-ISTO Printer Working Group believes that its Semantic Model provides the solid foundation needed by the W3C working groups who will be involved in defining and supporting publishing activities using the Open Web Platform. We look forward to working in close collaboration with the W3C to help with this new publishing initiative.