

GenerationCP Use Case and Software Engineering Collaboration and Management

SP4 Commissioned Research

Project 34, 2005

T. Metz, IRRI

Project description

Objectives

- Commission, promote and support infrastructure for documentation and implementation of GenerationCP platform and network use cases.
- Commission, promote and support tools for the coordination of SP4 domain modeling and platform software development.
- Support for SP4 informatics workshops.

Achievements

- System deployment
 - Software installed and tested in January 2005
 - System presented and actively used at SP4 coordination meeting, Wageningen, February 2005
 - Continuous growth of system use and users
- Capacity building
 - Presentations and training at SP4 workshops
 - Individual user support
 - Decentralization of system management

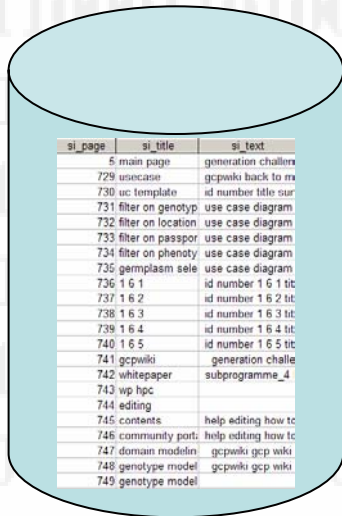
Collaboration System Overview

- System component selection and deployment process
 - Successful projects/sites/systems producing public goods (Wikipedia, SourceForge)
 - Use the same software, configured for GCP needs
 - Avoid custom software development, if possible
 - Build and support communities that function in different institutional environments

Collaboration System Overview

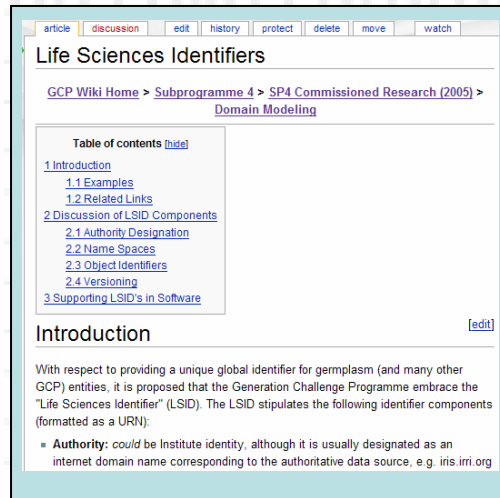
<http://cropwiki.irri.org>

Usecase DB



si_page	si_title	si_text
5	main page	generation challer
729	usecase	gcpwiki back to m
730	uc: template	id number title our
731	filter on genotyp	use case diagram
732	filter on location	use case diagram
733	filter on passpor	use case diagram
734	filter on phenoty	use case diagram
735	germplasm sele	use case diagram
736	1 6 1	id number 1 6 1 tit
737	1 6 2	id number 1 6 2 tit
738	1 6 3	id number 1 6 3 tit
739	1 6 4	id number 1 6 4 tit
740	1 6 5	id number 1 6 5 tit
741	gcpwiki	generation chall
742	whitepaper	subprogramme_4
743	wp hpc	
744	editing	
745	contents	help editing how to
746	community port	help editing how to
747	domain modelin	gcpwiki gcp wiki
748	genotype model	gcpwiki gcp wiki
749	genotype model	

CropWiki



article | discussion | edit | history | protect | delete | move | watch

Life Sciences Identifiers

[GCP Wiki Home](#) > [Subprogramme 4](#) > [SP4 Commissioned Research \(2005\)](#) > [Domain Modeling](#)

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Introduction

With respect to providing a unique global identifier for germplasm (and many other GCP) entities, it is proposed that the Generation Challenge Programme embrace the "Life Sciences Identifier" (LSID). The LSID stipulates the following identifier components (formatted as a URN):

- Authority:** could be Institute identity, although it is usually designated as an internet domain name corresponding to the authoritative data source, e.g. irri.ir.org

CropForge

```
public interface Entity extends AccessionId {  
  
    /**  
     * Return Name identifier that is the primary or "canonical" name of the Entity  
     */  
    Name getName();  
  
    /**  
     * (Re)set the Name identifier that is the primary or "canonical" name of the Entity  
     * Unlike the AccessionId, the canonical name of an Entity can change  
     */  
    void setName(Name name);  
  
    /**  
     * Like setName(Name) except that it accepts a string  
     */  
    void setName(String name);  
  
    /**  
     * (Re)sets the owner of the Entity  
     * @param LegalEntity owner of the Entity  
     */  
    void setOwner(LegalEntity owner);  
  
    /**  
     * Return LegalEntity owner of the Entity  
     */  
    LegalEntity getOwner();  
  
    /**  
     * Return Set of all Identifiers assigned to an Entity  
     */  
    IdentifierSet getIdentifiers();  
}
```



Collaboration System Overview

<http://cropwiki.irri.org>

- Usecase database (Java, MySQL)
 - Custom development, R. Bruskiwich
- GCPWiki
 - Wiki: website that can be edited by users using a web browser
 - GCPWiki is based on the Mediawiki software which is used for the Wikipedia
 - Key functionality: site-wide recent changes, complete document history, easy revision comparison, discussion pages

Collaboration System Overview

<http://cropforge.irri.org>

- CropForge
 - Collaborative software development environment, hosting multiple projects that are individually managed
 - CropForge is based on the SourceForge software (GForge)
 - Key functionality: source code management, tracker systems (bugs, feature requests, help), discussion forum, software release system

Remaining Work Plan 2005

- Upgrading software and hardware
- Testing and using additional functionality (e.g. Subversion, mailing lists)
- Integrating into the Institutional IT infrastructure
- User support
- IP / liability / usage
 - Content license (GCPWiki)
 - Disclaimer (GCPWiki, CropForge)
 - Terms of Use (CropForge)

IF and HOW to continue

Foreseen Commissioned work GCP SP4 2006

4.1 Establishment of GCP Information Platform

- 4.1.6 GCP Software Engineering Collaboration and Management
 - Provisional PI: Thomas Metz
 - Provisional budget: k\$80 (increased budget)
 - Continuation of 2005 project 34, with a strongly increased scope

How to continue

- **Assumption:** The GCP needs collaborative work environments throughout its existence, and beyond
- **Current status:**
 - We have a handle on the technology (functionality, reliability, scalability, decentralization)
 - We have a good idea how to build (human) capacity
 - We need to worry about direction, e.g. target contributors and users, scope and structure of content, process, CoP

Workplan: Technical Capacity

- New hardware
- Limited commercial support (CropForge)
- System administration and support
 - Software upgrades (MediaWiki, GForge)
 - OS Security and updates (patches, surveillance)
 - Availability (24/7)
 - Backup
 - Integration into Institutional IT landscape (Linux)

Workplan: Human Capacity

- Training materials, e.g. user guides, SOP's, best practices, FAQ's, survival guides, presentations
- Individual user support, helpdesk
- Group training, as part of workshops/meetings
- Institutional focal points
 - Local support and administration
 - Training materials development
- Subprogram focal points
 - Scope, structure, cross-linkage

Workplan: Direction

- **Proposition:** The collaboration systems we are using are outside our individual as well as institutional comfort zone, e.g. visibility and transparency of work in progress
- **Consequence:** Need to expect and overcome reluctance and/or resistance

Workplan: Direction

We need a vision

- Are the collaboration systems we are using only a means to satisfy the internal needs of the GCP?
- Or are they part of the GCP output needed to achieve impact (capacity building, technology transfer)?
- Where do we want to be 5 years from now?

Workplan: Direction

We need expert help

- Experienced Open Source Software Developer
 - Engineer our software to facilitate development participation and code re-use
 - Publishing source code under open source license is not enough
- Molecular Biologist with Wikipedia Experience
 - Developing and supporting a Wiki CoP
 - Organizing and structuring the GCPWiki content
 - Training everyone how to use a Wiki is not enough

Summary Work Plan 2006

- **Technical capacity (30%)**
 - Keep the systems up-to-date and running (reliability, security, accessibility, integration with Institute IT)
- **Human capacity (40%)**
 - Build and deploy decentralized training and support for GCP-wide use of the collaborative systems
- **Direction (30%)**
 - Vision (target groups, scope, function)
 - CoP consultants for Wiki use and Open Source software development