G2 Online Documentation

Developer's Guide

Version 2015

G2 Online Developer's Guide, Version 2015

December 2015

The information in this publication is subject to change without notice and does not represent a commitment by Gensym Corporation.

Although this software has been extensively tested, Gensym cannot guarantee error-free performance in all applications. Accordingly, use of the software is at the customer's sole risk.

Copyright (c) 1985-2015 Gensym Corporation

All rights reserved. No part of this document may be reproduced, stored in a retrieval system, translated, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Gensym Corporation.

Gensym®, G2®, Optegrity®, and ReThink® are registered trademarks of Gensym Corporation.

NeurOn-Line™, Dynamic Scheduling™ G2 Real-Time Expert System™, G2 ActiveXLink™, G2 BeanBuilder™, G2 CORBALink™, G2 Diagnostic Assistant™, G2 Gateway™, G2 GUIDE™, G2GL™, G2 JavaLink™, G2 ProTools™, GDA™, GFI™, GSI™, ICP™, Integrity™, and SymCure™ are trademarks of Gensym Corporation.

Telewindows is a trademark or registered trademark of Microsoft Corporation in the United States and/or other countries. Telewindows is used by Gensym Corporation under license from owner.

This software is based in part on the work of the Independent JPEG Group.

Copyright (c) 1998-2002 Daniel Veillard. All Rights Reserved.

SCOR® is a registered trademark of PRTM.

License for Scintilla and SciTE, Copyright 1998-2003 by Neil Hodgson, All Rights Reserved.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (*http://www.openssl.org/*).

All other products or services mentioned in this document are identified by the trademarks or service marks of their respective companies or organizations, and Gensym Corporation disclaims any responsibility for specifying which marks are owned by which companies or organizations.

Gensym Corporation
52 Second Avenue
Burlington, MA 01803 USA
Telephone: (781) 265-7100
Fax: (781) 265-7101

Part Number: DOC026-1200

Contents

Preface vii

About this Guide vii

Audience vii

Organization viii

A Note About the API viii

Conventions ix

Related Documentation x

Customer Support Services xiii

Chapter 1 **Introduction to GOLD** 1

What is GOLD? 1

Online Documentation 2

GOLD Books 2

URLs 3

How GOLD Uses URLs 3

Context-Sensitive Help 6

Keyword Searches 6

Application Programmer's Interface to GOLDUI 6

Chapter 2 **Getting Started** 7

The GOLD Utility 7

Installing GOLD 7

- Merging GOLDUI into G2 8
- The GOLDUI Modules 8
- Making goldui a Required Module 9
- Requirements for Running GOLDUI and GOLD 10
- Starting GOLD 10
- GOLD User Modes 10

The GOLD Top-Level Workspace 11

Requirements for Accessing Online Documentation **12**
GOLD Book **12**
Online Documentation Fileset **12**
Applicable Machine Configuration **13**

Setting up and Testing a GOLD Book **13**

Chapter 3 Creating GOLD Books 15

The GOLD Book **15**
GOLD Book Attributes **16**

Creating a GOLD Book **19**

Initializing GOLD Books **21**

Chapter 4 Setting up Context-Sensitive Help 23

Introduction **23**

Requirements for Context-Sensitive Help in G2 **23**
Context-Sensitive Help Items **24**
The Key Table File **24**
Considerations **24**
The Context Search Procedure **25**

How GOLD Performs a Context Search **25**

Creating a Key Table File **26**
Updating the Key Table File **27**

Creating a Context Search Procedure **28**
Examples of Context Search Procedures **29**

Chapter 5 Setting up Topic Searches 31

Introduction **31**

Requirements for Topic Searches **31**
The Search Table File **32**

How GOLD Performs a Search for Help Topics **32**

Creating a Search Table File **33**

Chapter 6 Configuring Machines for GOLD 35

Introduction **35**

The GOLD Machine Configuration **36**

Setting up the Machine Configuration **36**
Considerations **37**

Machine Configuration Task Summary **37**
Creating a Machine Configuration **38**
Specifying Applicable Platforms and Machines **39**
Limiting the Applicability to Specific Machines **39**
Specifying Installed Books **41**
Specifying Web Browsers **42**
Replacing a Browser **44**
Saving the Configuration **44**

Resolving Machine Configuration Problems **44**
Books Not Installed **44**
Book Files Missing **45**
Machine Not Configured for GOLD **45**
Changing the Applicability of the Configuration **46**
Updating Installed Books Information **47**
Updating Installed Browsers Information **47**
Deleting a Machine Configuration **48**

Setting up GOLD User Preferences **48**
Specifying Applicability of the User Preference **48**
Configuring Online Viewing Preferences **50**
Books Used for Topic Searches **50**
Browser Launched to Display Online Documentation **51**
Maximum Entries Displayed for Topic Searches **51**
Maximum Entries Displayed for Context-Sensitive Help **51**

Saving GOLD Configurations and Preferences **52**

Editing Generated User Preferences **52**

Chapter 7 **GOLD API** **55**

Introduction **55**

gold-initialize **57**

gold-uninitialize **59**

Index **61**

Preface

Describes this document and the conventions that it uses.

About this Guide **vii**

Audience **vii**

Organization **viii**

A Note About the API **viii**

Conventions **ix**

Related Documentation **x**

Customer Support Services **xii**

About this Guide

This guide contains complete information about the G2 OnLine Documentation utility (GOLD), and shows you how to use the module at any supported level.

This guide:

- Introduces GOLD and describes the functions, classes, and associated capabilities that GOLD provides.
- Provides specific instructions for using GOLD

Audience

This guide assumes that you are generally familiar with G2 terminology and practices, but does not require a deep understanding of G2. If you encounter G2 terms or concepts that you do not understand, see the *G2 Reference Manual*.

This guide assumes that you have a general familiarity with online documentation as seen from the user's viewpoint. It does not assume an understanding of the internal operations of GOLD.

Organization

This guide contains seven chapters and an index:

	Title	Description
1	Introduction to GOLD	Describes the features of the G2 OnLine Documentation utility.
2	Getting Started	Describes how to install GOLD in your G2 application KB, the online documentation requirements, and how to set up and test a GOLD book.
3	Creating GOLD Books	Describes how to create and set up a Gold book.
4	Setting up Context-Sensitive Help	Describes how to set up context-sensitive help for your application KB.
5	Setting up Topic Searches	Describes how GOLD performs a search for topics and how to create a search table file.
6	Configuring Machines for GOLD	Describes how to create and set up machine configuration and user preference objects.
7	GOLD API	Describes the programmatic interface to the GOLD utility module.

A Note About the API

The G2 OnLine Documentation utility API, as described in this guide, is not expected to change significantly, but there may be exceptions. A description of any changes will accompany the GOLD release that includes them.

If GOLD does not seem to provide the capabilities that you need, contact Gensym Customer Support directly at 1-781-265-7301 (Americas) or +31-71-5682622 (EMEA) for further information.

Conventions

This guide uses the following typographic conventions and conventions for defining system procedures.

Typographic

Convention Examples	Description
g2-window, g2-window-1, ws-top-level, sys-mod	User-defined and system-defined G2 class names, instance names, workspace names, and module names
history-keeping-spec, temperature	User-defined and system-defined G2 attribute names
true, 1.234, ok, “Burlington, MA”	G2 attribute values and values specified or viewed through dialogs
Main Menu > Start KB Workspace > New Object create subworkspace Start Procedure	G2 menu choices and button labels
conclude that the x of y ...	Text of G2 procedures, methods, functions, formulas, and expressions
new-argument	User-specified values in syntax descriptions
text-string	Return values of G2 procedures and methods in syntax descriptions
File Name, OK, Apply, Cancel, General, Edit Scroll Area	GUIDE and native dialog fields, button labels, tabs, and titles
File > Save Properties	GMS and native menu choices
workspace	Glossary terms

Convention Examples	Description
c:\Program Files\Gensym	Windows pathnames
/usr/gensym/g2/kbs	UNIX pathnames
spreadsh.kb	File names
g2 -kb top.kb	Operating system commands
public void main() *gsi_start*	Java, C and all other external code

Note Syntax conventions are fully described in the *G2 Reference Manual*.

Procedure Signatures

A procedure signature is a complete syntactic summary of a procedure or method. A procedure signature shows values supplied by the user in *italics*, and the value (if any) returned by the procedure *underlined*. Each value is followed by its type:

g2-clone-and-transfer-objects
(*list*: class item-list, *to-workspace*: class kb-workspace,
delta-x: integer, *delta-y*: integer)
-> *transferred-items*: g2-list

Related Documentation

G2 Core Technology

- *G2 Bundle Release Notes*
- *Getting Started with G2 Tutorials*
- *G2 Reference Manual*
- *G2 Language Reference Card*
- *G2 Developer's Guide*
- *G2 System Procedures Reference Manual*

- *G2 System Procedures Reference Card*
- *G2 Class Reference Manual*
- *Telewindows User's Guide*
- *G2 Gateway Bridge Developer's Guide*

G2 Utilities

- *G2 ProTools User's Guide*
- *G2 Foundation Resources User's Guide*
- *G2 Menu System User's Guide*
- *G2 XL Spreadsheet User's Guide*
- *G2 Dynamic Displays User's Guide*
- *G2 Developer's Interface User's Guide*
- *G2 OnLine Documentation Developer's Guide*
- *G2 OnLine Documentation User's Guide*
- *G2 GUIDE User's Guide*
- *G2 GUIDE/UIL Procedures Reference Manual*

G2 Developers' Utilities

- *Business Process Management System Users' Guide*
- *Business Rules Management System User's Guide*
- *G2 Reporting Engine User's Guide*
- *G2 Web User's Guide*
- *G2 Event and Data Processing User's Guide*
- *G2 Run-Time Library User's Guide*
- *G2 Event Manager User's Guide*
- *G2 Dialog Utility User's Guide*
- *G2 Data Source Manager User's Guide*
- *G2 Data Point Manager User's Guide*
- *G2 Engineering Unit Conversion User's Guide*
- *G2 Error Handling Foundation User's Guide*
- *G2 Relation Browser User's Guide*

Bridges and External Systems

- *G2 ActiveXLink User's Guide*
- *G2 CORBALink User's Guide*
- *G2 Database Bridge User's Guide*
- *G2-ODBC Bridge Release Notes*
- *G2-Oracle Bridge Release Notes*
- *G2-Sybase Bridge Release Notes*
- *G2 JMail Bridge User's Guide*
- *G2 Java Socket Manager User's Guide*
- *G2 JMSLink User's Guide*
- *G2 OPCLink User's Guide*
- *G2 PI Bridge User's Guide*
- *G2-SNMP Bridge User's Guide*
- *G2 CORBALink User's Guide*
- *G2 WebLink User's Guide*

G2 JavaLink

- *G2 JavaLink User's Guide*
- *G2 DownloadInterfaces User's Guide*
- *G2 Bean Builder User's Guide*

G2 Diagnostic Assistant

- *GDA User's Guide*
- *GDA Reference Manual*
- *GDA API Reference*

Customer Support Services

You can obtain help with this or any Gensym product from Gensym Customer Support. Help is available online, by telephone, by fax, and by email.

To obtain customer support online:

➔ Access G2 HelpLink at *www.gensym-support.com*.

You will be asked to log in to an existing account or create a new account if necessary. G2 HelpLink allows you to:

- Register your question with Customer Support by creating an Issue.
- Query, link to, and review existing issues.
- Share issues with other users in your group.
- Query for Bugs, Suggestions, and Resolutions.

To obtain customer support by telephone, fax, or email:

➔ Use the following numbers and addresses:

	Americas	Europe, Middle-East, Africa (EMEA)
Phone	(781) 265-7301	+31-71-5682622
Fax	(781) 265-7255	+31-71-5682621
Email	*service@gensym.com*	*service-ema@gensym.com*

1

Introduction to GOLD

Describes the features of the G2 OnLine Documentation utility.

What is GOLD? 1

Online Documentation 2

GOLD Books 2

URLs 3

How GOLD Uses URLs 3

Context-Sensitive Help 4

Keyword Searches 5

Application Programmer's Interface to GOLDUI 5

What is GOLD?

G2 OnLine Documentation, or GOLD, is a G2 module that enables you to distribute and access online documentation within your G2 application. GOLD also provides the basic infrastructure to:

- Obtain context-sensitive help.
- Perform keyword searches in the documentation.

A separate KB module, goldui, provides a user interface for configuring and using GOLD in your application.

Online Documentation

The online documentation is a collection of document files formatted in HyperText Markup Language (**HTML**), a standard markup language that describes text formats. Angle bracketed tags containing HTML definitions are imbedded throughout the document to describe the formatting characteristics of text elements, such as headings, paragraphs, bulleted lists, numbered steps, and tables. These tags tell the HTML browser how to display the document.

For example, the following excerpt is from the HTML version of the *G2 OnLine Documentation User's Guide*:

```
<html><head><title>Getting Started</title></head>

<body bgcolor="#ffffff">

<h5><a href="get-st13.htm">| Prev </a>

  <a href="get-st15.htm">| Next </a>

 <a href="get-star.htm">| Start of Chapter </a>

 <a href="get-st17.htm">| End of Chapter </a>
      .
      .
      .

<a name="1023396">

<h1> Setting Up GOLD Machine Configurations</h1>

<p><a name="1055381">
      .
      .
      .

You can preconfigure the machines running G2 and Telewindows at your
site for GOLD before users access online help by creating and
configuring one or more GOLD machine configurations.<p>

</a><a name="1020833">

You create a machine configuration by cloning the object from the GOLD
top-level workspace. The workspace on which you place the machine
configuration should be assigned to a module that requires GOLD.<p>
```

Within an HTML file there are a number of <*a name="n*"> tags, each marking a specific entry point within the file.

GOLD Books

To support online documentation, a KB module must have one or more **GOLD book** objects, each containing the information necessary to locate a particular HTML fileset of online documentation. There is a one-to-one correspondence between a set of files that constitute an online book and a GOLD book.

For information on creating a GOLD book, see Creating GOLD Books.

URLs

A Web browser reads a given Uniform Resource Locator, or URL, to locate the desired documentation. The URL that defines the location of a document is a text string concatenation of the:

- Protocol over which the document is served.
- Network address of the machine providing the service.
- Path name location of the document on the machine providing the service.

For example:

```
http://www.gensym.com/helpdesk-doc/hd-work5.htm
```

where

http is the protocol
www.gensym.com is the network address
helpdesk-doc/hd-work5.htm is the location of the document

Optionally, the URL can conclude with a pound sign (#) followed by a text string that indexes a particular location within a document. For example:

```
http://www.gensym.com/helpdesk-doc/hd-work5.htm#4035
```

Every entry point into the documentation must have an associated URL.

Cross References within the documentation appear as "hot" text in any HTML browser. These hotlinks point to URLs. Clicking on a hotlink repoints the browser to the new location.

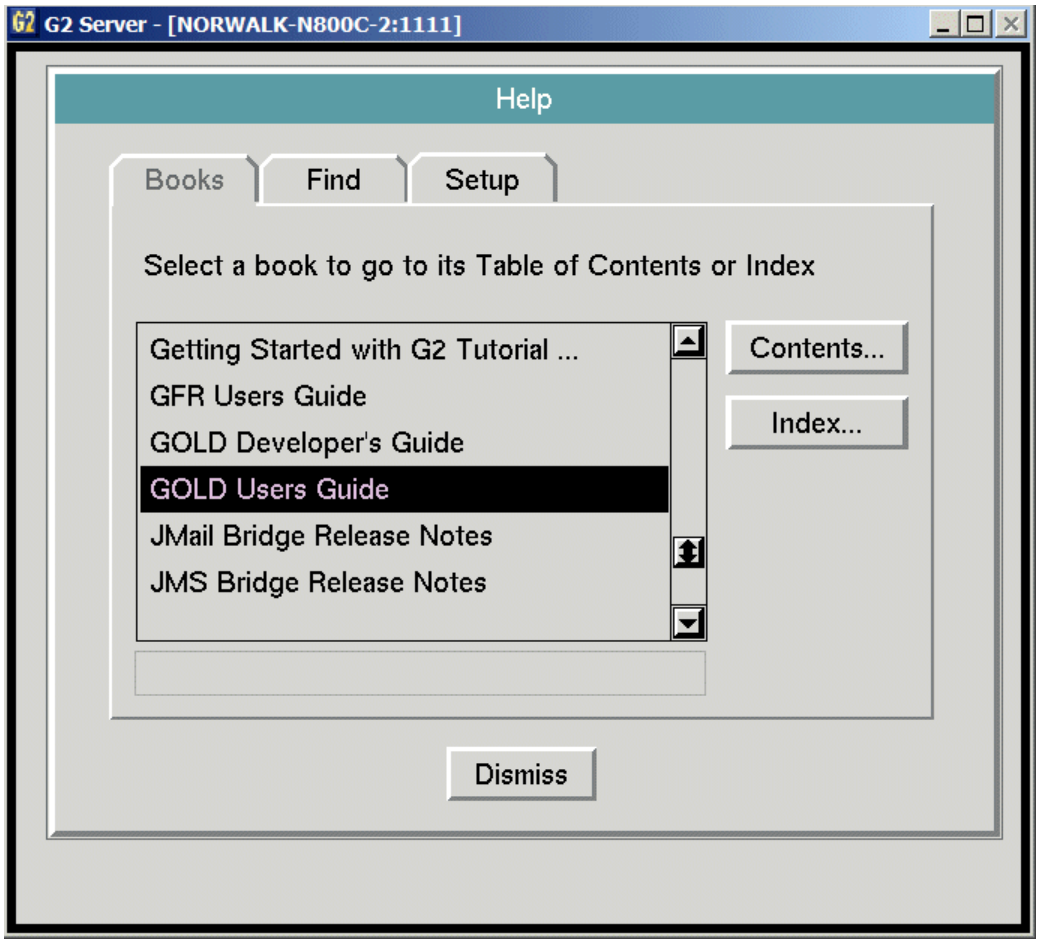
How GOLD Uses URLs

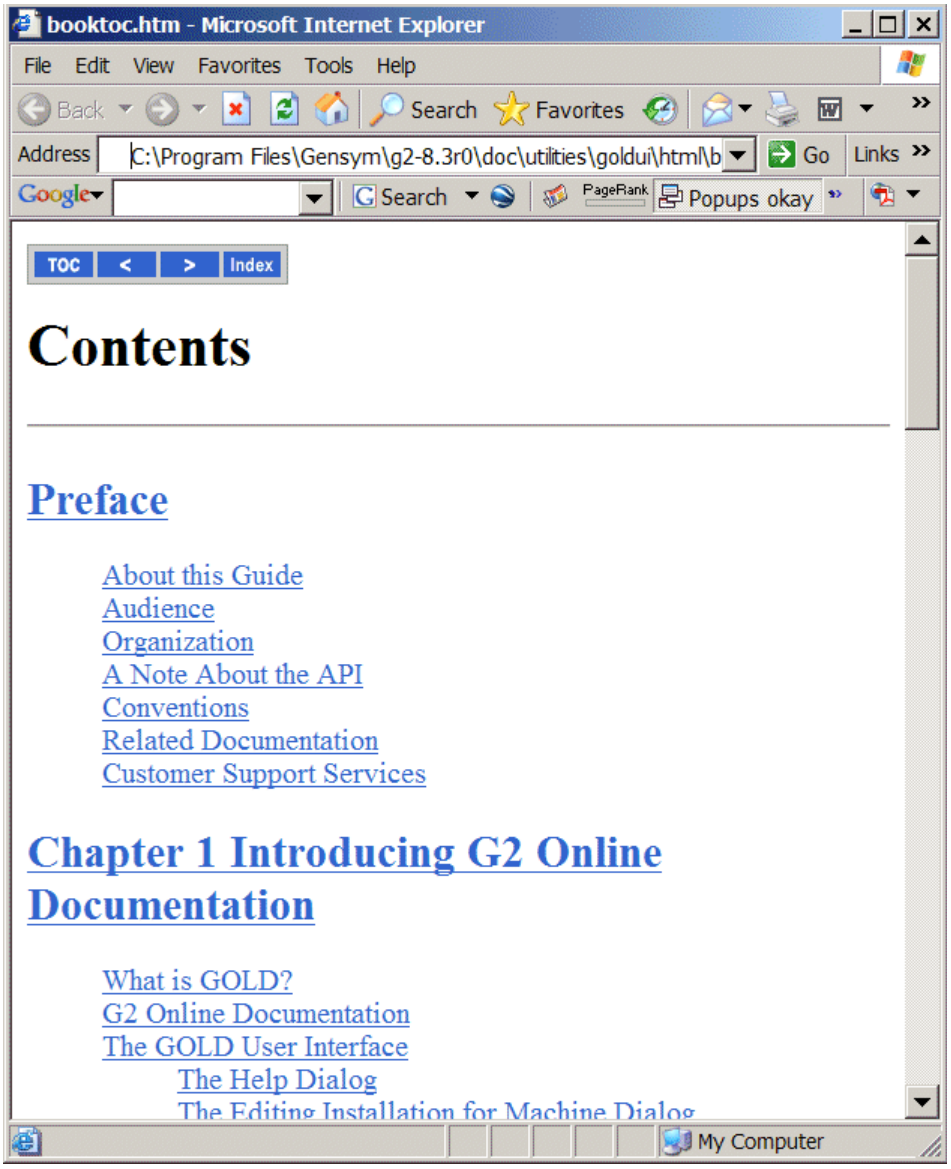
GOLD manages the display of online documentation by:

- Spawning a process that launches a Web browser.
- Providing the URL associated with the online documentation.

The browser reads the given URL to locate and display the related documentation. For example, clicking the Contents button in the GOLD help

dialog for a particular book displays the URL of the book in a Web browser, as the following two figures show:





Of all the URLs embedded in the document, a subset known to GOLD constitutes external entry points into the documentation. GOLD uses these entry points two ways:

- To implement context sensitive help.
- To provide a mechanism for keyword searches.

Context-Sensitive Help

In response to a user request for context-sensitive help, GOLD calls a procedure that determines the possible entry points and adds them to a list. To encapsulate the software from direct knowledge of the URLs (which might change due to updates to the documentation), GOLD uses a system of logical entry points that are specified as unique symbols. These symbolic keys are referred to as HelpIDs.

When GOLD initializes the GOLD books, it reads the HelpIDs associated with a particular GOLD book from a file into a corresponding key table. Each entry of the table contains:

- A HelpID.
- The URL of the associated entry point.
- A text string description of this entry point, which can be presented to the user.

For a description of the contents of the key table file, see The Key Table File.

Keyword Searches

GOLD also provides a system to search for specific keywords (text strings) in the documentation. During initialization, GOLD reads the list of keywords and their corresponding URLs from a file into a search table.

For a description of the contents of the search table file, see The Search Table File.

Application Programmer's Interface to GOLDUI

All programmatic interactions with GOLD take place through a small set of public procedures, classes, and attributes. Collectively, these items are referred to as the **application programmer's interface** (API).

Note The GOLD API procedures are currently under development. Extensions to the application programmer's interface to GOLD may be made public in a later release of the G2 Utilities.

2

Getting Started

Describes how to install GOLD in your G2 application KB, the online documentation requirements, and how to set up and test a GOLD book.

The GOLD Utility 7

Installing GOLD 7

The GOLD Top-Level Workspace 11

Requirements for Accessing Online Documentation 12

Setting up and Testing a GOLD Book 13

The GOLD Utility

The Gensym OnLine Documentation (GOLD) system is a knowledge base (KB) module, whose name is gold. All components of GOLD are identified by either the public gold- prefix or private _gold- prefix.

Installing GOLD

The GOLD utility includes a separate user interface, called goldui. The name of this module is goldui, and it includes both the goldui and gold KB modules.

You install GOLD by:

- Merging the goldui module into any *modularized* knowledge base.
- Making the goldui module a required module of your application KB.

Because goldui requires gold, merging the goldui module into your KB automatically loads the gold module into G2.

Merging GOLDUI into G2

The filename of the GOLDUI utility is *goldui.kb*. The default location of this KB is the *utils* subdirectory in the *kbs* directory under the *g2* directory. When you merge GOLDUI, its required modules are automatically loaded into G2.

Note For more information on the GOLDUI utility, see the *G2 OnLine Documentation User's Guide*.

To merge GOLDUI into your KB:

1. Pause or reset your KB.
2. Choose Merge KB from the Main Menu to display the Load KB workspace.

   The merge in this KB option is selected.
3. Choose the automatically resolve conflicts option.
4. Specify the location of the *goldui.kb* file and click End.

The GOLDUI Modules

When you merge GOLDUI, any required modules are automatically loaded into G2. The following table describes the required goldui modules:

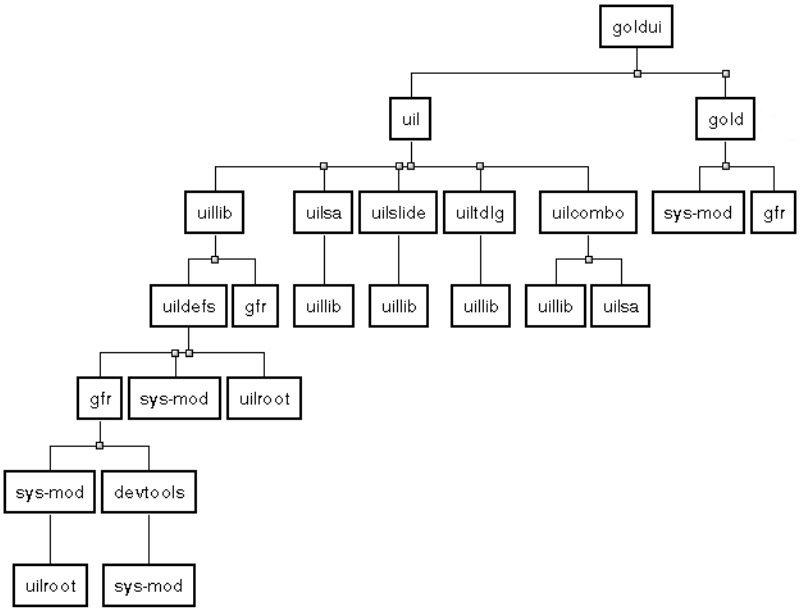
Module	File Name	Contents
goldui	*goldui.kb*	User interface dialogs for configuring and using GOLD.
gold	*gold.kb*	Definitions and API support for the GOLD utility.
uil	*uil.kb*	General API to all UIL objects.
uilcombo	*uilcombo.kb*	Class definitions for combo boxes.
uiltdlg	*uiltdlg.kb*	Classes that define tab dialogs, and a full API to these classes.
uilslide	*uilslide.kb*	Machinery for slider objects.
uilsa	*uilsa.kb*	Machinery for scroll areas.

Module	File Name	Contents
uillib	*uillib.kb*	All UIL machinery not contained in uilsa or uilslide.
uildefs	*uildefs.kb*	Definitions for UIL objects.
gfr	*gfr.kb*	Definitions and API support for the G2 Foundation Resources (GFR) utility.
sys-mod	*sys-mod.kb*	Library of G2 system procedures.
uilroot	*uilroot.kb*	Definitions and API support for navigation buttons.

The gold module requires the gfr, sys-mod, and uilroot modules.

Note These module dependencies are subject to change in future versions of GOLDUI.

This is the module hierarchy:



Making goldui a Required Module

For context-sensitive help to work correctly, goldui must be a required module of your application module. When you merge the goldui module into your KB, it is not a required module unless it is specified in the Module Information System

table of your KB. Gensym recommends that you make the goldui module a required module of the lowest module of your application KB.

To make goldui a required module:

1 Choose Main Menu > System Tables > Module Information.

2 Specify goldui as a directly required module of the appropriate existing module of your KB.

For more information on merging KBs and making a KB a required module, see the *G2 Reference Manual*.

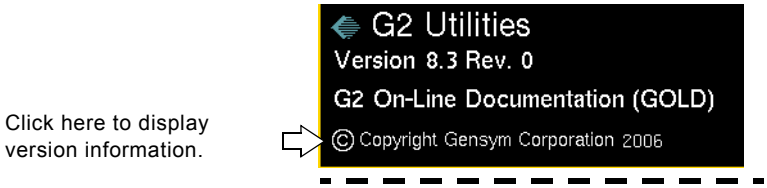
Requirements for Running GOLDUI and GOLD

Both the goldui module and the gold module contain a table of version information that includes the minimum version of G2 in which the current version of these modules will run. This information is available from either top-level workspace.

To check the version information:

1 Choose Main Menu > Get Workspace > gold-top-level or goldui-top-level.

2 Click the copyright symbol (©) in the title section to access the version information, as shown in the example of the GOLD top-level workspace.



Starting GOLD

GOLD works only when G2 is running. After merging GOLD, resume or start G2.

GOLD User Modes

Although GOLD works correctly in any user mode, context-sensitive help works in any mode *except* administrator mode. Administrator mode lacks the restrictions that enable you to launch context-sensitive help.

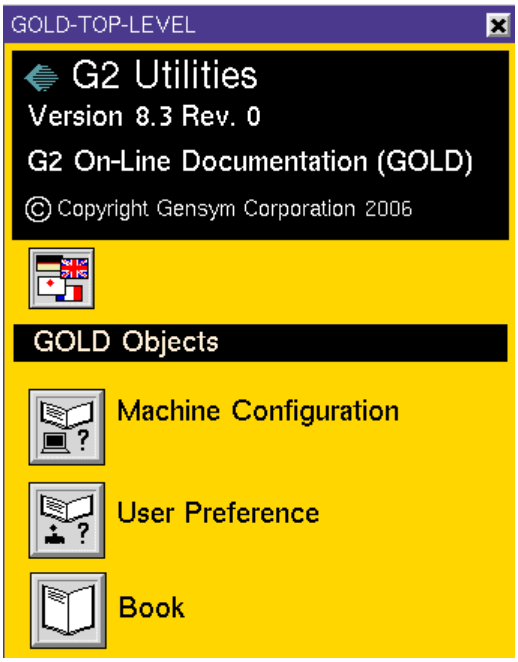
The GOLD Top-Level Workspace

The GOLD top-level workspace contains a palette of GOLD objects that enable you to:

- Create a GOLD book.
- Configure the machines running your G2 or Telewindows for GOLD.
- Configure GOLD online viewing preferences.

To display the GOLD top-level workspace:

➔ Choose Main Menu > Get Workspace > gold-top-level.



To create a...	See...
Book object	Creating GOLD Books.
Machine configuration object	Setting up the Machine Configuration.
User preference object	Setting up GOLD User Preferences.

Requirements for Accessing Online Documentation

To access online documentation, you need to create:

- A GOLD book object.
- An online documentation fileset.
- A machine configuration.

GOLD Book

Your application module must contain a GOLD book that specifies the location of its corresponding online documentation fileset. The attributes of the book also specify any items supporting context-sensitive help or topic searches.

Online Documentation Fileset

Every GOLD book must have a corresponding fileset that contains HTML-formatted files for display on a Web browser. Depending on the contents of the fileset for your GOLD book, you can use GOLD to:

- Display the table of contents or index of a book.

  If the corresponding fileset of your GOLD book contains an HTML-formatted table of contents and/or index file, you can use these as entry points into the online documentation. The names of these files *must* be:

File Name	Contents
booktoc.htm	Table of Contents
bookix.htm	Index

- Request context-sensitive help.

  If your GOLD book supports context sensitive help, the corresponding fileset must include the key table file specified by the gold-key-table-file-name attribute and your search procedure specified by the gold-context-search-procedure attribute.

- Request a topic search.

  If your GOLD book supports topic searches, the corresponding fileset must include the search table file specified by the gold-search-table-file-name attribute.

The following table summarizes the items you need to prepare for context-sensitive and topic searches:

To support...	You must...
Context-sensitive help	Create a context search procedure and a key table file to support context-sensitive help. For information on these items, see Setting up Context-Sensitive Help.
Topic searches	Create a search table file to support topic searches. For information on this file, see Setting up Topic Searches.

Applicable Machine Configuration

The machine running your G2 must be configured for GOLD. A GOLD machine configuration object contains the information GOLD needs to locate the online documentation for display on a Web browser. The applicability attribute of the machine configuration specifies the machine to which the configuration applies.

Setting up and Testing a GOLD Book

Based on the scope of your online documentation, do the following:

1. Create a GOLD book.

   For information and instructions, see Creating GOLD Books.

2. Configure the machine running your G2 for using GOLD.

   For information and instructions, see Configuring Machines for GOLD.

3. Test the features that your book provides, for example context-sensitive help, using the GOLD User Interface dialogs.

   For information and instructions, see the *G2 OnLine Documentation User's Guide*.

3

Creating GOLD Books

Describes how to create and set up a Gold book.

The GOLD Book **15**

Creating a GOLD Book **19**

Initializing GOLD Books **21**

The GOLD Book

To support online documentation, a KB module must contain one or more gold-book objects. Each **GOLD book**, which is an instance of the class gold-book, contains:

- The symbolic name of the book.
- A default platform location of its corresponding online documentation fileset.
- The names of the key table file and context search procedure, if the book supports context-sensitive help.
- The name of the search file, if the book supports topic searches.

There is a one-to-one correspondence between a GOLD book and a set of files that constitute an online book. For example, if an application has two separate books, such as a users guide and a reference, and each book has a corresponding online fileset, the application would require two GOLD book objects.

GOLD Book Attributes

When you create a GOLD book, you specify its attribute values. The following table describes the GOLD book attributes.

Attribute	Description
names	Symbolic name of the GOLD book.
Allowable values:	Any symbol
Default value:	none
Notes:	The book must have a symbolic name if it provides context-sensitive help and/or search topics.
gold-book-title	The title of the book, which is displayed in the Books scroll area of the Help dialog. For example, “G2 Reference Manual”.
Allowable values:	Any text
Default value:	""
gold-abbreviated-title	The abbreviated form of the book title. For example, G2 Ref
Allowable values:	Any text
Default value:	""

Attribute	Description
gold-key-table-file-name	The name of the file containing the data GOLD needs to display context-sensitive help.
Allowable values:	Any text
Default value:	""
Notes:	If no file name is entered (""), GOLD assumes that the book does not support context-sensitive help. For information on context-sensitive help requirements and creating a key table file, see Setting up Context-Sensitive Help.
gold-search-table-file-name	The name of the file containing the data that GOLD needs for topic searches.
Allowable values:	Any text
Default value:	""
Notes:	If no file name is entered (""), GOLD assumes that the book does not support keyword searches. For information on topic search requirements and creating a search table file, see Setting up Topic Searches.
gold-unix-default-installation-directory	The default GOLD installation directory on the UNIX platform.
Allowable values:	Any text
Default value:	""
Notes:	GOLD uses this information when creating a GOLD machine configuration to specify the default location of the online fileset on Unix machines running G2 or Telewindows.

Attribute	Description
gold-win32-default-installation-directory	The default GOLD installation directory on the Win32 platform.
Allowable values:	Any text
Default value:	""
Notes:	GOLD uses this information when creating a GOLD machine configuration to specify the default location of the online fileset on Win32 machines running G2 or Telewindows.
gold-context-search-procedure	The name of the procedure to be called for performing the context-sensitive search.
Allowable values:	Any symbol
Default value:	The symbol unspecified
Notes:	For information on creating a context-search procedure, see Creating a Context Search Procedure.
gold-allow-unresolved-tags	A truth-value that determines whether the search procedure, when called, inserts unresolved HelpIDs in the key table.
Allowable values:	true, false
Default value:	false

Attribute	Description
gold-module	The name of the module that this book documents. If the value is none, GOLD automatically assigns it to the module in which it is contained.
Allowable values:	Any symbol
Default value:	none
Notes:	You may change this to a symbol naming an other module in your KB, enabling you to override the module assignment. To understand the implication of this, see How GOLD Performs a Context Search.

Creating a GOLD Book

Creating a GOLD book for your application requires a workspace for your GOLD items. If your book supports context-sensitive help, you must assign the workspace containing the GOLD book to your application module.

To create a GOLD book:

1 Create a new workspace and assign it to your application module.

Caution Never assign workspaces to the gold or goldui module.

2 Clone a GOLD book from the palette on the GOLD top-level workspace and place it on your workspace.

3 Configure these GOLD book attributes:

For this attribute...	Enter...
names	A symbolic name for the book Example: itasug
gold-book-title	The title of the book Example: “TASK User’s Guide”
gold-abbreviated-title	An abbreviation of the book title Example: “Task UG”

If the book supports context-sensitive help, complete these attributes:

For this attribute...	Enter...
gold-key-table-file-name	The name of the key table file.
gold-context-search-procedure	The name of your context search procedure.

If the book supports topic searches, complete this attribute:

For this attribute...	Enter...
gold-search-table-file-name	The name of the search table file.

4 Specify the directory pathname location of the online version of your book, for the appropriate platforms at your site, using any of the following attributes:

- gold-unix-default-installation-directory
- gold-win32-default-installation-directory

The following example is the attribute table for the GOLD book named ITASUG:

ITASUG, a gold-book	
Notes	OK
Names	ITASUG
Gold book title	"TASK Users Guide"
Gold abbreviated title	"Task UG"
Gold key table file name	"itas-help.txt"
Gold search table file name	""
Gold unix default installation directory	""
Gold win32 default installation directory	"C:\gensym\ITASug"
Gold vms default installation directory	""
Gold context search procedure	itas-add-helpid
Gold allow unresolved tags	false
Gold module	none

Initializing GOLD Books

Any GOLD book that supports context-sensitive help or topic searches must be initialized. When GOLD initialize your GOLD book, it reads the specified key and search table files into their corresponding tables and makes the key and search tables permanent. This eliminates the necessity of accessing the files to reload the tables after a G2 reset/restart.

Note Before you can initialize a GOLD book, the machine running your G2 must be configured to use GOLD. To configure your machine, see Configuring Machines for GOLD.

Once the tables are permanent, the URLs in the book, that is, the URLS known to GOLD cannot change.

If you make revisions to the documentation and/or software and want the revisions reflected in the tables, you must uninitialize the GOLD book to clean out the key and search tables. Then you can re-initialize the book with the updated key and search files.

As long as an applicable machine configuration exists for the machine running your G2, you can use the following GOLD API methods to uninitialize and initialize your GOLD book:

To...	Call...
Initialize a GOLD book	gold-initialize
Uninitialize a GOLD book	gold-uninitialize

For descriptions of these API methods, see GOLD API.

4

Setting up Context-Sensitive Help

Describes how to set up context-sensitive help for your application KB.

Introduction **23**

Requirements for Context-Sensitive Help in G2 **23**

How GOLD Performs a Context Search **25**

Creating a Key Table File **26**

Creating a Context Search Procedure **28**

Introduction

Using GOLD, you can provide context-sensitive help for your application items. The information presented this chapter is for developers who want to use GOLD to provide context-sensitive help for their application KB.

Note The information presented in this chapter serves as a model for developing the context-sensitive help in your application.

Requirements for Context-Sensitive Help in G2

Setting up a G2 application KB to use GOLD for context-sensitive help is a collaborative effort between the developer and the writer. Based on a list of potential candidates for context sensitive help, the developer and writer must confer and agree to the list of G2 items, or keywords (HelpIDs), that GOLD will use to locate the appropriate help topics in the online documentation.

The developer:

- Decides which items of the application are potential candidates for context-sensitive help and creates a list of the symbolic item names.
- Defines the GOLD context search procedure to specify which items are valid for context-sensitive help, based on the list of items for which a context sensitive help topic is available.

Based on the agreed list of context-sensitive items, the writer:

- Determines the location of the topic associated with a specific item in the HTML-formatted document.
- Creates the key table file.

Context-Sensitive Help Items

The items to be targeted for context-sensitive help should be as generic as possible. Currently, the items must be within a class. For example, the list of G2 items that have context-sensitive help are the class, sub-class items, such as:

- kb-workspace
- connection, network-wire
- object, g2-list, value-list, quantity-list, integer-list
- definition, object-definition

The Key Table File

Context-sensitive help requires a key table file in the fileset of the online book. When you initialize your GOLD book, GOLD reads the file into its corresponding table and makes the key table permanent. This eliminates the necessity of accessing the files to reload the tables after a G2 reset/restart.

For an example of the key table file format, see Creating a Key Table File.

Considerations

If you choose to make the tables permanent and ship your module, you must also ship the documentation (HTML file set) that was used to initialize the corresponding GOLD book. The URLs in the book, that is, the URLS known to G2 cannot change after making the tables permanent.

If you want GOLD to read the files into the tables at startup and the book tables are initialized, you must uninitialize the tables before shipping your module.

In the case where GOLD reads the tables at startup, the association between the HelpID (as known to the software) and the URLs associated with them are determined as late as possible; that is, when the user wants to access the online

documentation. This allows independent revisions of documentation and/or software, which do not need to be synchronized with each other except for the existence of the known HelpIDs.

For information on GOLD book initialization, see Initializing GOLD Books.

The Context Search Procedure

The GOLD context search procedure specifies which items in your application have an associated context-sensitive help topic in the book named by the gold-book object. You create this procedure for your application, based on the list of items for which you and the writer agree context-sensitive help will be available. For examples of context search procedures, see Creating a Context Search Procedure.

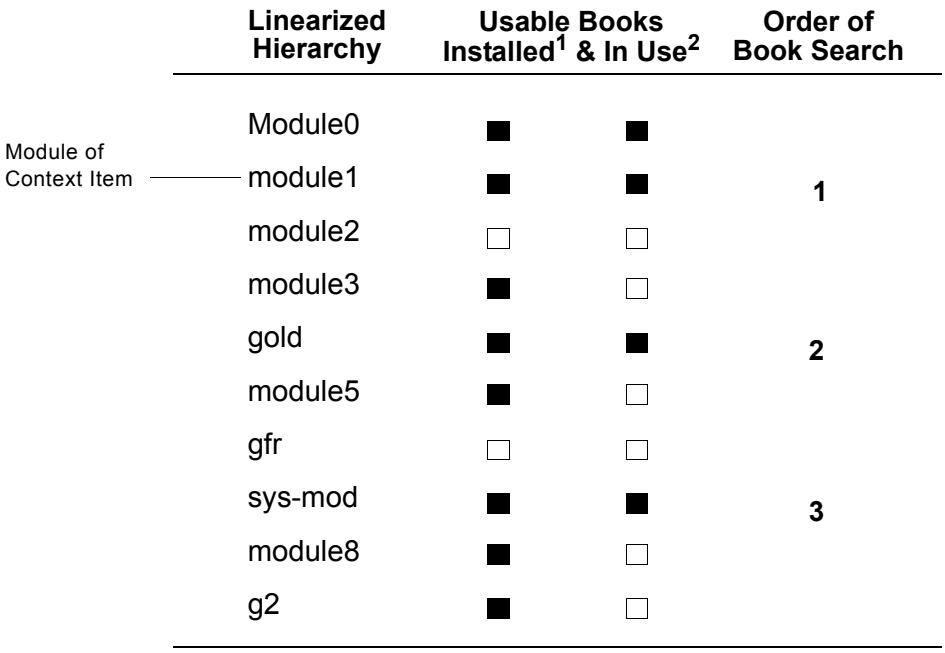
When the user requests context sensitive help, GOLD responds by invoking gold-get-help-for-context. This procedure passes entries from the key table of the book to GOLD for consideration, based on the algorithm described in the next section.

How GOLD Performs a Context Search

When the user requests help for a particular context, all books installed on the host running the window and chosen by the user are given a chance to add possible topics for consideration. The order in which the books are called is determined as follows:

- GOLD determines the linearized module hierarchy and orders all GOLD books according to the position of the module in which they are located. If there are multiple books in a module, they are ordered arbitrarily among themselves.
- Next, GOLD determines which books are usable by making sure that the book is:
  - Installed in the applicable GOLD machine configuration.
  - Available in the applicable GOLD user preference.
- In order, GOLD invokes the procedure named by the gold-context-search-procedure attribute, if one exists, of each usable GOLD book, *starting with books in the module of the context item*.
- In turn, each context-sensitive search procedure appends entries, if any, from the key table of the book to a list of symbolic tags until the number of entries exceeds the gold-maximum-context-entries of the GOLD user preference in effect on the window that made the call or all usable books are searched.

The following figure illustrates how GOLD determines which books are usable for a search of topics for context-sensitive help:



1. Installed in the current GOLD machine configuration.
2. Available in the GOLD user preference of the current user.

GOLD does not search Module0 because it is higher in the module hierarchy than the module containing the context item.

Creating a Key Table File

The key table file contains the data GOLD uses to implement context-sensitive help. During initialization, GOLD loads the contents of this file into a key table. There is a one-to-one correspondence between a key table file of a specific GOLD book and a key table.

You create this file and specify its name in the gold-key-table-file attribute of the GOLD book.

The format of the key table file is:

```
BOOKNAME
"Version 1 Rev 0"
Key1, "URL", "Heading"
Key2, "URL", "Heading"
...
Keyn, "URL", "Heading"
```

Line 1 must contain the symbolic name of the book. This name *must* match the names attribute of its corresponding GOLD book.

Line 2 always contains a text string that specifies a version.

Lines 3 through the last line of the file each contains the following three elements:

```
Key, "URL", "Heading"
```

where:

<*Key*> represents a HelpID, which is unique within the file.

<"*URL*"> is the entry point into the HTML file. GOLD passes this URL to the Web browser to display the online topic associated with the context item.

<"*Heading*"> is a text description of the entry point, such as a topic heading, which can be presented to the user.

Double quotes (") enclose the URL and the heading elements. Commas (,) separate each element within a line.

For example, the following excerpt is taken from the key table file of GOLDUI online documentation:

```
goldug
"7.0 Rev. 0"
goldui-launch-main-help-dialog, "app_api2.htm#2950",
"goldui-launch-main-help-dialog"
goldui-launch-context-sensitive-help, "app_api3.htm#4343",
"goldui-launch-context-sensitive-help"
goldui-launch-or-repoint-browser, "app_api4.htm#2954",
"goldui-launch-or-repoint-browser"
     .
     .
     .
```

Updating the Key Table File

For a given context for which a user requests help, there may exist more than one entry point into the documentation (in different books). The URLs corresponding to these entry points are tagged with symbolic IDs that are unique within the book. If the relevant sections of a book are then moved around or if an entry point needs to be changed, only the URL in the key table needs to be changed.

Creating a Context Search Procedure

The context search procedure specifies which items in your application have an associated context-sensitive help topic in the book named by the gold-book object. You must:

- Create this procedure for your application, based on the list of items that you and the writer agree context-sensitive help would be available.
- Specify your procedure in the gold-context-search-procedure attribute of the GOLD book for which it was defined.

The signature of your procedure must be:

```
my-context-search-procedure
    (context: item-or-value, window: class g2-window,
    tag-list: class symbol-list)
```

The arguments passed to your context search procedure are:

Argument	Description
context	The G2 item or value for which context sensitive help has been requested.
window	The window originating this call.
tag-list	The symbolic list of valid context sensitive help items.

When the user requests context-sensitive help, GOLD responds by invoking gold-get-help-for context. This procedure passes the *Context*, *Window*, and *Taglist* arguments to the context search procedures of all usable books, based on the algorithm outlined in How GOLD Performs a Context Search.

Examples of Context Search Procedures

Example 1: The following example is a context search procedure defined for G2:

```
g2-add-olh-keys
(Context: item-or-value,
Win: class g2-window,
TagList: class symbol-list)

ContextClass: symbol;

begin
    if Context is not an item then return;

(Appends all built-in classes in the inheritance path. Only considers single
inheritance right now.)

ContextClass = the class of Context;
repeat
    if the definition named by ContextClass does not exist then
        insert ContextClass at the end of TagList;
    exit if ContextClass = the symbol ITEM;
    Context Class = the symbol that is a superior-class of ContextClass;
end;

end
```

Example 2: The following example of a more complex search procedure was defined for G2 Diagnostic Assistant (GDA) context-sensitive help items:

```
gda-add-olh-keys
(Context: item-or-value,
Win: class g2-window,
TagList: class symbol-list)

MenuKey, ContextModule, ValidCustomClassKey: symbol;
Wksp: class kb-workspace;
Palltm: class item;

begin
    if Context is not an item then return;

    if Context is a gdl-object or Context is a gdl-connection or
        Context is a gdl-message or Context is a gdl-connection-post or
        Context is a gpe-window or Context is a gcc-routing-object or
        Context is a gdl-stub-tool then begin
        If the first symbol in _gda-req-modules-list does not exist then call
            gfr-get-required-modules (the symbol GDA, _gda-req-modules-list,
            Win);
        ContextModule = gfr-get-module-of-item (the definition named by
            the class of Context);
        if ContextModule is a member of _gda-req-modules-list or
            ContextModule = the symbol GDA then insert the class of Context
            at the end of TagList else begin
            ValidCustomClassKey = _gda-get-key-if-valid-subclcass (Context);
            if ValidCustomClassKey is not NONE then insert
                ValidCustomClassKey at the end of TagList;
        end;
    end;

    ContextModule = gfr-get-module-of-item (Context);

    if gfr-item-is-palette-object (Context) or (Context is akb-workspace
        and the item Palltm superior to Context exists and Palltm is a
        gcc-palette-workspace) or (the workspace Wksp of Context exists
        and the item Palltm superior to Wksp exists and Palltm is a
        gcc-palette-workspace) and ContextModule = the symbol GDA then

            MenuKey = call gdl-get-menu-key-for-pallet-if-any ((if Context is a
                kb-workspace then Context else the workspace of Context));
    if Context is a gms-template and ContextModule = the symbol GDA then
        MenuKey = the gms-user-key-of-Context;
    If MenuKey has a current value then insert symbol (“gda-[MenuKey]” at
        the end of TagList;
end
```

5

Setting up Topic Searches

Describes how GOLD performs a search for topics and how to create a search table file.

Introduction 31

Requirements for Topic Searches 31

How GOLD Performs a Search for Help Topics 32

Creating a Search Table File 33

Introduction

Using GOLD, you can provide users of your application KB the ability to search for topics in your online documentation. The information presented this chapter is for developers who want to incorporate GOLD topic searches into their application KB.

Requirements for Topic Searches

Setting up your GOLD book to provide topics for topic searches requires:

- A set of search topics.

  The Gensym online documentation bases its topics for help topic searches on the first level index entries of each online book.

- A search table file.

The Search Table File

Topic searches require a search table file in the fileset associated with the GOLD book. When GOLD initialize a GOLD book, it reads the search table file into the corresponding search table and makes the table permanent. This eliminates the necessity of accessing search files to reload the tables after a G2 reset/restart.

If you choose to make your tables permanent and ship your module, you must also ship all online documentation filesets containing search table files that were used to initialize GOLD book tables. The URLs in the book, that is, the URLs known to G2 cannot change after making the tables permanent.

If you want GOLD to read the files into the tables at startup, and the book tables are initialized, you must uninitialize the tables before shipping your module.

For information on GOLD book initialization, see Initializing GOLD Books.

How GOLD Performs a Search for Help Topics

GOLD uses the search table to perform keyword searches in the documentation. A number of text-string values are ANDed together to form the search pattern. The URLs associated with these strings are possible entry points.

When the user requests a search for topics, all books installed on the host running the window and chosen by the user are given a chance to add potential topics for consideration. GOLD performs the search for help topics as follows:

- After linearizing the module hierarchy, GOLD orders all gold-books according to the position of the module in which they are located. Multiple books in a module are ordered arbitrarily among themselves.
- After determining which books are usable, GOLD searches the search table of each usable GOLD book, *starting with the first module of the linearized hierarchy*.

  It appends possible entries from the search table of the book to a list as symbolic tags until the number of entries exceeds the gold-maximum-find-entries of the GOLD user preference in effect on the window that made the call or all usable books are searched.

The following figure illustrates how GOLD determines which books are usable for a topic search:

Linearized Hierarchy	Usable Books Installed[1]	& In Use[2]	Order of Book Search
module0	■	■	1
module1	■	■	2
module2	□	□	
module3	□	□	
module4	■	□	
gold	■	■	3
module6	■	□	
gfr	□	□	
sys-mod	■	■	4
module9	■	□	
g2	■	□	

1. Installed in the current GOLD machine configuration.
2. Available in the GOLD user preference of the current user.

GOLD searches each module, beginning with the highest module, to find matches in the usable books.

Creating a Search Table File

The search table file contains a number of strings that form the database of help topics. During initialization, GOLD loads the contents of this file into a search table.

You create this file and specify its name in the gold-search-table-file attribute of the GOLD book.

The format of the search table file is:

```
BOOKNAME
"Version 1 Rev 0"
"URL","String"
"URL","String"
   ...
```

Line 1 must contain the symbolic name of the book. This name *must* match the names attribute of its corresponding GOLD book.

Line 2 always contains a text string specifying a version.

Lines 3 through the last line of the file each contain the following two elements:

```
"URL","String"
```

where

<"*URL*"> is the entry point into the documentation.

<"*string*"> is a text description of the entry point, which can be presented to the user.

Double quotes (") enclose the URL and the description elements. A comma (,) separates the two elements of each line.

For example, the following excerpt is taken from the search table file of the GOLDUI online documentation:

```
goldug
"8.3 Rev. 0"
"intro2.htm#6564", "G2 online documentation, description"
"get_sta1.htm#1017596", "goldui module, description"
"get_sta3.htm#1030921", "GOLDUI, installing"
"get_sta3.htm#1005671", "goldui.kb"
"get_sta3.htm#1018983", "goldui module, making it required"
     .
     .
     .
```

6

Configuring Machines for GOLD

Describes how to create and set up machine configuration and user preference objects.

Introduction **35**

The GOLD Machine Configuration **36**

Setting up the Machine Configuration **36**

Resolving Machine Configuration Problems **44**

Setting up GOLD User Preferences **48**

Saving GOLD Configurations and Preferences **52**

Editing Generated User Preferences **52**

Introduction

Before you can access the online documentation associated with your GOLD book, the machine running your G2 or Telewindows needs an applicable machine configuration. An applicable machine configuration contains:

- The name of the platform and the machines to which the machine configuration applies.
- The location of the online documentation filesets for each installed book that machines using this configuration can access.
- The name of a least one Web browser that is installed on all machines using this configuration and the location of its executable pathname.

GOLD uses this information to:

- Locate the online documentation filesets on the machine.
- Launch the browser installed on the machine and pass the location of the relevant HTML file, which the browser displays.

Additionally, if your book supports context-sensitive help, GOLD uses the information when it initializes the book to locate and load the contents of its key search file into a corresponding key table. If your book supports topic searches, GOLD uses the information during book initialization to locate and load the contents of its search table file into a corresponding search table.

Note To set up a GOLD machine configuration, the goldui module must be merged into your KB.

The GOLD Machine Configuration

The GOLD **machine configuration** object, an instance of the class gold-machine-configuration, contains the following information:

- The platform on which the machines using this configuration run.
- Which machines running on the specified platform can use the configuration.
- Which GOLD books are installed and the location of their filesets.
- At least one installed web browser and the location of its executable command.

You create a machine configuration by cloning the object from the GOLD top-level workspace. The workspace on which you place the machine configuration should be assigned to a module that requires GOLD.

Caution Never assign workspaces to GOLD or GOLDUI.

Setting up the Machine Configuration

When setting up a machine configuration, create at least one machine configuration for each operating system platform that runs G2 or Telewindows at your site, to test your book on all machines that will use GOLD. All machines to which a machine configuration applies must have:

- Access to the same directory location of all installed books.
- The same pathname to the executable command of the installed browser.

Considerations

When you set up a site machine configuration, GOLD attempts to initialize the installed books. GOLD can initialize only those installed books specified by your *applicable* machine configuration. Therefore,

- Make sure that you set up the configuration for a particular platform from a machine running G2 on that platform.
- Initially, set up the applicability for all machines. After GOLD initializes the installed books, you can edit the machine configuration and specify a list of machines.

Machine Configuration Task Summary

To create and set up a GOLD machine configuration, follow these steps:

	Steps	For details see...
1	Create a workspace and assign it to a module that requires GOLD.	
2	Clone a GOLD machine configuration object from the GOLD top-level workspace and place it on your workspace.	
3	Choose configure site from the GOLD machine configuration menu and specify: • The platform to which this configuration applies. • Its applicability for all machines or your machine.	
4	Click OK to save the configuration and display the Editing Books and Browser dialog.	
5	Specify the installed books and verify/update the directory location.	

Steps	For details see...
6 Click the Browsers tab and specify: • A browser that is installed on the machines using this configuration. • The pathname location of its executable command.	
7 Click OK on the Editing Books and Browsers dialog to save the installation information for your machine configuration.	

Creating a Machine Configuration

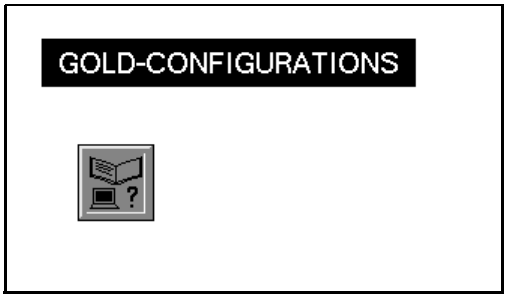
To create a GOLD machine configuration:

1 Create a new workspace to contain the machine configurations and assign the workspace to a module that *requires* the gold module.

Caution Never assign workspaces to the gold or goldui module.

2 Choose Main Menu > Get Workspace > gold-top-level to display the GOLD top-level workspace, which contains a palette of GOLD objects.

3 Clone one or more machine configuration objects from the palette onto the workspace. For example:



Specifying Applicable Platforms and Machines

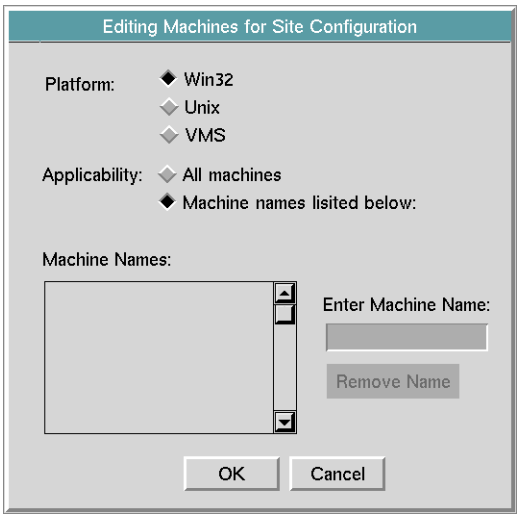
When you set up a GOLD machine configuration, you must specify the platform of the machines using the configuration: Win32 (the default) or UNIX.

You also determine whether this configuration applies to all machines of the specified platform or only to those machines listed. The default applicability is by machine names.

To set up the machine configuration:

1 Choose configure site from the gold machine configuration menu.

The following dialog appears:



2 Specify the platform to which this configuration applies.

3 Specify the machines to which this configuration applies:

- All machines running on the specified platform.
- The machines listed.

If you are limiting this configuration specific machines, see the next section.

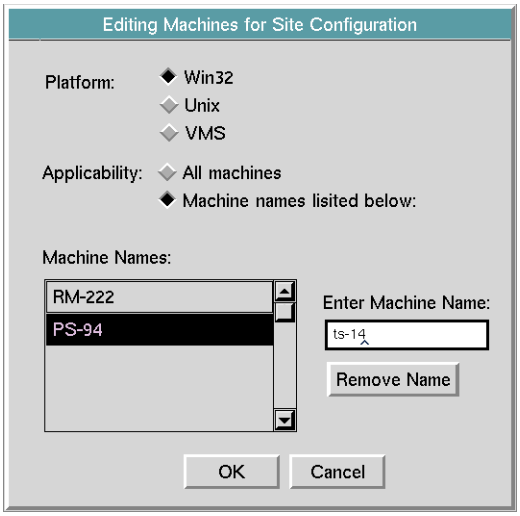
4 Click OK to save the configuration information.

Limiting the Applicability to Specific Machines

If you want to limit a machine configuration to specific machines (hosts) of a particular platform, build a list of those machines. Only the machines listed can use the configuration.

To limit a machine configuration to specific machines:

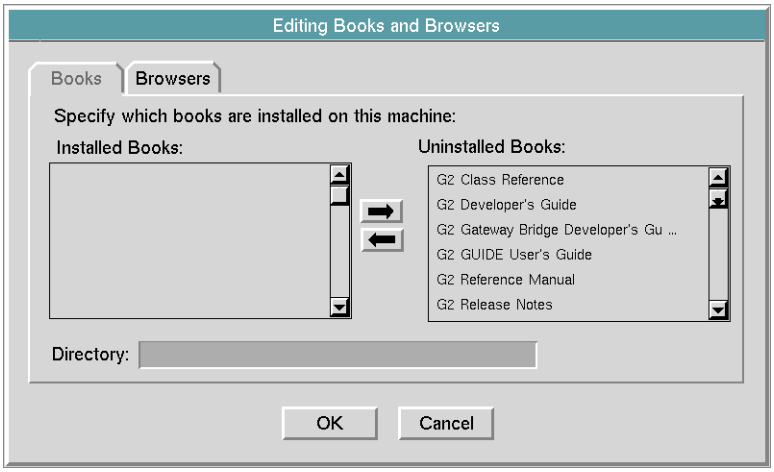
1. Click in the Enter Machine Name edit box and specify the name of a host machine.
2. Press Enter to add the name to the Machine Names list.
3. Repeat steps 1 and 2 to build the list of machines that can use this configuration, for example:



4. Click OK to save the machine configuration and close the dialog.

Specifying Installed Books

After the Editing Machines for Site Configuration dialog closes, the Editing Books and Browsers dialog appears. All GOLD books currently in your KB are displayed alphabetically in the Uninstalled Books list on the Books page of this dialog, for example:



All books have a default location, which is the directory pathname specified by the G2 installation script for the specified platform. If the location of the online documentation filesets is different for the machines using this configuration, edit the path for each installed book to update the location.

If you want to limit book access to a subset of the GOLD books, move only those books to the Installed Books list.

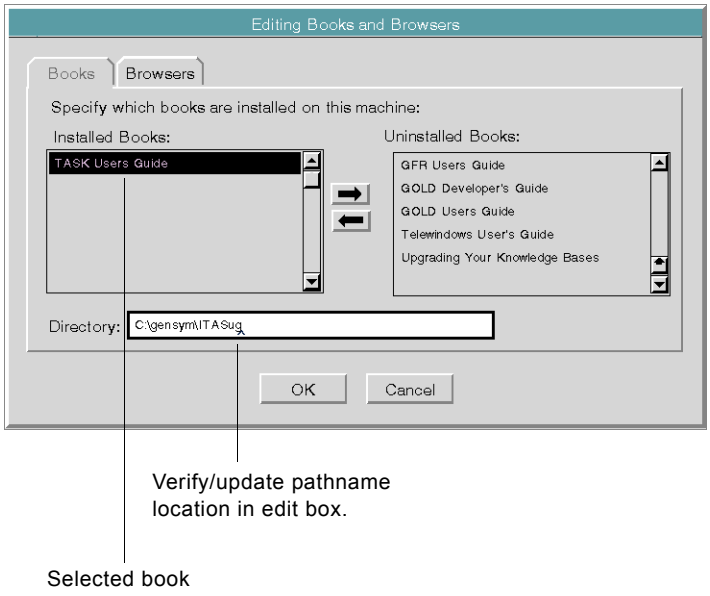
Note Remember, all machines using this configuration must have access to the same pathname location of installed books.

To specify the installed books for a machine configuration:

1 Select a book in the Uninstalled Books list and move it to the Installed Books list by clicking the left arrow.

2 Verify and, if necessary, update the location of the installed book that appears in the Directory edit box.

For example:



Hint If you update the location, press Enter to save your input.

3 Repeat steps 1 and 2 for each book you want installed.

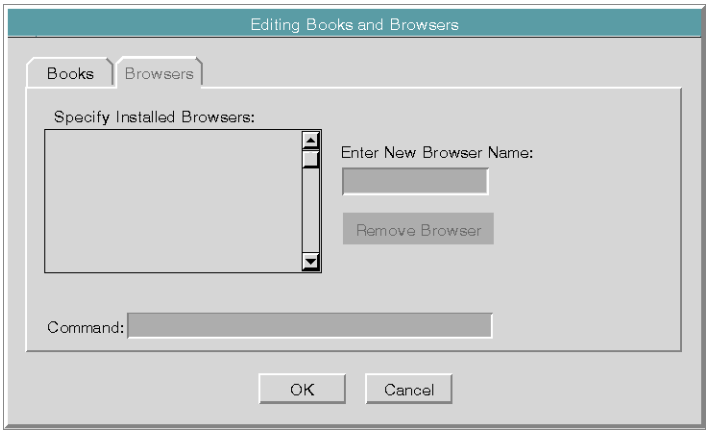
Specifying Web Browsers

You must specify at least one installed browser and the pathname location of its executable command. If necessary, create a list of browsers, so that GOLD can launch one of the browsers from any machine using this configuration.

Note Remember, every machine using this configuration must have access to the specified executable command of at least one of the installed browsers.

To specify the installed Web browsers:

1 Click the Browser tab of the Editing Books and Browsers dialog to display the following dialog:

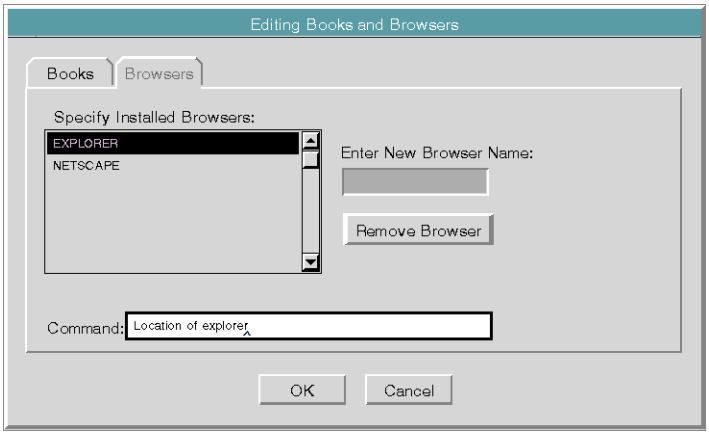


2 Click in the Enter New Browser Name edit box and specify a browser that is available for the machines using the configuration.

3 Press Enter to add the browser name to the Installed Browsers list.

4 Edit the Command field to specify the pathname to the executable command and press Enter to save your input.

5 Repeat steps 2 - 4 for each installed browser you want listed, for example:



Replacing a Browser

If you want to change the name of a browser, replace the browser.

To replace a browser on the list of installed browsers:

1 Select the browser you want to replace and click the Remove Browser button.

2 Specify the browser name and the location of its executable command.

Saving the Configuration

When you save the machine configuration, GOLD initializes the installed books.

To save the installation information for the machine configuration:

➔ Click OK on the Editing Books and Browsers dialog.

When GOLD completes initializing the installed book tables, a GOLD Configuration Summary dialog appears. If the configuration and book initialization completes successfully, dismiss the dialog.

Resolving Machine Configuration Problems

When you save the machine configuration information, GOLD attempts to locate the installed books and initialize the key and search tables. When the initialization completes, the GOLD Configuration Summary appears, displaying one or more messages.

A successful initialization displays the following statement:

Configuration completed.

This is the only message you should see if:

- The machine configuration applies to the machine running your G2 or Telewindows.
- You install all of the GOLD books in your KB with the correct directory location.

If GOLD has book installation or initialization problems, it lists the book and the problem on the Configuration Summary dialog. The following sections describe the different types of problems.

Books Not Installed

The following message appears on the summary for any GOLD book that remains in the Uninstalled Books list of the configuration:

book : This book is not installed on the machine running G2

For example:

G2 Gateway Bridge Developer's Guide : This book is not installed on the machine running G2.

Book Files Missing

The following message appears on the summary for any table files not found for the configuration:

book : The file *pathname* does not exist.

where:

book is the name of the book
pathname is the location where GOLD expected to find the file

For example:

GOLD Developer's Guide : The file C:\gensym\g2doc\golddug\bookhid.dat does not exist.

For the current version of G2 online documentation, these files are:

Filename	Description
bookhid.dat	Each installed book that supports context-sensitive help has a key file of this name.
bookstb.dat	Each installed book that supports topic searches has a search file of this name.

For topic searches and context-sensitive help to work correctly, GOLD must load these files into their appropriate tables.

Machine Not Configured for GOLD

GOLD can only successfully initialize installed books for the machine running your G2 or Telewindows. If you set up site configurations for a different platform or specific machines, the following type of message appears on the summary:

book : Machine running G2 is not configured for GOLD.

For example:

G2 GUIDE User's Guide: Machine running G2 is not configured for GOLD.

After reviewing the configuration summary, you must close the dialog before you can edit the appropriate dialog to resolve any site applicability or book installation and initialization problems. The following table summarizes the problems and their resolutions:

Problem	Solution
Books not installed	No corrective action is necessary, unless you want the book installed. To update books with this message, see Updating Installed Books Information.
Book files missing	The location specified for the installed book is either incorrect or the machine running G2 does not have access to the book directory. Edit the site machine configuration and update the location of the books listed. For instructions, see Updating Installed Books Information.
Machine not configured for GOLD	GOLD can only successfully initialize installed books for the machine running your G2 or Telewindows. • In a client-server network setting, make sure you configure GOLD first on the server running G2. • Connect to G2 via Telewindows *from a machine to which the site configuration applies* and edit its site machine configuration.

You can edit a site machine configuration anytime, using one of its menu choices:

To...	Choose...
Change the applicability of the configuration.	edit machine configuration
Update the installed books or installed browsers of the configuration.	edit books and browsers

Changing the Applicability of the Configuration

You can update the applicability of a site configuration at any time to:

- Change the applicability of the configuration.

- Update the list of machines.

To change the machines to which the site configuration applies:

1. Choose edit machine configuration from the site machine configuration menu to display the Editing machines for Site Configuration dialog.
2. Update the applicability of this configuration.

   For instructions, see Specifying Applicable Platforms and Machines.
3. Click OK to save your changes.

Updating Installed Books Information

You can update the list of installed books for a site configuration at any time to:

- Update the location of an Installed book.
- Change the list of installed books.

To update the installed books information:

1. Choose edit Books and Browsers from the site machine configuration menu to display the Editing Books and Browsers dialog.
2. Display the Books page of the dialog.
3. Make the necessary changes to the list of Installed Books.

   For instructions, see Specifying Installed Books.
4. Click OK to save your changes.

Updating Installed Browsers Information

You can update the list of installed browser for a site configuration at any time to:

- Update the location of an Installed browser.
- Update the list of browsers.

To update the installed books information:

1. Choose edit Books and Browsers from the site machine configuration menu to display the Editing Books and Browsers dialog.
2. Display the Browsers page of the dialog.
3. Make the necessary changes to the Installed browsers.

   For instructions, see Specifying Web Browsers.
4. Click OK to save your changes.

Deleting a Machine Configuration

If you delete a machine configuration object, all machines to which the configuration applied can not use GOLD.

To delete a machine configuration:

➔ Choose delete machine configuration from the machine configuration menu.

Setting up GOLD User Preferences

Based on the applicable machine configuration, GOLD creates a GOLD user preference object specifically for a user after it initializes the installed GOLD books. This object, an instance of the class gold-user-preference, defines a default viewing environment. The default viewing options are to:

- Consider all books installed on the machine for topic searches and context sensitive help.
- Use the browser named Netscape or else the first installed browser listed.
- Display a maximum of ten entries for topic searches.
- Display the most relevant topic found for context-sensitive help.

GOLD places the user preference on a subworkspace of the GFR public bin assigned to your top-level module. For information on locating a GOLD generated user preference object, see Editing Generated User Preferences.

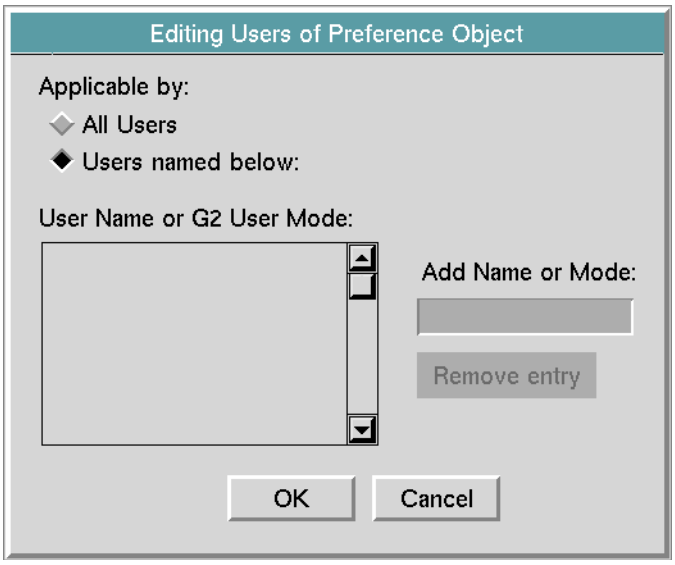
Specifying Applicability of the User Preference

You can preconfigure online viewing preferences for GOLD users and make them applicable to all users or specified users. When limiting the user preference to specific users, you can specify user names or user modes.

Note To set up a GOLD user preference, the goldui module must be merged into your KB.

To set up a user preference:

1. Clone a user preference object from the palette on the GOLD top-level workspace and place it on the workspace with the machine configuration objects.
2. Chose edit users from the user preference menu to display the following dialog:



3 Specify how you want to apply this user preference: by default or by registration.

4 Click OK to save the user preference information.

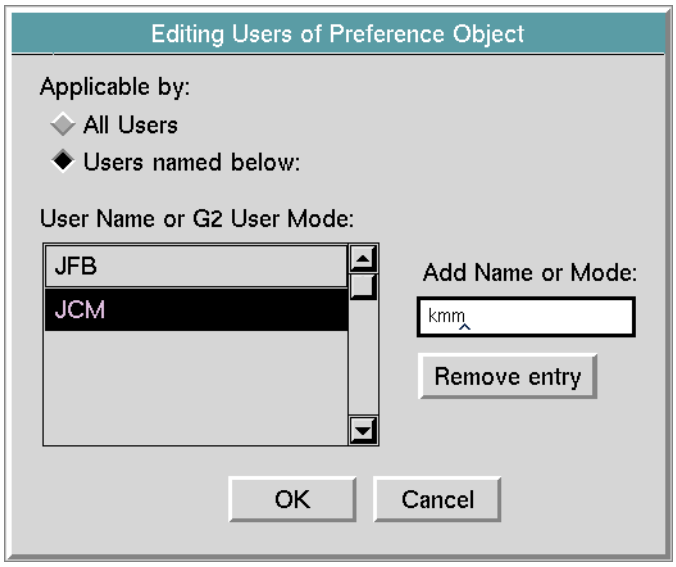
To apply viewing preferences to specific users or user modes:

1 Click the Add Name or Mode field and specify a user name or G2 user mode.

2 Press Enter to finish the edit.

The user name or user mode now appears in the registered list.

3 Repeat steps 1 and 2 to build the list of users or user modes that can use this configuration, for example:



4 Click OK to save the users of this preference.

Configuring Online Viewing Preferences

After determining the users to which this user preference applies, you specify the set of online viewing options, which becomes the default online viewing environment for all users or user modes specified by the user preference.

Books Used for Topic Searches

Three options are available for deciding which books to use for topic and context-sensitive help searches. They are:

- All books installed on client

  GOLD considers all books properly installed and initialized on the machine running your G2 or Telewindows connection. If you edit your machine installation to add or remove books from the installed list, this list of books changes automatically. This is the default option.

- All books in KB

  GOLD considers all GOLD books in your KB. If the number of books in your KB changes due to merging or deleting modules, the list of books in your KB also changes.

- Selected Books

  Selecting this option displays the list of GOLD books currently in your KB. You must explicitly specify the books you want to use. Here, only those books in the Selected Books list are considered. This list does not change if you merge or delete modules in your KB.

Browser Launched to Display Online Documentation

By default, the browser of choice is Netscape, if it is specified in the applicable machine configuration.

Maximum Entries Displayed for Topic Searches

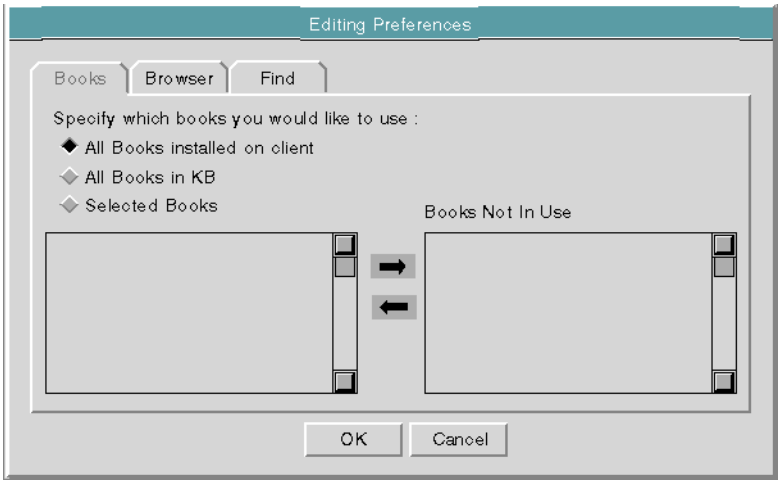
Of the total number of matches found, the default maximum number of topics displayed is ten (10). When deciding the maximum number of topics to display, remember that although GOLD may find more topics, it only displays those topics found up to the maximum number. For example, if you set the maximum number of topics to 20 and a search of topics produces 25 possible matches, only the first 20 topics found are displayed.

Maximum Entries Displayed for Context-Sensitive Help

By default, GOLD displays the most relevant topic it finds for an item. You can increase the maximum number of topics to display a list of topics.

To configure the online viewing preferences:

1 Choose configure user preferences from the menu of the user preference object to display the Editing Preference dialog:



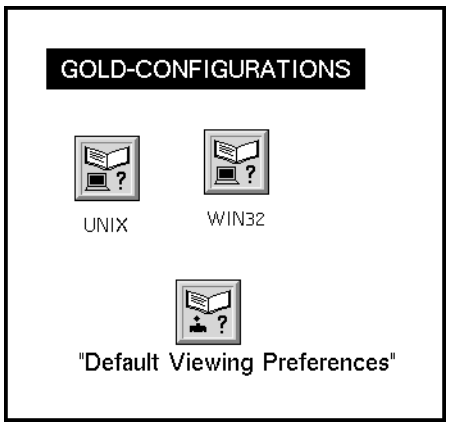
2 Specify the books that GOLD will use for context-sensitive help and topic searches.

3 Click the Browser tab and specify the preferred browser for online viewing.

4 Click the Search tab and specify the maximum number of context-sensitive help and keyword search help topics to display.

5 Click OK to save the preferences.

The following example shows a workspace containing a single GOLD user preference whose online viewing properties apply to all users accessing online documentation:



Saving GOLD Configurations and Preferences

After you set up the GOLD machine configuration and user preferences, save them to make them a permanent part of your KB.

To save your GOLD configurations and preferences:

➔ Save the module to which the workspace is assigned.

or

➔ Save your top-level workspace and include all required modules.

Editing Generated User Preferences

When GOLD creates a machine configuration, it places it on a subworkspace of a GFR-public-bin named:

top-level-module-public-bin

where *top-level-module* is the top-level module name of your KB. For example:

gb-case-models-public-bin

You can also update the applicability, installed books, and installed browser information of these user preference objects at any time.

To locate a GOLD-created user preference:

1. Choose Inspect from the Main menu to display the text editor.
2. Enter the following statement in the edit box:

   go to *top-level-module-name*-public-bin

3. Press Enter or click the End button. to display the workspace containing the specified public bin.
4. Choose go to subworkspace from the GFR public bin menu to display its subworkspace.

   This is where GOLD places the GOLD objects it creates.

5. Update the user preference object, using one of these menu choices:

To...	Choose...
Change the applicability of this user preference	edit users
Change the default set of online viewing options	configure user preferences

7

GOLD API

Describes the programmatic interface to the GOLD utility module.

Introduction **55**

gold-initialize **57**

gold-uninitialize **59**

Introduction

All programmatic interactions with GOLD take place through a set of specially designated procedures, classes, and attributes. These items are referred to as the Application Programmers Interface (API). These interfaces have been designed to give complete programmatic access to all the features of GOLD. Any function that can be accessed through the user interface can also be accessed programmatically.

The API to GOLD consists of G2 procedures and methods, which you access by writing your own G2 procedures that call the API procedures. For more information about G2 procedures, methods, and subclassing, see the *G2 Reference Manual*.

GOLD uses the following naming convention to help you differentiate between the "public" API and the "private" internal parts of GOLD:

Convention	Meaning
gold-	Any item or attribute whose name begins with this prefix is part of the *public* interface to GOLD.
_gold-	An item or attribute whose name begins with this prefix is *private*.

When working with the API, consider the following:

- A public class may have private attributes.
- Unless otherwise documented, public classes must not be subclassed.
- You may not refer to, alter, or subclass any item or attribute whose name begins with _gold.

Note The GOLD API procedures may change to take advantage of additional G2 Classic features. Any extensions to the application programmer's interface to GOLD will be made public in later releases of the G2 utilities.

gold-initialize

Initializes the GOLD book.

Synopsis

gold-initialize
(*book*: class gold-book, *window*: class g2-window)

Argument	Description
book	The gold-book to be initialized.
window	The g2-window originating this call.

Description

This method initializes the GOLD books of the GOLD system. Every GOLD book must be initialized before it can be used. If the context and keyword search tables of the book are empty, GOLD attempts to read them from the source, as specified by the gold-key-table-file-name and gold-search-table-file-name attributes of the *book*. If no sources are specified, GOLD initializes the *book* without any tables.

Waits

Yes

Errors Signaled

Error	Description
GOLD has not been initialized. *book* does not have a name.	GOLD refers to the symbolic name of *book*. Check the name of the *book*.
Localhost is not configured for GOLD.	An applicable GOLD machine configuration must exist for the machine running G2.
book not installed on local machine. *book* not accessible locally (for reading tables).	The *book* fileset must be installed locally, and the files must be accessible if the key and/or search tables are empty.

Error	Description
Specified file for table does not exist.	The file named by gold-key-table-file-name or gold-search-table-file-name attributes does not exist. Check the filename and directory location.
Header of file for table is incorrect. Header specifies incorrect book or version.	The first line of the key and search file must match the symbolic name of the *book*.
Unparsable line in table file.	Check the format and number of elements.

Return Values

None.

gold-uninitialize

Uninitializes the GOLD book.

Synopsis

gold-uninitialize
(*book*: class gold-book, *client*: class g2-window)

Argument	Description
book	The gold-book to be uninitialized.
client	The g2-window originating this call.

Descriptions

This method uninitializes the *book* by making it unavailable and clearing out context search and keyword search tables.

Return Values

None.

Index

B

books
- cross-references as hotlinks

browser
- installed
  - specifying
- installed list
  - modifying

C

context search procedure
- creating
- examples

context-sensitive help
- context search procedure
  - creating
- description
- key table file
  - creating
- requirements
  - context search procedure
  - key table file
  - target items
- search operation

customer support services

E

Editing Books and Browsers dialog
- Books page
- Browsers page

Editing Machines for Site Configuration dialog
Editing Preferences dialog
Editing Users of Preference Object dialog

F

files
- key table
- search table

G

GOLD
- context-sensitive help operation
- merging into KB
- requirements for running
- topic search operation
- user modes

GOLD book
- creating
- initializing
- setting up
- testing

gold module
- required modules
- version information

GOLD objects
- gold-book
  - attributes

GOLD top-level workspace

gold-book object
- attributes
  - gold-abbreviated-title
  - gold-allow-unresolved-tags
  - gold-book-title
  - gold-context-search-procedure
  - gold-key-table-file-name
  - gold-module
  - gold-search-table-file-name
  - gold-unix-default-installation-directory
  - gold-win32-default-installation-directory
  - Names
- creating
- initializing

gold-machine object
- creating

gold-machine-configuration object
- description
- generated by GOLD
  - location

GOLDUI
- module hierarchy

requirements for running
goldui module
making it required
required modules
version information
goldui.kb
gold-user-preference object
setting up

H

hotlinks
HTML
description
format example
Hypertext Markup Language (HTML)
See HTML

I

installed books
specifying for machine configuration
installed browsers
specifying for machine configuration

K

key table file
creating
example
format
updating

M

machine configuration
applicability
specifying
installed books
specifying
updating
installed browsers
specifying
updating
machine applicability
changing
limiting
problems
resolving
saving
saving in KB
setting up
task summary
machine configuration problems
book files missing
books not installed
machine not configured for GOLD

O

online documentation
creating gold book for
description
requirements for accessing

S

search table file
creating
format

T

testing GOLD book
topic search
requirements
search table
creating

U

Universal Record Locator (URL)
See URL
URL
description
format
how GOLD uses
user mode
user preferences
book options
browser options
context-sensitive help
saving in KB
setting up
topic searches