

QA ideas for VAMDC services

VAMDC PMI
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What to test?

- Data services?
- Code-execution services?
- Data sets directly?



Test at the level of the web services

Testing data services

“Does the service work?” =

“Is the service up” *and*

“Does the service respond to queries?” *and*

“Is the response fast enough” *and*

“Are the results syntactically correct?” *and*

“Are the results scientifically correct?”

Yellow \Rightarrow same for all services of a class

Green \Rightarrow different tests for each service

Smoke test vs. covering test

- “Smoke test”:
 - Few queries (only one per service instance?)
 - Run frequently
 - Find “obvious” problems”
- Covering test:
 - Many queries → parameter sweep
 - Run occasionally
 - Find subtle problems
 - Best place to check scientific validity?

Testing code execution

- Just like testing data service
- Code-execution service = data service with different query language

Oracles

- Need sample queries for smoke test: who will supply?
- Science tests:
 - automated checking of metrics?
 - manual inspection?