

# Towards a New Model Repository

The underlying software and support of  
CellML 1.1 models (and more)

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# What is PMR?

- PMR is Physiome Model Repository
  - Currently running at <http://www.cellml.org/models>
  - Has close to 400 CellML models.
  - Was planned to support more than CellML
  - Unfortunately it was too difficult to even include support for CellML 1.1 due to architectural restrictions
  - So we did some soul searching...

# We can has PMR2!

- We introduce the concept of Workspace and Exposures
- Workspaces store the model data
  - It will track versions.
  - It will support all kinds of data/model files
  - CellML 1.1 imports can use relative links as it will be supported (external links must be absolute, however)

# Workspace

- Tracks complete version history of all contents
  - Version01
  - Version02 \*\*\* exposure \*\*\*
  - Version03
  - Version04
  - Version05
  - Version06 \*\*\* exposure \*\*\*
  - Version07

# What is this DVCS thing?

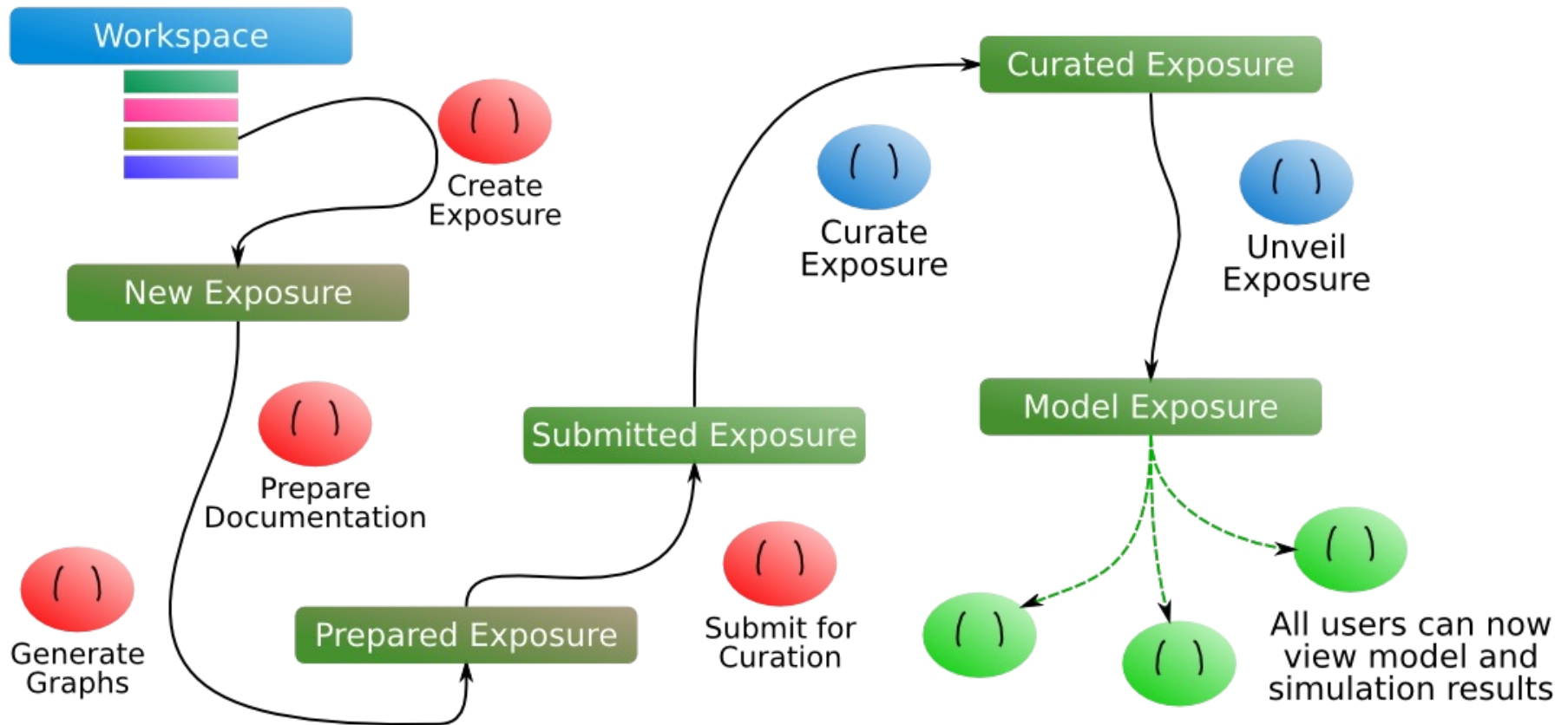
- DVCS is similar to a VCS like Subversion, except it can work without a centralized server
  - This allows model authors to exchange work directly with each other
  - Graphical client: TortoiseHg, Eclipse

# So we have data, now what?

- We do need some sort of gatekeeper to the models
  - We need to maintain the integrity of data within the repository.
  - Organize the data into a structure
- Model Curation
  - Curators annotate model with information about its status and functionality.
  - This info displayed via icons (e.g. stars)



# Curation Workflow Diagram



# What's next?

- Advanced Exposure Pages
  - CellML Simulator can be used to generate a reference description of a model
- Generate exposure pages for other file types, such as FieldML.
- Support for embedded workspaces through Mercurial Forests
  - This works like Subversion Externals
  - Makes importing models from a common library of shared components a lot easier