

Simple Tools for Generating a Searchable Repository of Access Grid Sessions

Ron Chernich
The University of Queensland
St Lucia, Queensland
Australia
+61 7 3365-4534
chernich@itee.uq.edu.au

Jane Hunter
The University of Queensland
St Lucia, Queensland
Australia
+61 7 3365-1092
jane@itee.uq.edu.au

EXTENDED ABSTRACT

The VIRGIL (Virtual Meeting Archival) system was developed to provide a simple, practical, easy-to-use method for recording distributed videoconferences held over Access Grid nodes, together with automatically generated metadata that describes them. This paper describes the underlying architecture, tools and Web interface we developed to enable the recording, storage, search, retrieval and replay of collaborative Access Grid sessions held within a Fedora object repository.

The project objectives were to develop a robust system which provides an easy-to-use utility based on the VCR paradigm for near-to-real-time recording with output that can be replayed via Web Browser plug-ins. It includes automatic generation of fine-grained metadata descriptions of the captured access grid session and permits interactive editing and augmentation of metadata descriptions. Once uploaded, the recorded sessions may be browsed and searched through the associated PHP based web service. This service presents search results as dynamic HTML with a still image snapshot and an embedded link to the “movie” file allowing a user to view it on their desktop via their web browser.

The VIRGIL system comprises three main components:

1. The Access Grid Recorder.
2. The Metadata Editor and Repository Ingest tool.
3. The Search, Browse, Retrieval and Replay web service interface.

The key design challenges were to:

- Leverage existing technologies and metadata standards as much as possible;
- Minimize the footprint of changes to existing tools/technologies (specifically Vic and Rat);
- Maximize portability and flexibility so that alternative system components can be incorporated at runtime through easy coupling/decoupling;
- Improve the usability, user-friendliness, efficiency and presentation quality over existing systems;
- Maintain a host-neutral design with minimal and cleanly delineated host-specific code.

The paper and presentation discuss the three main architectural components of the system in detail, describing the technology challenges and solutions adopted. The advantages and disadvantages of the approach compared with other, more mature approaches such as AGVCR, Voyager, and Memetic are discussed in brutal detail. User experiences are listed and areas for further development are explored.

The Virgil project developed a Web-based search, browse, retrieval and replay interface that enables users (with no experience in Access Grid tools) to discover and replay relevant recordings stored in the repository through a simple easy-to-use platform-independent web based service. This enables group knowledge expressed within distributed meetings to be held in standard institutional repositories and hence preserved for future sharing, re-use and analysis.

More information on VIRGIL, along with source code and instructions are obtainable from:

<http://www.itee.uq.edu.au/~eresearch/projects/virgil/main.php>