GERM as a Tool For Space Station Documentation

by

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Limitations of current technology

Predominance of paper documentation

Structure

Division of labor into work package

Multiple levels of management

Documentation

The volume and complexity of space station

Problem Statement

Introduction
Hypermedia as a Tool for Documentation
"Why we considered hypermedia."

- Variety of types of documents
- Critical information contained in relationships between documents
- Sequential representation inadequate
Technical Approach

- Defining the problem scope
- OMA Documents
- RID data base
- Relationships between documents
- Choice of tools
- GERM - Hypermedia
- Frame Maker - Desktop Publishing
- Oracle - Relational DBMS
GERM

- What is GERM?
  Developed at MCC STP
  MCC/RICIS/JSC Cooperative Agreement
  Prototype using proprietary software
  Runs on Sun

- Unique Characteristics of GERM
  Graphical interface
  User definable schema structure
  Links to other applications
Applications Development

- Plug-in-Modules
- Oracle database
- Frame Maker
- Folios
- Icons
- Schema file
Results

- Presentation of GERM interface structure
- User inter-action
Benefits

- Use of visual cues (color, icons)
- View different levels of detail
- Non-sequential links
- Management of complexity
- Relationships
- Visual presentation of important forms
- Access to documents in a variety of
Lessons Learned

- Need a tool that is flexible
  Tailor graphics to applications
  Represent different types of relationships

- Limitations
  Does not do initial capture of information
  Represents, but does not discover relationships
Lessons learned

- GERM is flexible enough to be used with a variety of applications beyond Space Station relationships
- "Hooks" need to be in documents to establish (cont'd)

Documentation
Conclusions

The hypermedia capabilities of GERM offer significant potential for increasing the usability of Space Station documentation.

The technology also provides capability important for design knowledge capture.
Session 5

Interfaces for Hypermedia Systems
Chair: Dona Erb

Hypertext as a Model for the Representation of Computer Languages
Randal Davis

Automating Hypertext in a Decision Support System
Michael Bieber

TEJAS: Hypermedia for the NASA Masses
Michael L. Drews