Adding data to VAMDC: technical aspects

Guy Rixon
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Web-service network

- Web browser
- GUI application
- Script
- Modelling code
- Data service
One service per DB

Application

Data service ("Node Software")

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- e.g. VALD
- Chianti
- HITRAN
- CDMS
New data go into a node

Three ways of doing this:

Their server
- Data service (pre-existing)
- Your data in their existing DB

Your server
- Data service (new)
- Your data in your own, new DB

Their server
- Data service (new)
- Your data in your own, new DB
Inside a node

- **Custom code for DB**
- **Common node software**
- **Django**
- **MySQL**
- **Python**
- **httpd/WSGI**

Written specially for each node

From VAMDC; code in GitHub; docs on vamdc.eu site

Your data in here

Readily available; usually as optional package in Linux distro
“Self describing data”

XML Schema for Atoms, Molecules and Solids (XSAMS)
See http://standards.vamdc.org/#data-model
Comparing data

• There is overlap between databases: this is good!

• Opportunities:
  • *Combine* complementary data
  • *Compare* “equivalent” data

• Tools for comparison are part of current programme
Applications and VAMDC

Five ways to make the link (at least):

- Desktop app
- Agnostic (external translator)
- XAMS-aware (internal translator)
- VAMDC-aware (queries VAMDC)
- Web app
- VAMDC-aware (queries VAMDC)
- VAMDC-native ("XSAMS-processor")
More information

- http://vamdc.eu/ — VAMDC’s home page
- http://www.vamdc.org/activities/research/ — most relevant detail (linked from) here
- support@vamdc.eu — ask any question
- gtr@ast.cam.ac.uk — questions about new data-nodes