WMT

The CSDMS Web Modeling Tool

Mark Piper
mark.piper@colorado.edu

Eric Hutton
eric.hutton@colorado.edu

Irina Overeem
irina.overeem@colorado.edu

Agenda

Agenda

- The grand vision

Agenda

- The grand vision
- Objective

Agenda

- The grand vision
- Objective
- Implementation

Agenda

- The grand vision
- Objective
- Implementation
- Overview of the client

Agenda

- The grand vision
- Objective
- Implementation
- Overview of the client
- A brief example

Agenda

- The grand vision
- Objective
- Implementation
- Overview of the client
- A brief example
- EKT labs

Agenda

- The grand vision
- Objective
- Implementation
- Overview of the client
- A brief example
- EKT labs
- Summary and discussion

Agenda

- The grand vision
- Objective
- Implementation
- Overview of the client
- A brief example
- EKT labs
- Summary and discussion

The grand vision

Develop a modeling framework of connectable process modules able to predict

a) the transport and deposition of water, sediment, and nutrients over terrestrial surfaces;
b) how these surfaces evolve over a range of spatial and temporal scales.

The framework should:

- empower users to model science questions
- streamline the process of idea generation to actual simulation
- be inclusive, modular, and user-friendly

Objective

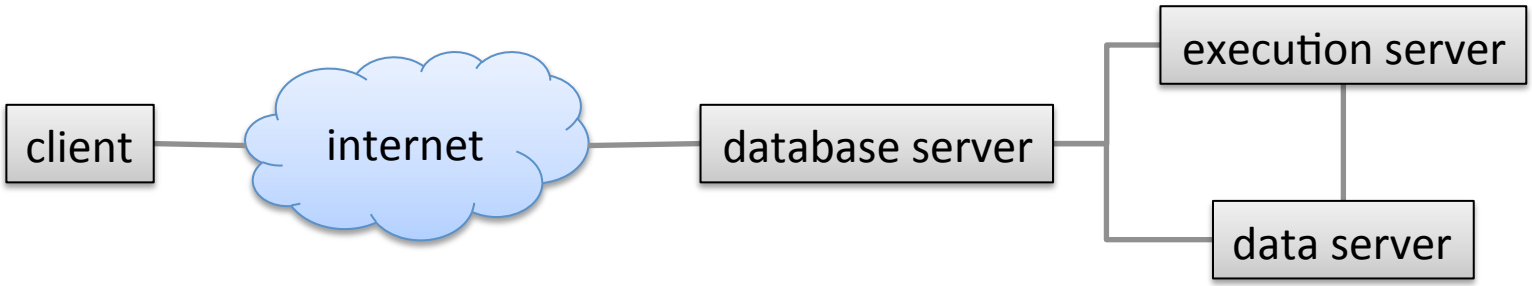
Develop a web-based component modeling tool to succeed CMT.

Why?

- Accessibility
- Integration
- Portability
- Maintenance

Implementation

WMT is a RESTful web application.



- Standards, separation, stateless, simple, secure
- Source code: https://github.com/csdms/wmt

The client

https://csdms.colorado.edu/wmt

Summary

With WMT, a user can:

- Select a component model from a list to run in standalone mode
- Build a coupled model from multiple components organized as nodes of a tree structure
- View and edit the parameters for these model components
- Save models to a server, where they can be accessed on any Internet-accessible computer
- Share saved models with others in the community
- Run a model by connecting to a remote HPCC where the components are installed

Thank you!

https://csdms.colorado.edu/wmt

Mark Piper
mark.piper@colorado.edu

Eric Hutton
eric.hutton@colorado.edu

Irina Overeem
irina.overeem@colorado.edu