



Project GIGS

Background and Status

Report to APSG – 22 October 2009

OGP JIP 24 - Project GIGS
A Joint Industry Project (JIP) under the auspices of the
International Association of Oil & Gas Producers (OGP)

Project Management services by 

Executive Committee:



ExxonMobil



OGP

International Association of Oil & Gas Producers



Geospatial Integrity of Geoscience Software

A Joint Industry Project



JIP Members 2008/2009



Project Objectives

- Improve geodetic / geospatial aspects of software applications used by petroleum geoscientists
 - Computationally correct
 - Easier to understand
 - Minimize user mistakes



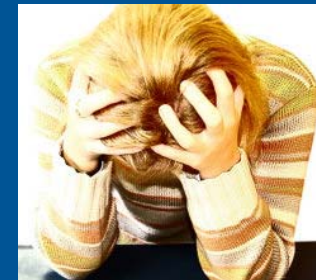
Background

- Estimated that over 500 geoscience applications are in use
 - No standards focusing on geodetic aspects
 - No test data for verifications or comparisons
- Typical EP projects experience 90 or more data transactions
 - Conversions / transformations
 - Load / Export
 - Data manipulations / derivations / combinations
- Most legacy data has little or no metadata
 - Spatially unverified
 - Lacking quality indicators
- Competing demands of getting it right or getting it moving...



Case for Action

- Actual Issues Observed:
 - improperly coded geodetic algorithms
 - wrong values for embedded geodetic parameters
 - parameters can be freely changed by users
 - poor presentation of user input requirements
 - inappropriate default settings used
 - confusing or imprecise terminology
 - lack of error trapping for user blunders
 - lack of audit trail for forensic analysis
 - inadequate metadata functionality





Initial GIGS Process

- Gather information
 - Structured application reviews by GIGS
 - Member generated reviews
 - Team member knowledge and experiences
- Create Test Data Set
 - Benchmark performance and results
 - Petroleum industry relevance
- Summarize in Guidelines to industry
- Create Self-Certification Process
 - Vendors can demonstrate performance and results



JIP Deliverables

- Members only
 - Application Reviews (each shared with respective vendor)
 - Training Materials for Members
- Published to Industry
 1. Guidelines for Geospatial Integrity of Geoscience Software (for Users and Developers)
 2. Guidelines for Use of Test Data Set with Geoscience Software
 3. Guidelines for Self-Certification by Geoscience Software Developers
 4. Guidelines for Review of Geoscience Software
 5. GIGS Training Materials for Industry

1. Guidelines for Geospatial Integrity

- setup and configuration
- terminology
- error trapping
- audit trail
- map accuracy and composition



2. Test Data Set and Guideline for Use

- Coordinate systems relevant to petroleum industry
- Formats relevant to petroleum industry
- Based on EPSG guidance notes and database
- Instructions for Use
- Interpretation of Results



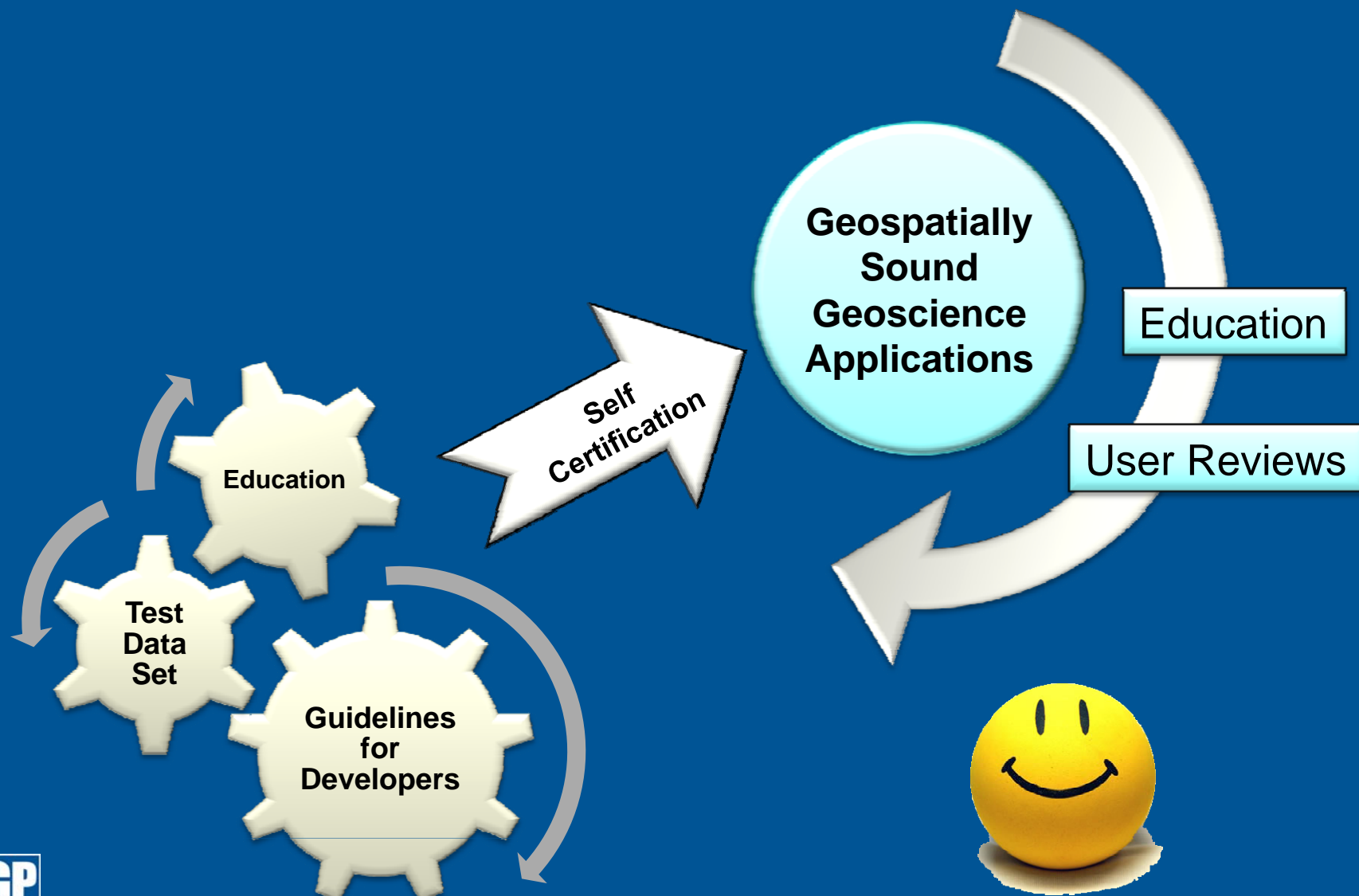
3. & 4. Review Guidelines

- Embeds the recommendations of GIGS
- Utilizes the Test Data Set of GIGS
- Self-certification Guideline for Developers
 - Quantitative
 - Check list style perhaps
- User conducted Reviews
 - Qualitative and quantitative
 - Information gathering style

5. Training Materials

- Training materials and event(s) for members
- Training materials for end users
- Training materials for developers
 - Guidance on end results
 - Not guidance on software development techniques
- Use and Understanding of GIGS Products

Future





Project Status – October 2009

- Test Data Set complete
- Completing application reviews (data gathering)
- Crafting Guidelines
 - Workshops and working parties
 - Review among all members
 - Consulting developers and other key stakeholders





Schedule

- Deliverables created 4Q 2009
 - Consult members
 - Consult select vendors
- Formally Present to Industry
 - Late January 2010
 - Opportunity for comment and feedback
- Finalize by Late February 2010
 - OGP will be custodian
 - GIGS JIP closes by about March 2010





JIP Executive Committee

- Brian Schostak (Shell), Chair
- Jonathan Stigant (Devon), Vice Chair
- Barry Barrs (ExxonMobil)
- Jonathan Davis (BP)
- M. Zukhairi B A Latef (Petronas)





Questions?

Also presented at SEG
Wednesday October 28
1:30 pm

