Title: DOORS™ Work Instructions		
Document No: GIFTS 03-040	Version: 1.0	



Geosynchronous Imaging Fourier Transform Spectrometer -Indian Ocean METOC Imager (GIFTS - IOMI) Mission

DOORS™ Work Instruction



March 27, 2003

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Revision History

Version	Date	Description
1.0	03/27/03	Original release

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1 Introduction

1.1 Purpose

The purpose of this work instruction is to capture the steps necessary for the DOORS[™] Administer (DA) to configure and use DOORS to support the System Manager (SM) in development and management of requirements (both specification and verification) documents. The official repository for baseline GIFTS requirements is the DOORS[™] database. Viewable copies of documents are posted in the GIFTS Electronic Data Management System (EDMS).

1.2 Assumptions

For initial importation into DOORS™, the requirements document shall conform to GIFTS 03-039 Authors Guide for Preparation of Requirements Document, use latest version.

2 Referenced Documents

GIFTS 03-039 Authors Guide for Preparation of Requirements Document GIFTS 03-021 System Engineering Management Plan GIFTS Requirements Templates – from EDMS DOORS (online) Help – accessed from the menu bar

3 Initial Setup

3.1 Prerequisites

Microsoft Word must be installed prior to installing DOORS[™] client and Adobe Acrobat must be installed prior to printing from DOORS[™] to a Portable Document Format (PDF) file.

At the request of the SM, the DA shall create a DOORS™ user account for each user and e-mail installation instructions (see Section 3.3).

3.2 DOORS™ and DOORSNet Installation

In order to run DOORS™ a user must first download and install the client software. In addition, to access DOORS™ from the web through DOORSNET, a user must download and install the DOORSNET plug-in.

Instructions for downloading and installing the DOORS[™] 6.0 Client and the DOORSNET plugin can be found at: http://se-pc10.larc.nasa.gov/doorsinstall/.

3.3 DOORS™Logon

After a user account is created, the DA shall e-mail the message below to the new user. Note: The DOORS™ login ID is the name used in setting up the new user account.

Follow the instructions for installation of the client. After the client is installed, logon as follows:

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Enter username as Firstname Lastname (capitalize first letter of each), e.g. W.S Syrett is Steve Syrett, Vip is Kevin Vipavetz.

Leave the password field blank and attempt to logon. The prompt to change your password will appear. Leave the "old password" field in the 'change password' window blank. Enter new password (at least 6 characters) and repeat for confirmation. Then logon.

NOTE: Passwords must be changed every 90 days; and passwords must conform to LAPD 2810.1.

Once in DOORS™, the DOORS™database view should show the GIFTS project.

3.4 Roles and Permissions

Access rights control "who can do what" to each item of data within the modules and views in the DOORSTM database. The DOORSTM tool provides five access rights.

Access Rights	Capability
Read (R)	Read (look at) data
Create (C)	Create new data
Modify (M)	Edit existing data
Delete (D)	Delete data
Admin (A)	Change the access rights for data, add new users

The SM determines and approves access rights. Most users will be given read only access rights. At present, only Administrators have create, modify, delete, and admin rights. Select users have delete rights. In the future, authors may be given create and modify rights.

Note: Users can view access rights to a project, folder or formal module by right clicking on the highlighted item, selecting properties and selecting the "access" tab. Access rights can also be viewed from the File menu, selecting properties and the "access" tab. See the following panel:

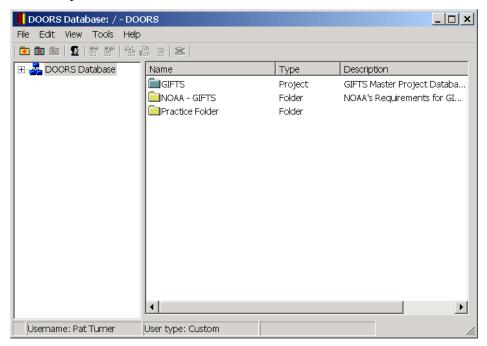
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4 Importing Documents

4.1 Initial Preparation

a. Open DOORS™ then the folder or project in DOORS™ where the word document is to be imported.



- b. DOORS™ database project and folder display
- c. Open Microsoft Word then the word document to be imported.

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- d. Delete the title page and table of contents from the word document.
- e. Check "track revisions" to verify all revisions have been accepted or rejected.
- f. On the Word Toolbar, click the DOORS™ export icon, ———, or click "Tools", and select "Export to DOORS™". The following pop-up menu will appear:



- g. Place the document number (GIFTS xx-xxx) in the Module Name box and the document title in the Module Description box.
- h. Place the proper prefix in the module prefix box per the GIFTS Document List (GIFTS-01-014). Note: If prefix not listed. Contact SM for Doc List update.
- i. Set "Absolute Numbers Start at" to 1.
- i. Leave the "Remove Heading numbers" checked.
- k. Leave the "Capture Paragraph Styles" checked.
- 1. Click "Export".
- m. After the export is complete, save the Microsoft Word document (temporarily) as GIFTS-xx-xxx_4Imprt.doc (since the title page and table of contents have been removed) and close the word document.
- n. The DA shall review the document in DOORS™ for form and format agreement to imported document. The module should have no blank objects; tables, figures, and section numbering should match the content of the imported document; and the complete document should be captured. If the import is satisfactory, select "File" and "Save". The document is now saved in DOORS™ and the imported Word document can be deleted. The first time version will be 0.0 by default. See Section 4.3 for baseline revision.

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Note: The document is saved as a "module" in the DOORS[™] folder where it was imported with the name entered in the Module Name Box. There is no "Save as" option.

The DA notifies the SM, via e-mail, including the module location and name, that the new module is ready for review. If the SM finds defects in the module, the DA will be notified for corrective action, which could include repair/edit or deletion, waiting for a new document to import. If the SM finds the module acceptable or after repair/edit, the module is re-baselined as version 0.1, with the notation "SM reviewed" entered into the revision history.

If the imported document is found to be unsatisfactory by the DA, the module in DOORS™ is not saved and the document is returned to the author (with a Cc: to the SM) with note of the discrepancies. The document author will correct the discrepancies and resubmit for import.

Note: Minor corrections should be made in the DOORS™ module by the DA to correct the form and format.

4.2 Establishing Links

Links should only go from lower-level documents to higher-level documents; i.e. child to parent, never parent to child. Initial link information is to be submitted as part of the document. If missing, the SM shall provide or have provided a child to parent links relationship documents or spreadsheet for implementation by the DA.

4.3 Updating Documents

The module can be saved as a revised DOORSTM baseline either with version numbers using tenths (0.1, 0.2, etc) or whole (1.0, 2.0, etc) numbers or a combination of both. Minor revisions shall use tenths. Major revisions shall use whole numbers.

A project "draft" is a module or document that is being developed and going through various reviews before becoming the final approved (project baseline) module or document. As a draft, all module versions shall be numbered 0.x.

For requirements, the official project baseline is the module in DOORSTM. A project baseline requirement document is the printed copy of the approved DOORSTM baseline module that is posted in the Project EDMS Master Documentation Library (MDL) in the Baseline Document Folder. This is done after appropriate approvals have been obtained.

The first major revision is the initial project baseline, which shall be 1.0. This will be done after all approvals are obtained by the Configuration Manager (CM). The CM or SM will instruct, via e-mail, the DA to create the initial baseline. Once the module is a project baseline, changes must be approved per the Configuration Management Plan (CMP). After baseline, the SM shall determine if a revision is minor or major.

The DA makes all changes to a DOORSTM module under the direction of the SM. Direction for changes to draft modules can be in any written form, e.g., hand written, e-mail, or e-mail attachment. Changes to baseline module shall use a project Document Change Order (DCO).

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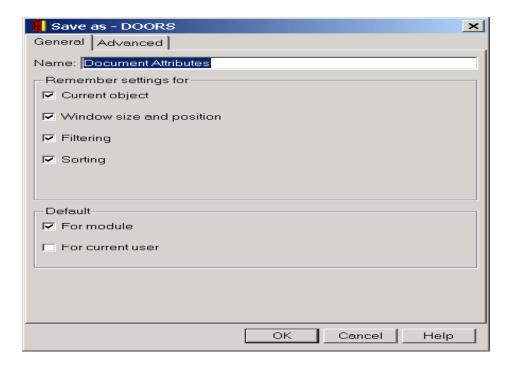
5 Using DOORS™ Templates

5.1 "View" Templates

A "view" in DOORS™ defines the display layouts for data, columns, filters, sorts, window position, etc. Select users for the project establishes views. Views can be saved within a Module, assigned specific names to reflect the data layout. This saves the layout, not the data. Views can be reloaded from drop-down list on the toolbar. Access rights can be set to ensure that standard views are not modified or deleted. The DOORS™ automatically creates a "standard" view for each module.

To create a new view or save your current view:

a. In the module window, click View, then Save As. The panel below will appear.



- b. Type the desired view name in the Name box.
- c. Select the display settings to save with the view.

Display setting description:

Current object: Check this box to save information about which object is currently selected.

Window size and position: Check this box to save information about the current window size and position.

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Filtering: Check this box to save the current filtering settings (whether filtering is turned on and what the current filter is).

Sorting: Check this box to save the current sorting settings (whether sorting is turned on and what the current sort is).

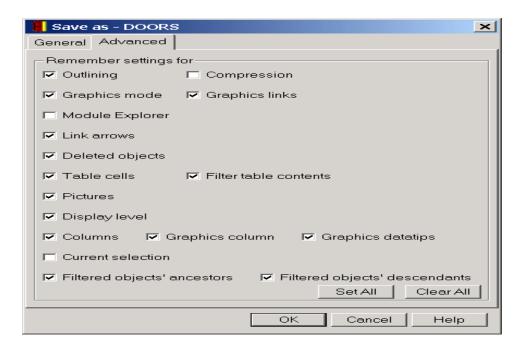
The saved settings are automatically applied whenever a new view is loaded. If a box is unchecked, loading the view doesn't change the current associated display setting. For example: If the "Filtering" box is unchecked, loading the saved view does not change the current filtering settings. If the "Filtering" box is checked, loading the saved view will change the current filtering settings to those of the loaded view. So if filtering was off when the view was saved, then filtering is off after it is loaded. If filtering was on, then filtering is on after loading.

d. Select the Default check boxes if the saved view is to be a default view for the module or current user:

For module: Check this box to be the module default view. User must have modify access to the module for this to apply.

For current user: Check this box if the view is to be the currentusers default view.

Use the Advanced tab if you <u>don't</u> want to save other display options with the view. See the panel below.



e. Click OK.

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Note: The new view inherits its access rights from the module.

5.1.1 Current View Templates

There are currently 16 specific GIFTS document attributes. These attributes are assigned to various views. See Section 6.0 for adding new attributes. The following is a list of the current attributes in DOORSTM:

- 1. ID
- 2. Main
- 3. Requirement Type (or Type)
- 4. Document Allocation (TBR)
- 5. Comments
- 6. Risk Rating
- 7. Verification
- 8. Priority
- 9. Criticality (TBR)
- 10. Feasibility (TBR)
- 11. TRL (TBR)
- 12. Impact Analysis (TBR)
- 13. Allocation
- 14. Waivers and Liens
- 15. Source (TBR)
- 16. WBS (TBR)

[Note: The SM will resolve all TBR]

All document views contain the ID (#1.) and Main (#2.) attributes. The following lists the additional attributes shown in each view:

View Name	Associated Objects		
Standard	Only ID and Main		
Print View: [The	Requirement Type, Priority, Allocation, Criticality,		
view printed to PDF	Verification, Waivers and Liens		
for posting]			
All Attributes	All defined attributes		
Allocation	Requirement Type, Document Allocation, Comments		
Assessment	Risk Rating, Verification, Priority, Criticality,		
	Feasibility, TRL, Impact Analysis		
Impact	Impact Analysis		
Impact-rev1	Type, Impact Analysis		
Key Attributes	Requirement Type, Priority, Allocation, Criticality,		
	Verification, Waivers and Liens, Comments		
Main (TBR same as	Only ID and Main		

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View Name	Associated Objects	
Standard)		
Ownership	Source, Document Allocation, WBS	
Requirements Only	Requirement Type, Priority, Allocation, Criticality,	
(TBR same as Print)	Verification, Waivers and Liens	
Trade Study	Requirement Type, Document Allocation, Verification,	
	Comments	
Temp	Impact Analysis, Last Modified by, Last Modified on	
Document Attributes	Rmqt?, Requirement Type, Allocation, Rationale,	
	Priority, Risk, Verification Methods, Verified?,	
	Verifications References, Waivers and Liens, Comments	

Note: The standard view is the default view unless the default selection box has been check for another view

5.2 "Page Setup" Templates

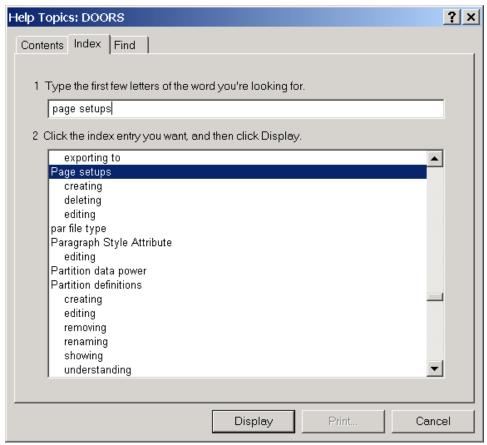
A "page setup" is used to specify the printing format. Page setup templates can be created to print out a variety of different looks for a variety of different uses. The page setup addresses the title page layout, paper size, margins, headers, footers, and selecting book or table format for the current document view. The page setup does not select attributes. That is done by the "view" (see Section 5.1).

Note: In Table format, the printed document looks generally like what you see on the display when in the document mode. All attributes for an object are printed on one line. In Book format, each attribute for an object is printed on a new line.

Pre-existing setups (listed on the left side of the Page Setup Window may be used, modified or a new setup can be created and saved.

For instructions on creating, editing or deleting a page setup, go the DOORS[™] help pull down menu, click the Index tab and enter "page setups" in the box. See DOORS[™] help panel below.

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DOORS™ Help Pull Down Menu

See Section 5.2.2 for the settings of GIFTS' two primary page setups. Both of these templates are designed to output the document in table vice book format.

5.2.1 Current Page Setup Templates

The following is a sample list of the page setup templates in DOORS™. Warning: Page setups from other projects are visible. Do not change them.

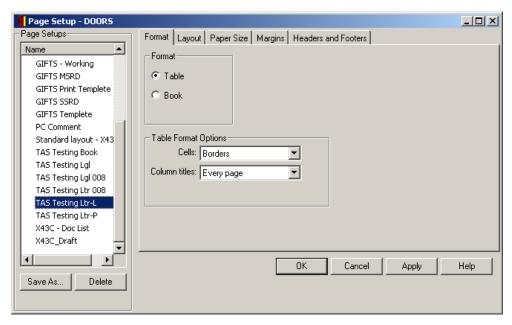
Page Setup	Project Ownership			
Standard Layout	All			
AGATE – AGATE Report	No			
AGATE – Work Package1	No			
Calipso book	No			
CALIPSO REQ	No			
CALIPSO REQ Table	No			
GIFTS – Document format	GIFTS			
GIFTS – modified Standard	GIFTS			
GIFTS – Working	GIFTS			
GIFTS MSRD	GIFTS			

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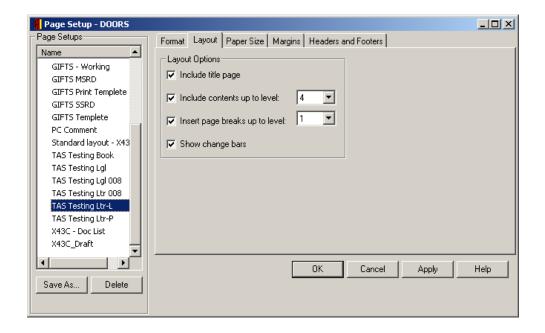
GIFTS Print Template	GIFTS				
GIFTS SSRD	GIFTS				
GIFTS Template	GIFTS				
PC Comment	No				
Standard layout – X43C	No				
TAS Testing Book	GIFTS				
TAS Testing lgl	GIFTS				
TAS Testing Lgl 008	GIFTS				
TAS Testing Ltr 008	GIFTS				
TAS Testing Ltr-L	GIFTS				
TAS Testing Ltr-P	GIFTS				
X43C – Doc List	No				
X\$#C_Draft	No				

5.2.2 Page Setup Settings

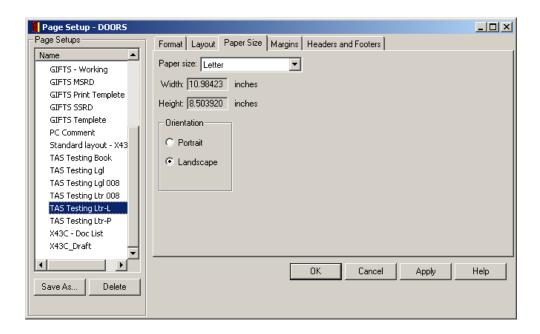
The following specifies the settings for the two primary GIFTS' page setup templates, "GIFTS Print Template" and "TAS Testing Ltr L". For requirements only or requirements plus a few attributes, choose TAS Testing Ltr L (letter size paper). For requirements plus attributes and comments, choose GIFTS Print Template (legal size paper).



Format is the same for TAS Testing Ltr L and GIFTS Print Template.



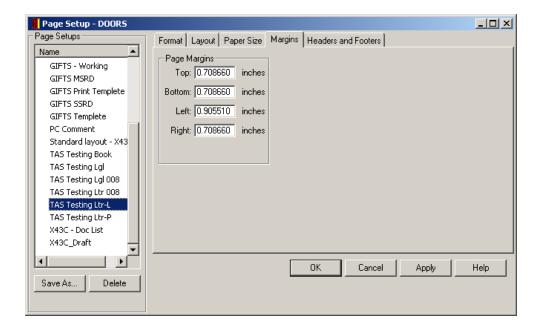
Layout is the same for TAS Testing Ltr L and GIFTS Print Template.



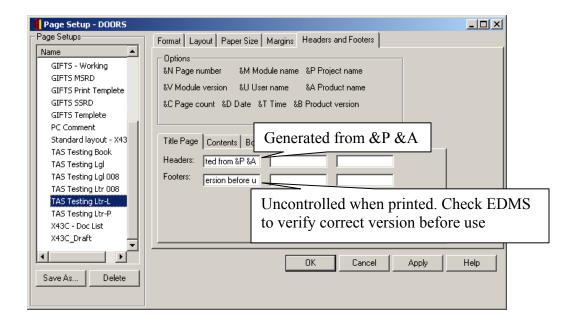
Paper size is different, but both use Landscape orientation. TAS Testing Ltr L selects letter as the standard paper size. GIFTS Print Template selects legal size paper (14.01572 Width by 8.503920 Height).

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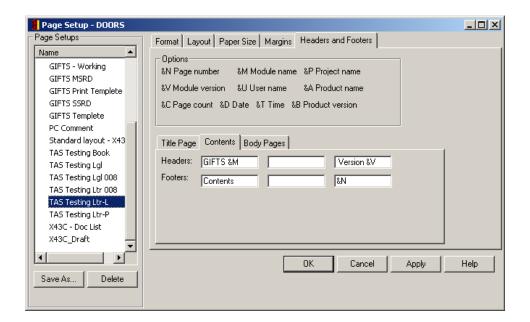
Margins are the same for TAS Testing Ltr L and GIFTS Print Template.



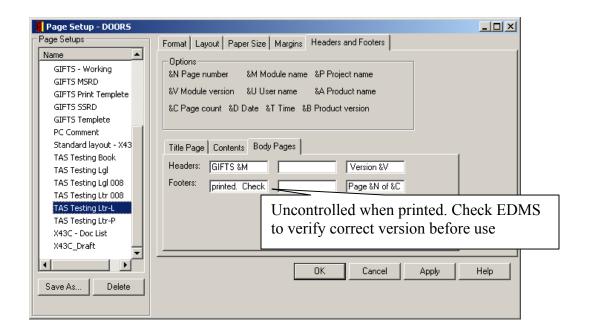
Title page Headers and Footers are the same for TAS Testing Ltr L and GIFTS Print Template Headers - Left: "Generated from &P &A" (Project Name, and Product name). Footers - Left: "Uncontrolled when printed. Check EDMS to verify correct version before use." Center and Right are blank.

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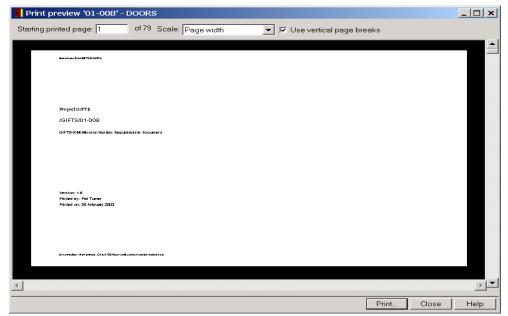


Contents Headers and Footers are the same for TAS Testing Ltr L and GIFTS Print Template. Headers - Left: "GIFTS &M" (Module Name), Right: "Version &V". Footers - Left: Contents, Right: "&N" (page number). Center is blank.



Body Pages Header and Footer are the same for TAS Testing Ltr L and GIFTS Print Template. Headers - Left: "Gifts &M" (Module Name), Right – "Version &V". Footers, Left: "Uncontrolled when printed. Check EDMS to verify correct version before use.", Right – "Page &N of &C" (page number x of count y).

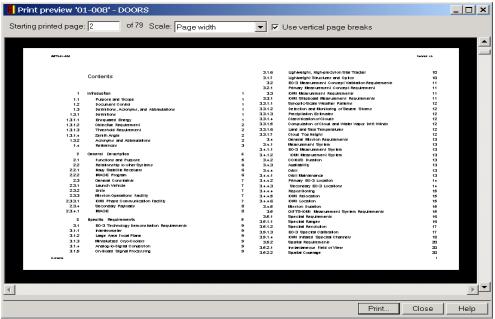
Sample print previews are given below.



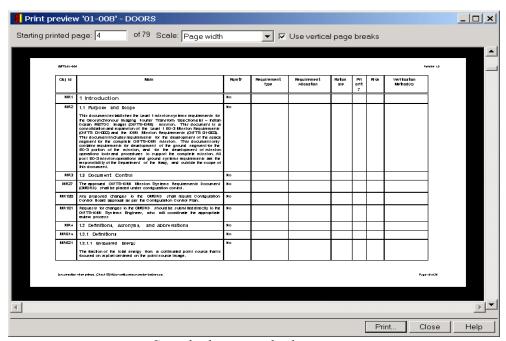
Sample document title page

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Sample document table of contents page



Sample document body page

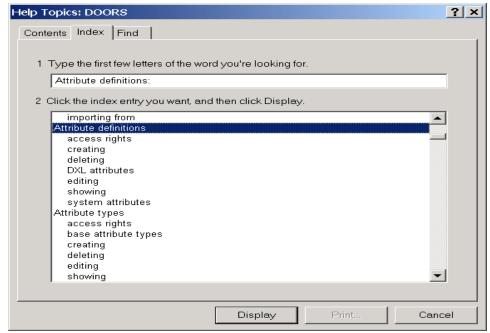
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6 Attributes

6.1 Creating Attributes

6.1.1 Attribute Definitions

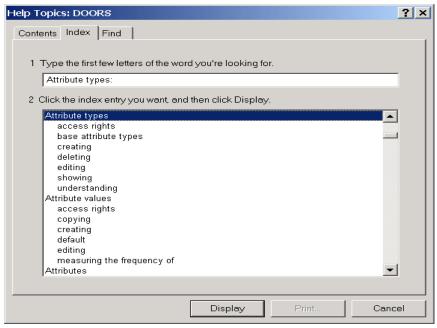
For instructions on creating, editing or deleting attributes definitions go the DOORS[™] help pull down menu, click the Index tab and enter attribute definitions in the box. See DOORS[™] help panel below.



DOORS™ Help Pull Down Menu

6.1.2 Attribute Types

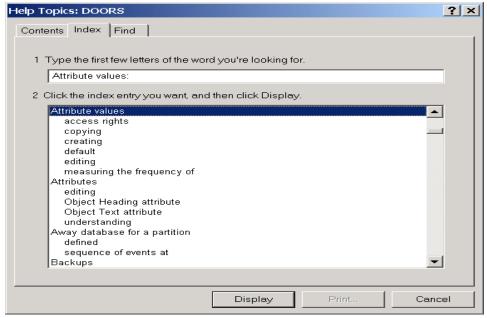
For instructions on creating, editing or deleting attributes types go the DOORS™ help pull down menu, click the Index tab and enter attribute types in the box. See DOORS™ help panel below.



DOORS™ Help Pull Down Menu

6.1.3 Attributes Values

For instructions on creating, editing or deleting attributes values go the DOORS[™] help pull down menu, click the Index tab and enter attribute values in the box. See DOORS[™] help panel below.



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7 Output

7.1 Selecting Printer

All DOORS™-controlled printouts are printed to Adobe distiller as PDF files. For this, Adobe Acrobat version 5.0 must be installed on the client computer. This can be verified by the Adobe

icon in Microsoft word, _____, or, in DOORS™, by selecting "File", "Print Preview", and verifying that "Acrobat Distiller" appears in the drop down list of printers.

7.2 Printing

Although templates have been set up for printing and viewing, column widths can vary between the view of the document on screen, and the final printed output. To achieve a correctly formatted PDF file when printing a document with all the attributes included for the "Key Attributes" view, select "File", then "Page Setup", and select "GIFTS Print Template", click "Apply" and "OK". Then select "File", then "Print Preview", and select "Acrobat Distiller" from the pull-down list, and click "Preview".

Scroll through the document to verify that all the columns fit on one page. If this is not the case, then the column widths will have to be adjusted. Adjust a column width, and then preview the printer output again. Repeat this process until the satisfactory output is achieved. See the following figure for a sample print output in PDF format for the Mission System Requirements Document. Once this has been accomplished, select "Print", then "Acrobat Distiller", and click "OK".

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Sample Printer Output, Key Attributes, GIFTS Print Template, Properly formatted, legal paper size, landscape, and table form

Obj ld	Main	Req Type	Priority	Allocation	Criticality	Verification	Waivers & Liens	Comments
MR501	3.4.4.3.3 Pacific Storm Observations A spacecraft geosynchronous location during the E0-3 phase of the mission shall have a view of the eastern Pacific Ocean during a portion of the winter storm season, zenith angle less	Objective	Objective	Space Ground Operations	Low	Analysis		
MR531	3.4.4.3.4 THORPEX A spacecraft geosynchronous location during the E0-3 phase of the mission shall have a view ofthe THORPEX balloon mission, zenth angle less than 62.5 degrees to a portion of the THORPEX coverage region.	Objective	Objective	Space Ground Operations	Low	Analysis		
MR529	3.4.4.4 Repositioning The spacecraft shall be capable of safely repositioning from one CONUS location to another.		Objective	Space Ground Operations	Medium	Analysis		
MR94	3.4.4.5 IOMI Relocation The spacecraft shall be capable of safelyrelocating from a geosynchronous EG-3 CORUS location to a geosynchronous location overthe Indian Ocean.	Objective	Threshold	Space Ground Operations	Extreme	Analysis		
MR351	3.4.4.6 IOMI Location The spacecraft geosynchronous location for the IOMI phase of the mission shall have a view of the north-central Indian Ocean and the Saudi Arabian Penninsula.	Threshold	Threshold	Space Ground Operations	Extreme	Analysis		
MR178	3.4.5 MissionDuration							
MR49	The duration of the EO-3 phase of the mission shall be the period required to complete the acquisition of technology and measurement concept validation.	Threshold	Threshold	Space Ground Operations	High	Analysis		
MR50	2-year shall be used as the design mission life for components required to satisfyonly the EO-3 phase of the mission.	Threshold	Threshold	Space	Extreme	Analysis		

Acrobat Distiller will prompt for a file name. Type in the appropriate file name, and click "OK". The file naming convention shall include the document number and version number. As an example: "GIFTS_xx-xxx_vn-m.pdf" (version n.m).

After Acrobat creates the PDF file, it will automatically open Adobe Acrobat with the newly created file in view. Verify that the document meets the intended form and format and has not been corrupted. At this point, the DA shall choose to save the file with the same name. The PDF file shall be e-mailed to the SM for review and forwarding to the Mission Information Manager for processing and posting in the appropriate folder in the EDMS.