

# Web Applications with XForms 2.0

## **Presenter**

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Steven Pemberton is a researcher at the CWI, the Dutch national research institute for Mathematics and Computer Science. He has been involved with the Web from the start, organising two workshops at the first Web Conference in 1994, and has been involved with the World Wide Web Consortium since its inception. He was chair of the HTML Working Group for a decade, and is co-author of many web technologies, including HTML, XHTML, CSS, RDFa and XForms.

## **Duration and Sessions**

There are two versions of the tutorial available: the three-hour course offers an introduction to the language and all its aspects, with one or two worked examples. The six-hour version goes into more detail, discusses techniques, and gives more worked examples.

## **Topic and Description**

XForms was first introduced in 2002. As the name suggests, it was originally designed as a mark-up language to describe electronic forms for the Web, offering major advantages over traditional HTML forms, such as typed data that could be automatically checked by the browser before submission, structured data, easy initialisation, automatically calculated values, device independence and much more.

However, initial experience with the language showed that since it had input, output, and a calculation engine, with relatively small amounts of generalisation XForms could be used not only for forms, but for applications in general. And so was born XForms 1.1, which since then has been implemented and applied in a large number of diverse applications and environments, by major companies including IBM, EMC, Xerox, the US Navy, several governments, and it is an integral part of ODF, the open office document format.

Experience with this version of XForms has been good. In particular it has been observed from several projects that it is about an order of magnitude easier to produce an application using XForms than programming it with a procedural programming language (such as Javascript). This includes one major project that reduced the resources necessary from 5 years with 30 people to 1 year with 10! This is largely due to the declarative nature of programming with XForms, where you specify *what* you want to happen, and not *how* it should be done, thus leaving much of the administrative detail to the computer.

This year XForms 2.0 is planned to be released, increasing the power and generality of the language. This tutorial will describe this new version of the language and how to build applications using it. Interesting applications will include a generalised mapping application as well as database access, and the possibilities of system programming.

## ***Audience***

Web designers, application builders, website builders, managers, anyone interested in producing web-based applications.

## ***Prerequisite***

Some basic knowledge of HTML, CSS and web page design. No knowledge of Javascript is required.

## ***Relevance***

As the web moves to more dynamic web sites, approaches to reducing the cost of production of such sites are paramount. XForms 2.0 is a new technology being released this year that not only speeds up application production, but since it is also device-independent, makes the task of producing equivalent applications for different classes of devices that much easier.

## ***Previous Editions***

Tutorials for XForms have been presented several times in the past, though not for XForms 2.0. This tutorial will focus more on applications than previous versions.

Earlier supporting materials for the tutorials can be found on the web at:

<http://www.w3.org/2005/Talks/10-03-steven-XHTML2-XForms/>

<http://www.w3.org/2007/Talks/05-15-steven-xforms11/>

<http://www.w3.org/MarkUp/Forms/2010/xforms11-for-html-authors/>

## ***Equipment***

No additional equipment will be needed.