

## Repository software comparision

Version	0.2
Author	Josef Willenborg
Created	1.12.2008
Last modified	15.01.09
Last modified by	Dirk Wintergrün

# Content

1. Software comparison.....	3
1.1. Basic features.....	3
1.2. Repository.....	3
1.3. Performance / Bugs.....	4
2. Decision.....	4

## 1. Software comparison

We examine different software systems by means of their main functions and features for our user requirements in the area of repository software functionality. We limit the examination to five systems: eSciDoc ([www.escidoc-project.de](http://www.escidoc-project.de)), Fedora ([www.fedora.info](http://www.fedora.info)), eXist ([exist-db.org](http://exist-db.org): new versioning function for XML documents expected in 2009), VMS (version management systems [subversion.tigris.org](http://subversion.tigris.org) and [git.or.cz](http://git.or.cz), in comparison only subversion is considered) and VFFS (MPIWG-versioned file folder system, see [itgroup.mpiwg-berlin.mpg.de-versionedFile Folder](http://itgroup.mpiwg-berlin.mpg.de-versionedFileFolder)).

Functions which are mandatory for our requirements are marked bold. If one system has a minus in one of these functions it could not be selected in our decision process.

### 1.1. Basic features

Function/Feature	eSciDoc	Fedora	eXist	VMS	VFFS
Open software	++	++	++	++	++
Easy maintenance and usage (easy understandable architecture)	+	+	+	++	+
<b>Powerful in functionality</b>	++	+	-	+	0
<b>Fast</b>	++	++	?	+	0
<b>Stable / reliable</b>	+	++	?	++	++
Scalable	++	++	+	++	+
Supported platforms	++	++	++	++	+

### 1.2. Repository

Function/Feature	eSciDoc	Fedora	eXist	VMS	VFFS
<b>Persistent versioning of documents (XML)</b>	++	++	+	++	+
Persistent versioning of files (binary files such as jpg, gif, ...)	++	++	+	++	++
Repository entries for container / collection, relation between entries	++	++	-	-	-
<b>Persistent id (URL) different than filename</b>	+	+	-	-	+
<b>Batch ingestion of repository entries</b>	++	++	+	++	0
<b>User management</b>	++	++	-	++	0
<b>Simple user rights for container/collection</b>	++	++	-	+	0
<b>Notification/messaging/triggering system</b>	+	???	+	- (implementable in web gui)	- (could be developed)
<b>Web GUI for CRUD operations on repository entries (create,</b>	(under develop	???	-	++ (e.g.: <a href="http://www.usvn.info">www.usvn.info</a> )	++

read, update, delete)	ment at MPIWG)				
<b>Easy user upload of repository entries</b>	(under development at MPIWG)	???	-	+ (files only)	++
<b>Easy user download by persistent URL</b>	++	???		+ (files only, by time stamp)	++
<b>Status of repository entry (pending, submitted, released)</b>	++	++	-	-	++
Web GUI for searching for repository entries	++	-	-	+	-
<b>Interfaces: REST, SOAP, XML-RPC</b>	REST (SOAP not-tested yet)	???	+	-	XML-RPC
Interfaces: WebDAV, FTP	-	???	+	-	-
<b>Backup of the system/contents</b>	++	???	+	++	+
Easy access to diffs of documents	0	???	+	++	+
Interface with editors (e.g. emacs, oXygen, jEdit, Eclipse, Arboreal)	-	???	+	+	--

### 1.3. Performance / Bugs

Function/Feature	eSciDoc	Fedora	eXist	VMS	VFFS
<b>CRUD operation time</b>	++	++	?	++	+
<b>high number of repository entries</b>	++	++	?	++	-
<b>little server crashes / little memory leaks</b>	+	???	?	++	-

## 2. Decision

...

...