

# Introducing the UNITE Source Code Repository (SCR)

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2010 UNITE Conference  
Session GE-4004

Sunday, 23 May 2010, 2:00 p.m.

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Paradigm Corporation

## Presentation Topics

- ◆ Background and History
- ◆ Current Approach
- ◆ Getting Started with SourceForge
  - Creating an account
  - Registering a project
  - Packaging and uploading a release
  - Advanced topics
- ◆ References and Resources
- ◆ Candidate Policies and Procedures

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## Background and History

### User Community Shared Software

- ◆ In the beginning, there was no software
  - Computers were just hardware
  - Everyone had to write everything from scratch
  - Software was not considered as a product
  
- ◆ Sharing of software grew naturally
  - Mainly among users of similar equipment
  - LA area users of IBM 704 formed SHARE in 1955
  - DEC users formed DECUS in 1961
  - Early Univac 1103 users established USE (ca 1958)
  - Burroughs groups
    - DAO (Datatron Users Organization)
    - CUE } ➡ CUBE (ca 1961)
    - BUG }

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## User Group Software Libraries

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- ◆ Traded by mag tape and card deck
  - Slow, expensive
  - No real maintenance or upgrade scheme
- ◆ USE library
  - Inactive, but still available
  - See <http://uusig.org>
  - Also <http://cgibin.rcn.com/leistlc/cgi-bin/indexbld.pl>
- ◆ CUBE library
  - Inactive for years
  - Contents appear to have been lost
  - Some listings exist on <http://bitsavers.org>

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## Why Have an SCR?

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- ◆ Advantages of free, openly-shared code have not changed
  - There is a lot of home-grown stuff out there
  - Most authors would be thrilled if you used it
  - A lot of it is probably even useful
- ◆ Reinforces our sense of community
- ◆ You can learn a lot from others' code
- ◆ Might save you some time and money
- ◆ Your ideas can be incorporated and fed back to benefit others

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## **Who Benefits? Who Contributes?**

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- ◆ Basically, **you do**
- ◆ The repository *cannot* be a one-way pipe from a few enthusiasts to the rest of us
  - Real value comes from enhancement and feedback
  - Fresh ideas lead to other fresh ideas
  - Software becomes more capable when it is exposed to more users and new requirements
- ◆ Be prepared to use ***and*** to give back
  - Even if it is only suggestions and bug reports
  - Contributions need not be grand efforts
  - No contribution is too insignificant

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**Current Approach**

## Origins

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- ◆ **Initial discussions – March 2009**
  - Some concerns over hosting and support
  - Doug Dobson suggested using SourceForge
- ◆ **UNITE Board initiative**
  - Greg Schweizer assigned to research hosting
  - Tried several hosting sites
  - Ended up recommending SourceForge to Board
- ◆ **First attempt – August/September 2009**
  - Greg and Paul Kimpel jointly created a prototype
  - Experimented with file formats and a directory
  - Created first contributions in current form
  - Announcements via email blast and comp.sys.unisys

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## Initial SCR Implementation

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- ◆ **Hosted by SourceForge.net**
  - Site designed for open source projects
  - No cost to host and download projects
  - Lots of tools for managing collaborative development
- ◆ **SourceForge is organized around "projects"**
  - Project is typically an application
  - Can be any software, documentation, binaries, etc.
- ◆ **Contributions must be open source**
  - Must make all source code available for download
  - Must give users free, unrestricted use of software
  - Must use one of several open-source licenses

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## SourceForge Advantages

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- ◆ **Web-based**
  - No registration required to download
  - Search capability
  - Mirror sites, robust network, file backups
  - Hosts any file that can be downloaded over HTTP
- ◆ **Project support**
  - Easy file upload and management
  - Project and user web sites (documentation, notes, etc.)
  - Source code management (CVS, Subversion, git)
  - Web traffic statistics and analytics
  - Blogs, forums, and email lists
  - Wiki and issue tracker

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## Current SCR Concept

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- ◆ **A loose collection of projects**
  - Each project is somehow related to Unisys systems
  - Projects are managed and maintained by individuals
  - No permission or oversight by UNITE required
  - Each project has
    - One or more administrators
    - Optionally other users as developers, moderators, release technicians, etc.
- ◆ **UNITE maintains a directory project**
  - Serves as an index to other projects in the SCR
  - The only piece that UNITE necessarily controls
  - UNITE may choose to administer other projects

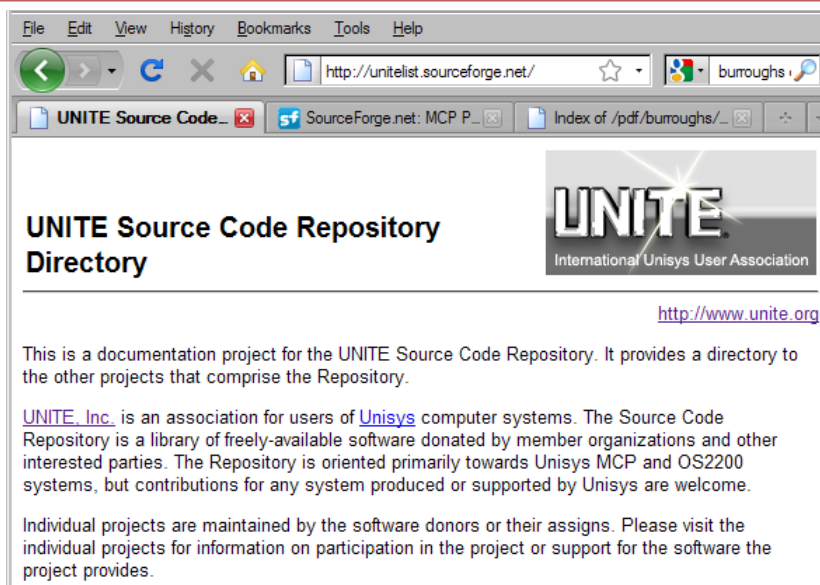
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## The UNITE Directory Project

- ◆ <http://unitelist.sourceforge.net>
- ◆ The index that ties together SCR projects
  - Currently, just a web page with links
  - With growth, may require something more sophisticated
- ◆ Categorization
  - Organized by platform (MCP, OS2200, etc.)
  - Project name
  - Contributor
  - Initial contribution date
  - Brief project description

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## SCR Directory (part 1)



The screenshot shows a web browser window with the address bar containing <http://unitelist.sourceforge.net/>. The browser tabs include "UNITE Source Code...", "SourceForge.net: MCP P...", and "Index of /pdf/burroughs/...". The main content area displays the "UNITE Source Code Repository Directory" with the UNITE logo (International Unisys User Association) and the URL <http://www.unite.org>. Below the header, there is a paragraph: "This is a documentation project for the UNITE Source Code Repository. It provides a directory to the other projects that comprise the Repository." followed by a paragraph about UNITE, Inc. and the Source Code Repository, and a final paragraph about individual projects.

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## SCR Directory (part 2)

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### MCP Projects:

#### [MCP Tape Label Logger](#)

Contributed by Paul Kimpel of Paradigm Corporation, 2009-08-31.

The tape label logger is a utility for recording tape label information for Unisys MCP systems. It is a small program that runs continuously, capturing tape volume creation events in an ISAM (KEYEDIOII) file for later analysis and reporting.

#### [MCP PWB/COPY Utility](#)

Contributed by Paul Kimpel of Paradigm Corporation, 2009-09-12.

PWB/COPY is a utility for Unisys MCP systems that recursively copies whole directories of source files from MCP file systems to SMB/CIFS shared directories. The source is converted to standard text files in PWB (Programmers Workbench) format.


### OS2200 Projects:

#### [OS2200 @ZIP Utility](#)

Contributed by Greg Schweizer, 2009-09-22.

This utility is for OS2200 systems. ZIP is a fast read-only text processor that can read SDF format files and elements, ALAT and TIP TPM logs, and any 2200 sector-formatted file in block mode.

Revised: 2009-09-23

Project Web Hosted by 

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## Getting Started With SourceForge



## Searching and Downloading

### ◆ Searching SourceForge

- Indexed by the major search engines
- Internal keyword search
- "Trove" categories assigned by project admins

### ◆ Downloading

- Each project has an auto-generated download page
- <http://sourceforge.net/projects/projectname>
- Projects may have more than one download file
  - One file is designated as the primary
  - Others are available on a linked page
  - Admin can associate a platform with a file
    - That file is automatically offered for that platform
    - Alas, MCP and OS2200 are classified as "All Others"

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## SourceForge Home Page

Search by  
Keyword

"Trove"  
Categories

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## Project Download Page

The screenshot shows the SourceForge project page for 'MCP PWB/COPY' by 'gkimpel'. The page includes a 'Download Now!' button, a 'View all files' link, a project website URL, a 'Ratings and Reviews' section, and a 'Project Feed' showing a recent commit. Red arrows point from text labels on the right to these specific elements: 'Click to Download' points to the 'Download Now!' button; 'View All Project Files' points to the 'View all files' link; 'Link to Project Website' points to the URL 'http://mcpwbcopy.sourceforge.net'; and 'Recent Project Activity' points to the 'Code committed' entry in the project feed.

Click to Download

View All Project Files

Link to Project Website

Recent Project Activity

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## Preparing a Project

- ◆ Create a SourceForge account
- ◆ Register a project
- ◆ Assemble your files
- ◆ Upload the file or files to the project
- ◆ Optionally
  - Alter project configuration and options
  - Set up a project web site
  - Use hosted applications (source control, wiki, etc.)

## Create a SourceForge Account

The screenshot shows the 'Create Account' page on SourceForge.net. The form is divided into several sections: 'About Yourself', 'Account Information', 'Opt-in & Terms of Service', and 'Complete Your Registration'. The 'About Yourself' section includes fields for First Name (Paul), Last Name (Kimpel), Email Address (paul.kimpel@digm.com), Confirm Email Address, Language (English), and Timezone (America/Los\_Angeles). The 'Account Information' section includes fields for Publicly Displayed Name (Paul Kimpel), Username (hallaaded), Password, Re-Enter Password, Security Question (Where did you go to high school?), and Security Answer (The high school). The 'Opt-in & Terms of Service' section includes checkboxes for 'Receive Email about Site Updates' and 'I accept the Terms and Conditions and Privacy Policy'. The 'Complete Your Registration' section has a 'Register Now' button and a 'Cancel' link. To the right of the form is a 'Registration Instructions' box with text explaining the account creation process and a 'Support' link.

SourceForge.net » Create Account

**Account Registration**

**About Yourself** \* indicates required field

First Name: Paul  
Last Name: Kimpel  
Email Address: paul.kimpel@digm.com  
Confirm Email Address: paul.kimpel@digm.com  
Language: English  
Timezone: America/Los\_Angeles  
Country: United States

**Account Information**

Publicly Displayed Name: Paul Kimpel  
Username: hallaaded  
Choose a password: \*\*\*\*\*  
Re-Enter Password: \*\*\*\*\*  
Security Question: Where did you go to high school?  
Security Answer: The high school

**Opt-in & Terms of Service**

Site Mailings:  
 Receive Email about Site Updates (Very low traffic and includes security notices.)  
 Receive Additional Community Mailings.

Terms and Policy: \*  
 I accept the Terms and Conditions and Privacy Policy.  
 I am at least 13 years old or have consent from my Parent or Guardian

**Complete Your Registration**

[Register Now](#) or [Cancel](#)

**Registration Instructions**

Please complete and submit this form to register an account on SourceForge. After submission, we will send you an email to confirm your account creation. When you click on the link in this email your account will be activated and you will have access to the wide range of services offered by SourceForge. If your email provider actively filters spam, please add "noreply@sourceforge" to your address book to ensure prompt delivery.

**Support**  
To get you started and answer a lot of common questions check out our [site documentation](#) wiki.

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## Account Acknowledgment Email

**Subject:** SourceForge.net Account Details: pkimpel  
**From:** "SourceForge.net" <noreply@sourceforge.net>  
**Date:** Mon, 31 Aug 2009 13:50:32 +0000  
**To:** paul.kimpel@digm.com

Welcome, and thanks for joining SourceForge.net!

Once you activate your account, you'll be ready to join our growing community of open source specialists and enthusiasts. To activate your account, follow this link:

<https://sourceforge.net/account/registration/pending.php?hash=850154b0bb6666f8b84b67586a591fef>

Your account has been created with the following information:

Username: pkimpel  
Publicly displayed name: Paul Kimpel  
Country:  
Registered email address: paul.kimpel@digm.com

Once you activate your account, email sent to [tpkimpel@users.sourceforge.net](mailto:tpkimpel@users.sourceforge.net) will be forwarded to your registered email address. To avoid bounces and other mail server rudeness, please make sure to keep your email address on SourceForge.net up to date!

If you need assistance, check out our help section at:  
<http://p.sf.net/sourceforge/getsupport>

Please keep this email for your records.

Enjoy the Site!  
The SourceForge.net staff

Click Link to Activate Account

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## Registering a Project

The screenshot shows the SourceForge 'Create Project' page. The browser address bar is <https://sourceforge.net/register-project/>. The page title is 'Create Project'. The 'Project Name' field contains 'The Paradigm Futilities'. The 'URL' field contains 'http://sourceforge.net/projects/paradigmfutil'. The 'Public Description' field contains 'The Paradigm Futilities is a collection of miscellaneous utility programs, server libraries, and other source code for Unix's MCP systems.' A red arrow points from the 'Project Name' field to the annotation 'Project "Display" Name'. Another red arrow points from the 'URL' field to the annotation 'Project "Unix" (file) Name'. A third red arrow points from the 'Public Description' field to the annotation 'Public Project Description'. The 'Complete Registration' button is visible at the bottom left.

Project "Display" Name

Project "Unix" (file) Name

Public Project Description

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## Project Registration Acknowledgment

The screenshot shows an email titled 'Project Registration Acknowledgment'. The email content is as follows:

**Subject:** SourceForge.net: New Project Registration  
**From:** "SourceForge.net" <noreply@sourceforge.net>  
**Date:** Sat, 01 May 2010 23:51:51 +0000  
**To:** paul.kimpel@digm.com

Welcome to SourceForge.net!

The following project has been registered for hosting:

Descriptive Name: The Paradigm Futilities  
Unix Name: paradigmfutil  
URL: <https://sourceforge.net/projects/paradigmfutil>

By using the SourceForge.net site, you agree to be bound by the terms and conditions of the SourceForge.net Terms of Use Agreement.

SourceForge.net project hosting is available solely to Open Source software development projects. If you are not releasing your project under an Open Source license, please contact SourceForge.net staff for assistance (see "Support", below).

Project Administration:

To manage your project, login and visit [https://sourceforge.net/project/admin/?group\\_id=320095](https://sourceforge.net/project/admin/?group_id=320095)

Getting Started:

Review our getting started guide: <http://p.sf.net/sourceforge/getstarted>

Select an Open Source license and update the Trove categorization for this project: [https://sourceforge.net/project/admin/group\\_trove.php?group\\_id=320095](https://sourceforge.net/project/admin/group_trove.php?group_id=320095)

Enable the project features you want to use: [https://sourceforge.net/project/admin/features.php?group\\_id=320095](https://sourceforge.net/project/admin/features.php?group_id=320095)

A red arrow points from the URL [https://sourceforge.net/project/admin/group\\_trove.php?group\\_id=320095](https://sourceforge.net/project/admin/group_trove.php?group_id=320095) to the annotation 'Recommend you go here right away to choose a license and categories'.

Recommend you go here right away to choose a license and categories

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## Notes on Project Registration

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- ◆ Choose the "Unix" name carefully
  - Projects are almost impossible to rename
  - Difficult to get rid of once created, too
  - But display name and description are easy to change
- ◆ "Unix" names have a restricted charset
  - Allowed: *space A-Z a-z 0-9* ([-\_+.,=#~@!])
  - Disallowed: *&:%?/\**
- ◆ Choose an open-source license up front
  - SourceForge lists about 75 candidates
  - Public Domain
  - Simple Public License 2.0 (SimPL)
  - GPLv2

} *recommended*

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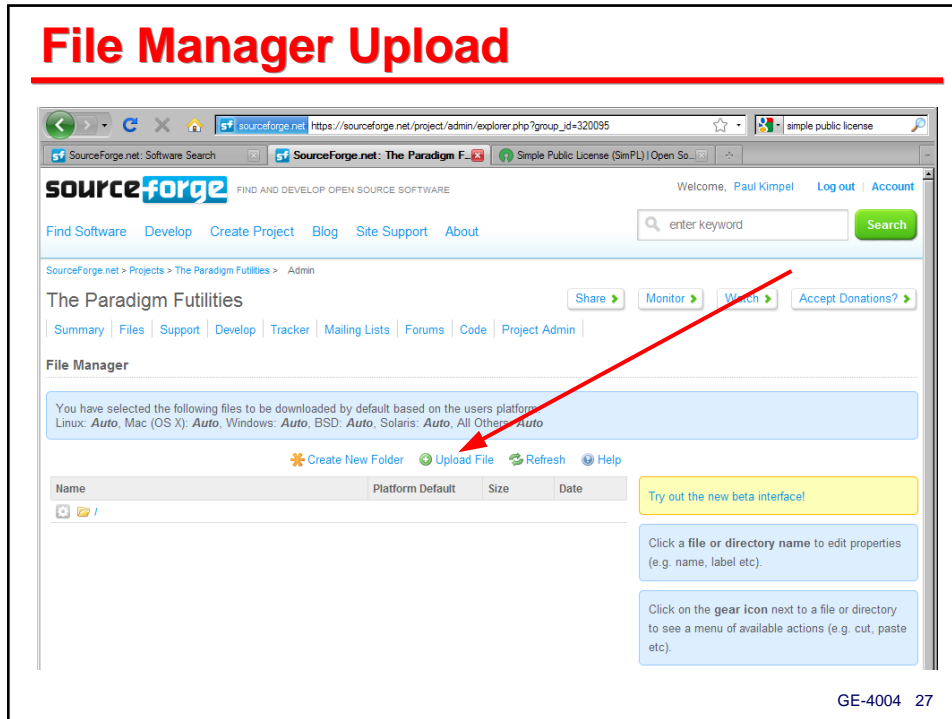
## Packaging and Uploading

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- ◆ Assemble your files
  - Convert to Windows/\*NIX plain text as necessary
  - Recommend wrapping in a ZIP or similar archive
  - Minimize the number of downloads a user must do
- ◆ Easy way:
  - Use the web-based File Manager to upload
  - Project Admin > File Manager
- ◆ More advanced ways:
  - SCP
  - SFTP
  - rsync

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## File Manager Upload



## New SourceForge Download Service

- ◆ Announced in April 2010
  - Support for download hosting only
  - Simplified File Manager interface for uploads
- ◆ Suitable for use if
  - You are doing your development externally
  - You don't want to use the collaborative project tools
- ◆ Very easy way to get started
- ◆ Still has a bit of a beta-release feel
- ◆ Apparently no different than a regular project – can use the other tools

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## **Advanced SourceForge Topics**

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- ◆ Project web site
- ◆ File Management service
- ◆ Source control
- ◆ Shell service
- ◆ Hosted applications

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## **Project Web Site**

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- ◆ Each project has its own virtual web site
  - <http://projectname.sourceforge.net>
  - Termed "project web"
  - Default site is auto-generated (and just about useless)
  - Simply upload your own HTML to override the default
- ◆ Managing web site content is a little more complex than simply uploading files
  - Use SourceForge File Management Service
  - Use SourceForge Shell Service (UNIX command line)
  - Must include SourceForge logo on each page
- ◆ SourceForge also supports per-user virtual web sites ("developer web")

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## **Why Have a Project Web Site?**

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- ◆ Nice way to provide context and instructions
  - Purpose/intended use of software
  - Installation and configuration instructions
  - Instructions for use
  - Examples, references, and other documentation
  - Invitations for participation by others
- ◆ Strongly recommend you set up a web site
- ◆ No Web/HTML skills?
  - Steal someone else's site for use as a template
  - HTML text documents are not difficult
  - Lots of free HTML editors out there, if you need that
  - Avoid using Microsoft Word as an HTML editor

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## **File Management Service**

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- ◆ SourceForge provides multiple ways to upload and manage files
  - File Manager only used for downloadable files
  - SCP (UNIX/Linux secure copy command)
  - SFTP (secure FTP)
  - rsync (amazing file transfer/synchronization app)
- ◆ Using File Management from Windows
  - FileZilla is a nice SFTP GUI client
  - Many SSH clients support SFTP (e.g., PuTTY)
  - DeltaCopy is a free Windows port of rsync

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## Source Control

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- ◆ SourceForge supports several tools for maintaining versioned copies of files
  - CVS
  - Subversion
  - git
  - A few others
- ◆ Highly recommended for
  - Projects actively being updated and enhanced
  - Projects with multiple developers
- ◆ Consider using Subversion
  - Has free TortoiseSVN plug-in for Windows Explorer
  - Also has free Subclipse plug-in for Eclipse

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## Shell Service

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- ◆ SourceForge runs on CentOS Linux
- ◆ Shell service provides access to Linux shell on their servers
- ◆ Uses
  - File management
  - Edit files (e.g., vi, emacs)
  - Perform software builds
  - Run applications

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## **SourceForge Hosted Applications**

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- ◆ **Collection of apps that run on their servers**
  - Many of these require a one-time opt-in
  - See Project Admin > Feature Settings page
- ◆ **Examples**
  - MediaWiki
  - MySQL (relational database for web hosting)
  - PiWik (web analytics)
  - phpWebSite (content management)
  - Trac (wiki, issue tracker)
  - Wordpress (blogging)
  - SCM tools other than Subversion

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## **Other SourceForge Features**

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- ◆ **Project forums**
  - Developer forum
  - Help forum
  - General discussion forum
- ◆ **Mailing lists**
- ◆ **Site statistics**
- ◆ **Project news and screenshots**

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## References and Resources

### SourceForge Help

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- ◆ Wiki start page  
<http://sourceforge.net/apps/trac/sourceforge/wiki/WikiStart>
- ◆ Title index of all wiki pages  
<http://sourceforge.net/apps/trac/sourceforge/wiki/TitleIndex>
- ◆ Getting Started page for new projects  
<https://sourceforge.net/apps/trac/sourceforge/wiki/Get%20started%20with%20your%20new%20project>
- ◆ File Manager and releasing files for download  
<https://sourceforge.net/apps/trac/sourceforge/wiki/Release%20files%20for%20download>
- ◆ Additional file management information  
<https://sourceforge.net/apps/trac/sourceforge/wiki/File%20management%20service>
- ◆ Using SFTP with SourceForge  
<http://sourceforge.net/apps/trac/sourceforge/wiki/SFTP>

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## SourceForge Advanced Help Topics

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- ◆ Assigning developer permissions  
<https://sourceforge.net/apps/trac/sourceforge/wiki/Manage%20project%20developer%20permissions>
- ◆ Project web  
<http://sourceforge.net/apps/trac/sourceforge/wiki/Project%20web>
- ◆ Shell service  
<http://sourceforge.net/apps/trac/sourceforge/wiki/Shell%20service>
- ◆ Project News service  
<http://sourceforge.net/apps/trac/sourceforge/wiki/News>
- ◆ Subversion source code management  
<http://sourceforge.net/apps/trac/sourceforge/wiki/Subversion>

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## Related (and Free) Tools

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- ◆ PuTTY SSH & SFTP client
  - <http://www.putty.org>
- ◆ FileZilla SFTP client
  - <http://filezilla-project.org/>
- ◆ TortoiseSVN
  - <https://sourceforge.net/projects/tortoisesvn/>
- ◆ Subversion
  - <http://subversion.apache.org/>
  - <http://svnbook.red-bean.com/> [documentation]

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## Candidate SCR Policies & Procedures

### These Are Just Ideas

- ◆ Need participation and input from the community on forming SCR policies
- ◆ These points are not a proposal – just intended to seed the discussion
- ◆ We need to find a balance
  - Between standardization and flexibility
  - Between UNITE and contributor control of content
  - Between protecting the interests of contributors and the community

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## Nature of the SCR

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- ◆ Individual projects under a UNITE umbrella
  - UNITE provides minimum standards and indexing
  - Projects otherwise run independently
- ◆ Issues
  - Should projects need approval for inclusion?
  - What should be done about takeover for abandoned or inactive projects?
  - How do we protect against project admins arbitrarily destroying valuable contributions?
  - Should UNITE have administrator access to projects?
  - Should UNITE maintain a separate archive of data?

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## Nature of Content

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- ◆ Source code means source code
  - All software offered as ASCII or Unicode text files
  - SourceForge license requires this, anyway
- ◆ Active, runnable code for extant platforms
  - We're not trying to create a museum for old code
  - Bitsavers.org is a better place for obsolete stuff
- ◆ Issues
  - What valid reasons exist for non-source content?
  - Should non-source content even be permitted?
  - Should posting of executable content be permitted?
  - Should UNITE recommend/require specific licenses?
  - What about liability issues (some licenses address this)

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## Nature of Contributors

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- ◆ Contributions should be accepted from anyone with an interest in Unisys systems
- ◆ We can't, of course, restrict who would be able to *download* (nor should we)
- ◆ Issues
  - Restrict contributors only to UNITE members?
  - Restrict contributors only to Unisys customers?
  - How would we certify/police such a policy?

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## Format of Contributions

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- ◆ Goal is to make source readily accessible
  - Shouldn't need a Unisys system to read the source
  - Avoid proprietary formats whenever possible
- ◆ MCP
  - PWB format for standard source
  - Windows text (CR-LF) for everything else
  - MCP WRAP files only if absolutely necessary
- ◆ OS2200
  - Standard ASCII text files
- ◆ Other platforms?

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## Other Ideas

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- ◆ "Proxy projects"
  - Some people may have materials to contribute but not want to get involved with SourceForge
  - UNITE should host a team of volunteers willing to post and administer these contributions
- ◆ "Kitchen sink projects"
  - Many utilities are too small/specialized to justify setting up an independent project
  - Consider setting up some number of projects to aggregate and host these miscellaneous contributions
  - Perhaps organize by platform or subject area

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## Volunteer Opportunities

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- ◆ Overall repository administration
  - Maintenance of the index site
  - Policies and procedures
  - Connecting people having support needs with people having technical/documentation skills
- ◆ Administration and maintenance of "proxy" and "kitchen sink" projects
- ◆ Takeover of inactive or abandoned projects
- ◆ We need your ideas and participation to make this successful and useful to the community

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**End**

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