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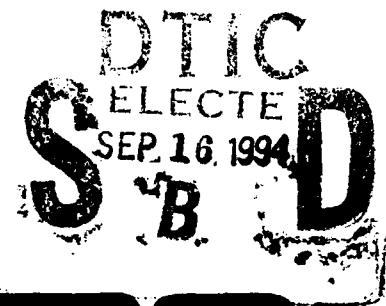
CDRL: B018
21 July 1994

UNISYS

Library Capability Demonstration

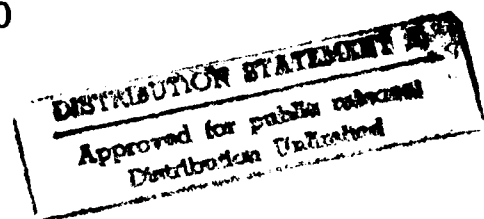
Comprehensive Approach to Reusable Defense Software
(CARDS)

Informal Technical Report



Comprehensive Approach to Reusable Defense Software

STARS-VC-B018/005/00
21 July 1994



DTIC QUALITY ASSURANCE

94-29952



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CDRL B018
21 July 1994

**INFORMAL TECHNICAL REPORT
For The
SOFTWARE TECHNOLOGY FOR ADAPTABLE, RELIABLE SYSTEMS
(STARS)**

*Library Capability Demonstration
Comprehensive Approach to Reusable Defense Software
(CARDS)*

**STARS-VC-B018/005/00
21 July 1994**

Data Type: Informal Technical Data

**CONTRACT NO. F19628-93-C-0130
Line Item 0002AB**

Prepared for:

**Electronic Systems Center
Air Force Material Command, USAF
Hanscom AFB, MA 01731-2816**

Prepared By:

**Electronic Warfare Associates, Inc.
under contract to
Unisys Corporation
12010 Sunrise Valley Drive
Reston VA 22091**

**Distribution Statement "A"
per DoD Directive 5230.24
Approved for public release; Distribution is unlimited**

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INFORMAL TECHNICAL DOCUMENT
Library Capability Demonstration
Comprehensive Approach to Reusable Defense Software
(CARDS)

Principal Author:

James J. Petro

Approvals:

System Architect *David Weisman*

Program Manager *Lorraine Martin*

(signatures on File)

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21 July 1994

Data Reference: STARS-VC-B018/005/00
INFORMAL TECHNICAL REPORT
Library Capability Demonstration

ABSTRACT

This library capability demonstration is of the soon-to-be released CARDS Documents library. The demonstration showed the library organization, new extraction features, and new document viewing facilities.

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1.0 OVERVIEW

This document provides the material used to demonstrate the capabilities of the documentation library for the Comprehensive Approach to Reusable Defense Software (CARDS) Program. The actual demonstration was given to the Air Force Program Manager on July 21, 1994 during the scheduled Program Management Review.

The goals of this demonstration are to show how the CARDS Documents library:

- Has simplified access to CARDS documentation.
- Has facilitated the viewing of documents with the addition of a Postscript™ viewer.
- Has enhanced the usability of extracted items.

The demonstration was presented in two parts:

- A briefing (see Appendix A) of what is to be presented.
- The actual demonstration script (see Appendix B) to show current capabilities.

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Appendix A Library Capability Demonstration Slides

The following pages are the slides used to explain the library capability demonstration.



Comprehensive Approach to Reusable Defense Software (CARDS)

Library Capability Demonstration
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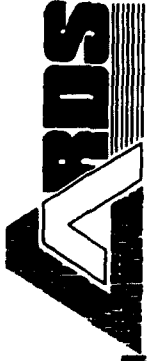
21 July 1994

James J. Petro
EWA, Inc.



Presentation Overview

- **Goals**
- **Approach**
- **Implementation**
- **Benefits Achieved**
- **Plans**
- **Live Demonstration**



Goals

- Simplify access to CARDS Documents
- Improve documentation viewing capability
- Provide extracted documents in multiple formats to facilitate use
- Facilitate user feedback on documents
- Maintain interoperability with ASSET, and add interoperability to DSRS



Approach

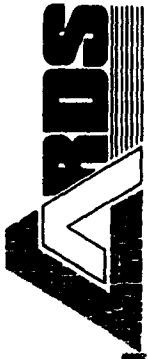
- Provide the user with a model of CARDS documents based on document category.
- Provide capability to view documents in formatted form.
- Determine and provide usable document formats.
- Provide CARDS user survey form for documents.
- Coordinate interoperability with ASSET and DSRS.



Implementation

Approach: Provide the user with a model of CARDS documents based on document category.

- Utilize only DoneDocs.
- Utilize RLF for categorizing documents.
- Provide descriptions of categories to assist user in navigation.
- Provide abstracts of document objects



Implementation (Continued)

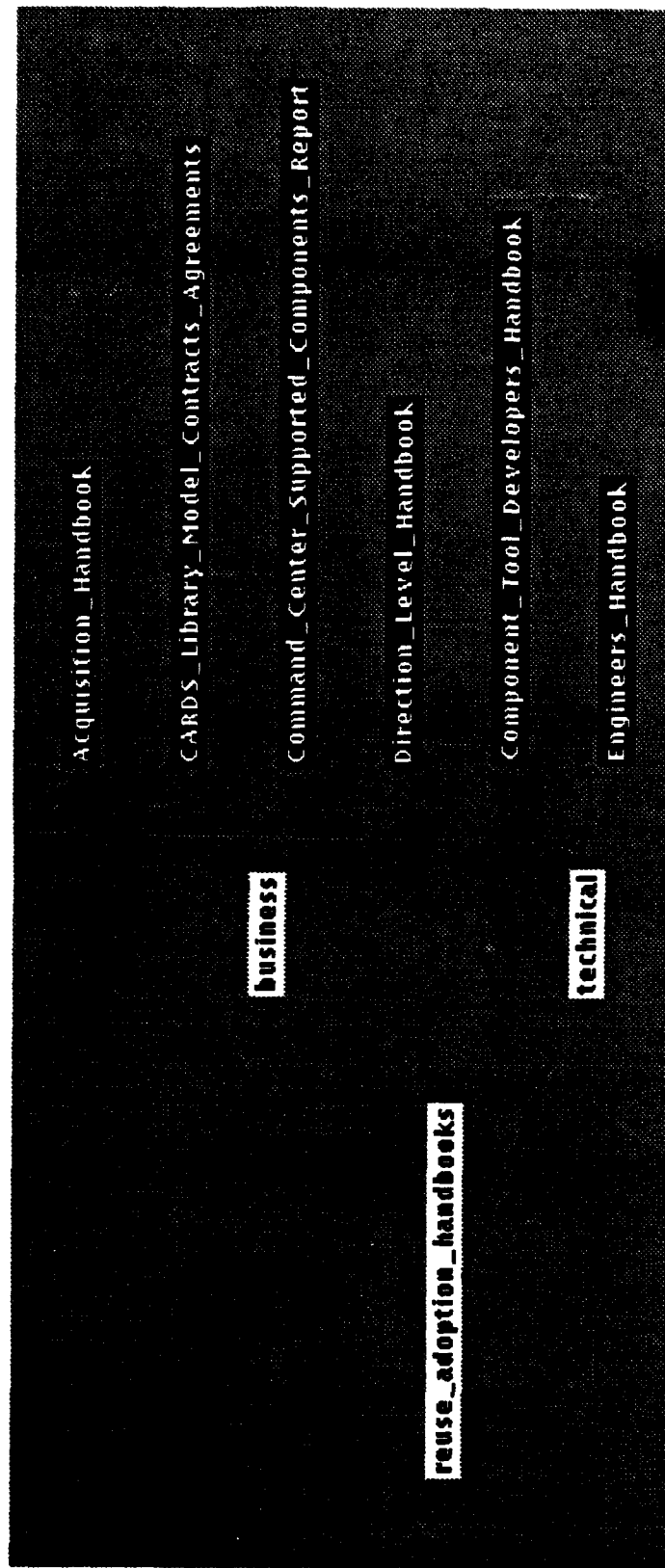
The CDL Model

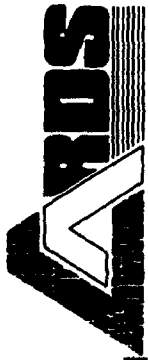
- **Six primary categories:**
 - **CARDS_libraries**
 - **reuse_library_process**
 - **reuse_adoption_handbooks**
 - **technology_transfer_efforts**
 - **theory**
 - **training_and_education_material**
- **Categories consistent with document abstracts**
- **Documents or slide presentations represented by objects**



Implementation (Continued)

Sample Branch of CARDS Documentation Library





Implementation (Continued)

Approach: Provide the capability to view documents in formatted form

- Integrate the Postscript[™] previewer into the library.
- Provide a view document action at each object (document) node.
- Maintain text previewer for abstracts and descriptions.



Implementation (Continued)

Approach: Determine and provide usable document formats.

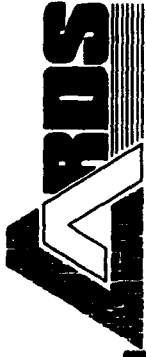
- Postscript format in first-page-first and last-page-first ordering, to facilitate printing.
- Text format for text utilities (e.g., searches, Unix utilities, editing, and so on.)
- Provide description files README.contents during extraction which specify extracted file formats.



Implementation (Continued)

Approach: Provide user survey on documents.

- **With each extraction user is provided with the CARDS DOCUMENTATION SURVEY.**
- **Also provided is instructions and e-mail information.**



Implementation (Continued)

Sample README.contents file

Assets contained within the ./docs directory include:

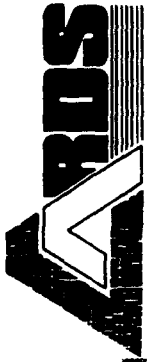
./docs/Metrics_Concept_Report-fpf.ps:	Document in first page first ordering in PostScript format.
./docs/Metrics_Concept_Report.txt:	Document in ASCII text format.
./docs/Metrics_Concept_Report_desc.txt:	Document Abstract in ASCII text format.
./docs/Metrics_Concept_Report-lpf.ps:	Document in last page first ordering in PostScript format.
./docs/UserSurvey:	CARDS Documentation Survey



Implementation (Continued)

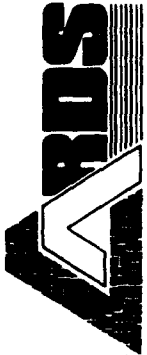
Approach: Coordinate interoperability with ASSET and DSRS

- **Create interoperability index file for each document.**
- **Have documents removed from ASSET.**



Benefits Achieved

- Foundation laid out for other representations of documents (i.e., Mosaic).
- Descriptions and model can be used by technology transfer efforts.
- Single point of configuration for assets.
- Increased usage of interoperability server.



Plans

- Develop and implement policy to determine what other documents should be made available.
- Enable Mosaic access to documents.
- Create and add selectable extraction capability.
- Provide SGML document configurations.
- Create and add an automated user-feedback mechanism.

Appendix B Library Capability Demonstration Script

The following pages contain the demonstrator's computer script used to demonstrate the CARDS library capabilities.

NOTE: LMB is Left Mouse Button

> User Action

: Result

* Text augmentation

Bring up the CARDS Documents Library from the launcher

> Type rungb from demo area.

: Launcher will appear.

> Select "CARDS documents"

: Pull-down menu will appear.

> Select "Launch_Model"

: Confirmation box will appear.

> Select "Okay"

: Confirmation box goes away and RLF Graphical browser will start.

Display the CARDS Documents Library model

> Scroll the view to the top.

: "CARDS_libraries" node should be centered.

> Click LMB on the "CARDS_libraries" category node and select "Perform Action" and then "Provide Description".

: The File Previewer displays a description of the "CARDS_libraries" category.

* Paraphrase the description; this explains the types of documents which should go in this category.

> Pull down File menu from the File Previewer and select Quit.

: File Previewer goes away.

> Continue to select other category nodes in this category, comparing their descriptions with the actual object files contained in the category. Repeat this for all the other top-level categories, including: "reuse_adoption_handbooks", "reuse_library_process", "technology_transfer_efforts", "theory", and "training_and_education". From within each of these, view sub-categories and compare them with their document leaf nodes.

Display the Postscript™ viewing capability

> Scroll the model until "The Component Provider's and Tool Developer's Handbook" is in view.

> Click LMB on the "The Component Provider's and Tool Developer's Handbook" object node and select "Perform Action" and then "View Document".

: The "Ghostview" tool comes up with the document in the view window.

* Note that pages can be directly accessed. The page numbers do not correspond to the page numbers of the document, but to the number of pages (including, for example, the title page) in the document.

> With the LMB pull down the "Magstep" menu and select "1".

: The document view increases in size and clarity.

* The document viewer allows the user to adjust the size of the view.

> Click the middle mouse button on "13" in the page number area.

: The "<" will point to "13", and the viewer will show the 13th page of the document. This page has a picture on it.

* Note that the viewer allows users to see document figures. This information was lost with the text viewer.

> With the LMB pull down the "Orientation" menu and hold it.

: The "Orientation" menu shows the different orientations the document can be viewed through.

* This document is in its proper orientation, but other orientations are available. "Landscape" is usually appropriate for slide presentations.

> With the LMB pull down the "File" menu and hold it.

: The "File" menu shows only "Quit" and "Copyright . . .".

* Note that the user cannot write or print with this tool. We need our tools to be this way for security purposes.

> Select "Quit".

: The viewer exits.

* This ends the demonstration of the CARDS Documents Library.