

# SKUA and AGAST status

Norman Gray

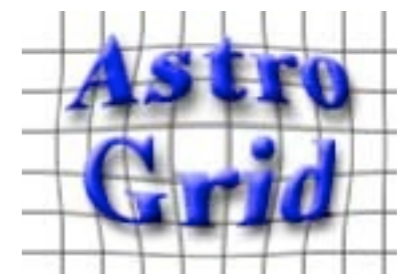
University of Leicester & University of Glasgow, UK

IVOA Interop Strasbourg, 2009 May 26

JISC



University of  
**Leicester**

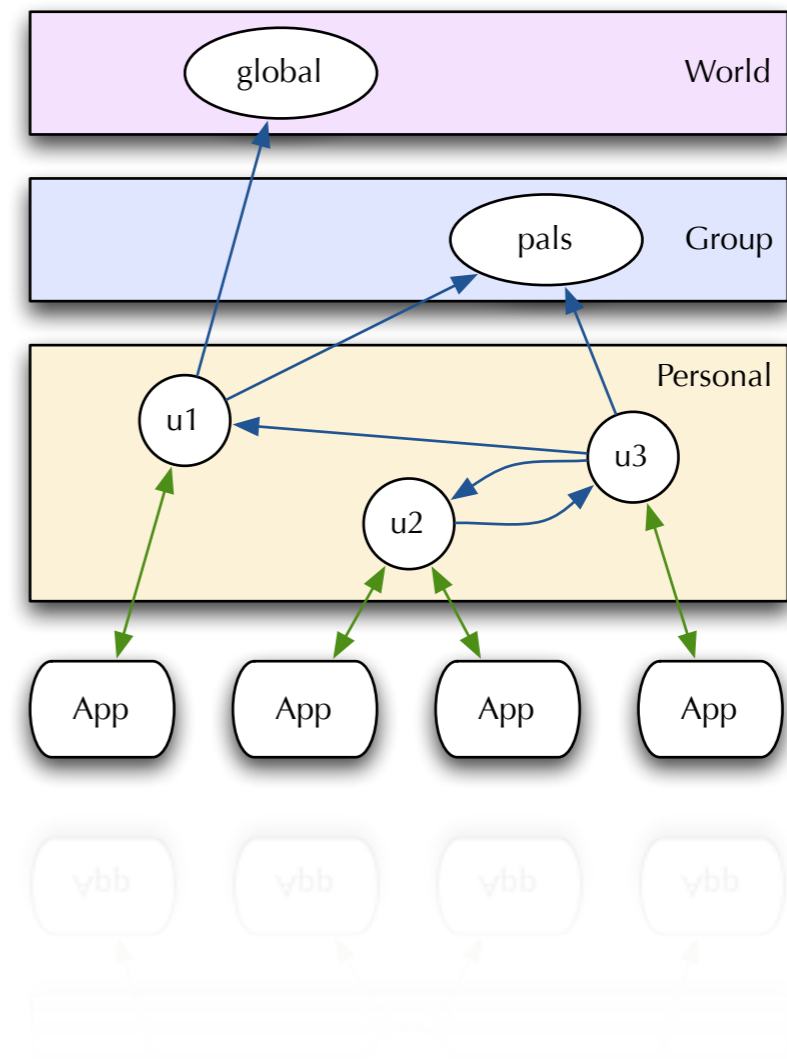


skua

# SKUA

Storing and sharing annotations, with lightweight semantics.

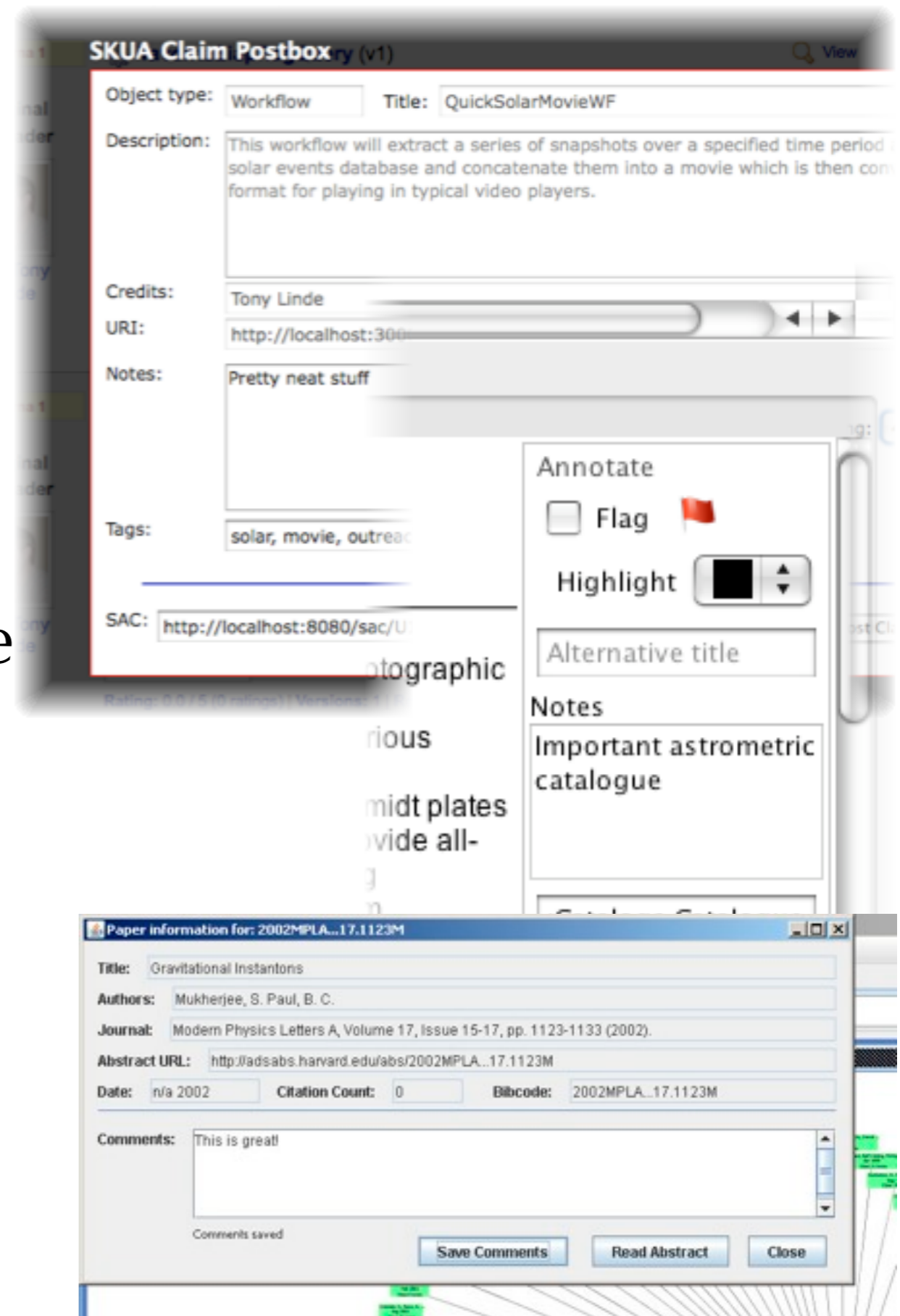
Simple interface – REST +queries: it's easy to retrofit semantics.



# Apps

🍷 Spacebook stores its state in SKUA. 🍷 VOExplorer can store and retrieve annotations using SKUA, and an in-development version can query these.

🍷 PaperScope will shortly be able to store comments using SKUA.



VOExplorer version is available now, but will be further developed  
Paperscope version is in development now

- 'bookmark this resource'
- 'paper X is rubbish'
- 'I think object X is a quasar'

# skua assertions

---

```
@base <http://blah/my-sac>.
@prefix s: <http://myskua.org/claimtypes/1.0/>.
@prefix dc: <http://purl.org/dc/elements/1.1/>.
@prefix aa: <http://www.ivoa.net/rdf/Vocabularies/AAkeys>.
<#b1>
  a s:bookmark;
  s:ref [
    a s:resource;
    s:url <ivo://fs.usno/cat/usnob>;
    dc:title "USNO-B";
    s:extended "The USNO-B catalogue"
  ];
  s:tag "catalogues";
  s:subject aa:Ephemerides;
  s:time "2009-05-21T18:11:58Z".
```

*norman gray*

---

Looks complicated, but you only have to fill in the blanks and POST this

# (...or in RDF/XML)

```
<?xml version="1.0" encoding="utf-8"?>
<rdf:RDF xmlns:aa="http://www.ivoa.net/rdf/Vocabularies/AAkeys"
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:s="http://myskua.org/claimtypes/1.0/"
  xml:base="http://blah.my-sac">
  <rdf:Description rdf:nodeID="genid1">
    <rdf:type rdf:resource="http://myskua.org/claimtypes/1.0/resource"/>
  </rdf:Description>
  <rdf:Description rdf:nodeID="genid1">
    <s:url rdf:resource="ivo://fs.usno/cat/usnob"/>
  </rdf:Description>
  <rdf:Description rdf:nodeID="genid1">
    <dc:title>USNO-B</dc:title>
  </rdf:Description>
  <rdf:Description rdf:nodeID="genid1">
    <s:extended>The USNO-B catalogue</s:extended>
  </rdf:Description>
  <rdf:Description rdf:about="http://blah/my-sac#b1">
    <rdf:type rdf:resource="http://myskua.org/claimtypes/1.0/bookmark"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://blah/my-sac#b1">
    <s:ref rdf:nodeID="genid1"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://blah/my-sac#b1">
    <s:tag>catalogues</s:tag>
  </rdf:Description>
  <rdf:Description rdf:about="http://blah/my-sac#b1">
    <s:subject rdf:resource="http://www.ivoa.net/rdf/Vocabularies/AAkeysEphemerides"/>
  </rdf:Description>
  <rdf:Description rdf:about="http://blah/my-sac#b1">
    <s:time>2009-05-21T18:11:58Z</s:time>
  </rdf:Description>
</rdf:RDF>
```

# query using vocabulary relations

SPARQL query:

```
prefix skua: <http://myskua.org/claimtypes/1.0#>
prefix aa: <http://www.ivoa.net/rdf/Vocabularies/AAkeys#>
prefix skos: <http://www.w3.org/2008/05/skos#>

SELECT ?uri ?kw
WHERE {
  ?claim skua:ref [ skua:uri ?uri ].
  ?claim skua:keyword ?kw.
  ?kw skos:broader aa:AstrometryAndCelestialMechanics.
}
```

Response:

```
% curl --data-binary @get-astrometry.rq \
  -H content-type:application/sparql-query -H accept:text/csv \
  http://localhost:8080/qsac/sac/desktop-sac
uri,kw
ivo://fs.usno/cat/usnob,http://www.ivoa.net/rdf/Vocabularies/AAkeys#Ephemerides
%
```

*norman gray*

Again, this looks complicated, but it would work with a query template, and an application filling in the blanks



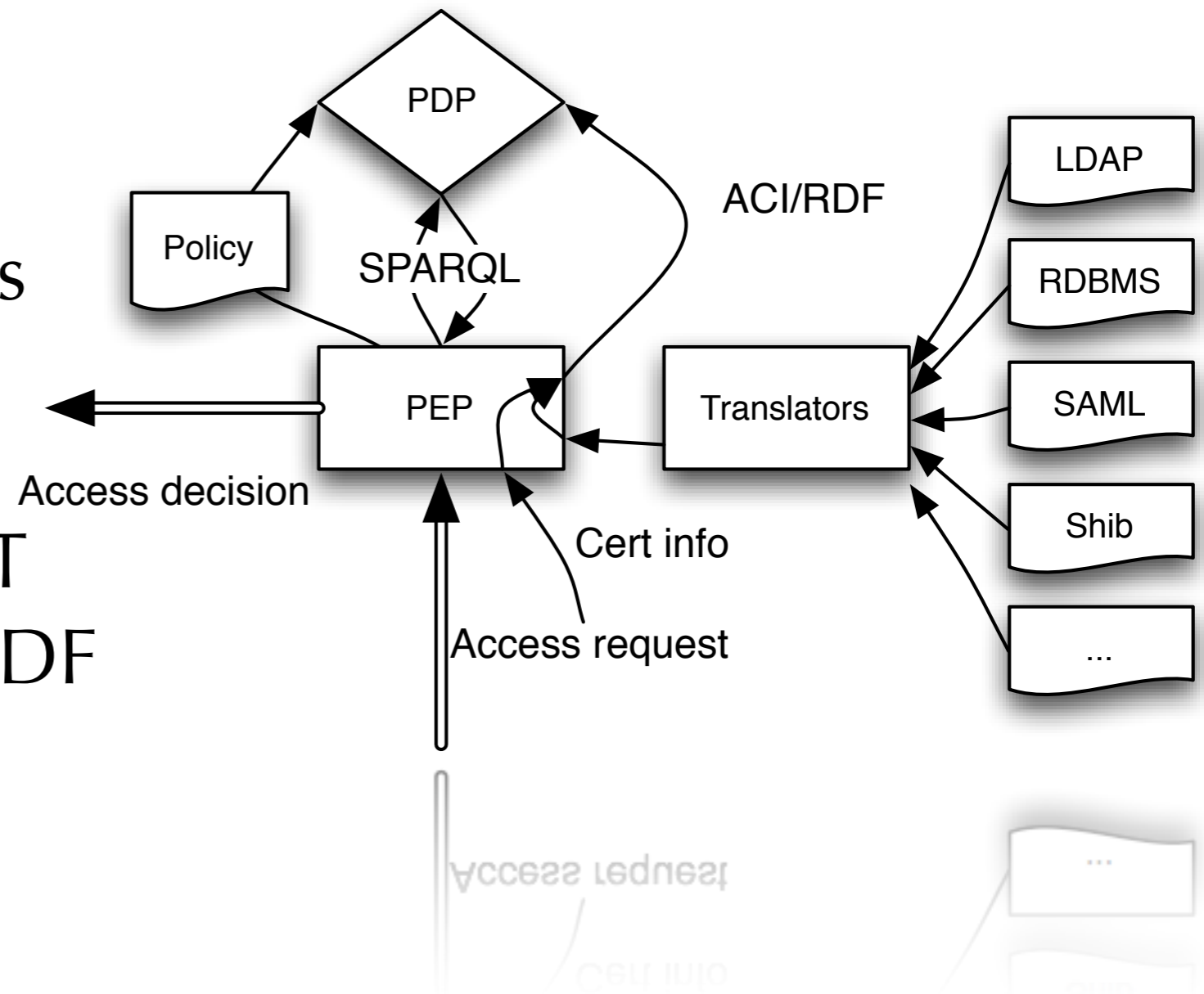
- Version 0.4 available from <http://skua.googlecode.com>
- Persistence and delegation available
- Authentication and authorization coming soon
- People: Norman Gray, Tony Linde (Leicester, UK), Kona Andrews (ROE, UK)

agast

# AGAST

Ontology-driven access control.

Simple interface – REST +queries, with input in RDF or X.509 certificates.



applications-policy.owl (http://www.astrogrid.org/agast/ontologies/applications-policy.owl) - [/checkouts/agast/rep...

applications-policy.owl

Active Ontology | Entities | Classes | Object Properties | Data Properties | Individuals | OWLViz | DL Query

Asserted class hierarchy

Asserted Class Hierarchy

- Thing
  - Application
    - HighUsageApplica
    - LowUsageApplica
    - MediumUsageApp
  - Community
    - DelegateCommun
    - LocalCommunity
    - Public
    - RemoteCommuni
  - Job
    - HighUsageJob
    - LowUsageJob
    - MediumUsageJob
  - User
    - HighUsageUser
    - LowUsageUser
    - MediumUsageUse

Class Annotations: MediumUsageJob

Annotations +

Class Description: MediumUsageJob

Equivalent classes +

- hasApplication some MediumUsageApplication and hasUser some (HighUsageUser or MediumUsageUser)

Superclasses +

- Job

Inherited anonymous classes

- HighUsageJob or LowUsageJob or MediumUsageJob

@prefix : <<http://www.astrogrid.org/agast/ontologies/applications-policy.owl#>> .

:appX a :LowUsageApplication .

:appXX a :MediumUsageApplication .

:appXXX a :HighUsageApplication .

:uk.ac.le.star a :LocalCommunity .

:wfau.roe.ac.uk a :DelegateCommunity .

:uk.ac.cam.ast a :RemoteCommunity .

:JeffLusted :inCommunity :uk.ac.le.star .

:KonaAndrews :inCommunity :wfau.roe.ac.uk .

:GuyRixon :inCommunity :uk.ac.cam.ast .

:JohnDoe :inCommunity :public .

```
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix agast: <http://www.nesc.ac.uk/hub/projects/agast/rdf/x509#> .
```

```
[]
```

```
  agast:issuer [
    agast:commonName "Thawte Personal Freemail Issuing CA" ;
    agast:countryName "ZA" ;
    agast:distinguishedName "C=ZA, O=Thawte Consulting (Pty) Ltd.,
      CN=Thawte Personal Freemail Issuing CA" ;
    agast:organizationName "Thawte Consulting (Pty) Ltd." ;
    a agast:Principal
  ] ;
  agast:notValidAfter "2009-07-02T18:37:51Z" ;
  agast:notValidBefore "2008-07-02T18:37:51Z" ;
  agast:serialNumber "733779be83c95dc925aa08d98b2c3424" ;
  agast:subject [
    agast:commonName "Norman Gray" ;
    agast:distinguishedName "CN=Norman Gray" ;
    agast:emailAddress "norman@astro.gla.ac.uk" ;
    agast:givenName "Norman" ;
    agast:surname "Gray" ;
    a agast:Principal
  ] ;
  agast:subjectAltName "norman@astro.gla.ac.uk" ;
  a agast:Certificate, agast:TBSCertificate .
```

The RDF generated from an X.509 certificate

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# implementations

- Included in a version of AstroGrid CEA (done by Jeff Lusted of University of Leicester)
- Included in a version of VOTES-DiabetesVO (Clinical Informatics; done by Tom Doherty and Richard Sinnott of NeSC Glasgow, using X.509 proxy certificates within GT4)

SKUA

[myskua.org](http://myskua.org)  
[skua.googlecode.com](http://skua.googlecode.com)  
[nxg.me.uk/norman](http://nxg.me.uk/norman)



AGAST

[www.nesc.ac.uk/hub/projects/agast](http://www.nesc.ac.uk/hub/projects/agast)

