

GOSCON 2008

Value of OSS to Government

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Open = Transparent

**Level of transparency depends on
the system being built**

**Government becoming less
opaque: Sunlight Foundation,
open data policies, etc...**



This Is What We've Got





This Is What We Want: Agility



Sun Tzu:
Know thyself
to know your
enemy

Good Technology
becomes a
Commodity

Why should Gov care?

Agility

- **Rapid assimilation and creation of new capabilities**
- **Capabilities tailored to needs**

Transition

- **Architectures more open / easier to understand & built to**
- **Larger industrial base supporting capabilities**

Cost

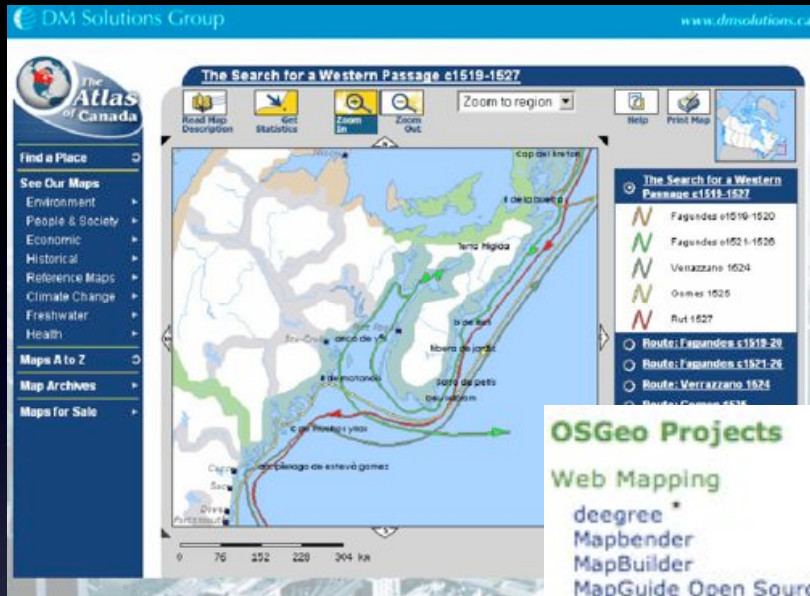
- **Leverage external open source technology investments**
- **Leverage Department investments in technologies**
- **Lower procurement and O&M life cycle costs (perhaps)**

Joint Development (inside DoD & Industry)

- **What technologies can you beg, borrow or steal: Save funds for new development**

Foster *collaboration* across DoD communities on technology acquisition and development

Open Source Geospatial Tools



www.osgeo.org
OSS Geo Group

OSGeo Projects

Web Mapping

deegree *
Mapbender
MapBuilder
MapGuide Open Source
MapServer *
OpenLayers

Desktop Applications

GRASS GIS
OSSIM *
Quantum GIS
gvSIG *

Geospatial Libraries

FDO
GDAL/OGR
GEOS *
GeoTools

Metadata Catalog

GeoNetwork

Other Projects

Public Geospatial Data
Education and Curriculum

AWESOME IMAGE PROCESSING

OSSIMHOME ABOUT OSSIM SCREENSHOTS DEVELOPERS DOWNLOADS
DOCUMENTATION NEWS ARTICLES OSSIMPLANET SUPPORT

OSSIM provides advanced geo-spatial processing capabilities through a state of the art C++ software library. A number of tools, applications, and examples are included with the distribution.

join irc channel
#ossimPlanet at
irc.freenode.net

<http://irc.telascience.org/cgi-bin/irc.cgi>

Latest snapshot:
A 3D compass has just been added to the heads up display. Now available in the svn repository.

Welcome to OSSIM

OSSIM provides advanced geo-spatial image processing for remote sensing, photogrammetry, and Geographic Information Systems. Backed by an active open source software development community, OSSIM solutions have been deployed on a number of critical commercial and government systems. Listed below are a number of links to help you get started:

www.ossim.org
NRO/NGA Certified

www.Ballforge.net: MASINT Open Source Software



BallForge.net

My pages Projects Home openCollabNet

Links
Projects
Email Support
Contributors Agreement

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How do I...
Get release notes for CollabNet 4.5.17
Get help?

Welcome to BallForge

BallForge is an open source development community, supporting the open source projects of Ball Aerospace & Technologies Corp.

What is the BallForge site about?



Ball inspecting NASA's second science satellite (1967)

BallForge is an open source community sponsored by Ball Aerospace & Technologies Corp. Ball Aerospace is a global leader in providing advanced imaging, communications, and information solutions to the government and commercial aerospace markets. Ball Aerospace's services and software supports national policy-makers, the military services, NASA, and other U.S. government agencies, as well as numerous aerospace industry allies.

Ball Aerospace strives to be at the forefront of technology. BallForge was created to allow Ball Aerospace to participate in open source software development and encourage the free exchange of ideas and information to create a technology incubator.

BallForge Flagship Project: Opticks

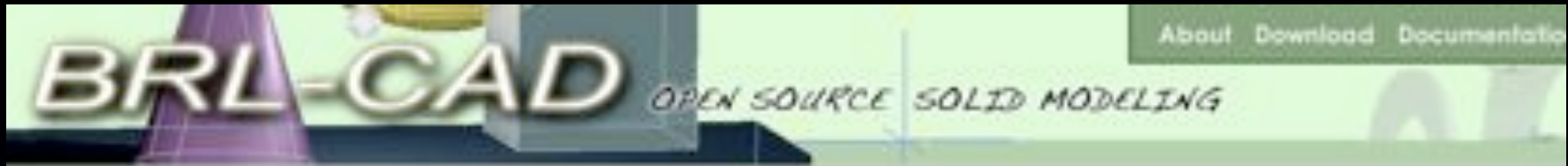
Opticks is a multiplatform application for processing & viewing remote sensing data. The project is licensed under LGPL to encourage reuse in other projects. You can access the project website at <https://opticks.ballforge.net/>.

There are many ways you can get involved in this open source community. Feel free to browse the projects, if you see a project you are interested in please download it, use it, and provide feedback. If you are a developer, improve the code and help make the project better. All projects will have contact information and mailing lists you can use to get involved.

Delta-3D (www.delta3d.org) OSS Gaming & Sim. Engine

The image shows the homepage of the Delta3D website. At the top left is the Delta3D logo, which consists of a stylized blue and yellow 'D' followed by 'ELTA3D' in a blue, blocky font. Below the logo is the text 'OPEN SOURCE GAMING & SIMULATION ENGINE'. To the right of the logo is a navigation menu with the following items: Home, News, Forum, Projects, Downloads, Docs, and About Delta3D. Below the navigation menu is a white banner with the text 'Welcome to the Delta3D website!'. The main content area features a large 3D-rendered helicopter on the left, with the Delta3D logo and the text 'Explore the possibilities on our Projects page' overlaid on it. A yellow 'Click Here' button is positioned below the text. On the right side of the main content area, there is a 'Download 2.0' button with a right-pointing arrow. Below the main content area, there are two smaller images: one showing a person sitting at a desk with a computer monitor, and another showing a green-tinted 3D scene. A 'Now Hiring' button with a right-pointing arrow is located at the bottom right of the main content area.

BRL-CAD (<http://brlcad.org/>) Army Solid Modeling OSS



BRL-CAD is a powerful cross-platform open source solid modeling system that includes interactive geometry editing, high-performance ray-tracing for rendering and geometric analysis, image and signal-processing tools, a system performance analysis benchmark suite, libraries for robust geometric representation, with more than 20 years of active development.

BRL-CAD 7.12.4 Released

Submitted by sean on Sun, 06/22/2008 - 18:52.

I'm happy to announce the availability of BRL-CAD 7.12.4. This release contains numerous enhancements to MGED's mirror command, now with the ability to mirror an object across arbitrary vectors or points along a standard axis. Additionally, NIRT now has a new "gap" option for reporting the empty spaces between objects with additional formatting options being considered. The release also has an impressive new procedural database geometry tool for generating vehicle tires.

- [Add new comment](#)
- [Read more](#)



Can't **trust** one Company
Must **trust** Industry

Tom Sawyer effect:
Get others to do the work for you
Government needs to use Industry to
police itself



‘Everything becomes Legacy’

**Goal: Transition from
Legacy needs to be close to zero**

NSA shows the way to develop secure systems

Posted on 06 October 2008.

 digg  reddit  del.icio.us  stumble this!  magnolia



The development of highly secure, low defect software will be dramatically helped by the release of the Tokeneer research project to the open source community by the US National Security Agency (NSA).

The Tokeneer project was commissioned by the NSA from Praxis High Integrity Systems as a demonstrator of high-assurance

software engineering. Developed using Praxis' Correctness by Construction (CbyC) methodology it uses the SPARK Ada language and AdaCore's GNAT Pro environment. The project has demonstrated how to meet or exceed Evaluation Assurance Level (EAL) 5 in the Common Criteria thus demonstrating a path towards the highest levels of security assurance.

The unprecedented release of the project into the open source community aims to demonstrate how highly secure software can be developed cost-effectively, improving industrial practice and providing a starting point for teaching and academic research. Originally showcased in a conference paper in 2006, it has the long-term aim of improving the development practices of NSA's contractors. Tokeneer was created as a fixed-price project, taking just 260 person days to create nearly 10,000 lines of high-assurance code, achieving lower development costs than traditional methods per line of code.

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<http://www.net-security.org/secworld.php?>



Roadmap Plan
 April 2006
 Prepared for:

 Deputy Under Secretary of Defense
 Advanced Systems & Concepts
<http://www.acq.osd.mil/aec/>

 Prepared by:

 John Scott
 Mark Lucas
 JC Herz

<http://www.acq.osd.mil/jctd/articles/OTDRoadmapFinal.pdf>



<https://www.softwaretechnews.com/>



LargeData JCTD

LD JCTD Using:

- Wide range of OSS applications, tools and operating systems
 - OSS wikis, configuration management, bug tracking, database
 - Geospatial, distributed collaboration tools (ossimPlanet, OpenIB, MPlayer, Lustre, SOUSA, Trac)

OTD Progress:

- RampantLion data (4.4TB) architecture for Humanitarian Assistance/Disaster Relief operations for Afghan NGOs
- OpenSSL FIPS certification for encryption - real cost savings by Defense Medical Logistics Command, DOE and DISA
- DACS SoftwareTech Issue on Open Source
- USAF OTD Tiger Team Study to change the way AF acquires systems
- DoD Education/Outreach: JCTD course, OTD conferences, www.OpenTechDev.org

Road Ahead:

- Policy - OSD, Navy (DON-CIO), USAF, USA
- OTD & Transition (Book 2)
- New JCTD starts

OTD Participants: OSD-AS&C, OSD-NII, USAF(AQ), NSA, Army (tbd)



OTD Opportunity:

- Agility & Flexibility
 - Faster development
 - Faster deployment: impact during fight
 - Better transition
- Decrease likelihood for vendor lock-in
- Potentially lower costs
- Greater interoperability
- Knowledge capture around software code
- Communities around capabilities

Predictions

- Government entitlements **growing**
- Budget **crunches** are coming
- Spending will be **constrained**
- Adoption of OSS seems to be low hanging fruit
- Government will take a more **active** role in OSS
- **Policies coming out...**

Open Technology Development

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<http://opentechdev.org>