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 350000 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 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!

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