

Summary

Since nearly every service follows an implicit order of action steps and information flow, government agencies have become increasingly interested in technologies to support group functioning and process-oriented operations.

The Center's first technology testbed project investigated "groupware" products that support this trend. Several state agencies tested and evaluated tools designed to support work flow, document management, project management, and "any time, any place" meetings.

Publications & Results

Reports and Working Papers (1)



Groupware Technology Testbed

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Information technology tools and applications are supporting all types of government work. This report presents the results of a series of prototyping experiments conducted by CTG and state agencies on custom workflow, project management, document management, and meeting support systems using groupware tools.

In recent years, both government and business have been experimenting with team-based organizations and work assignments organized around a complete service or administrative process. Since nearly every service follows an implicit order of action steps and information flow, government agencies have become increasingly interested in technologies to support group functioning and process-oriented operations.

This report presents the results of a series of prototyping experiments conducted by CTG and state agencies on custom workflow, project management, document management, and meeting support systems using groupware tools.

Lessons Learned

General Lessons

These general lessons emerged from the Groupware Testbed:

- Any system implementation which affects group functioning or repetitive work flow requires a careful analysis of business processes as a first step.
- In order to enhance group functioning, groupware demands changes in the way individuals work. There is a need for standardization in groupware use that does not exist in software tools designed to enhance individual productivity.
- Groupware systems are embedded in organizational processes. They often affect several organizational units and require acceptance and participation from all users beginning in the design stage and continuing through implementation.
- Groupware as a category of technology covers a broad range of tools and uses. Some groupware tools are far more sophisticated than others. Some work well within a narrow range of application (like DecisionWeb), others are designed to support organization-wide computing (like Lotus Notes). Effective use of any particular tool requires a full understanding of the capabilities and limitations of the product, the organizational needs it will address, and the degree of organizational and technical support which is required to use it effectively.

Public Events

The Groupware Testbed Public Seminar was held at the University at Albany on May 25, 1994. The program included an introduction to of the Technology Testbeds, an overview of Groupware provided by the Gartner Group, and summary descriptions and demonstrations of each of the three phase I projects provided by the project teams. A hands-on review was held following the demonstrations.

Evaluations were completed at the closure of the event by fifty-three of the attendees. Of those who responded, ninety four percent indicated that they understood the objectives and structure of Technology Testbeds. All of those responding rated the briefing informative or very informative and ninety percent said the event met or exceeded their expectations. Expanding or improving their use of Groupware as a result of the information gathered during the seminar was expected by twenty percent of the respondents. Sixty-five percent said they would consider using groupware in the near future.

Written comments were provided by respondents on a range of topics. Feedback on the Gartner Group presentation was generally positive and reflected agreement that such overview presentations are necessary. Feedback on the groupware presentations were also positive and indicated that the primary goal of the event, dissemination and sharing of project experiences, had been met.

A sample of comments from the evaluations are indications that the event was successful in providing access to necessary information: "Gave me insight into this area of technology," "in a much better position to discuss it now," and "have gained knowledge as a basis for future decisions or recommendations on the uses of groupware."

Prototypes

Prototype Development

Two prototype applications were completed, one to manage executive correspondence at the Office of the State Comptroller (OSC) and another to assist collaborative work between the Center and the New York State Forum for Information Resource Management. A third agency, the New York State Thruway Authority completed all design work for a system to support customer services in its MIS division and is prepared to begin system development on its own. The Center also tested DecisionWeb as a tool for reducing the time and improving the outcome of organization wide meetings.

Time and Cost Savings

The OSC project produced a prototype InForms application after less than a month of design work and only two weeks of development. Two months later, the agency fully implemented a new correspondence tracking system - nine months ahead of schedule.

Cost and Performance Measures

The Center developed and applied a formal cost performance model to help identify and evaluate potential cost and time savings that might result from full adoption of a new system. The model was tested with two Testbed agencies and in both cases revealed patterns of use that would be cost-justified as well as patterns that would not justify an investment. These results were strongly influenced by the volume of users, applications, or transactions. CTG strongly recommends the use of similar formal analyses before agencies move forward from prototype to full scale implementation.

Process Improvements

Agencies learned how to evaluate work flow and reduce or eliminate inefficient or ineffective processes. New awareness of these critical steps ensured that the technology would improve rather than merely automate work processes. All participants engaged in work flow analysis and process redesign. For some, understanding and adopting new design processes was the most valuable part of the project.

Technology Awareness

Greater awareness and understanding of groupware technology was gained by technical, management, and program staff in the participating agencies. Moreover, through public demonstrations, the knowledge gained first-hand by a few was shared with over 165 professionals from 52 additional organizations.

Organizational Learning

Participants became more aware of the cross-organizational effects of these technologies. They learned more about what staff in other units do and need, and they began to understand how their jobs relate to others both inside and outside the agency. Users and upper management staff became more interested and involved than in previous system development projects in these agencies.

Partners

Government Partners

- New York State Commission of Corrections
- New York State Department of Motor Vehicles
- New York State Department of Taxation and Finance
- New York State Office of Alcoholism & Substance Abuse Services
- New York State Office of the State Comptroller
- New York State Thruway Authority
- The New York State Forum

Corporate Partners

- Executive Systems Planning
- Lotus Development Corporation
- Word Perfect Corporation, now known as Corel

Academic Partners

- Pal Danyi, Technical University of Budapest, Hungary
- Laszlo Magyar, Technical University of Budapest, Hungary
- John Rohrbaugh, Professor, Department of Public Administration and Policy, Rockefeller College of Public Affairs and Policy, University at Albany, SUNY

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Participants

- Thomas Ruller, Center for Electronic Records, New York State Archives and Records Administration
- Marsha Moore, New York State Division of Criminal Justice Services
- Ted Shippey, New York State Division of Criminal Justice Services

Original Scope of Work

Government managers have been experimenting with team-based organizations and work assignments organized around complete service or administrative processes. Since nearly every service follows an implicit order of action steps and information flow, government agencies have become increasingly interested in technologies to support group functioning and process-oriented operations.

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The Technology Testbed Program at the Center for Technology in Government was created to offer limited experimentation and rapid prototype development in selected classes of information technologies. The Groupware Testbed was the first such project, carried out from February through October 1994. It investigated new technologies that support work groups and teams. Several state agencies experimented with custom work flow, project management, document management, and meeting support systems using groupware tools.

The Groupware Testbed investigated only a few of the many products on the market: WordPerfect InForms, a work flow management tool provided by WordPerfect Corporation, Lotus Notes a document database and communications infrastructure tool provided by Lotus Development Corporation, and DecisionWeb, an "any time, any place" meeting support tool created at the University of Budapest.

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