

The Collage Authoring Environment: A Platform for Executable Publications

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Objectives

- Allow e-scientists to conduct research and publish results in the form of executable papers
- Constitute a novel publishing paradigm where static content of publications is supplemented with runnable code
- Allow for re-execution of published methods and reproduction of original and user-provided data

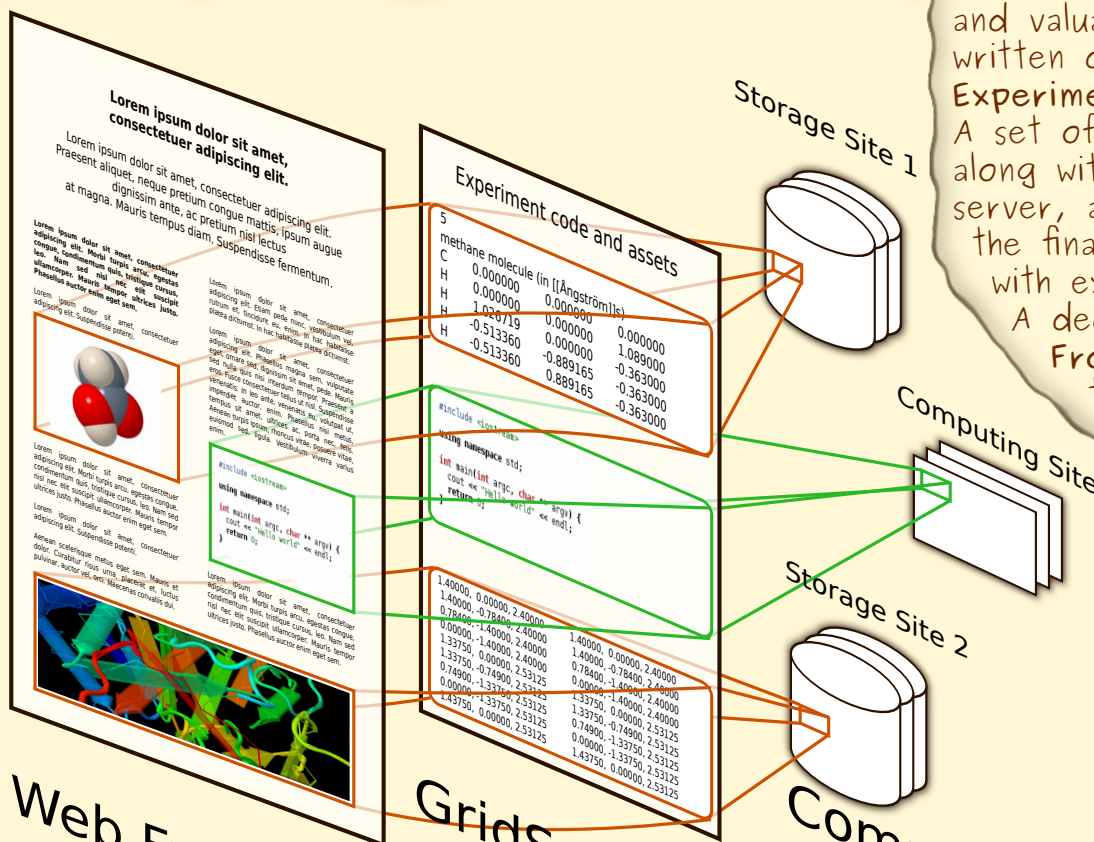
Different Computing and Storage Infrastructures are used to execute runnable content (local queues, Grid resources and others are available).

Scientific methods, input data and valuable results are written down as a **Gridspace Experiment**.

A set of dedicated openers, along with a static content server, are used to render the final paper and enrich it with executable content.

A dedicated **Web Frontend** enables users to execute code and verify its results.

Problem solved!



Web Frontend **GridSpace Experiment** **Computing and Storage**

Results

The Collage Authoring Environment is deployed, among others, at <http://gs2.cyfronet.pl/epapers>. It consists of a Wordpress web blog platform which serves static content, and a dedicated GridSpace workbench used to prepare the executable part of the paper.

Conclusions, Future Work

Collage Authoring Environment tackled the objectives by providing a complete solution recognized in the **Executable Paper Grand Challenge** by winning the first prize. Future work includes service maintenance and implementation of additional openers supporting different data formats displayed on executable paper web pages.

References

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