

Project Plan

Web ASSIST Articulation Maintenance Software

August 1997

Purpose

The Web ASSIST Articulation Maintenance Software provides authorized users with data maintenance capabilities for articulation information in the ASSIST database. This software duplicates the functionality of the Revelation-based ASSIST software for maintenance of articulation data. This software utilizes the client-server model, with clients connected to the server via the Internet. All data will reside on a central server located at and maintained by the ASSIST Coordination Site. Data developed using the Web ASSIST Articulation Maintenance Software will be available to users accessing the Web ASSIST articulation display software.

This document presents the steps for the development of the Web ASSIST Articulation Maintenance Software, the anticipated starting and ending dates for each step, and resource estimates for completing the project. This document also extends and refines the information presented in the Project Proposal and Definition of Functional Requirements for this project.

Refinement of Project Proposal and Definition of Functional Requirements

As development continues on a project, open issues are resolved and new issues are identified. When this happens, previously stated requirements are revised to encompass the current definition of the project. This section details revisions to requirements stated in the Project Proposal and Definition of Functional Requirements.

1. Client software

It was stated in the Project Proposal that the Web ASSIST Articulation Maintenance Software would provide HTML/HTTP-based interaction for all entry, updating and maintenance of data. While this capability exists, the ACS has found that the current solutions are not robust enough to meet the needs of this application. The ACS is now targeting the use of a distributed PowerBuilder executable, using the Sybase Open Client transport layer. This solution allows all standard Windows controls to be used. All necessary software can be distributed via FTP (the feasibility of automatic updates to client software will be investigated). The ACS is also targeting Windows 95/NT as the client platform.

2. CAN and A-F data

The Definition of Functional Requirements indicated that data maintenance capabilities will be provided for CAN catalog information and high school A-F lists. Both the CAN System Office and the UC Office of the President are working to improve the computerization of the data they maintain. The ACS will integrate the Web ASSIST Articulation Maintenance Software with existing systems developed by these offices to the greatest extent possible. It is currently not anticipated that the Web ASSIST Articulation Maintenance Software will be used to edit (as opposed to query) these types of data.

3. Duplication

The Definition of Functional Requirements indicated that two separate databases will be maintained, one for maintenance and the other for public query. The exact method for physically separating the two copies of data is still an open issue. The final method will be chosen when the impact on performance of each possible solution has been evaluated.

4. Schedule

The schedule presented in this document represents a refinement of the schedule included in the Definition of Functional Requirements.

Schedule

The following is a schedule of the major tasks to be completed for this project, with starting and ending dates for each major step. Where appropriate, significant risks are also identified. These risks, under the worst case, could cause the schedule to slip past the dates indicated here. For each risk, the likelihood and impact are identified.

	<u>Task</u>	<u>Dates</u>
1.	Develop initial database schema (tables & relations) Design tables Design relations Verify all required access paths against schema	8/97 - 9/97
2.	Convert Revelation data to Sybase Define intermediate format & create Revelation export programs Resolve issues with data integrity Install additional hardware on Unix server Create production Sybase physical database Create data conversion scripts	9/97 - 12/97

Import intermediate data into Sybase
Create indexes & foreign keys
Create integrity triggers to supplement foreign keys

Risk: Significant inconsistency might be found in the existing Revelation data, which would require a large effort to resolve for conversion into the Sybase database. Likelihood: moderate. Impact: moderate.

3. Integrate Web ASSIST with Sybase database **9/97 - 1/98**

Identify queries needed by Web ASSIST
Create views, etc. in Sybase as needed

Note: This is a corollary activity that is actually a part of the Web ASSIST Displays project.

4. Create initial PowerBuilder application **8/97 - 2/98**

Design data windows, menus, etc.
Create prototype
Refine prototype (a limited amount of user input will be solicited)

5. Finalize method for client access **2/98**

Test prototype on client computers using Open Client
Identify and resolve issues with client access
Identify alternate methods as necessary
Work with clients to ensure that necessary hardware/software will be in place

Risk: If Open Client does not provide satisfactory performance, an alternate strategy must be identified. Likelihood: minor. Impact: significant.

6. Create application framework using Powersoft Foundation Classes (PFC) **8/97 - 4/98**

Identify generic objects applicable to ASSIST
Identify generic navigation
Design validation methodology
Build & test generics

7. Finalize database **9/97 - 6/98**

Refine database schema as needs are identified during development of application
Optimize database schema
Identify & create database maintenance utilities
Design & build procedures for data retrieval

Finalize triggers
Finalize indexes (ordinary & clustered)
Integrate database changes with Web ASSIST

Risk: If significant organizational changes are required for the database, an iteration of steps 2, 3, 4 and 6 might also be required. Likelihood: minor. Impact: significant.

8. Extend & refine PowerBuilder application **2/98 - 9/98**

Finalize user interface
Implement check-out/check-in system for data
Migrate necessary data maintenance utilities from Revelation
Identify and implement new data maintenance utilities

9. Create reference materials **9/97 - 12/98**

Identify delivery method for on-line help
(web based, integrated with application, etc.)
Identify tools
Develop on-line help
Integrate on-line help
Develop user's guides

10. Test (in-house, alpha & beta) and refine the application **9/98 - 12/98**

Test
Identify necessary changes per testing feedback
Implement changes
Re-test

Risk: Significant problems could require additional development time to resolve.
Likelihood: minor. Impact: unknown.

11. Deploy **12/98**

Identify distribution method for client software
Develop installation processes
Deploy final server software & database
Distribute client software
Training

Resource estimates

1. Staffing requirements

Technical Manager: 75% for duration of project
Senior Writer: 100% for 12 months
PowerBuilder Programmer: 100% for duration of project
LAN/Unix Administrator: 50% for 1 month and as needed

2. Training

Powerbuilder training as required (cost TBD)
Sybase training as required (cost TBD)
(Includes DBA training)

3. Consultants

Not anticipated

4. Software

Sybase and Powersoft products already purchased on 96-97 budget
No software costs or royalties for client software
Maintenance fees are currently allocated in ACS budgets

5. Hardware

No additional hardware is anticipated for the development of this project. However, following deployment it will become necessary to acquire additional server hardware to accommodate demand. This requirement is included in the ASSIST Strategic Plan. Funding has been approved and is included in ACS budgets.

References

1. Project Proposal, Web ASSIST Articulation Maintenance Software, January 1997
2. Definition of Functional Requirements, Web ASSIST Articulation Maintenance Software, February 1997
3. 1996-97 ASSIST Technology Plan, November 27, 1996
4. 1996-97 ASSIST Strategic Plan
5. 1997-98 ASSIST Budget