



Fig. 1



Fig. 2



Fig. 3

1. DALI examples endpoints

(cf. Fig. 1)

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(cf. Fig. 2)

- Why examples?
- RDFa
- TAP examples
- Validator examples
- Datalink examples

(cf. Fig. 3)

2. Why Examples?

Users ask for examples all the time, so perhaps I should be asking:

Why examples the DALI way?

Demo time

Steps to reproduce:

1. Start TOPCAT
2. Open the TAP dialog
3. Select GAVO DC TAP
4. In the "Examples" button, select "Service-Provided", "Crossmatch for a guide star".
5. TOPCAT has filled out the query, and you can run it (it will take a bit).
6. Meanwhile, hit the "Info" button and read the explanation for the query. Scroll to see more examples.

Principle: Make it readable for both human and machine.

3. RDFa

HTML for the human and RDF annotation for the machine – from the example document we just saw:

```
<div typeof="example" id="ARIGFHmultiflags" resource="#ARIGFHmultiflags">
<h2 property="name">ARIGFH multiflags</h2>
<p>This example shows how to decode combined flags [...]
it is rampart within
<a href="/tableinfo/arigfh.id" property="table"
content="arigfh.id">arigfh.id</a> [...]
<pre property="query">
SELECT decCat, raj2000, dej2000, epDec, eqDec
FROM arigfh.id
WHERE 4=MOD(decflags/10000, 10)
</pre>
</div>
```

The HTML is made machine readable through the judicious use of @property, @typeof, @resource.

4. Good News

You don't have to figure out all the Semantics lingo yourself. Just use the recipes in DALI sect. 2.3.

It'll be fine for generic (non-VO) RDF processing, too.

Except: the property names ("thing labels"). These are per-standard.

5. TAP examples

Here, you need the **query**. (TOPCAT understands the property already).

DaCHS also produces **table** (these could be prominently placed next to table metadata displays, say).

In TAP logic, we should really have **lang** (but we decided to postpone proper multi-LANG handling until someone really cares).

TAP-1.1 WD doesn't have anything on that yet.

6. Validator Examples

DALI-1.0 is already enough for generic (non-standard) services. See the examples for the ivoild validator at

<http://dc.g-vo.org/validate-identifiers>

```
<div typeof="example" id="Nopercent" resource="#Nopercent">
<h2 property="name">No percent encoding in Registry references</h2>
<p><span property="generic-parameter" typeof="keyval">
  <span property="key">uri</span> =
  <span property="value"
    >ivo://example.org/%64oes/not/exist</span>
</span>
is not an IVOID as percent-encoding is not allowed in either
authority or the resource key.</p>
</div>
```

Most of the stuff you've seen before – there's just the extra DALI 1.0 **generic-parameter**.

Admittedly, there's not client support for this kind of thing yet.

7. Datalink examples

I've put some examples on datalink services, too, e.g.,

<http://dc.zah.uni-heidelberg.de/feros/q/sdl/examples>

```
<div typeof="example" id="UsageExample" resource="#UsageExample">
<h2 property="name">Usage Example</h2>
<p>On published datasets like
<em property="dl-id">ivo://org.gavo.dc/~?feros/q/f04031.bdf</em>,
this service lets you do cutouts, translations into FITS binary
tables, ASCII, and possibly more, as well as simple recalibration.</p>
</div>
```

– datalink would have to define the **dl-id** concept then.

That was more an experiment to give validators a hand (and for that, VOResource 1.1 will probably have something simpler).

8. Conclusion

- DALI examples lets you share examples between human and machines
- Relatively simple markup that happens to match non-VO standards
- Good examples make happy users

In our TAP courses, TOPCAT's Example button was the single most popular feature.