GDAL/OGR

Project Status Report

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Overview

• Brief introduction to GDAL/ OGR
• Recent development (1.4, 1.5)
• Project Community Status
• Future Directions
Introduction to GDAL/OGR

• C/ C++ Geospatial data access and translation library for developers
• GDAL is for raster data
• OGR is for feature (vector) data
• Python/ C#/ Java/ Perl and Ruby bindings
• Command line utilities for end users
A Brief History

- Launched in fall 1998
- Early home at RemoteSensing.org
- Adoption by GRASS, OSSIM, OpenEV and MapServer by 2002
- Proprietary adoption by FME, Cadcorp SIS, and recently ArcGIS
- Project joined OSGeo in early 2006
- Project Steering Committee and sponsorship program in late 2006
- Stable release: 1.4.2
- Entering Beta: 1.5.0
Major 1.4.x Features

• 1.4.0 released in fall of 2006
• New GDAL Drivers: WCS, PDS, ISIS
• New OGR Drivers: INFORMIX, KML (write)
• RFC 4: Geolocation Arrays
• RFC 6: SQL/ Attribute Access to Geometry and Styles
• Partial WinCE port
• “Next Gen” bindings much more solid
Major 1.5 Features (RFCs)

- RFC 11: Fast Format Identify
- RFC 12: Improved File Management
- RFC 15: Band Masks
- RFC 16: OGR Thread Safety
Major 1.5 Features (Formats)

GDAL:
- KML Read (SoC)
- WMS (SoC)
- Spot DIMAP
- Intergraph (COT)
- PALSAR
- SDE Raster

OGR:
- BNA
- GMT
Major 1.5 Features (Other)

• WCS 1.1
• Lots and lots of bug fixes!
Project Status

- Five project steering committee members
- Twenty-nine committers
- Approximately 350,000 lines of code
- Ohloh.net estimates development cost over 8 million dollars.
- 129 bug fixes into 1.4.x stable branch
- 196 bug fixes in total since 1.4 release
Sponsorship

Gold:
• Analytical Graphics (AGI)

Silver:
• I- Cubed
• Cadcorp
• Safe Software
• SRC
• ACT
• Waypoint

Nearly $30K collected, $22K to spend.
Uses: Maintainer, T-shirts, Bug Squash food
Adoption

• 31 projects/products listed on web site
• Roughly half open source, half proprietary
• Prominent open source projects include GRASS, MapServer, QGIS, MapGuide, VTP, gvSIG, OSSIM and OpenEV
• Prominent proprietary products include Cadcorp SIS, FME, ArcGIS and Google Earth
• Lots of projects/products not listed of course, including some sponsors
OSGeo Infrastructure

- [www.gdal.org](http://www.gdal.org) Now at OSGeo/telascience
- on OSGeo subversion (from CVS)
- on OSGeo Trac (from Bugzilla)
- using OSGeo/telascience Buildbot for night build and smoke tests
- Migration to Trac and SVN, and their tight integration has helped the project
- Using Trac wiki for some web comment, making user contributed content easier
Community Energy

• Mailing list and IRC fairly active
• Substantial contributions from a variety of developers
• Adoption of GDAL/ OGR is growing.
• PSC/ RFC process working well, though still somewhat “founder driven”
• Little negative energy or poisonous people
• Bug Squash event at FOSS4G will be first “team event”
Future Directions

• Better multi-threading / thread safety
• Unicode (via UTF-8) for most text in API
• Better Java/ C#/ etc support via SWIG
• GDAL/ OGR Grand Unification
• Better / more uniform metadata support
• More formats, more features!
Questions?

Come see us in the OSGeo booth!