



ICAT core, IDS and IJP Status and Roadmap

24-25 March 2014

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ICAT core - Status

Version 4.3 in October with subsequent bug fix releases
Emphasis now on stability and backwards compatibility

Main features of 4.3:

- The notification mechanism has been completely changed.
- Call logging has been added either to file or to a log table or both.
- Lucene free text search via the new searchText call.
- Various “small” schema changes
- Added new alternate query syntax (JQPL based)
 - If you are new to ICAT prefer the JPQL style
- Python setup script which works both on Linux and Windows.

Possible changes to the setup installation script

- Objections to
 - separate config step
 - reports of differences from example
- Proposal
 - avoid separate config step
 - `-vv` required to report differences from example
 - updated scripts will be packaged with new releases

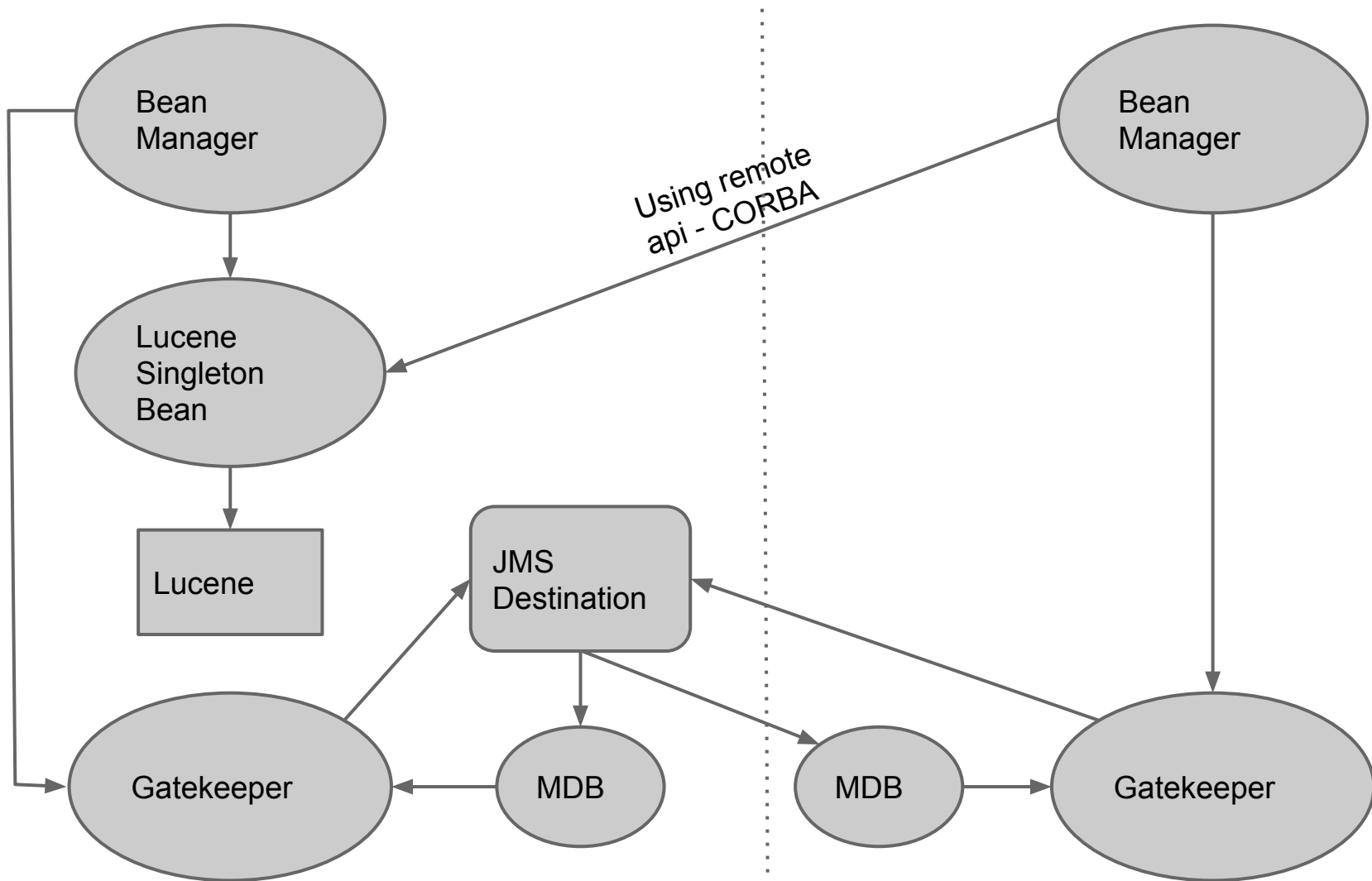
ICAT Core - Next Release (May 2014)

Clustered deployment for better performance

- Chose to avoid container based clustering:
 - Tied to chosen container
 - Glassfish solution not suitable

- Issues
 - Lucene access must be synchronized
 - Gatekeeper has state - cached:
 - Set of public tables (derived from rules)
 - Set of public steps
 - Must disable JPA caching

Clustered Deployment



ICAT Core - Next Release (May 2014)

- Improved API documentation – in particular queries and authorization
 - Necessary drudgery

ICAT Core - Next Release (May 2014) - but not in the road map

- A get function which takes an object with uniqueness constraint fields set
 - `inv = get(sid, inv, "INCLUDE 1")`
- Java client was generated for each server release - now being done separately.
- From WSDL which has no comments. If do it from server code can include:
 - Full Javadoc from the entity documentation held by the server
 - Useful constructor for each object taking the uniqueness constraint fields
 - `inv = new Investigation(facility, name, visitId)`
- `getApiVersion()` returns a number held by the server
 - could add new call `getVersion` and deprecate the old call
- authz addition suggested by Rolf

ICAT core - RoadMap (Sep 2014)

- The provision of a JSON based RESTful web service
 - this should be a rather easy add-on
- Ability to migrate metadata/data between ICAT/IDS instances.
 - allow a file to be prepared of data to be fed into ICAT
 - old XMLIngest functionality will be included
 - will be able to deal with any ICAT data
 - not just a hierarchical projection of that data
 - It will also allow a new ICAT to be configured very rapidly.

ICAT core - RoadMap (Jan 2015)

- ICAT - study the use of a non-relational database to give better performance at large scale.
- Some kind of hybrid between relational and non-relational might be optimal.

Questions

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Suggested changes to the roadmap

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IDS - Status

First version recently released

Good feedback so far - but a few problems have shown up.

Structure of zip file:

```
"ids"/facility.name/investigation.name/investigation.visitId/dataset.name/datafile.name
```

- if any of the names have characters not suitable for chosen OS it does not work - the "/" is a special case
- in addition ESRF want to be able to control the zip file structure to give facility dependency which I had hoped to avoid.
- mapping the names can lead to duplicates

IDS - Proposed change

- Change the plugin interface to provide more information to the plugin
 - e.g. the Dataset.location field has been requested
- Add an extra call which the plugin must implement to compute the full file name of a zip file entry.
 - Could provide the existing algorithm as a default
 - Facility may choose to base the zip file entry on its own storage structure
 - trivially guarantees unique names

IDS - roadmap

Apr 2014

- The IDS computes checksums when data files are uploaded - use this information to provide background checking that all data can be correctly read to provide the expected checksum.

Aug 2014

- Add the ability to work well when deployed on a shared file system
 - upload and download without file movement
- Extend to provide FUSE file system authorized by ICAT

Questions

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Suggested changes to the roadmap

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IJP - Portability

Currently only works on a single platform

Our users want it to run on at least three very different platforms (different OS, different batch system etc.) - but to present a single GUI

This requires (at least)

1. abstracting the batch system
2. providing a very simple “meta-scheduler”

IJP - Other things

- Expect to make a series of small enhancements to meet user needs.
- Also want to make IJP available to others so we will provide a very simple demo configuration with jobs such as concatenating copying and deleting datafiles.

Questions

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Suggested changes to the roadmap

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