

Session 7D

Plex-XML –
The Next Generation
Dynamic Plex Web Client
using XML and Ajax

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3rd Annual
Plex/2E
Worldwide
Users
Conference



all about software GmbH

- > Günter Last, Bodo Wippermann, Jörg Zwirner
- > All about software GmbH, Germany
- > 2/E since 1990 and Plex since 1996
- > info@allabout.de / www.allabout.de
- > Development of custom web and desktop applications
- > Main focus of our current R&D
 - Up-to-date web application development
 - Adjustment of popular web apps features for using it within the enterprise
 - Current trends in open source software

Missing Features while Producing a Web Application

> Development and Maintenance

- Shorter time to market for web apps
- Panels with a suitable default design
- Easy to handle foreign language support
- Easy date and figure layout for user with different cultures
- Lower development effort on database changes
- Some external client layout and behavior adjustments w/o the need of further programming

Missing Features while Producing a Web Application

- > Up-to-date HTML web user interface
 - Look and feel of desktop application
 - Responsive behavior
 - Intuitive handling
 - Integration of media, applications and data
- > User Centric Client Layout and Behavior
 - Different client layout for individual user or groups
 - Easy change of field sequence and visibility
 - External influence of field behavior
 - Power user tools
 - Grid record sort
 - Grid record selection

Pick Up Actual Development Trends

- > Integration of up-to-date open source technology
 - Development
 - Eclipse IDE
 - Ant scripting
 - CVS repository
 - XML / XSLT / Ajax
 - Runtime
 - Linux
 - MySQL database
 - Apache Tomcat
 - Runtime licenses

Plex-XML –

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> XML – Extensible Markup Language

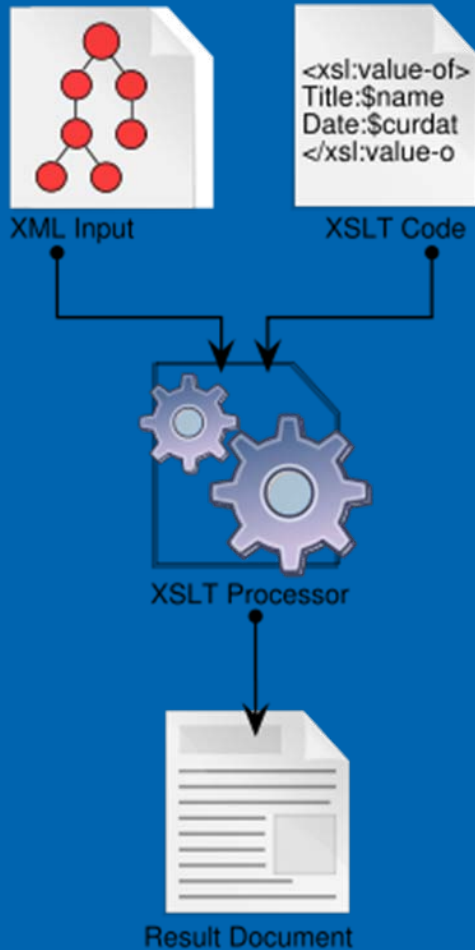
- Presentation of hierarchical structured data in a text file
- Human readable
- Primarily used to exchange data between different IT-systems



```
<?xml version="1.0"?>
<item>
  <id>4711</id>
  <description>
    <de>Seife</de>
    <en>soap</en>
  </description >
</item>
```

Plex-XML –

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> XML-Transformation

- The framework will enable each external Plex function to deliver XML data instead of output parameter
- XSLT code and XSL style sheets will instruct the XSLT processor to transform the XML into a result document
- This result document could be again a XML file. Or it could be a file in the form of a HTML, PDF, CSV usw.
- Multiple transformations can occur one after each other

Plex-XML –

The Next Generation Dynamic Plex Web Client using XML and [Ajax](#)

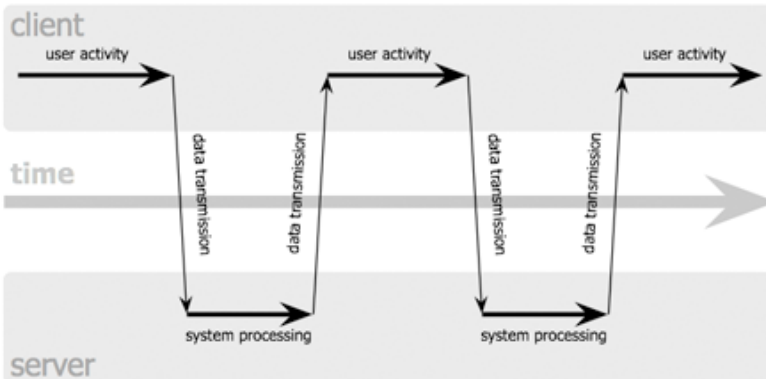
> Ajax (Asynchronous JavaScript and XML)

- XMLHttpRequest-Object
- Any major browser supports it today
- Combining the XMLHttpRequest object with JavaScript code makes it possible to load and replace parts of a website
- While using the asynchronous mode a user can continue to work with the website while new data is loaded in the background and the website changes

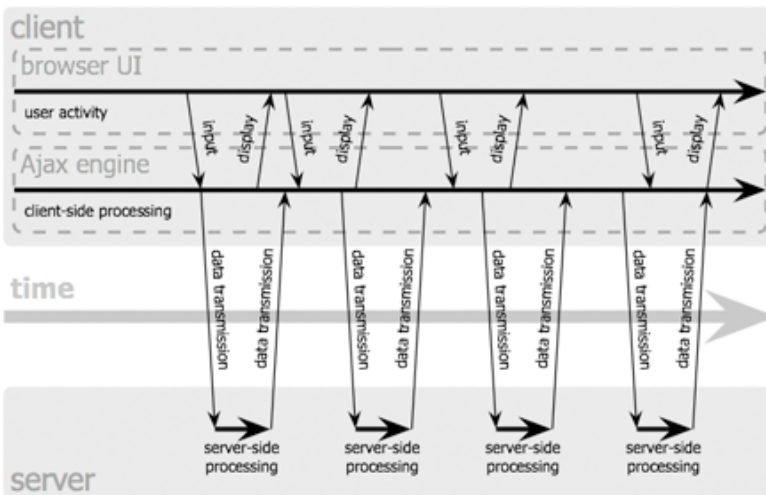
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classic web application model (synchronous)



Ajax web application model (asynchronous)



Jesse James Garrett / adaptivepath.com

- > Classic web applications are loading a whole HTML page while the user can not continue to work
- > Ajax web applications can replace parts of a HTML page while the user can continue to work

The Plex-XML List Of Material

> Architecture

- MVC (Model-view-controller pattern)

> Client technology

- JavaScript, XML, Ajax
- Prototype and script.aculo.us

> Server technology

- Apache Tomcat as servlet engine
- Apache Xerces as XML parser
- Apache Xalan as XSLT processor

> Development tools

- Plex
- Eclipse
- Ant
- CVS

Additional Features of Plex-XML

- > User and user group maintenance
 - Local maintained user + LDAP password validation
- > Functional and data oriented security
- > Dynamic SQL in a block fetch
- > Automatic E-Mail notification on special events
- > File upload
- > Logging of changed data
- > Wiki as a user guide
- > Scheduled data import and export
- > Form more features please check our [wiki](#)

Online Development Demo

TeamSheet - Mozilla Firefox

File Edit View History Bookmarks Tools Help

https://www.teamsheet.info/limon/aServlet

teamsheet Guenter Last | Logout | Preferences | Help

File Extra Help

- Activity
- Docs
 - Documents
 - DocTypeFB
- Limon
- Security
 - User & Groups
 - Roles & Functions
 - Software & Clients
 - Formats & Fields
 - Menu
 - Session & Log
 - Session
 - UpdateLog

Sessions DEFAULT | SESSION_VIEW2 | View3

Request	SessionStatus	Logon-Name	IP-Address	Session	Created	Created	last Request	last Request
Sep/02 2007								
153	Closed	LAST	84.144.81.160	5,144	09/02/2007	20:35:19	09/02/2007	21:28:42
39	Closed	LAST	84.144.88.172	5,143	09/02/2007	20:13:09	09/02/2007	20:35:14
229	Closed	LAST	84.144.100.107	5,142	09/02/2007	14:46:59	09/02/2007	16:12:31
30	Active	KUIPERS	84.144.98.187	5,141	09/02/2007	01:45:17	09/02/2007	01:48:47
818	Active	LAST	212.202.133.80	5,140	09/01/2007	20:23:55	09/02/2007	00:45:06
Sep/01 2007								
0	NotYetValidated		85.177.168.27	5,139	09/01/2007	10:19:27	09/01/2007	10:19:27
2	NotYetValidated		85.177.168.27	5,138	09/01/2007	10:19:13	09/01/2007	10:19:13
446	Active	LAST	84.144.109.187	5,137	08/31/2007	23:23:41	09/01/2007	02:35:29
Aug/31 2007								
76	Active	LAST	213.61.56.154	5,135	08/31/2007	10:53:49	08/31/2007	17:44:13
12	Closed	ZWIRNERJ	85.177.160.242	5,133	08/30/2007	22:59:37	08/31/2007	13:50:59
Aug/30 2007								
18	Active	LAST	212.202.133.80	5,134	08/30/2007	23:15:56	08/30/2007	23:32:24
416	Closed	LAST	213.61.56.154	5,132	08/30/2007	10:12:48	08/30/2007	22:39:19
44	Active	LAST	212.202.133.80	5,131	08/29/2007	23:53:01	08/30/2007	01:13:45
341	Closed	ZWIRNERJ	213.61.56.154	5,124	08/28/2007	09:12:03	08/30/2007	22:59:37
Aug/29 2007								
42	Closed	LAST	212.202.133.80	5,130	08/29/2007	23:32:46	08/29/2007	23:53:01
352	Active	LAST	213.61.56.154	5,129	08/29/2007	17:55:38	08/29/2007	22:26:06
110	Active	LAST	213.61.56.154	5,127	08/29/2007	11:17:09	08/29/2007	16:48:34
80	Closed	LAST	84.144.73.86	5,126	08/28/2007	23:48:09	08/29/2007	01:09:42
109	TimedOut	WIPPERMANN	213.61.56.154	5,107	08/23/2007	13:55:18	08/29/2007	16:21:53
Aug/28 2007								
757	Closed	LAST	213.61.56.154	5,125	08/28/2007	12:59:49	08/28/2007	18:38:12
1,110	Closed	LAST	212.202.133.80	5,118	08/27/2007	11:35:44	08/28/2007	01:09:54
120	Closed	ZWIRNERJ	212.202.133.83	5,117	08/27/2007	09:55:43	08/28/2007	09:12:03
Aug/27 2007								
147	Closed	WIPPERMANN	127.0.0.1	5,123	08/27/2007	20:13:09	08/27/2007	20:59:18
140	Closed	WIPPERMANN	127.0.0.1	5,122	08/27/2007	19:57:55	08/27/2007	20:13:09
12	Active	KUIPERS	212.202.133.79	5,121	08/27/2007	13:19:03	08/27/2007	13:24:47

Record: 51 - 75 of 5191, Page 3 of 208

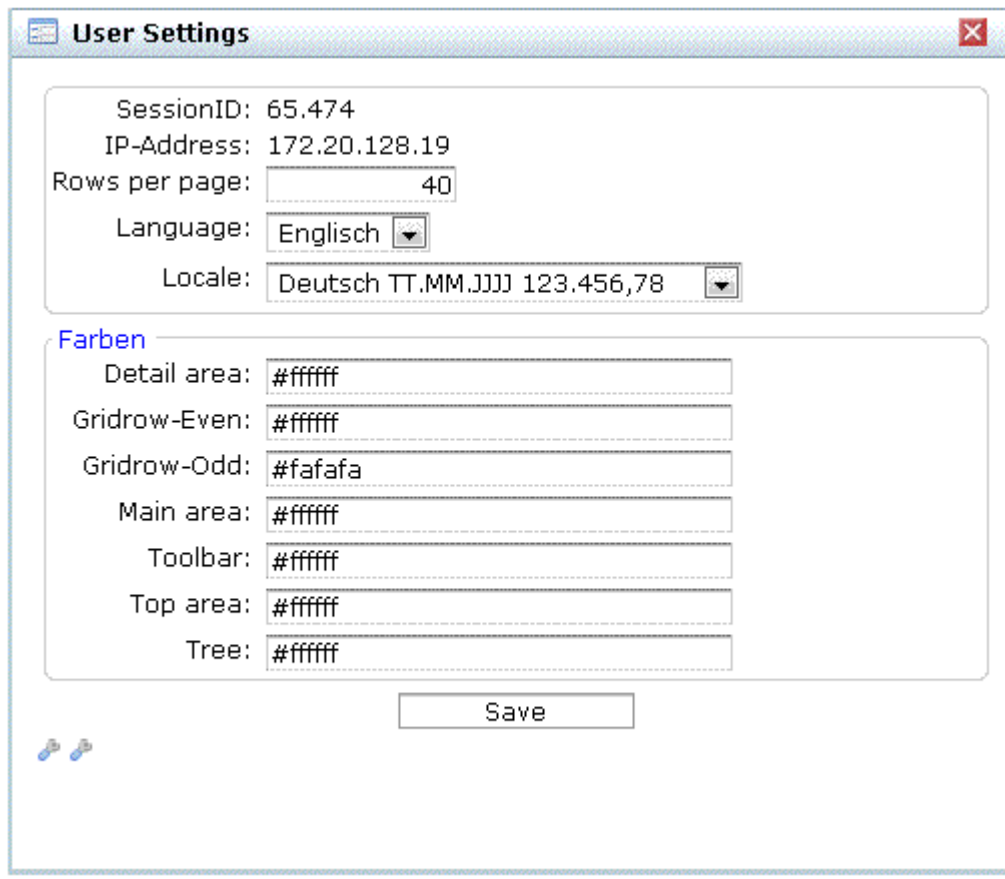
1329 ms (c) 2007 teamsheet software GmbH

Done www.teamsheet.info

User Centric Client Behavior

Any user can set for himself

- > Rows per page in grids
- > Language for label translation
- > Locale for date and figure format
- > Colors of different areas
- > Font size
- > Tree visibility



The screenshot shows a 'User Settings' dialog box with the following fields and values:

- SessionID: 65.474
- IP-Address: 172.20.128.19
- Rows per page: 40
- Language: Englisch
- Locale: Deutsch TT.MM.JJJJ 123.456,78

Under the 'Farben' (Colors) section, there are color pickers for:

- Detail area: #ffffff
- Gridrow-Even: #ffffff
- Gridrow-Odd: #fafafa
- Main area: #ffffff
- Toolbar: #ffffff
- Top area: #ffffff
- Tree: #ffffff

A 'Save' button is located at the bottom right of the dialog box.

Intuitive Handling

Fields in your list...

Save Cancel

Fields in your list

- Request (Field: ReqCnt/Numeric)
- SessionStatus (Field: SesSts/Combo)
- Logon-Name (Field: DefUID/Character)
- Session (Field: SesId/Numeric)
- (2) Created (Field: SCDate/Date)
- IP-Address (Field: IPAdr)
- (3) Created (Field: SCTime/Time)
- (1) last Request (Field: SLRDte/Date)
- last Request (Field: SLRTim/Time)
- BrowserVersion (Field: UAgent/Text)
- Login RememberID (Field: SResT1/Text)
- Language (Field: DefLng/Combo)
- Locale (Field: Locale/Combo)

Excluded fields

- Client (Field: DefEnt / Character)
- DefParFreeValue (Field: Deffre / Character)
- Sector (Field: DefSec / Character)
- Session (Field: DefSid / Numeric)
- SessionResSTS1 (Field: SResS1 / Character)
- SessionResSTS2 (Field: SResS2 / Character)
- SessionResSTS3 (Field: SResS3 / Character)
- SessionResTxt2 (Field: SResT2 / Text)
- SessionResTxt3 (Field: SResT3 / Text)
- SessionResTxt4 (Field: SResT4 / Text)
- SessionResTxt5 (Field: SResT5 / Text)
- Shop (Field: DefShp / Character)
- Software (Field: DefSof / Character)
- System (Field: DefSys / Character)
- Template (Field: TmpKey / Combo)

Hidden fields

prises

What's next?

- > Format r2
- > Plex r6
- > Documentation and Tutorial (wiki.plex-xml.com)
- > Security refinements and enhancements
- > API Model
- > More front end features
 - Prototype 1.6
 - Other JavaScript frameworks