



NORDUGRID

*Grid Solution for Wide Area
Computing and Data Handling*

ARC SDK overview

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Košice

ARC – Short introduction

- A middleware which *integrates computing resources and storage facilities, making them available via a secure common Grid layer*
- Services
 - A-REX, gridftp, ACIX, Cache service, data staging
- Clients
 - arcproxy, arcsub, arcget, arccp, ...
- Core server functionality
 - Infoprovider, Backend-scripts, Jura, ...
- Core client modules
 - MCCs, DMCs, ACCs, JDPs, ...

What is the ARC API?

- What do we expose?
 - **C++ libraries:** common, communication, compute, credential, credentialstore, crypto, data, datastaging, globusutils, infosys, loader, message, security, ws ws-security, xmlsec
 - Python and Java wrappers and modules
 - Perl modules (information provider)
 - Bash and Posix shell scripts (LRMS backend)
 - Runtime environments, Auth plugin, Job plugin
 - Job submission & management: GSIFTP, ARC-BES, EMI-ES
 - ...
- Bulk claim: All above libraries, modules, scripts and interfaces are the ARC API

What to present to 3rd party developers?

- ARC is about job submission and data processing
- Focus on client developers
- Provide recipe and/or introduction on how to use job submission, management and data handling API
- SDK: Software Development Kit
- ARC C++ general libraries:
 - common, communication, compute, credential, credentialstore, crypto, data, datastaging, globusutils, infosys, loader, message, security, ws, ws-security, xmlsec

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- ARC SDK libraries:
 - **common, compute, credential, data, datastaging**
- Also available with Python and Java
- List of examples
- Description of selected APIs (documentation)
- Attribute mappings to library structures
 - **NG-schema, GLUE1.3, GLUE2.0, Job states, Job descriptions**

ARC SDK

Main Page

Related Pages

Modules

Namespaces

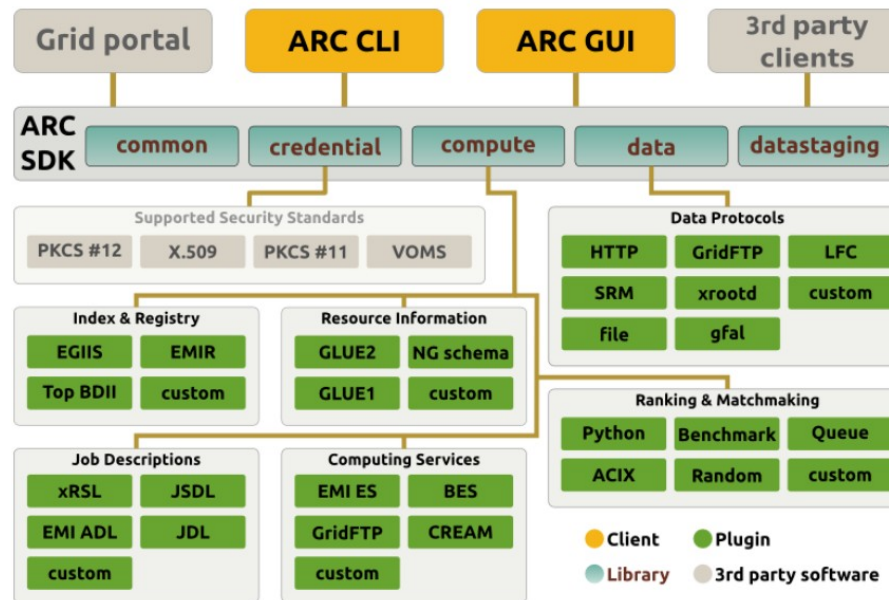
Data Structures

Files

4.1.0 SDK and API Documentation

The ARC Software Development Kit (SDK) is a set of tools that allow manipulation of jobs and data in a Grid environment. The SDK is divided into a set of **modules** which take care of different aspects of Grid interaction.

In the figure below an overview of the SDK is illustrated, showing software components depending on the SDK, supported security standards and in particular plugins providing functionality for different index and registry services, local information systems, job submission and management interfaces, matching and ranking algorithms, data access protocols and job description languages.



Version

The version of the SDK that this documentation refers to can be found from **ARC_VERSION**. The ARC release corresponding to the SDK version can be found using the "SVN tag" column in the table at <http://www.nordugrid.org/arc/releases/>