

System and Software Support Plan (SSSP)

Data Mining of Digital Library Usage Data

Team 07

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1. Support Objectives and Assumptions

System and Software Support Plan outlines the support strategy for Data Mining of Digital Library Usage Data application developed for USC Information Services Division. The document will guide system's support stakeholders to successfully operate and maintain the system.

1.1 Support Objectives

The key objective for software support is to ensure that the system provides up-to-date, reliable and better information for improving digital archive collections while the legacy systems and data collection are changing. Software support also helps to adapt to new users' needs by basing on the system for time and cost effectiveness.

1.2 Support

In order to carry out the support of the system successfully, the following assumptions need to be adhered:

- The system will be funded
- Personnel is staffed for maintaining and operating the system
- Supported by upper management
- Requirements and schedule for releases need to be stable and viable

1.3 References

Operational Concept Description

http://seacliff.usc.edu/~team7b/IOC/ioc2/OCD_IOC2_S05b_T07_V9.0.doc

System and Software Requirements Definition

http://seacliff.usc.edu/~team7b/IOC/ioc2/SSRD_IOC2_S05b_T07_V4.0.doc

Life Cycle Plan

http://seacliff.usc.edu/~team7b/IOC/ioc2/LCP_IOC2_S05b_T07_V07.0.doc

Iteration #3 Plan

http://seacliff.usc.edu/~team7b/IOC/ioc2/IP3_IOC2_S05b_T07_V01.0.doc

Training Materials

http://seacliff.usc.edu/~team7b/TS/Training_Materials_S05b_T07_V01.1.doc

MBASE Guidelines 2.4

http://sunset.usc.edu/classes/cs577b_2005/guidelines/MBASE_Guidelines_v2.4.2.pdf

Team 7 Website

<http://seacliff.usc.edu/~team7b>

2. Support Strategy and Environment

2.1 Support Strategy

2.1.1 Support Lifetime

This is a research project and the application may not be stable as new solutions arrive. Thus, the system is envisioned to have a short lifetime of roughly 1 to 2 years.

2.1.2 Release Strategy

Releases in the support stage include:

- Minor releases: each minor release may have bugs fixed and/or minor changes to the application. Minor release may synchronize with new updates of H3Viewer and MCL which are two third-party components used in the system.
- Major releases: a major release includes major changes and new requirements (such as evolution requirements documented in SSRD Section 6). Major release may synchronize with new updates of the third-party components used. Each major release will need a transition period of about 2-4 weeks before being fully deployed.

2.1.3 Release Requirements Determination

New release content will be driven primarily by schedule and staffing considerations as well as new strategies or solutions for analyzing Digital Archive. Based on schedule and budget thresholds, support stakeholders will categorize and prioritize the requirements and allocate requirements into each release.

2.1.4 Release Process

For minor releases, the product is released after the changes, fixes are tested and approved. The process includes requirements gathering, implementation, test and release.

For major releases, each release may include inception, elaboration, construction, and transition phases; each of these phases corresponds to an intermediate LCO, LCA, TRR/IOC and RRR milestones respectively. Support stakeholders will negotiate and agree on the phases as well as milestones of each release.

For major releases that require more than 2 months to implement, construction phase should consist of at least two iterations. Iteration plans in construction phase will be a means to detail the objectives, capabilities to be implemented, tested, etc.

2.2 Support Environment

2.2.1 Hardware

A computer with the following configurations:

- RAM: minimum 256 MB. Recommended: 512 MB
- HDD: minimum 100 MB disk space available. Recommended: 200MB.

2.2.2 Software

Software required:

1. Operation System – required platform for the system
 - Version: Linux 2.6.9, Mac OS X
 - Vendor: any Linux-OS vendor
 - Vendor support: N/A
 - Licensing: free/open source
2. Anjuta IDE – required for writing and compiling the source code
 - Version: 1.2.2 or 2.0
 - Vendor: Naba Kumar
 - Licensing: free/open source
3. Subversion – required for configuration management
 - Version: 1.1.4
 - Vendor: CollabNet
 - Licensing: free/open source

In addition, there are other common software products needed for support stage:

4. Microsoft Office 2000
5. Adobe Acrobat 5.0

2.2.3 Facilities

- OpenMotif 2.3 is used for building GUI. OpenMotif is a free library provided by Integrated Computer Solutions Inc.

2.2.4 Other Documentation

The following documents will be packaged and delivered along with the product for the system support. All documents are developed by the team and will be delivered to the client. Support stakeholders are granted to use these documents for software support purposes.

- OCD
- SSRD
- SSAD
- LCP
- FRD
- Iteration Plans #1, #2 and #3.
- Iteration Assessment Reports IOC#1 and IOC#2.
- Peer Review Plan
- Test Plan and Cases Description
- Quality Management Plan
- Peer Review Reports 1 and 2.
- Transition Plan
- User Manual
- Support Plan (this document).
- Training materials
- Regression Test Package
- Packaged Tools and Procedures

3. Support Responsibilities

Stakeholder	Responsibility
Customer and User (currently: Jewel Ward)	Decide on which evolutionary features are to be implemented or enhanced in the future
Maintainer: (currently: Jeff Pearson)	Maintain integrity and evolutionary development of system. Provide support or responsible for development of release whenever necessary.
Development Team(Software Engineers)	Responsible for developing the new changes, fixing defects for the system. Note: Development team may be formed by the client when the development of new features is needed.

4. Support Approach

This section identifies (if any) differences between the support approach and the development approach in the [LCP Section 4].

- **Monitoring and Control**
Depending on specific organization of the support team, monitoring and control of the support team may differ compared to that of the development team. The client representative is the program manager responsible for the product development strategies. A maintainer is responsible for technical aspects of the system. Dependent on the characteristics of each release, the program manager and maintainer will work together to organize development team and outline monitoring and control strategies for the team.
- **Methods, Tools, and Facilities**
No differences with the approach identified in LCP.
- **Configuration Management and Quality Management**
Project artifacts including source code, data are placed in the configuration management system using Subversion to ensure the consistency and correctness of the artifacts.

Excel spreadsheet is used for documenting and keeping track the defects of the system.

Refer to LCP Section 4.4 and Quality Management Plan for more information

5. Support Resources

5.1 Support Budget

The estimated support budget is \$7200 per year for support stage. This is equivalent to 240 hours per year for labor cost.

5.2 Other Resources

Training materials and training will be provided by the CS577b developer to the current maintainer.

6. Common Definition Language for Requirements

ARB

Architecture Review Board

FRD

Feasibility Rationale Description

LCA

Life Cycle Architecture

LCO

Life Cycle Objective

IOC

Initial Operational Capability

LCP

Life Cycle Plan

OCD

Operational Concept Description

SSRD

Software and System Requirement Definition

SSAD

Software and System Architecture Description

QMP

Quality Management Plan

SSSP

System and Software Support Plan