

OSSR ESA Open Source Software Repository

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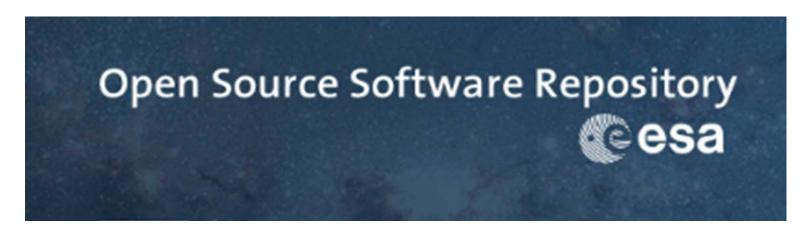
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Outline



OSSR:

- Objectives
- Scope
- Overview
- Access
- Process
- Status/Way forward





[ESAIPC(2009)88] Establish an Open Source Software **Repository** (OSSR), to **promote reuse** of (open source) software and provide all parties involved in European Space software development (in particular SMEs) **access to results** of previous investments

Objective of implementing a web portal, hosting the OSSR:

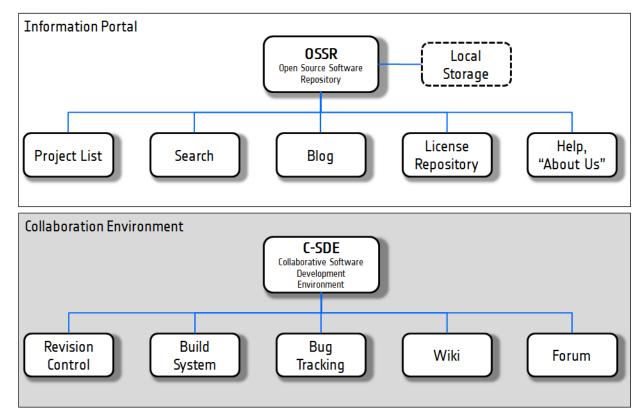
- Guide European Space Industry in identifying available OSS
- Allow Industry to make their OSS products and associated services known to the space community and beyond
- Help European industry in joining ongoing OSS collective development projects;
- Provide visibility on licensing schemes and legal aspects on European products
- Support building up of collaborative OSS initiatives



Information Portal: OSSR (Open Source Software Repository)

versus

Collaboration: C-SDE (Collaborative Software Development Environment)



OSSR Overview – Web portal



| | ABOUT US DEMO ESA |
|---|--|
| Open Source Software Repository | Project Vhat are you looking for ? |
| HOME ABOUT US TEST-TEST BLOG CONTACT | |
| LATEST PROJECTS | |
| → NEW PORJECT 234 a,agteufaf READ MORE → | Updated on: 10/24/2014 Created on: 10/24/2014 License: Apache License, Version 2.0 Project tags: tAgs |
| → ZXC zxc project, beware READ MORE → | Updated on: 09/04/2014 Created on: 09/04/2014 License: License TEST Mutthik totality az Project tags: asd project tag |
| 1 2 3 4 |))) |
| Image: Book of the second s | Open Source Software Repository |

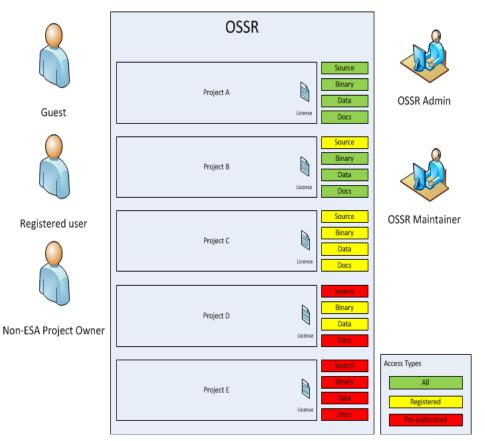
OSSR Overview - Users

Front-end:

- Users: Guest and Registered (different access types)
- ESA Project Owners
- Non-ESA Project Owners

Back-end:

- Administrator
- Maintainer





OSSR Overview - Front-end



Informational repository containing

Search

- List of projects
- Search functions, tags
- Blog

Project List

- License repository
- Help, "about us" etc.

| ontaining: | Open Source Software Repository | ABOUT US | | |
|---------------------------------------|--|--|--|--|
| | → FLYSAFE HELPS START-UP TO NEW HEIGHTS Over the past four years, small Dutch company Robin Radar has been building a business out of FlySafe, ESA's project for preventing bird strikes on aircra READ MORE | Updated on: 09/11/2014 Created on: 09/16/2014 Version Control System: mercurial Uccense: Apache Uccense, Version 2.0 Project tags FLYSAFE Tags | | |
| | PROJECT TEST ORBIT MARE ZODIAC TERMINATOR ASTRONOMER NORTH STAR YELLOW DWARF INNER PLANETS DWARF PLANET GRAVITATION heading: heading: heading: headings heading6 Coffee Tea Black tea Green tea Milk Bolditalic Paragraph READ MORE | Updated on: 09/07/2014 Created on: 09/07/2014 Locnse: Locnse TST Constellation earth Department: His/R2jaé Project tags: parallax local arm north star conjunction | | |
| OSSR Front-en (Informationa | | | | |
| Blog | License Repository | Help, "About Us" | | |

OSSR Overview– Project List

Project List: main element of the OSSR portal. Every project listed on the OSSR will contain:

- Name, Description and Read More link
- Creation and modification date
- Version Control System
- License information
- Owner
- Links homepage and download (code, binary, ...)
- Project tags

→ OPENSPIFE

The Scheduling and Planning Interface for Exploration (SPIFe) is an integrated planning and scheduling toolkit based on hundreds of hours of expert observation,...





- Created on: 07/28/2014
- Version Control System: mercurial
- License: Apache License, Version 2.0
- a Owner: ESA
- Links: Homepage Download
- Project tags: analysis data collection data processing data quality gsfc materials engineering matlab msfc ontology orbit planning remote sensing scheduling toolkit web services



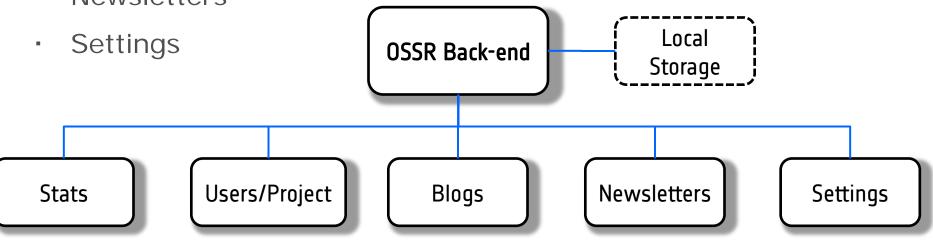
OSSR Overview - Back-end



Backend contains number of functions:

- Statistics on user/projects/
- Users data
- Projects data
- CMS (Content Management System)
- Blogs maintenance
- Newsletters

| ROJECTS I | PENDING | | | | |
|-----------|----------------------------|---|--------------------|----------------|--|
| тн | ERE ARE 31 PENDING PROJECT | 5 | | | |
| SERS PEN | | | | | |
| | ERE ARE 28 PENDING USERS | | THERE ARE 1336 UNC | INFIRMED USERS | |
| | | | | | |



OSSR Access



Owner: a project belongs either to

- ESA (most cases)
- Different entity, represented by registered/authorised named user

License: a project has one or more licenses assigned to it

• ESA Licensing Board responsible for creation and maintenance of the licenses

Access type: License defines default project access level

- Guest access: request registration, download permitted for public data only
- Registered access: registration process, download permitted after log-in
- Authorised access: authorisation process per project/information, download permitted after prior authorization

Data access links:

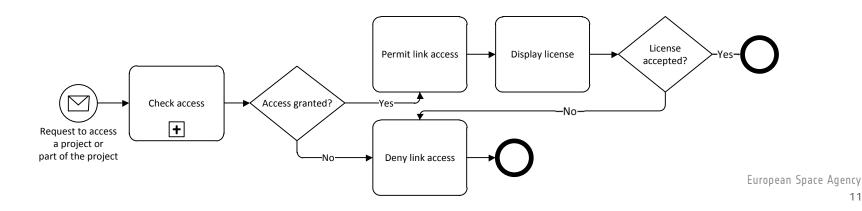
 Links to different project-related files (source code, data, binary, etc.) may have a <u>different</u> access level (by default – the same as the project itself).

OSSR Process



OSSR (Business) Process model requiring manual intervention:

- Registration of a new named user
- Checking access
- Setting-up a new project
- Setting up license for a new external project
- Approval of external project updates
- Approval of blog posts
- Processing (link) access request





Different phases:

- Phase 1: <u>Definition</u> : completed
 - Task1: State of State of the art" analysis and demonstration
 - Task 2: User, legal and Security Requirements and workshop
 - Task 3: System definition and proof-of-concept prototype
- Phase 2: <u>Implementation</u>: **completed**
 - Preliminary acceptance completed (1035 tests passed)
- Phase 3: Operations & maintenance: in progress
 - Security checks (threads & vulnerability analysis)
 - Pilot projects
 - Go live !! End of 2014





Thank you for attention

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