
***LEXEVS OPERATIONS AND MAINTENANCE
SUPPORT***

PROJECT MANAGEMENT PLAN

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VERSION HISTORY

Version Number	Implemented By	Revision Date	Approved By	Approval Date	Description of Change
1.0	Craig Stancl	10/01/2014			Initial Version

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1 INTRODUCTION

1.1 PURPOSE OF PROJECT MANAGEMENT PLAN

The purpose of this plan is in response to Leidos Biomedical Research, Inc. (Leidos) RFP Solicitation No. S13XS500 MOD4.

The intended audience of the LexEVS Operations and Maintenance Support PMP is all project stakeholders including the project sponsor, senior leadership and the project team.

1.2 PROJECT CHARACTERIZATION

As documented by Leidos Biomedical Research, Inc. RFP Solicitation No. S13XS500 MOD4.

2 EXECUTIVE SUMMARY OF PROJECT CHARTER

Since 1997, NCI Enterprise Vocabulary Services (EVS) has provided terminology content, tools, and services to accurately code, analyze and share cancer and biomedical research, clinical and public health information.

EVS works closely with NCI and other partners to develop, license and publish terminology, jointly develop software tools, and support harmonization and shared standards. EVS provides the foundational layer for NCI's informatics infrastructure, and plays an important role in federal and international standards efforts (see [EVS Use and Collaborations](#)). The [EVS Wiki](#) provides extensive details on these and other EVS resources, tools and services.

Part of the NCI Enterprise Vocabulary Services (EVS) project that provides NCI, partners and other users with central terminology data creation, storage and services. FY14 onward addresses backlogged and new requirements from clinical trials, precision/molecular medicine, and other research and operational efforts, especially in enhancements to value set and mapping capabilities, new CTS2 REST APIs, and interoperability with other CTS2 services.

EVS provides resources and services to meet NCI needs for controlled terminology, and to facilitate the standardization of terminology and information systems across the Institute and the larger biomedical community. The LEXEVS Server plays a critical role in the EVS infrastructure. It provides standard terminologies, value sets, and terminology-to-terminology mappings through a standard web service, a caGrid service, and a Representational State Transfer (REST) interface. Many users make direct use of the NCI LEXEVS servers. LEXEVS is also used at a number of other partner organizations such as MD Anderson, Stanford, Emory, Ohio State University Medical Center, Georgetown University, Washington University, and National Cancer Research Institute (NCRI)/UK CancerGrid, as well as by commercial vendors such as IBM and GE Healthcare. Information on users is available at: https://wiki.nci.nih.gov/x/dYf_Ag.

The LexEVS project, developed by Mayo Clinic LexEVS team, represents the union of the LexGrid Terminology Services for EVS. LexEVS version 6.1 (and soon 6.2) is currently in production use and was developed and supported by our LexEVS team. Having developed the LexGrid model and enhanced LexEVS to meet the needs of EVS, the Mayo Clinic team has extensive domain expertise in the LexEVS architecture, development and support. Mayo Clinic continues to strive to stay informed of emerging standards and participate in shaping standards and adoption of standards. Based on this, our team is well poised to provide exceptional operational and maintenance support of the LexEVS server for NCI.

2.1 ASSUMPTIONS/CONSTRAINTS

TBD

3 SCOPE MANAGEMENT

Mayo Clinic standardized best practices are based on those identified by the Project Management Institute (PMI). As defined by PMI, we will utilize the tools identified in the PMBOK to effectively initiate, plan, execute, monitor and control and close this project. The project manager for this project is a PMI certified project management professional and will utilize the standard best practices to ensure customer satisfaction as well delivering the project on-time and within budget.

We will also utilize the process we have successfully used and implemented with NCI. We will engage in weekly management meetings with the CBIIT team to discuss management status, risks, issues and planning. We will lead weekly technical meetings with CBIIT team to resolve bugs, discuss technical approach, resolve issues, identify risks and review the overall schedule. We will have internal team meetings to track task status. Additionally, we use this time to address budget, risk mitigation, issue resolution and planning. The team will engage in time tracking to ensure hours expended align with the budget. The project manager will provide reporting of status. The project manager will work closely with management, team members, and accounting to ensure adherence to the plan and resolution of risks and issues.

3.1 WORK BREAKDOWN STRUCTURE

DELIVERABLE	DUE DATE
Project Management Deliverables	
Technical Project Plan	Initial draft with Offer Baselined 20 days following Project Kickoff Revisions will be addressed at every status meeting
Financial Project Plan	Initial draft with Offer Baselined 20 days following Project Kickoff Revisions will be addressed at every status meeting

DELIVERABLE	DUE DATE
Monthly Technical Status Report	10 th of each month
Monthly Financial Status Report	10 th of each month
Monthly Risk Mitigation Plan	10 th of each month
Project Summary Report	No later than 30 Days Before Project Completion
Product Maintenance Deliverables	
Updated Technical Documentation	With every release of the Software
Updated Software Codebase	With every release of the Software
Issue Tracking List	Continuously update in JIRA
Additional Product Development Deliverables	
Software Requirements	As defined in the Technical Project Plan
Software Design	As defined in the Technical Project Plan
Software Codebase	With every release of the Software
Information Systems Security Plan	As defined in the Technical Project Plan
Technical Documentation	With every release of the Software
Production System	With every Software Release

3.2 DEPLOYMENT PLAN

We have successfully worked with NCI/EVS since the inception of LexEVS product. We would continue to utilize our technical expertise to ensure continued successful deliveries of LexEVS releases. We recommend engaging in weekly team meetings to ensure the identification and prioritization of work, issue/risk resolution and ongoing management. As needed we would engage in one-on-one calls, emails, IMs, etc. between Mayo and NCI personnel in order to ensure quality and timely responses.

Specifically we propose the following:

3.2.1 Design

In this activity the LexEVS team shall conduct an in-depth gathering of requirements and produce a design proposal based on these. We believe a solid design is a key component to the success of this implementation. Therefore we are planning a significant amount of time and resources to ensure the design will support a smooth development cycle.

3.2.2 Development

As part of this the LexEVS team will adopt an iterative lifecycle to aid in development, testing and deployment. Our goal is to provide releases to incorporate changes, feedback, perform more iterative testing and ensure that the end product meets the requirements and expectations for this project.

3.2.3 Test

Testing will be a key component to the success of this implementation. Therefore, we will need to provide thorough testing to ensure full functionality and a clean deployment.

3.2.4 Deployment

Deployment of the software to Development, QA, Integration, and Production deployment environments are key success factors for this project. To aid in these transition we currently utilize a local test environment for development and software testing. Similar to the processes employed for LexEVS 4.x through 6.x we anticipate NCI will continue ownership of their own Development, QA, Integration and Production environments to perform system tests for the next software release.

We are also well versed in the process to move code through the tiers at NCI. We are knowledgeable in all of the tasks and timeframes required to utilize the DRT system as well as leverage the Systems Team to ensure a timely progression up the tiers to the final production deployment.

3.2.5 Software Maintenance/Support

Currently, LexEVS 5.x and 6.1 (and soon 6.2) are in production. We have historically provided support for LexEVS via items identified via Gforge (now JIRA) and monitored the forums. For this contract the team acknowledges and supports the need to maintain all of these previous versions, as we have done historically.

3.2.6 Documentation

Similar to previous release of LexEVS, the LexEVS team will update the documentation to reflect the architecture and code changes for this implementation. LexEVS 6.0 utilized the Vocabulary Knowledge Center's Wiki to provide this user documentation. This documentation has been migrated to the NCI wiki. The assumption would be to update the NCI wiki for this project. This would include updates to the Design and Architecture Guide, Installation Guide, Administration Guide, and Programmer's Guide.

3.3 CHANGE CONTROL MANAGEMENT

Change control management will be handled by the Task Review Board (TRB) meeting where issues will be logged, discussed and prioritized.

4 SCHEDULE/TIME MANAGEMENT

We will continue to use an iterative development lifecycle based on the deployment strategy and deployment phases. Where software defectives or minor enhancements are required the model will be modified (as necessary) to continue to support model-driven methodology. Deployment strategy and detailed planning are key components for successful execution of the Deployment SOW.

Historically we have worked closely with NCI Systems Team, BDA team and CBIIT and other NCI team members to ensure our process has aligned with the requirements of their processes. Having worked with these teams for several years now we have built a solid working relationship and have extensive knowledge in the required process to build and deploy a production implementation to the NCI tiers.

4.1 MILESTONES

The table below lists the milestones for this project, along with their estimated completion timeframe.

<i>Milestone</i>	<i>Due Date</i>
Project Kickoff Meeting	7 Days of award or as agreed to by Leidos Biomedical Research, Inc.
Quarterly In-Process Reviews	Once a quarter
Design Review(s)	Once or more as required when a major enhancement is considered
Operational Readiness Review	Once as required when a major enhancement is ready to be put on the production system
Weekly Status Meetings	Weekly as agreed to by NCI

4.2 PROJECT SCHEDULE

Included as Appendix 3 in response to Leidos Biomedical Research, Inc. RFP Solicitation No. S13XS500 MOD4.

4.2.1 Dependencies

We will utilize the existing expertise and team members for LexEVS and NCI EVS team.

- We will utilize our development/testing environment to ensure stable code prior to NCI tier deployment.

- Systems Team at NCI will be available to meet the deployment schedule to deploy to the NCI tiers.
- NCI Build team is available to work with our team to assist in identifying and accomplishing items to maintain NCI build compliance.

5 COST/BUDGET MANAGEMENT

All costs will be tracked via the project plan. Team members will also track their hours in our time recording system and these hours will be reconciled with the project plan and used for invoicing.

6 QUALITY MANAGEMENT

Quality management will be handled by the Task Review Board (TRB) meeting where resolved issues will be reviewed for accuracy. Additionally, testing by NCI on deployment tiers will provide accurate assessment of resolutions.

7 STAFFING MANAGEMENT

TBD

7.1 PROJECT TEAM TRAINING

TBD

8 COMMUNICATIONS MANAGEMENT

TBD

8.1 COMMUNICATION MATRIX

TBD

Stakeholder	Messages	Vehicles	Frequency	Communicators	Feedback Mechanisms

9 RISK MANAGEMENT

These are a high-level listing of initial risks and mitigation strategies. Throughout all phases of the team engages in risk identification, quantitative and qualitative measures and mitigation strategy planning.

9.1 RISK LOG

Risk	Probability	Impact	Risk Plan
Extent of fixes are unknown and could impact the scope of a major release within proposed timeline.	Low	High	We will work closely with the TRB to appropriately identify and prioritize items to ensure a mutually agreeable release package(s).

<i>Risk</i>	<i>Probability</i>	<i>Impact</i>	<i>Risk Plan</i>
The scope or requirements for feature enhancements could impact resource availability for support.	Low	High	We would work closely with the TRB to gather requirements, determine scope and provide estimates and prioritization recommendations.
Resource estimates are based on historical effort but could be inaccurate based on fixes and enhancements identified.	Low	High	We would work closely with the TRB to estimate effort and resource balancing to adhere to the plan. Any risks will be identified and managed throughout the lifecycle.

10 ISSUE MANAGEMENT

Issue management will be handled by the Task Review Board (TRB) meeting where issues will be logged, discussed and prioritized.

10.1 ISSUE LOG

All issues will be logged in NCI JIRA.

11 ACQUISITION STRATEGY

Systems team at NCI will procure all necessary development, test and production servers.

12 COMPLIANCE-RELATED PLANNING

All deliverables will comply with Section 508 Compliance as required by NCI.

Appendix A: Project Management Plan Approval

The undersigned acknowledge that they have reviewed the **LexEVS Operations and Maintenance Support Project Management Plan** and agree with the information presented within this document. Changes to this **Project Management Plan** will be coordinated with, and approved by, the undersigned, or their designated representatives.

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

Signature: _____ Date: _____
Print Name: _____
Title: _____
Role: _____

APPENDIX B: REFERENCES

The following table summarizes the documents referenced in this document.

Document Name	Description	Location

APPENDIX C: KEY TERMS

The following table provides definitions and explanations for terms and acronyms relevant to the content presented within this document.

Term	Definition