

**OHIO DEPARTMENT OF TRANSPORTATION
QUARTERLY RESEARCH**

REPORT



For Quarter Ending: Sept 30, 2007

Date Submitted Nov 14, 2007

Project Title: Development of Geotechnical Data Schema in Transportation

Research Agency: University of Florida

Principal Investigator(s): Marc Hoit

State Job No.: 134254

Agreement No.: 20982

Pooled Fund Study No. (if applicable): TPF5(111)

Project Start Date: October 1, 2005

Contract Funds Approved: \$

Project Completion Date: June 30, 2008

Spent To Date: \$ 38,065

% Funds Expended 15% Work Done 55% Time Expired 50

List the Technical Liaisons and other individuals who should receive copies of this report: Kirk Beach

SUMMARY OF PROGRESS FOR QUARTER:

Attach a progress schedule consisting of graphical information depicting (1) a schedule of research activities tied to the tasks defined in the proposal, (2) a comparative status of actual versus estimated expenditures, and (3) a percentage completion of the research.

- Completed version 0.92 of UML version of DIGGS
 - Version has all the new features including schema validation, consistent

naming, refined data tables for large input, and more.

- Held Final Review meeting for V0.92 – to finalize last steps for public review version.
- GMS ready version is expected Dec 15 – Public release Feb 1
- Finalized the makeup of the documentation. (Users guide, Technical Guide, and Brochure)

PROPOSED WORK FOR NEW QUARTER:

- Finalize the public draft of the schema and documentation – ready Dec 15
 - Release to CDC and GMS for review
 - Public Release Feb 1
 - Include the validation checking in the schema
- Finalize Geo-Env schema draft. A workshop will be held in November to clean up the current draft.
- Update the Translator (AGS->DIGGS) for the new schema changes

IMPLEMENTATION (if any):

PROBLEMS & RECOMMENDED SOLUTIONS (if applicable):

Describe any problems encountered or anticipated that might affect the completion of the project within the time, scope, and fiscal constraints set forth in the contract, along with recommended solutions to those problems. **NOTING DIFFICULTIES IN THIS SECTION DOES NOT CONSTITUTE A REQUEST TO MODIFY THE PROJECT.** Requests for additional time, money, or scope revisions must be submitted in a separate letter to the Office of R&D Administrator.

The project is on track although slower than expected. The schema is including more complexity than originally expected, but the product is more robust. The ENV group (first SIG) is making good progress and will be the first extended product for the schema.

No change in the deliverables or cost of the project is expected

EQUIPMENT PURCHASED (if any):

N/A

CONTACTS & MEETINGS:

Describe any meetings or contacts with ODOT technical liaisons and other pertinent individuals relative to this project.

Conference call meetings of the GDC and GMS have been held to work on planning, UML updates, demonstration of UML and scheduling.

Conference call meetings of the core team have been held to review UML

Workshop for Core group (Sept 12-13) to finalize the remaining details of the Schema.

Graphic View of Pooled Fund Study TPF 5(111)

Phase	Phase 1	Phase 2	Phase 2	Phase 2	Phase 2
Task Number	1	2	3	4	5
Task	Develop straw survey	Send to GMS team	Finalize Survey Questions	Response comments from GMS	Distribute Survey
Deliverable	Preliminary draft survey (Prototype data dictionary & schema)	Finalized Survey – Consensus version (<i>Preliminary Draft Dictionary available for DOT use</i>)	Collected responses to survey	Draft dictionary ready for general comment	Comments from general stakeholders on draft dictionary
Estimated Completion Date	30-Nov-05	15-Jan-06	31-Jan-06	6-Mar-06	15-May-06

Work Accomplished	Prototype schema and dictionary completed	Draft Dictionary and schema completed - Dictionary needed more work to complete	GMS returned comments	Draft Dictionary behind 2 weeks	Internal review of Draft circulated, no meetings, update to draft for public review by July 12
Actual Completion Date	30-Nov-05	17-Jan-06	6-Feb-06	8-Aug-06	15-Sep-06
Proposed expenditure for task	\$43,240	\$51,299	\$51,140	\$51,140	\$51,140
Proposed % Total expenditure	100%	9%	17%	26%	34%
Actual expenditure for task	\$38,534	\$19,777	\$18,288	\$0	\$0
Actual % Total expenditure	89%	3%	6%	6%	6%
Phase	Phase 1	Phase 2	Phase 2	Phase 2	Phase 2

Phase 2	Phase 2	Phase 2	Phase 3	Phase 3
6	7	8	9	10
Reduce Survey Data	Draft out for comments	Final schema/dictionary delivered	Develop additional straw dictionaries, hierarchy and schema	Finalize new elements for draft schema
Final data dictionary	Preliminary draft hierarchy and schema	Draft hierarchy and schema	New additions to phase 1 schema for additional elements	Final hierarchy and schema of new elements - ready for standards groups and use
30-Jul-06	31-Jan-07	1-May-07	1-Mar-07	30-Jun-08

<p>Draft corrected and readyed for Limited Public Review (new step added) - Launched Aug 7,06 Completed Sept 15, 06 - New effort to make correction in Schema from Limited review comments - Expected completion by Jan 30 - Public release expected. Public comments will be received by May 1.</p>	<p>Survey from GMS and limited public review completed. Found inconsistencies in the schema. New effort launched to convert to UML description which automatically creates the XSD files - no change in the hierarchy or an major changes to schema.</p>	<p>Working on putting all schema data into new tool (UML) - first draft v0.92 was delivered October 16 - final limited review draft expected mid November, UML agreed by GMS & GDC - Cost is \$40K - Draft Release expected Dec 15 - Full public release is expected End of January 08</p>	<p>A new Sig has been developed for Environmental data. The kickoff meeting was held February 13-14 in Orlando. The SIG includes US EPA, US Army Corps, AGS, Earthsoft, Department of the Navy and UF. The Dictonary Workshop was held June 18-21 in Orlando to work out the rdetails of the including of EPA schemas into DIGGS. The group developed the ENV additions and added them directly to the UML description. The SIG has worked on the format and has another workshop meeting in Nov to finalize.</p>	
10-Jan-07	20-Feb-07	30-Jul-07	1-Oct-08	
\$43,240	\$51,140	\$40,000	\$150,000	\$105,000
41%	50%	57%	82%	99%
\$3,400	\$0	\$52,212	\$15,242	
7%	7%	16%	18%	18%
Phase 2	Phase 2	Phase 2	Phase 3	Phase 3