IBM IMS Database Control Suite for z/OS

User’s Guide

Version 3  Release 2
Note:
Before using this information and the product it supports, read the information in Appendix B, “Notices,” on page 119.

Fifth Edition (October 2005)
This edition applies to Version 3 Release 2 of the IBM IMS Database Control Suite for z/OS, (product number 5655-L08) and to all subsequent releases and modifications until otherwise indicated in new editions.
This edition replaces SC18-7630-03.
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# Contents

Figures ............................................................ vii  
Tables ............................................................... xi  

About this information ........................................... xiii  
Who should read this book ......................................... xiii  
Conventions used in this book ........................................ xiii  
Service updates and support information ........................... xiv  
Using LookAt to look up message explanations ....................... xiv  
Where to find information ........................................... xv  
Accessibility features ............................................... xv  
How to send your comments ......................................... xv  

Summary of changes ................................................ xvii  

Chapter 1. What is IMS Database Control Suite? ...................... 1  
Highlights .......................................................... 1  
Overview ............................................................ 2  
Concepts and terminology ............................................. 3  
Scenarios ............................................................. 4  
 Changing a device type .............................................. 4  
 Changing accounting information .................................. 4  
 Adding a new database ............................................. 5  
 Backing out a DBD change ......................................... 5  
 Hardware requirements .............................................. 5  
 Software requirements .............................................. 5  
 Online help .......................................................... 5  

Chapter 2. Preparing to use Control Suite .............................. 7  
Step 1: Gathering Setup information ................................... 7  
Step 2: Running the installation verification procedures (IVP) .......... 8  
Step 3: Starting a Control Suite session from ISPF ................... 8  
 Migrating data from Control Suite Version 3.1 to 3.2 .............. 9  
Step 4: Creating and selecting a control suite ....................... 9  
 Performing RECON maintenance for a CS ID directly (DBRC Fast Access) .................................................. 10  
Step 5: Selecting a Control Suite task .................................. 13  

Chapter 3. Setting up your Control Suite environment ................ 15  
Before you begin ...................................................... 15  
Setup panel .......................................................... 15  
Adding and removing IMS tools .................................... 16  
Defining your control suite environment ............................ 17  
Collecting, updating, and deleting DBDS group data ................. 20  
 Collect: Specifying a DBDS group .................................. 21  
 Collect: Collecting, updating, and deleting image copy naming convention data .................................................. 22  
 Collect: Collecting and updating database data set data ............ 28  
 Collect: update jobcard data only .................................. 31  
 Collect: batch collect DBDSGRPs and jobs for ALL DBDLIB members .................................................. 32  
Loading DBDSGRPs from the RECON ............................. 38  
 Load: Selecting a subtask ........................................... 38  
 Load: Load one DBDSGRP from the RECON ....................... 39  
 Load: Load DBDSGRPs in batch from the RECON .................. 40  

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<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Running jobs</td>
<td>53</td>
</tr>
<tr>
<td>5</td>
<td>Maintaining RECON function</td>
<td>85</td>
</tr>
<tr>
<td>6</td>
<td>Library integrity checking</td>
<td>99</td>
</tr>
<tr>
<td>7</td>
<td>Accessing other IMS tools</td>
<td>111</td>
</tr>
<tr>
<td>8</td>
<td>Managing Control Suite</td>
<td>113</td>
</tr>
</tbody>
</table>

### Chapter 4. Running jobs
- Reviewing defined, collected, and loaded data: 40
- Review: Selecting a subtask: 40
- Review: Displaying defined variables: 41
- Review: Displaying collected data: 43
- Using the Find feature: 49

### Chapter 5. Maintaining RECON function
- Using the POP command: 86
- Using the Select command: 87
- Listing an image copy record: 87
- Changing an image copy record: 89
- Reports: 92
- Utility Exception report: 92
- List History report: 93
- Image Copy report: 96
- Audit log maintenance: 98

### Chapter 6. Library integrity checking
- Starting the Library Integrity Utilities: 99
- Using the Compare, Map, and Reverse utilities: 100
  - Compare utility: Specifying member and libraries: 101
  - Compare utility: Browsing and printing output files: 102
  - Mapper utility: Specifying member names and libraries: 103
  - Mapper utility: Browsing and printing output files: 103
  - Reverse utility: Specifying member names and libraries: 104
  - Reverse utility: Browsing and printing the output files: 105
- Generating PSBs, DBDs, and ACBs: 106
  - DBDGEN and PSBGEN: 107
  - ACBGEN: 108
- Using the Compress utility for DBDs, PSBs, and ACBs: 109
- ACBlib analyzer utility: 110

### Chapter 7. Accessing other IMS tools: 111

### Chapter 8. Managing Control Suite: 113
- System management subtasks: 113
- Backing up the Control Suite table data set: 114
- Recovering the Control Suite table data set: 114
1. Control Suite overview
2. Migration confirmation panel (IDL$WRN3)
3. Select Control Suite panel (IDL$P2)
4. Select Control Suite panel (IDL$P2)
5. Select Control Suite panel, refreshed (IDL$P2)
6. Conventions Used Across Tasks panel (IDL$SYS)
7. Propagate Values panel (IDL$CSIT)
8. IMS Data Set Names panel (IDL$SIMS)
9. IMS Libraries Confirmation panel (IDL$SIMS1)
10. RECON: Maintenance selection panel (IDL$RMA0)
11. Select a Control Suite Task panel (IDL$P00)
12. Setup: Subtasks panel (IDL$PS0)
13. IMS Tools: Add or Remove IMS Tools panel (IDL$IHP)
14. IMS Tools: Add or Remove IMS Tools panel (IDL$IHPA)
15. Define: Conventions Used Across Tasks panel (IDL$SYS)
16. DEFINE: IMS Data Set Names panel (IDL$SIMS)
17. DEFINE: IMS LIBS function for CS ID panel (IDL$IMSD)
18. DEFINE: Pointer Checker History Data Set Information panel (IDL$UTIE)
19. Collect: Subtasks panel (IDL$PS01)
20. Collect: Specify DBDS group panel (IDL$MAIP)
21. Collect: Specify DBD Input and Other JCL Options for DBDS Group panel (IDL$OPT1)
22. Collect: Unload Options panel (IDL$OPT1A)
23. Collect: Global Image Copy Options panel (IDL$OPT3)
24. Collect: Specifying Online Image Copy Options panel (IDL$OPT6)
25. Collect: Specify DBDS Group panel (IDL$MAIQ)
26. Collect: Specify DBD Input panel (IDL$OPT2)
27. Collect: Select DBDSGRP DBDs panel (IDL$MAIR)
28. Collect: Update Image Copy Processing Options panel (IDL$CTL3)
29. Collect: Job Card Information panel (IDL$JBCP)
30. Collect: Jobcard Information panel (IDL$JBCP)
31. Collect: Existing batch detection warning panel (IDL$WRN2)
32. Collect: Specify DBDSGRP Default JCL panel (IDL$OPT0)
33. Collect: Unload Options panel (IDL$OPT1A)
34. Collect: Global Image Copy Options panel (IDL$OPT3)
35. Collect: Specify Job Card Information panel (IDL$JBCP)
36. Collect: ISPF Edit panel
37. Load: Select Subtask panel (IDL$LEG1)
38. Load: Specify DBDSGRP panel (IDL$LST)
39. Load: Specify DBDSGRP panel (IDL$SPTR)
40. Review: Select Subtask panel (IDL$DA)
41. Review: Specify Storage Information panel (IDL$ENVS)
42. Review: IMS System Data Sets panel (IDL$ENVI)
43. Review: DYNLIBs function for CS ID (IDL$ENVJ)
44. Review: Space Management History Data Set Information panel (IDL$UTID)
45. Review: DBDS Group List panel (IDL$PLD)
46. Review: Collected Global Image Copy Options panel (IDL$DSS0)
47. Review: Specified DBD Input and Other JCL Options panel (IDL$DSS1)
48. Review: Unload data set options (IDL$DSS5)
49. Review: Collected data panel (IDL$DSS2)
50. Review: Collected Data 2 panel (IDL$DSS3)
51. Review: Collected Data 3 panel (IDL$DSS4)
52. RECON: Instructions for using the Find feature.
53. RECON: Instructions for using the Find feature.

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<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>Run Jobs: Subtasks panel (IDLP001)</td>
<td>53</td>
</tr>
<tr>
<td>55</td>
<td>Run Jobs: Select DBDS Group ID panel (IDLS$APLS)</td>
<td>54</td>
</tr>
<tr>
<td>56</td>
<td>Run Jobs: Backup Job List panel (IDLS$JBLS)</td>
<td>55</td>
</tr>
<tr>
<td>57</td>
<td>Run Jobs: ISPF Edit panel (ISREDDE2)</td>
<td>56</td>
</tr>
<tr>
<td>58</td>
<td>Run Jobs: Save JCL panel (IDLGNJCQ)</td>
<td>56</td>
</tr>
<tr>
<td>59</td>
<td>Run Jobs: Select DBDS Group ID panel (IDLS$APLS)</td>
<td>57</td>
</tr>
<tr>
<td>60</td>
<td>Run Jobs: Recover Job List panel (IDLS$JBLS)</td>
<td>58</td>
</tr>
<tr>
<td>61</td>
<td>Run Jobs: Save JCL panel (IDLGNJCQ)</td>
<td>59</td>
</tr>
<tr>
<td>62</td>
<td>Run Jobs: Monitor/Reorganize Options panel (IDLP30)</td>
<td>61</td>
</tr>
<tr>
<td>63</td>
<td>Run Jobs: Threshold Criteria Activation panel (IDLMCRIT)</td>
<td>62</td>
</tr>
<tr>
<td>64</td>
<td>Run Jobs: Select Job Name panel (IDLS$JBLS)</td>
<td>64</td>
</tr>
<tr>
<td>65</td>
<td>Run Jobs: Browse Space Monitor Report 1 panel (IDLMXDS1)</td>
<td>65</td>
</tr>
<tr>
<td>66</td>
<td>Run Jobs: Browse Space Monitor Report 2 panel (IDLMXDS2)</td>
<td>66</td>
</tr>
<tr>
<td>67</td>
<td>Run Jobs: Monitor Job List for DBDS Group Test panel (IDLS$JBLS)</td>
<td>68</td>
</tr>
<tr>
<td>68</td>
<td>Run Jobs: ISPF Edit (panel ISREDDE2)</td>
<td>69</td>
</tr>
<tr>
<td>69</td>
<td>Run Jobs: Fast Path Specify PROC panel (IDLF$SYS)</td>
<td>71</td>
</tr>
<tr>
<td>70</td>
<td>Fast Path: Select DBDS Group for Scan panel (IDLS$APLS)</td>
<td>72</td>
</tr>
<tr>
<td>71</td>
<td>Fast Path: Select Utility for Fast Path Scan panel (IDLS$UBLS)</td>
<td>72</td>
</tr>
<tr>
<td>72</td>
<td>Fast Path: Select Data Sets to be Compared panel (IDLF$DDN)</td>
<td>73</td>
</tr>
<tr>
<td>73</td>
<td>Fast Path: Select Data Sets to be Created panel (IDLF$DDN)</td>
<td>73</td>
</tr>
<tr>
<td>74</td>
<td>Fast Path: Select DBD to be Processed panel (IDLF$DBD)</td>
<td>74</td>
</tr>
<tr>
<td>75</td>
<td>Fast Path: Select Areas to be Reorganized panel (IDLF$AR)</td>
<td>74</td>
</tr>
<tr>
<td>76</td>
<td>Fast Path: Select Parameters Related to Reorganization panel (IDLP01RO)</td>
<td>74</td>
</tr>
<tr>
<td>77</td>
<td>Fast Path: Select Parameters Specific to Databases panel (IDLP01R1)</td>
<td>75</td>
</tr>
<tr>
<td>78</td>
<td>Fast Path: Select DBD to be Initialized panel (IDLF$DBD)</td>
<td>75</td>
</tr>
<tr>
<td>79</td>
<td>Fast Path: Select Individual or All Areas to be Initialized panel (IDLP011I)</td>
<td>75</td>
</tr>
<tr>
<td>80</td>
<td>Fast Path: Select Data Sets to be Initialized (If option I is selected) panel (IDLF$DDN)</td>
<td>76</td>
</tr>
<tr>
<td>81</td>
<td>Fast Path: Select Delete Option panel (IDLP01DX)</td>
<td>76</td>
</tr>
<tr>
<td>82</td>
<td>Fast Path: Additional Delete Parameters Based on Selecting Option 1 panel (IDLP01D1)</td>
<td>77</td>
</tr>
<tr>
<td>83</td>
<td>Fast Path: Select Data Sets to be Processed panel (IDLF$DDN)</td>
<td>77</td>
</tr>
<tr>
<td>84</td>
<td>Fast Path: Select Utility for Fast Path Scan panel (IDLS$JBLS)</td>
<td>78</td>
</tr>
<tr>
<td>85</td>
<td>Fast Path: Select Scan Method panel (IDLP01SX)</td>
<td>78</td>
</tr>
<tr>
<td>86</td>
<td>Fast Path: Select Scan Start and Stop panel (IDLP01P1)</td>
<td>79</td>
</tr>
<tr>
<td>87</td>
<td>Fast Path: Select Areas to be Scanned panel (IDLF$DDN)</td>
<td>79</td>
</tr>
<tr>
<td>88</td>
<td>Fast Path: Results for Fast Path Scan panel (ISREDDE2)</td>
<td>80</td>
</tr>
<tr>
<td>89</td>
<td>Run Jobs: DRF Jobs panel (IDLS$DRFJ)</td>
<td>81</td>
</tr>
<tr>
<td>90</td>
<td>Run Jobs: Verification Selection panel (IDLDRFV1)</td>
<td>81</td>
</tr>
<tr>
<td>91</td>
<td>Run Jobs: Entity List panel (IDLDRF01)</td>
<td>82</td>
</tr>
<tr>
<td>92</td>
<td>Run Jobs: Entity Naming panel (IDLS$GRLS)</td>
<td>82</td>
</tr>
<tr>
<td>93</td>
<td>Run Jobs: ISPF Edit panel (ISREDDE2)</td>
<td>83</td>
</tr>
<tr>
<td>94</td>
<td>Run Jobs: Job List panel (IDLS$JBLS)</td>
<td>84</td>
</tr>
<tr>
<td>95</td>
<td>RECON: Maintenance selection panel (IDLRLMAI0)</td>
<td>85</td>
</tr>
<tr>
<td>96</td>
<td>RECON: Print Out panel (IDLP0010)</td>
<td>86</td>
</tr>
<tr>
<td>97</td>
<td>RECON: Select Command Example panel</td>
<td>87</td>
</tr>
<tr>
<td>98</td>
<td>RECON: Select a DBDS Group ID panel (IDLRLMAIP)</td>
<td>88</td>
</tr>
<tr>
<td>99</td>
<td>RECON: List Commands panel (IDLR$L12A)</td>
<td>88</td>
</tr>
<tr>
<td>100</td>
<td>RECON: DBDs Containing Image Copies panel (IDLR$IC1)</td>
<td>89</td>
</tr>
<tr>
<td>101</td>
<td>RECON: Select DBD for Image Copy Change panel (IDLR$IC1)</td>
<td>90</td>
</tr>
<tr>
<td>102</td>
<td>RECON: Select Value to Change panel (IDLR$IC2)</td>
<td>90</td>
</tr>
<tr>
<td>103</td>
<td>RECON: DBRC Generated SYSIN panel</td>
<td>91</td>
</tr>
<tr>
<td>104</td>
<td>RECON: Confirmation for Changing Image Copy Record panel (IDLR$CONT)</td>
<td>91</td>
</tr>
<tr>
<td>105</td>
<td>RECON: Generated DBRC Command panel</td>
<td>91</td>
</tr>
<tr>
<td>106</td>
<td>RECON: Batch/Foreground Report Generation panel (IDLR$URE1)</td>
<td>92</td>
</tr>
<tr>
<td>107</td>
<td>RECON: Generated DBRC Command panel</td>
<td>93</td>
</tr>
<tr>
<td>108</td>
<td>Generating a List History Report</td>
<td>94</td>
</tr>
<tr>
<td>109</td>
<td>RECON: List DBD/DBDS History panel (IDLR$DB1)</td>
<td>94</td>
</tr>
</tbody>
</table>
110. List History Report DBD Selection panel (IDLRLHI2) ........................................ 95
111. List History Report ........................................................................................................ 95
112. Image Copy Report Command Selection panel ............................................................... 96
113. Image Copy Report Selection ........................................................................................ 97
114. Image Copy Report .......................................................................................................... 97
115. Audit Log Maintenance panel ......................................................................................... 98
116. Library: Library Management panel (IDLP40) ................................................................. 99
117. Library: Select Compare, Map, and Reverse Utilities panel (IDLP41) ............................ 101
118. Library: DBD Selection panel (IDLSMAID) .................................................................. 101
119. Library: Compare - Parameters panel (IDLP411) .......................................................... 102
120. Library: Compare - Browse or Print Reports panel (IDLP414) ....................................... 102
121. Library: Mapper - Parameters panel (IDLP412) ............................................................ 103
122. Library: Mapper - Browse or Print Reports panel (IDLP414) ........................................ 104
123. Library: Reversal - Parameters panel (IDLP413) ............................................................ 104
124. Library: Reversal - Browse Print Files panel (IDLP414) ................................................ 106
125. Library: Warning - Bring Down IMS panel (IDLP90) ...................................................... 107
126. Library: DBDGEN and PSBGEN panel (IDLP42) ............................................................ 107
127. Library: DBDGEN - Browse or Print Reports panel (IDLP414) ....................................... 108
128. Library: ACBGEN panel (IDLP48) .................................................................................. 108
129. Library: Compress - Specify IMS Library panel (IDLP43) .............................................. 109
130. Library: ACBlbl Analyzer Parameters panel (IDLP4A) .................................................... 110
131. ISPF Links: Select a Subtask panel (IDLP50) ................................................................. 111
132. SYSADMIN: Select a Subtask panel (IDLP40) ............................................................... 113
133. System Administration: Backup Control Suite Table Data Set panel (ISREDDE2) ........ 114
134. Job to recover the Control Suite table data set ............................................................... 115
135. SYSADMIN: Debugging Options panel (IDLMAIN6) .................................................... 115
136. Diagnosis for Tool Libraries ......................................................................................... 116
Tables

1. Database recovery jobs panels .................................................. 58
2. Threshold Criteria Data Entry panels ........................................... 63
3. Control Suite Fast Path Utilities .................................................. 71
About this information

This book contains information about IBM® IMS Database Control Suite for z/OS®.

This book contains the following chapters:

- **Chapter 1, “What is IMS Database Control Suite?,” on page 1** introduces the product.
- **Chapter 2, “Preparing to use Control Suite,” on page 7** describes how to prepare your environment for Control Suite.
- **Chapter 3, “Setting up your Control Suite environment,” on page 15** describes Control Suite initialization using the Control Suite Setup function.
- **Chapter 4, “Running jobs,” on page 53** describes the Backup, Recovery, and Monitor/Reorganize functions, as well as IMS™ Fast Path support jobs.
- **Chapter 5, “Maintaining RECON function,” on page 85** describes how to use the Control Suite Maintain RECON function.
- **Chapter 6, “Library integrity checking,” on page 99** describes how to use the Control Suite library integrity utilities in an online environment.
- **Chapter 7, “Accessing other IMS tools,” on page 111** describes the IMS tools available from Control Suite.
- **Chapter 8, “Managing Control Suite,” on page 113** details how you can make a backup of your table data sets and run diagnostic tools as requested by IBM.
- **Appendix A, “Initial edit macro user exit for running jobs,” on page 117** provides a sample ISPF initial edit macro for job submission.

The technical changes for this edition are summarized under “Summary of changes,” on page xvii. Specific changes since the previous edition of this book are indicated by a vertical bar (|) to the left of a change. Editorial changes that have no technical significance are not noted.

Always check the DB2® and IMS Tools Library page for the most current version of this publication:

www.ibm.com/software/data/db2imstools/library.html

Who should read this book

This book is intended for those persons responsible for customizing and using IMS Database Control Suite for z/OS. Before using this book, you should understand:

- The OS/390® or z/OS operating system
- ISPF
- SMP/E
- Basic IMS concepts
- Your installation’s IMS systems
- IMS Database Recovery Control facility (DBRC)

For a list of required and related publications, see “Bibliography” on page 121.

Conventions used in this book

This book uses the following highlighting conventions:
- **Boldface type** indicates commands or user interface controls such as names of fields, folder, icons, or menu choices.
- **Monospace type** indicates examples of text that you enter exactly as shown.
- **Italic type** indicates variables that you should replace with a value. It is also used to indicate book titles and to emphasize significant words.

The following labels identify significant elements within this book:

- **Recommendation:** is used to provide guidance when more than one option is available.
- **Restriction:** is used to identify a restriction or limitation with this product or an associated procedure.
- **Requirement:** identifies a condition that must be met to ensure that the product is functional.

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### Service updates and support information

To find service updates and support information, including software fix packs, PTFs, Frequently Asked Question (FAQs), technical notes, troubleshooting information, and downloads, refer to the following Web page:

[www.ibm.com/software/data/db2imstools/support.html](http://www.ibm.com/software/data/db2imstools/support.html)

### Using LookAt to look up message explanations

LookAt is an online facility that lets you look up explanations for most of the IBM messages you encounter, as well as for some system abends and codes. Using LookAt to find information is faster than a conventional search because in most cases LookAt goes directly to the message explanation.

You can use LookAt from the following locations to find IBM message explanations for z/OS elements and features, z/VM®, VSE/ESA™, and Clusters for AIX® and Linux:


- Your z/OS TSO/E host system. You can install code on your z/OS or z/OS.e systems to access IBM message explanations, using LookAt from a TSO/E command line (for example, TSO/E prompt, ISPF, or z/OS UNIX® System Services running OMVS).

- Your Microsoft® Windows® workstation. You can install code to access IBM message explanations on the z/OS Collection (SK3T-4269) using LookAt from a Microsoft Windows command prompt (also known as the DOS command line).

- Your wireless handheld device. You can use the LookAt Mobile Edition with a handheld device that has wireless access and an Internet browser (for example, Internet Explorer for Pocket PCs, Blazer, or Eudora for Palm OS, or Opera for Linux handheld devices). Link to the LookAt Mobile Edition from the LookAt Web site.

You can obtain code to install LookAt on your host system or Microsoft Windows workstation from a disk on your z/OS Collection (SK3T-4269) or from the LookAt Web site (click **Download**, and select the platform, release, collection, and location that suit your needs). More information is available in the LOOKAT.ME files available during the download process.
Where to find information

The DB2 and IMS Tools Library Web page provides current product documentation that you can view, print, and download. To locate publications with the most up-to-date information, refer to the following Web page:

www.ibm.com/software/data/db2imstools/library.html

IBM Redbooks™ that cover DB2 and IMS Tools are available from the following Web page:

www.ibm.com/software/data/db2imstools/support.html

Accessibility features

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use a software product successfully. The major accessibility features in Control Suite enable users to:

• Use assistive technologies such as screen readers and screen magnifier software. Consult the assistive technology documentation for specific information when using it to access z/OS interfaces.
• Customize display attributes such as color, contrast, and font size.
• Operate specific or equivalent features by using only the keyboard. Refer to the following publications for information about accessing ISPF interfaces:
  – z/OS ISPF User’s Guide, Volume 1, SC34-4822
  – z/OS TSO/E Primer, SA22-7787
  – z/OS TSO/E User’s Guide, SA22-7794
These guides describe how to use ISPF, including the use of keyboard shortcuts or function keys (PF keys), include the default settings for the PF keys, and explain how to modify their functions.

How to send your comments

Your feedback is important in helping to provide the most accurate and high-quality information. If you have any comments about this book or any other IMS Database Control Suite for z/OS documentation:

• Use the online reader comment form located at www.ibm.com/software/data/rcf/
• Send your comments by e-mail to comments@us.ibm.com. Be sure to include the name of the book, the part number of the book, the version of Control Suite, and, if applicable, the specific location of the text you are commenting on (for example, a page number or table number).
Summary of changes

This section summarizes the significant improvements and enhancements for IBM IMS Database Control Suite for z/OS Version 3, Release 2.

SC18-7630-04 — October 2005

Global commands

Global commands are now available for the RECON Maintenance utility from the following panels:

- IDLRCAD2
- IDLRCDB2
- IDLRCDB1
- IDLRCIC1
- ICLDCPA1
- IDLRNAL
- IDLRNIC1

You can now run global change commands for ADS, DB, DBDS, PART, and IC and notify commands for ALLOC and IC for every DBRC entity in the RECON. You only need to select a single ADS, DB, DBDS, PART, or IC using the G command.

User creation of DBDSGRPs names

A new feature was added that allows you to specify your own DBDSGRP name. An option was also added that automatically creates a DBDSGRP for each logically related set of database data sets. Refer to the field explanations for Figure 20 on page 21 for more information.

PSBGEN information

You can now use your own PSBs and ACBs in the online JCL. A new panel was added to accommodate this change. Refer to the Collect: Specifying Online Image Copy Options panel (IDLSOPT6), Figure 24 on page 27 for more information.

Remove existing CS ID definitions

When Control Suite detects that a batch collect was already performed for the specified CS ID, users are provided the option of removing or keeping the existing CS ID definitions. Refer to Figure 31 on page 33 for more information.

Using wild cards with batch collect

A wild card feature was added to the batch collect function. You can now filter the DBDNAMES to limit the number of database data sets collected. Refer to the DBD name filter field explanation for Figure 32 on page 34 for more information.

RECOVPD and GENMAX fields moved

The RECOVPD and GENMAX fields were moved from the Collect: Global Image Copy Options panel (IDLSOPT3), Figure 23 on page 25 to the collection panels for Full Function and HALDB databases and Fast Path databases. The values for these fields will be set with the values registered in the RECONS or set with defaults if they are unregistered. Refer to the field explanations for Figure 28 on page 30 for more information.
These fields were also added to the batch collect panel. Because of differences in the batch collects, these values are only used if the batch collected data sets are not already registered in the RECON. Refer to the field explanations for Figure 32 on page 35 for more information.

VIC and VICDSN support
Support for Virtual Index Image Copy and Virtual Index Image Copy Data Set Name was added. Refer to the field explanations for Figure 32 on page 34 for more information.

Load existing DBDSGRPs into Control Suite
You can now load your existing DBDSGRPs directly from your RECONs, either one at a time or in batch. Refer to “Loading DBDSGRPs from the RECON” on page 38 for more information.

Diagnosis
A new diagnosis function was added that is used to check APAR levels for user-installed tools that are supported by Control Suite. Refer to “Diagnosing Problems” on page 115 for more information.

This section summarizes the significant improvements and enhancements for IBM IMS Database Control Suite for z/OS Version 3, Release 1.

SC18-7630–03 — June 2004
Product panels and accompanying information are updated to support new Collect function, as well as a new System Administration menu option.

SC18-7630–02 — March 2004
Information is added to support a new, optional startup parameter, and to assist you when specifying dynamic allocation libraries.

SC18-7630–01 — February 2004
Information is added so that you can configure and use DBRC Fast Access.

SC18-7630-00 — September 2003
- You can now build a batch job that creates all jobstreams for all members in a DBDLIB.
- The user interface has been improved to include:
  - Field-level help on all panels
  - A navigation aid that indicates how many panels are in each subtask and where you are in that progression
- You can now perform Library Integrity Utilities functions interactively in Chapter 6, “Library integrity checking,” on page 99.
- You can build IMS Parallel Reorg jobstreams in Chapter 4, “Running jobs,” on page 53.
- You can add new tools more easily and efficiently in “Adding and removing IMS tools” on page 16.
- All IMS DBRC (Database Recovery and Control) commands are now supported.
- Concurrent Image Copy for ICE and standard IMS image copy jobs are now supported.
Chapter 1. What is IMS Database Control Suite?

IMS Database Control Suite (hereafter called Control Suite) brings a high level of control over the day-to-day operations and exception management of your databases. Before Control Suite, database management required extensive IMS skills. Time-consuming manual and semi-automated process and control procedures were needed to manage IMS and application utility tasks. An in-depth understanding of IMS DBRC (Database Recovery and Control) procedures was also required. Control Suite provides a unique platform that interfaces to these processes, saving both time and effort, especially if you are migrating to a DBRC-controlled environment or building IBM IMS utility job streams.

With Control Suite, you can perform routine database support activities in a timely, efficient, and accurate manner, even with minimal knowledge of IMS DB, DBRC, and IMS utilities.

The following topics provide additional information:

- “Highlights” on page 2
- “Overview” on page 3
- “Concepts and terminology” on page 4
- “Scenarios” on page 5
- “Hardware requirements” on page 5
- “Software requirements” on page 5
- “Online help” on page 5

Highlights

Control Suite provides:

- An easy-to-use Setup function to establish database groups or applications and to generate appropriate JCL
- DBRC Fast Access
- A Build batch job to create all jobstreams for all members in a DBDLIB
- An improved ISPF interface to:
  - Add and remove IMS tools
  - Back up databases
  - Recover databases
  - Monitor and reorganize:
    - Full-function databases (including indexes)
    - Fast Path areas
    - High Availability Databases (HALDB)
    - An interface to IMS tools
- On-demand database space monitoring
- ISPF interface to the IMS Library Integrity Utility
- A function to load existing database groups from the RECON

You can configure Control Suite to manage all or some of the databases for an IMS system.
Overview

By using Control Suite you can:

- Use an interactive front-end to check and maintain the RECON data set
- Avoid input data redundancy
  When a change occurs in the IMS DB environment (such as the addition of a new database, changes in naming conventions, data set definitions, or storage allocations), many JCL and control statements must be modified. Control Suite simplifies this task because input for changes is specified in a single table data set, and the required JCL maintenance is performed automatically.
- Minimize data entry
  Only data that cannot be extracted by Control Suite from other system sources must be specified manually. Other required data (such as database organization, logical relationships, DBD, DDN, data set names, space allocations, and record and key lengths) is extracted automatically from IMS and system sources.
- Migrate with greater ease
  Control Suite facilitates migrating from an environment where databases are not registered with DBRC to one where all databases are DBRC-controlled.
- Benefit from full flexibility for naming conventions
  Although Control Suite requires certain standards regarding the naming of its own data sets, it allows for flexibility in the naming structure that you assign to IMS system data sets, database data sets, or job names.
- Automate the generation of JCL for IMS and IBM utilities
  Previously, you needed to manually create JCL for major utilities, such as database reorganization, database time stamp recovery, and IMS High Performance Pointer Checker. Advanced JCL skills were required, and the process was subject to errors. Control Suite provides an automated method of generating this JCL, which reduces the chance of errors.
- Run IMS Library Integrity Utility, which is used to manage DBD, PSB, and ACB libraries
- Use ISPF links to other IMS utilities

Figure 1 on page 3 illustrates how Control Suite interfaces with your IMS environment. To perform its various functions, Control Suite:

- Uses the IMS RESLIB to access the correct version of IMS code
- Uses the Tools libraries to obtain JCL //STEPLIB data sets during jobstream generation
- Reads and writes information to the IMS DBD (database definition), PSB (program specification block), and ACB (access control block) libraries
- Uses the Control Suite JCL skeletons during jobstream generation
- Lists, initializes, changes, and deletes records in the IMS RECON
- Reads IMS database data set information during jobstream generation
The following information introduces Control Suite concepts and terminology. You should understand the following terms:

**Control Suite**
In this information, the term *Control Suite* is used to represent the Control Suite product. Control Suite consists of SMP/E-installed libraries.

You can have one Control Suite product per processor. However, you can configure Control Suite for multiple IMS systems on a single processor.

**Individual control suites**
Each IMS system corresponds to an individual *control suite*. An individual control suite can include all or part of the IMS system it supports. In this publication, an individual control suite is referred to as a control suite (note the lowercase spelling).

A control suite is given a unique control suite identifier (CS ID).

In this information, the term *control suite* generally refers to an individual control suite that is identified by its associated CS ID.

**CS ID**
The CS ID uniquely identifies each control suite. The CS ID can be the same as the IMS system name, although this is not a requirement.

**Important:** Do not change the default DBDLIB for a CS ID. If you want to use a different DBDLIB, define a new CS ID. CS IDs are designed to refer to a specific DBDLIB, as well as the RECONs and DYNLIB associated with that DBDLIB. Changing the DBDLIB associated with a pre-existing CS ID can cause errors.

**Individual DBDS groups**
Each CS ID can be made up of database data set (DBDS) *groups*. The concept of groups is important to understand because many Control Suite functions operate on a DBDS group, rather than on an individual database. Typically, a DBDS group is a set of related databases, database applications, or any other grouping that you create. For example, you can combine all your financial applications into one DBDS group.

Control Suite supports the following DBS types:
• Full function
• HALDB
• Fastpath

You can combine Full function and HALDB DBS types. However, Fastpath databases require separate DBDSGRPs.

The IMS and utility data that define an individual control suite are gathered or updated by a panel-driven setup process that requires minimal data entry. Similarly, data that pertains to the utility and operational needs of each DBDS group is also collected into a control suite. A DBDS group (DBDSGRP) is an IMS Database Recovery and Control entity.

Control Suite table data set
This term refers to the ISPF table in which Control Suite stores permanent data. The information in this table is arranged by CS ID.

Scenarios

The Control Suite Setup function propagates changes through utility job streams that are associated with a set of user-defined related databases. This set of databases is called a DBDS group. You can group the databases in any way, such as by application or by JCL characteristics. For example, you might want to put all personnel-related databases into one DBDS group.

The following scenarios describe several situations in which Control Suite is used in a production setting. The first three scenarios illustrate the power of the Setup function, which is described in Chapter 3, “Setting up your Control Suite environment,” on page 15.

Changing a device type

Your business has grown rapidly, and your image copy naming conventions have become difficult to manage. To simplify your company’s existing image copy procedures and make database recovery easier, you decide to use Generation Data Group (GDG) tape rather than non-GDG tape.

First, use the Setup function to:
1. Define the device type
2. Collect the GDG data for the affected DBDS group
3. Run the necessary register jobs

After you have completed these steps, you can select the image copy jobs in the Control Suite Backup function with the changed device type specified in them. From now on, all image copy data sets will be easier to retrieve if you need to recover a database.

Changing accounting information

When your company introduces a new accounting system, all jobs that post to that system need to have their JOB cards modified. Control Suite makes this easy, with a single panel update in the Setup/Collect function.

After the update, any subtask that you run in the future, such as Backup, Recover, or Monitor will use the corrected JOB statements.
Adding a new database

Your company has added a new product to its line. You want to add the database for this new product to an existing DBDS group. Without Control Suite, you would have to rebuild all the jobstreams.

Or, you can use the Control Suite Setup function to:

• Collect the DBDS group’s new list of databases
• Run the necessary register jobs

The JCL for all your DBDS group’s utility jobs will now include the new database.

Backing out a DBD change

It is 2 a.m., and you are running IMS when a DBD error occurs. You think it might be related to a change made to the DBD during the day.

You can use the Control Suite Library Integrity Utility Reverse function to reverse the failing DBD from the appropriate DBD production library. An examination of the source shows that there is a definition error in the new DBD. Correct the error. Then, using the Control Suite Library Integrity Utility interface to the DBDGEN utility, rebuild the DBD in the production library, and restart the database and the failing job or transaction.

The Control Suite Library Integrity Utility function eliminates having to find the source library that is used during the day. Such a search could be time-consuming.

Hardware requirements

Control Suite operates on any machine capable of operating IMS/ESA® Database Manager Version 6 or higher.

Software requirements

Control Suite requires release 6.1 or higher of IMS/ESA Database Manager.

SMP/E is required to install Control Suite.

Online help

The Control Suite online help now features the following improvements:

• Field-level help is available on all panels.
• A navigation aid has been added to the setup functions, letting you know how many panels are in each subtask, and where you are in that progression.
Chapter 2. Preparing to use Control Suite

This chapter describes the processes and tasks you must complete in order to start a Control Suite session.

The following topics provide additional information:

- “Step 1: Gathering Setup information”
- “Step 2: Running the installation verification procedures (IVP)” on page 8
- “Step 3: Starting a Control Suite session from ISPF” on page 8
- “Step 4: Creating and selecting a control suite” on page 9
- “Step 5: Selecting a Control Suite task” on page 13

**Note:** The Control Suite IDLTABL table data set created in earlier releases of Control Suite is not reusable with this release. You must use a different permdshq (the high level qualifier for permanent CS data sets) to create new CS 3.2 data sets. This is the only data set that you must rebuild. All other data sets are automatically rebuilt by Control Suite.

### Step 1: Gathering Setup information

Control Suite lets you build IMS utility JCL. This JCL depends on information that is gathered in the Setup function. However, before you run Setup, you must make the following decisions about naming conventions and groupings of databases:

- **Designate the Database Administrator (DBA).**
  This person is instrumental in making many of the following decisions, and is responsible for running the Setup/Define function (see “Defining your control suite environment” on page 17 for more information).

- **Determine naming conventions to identify the system or systems that Control Suite supports.**
  For each individual control suite, you must specify a control suite identifier (CS ID). You might want to use your existing IMS system ID.

- **Determine naming conventions for the jobs that you want to generate with Control Suite.**
  Control Suite provides standardized job names, but you can specify your own names.

- **Group databases based on data dependencies that result from:**
  - IMS database logical relationships
  - User application requirements
  If the RECON Maintenance function is the only CS function that you are going to use, you do not need to create DBDS groups.

- **Determine DASD requirements for the Control Suite Setup and work data sets.**
  If your data sets are not SMS-managed, assign a DASD VOLSER to the product as a parameter in the Start command.

- **Determine processing options for database backup, recovery, and reorganization jobs.**
  You must decide which IBM utilities you want to use for Control Suite backup, recovery, and reorganization jobs.
Step 2: Running the installation verification procedures (IVP)

Control Suite requires a cohesive, operational IMS system. If such a system was not available when Control Suite was installed, run the IBM-supplied IVP jobs IDLIVP61 (for IMS full function databases) and IDLIVPHA (for IMS HALDB databases) to create a functioning IMS system. These jobs are in the SMP/E target library SIDLJPDS data set.

Instructions for customizing these jobs to the standards of your facility are included in comments at the beginning of each job's JCL stream. After an operational IMS system is created, Control Suite can be started and, where appropriate, made to point to the appropriate IMS system that was built by the selected IVP job.

Step 3: Starting a Control Suite session from ISPF

The following instructions describe how to start a Control Suite session from the ISPF interface.

Restriction: Only one active Control Suite session is allowed within a user's TSO session. Do not start a second Control Suite session by using ISPF split panels; the results are unpredictable.

Requirement: TSO IDs that use Control Suite require a minimum logon size of 16MB.

To start Control Suite, enter the following command on the ISPF option 6 panel:

```
EX 'smphlq.SIDLCEXE(IDLC000)' 'smphlq permdshlq csvol syspref '
```

Required parameters:
- `smphlq` — this is the high-level qualifier for Control Suite that was specified during the SMP/E installation process (READ access required). This high-level qualifier is used to create and update the system data sets of all defined control suites. This qualifier should be unique to the individual control suite that you are defining. The maximum length of the CS-permanent data set high-level qualifier is 8.7 characters (a total of 16 characters, including the period).
- `permdshlq` — this is the high-level qualifier for CS permanent data sets such as the audit data set (ALTER access required).

Optional parameters:
- `csvol` — this is the volume serial of a DASD device to be used by Control Suite data sets (for non-SMS shops only).
- `syspref` — (system prefix) this is the highest level qualifier. If you include both `csvol` and `syspref`, you must specify them in this order. If only `syspref` is supplied, omit `csvol`.
- `suffixuid` — (suffix user ID) this is a mid-level qualifier for Control Suite work data sets, and can be from one to eight characters. Specify this parameter as `suff(yyyyyyyy)` in the startup command. If you use the `suffixuid` parameter, it must be the last startup parameter. For example:
  ```
  Idlc000 smphlq permdshlq csvols syspref suff(suffixuid)
  Idlc000 smphlq permdshlq suff(suffixuid)
  ```

The `suffixuid` that you specify is concatenated to the user ID or system prefix to create work data set names. For example:

```
myuserid_or_sysprefvalue.suffuid.SYSPRINT
```
After entering the startup command, the IBM copyright panel is displayed. Press Enter to start using Control Suite.

**Tips:**
- In general, press Enter to commit the data you have just entered and to advance to the next panel.
- Pressing End will generally return you to the main menu panel of a selected task.

### Migrating data from Control Suite Version 3.1 to 3.2

The following instructions describe how to migrate data from Version 3.1 to 3.2.

1. Start Control Suite using the same high level qualifier for permanent data sets that you used for Version 3.1. For example, ‘userid.ics32.sidicexe(idlc000)’ ‘userid.ics32 userid.mydata’.

**Requirement:** If you do not start Control Suite using the same high level qualifier that you used for Version 3.1, Control Suite will not know what table data set to migrate.

The panel shown in [Figure 2](#) is displayed.

---

**IDLSWRN3**

IMS DB CONTROL SUITE V3.2 - BASE

Command ===> 

Enter Y to migrate to V3.2 or N to cancel . . 

<table>
<thead>
<tr>
<th>No CSIDs exist in the Control Suite V3.2 table library.</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you are a new Control Suite user, and have no data to migrate, enter 'N'.</td>
</tr>
<tr>
<td>If you are a current Control Suite user, enter 'Y'.</td>
</tr>
<tr>
<td>If you want to work with the CSIDs created in V3.1, the data must be migrated to the new release before you can continue.</td>
</tr>
</tbody>
</table>

---

**Figure 2.** Migration confirmation panel (IDLSWRN3)

2. Enter Y to migrate your data sets. A migration batch JCL is generated.
3. Submit the job.
4. After the job completes successfully, start Control Suite normally. The CS IDs that you used in Version 3.1 are now available in Version 3.2.

### Step 4: Creating and selecting a control suite

Control Suite uses the Control Suite identifier (ID) to determine which IMS system to access. The ID is also used as a mid-level qualifier for some of the Control Suite data sets. The first time that you use Control Suite, you must create a new CS ID.

Refer to [“Concepts and terminology” on page 3](#) for an explanation of the terms *control suite* and *CS ID*.

To create a new CS ID:
1. Press Enter on the IBM copyright panel. The Select Control Suite panel is displayed:

(IDLP92)  IMS CONTROL SUITE(C) V3.2 - BASE

Command ===>  

Press END to exit

Enter F string on the ISPF command line to find a CSID or other field  
Enter F by itself to redisplay the full table.

Control Suite ID List

New CS IMS ID ..

Select (S), delete (D), or DBRC Fast Access (R)  

<table>
<thead>
<tr>
<th>IMS</th>
<th>Version</th>
<th>Date/Time/ID</th>
<th>Non-SMS VOLSER</th>
</tr>
</thead>
<tbody>
<tr>
<td>S IMS7J</td>
<td>7.1</td>
<td>06/05/03 10:17:56</td>
<td>GGJX</td>
</tr>
<tr>
<td>IMS7P</td>
<td>?</td>
<td>05/22/03 11:04:52</td>
<td>GGJX</td>
</tr>
<tr>
<td>IMS7Y</td>
<td>?</td>
<td>05/30/03 15:04:53</td>
<td>GGJX</td>
</tr>
</tbody>
</table>

Figure 3. Select Control Suite panel (IDLP92)

Consult the Control Suite online help for descriptions of the fields on this panel. The fields on this panel are:

**IMS Version**

This column shows the IMS version number associated with the CS ID.

**Date/Time/ID**

These columns show the most recent date and time that this CS ID was accessed by USERID.

**Non-SMS VOLSER**

This column shows the CSVOL that was provided as a parameter with the Control Suite Start command.

2. Use the select line command to select an existing control suite ID from the list at the bottom of the panel, or enter a new control suite identifier and press Enter. New control suite identifiers must be 1-to 5-characters long. For example, you can set the control suite identifier the same as the system ID for which you are building JCL.

**Performing RECON maintenance for a CS ID directly (DBRC Fast Access)**

After you create a new CS ID, you can configure it so that you can perform RECON maintenance (detailed in Chapter 5, “Maintaining RECON function,” on page 85) against it directly, without having to start over from the main menu.

However, the first time that access RECON maintenance directly with a new CS ID, you must complete a brief setup process. During subsequent uses of that particular CS ID, the R line command will access RECON maintenance directly. Complete the following steps to perform RECON maintenance on a new CS ID:

1. On the Select Control Suite panel (IDLP92), type a name for your new CS ID (in this example, it is named dbrcf) :
2. Press Enter to add your new CS ID to the list of CS IDs. Issue the R line command to access RECON Maintenance for the CS ID:

```
Figure 4. Select Control Suite panel (IDLP92)
```

3. Press Enter to display the Conventions Used Across Tasks panel (IDL$SYS). Choose z/OS system settings for your CS ID.

```
Figure 5. Select Control Suite panel, refreshed (IDLP92)
```

3. Press Enter to display the Conventions Used Across Tasks panel (IDL$SYS). Choose z/OS system settings for your CS ID.

```
Figure 6. Conventions Used Across Tasks panel (IDL$SYS)
```
4. Press Enter to display the Propagate Values panel (IDL$CSIT). Choose whether or not you want to use IMS libraries from a preexisting CS ID, by entering Y or N. If you enter Y, select the CS ID that has the settings that you want to reuse:

![Screenshot of Propagate Values panel](image1)

**Figure 7. Propagate Values panel (IDL$CSIT)**

5. Press Enter to display the IMS Data Set Names panel (IDL$IMS). If you selected a preexisting CS ID to propagate libraries, library names are displayed. If you chose not to propagate libraries from a preexisting CS ID, a blank screen is displayed for you to enter the names of your IMS libraries.

![Screenshot of IMS Data Set Names panel](image2)

**Figure 8. IMS Data Set Names panel (IDL$IMS)**

6. Press Enter. If the RECON that you chose to use is already being used by another CS ID, the following IMS Libraries Confirmation panel (IDL$IMS1) is displayed:

![Screenshot of IMS Libraries Confirmation panel](image3)
7. Specify Y to accept the IMS RECON data sets and press Enter to save your settings. Your new CS ID is now set for automatic RECON maintenance. The next time that you enter the line command R for this CS ID, you will immediately access the RECON Maintenance selection panel (IDL$MAI0), which allows you to select a DBRC command:

```
IDL$MAI0     IMS DB CONTROL SUITE(C) V3.2 - BASE
RECON       GROUP SELECTION function for CS ID
Command ===>
TIME. .13:54:29.18
DATE. .2005/07/07
JDTE. .2005.188

Select an entry to continue or END to exit

Entry . .

   ALL DBDs
1. DBRC commands for ALL DBDs
2. non-DBRC commands and reports for ALL DBDs
   DBDSGRPS
3. DBRC commands selectable by DBDSGRPS
4. non-DBRC commands and reports selectable by DBDSGRPS
```

Figure 10. RECON: Maintenance selection panel (IDL$MAI0)

---

**Step 5: Selecting a Control Suite task**

The Select a Control Suite task panel is displayed **after you select a Control Suite ID** on the Select Control Suite panel (IDL$92), **Figure 3 on page 10**
Choose a Control Suite task by typing the task number in the command field and pressing Enter.

The tasks on this panel are:

1. **Set up environment**
   This task creates or updates the database characteristics or relationships table, JCL, utility inventory, and system-wide variables.

2. **Run jobs**
   This task runs Control Suite ISPF job steps to generate JCL for jobs to run.

3. **Maintain RECON**
   This task performs RECON inquiry and maintenance functions interactively.

4. **Perform library integrity checking**
   This task runs compare, map, reverse library maintenance, and integrity checking utilities interactively.

5. **ISPF links to other IMS tools**
   This option links to other IMS tools.

6. **System administration**
   This option backs up and recovers the Control Suite table data set, and performs Control Suite diagnosis.
Chapter 3. Setting up your Control Suite environment

Use the Setup task to set up your Control Suite environment and to configure various aspects of Control Suite. The Setup task gathers information that Control Suite uses to generate JCL for IMS utilities. The Setup task is composed of four individual subtasks, which you use to:

- Define global IMS and utilities variables for a control suite
- Collect database information for a control suite group ID
- Review current control suite global variables, as well as the variables that you entered for a control suite group

The following topics provide additional information:

- “Before you begin”
- “Setup panel”
- “Adding and removing IMS tools” on page 16
- “Defining your control suite environment” on page 17
- “Collecting, updating, and deleting DBDS group data” on page 20
- “Reviewing defined, collected, and loaded data” on page 40
- “Using the Find feature” on page 49

Before you begin

Before you begin the Setup task, you should be aware that entering End while navigating through a subtask (for example, collecting data within the Collect subtask) will generally redisplay the Setup menu, rather than moving backwards to the previously displayed panel.

Warning: Exiting a subtask (such as Setup Define or Setup Collect) before it is completed can result in the loss of data.

Setup panel

After you select Set up environment (option 1) on the Select a Control Suite Task panel (IDLP00), the following subtasks panel is displayed:

![Figure 12. Setup: Subtasks panel (IDLP50)](image)

The first time that you run the Setup subtasks for each CS ID, you must perform the subtasks in the order in which they are listed on the panel (except for Review...
defined/collection/loaded data, which contains no input fields). During consecutive uses of the same CS ID, you can perform these subtasks in any order.

The subtasks on this panel are:

1. **Add or remove IMS tools**
   This subtask lets you add and remove IMS tools that are already installed on your system.

2. **Define the Control Suite environment**
   This subtask defines general JCL parameters, adds and deletes tool libraries, defines IMS libraries and the Pointer Checker history file.

   Use the Define subtask to establish:
   - Naming conventions
   - IMS utilities libraries (such as DBDLIB, PSBLIB, ACBLIB, and DYNLIB)
   - IMS system libraries (such as IMS RESLIB, IMS MACLIB, and IMS PROCLIB)
   - Pointer checker history data set information

   You must complete this subtask only once for each control suite ID. For the definition of a control suite, refer to “Concepts and terminology” on page 3.

3. **Collect/update/delete DBDS group data**
   This subtask collects database data set information for selected databases in a DBDS group.

   Use the Collect subtask to collect and update or delete DBDS group data from the following sources as needed:
   - IMS DBDLIB (database DD names, relationships, indexes, and organization characteristics)
   - IMS DYNLIB (database data set names)
   - MVS™ catalog (database data set space allocation and usage information)
   - IMS RECON (for example, DATABASE SHARE LEVEL and HALDB-related data)

   The Control Suite Collect process requires minimal information about a DBDS group, often just an index DBD name, in order to begin complete data collection.

4. **Load DBDSGRPS from the RECON**
   Use the Load subtask to load one DBDSGRP or a group of DBDSGRPs in batch from the RECON data sets.

5. **Review defined/collection/loaded data**
   This subtask displays defined and collected data.

   Use the Review subtask to review the data that you have defined, collected, and loaded. You cannot enter, delete, or edit information in this subtask.

---

**Adding and removing IMS tools**

Use this subtask to add and remove IMS tools that are already installed on your system and implement newly-installed IMS tools.

The first time that you access this subtask on a new CS ID, panel IDL$CSIS is displayed. You are prompted to use the values from the previous CS ID. If you do
not want to reuse the values from the previous CS ID, enter new values. During consecutive uses of a CS ID, panel IDL$CSIS is not displayed.

Select option 1, Adding and removing IMS tools, on the Setup Subtasks panel (IDLPS0). The Add or Remove IMS Tools panel is displayed:

Add tools by entering the load library name of each tool. You can also remove tools by erasing the library name and entering N.

Press Enter to have your values accepted.

Defining your control suite environment

Use the Define subtask to specify data set and JCL conventions, define which utilities you want to include, and identify the ISPF libraries and the IMS system libraries. After completing this subtask, you can use Control Suite to change information pertaining to these entities in one convenient step.
Helpful tips

Pressing End before completing the Define subtask can result in the loss of data. In order to successfully complete the Define subtask, you must complete each panel in the subtask and press Enter to proceed.

You can usually override the default or previously defined values on frequently displayed panels. If the default of previously defined value is incorrect for your situation, overwrite the default with a value of your choice. Consult the panel help for a list of accepted values.

1. Select the Define subtask by selecting option 2 on the Setup Subtasks panel (IDLPS0), Figure 12 on page 15. The Conventions Used Across Tasks panel is displayed:

   ![Figure 15. Define: Conventions Used Across Tasks panel (IDL$SYS)](image)

2. Define the data set and JCL conventions that you want to use in Control Suite tasks. This panel has been updated with a CS loadlib qualifier field. Control Suite now allows you to modify this loadlib qualifier. The qualifier can be up to 8 characters. The default qualifier is SIDLLMD0.

   Consult the Control Suite online help for descriptions of the fields on this panel.

3. Press Enter. The IMS Data Set Names panel is displayed.

   However, if this is the first time you have accessed this subtask on a new CS ID, panel IDL$CSIS is displayed before the IMS Data Set Names panel. You are prompted to use the values from the previous CS ID. If you do not want to reuse the values from the previous CS ID, enter new values.

   This panel has been updated to include a More DYNLibs field. Previously, Control Suite allowed you to specify only one dynamic allocation library. You can now specify up to four dynamic allocation libraries. Press Enter to have your values accepted; the IMS Data Set Names panel is displayed:

   ![Figure 15. Define: Conventions Used Across Tasks panel (IDL$SYS)](image)
4. Enter or change your IMS system data set names. Do not press Enter until you have made all of your changes and additions. The data set names that you specify must be catalogued. If a data set cannot be found, a warning message is issued that redisplay this panel to show the uncataloged data set. For example:

   DBDLIB

   IDL.BADNAM.DYNLIB

If you get this warning message, correct the name of the data set and press Enter to have your data accepted.

5. If you specified additional dynamic allocation libraries by entering Y in the More DYNLIBs field in Figure 16, pressing Enter displays Figure 17:

   Additional IMS DYNLIB data sets

   Second concatenation . . VND0458.ICS31A.DYNLIB1
   Third concatenation . . VND0458.ICS31A.DYNLIB2
   Fourth concatenation . . VND0458.ICS31A.DYNLIB3
   Fifth concatenation . . VND0458.ICS31A.DYNLIB4

If you get this warning message, correct the name of the data set and press Enter to have your data accepted.

6. After you have named the additional dynamic allocation library data sets that you want to include, press Enter to display the Pointer Checker History Data Set Information panel:
7. Use the Pointer Checker History Data Set Information panel to create a history data set. Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

- **Data set name**: Enter the name of the history data set that will contain the pointer checker output.
- **CYLS**: Enter the number of cylinders that you want to use for the history data set.
- **VOLSER**: Enter the volume serial for the device on which the history data set will reside.

8. You have now finished defining your control suite environment. Press End to return to the Setup Subtasks panel.

---

**Collecting, updating, and deleting DBDS group data**

Use the Setup Collect subtask to collect a high volume of data in a short time. The speed of the Setup Collect subtask ensures that the data generated in the table data set is complete and error-free.

To collect data for a DBDS group, Control Suite automatically:

1. Creates a member in data set `permdshlq.csid.FDBDLIST` (a list of DBD names), which is built from the member list of a DBD library. See the documentation on how to build DBD lists.

2. Scans the IMS DBD library for the DBD and DD names associated with each database specified in the FDBDLIST member. Associated databases are all index, secondary index, and logically related primary index databases.

3. Extracts the data set name that corresponds to each DD name from the IMS DYNLIB or RECON.

4. Extracts data set allocation information from the MVS catalog.

Control Suite minimizes the amount of input you need to provide to the Collect process. For example, when you define a DBD list, you can often specify just one DBD, and Control Suite can determine what other databases are related. If you specify only a partial list, Control Suite uses the DBD library to extract the DBD names of all other databases (index databases and logically related primary databases) that are associated with the specified DBD or DBDs.
Helpful tip
The panels frequently contain default or previously defined parameters; however, you can usually override these values.

Collect: Specifying a DBDS group
Specifying a DBDS group is important because a DBDS group is a recognized DBRC (database recovery and control) entity that makes backup and recovery processes simpler.

To start the Collect subtask, select option 3 on the Setup Subtasks panel (IDLPS0), Figure 12 on page 15 The Collect Subtasks panel is displayed:

```
IDLPS01     IMS CONTROL SUITE(C) V3.2 - BASE
SETUP      COLLECT    function for CS ID IMS7J IMS Version 7.1
Command ===>
TIME. .13:41:11.04
DATE. .2005/06/05
JDTE. .2005.156

Select a subtask to continue or END to exit

Subtask . . .- 1. Collect/update image copy naming convention data
                2. Collect/update database data set data
                3. Update jobcard data only
                4. Batch collect DBDSGRPs and jobs for ALL DBDLIB members
```

Figure 19. Collect: Subtasks panel (IDLPS01)

1. Select subtask 1.
2. Press Enter. The Specify DBDS group panel is displayed:

```
IDLMSAIP IMS DB CONTROL SUITE V3.2 - BASE
SETUP COLLECT function for CS ID MIXED IMS Version 7.1
Command ===>

Press END to exit

Enter F string on the ISPF command line to find a DBDSGRP, DBD/DDN/DSN, USER DATE or Description. Enter F by itself to redisplay the full table.

Add DBDSGRPs

DBDSGRP name .. New DBDSGRP name or "*" for Control Suite to create name(s)
Description ..

Select (S) delete (D) or DBDSGRP expansion (E)

DBDSGRP USER STATUS DESCRIPTION

****************************************************************************** Bottom of data **************************
```

Figure 20. Collect: Specify DBDS group panel (IDLMSAIP)

3. Specify a new DBDS group ID or select an existing DBDS group ID. Each of the Collect subtask steps requires that you first specify a DBDS group. You can also use this panel to delete a DBDSGRP and view a DBDSGRP expansion.

4. Press Enter to have your values accepted.
**DBDSGRP name**

Enter the new name that you want for the DBDSGRP or enter an asterisk (*) for Control Suite to automatically generate the name. If you enter a valid name from one to eight characters, Control Suite will create one DBDSGRP. If you enter an asterisk, Control Suite creates a group for each related set of databases.

**Description**

Enter a meaningful description for the DBDSGRP. This field is required.

Consult the Control Suite online help for descriptions of the other fields on this panel.

You have now finished specifying a DBDS group.

**Collect: Collecting, updating, and deleting image copy naming convention data**

You can use this subtask to change image copy options in one simple step.

1. To specify image copy options, use the Global Image Copy Options panel. This panel is displayed if you chose option 1, Collect/update/delete image copy naming convention data from the Collect Subtasks panel (IDLPS01), Figure 19 on page 21, and completed the Specify DBDS Group panel (IDLSMAIP), Figure 20 on page 21. The Specify DBD Input and Other JCL Options for DBDS Group panel is displayed:

<table>
<thead>
<tr>
<th>IDLSOPT1</th>
<th>IMS DB CONTROL SUITE V3.2 - BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SETUP</td>
<td>COLLECT function for CS ID FF093 IMS Version 9.1</td>
</tr>
<tr>
<td>Command</td>
<td>===&gt;</td>
</tr>
</tbody>
</table>

Press ENTER to continue or END to exit. Panel 1 of 3

Specify JCL options for DBDSGRP . . FF093002

- **Image Copy**
  - Copy indexes . . Y (Y or N)
  - Concurrent IC . . N (Y or N)
  - IC2 Group parm . . N (Y or N)
  - IC2 Compress parm. . N (Y or N)
  - HPIC/ICE
  - Compress parm . . N (Y or N)
  - Parallel parm . . N (Y or N)
  - HASH Check parm . . N (Y or N)
  - Stack parm . . N (Y or N)
  - Group parm . . N (Y or N)
  - DSN naming . . N (Y or N)
  - GRPLIM Count parm . . 0 (0 to 9)
  - Virtual Index IC . . N (Y or N)
  - Virtual Index IC DSN .
  - Pointer Checker
  - Scangroup parm . . N (Y or N)
  - PTRCHK parm . . N (Y or N)
  - Other options
  - Include batch CCF cmds. . N (Y or N)
  - Job name prefix . . FF93
  - DBDSGRP title . . IMS 9.1/DBCS 3.2

**Figure 21. Collect: Specify DBD Input and Other JCL Options for DBDS Group panel (IDLSOPT1)**

The fields on this panel are:

**Specify JCL options for DBDSGRP**

Specify the image copy and unload data set JCL options.

**Image Copy indexes**

Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
Concurrent Image Copy
Enter Y if you want image copy jobs to use the Concurrent Image Copy (CIC) option to make a copy of an active database. Enter N if you do not want image copy jobs to use the CIC option.

IC2 Group parm
Enter Y to add the GROUP=Y parameter to IC2 image copy jobs. Enter N if you do not want to add this parameter to IC2 image copy jobs.

IC2 Compress parm
Enter Y to activate the DFSMS compress option. Enter N to indicate that the DFSMS compress option is inactive.

HPIC/ICE Compress parm
Enter Y to add the COMP=Y parameter to HPIC/ICE image copy jobs. Enter N if you do not want to add this parameter.

HPIC/ICE Parallel parm
Enter Y to add the PARALLEL=Y parameter to HPIC/ICE image copy jobs. Enter N if you do not want to add the parameter.

HPIC/ICE HASH Check parm
Enter Y if you want your image copy jobs to use the HPIC/ICE HASH Check parameter. Enter N if you do not want image copy jobs to use this parameter.

HPIC/ICE Stack parm
Enter Y to add the STACK=Y parameter to HPIC/ICE image copy jobs. Enter N if you do not want to add the parameter.

HPIC/ICE Group parm
Enter Y if you want to add the GROUP=Y parameter to HPIC/ICE image copy jobs. Enter N if you do not want to add the parameter.

HPIC/ICE DSN naming
Enter Y to add the DSNHLQ=Y parameter to HPIC/ICE image copy jobs. Enter N if you do not want to add the parameter.

GRPLIM Count parm
Specify the maximum number of tasks to process in parallel within a group. Valid values are 0 through 9.

Virtual Index IC
Enter Y to indicate that, for the primary and secondary indexes, the physical image copy data set is not created but that a dummy image copy data set name (DSN) is registered to the DBRC by using the notify.uic command.

Virtual Index IC DSN
Specify the data set name. The character set that you can specify for the VICDSN is EBCDIC, except for blanks, commas, the equals sign (=), and lower case alphabetic characters. The maximum length of the data set name is 44 characters.

HP Pointer Checker Scangroup parm
Enter Y to add the SCANGROUP=Y parameter to HP Pointer Checker jobs. Enter N if you do not want to add the parameter.

HP Pointer Checker PTRCHK parm
Enter Y to add the PTRCHK=Y parameter to HP Pointer-Checker jobs. Enter N if you do not want to add the parameter.
Include batch CCF cmds
Enter Y to include Command Control Facility /DBR and /STA commands in the JCL for REORG jobs. If you enter Y, the CCF tool must be installed and included in the DBCS tool setup. Enter N to exclude CCF commands from the JCL for REORG jobs.

Job name prefix
Specify a 4-character job name prefix. This prefix is used in the JOBLIST table. Each DBDS group must have a unique job prefix, because the prefix is used as the first characters in the name of Control Suite jobs. For this reason, choose a prefix that you can easily associate with the DBDSGRP.

DBDSGRP title
Change the DBDSGRP title here.

2. Press Enter to have your values accepted. The Collect Unload Options panel is displayed:

```
IDLSOPIA   IMS DB CONTROL SUITE V3.2 - BASE
SETUP      COLLECT    function for CS ID    IMS Version
Command ===>
Press ENTER to continue or END to exit.    Panel 2 of 3
Specify JCL options for DBDSGRP ..
Unload options
Use GDGs .. N (Y or N)
DASD high level qualifier ..
DASD low level qualifier ..
Tape vol count .. (1 to 99)
Tape high level qualifier ..
Tape low level qualifier ..
Second copy of unload file .. N (Y or N)
Low level qualifier ..
```

Figure 22. Collect: Unload Options panel (IDLSOPIA)

The fields on this panel are:

Use GDGs
Enter Y to create unload data sets as GDGs (Generation Data Group Data sets). Enter N to create data sets as work files.

DASD high level qualifier
This field is optional. This value is used as the high level qualifier for the secondary unload data set.

DASD low level qualifier
This is an optional field. The value that you enter is used as a data set name qualifier. You can use this field or the Tape data set low level qualifier field, or neither. You cannot select both.

Tape vol count
A numeric value of 1 to 99 is accepted. This value is required for tape unload data sets.
Tape high level qualifier
This field is optional. This value is used as the high level qualifier for the secondary unload data set.

Tape low level qualifier
This is an optional field. The value that you enter is used as a data set name qualifier. You can use this field or the DASD data set low level qualifier field, or neither. You cannot select both.

Second copy of unload file
This field is optional. If you set this option to YES, a secondary unload data set is created on the //SYSUT3 DDNAME. If you set this option to NO, a secondary unload data set is not created.

Low level qualifier
This field is optional. This value is used as the low level qualifier for the secondary unload data set.

3. Press Enter to have your values accepted. The Collect Global Image Copy Options panel is displayed:

![Collect: Global Image Copy Options panel (IDLSOPT3)](image)

The fields for this panel are:

**Specify user GENJCL parms (Y or N)**
Enter Y to display an additional screen to collect user GENJCL JCLPDS information. If this option is used, Control Suite will use the JCLPDS to generate image copy and recovery job streams.

Specify Global Image Copy Options for DBDSGRP:

**First IC DSNs high-level qualifier**
This field displays the high-level qualifiers of the primary image copy data sets created for this CS group. The maximum length is 16 characters (8 characters followed by a period, followed by 7 characters).

**Device Type**
Specify the esoteric name of the pool that is used to allocate DSNs.
Media Type
Specify D if the image copy data set resides on DASD; specify T if it resides on tape.
This is a global value and applies to the entire DBDS group. It can be modified on the Update Image Copy Processing Options panel.

Second IC DSNs high-level qualifier
This field displays the high-level qualifiers of the secondary image copy data sets created for this CS group when running in dual mode. The maximum length is 16 characters (8 characters followed by a period, followed by 7 characters).

Device Type
Specify the esoteric name of the pool that is used to allocate DSNs.

Media Type
Specify D if the image copy data set resides on DASD; specify T if it resides on tape.
This is a global value and applies to the entire DBDS group. It can be modified on the Update Image Copy Processing Options panel.

IC middle qualifiers
Use this field to specify the image copy middle qualifiers for your image copy data sets. You can specify either 1 for DDN or 2 for DBD.DDN.
If you are using low-level qualifier for tape, you must specify 1.

IC low-level qualifier
Specify the low-level qualifier for image copy data sets residing on tape or DASD that are not GDGs. The maximum length is eight characters. You can enter this qualifier in one of three formats (the characters "IC" are used as an example; any eight-character name is allowed).

IC Results in a low-level qualifier "IC"
IC. $TIME Results in a low-level qualifier "IC.Dyyddd.Thhmmss"
$TIME Results in a low-level qualifier "Dyyddd.Thhmmss"
If you are using NN.$TIME or $TIME, only 1=DDN is available.

GDG/SMS
Specify one of the following options:

G The image copy data set is a GDG.
* The image copy data set is stored on an SMS-managed DASD device.

Tape retention period
Enter the number of days that image copy tapes are to be kept.

Tape data set vol count
Enter a value of 1 to 999. Optional for image copy tape data sets.
Online Image Copy Options

Specify Y if you use Online Image Copy (OIC) to back up databases. Figure 24 is displayed.

Specify the first one to seven characters of the PSB name used by the OIC utility. The last character of the full PSB name is generated by Control Suite; it is the image copy group number.

You must also specify the application group name (AGN) associated with the OIC PSB. To determine the AGN name, contact your IMS system programmer.

**PSB name**
The name of the PSB used by the Online Image Copy utility that will be generated during the Collect function.

**DESTNAME**
The name of the output destination for critical error messages.

**Applic Group Name (AGN)**
Optional Application Group Name (AGN) associated with the online image copy PSB

Contact your IMS system programmer if you need this information.

**Generate a new PSB and ACB**
Enter Y to request generation of a new PSB and ACB for online image copy processing. A complete database collection process is required to gather the necessary DBD information with which to build a valid PSB member for a PSB/ACB generation process. Therefore, collection processes 3.1 and 3.2 must be executed. Enter N to use an existing PSB entered on the product panel.

4. Press Enter to have your values accepted. A process message is displayed that indicates that your data set names are being defined in the system catalog.

5. Press Enter. The Specify DBDS Group panel (IDLSMAIP), Figure 20 on page 21 is displayed.

6. Repeat the subtask as needed for each individual DBDS group, or press End to return to the Collect Subtasks panel.
Collect: Collecting and updating database data set data

1. After you have used the Collect: Global Image Copy Options panel (IDLSOPT3), Figure 23 on page 25, to identify the sources from which the data will be collected and to specify processing options, select option 2, Collect/update database data set data, from the Collect Subtasks panel (IDLPS01), Figure 19 on page 21. The Specify DBDS Group panel is displayed:

![IDLSMAIQ panel](image)

Consult the Control Suite online help for descriptions of the fields on this panel.

2. Specify a DBDS group and press Enter. (This panel is similar to the Specify DBDS Group panel (IDLSMAIP), Figure 20 on page 21, except that IDLSMAIP includes a delete DBDS groups option, while IDLSMAIQ does not.) The Specify DBD Input panel is displayed:

![IDLSOPT2 panel](image)

The first time that you run the Collect process, specify Y for this option and press Enter to receive a list of DBD names that were built. Later, you can recreate the list by specifying Y again.

The fields on this panel are:

**Build DBD list file**

When you select Y, the list of members contained in the library specified in field IMS DBDLIB on Figure 16 on page 19 is displayed in an edit panel. Tailor the list to contain only the database names associated with the DBDS group, and press End. The list is copied by Control Suite into member csgrpid in data set FDBDLIST, and the collection process continues. If you do not want to use the DBDLIB specified in Figure 16 on page 19, you can override it with the alternate DBD library field. Refer to the description of the alternate DBD library field for more
information. If you specify N, Control Suite displays a complete list of DBDs that Control Suite previously collected.

**Check ACBLIB**

If you specify Y, Control Suite checks to ensure that each DBD selected is referenced in the IMS ACB library. If you specify N, Control Suite will not check the ACB library.

3. Press Enter to have your values accepted. The Select DBDSGRP DBDs panel is displayed:

4. Select or delete the DBDs that you want to collect data for. Press Enter. A process message runs on your screen that indicates that you are accessing the RECON data sets for information.

5. Press Enter when the process message is complete. The Update Image Copy Processing Options panel is displayed:

---

**Figure 27. Collect: Select DBDSGRP DBDs panel (IDLSMAIR)**

[Image of the Select DBDSGRP DBDs panel (IDLSMAIR)]

---

Chapter 3. Setting up your Control Suite environment 29
Use this panel to propagate your global DBRC values for SHARELVL, RECOVPD, and GENMAX. Use the SHR LVL, RECOVPD, and GENMAX options to assign values common to all databases displayed on the panel. Specify N for these options to bypass the global DBRC reset to allow you to make individual changes to the displayed databases.

The following levels of sharing are allowed:

- **Share level N** - Bypasses global reset of share levels and allows individual changes
- **Share level 0** - Enforces single user
- **Share level 1** - Allows multiple readers or one update plus read-only
- **Share level 2** - Allows multiple updaters in one MVS image
- **Share level 3** - Allows multiple updaters across two or more MVS images

You can only specify N if the share level has been set by RECON initialization (a value between 0 and 3). If the field is uninitialized, only 0 through 3 are allowed. Use N if you want to bypass the global reset of share level values in order to allow individual changes.

**RECOVPD** is the RECON recovery period. It represents the number of days that the image copies are to be kept in the RECON for this data set. If the data set is already registered in the RECON, this value was retrieved from the RECON. If the data set is unregistered, then the value is set to the default. New or modified RECOVPD values will be updated in the RECON. Valid values are 0 to 999. The default is 0.

**GENMAX** specifies the maximum number of image copy generations that DBRC will maintain for this database. If the data set is already registered in the RECON, then the GENMAX value was retrieved from the RECON. If the data set is unregistered, the value is set to the default. New or modified GENMAX values will be updated in the RECON. Valid values are 2 to 255. The default is 2.

The fields on this panel are:
Collect: update jobcard data only

When you generate a job with Control Suite, Control Suite retrieves information for your jobcard. Complete this subtask to ensure that if you change any jobcard information, all subsequent submitted jobs will contain the updates.

1. Use the Jobcard Information panel to edit your job card. Access this panel by selecting option 3 from the Collect Subtasks panel (IDLPS01), Figure 19 on page 21, and specifying a DBDS group in the Specify DBDS Group panel, Figure 25 on page 28. The Jobcard Information panel is displayed:
2. Enter a job statement that reflects your environment. This member will contain the JOB statement for generated jobs. When you are finished, press Enter to have the changes accepted.

3. Press End to return to the Collect Subtasks menu. You have now finished updating your jobcard data.

Collect: batch collect DBDSGRPs and jobs for ALL DBDLIB members

Use this subtask to create JCL for all IBM database administration jobs for all of the DBDs in your DBDLIB in a single step.

This subtask runs the Collect process for all the members in the DBDLIB that you specified in the Define subtask. You can also use a filter to collect only DBDs that meet specific naming criteria. It creates unique DBDS groups in the RECON data sets for all logically related or index-related databases and complete job streams to support these DBDS groups.

1. Use the Specify DBDSGRP Default JCL panel to specify the default JCL options for the DBDSGRPs that you want to build in batch mode. Access this panel by selecting option 4, Batch collect DBDSGRPs and jobs for ALL DBDLIB members, from the Collect Subtasks panel (IDLPS01), and specifying a DBDS group in the Specify DBDS Group panel (IDLSSCZ).

If Control Suite detects that a batch collect was already performed for this CS ID, you have the option to delete or keep the previously collected data. Refer to Figure 31 on page 33.
Clean up DBDSGRP definitions in CSID csidname.

Enter Y to remove the existing CS ID DBDSGRP definitions.

Enter N to keep the existing CS ID DBDSGRP definitions.

Recommendation: If the previous collection was for an entire DBDLIB or the same DBDS, it is recommended that you enter Y to remove the existing CS ID definitions. This prevents creation of DBDSGRPS with duplicate definitions and generated JCL.

If the previous collection used a wild card to collect a different selection of DBDLIB members, it is recommended that you enter N to keep the existing definitions.

The Specify DBDSGRP Default JCL panel is displayed:
### Figure 32. Collect: Specify DBDSGRP Default JCL panel (IDLSOPT0)

The fields on this panel are:

**Image Copy**
- **Copy indexes**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Concurrent IC**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **IC2 Group parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **IC2 Compress parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **HPIC/ICE Compress parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Parallel parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Group parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **DSN hlq parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **GRPLIM Count parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Virtual Index IC DSN**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Pointer Checker**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Scangroup parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- ** PTRCHK parm**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Other options**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **DBD name filter**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **Share Level**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **IC recovery period**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.
- **IC GENMAX**
  - Enter Y if you want index databases to be image copied. Enter N if you do not want index data sets to be image copied.

### Image Copy index data sets
- **Copy indexes**
  - Y (Y or N)
  - N (Y or N)
- **Concurrent IC**
  - Y (Y or N)
  - N (Y or N)
- **IC2 Group parm**
  - Y (Y or N)
  - N (Y or N)
- **IC2 Compress parm**
  - Y (Y or N)
  - N (Y or N)
- **HPIC/ICE Compress parm**
  - Y (Y or N)
  - N (Y or N)
- **Parallel parm**
  - Y (Y or N)
  - N (Y or N)
- **Group parm**
  - Y (Y or N)
  - N (Y or N)
- **DSN hlq parm**
  - Y (Y or N)
  - N (Y or N)
- **GRPLIM Count parm**
  - Y (Y or N)
  - N (Y or N)
- **Virtual Index IC DSN**
  - Y (Y or N)
  - N (Y or N)
- **Pointer Checker**
  - Y (Y or N)
  - N (Y or N)
- **Scangroup parm**
  - Y (Y or N)
  - N (Y or N)
- **PTRCHK parm**
  - Y (Y or N)
  - N (Y or N)
- **Other options**
  - Y (Y or N)
  - N (Y or N)
- **DBD name filter**
  - Y (Y or N)
  - N (Y or N)
- **Share Level**
  - Y (Y or N)
  - N (Y or N)
- **IC recovery period**
  - Y (Y or N)
  - N (Y or N)
- **IC GENMAX**
  - Y (Y or N)
  - N (Y or N)
HPIC/ICE Group parm
Enter Y if you want to add the GROUP=Y parameter to HPIC/ICE image copy jobs. Enter N if you do not want to add the parameter.

DSN hlq parm
Enter Y to add the DSN naming=Y parameter to HPIC/ICE image copy jobs.

HPIC/ICE DSN naming
Enter Y to add the DSNHLQ=Y parameter to HPIC/ICE image copy jobs. Enter N if you do not want to add the parameter.

GRPLIM Count parm
Specify the maximum number of tasks to process in parallel within a group. Valid values are 0 through 9.

Virtual Index IC
Enter Y to indicate that, for the primary and secondary indexes, the physical image copy data set is not created but that a dummy image copy data set name (DSN) is registered to the DBRC by using the notify.uic command.

Virtual Index IC DSN
Specify the data set name. The character set that you can specify for the VICDSN is EBCDIC, except for blanks, commas, the equals sign (=), and lower case alphabetic characters. The maximum length of the data set name is 44 characters.

HP Pointer Checker Scangroup parm
Enter Y to add the SCANGROUP=Y parameter to HP Pointer Checker jobs. Enter N if you do not want to add the parameter.

HP Pointer Checker PTRCHK parm
Enter Y to add the PTRCHK=Y parameter to HP Pointer-Checker jobs. Enter N if you do not want to add the parameter.

DBD name filter
Enter a DBD name or partial DBD name of up to eight characters to filter the DBDs for the batch job. You can use asterisks (*) and percent signs (%) as wild cards. A single asterisk represents zero or more characters. A single percent sign represents a single character. You can use up to eight percent signs for each filter. Consecutive asterisks and consecutive percent signs and percent signs are not valid as wild cards.

Share Level
Specify a share level. This information is used by DBRC.
- Share level 0 - Enforces single user
- Share level 1 - Allows multiple readers or one update plus read-only
- Share level 2 - Allows multiple updaters in one MVS image
- Share level 3 - Allows multiple updaters across two or more MVS images

IC recovery period
This is the RECON recovery period. It represents the number of days that image copies are to be kept in the RECON for this data set. This value is used to update the RECON if the data set is not already registered. Valid values are 0 to 999. The default is 0.

IC GENMAX
This specifies the maximum number of image copy generations that
2. Press Enter to have your values accepted. The Collect Unload Options panel is displayed:

```
IDLSOP1A   IMS DB CONTROL SUITE V3.2 - BASE
SETUP      COLLECT   function for CS ID IDLSD001A
Command ====>
```

Press ENTER to continue or END to exit. Panel 2 of 3

Specify JCL options for DBDSGRP .

Unload options

Use GDGs . N (Y or N)
DASD high level qualifier.
DASD low level qualifier.
Tape vol count . (1 to 99)
Tape high level qualifier.
Tape low level qualifier.
Second copy of unload file. N (Y or N)
Low level qualifier .

Figure 33. Collect: Unload Options panel (IDLSOP1A)

Refer to Figure 22 on page 24 for descriptions of the fields on this panel.

3. Press Enter to have your values accepted. The Global Image Copy Options panel is displayed:

```
IDLSOPT3   IMS DB CONTROL SUITE V3.2 - BASE
SETUP      COLLECT   function for CS ID IDLSD002
Command ====>
```

Press ENTER to continue or END to exit Panel 3 of 3

Specify user GENJCL parms . N (Y or N)

Specify Global Image Copy Options for DBDSGRP . DBDC002
First IC DSNs hlq J849435.DBDCC
Device type . SYSDA (SYSDA, TAPE, ATL2, other)
Media type . D (D=DASD, T=Tape)
Second IC DSNs hlq .
Device type . (SYSDA, TAPE, ATL2, other)
Media type . (D=DASD, T=Tape)
IC middle qualifiers . 2 (1=DDN, 2=DBD.DDN)
IC low-level qualifier . (blank if GDG; name, $TIME, nn.$TIME)
GDG/SMS . G (G=GDG, **=SMS)
Tape retention period . 99 Tape data set vol count .
Online Image Copy Options . N (Y OR N - if OIC is going to be used)

Figure 34. Collect: Global Image Copy Options panel (IDLSOPT3)

Refer to Figure 23 on page 25 or consult the Control Suite online help for descriptions of the fields on this panel.
4. Press Enter to have your values accepted. A process message will indicate that Control Suite is gathering data. When the process message is finished running, press Enter. The Specify Job Card Information panel is displayed:

```
IDLSJBCP       IMS DB CONTROL SUITE(C) V3.2 - BASE
SETUP        COLLECT  function for CS ID IMS7P IMS Version 7.1
Command ====>

Press ENTER to continue or END to exit

Last panel in function

Specify job card information for all batch built DBDSGRPs jobs.

  .  .  .  // JOB,
  .  .  .  MSGLEVEL=(1,1),MSGCLASS=H,
  .  .  .  NOTIFY=LGRIM,USER=LGRIM,REGION=0M,TIME=30
  .  .  .  /*
```

Figure 35. Collect: Specify Job Card Information panel (IDLSJBCP)

5. Specify the required job card information and press Enter. An ISPF Edit panel is displayed:
6. Submit your job and press Enter, or press End to exit the subtask. You have now finished specifying the information needed to batch collect DBDS groups and jobs for all DBDLIB members.

**Loading DBDSGRPs from the RECON**

Use this subtask to specify whether you want to load any of your existing DBDSGRPs in the RECON data set.

Select option 4 on the Setup Subtasks panel (IDLPS0), [Figure 12 on page 15](#).

**Load: Selecting a subtask**

Use the Select Subtask panel to specify whether you want to load a single DBDSGRP from the RECON or load a batch of DBDSGRPs from the RECON.
The subtasks on this panel are:

**Load a DBDSGRP from the Recon**
This subtask loads a single DBDSGRP from the RECON.

**Batch load DBDSGRPs from the Recon**
This subtask loads multiple DBDSGRPs from the RECON.

### Load: Load one DBDSGRP from the RECON

Use this subtask to specify one DBDSGRP that you want to load from the RECON. When you select option 1 from Load: Select Subtask panel, Figure 37, the Load: Specify DBDSGRP panel is displayed.

### Figure 37. Load: Select Subtask panel (IDLRE1)

The subtasks on this panel are:

* **Load a DBDSGRP from the Recon**
  This subtask loads a single DBDSGRP from the RECON.

* **Batch load DBDSGRPs from the Recon**
  This subtask loads multiple DBDSGRPs from the RECON.

### Figure 38. Load: Specify DBDSGRP panel (IDLRLIST)

This panel contains a list of uncollected DBDSGRPs. To expand the list to view the group contents, use the E command.

Use the S command to select the DBDSGRP that you want to load. The same sequence of panels is displayed as for a DBDSGRP IC naming and JCL option selection. Refer to “Collect: Collecting, updating, and deleting image copy naming convention data” on page 22 for details about the panels and the sequence in which they display.
**Load: Load DBDSGRPs in batch from the RECON**

Use this subtask to load multiple DBDSGRPs using a batch job. When you select option 2 from Load: Select Subtask panel, Figure 37 on page 39, the Load: Specify DBDSGRP panel is displayed.

![Load: Specify DBDSGRP panel (IDLSPTR)](image)

Refer to the explanation for Figure 32 on page 34 for information about the fields on this panel.

The same sequence of panels is displayed as for a DBDSGRP IC naming and JCL option selection. Refer to "Collect: Collecting, updating, and deleting image copy naming convention data" on page 22 for details about the panels and the sequence in which they display.

**Reviewing defined, collected, and loaded data**

Use the Review subtask to display your previously defined, collected, and loaded data sets and JCL parameters.

You cannot enter data in the Review subtask; you can only review the data that you have entered in previous subtasks. The Review subtask panels loop. When you have successfully completed your subtask, end the function.

Start the Review subtask by selecting option 5 on the Setup Subtasks panel (IDLPS0), Figure 12 on page 15.

**Review: Selecting a subtask**

Use the Select Subtask panel to specify whether you want to display the defined variables or the collected data:
The subtasks on this panel are:

**Display defined variables**

This subtask displays the variables that were entered as part of the Define process.

**Display collected data**

This subtask displays the Setup variables as part of the Collect process.

**Review: Displaying defined variables**

Use this subtask to review the information that you have previously defined; while in this subtask, you are able to review your data but you cannot make changes.

The panels that are displayed when you select either the Display defined variables option or the Display collected data option are the same as those used to define the parameters in the Setup function. Proceed through these panels to reach the Specify Storage Information panel.

1. Review the variables you previously defined on the Specify Storage Information panel:

**Review: Specify Storage Information panel (IDL$ENVS)**

The fields on this panel are:

**SMS class**

N indicates that SMS does not manage data sets. Otherwise, the SMS class is indicated.

a. Storage class is used to assign performance levels when data sets are allocated.

b. Management class controls data set backup, retention, and migration.
c. Data class is an allocation template used to standardize the allocation of data sets.

**DASD device type**
This field displays the unit record device for DASD.

**DASD unit**
This field displays the unit or esoteric value of DASD devices in use.

**TAPE unit**
This field displays the unit or esoteric value of TAPE devices in use.

**TAPE retention**
This field displays the number of days that IMS log tapes will be kept.

**IMS utility buffers**
This field displays the number of VSAM and OSAM buffers required by IMS utility data set buffering.

**CS load lib qualifier**
This field displays the default qualifier (SIDLMD0) or the qualifier that you created.

2. Press Enter. The IMS System Data Sets panel is displayed:

```
IDL$ENVI          IMS DB CONTROL SUITE V3.2 - BASE
SETUP REVIEW IMS LIBS function for CS ID FF71A IMS Version 7.1
Command ===>

Press ENTER to continue or END to exit                  Panel 2 of 4

RECON data sets
RECON1 .. VN0458.ICS31A.RECON1 VOLSER .. SYS165
RECON2 .. VN0458.ICS31A.RECON2 VOLSER .. SYS165
RECON3 .. VN0458.ICS31A.RECON3 VOLSER .. SYS165

IMS system data sets
DBDLIB .. VN0458.ICS31A.DBDLIB
PSBLIB .. VN0458.ICS31A.PSBLIB
SDFSRESL .. IMSVS.I71RTS2A.CRESLIB
ACBLIB .. VN0458.ICS31A.ACBLIB
EXITLIB .. IMSVS.I71RTS2A.CRESLIB
DYNLIB .. VN0458.ICS31A.DYNLIB More DYNLIBs .. Y
SDFSMAC .. IMSVS.IMS71R.MACLIB
MODBLKS .. IMSVS.IMS7.MODBLKS
PROCLIB .. IMSVS.IMS7.PROCLIB
```

*Figure 42. Review: IMS System Data Sets panel (IDL$ENVI)*

Consult the Control Suite online help for descriptions of the RECON data sets on this panel.

3. If you specified additional dynamic allocation libraries in the Setup Define subtask, [Figure 43 on page 43](#) lets you review your specifications:
4. Press Enter; the following Space Management History Data Set Information panel is displayed:

<table>
<thead>
<tr>
<th>Data set name</th>
<th>GGJX.IMS7J.HISTORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYLS</td>
<td>5</td>
</tr>
<tr>
<td>VOLSER</td>
<td>*</td>
</tr>
</tbody>
</table>

Figure 43. Review: DYNLIBs function for CS ID (IDL$ENVJ)

5. You have now finished reviewing your defined variables. Press End to return to the Review Select Subtask panel; pressing Enter causes the panels in this subtask to loop.

Review: Displaying collected data

Use this subtask to review the information that you previously collected; while in this subtask, you are able to review your data but you cannot make changes.

1. Access the DBDS Group List panel by selecting option 2, Display collected data, on the Select Subtasks panel (Figure 40 on page 41). The DBDS Group List panel is displayed:
Use the DBDS Group List panel to specify the DBDS group that you want to display.

2. Select a DBDS Group ID. Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

**DBDSGRP**
This column displays the DBDS group ID, which is used as the DBDS group member name in the INPUT data set.

**PREFIX**
This is the 1- to 4-character member name prefix used in the JOBLIST data set.

**DESCRIPTION**
This is the application description.

**DB TYP**
This field identifies fast path database types by placing an FP in this column.

3. Press Enter. The Collected Global Image Copy Options panel is displayed:

Figure 45. Review: DBDS Group List panel (IDL$APLD)
Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

Specify Global Image Copy Options for DBDSGRP:

<table>
<thead>
<tr>
<th>First IC DSNs</th>
<th>hlp</th>
<th>J849435.ABC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device type</td>
<td>SYSDA</td>
<td>(SYSDA, TAPE, ATL2, other)</td>
</tr>
<tr>
<td>Media type</td>
<td>D</td>
<td>(D=DASD, T=Tape)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second IC DSNs</th>
<th>hlp</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Device type</td>
<td>(SYSDA, TAPE, ATL2, other)</td>
<td></td>
</tr>
<tr>
<td>Media type</td>
<td>(D=DASD, T=Tape)</td>
<td></td>
</tr>
</tbody>
</table>

IC middle qualifiers: 2 (1=DDN, 2=DBD.DDN)

IC low-level qualifier: (blank if GDG; name, $TIME, nn.$TIME

GDG/SMS: G (G=GDG, **=SMS)

Tape retention period: 99

Collected Online Image Copy Options (blank if Online Image Copy not specified)

<table>
<thead>
<tr>
<th>PSB name.</th>
<th>DESTNAME</th>
<th>Applic Group Name(AGN).</th>
</tr>
</thead>
</table>

Collected GENJCL member names (blank if using CS default names)

<table>
<thead>
<tr>
<th>NOJOB parameter</th>
<th>N</th>
<th>(Y or N)</th>
</tr>
</thead>
</table>

Data set

Image Copy

Online Image Copy

Recovery

**Figure 46. Review: Collected Global Image Copy Options panel (IDLSDSS0)**

Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

Specify Global Image Copy Options for DBDSGRP:

**First IC DSNs high-level qualifier**

This field displays the high-level qualifiers of the primary image copy data sets created for this CS group. The maximum length is 16 characters (8 characters followed by a period, followed by 7 characters).

**Device Type**

Specify the esoteric name of the pool that is used to allocate GDGs (generation data groups).

**Media Type**

Specify D if the image copy data set resides on DASD; specify T if it resides on tape.

This is a global value and applies to the entire DBDS group. It can be modified on the Update Image Copy Processing Options panel.

**Second IC DSNs high-level qualifier**

This field displays the high-level qualifiers of the secondary image copy data sets created for this CS group when running in dual mode. The maximum length is 16 characters (8 characters followed by a period, followed by 7 characters).

**Device Type**

Specify the esoteric name of the pool that is used to allocate GDGs (generation data groups).

**Media Type**

Specify D if the image copy data set resides on DASD; specify T if it resides on tape.
This is a global value and applies to the entire DBDS group. It can be modified on the Update Image Copy Processing Options panel.

IC middle qualifiers
Use this field to specify the image copy middle qualifiers for your image copy data sets. You can specify either 1 for DDN or 2 for DBD.DDN.

If you are using low-level qualifier for tape, you must specify 1.

IC low-level qualifiers
Specify the low-level qualifier for image copy data sets residing on tape or DASD that are not GDGs. The maximum length is eight characters. You can enter this qualifier in one of three formats (the characters "IC" are used as an example; any eight-character name is allowed).

IC Results in a low-level qualifier “IC”
IC. $TIME Results in a low-level qualifier "IC.Dyyddd.Thhmmss"
$TIME Results in a low-level qualifier “Dyyddd.Thhmmss”

If you are using NN.$TIME or $TIME, only 1=DDN is available.

GDG/SMS
Specify one of the following options:
G The image copy data set is a GDG.
* The image copy data set is stored on an SMS-managed DASD device.

Tape retention period
Enter the number of days that image copy tapes are to be kept.

Tape data set vol count
Enter a value of 1 to 999. Optional for image copy tape data sets.

Collected Online Image Copy Options
If you use Online Image Copy (OIC) to back up databases, specify the first one to seven characters of the PSB name used by the OIC utility. The last character of the full PSB name is generated by Control Suite; it is the image copy group number.

You must also specify the application group name (AGN) associated with the OIC PSB. To determine the AGN name, contact your IMS system programmer.

PSB name
The name of the PSB used by the Online Image Copy utility that will be generated during the Collect function

DESTNAME
The name of the output destination for critical error messages.

Applic Group Name (AGN)
Optional Application Group Name (AGN) associated with the online image copy PSB
Contact your IMS system programmer if you need this information.

Collected GENJCL member names:
NOJOB parameter
Enter 'Y' if you want to create a NOJOB statement in the GENJCL command stream.

Data set
This field indicates the partitioned data set where your GENJCL skeletons reside.

Image Copy
This field indicates the image copy GENJCL skeleton member you defined.

Online Image Copy
This field indicates the online image copy GENJCL skeleton member you defined.

Recovery
This field indicates the recovery GENJCL skeleton member you defined.

4. Press Enter to have your values accepted. The Specified DBD Input and Other JCL Options panel is displayed:

```
IDLSDSS1       IMS DB CONTROL SUITE V3.2 - BASE
SETUP          REVIEW       function for CS ID SMP7  IMS Version 7.1
Command ==>>>
Press ENTER to continue or END to exit                Panel 2 of 6
Specified DBD input and other JCL options for DBDSGRP . . ABC

Image Copy
Copy indexes  .. N (Y or N)  Concurrent IC  .. N (Y or N)
IC2 Group parm .. N (Y or N)  IC2 Compress parm N (Y or N)
HPIC/ICE
Compress parm  .. N (Y or N)  Parallel parm  .. N (Y or N)
HASH Check parm .. N (Y or N)  Stack parm  .. N (Y or N)
Group parm    .. N (Y or N)  DSN hlq parm  .. Y (Y or N)
GRPLIM Count parm .. 0 (0 to 9)  Virtual IC Index. N (Y or N)
Virtual Index DSN   ..

Pointer Checker
Scangroup parm  .. N (Y or N)  PTRCHK parm  .. N (Y or N)
Other options
Include batch CCF cmds. .. N (Y or N)
Job name prefix  .. INV1        DBDSGRP title .. INVOICING SYSTEM IS
```

Figure 47. Review: Specified DBD Input and Other JCL Options panel (IDLSDSS1)

Consult the Control Suite online help for descriptions of the fields on this panel.

5. Press Enter to have your values accepted. The Review: Unload data set options panel is displayed:
Consult the Control Suite online help for descriptions of the fields on this panel.

6. Press Enter to have your values accepted. The Collected data panel is displayed:

![Figure 48. Review: Unload data set options (IDLSDSS5)](image)

Consult the Control Suite online help for descriptions of the fields on this panel.

7. Press Enter. The second Collected Data panel is displayed:

![Figure 49. Review: Collected data panel (IDLSDSS2)](image)
Consult the Control Suite online help for descriptions of the fields on this panel.

8. Press Enter. The third Collected Data panel is displayed:

```
IDLSDSS3  IMS CONTROL SUITE(C) V3.2 - BASE
SETUP  REVIEW  COLLECTD function for CS ID IMS7J IMS Version 7.1
Command ===>

Press ENTER to continue or END to exit

Collected data for CS Group.. INVSTT1  --- Unload Options ---
DBDNAME  DDNAME/AREA  DB  ORG  TYPE  METHOD  GDG  TAPE  DASD
SMPINVP1  SMPINVP1  SHISAM  KS05  N

*****************************************************************************
```

Figure 50. Review: Collected Data 2 panel (IDLSDSS3)

Consult the Control Suite online help for descriptions of the fields on this panel.

9. You have now finished reviewing your collected data. Press Enter to repeat the subtask as needed, or press End twice to exit the subtask.

```
IDLSDSS4  IMS DB CONTROL SUITE V3.2 - BASE  7 matches
SETUP  REVIEW  COLLECTD function for CS ID SMP7 IMS Version 7.1
Command ===>

Press ENTER to continue reviewing collected data or END to exit  Panel 6 of 6

Collected data for DBDSSGRP . . ABC

DBD  DDNAME/AREA  ONLINE  IC  AGN  GENMAX  IMAGE  COPY  DEV  TYPES
SMPORDP1  SMPORD1P  12  SYSDA
SMPORDX1  SMPORD1X  12  SYSDA
SMPORDY1  SMPORD1Y  12  SYSDA
SMPORDY2  SMPORD2Y  12  SYSDA
SMPPAYP1  SMPPAY1P  12  SYSDA
SMPPAYY1  SMPPAY1Y  12  SYSDA

*****************************************************************************
```

Figure 51. Review: Collected Data 3 panel (IDLSDSS4)

Consult the Control Suite online help for descriptions of the fields on this panel.

Using the Find feature

The Control Suite Find feature lets you display items that contain a particular string value. You can filter the contents of a table to display only those items that contain a string value in their description by issuing the command F string. You can also type an H in front of the command to display help regarding its function. To redisplay the whole table, issue the command F.

For example, to display all table items containing the string ca, issue the f ca command.

In the following example, F has been entered without a string:
In the next example, **F Change** has been entered:

```
IDLRLI2A IMS DB CONTROL SUITE(C) V3.2 - BASE 82 Matches
IMS7P002 RECON SELECTION function for CS ID IMS7P IMS Version 7.1
Command ===> Scroll ===> PAGE

Press ENTER to continue or END to exit

Enter F string on the ISPF command line to display commands with that string in the description field. Enter F without a string to display all commands.

Select (S) or help (H)

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACKRE7</td>
<td>BACKUP.RECON, BACKUP RECONS COPY1, COPY2, OR BOTH</td>
</tr>
<tr>
<td>CADS7</td>
<td>CHANGE.ADS, CHANGE AREA DATASET, VERSION 7</td>
</tr>
<tr>
<td>CBA7</td>
<td>CHANGE.BKOUT, CHANGE INVALID BACKOUT RECORDS, VER. 7</td>
</tr>
<tr>
<td>CCAGRP7</td>
<td>CHANGE.CAGRP, CHANGE CAGRP RECORD, VERSION 7</td>
</tr>
<tr>
<td>CCA7</td>
<td>CHANGE.CA, CHANGE A CHANGE ACCUMULATION, VERSION 7</td>
</tr>
<tr>
<td>CDB0SGR7</td>
<td>CHANGE.DB0SGR, CHANGE A DB0SGR RECORD, VERSION 7</td>
</tr>
<tr>
<td>CDB0S7</td>
<td>CHANGE.DB0S, CHANGE A DB0S RECORD, VERSION 7</td>
</tr>
<tr>
<td>CDB7</td>
<td>CHANGE.DB, CHANGE A DB RECORD, VERSION 7</td>
</tr>
<tr>
<td>CIC7</td>
<td>CHANGE.IC, CHANGE IMAGE COPY PARAMETERS, VERSION 7</td>
</tr>
<tr>
<td>CPART7</td>
<td>CHANGE.PART, CHANGE A PARTITION DATASET, VERSION 7</td>
</tr>
<tr>
<td>CPRIL0G7</td>
<td>CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (OLDS), VERSION 7</td>
</tr>
<tr>
<td>CPRIRLD7</td>
<td>CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (RLDS), VERSION 7</td>
</tr>
<tr>
<td>CPRISLD7</td>
<td>CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (SLDS TSLDS), VER 7</td>
</tr>
<tr>
<td>CRECON7</td>
<td>CHANGE.RECON, MODIFY THE RECON, VERSION 7</td>
</tr>
<tr>
<td>CSECOLD7</td>
<td>CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (OLDS), VERSION 7</td>
</tr>
<tr>
<td>CSECRLD7</td>
<td>CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (RLDS), VERSION 7</td>
</tr>
<tr>
<td>CSECSDL7</td>
<td>CHANGE.SECLOG, CHANGE A SECONDARY LOG REC (SLDS TSLDS), VER 7</td>
</tr>
<tr>
<td>CS67</td>
<td>CHANGE.SG, CHANGE SERVICE GROUP, VERSION 7</td>
</tr>
<tr>
<td>CSUBSYS7</td>
<td>CHANGE.SUBSYS, CHANGE A SUBSYSTEM RECORD, VERSION 7</td>
</tr>
<tr>
<td>DADS7</td>
<td>DELETE.ADS, DELETE THE AREA DATASET, VERSION 7</td>
</tr>
<tr>
<td>DALLOC7</td>
<td>DELETE.ALOC, DELETE AN ALLOCATION RECORD, VERSION 7</td>
</tr>
<tr>
<td>DBA7</td>
<td>DELETE.BKOUT, DELETE BACKOUT RECORD INFORMATION, VERSION 7</td>
</tr>
<tr>
<td>DCAGRP7</td>
<td>DELETE.CAGRP, DELETE CA GROUP IN RECON, VERSION 7</td>
</tr>
<tr>
<td>DCA7</td>
<td>DELETE.CA, DELETE CHANGE ACCUMULATION RUN RECORD, VERSION 7</td>
</tr>
<tr>
<td>DDB0SGR7</td>
<td>DELETE.DDB0SGR, DELETE DB0SGR GROUP RECORD, VERSION 7</td>
</tr>
<tr>
<td>DDB0S7</td>
<td>DELETE.DDB0S, ALL RECORDS ASSOCIATED WITH THE DDB0, VERSION 7</td>
</tr>
<tr>
<td>DDB7</td>
<td>DELETE.DB, DELETE DB AND ALL ASSOCIATED DBDS RECORDS VERSION 7</td>
</tr>
</tbody>
</table>
```

**Figure 52. RECON: Instructions for using the Find feature**

In the next example, **F Change** has been entered:
Press ENTER to continue or END to exit

Enter F string on the ISPF command line to display commands with that string in the description field. Enter F without a string to display all commands.

Select (S) or help (H)

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADS7</td>
<td>CHANGE.ADS, CHANGE AREA DATASET, VERSION 7</td>
</tr>
<tr>
<td>CBA7</td>
<td>CHANGE.BKOUT, CHANGE INVALID BACKOUT RECORDS, VER. 7</td>
</tr>
<tr>
<td>CCAGRP7</td>
<td>CHANGE.CAGRP, CHANGE CAGRP RECORD, VERSION 7</td>
</tr>
<tr>
<td>CCA7</td>
<td>CHANGE.CA, CHANGE A CHANGE ACCUMULATION, VERSION 7</td>
</tr>
<tr>
<td>CDBDSGR7</td>
<td>CHANGE.DBDSGRP, CHANGE A DBDSGRP RECORD, VERSION 7</td>
</tr>
<tr>
<td>CDBDS7</td>
<td>CHANGE.DBDS, CHANGE A DBOS RECORD, VERSION 7</td>
</tr>
<tr>
<td>CDB7</td>
<td>CHANGE.DB, CHANGE A DB RECORD, VERSION 7</td>
</tr>
<tr>
<td>CIC7</td>
<td>CHANGE.IC, CHANGE IMAGE COPY PARAMETERS, VERSION 7</td>
</tr>
<tr>
<td>CPART7</td>
<td>CHANGE.PART, CHANGE A PARTITION DATASET, VERSION 7</td>
</tr>
<tr>
<td>CPRILGD7</td>
<td>CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (OLDS), VERSION 7</td>
</tr>
<tr>
<td>CPRIRLD7</td>
<td>CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (RLDS), VERSION 7</td>
</tr>
<tr>
<td>CPRIRSLD7</td>
<td>CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (SLS TLSLDS), VER 7</td>
</tr>
<tr>
<td>CRECON7</td>
<td>CHANGE.RECON, MODIFY THE RECON, VERSION 7</td>
</tr>
<tr>
<td>CSECOLD7</td>
<td>CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (OLDS), VERSION 7</td>
</tr>
<tr>
<td>CSECRLD7</td>
<td>CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (RLDS), VERSION 7</td>
</tr>
<tr>
<td>CSECRLD7</td>
<td>CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (RLDS), VERSION 7</td>
</tr>
<tr>
<td>CSG7</td>
<td>CHANGE.SG, CHANGE SERVICE GROUP, VERSION 7</td>
</tr>
<tr>
<td>CSUBSYS7</td>
<td>CHANGE.SUBSYS, CHANGE A SUBSYSTEM RECORD, VERSION 7</td>
</tr>
</tbody>
</table>

Figure 53. RECON: Instructions for using the Find feature
Chapter 4. Running jobs

Use the Run Jobs subtasks to perform administrative functions against your databases. The Run Jobs subtasks let you backup, recover, monitor, and reorganize your databases. Run Jobs also provides access to IMS Fast Path support jobs and the Database Recovery Facility.

If you want to make additional changes to Control Suite-generated JCL, use Appendix A, “Initial edit macro user exit for running jobs,” on page 117. Use this example to customize Control Suite-generated JCL to your specifications. For instructions on modifying this example, see Interactive System Productivity Facility (ISPF) Edit and Edit Macros for z/OS, Volume 1.

Select option 2, Run Jobs, from the Select a Control Suite Task panel (IDLP00), Figure 11 on page 14, to display the Run Jobs Subtasks panel:

```
IDLP001                      IMS DB CONTROL SUITE(C) V3.2 - BASE
RUN JOBS                     for CS ID IMS7P IMS Version 7.1
Command ===>                  TIME. .11:29:13.86
            DATE. .2005/07/28
            JDTE. .2005.209
            PRFX. .LGRIM

Select a job list or press END to exit

Job lists . .   1. Backup databases
                2. Recover databases
                3. Monitor/Reorganize databases
                4. Fast Path Support
                5. Database Recovery Facility
                6. All jobs
```

Figure 54. Run Jobs: Subtasks panel (IDLP001)

The subtasks on this panel are:

**Backup databases**
This subtask displays the database backup job list.

**Recover databases**
This subtask displays the database recovery job list.

**Monitor/Reorganize databases**
This subtask displays the monitor/reorganization job list.

**Fast Path support**
This subtask displays the Fast Path support tools job list.

**Database Recovery Facility**
This subtask lets you recover multiple database data sets and Fast Path areas simultaneously.

**All jobs**
This subtask displays all the jobs pertaining to full-function and HALDB databases.

The following topics provide additional information:

- “Backing up databases” on page 54
- “Recovering databases” on page 57
Backing up databases

The Backup subtask helps you back up the information in your databases by generating the appropriate image copy JCL.

1. Select option 1 in the Run Jobs Subtasks panel (IDLP001), Figure 54 on page 53 to display the Select DBDS Group ID panel:

```
IDL$APLS IMS DB CONTROL SUITE(C) V3.2 - BASE Row 1 from 1
BACKUP DATABASES function for CS ID IMS7P IMS Version 7.1
Command ===>  
Press END to exit
BACKUP DBDSGRP list
```

Enter F string on the ISPF command line to find a DBDSGRP, DBD/DDN/DSN or Description. Enter F by itself to redisplay the full table.

Select (S) Expansion of DBDSGRP (E)

```
<table>
<thead>
<tr>
<th>DBDSGRP</th>
<th>DESCRIPTION</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS7P002</td>
<td>TESTCASE</td>
<td></td>
</tr>
</tbody>
</table>
```

Figure 55. Run Jobs: Select DBDS Group ID panel (IDL$APLS)

Consult the Control Suite online help for descriptions of the fields on this panel. The fields in this panel are:

**DBDSGRP**
The name specified identifies the database data set member used to collect and store all DBDS group-related information.

**Description**
Description is a user-defined descriptive name for the DBDS Group.

**DB**
The name specified indicates the DBDS group DB type. A value of 'FP' indicates that the DBDS group is for Fast Path databases.

2. Select the ID of the DBDS group associated with the databases that you want to back up, and press Enter. The Backup Job List panel is displayed:
3. Select a backup job associated with the DBDS group ID that you want to use to run the job. Enter the following information in the Backup Job List panel:

**USERID for jobname**
Enter Y to use the user ID in the jobname to override the Control Suite name. This field is optional.

**USERID jobname suffix**
Enter a character that you want to add as a suffix to the user ID (if the user ID jobname is requested).

**Edit last job built**
Enter Y if you want to edit the previously generated job. This field is optional.

**User JCLPDS library**
Enter a user JCLPDS library if required for image copy or recovery job generation. This field is optional.

Consult the Control Suite online help for descriptions of the remaining fields on this panel.

**Job name**
Select one CS-assigned job name.

**Altname**
If your company’s standards differ from the Control Suite job naming conventions, you can enter your own job name in this field. The job name that you enter will be used and saved for future use.

4. Press Enter. After a message that indicates that Control Suite is gathering data is displayed, an ISPF Edit panel similar to the one in Figure 57 on page 56 is displayed:
5. Either submit the job or exit the ISPF panel.
   After you have successfully submitted your job or exited the ISPF Edit panel, the Save JCL panel is displayed:

   **Figure 57. Run Jobs: ISPF Edit panel (ISREDDE2)**

   Data set name.
   Member name.

---

6. Enter a data set name and member name on the Save JCL panel if you want to save the generated JCL.

---

**Figure 58. Run Jobs: Save JCL panel (IDLGNJCQ)**
7. You have now finished backing up the information in your databases. Press End to exit the subtask.

**Recovering databases**

The Recover subtask helps you set up and run a recovery job.

1. Select option 2 on the Run Jobs Subtask panel (IDLP001), Figure 54 on page 53, to display the Select DBDS Group ID panel:

   **Figure 59. Run Jobs: Select DBDS Group ID panel (IDL$APLS)**

   Consult the Control Suite online help for descriptions of the fields on this panel.

   - **DBDSGRP**
     The name specified identifies the database data set member used to collect and store all DBDS group-related information.

   - **Description**
     Description is a user-defined descriptive name for the DBDS Group.

   - **DB**
     The name specified indicates the DBDS group DB type. A value of 'FP' indicates that the DBDS group is for Fast Path databases.

2. Select the ID of the DBDS group associated with the databases that you want to recover, and press Enter. The Recover Job List panel is displayed:
Figure 60. Run Jobs: Recover Job List panel (IDL$JBLS)

**USERID for jobname**

Enter Y to use the user ID in the jobname to override the CS name. This field is optional.

**USERID jobname suffix**

Enter a character that you want to add as a suffix to the user ID (if the user ID jobname is requested).

**Edit last job built**

Enter Y to edit the previously generated job. This field is optional.

**User JCLPDS library**

Enter a user JCLPDS library for image copy or recovery job generation. This field is optional.

Consult the Control Suite online help for descriptions of the other fields on this panel.

**Job name**

This column displays the CS-assigned job name.

**Altname**

This column displays a user-modifiable alternate job name.

**Description**

This column displays the Control Suite job description.

3. Select one of the jobs to recover the databases and press Enter. A process message runs. Depending on the job you selected, one of the following panels is displayed:

---

### Table 1. Database recovery jobs panels

<table>
<thead>
<tr>
<th>Panel</th>
<th>Job</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run Jobs: Recover from Image Copies (IDL$GDGS)</td>
<td>Recovers all databases from the latest image copies</td>
<td>Select the image copy of the databases or indexes that you want to recover. On the ISPF edit panel that is displayed, either submit the job or End the subtask.</td>
</tr>
</tbody>
</table>
### Table 1. Database recovery jobs panels (continued)

<table>
<thead>
<tr>
<th>Panel</th>
<th>Job</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run Jobs: Recover from Image Copies (IDL$GDGT)</td>
<td>Recovers all databases from the latest image copies with a timestamp parameter</td>
<td>Select the image copy of the databases or indexes that you want to recover with a timestamp parameter. On the ISPF edit panel that is displayed, either submit the job or End the subtask.</td>
</tr>
<tr>
<td>Run Jobs: High Performance Image Copy Recover (IDL$GDGT)</td>
<td>Recovers all databases from the latest image copies with a timestamp parameter using High Performance Image Copies</td>
<td>Select the image copy of the databases or indexes that you want to recover using High Performance Image Copies. On the ISPF edit panel that is displayed, either submit the job or End the subtask.</td>
</tr>
<tr>
<td>Run Jobs: Rebuild indexes (IDL$GDGU)</td>
<td>Rebuilds a HIDAM primary index or any DBORG secondary index</td>
<td>Select the index that you want to rebuild and press Enter.</td>
</tr>
<tr>
<td>ISPF Edit panel</td>
<td>The three remaining jobs from the Recover Job List panel (IDL$JBLS) all display ISPF Edit panels.</td>
<td>If you want to submit, type sub and press Enter. If you do not want to submit, press End. When the submit is successfully completed, End the subtask.</td>
</tr>
</tbody>
</table>

4. Press Enter to continue. The Save JCL panel (IDLGNJCQ) is displayed:

```
IDLGNJCQ IMS DB CONTROL SUITE(C) V3.2 - BASE
RECOVERY    function for CS ID IMS7P IMS Version 7.1
Command ====>
Press ENTER to continue or END to exit
Save generated JCL for a single job (optional)

Data set name .
Member name .
```

Figure 61. Run Jobs: Save JCL panel (IDLGNJCQ)

5. If you want to save the generated JCL, enter a data set name and member name and press Enter. If you do not want to save the generated JCL, press End.

6. You have now finished setting up and running a recovery job. Press End to exit the subtask.

**Monitoring and reorganizing databases**

The Monitor/Reorganize databases function lets you reorganize your databases, use a pointer checker, and generate space monitor jobs.

Use the space monitor jobs to:
- Determine if the maximum number of extents has been reached or if space is available on your DASD volumes
• Monitor performance degradation due to data fragmentation or data overflow (information that you can use to change your tuning criteria)
• Monitor potential out-of-space situations (reorganization might not be necessary if sufficient embedded free space exists)

Support for monitoring offline databases

You can monitor offline databases by using both pointer checker and space monitor tools.

Control Suite creates a repository for data that is collected during execution of the pointer checker and space monitor tools. This repository is used to display statistics for the databases that are supported by Control Suite.

Pointer checker tools
Control Suite supports IMS High Performance Pointer Checker or non-IBM pointer checker products. IBM IMS High Performance Pointer Checker provides full support for checking pointers and gathering database statistics. To use the pointer checker job, databases must be offline. Also, the pointer checker job must be run in batch mode.

The JCL for pointer checker jobs is generated by selecting option 4, More Monitor-Related Jobs, in Figure 62 on page 61 (You must complete options 1 through 3 before using option 4 the first time through for each CS ID. On subsequent uses of each CS ID, you can choose options from this menu in any order.) For each image copy group, the appropriate JCL is built.

Important: A pointer checker utility is not distributed with Control Suite; however, Control Suite will generate JCL for one.

Space monitor tools
You can use IMS High Performance Pointer Checker or non-IBM pointer checker products.

The JCL for space monitor jobs is generated by selecting option 4, More Monitor-Related Jobs, in Figure 62 on page 61 (You must complete options 1 through 3 before using option 4 the first time through for each CS ID. On subsequent uses of each CS ID, you can choose options from this menu in any order.) For each image copy group, the appropriate JCL is built.

Important: A space monitor utility is not included with Control Suite; however, Control Suite will generate JCL for one.

Support for monitoring online databases

You can monitor online databases with the Control Suite Monitor function. This function is useful if you have critical, large, fast-growing databases and need up-to-the-minute information, but you cannot take the databases offline.

The Control Suite Monitor function:
1. Collects space information and data statistics. The Monitor function does not check pointers. You must designate threshold criteria for each database that you want to monitor.

The Monitor function processes only one database at a time; however, you can run several Monitor utility jobs simultaneously.

Restriction: Database monitoring is not supported for VSAM database data sets defined with SHARE OPTIONS (1,3).
2. Creates a repository for the data that has been collected. This repository is used to display statistics for the databases that are supported by Control Suite.
Monitor jobs must be run in batch, but the databases stay online.

**Monitor/Reorganize subtask descriptions**

Select option 3 from the Run Jobs Subtasks panel (IDLP001), Figure 54 on page 53 to display the Monitor/Reorganize Options panel:

**IDLP30**

IMS DB CONTROL SUITE(C) V3.2 - BASE

**Command**

TIME. 15:50:49.13
DATE. 2005/07/28
JDTE. 2005.209

Select a subtask to continue or END to exit

Subtask . . 1. Setup monitor criteria
2. Submit monitor job
3. List monitored databases
4. More monitor related jobs

*Figure 62. Run Jobs: Monitor/Reorganize Options panel (IDLP30)*

The subtasks on this panel are:

1. **Setup monitor criteria**
   Select this subtask to specify the criteria that should be used for monitoring your databases.

   Use this subtask to set threshold values for selected criteria that can influence the performance of your databases and trigger a warning in case of excessive growth.

   You must complete this subtask before submitting your monitor job.

2. **Submit monitor job**
   This subtask lets you select the databases for which you want to collect up-to-the-minute statistics.

3. **List monitored databases**
   This subtask displays statistics for all databases included in the selected CS group.

4. **More monitor-related jobs**
   Use this subtask to select appropriate action (for example, reorganization or pointer checker) based on your analysis from options 1 through 3.

   Possible uses for this subtask include:
   - Generating JCL to reorganize all databases included in an image copy group
   - Generating JCL to reorganize an individual primary database

The reorganization utilities that Control Suite uses during JCL generation reflect the selections made on the Define: IMS Data Set Names panel in Figure 16 on page 19.

**Monitor/Reorganize: Setting up monitor criteria**

Use this subtask to define thresholds that you want Control Suite to use after a batch Space Management Utilities job has been run.

1. Select option 1, Setup Monitor Criteria, from the Monitor/Reorganize Options panel (IDLP30), Figure 62 The Select DBDS Group ID panel is displayed.
2. Specify a DBDS group ID on the Select DBDS Group ID panel and press Enter. The Threshold Criteria Activation panel is displayed:

The Threshold Criteria Activation panel displays the current threshold settings for the DBDS group that you selected. You can use this panel to activate or deactivate those database data sets whose growth and performance you want to monitor more closely.

Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

**DBDNAME** This column displays the name of the database.

**DDNAME** This column displays the database data set DD name.

**DBORG** This column displays the type of database organization, which can be:
- **HDAM** Primary HDAM database
- **HIDAM** Primary HIDAM database
- **HISAM** Primary HISAM database
- **PRIMX** Primary index database
- **SECX** Secondary index database

**ACC** This column displays the type of access method used, which can be:
- **OSAM** Overflow sequential access method
- **KSDS** Key sequenced data set
- **ESDS** Entry sequenced data set

**EXT** This column displays the number of extents for this data set.

**SPLITS** This column displays the number of splits in a KSDS. This field applies to index databases only.
- **CI** Number of control interval splits
- **CA** Number of control area splits

---

Figure 63. Run Jobs: Threshold Criteria Activation panel (IDLMCRIT)

The Threshold Criteria Activation panel displays the current threshold settings for the DBDS group that you selected. You can use this panel to activate or deactivate those database data sets whose growth and performance you want to monitor more closely.

Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

**DBDNAME** This column displays the name of the database.

**DDNAME** This column displays the database data set DD name.

**DBORG** This column displays the type of database organization, which can be:
- **HDAM** Primary HDAM database
- **HIDAM** Primary HIDAM database
- **HISAM** Primary HISAM database
- **PRIMX** Primary index database
- **SECX** Secondary index database

**ACC** This column displays the type of access method used, which can be:
- **OSAM** Overflow sequential access method
- **KSDS** Key sequenced data set
- **ESDS** Entry sequenced data set

**EXT** This column displays the number of extents for this data set.

**SPLITS** This column displays the number of splits in a KSDS. This field applies to index databases only.
- **CI** Number of control interval splits
- **CA** Number of control area splits
This column displays the details of the current space available in this database data set.

**FREE** This column displays the percent of usable free space in the database data set.

Usable free space is defined as the sum of the following components:
- The space available from the highest-used RBA to the end of the current extent as recorded in the MVS catalog
- The amount of reusable, embedded, IMS free space determined by the offline pointer checker or Control Suite Monitor job

**NREU** This column displays the percent of nonreusable embedded free space in the database data set.

**OVFL** This column displays the percent of data in the overflow area.

**%ROUTES** This column displays the distribution of root segments within the database. This column applies to HDAM databases only.

**HOME** This column displays the percent of root segments located in the randomized home block.

**OVFL** This column displays the percent of root segments located in the overflow area.

**SYN CHN** This column displays the average length of root segment synonym chains. This column applies to HDAM databases only.

### 3. Specify A to activate threshold criteria or D to deactivate threshold criteria. You cannot specify multiple selections at the same time. Specify only one A or one D and press Enter to have your value accepted.

If you select A (activate) on the Threshold Criteria Activation panel (Figure 63 on page 62), a panel relative to your database organization is displayed. **Table 2** lists the possible panels and their uses. If you select D, Control Suite does not use the threshold criteria data during analysis.

**Table 2. Threshold Criteria Data Entry panels**

<table>
<thead>
<tr>
<th>Panel</th>
<th>Database type</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run Jobs: Threshold Criteria Data Entry for Indexes panel (IDLP31X)</td>
<td>Index</td>
<td>Enter the data set thresholds for the selected index and press Enter.</td>
</tr>
<tr>
<td>Run Jobs: Threshold Criteria Data Entry for Primary Databases panel (IDLP31P)</td>
<td>Primary</td>
<td>Enter the threshold criteria for the selected non-HDAM database and press Enter.</td>
</tr>
<tr>
<td>Run Jobs: Threshold Criteria Data Entry for HDAM Databases panel (IDL31HD)</td>
<td>HDAM</td>
<td>Enter the data set thresholds for the selected HDAM databases and press Enter.</td>
</tr>
</tbody>
</table>

### 4. If you want to activate other DBDNAMEs, press Enter to return to the Threshold Criteria Activation panel (IDLMCRIT), Figure 63 on page 62. When you press Enter, your values are saved.
5. You have now finished setting up your monitor criteria. Press End to exit the subtask.

**Monitor/Reorganize: Submitting monitor jobs**

Use this subtask to submit Space Management Utility jobs.

1. Select option 2, Submit monitor jobs, on the Monitor/Reorganize Options panel (IDL30). The Select DBDS Group ID panel is displayed.

2. Specify a DBDS group ID on the Select DBDS Group ID panel and press Enter. The Select Job Name panel is displayed:

```
USERID for jobname . . (Y or N) USERID jobname suffix . .
Edit last job built . . N (Y or N)
Alternate DBDLIB . .
User JCLPDS library . .
```

3. Specify job-related information and select a job name in the Select Job Name panel. Consult the Control Suite online help for descriptions of the fields on this panel.

   The fields on this panel are:

   **USERID for jobname**
   
   Enter Y to use the user ID in the jobname to override the CS Name.

   **USERID jobname suffix**
   
   Enter a character that you want to add as a suffix to the user ID (if user ID job name is requested).

   **Edit last job built**
   
   Enter Y to edit the previously generated job.

   **User JCLPDS library**
   
   Enter a user JCLPDS library if required for Image Copy or Recovery job generation.

   The following columns are for display purposes:

   **JOBNAME**
   
   This column displays the CS-assigned job name.

   **ALTNNAME**
   
   This column displays a modifiable alternate job name.

   **DESCRIPTION**
   
   This column displays the Control Suite job description.

4. Press Enter. After a process message finishes running on your screen, an ISPF edit screen is displayed.
5. If you want to submit the job, type `sub` and press Enter. If you do not want to submit the job, press End. When the job has successfully completed, End the subtask. The Save JCL panel (IDLGNJCQ), Figure 61 on page 59, is displayed.

6. If you want to save the generated JCL, enter a data set name and member name and press Enter. If you do not want to save the generated JCL, press End.

7. You have now submitted your Space Management Utility job. Press End to exit the subtask.

**Monitor/Reorganize: List monitored databases**

After the job you submitted in Submit Monitor Job has successfully completed, you can display and examine information about the databases that you want to monitor.

1. Select option 3, List Monitored Databases, from the Monitor/Reorganize Options panel (IDLP30), Figure 62 on page 61. The Select DBDS Group ID panel is displayed.

2. Specify a DBDS group ID on the Select DBDS Group ID panel and press Enter. The Browse Space Monitor Report panel is displayed:

```
<table>
<thead>
<tr>
<th>IDLMXDS1</th>
<th>IMS DB CONTROL SUITE(C) V3.2 - BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONITOR</td>
<td>LIST DBS function for CS ID IMS7P IMS Version 7.1</td>
</tr>
<tr>
<td>Command</td>
<td>===&gt;</td>
</tr>
</tbody>
</table>

Press ENTER to display next panel or END to exit

Database statistics for DBDSGRP .. IMS7PP002
Last report collected on .....

Browse report .. N (Y or N)

--Splits-- ----- %Space----- -%Roots- SYN
DBDNAME DDNAME DBORG ACC EXT CI CA FRE NRE IMB OVFL HOM OVFL CHN
SMPINVPI SMPINV1P SHISA KSDS
Threshold criteria defined .. 50 10 20 20
*************************************************************************
```

**Figure 65. Run Jobs: Browse Space Monitor Report 1 panel (IDLMXDS1)**

The Browse Space Monitor panel displays information about the database that you specified during the submitting monitor jobs step. Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

**DBDNAME**
This column displays the name of the database.

**DDNAME**
This column displays the database data set DD name.

**DBORG**
This column displays the type of database organization.

**ACC**
This column displays the type of access method used.

**EXT**
This column displays the number of extents for this data set.
SPLITS
This column displays the number of splits in a KSDS. This column applies to index databases only.

CI The number of control interval splits
CA The number of control area splits

SPACE
This column displays the details of the current space available in this database data set
FRE Percent of usable free space in the database data set
NREU Percent of reusable imbedded IMS free space determined
OVFL Percent of data in the overflow area

ROOTS
This column displays the distribution of root segments within the database. This applies to HDAM databases only.
HOME Percent of root segments located in the randomized home block
OVFL Percent of root segments located in the overflow area

SYN CHN
This column displays the average length of root segment synonym chains. This column applies to HDAM databases only.

3. If you want to browse the space monitor report, Enter Y. If you do not wish to browse the space monitor report, Enter N, which is the default. If you enter N, the report is not displayed. If you enter Y, the Browse Space Monitor Report 2 panel (Figure 66) is displayed, which shows the space allocated for the database or databases within your DBDS group ID:

```
IDLMXDS2  IMS DB CONTROL SUITE(C) V3.2 - BASE    Row 1 from 12
MONITOR LIST DBS  function for CS ID IMS?P IMS Version 7.1
Command ===>
Press ENTER to return to previous panel or END to exit

More database statistics for DBDSGRP . . . IMS7P002
Last report collected on . . . . . . . . . . . DATE: 07/29/2005  TIME: 10.12.04
Browse report . . N  (Y or N)

DBDNAME DDNAME DBORG ACC TY PRIM SEC EXT ALLOC ROOTS TOTSEGS
SMPINV1 SMPINV1P SHISA KSDS F  7  7   118

***************************************************************************

Figure 66. Run Jobs: Browse Space Monitor Report 2 panel (IDLMXDS2)

Consult the Control Suite online help for descriptions of the fields on this panel. The fields on this panel are:

DBDNAME
This column displays the name of the database.

DDNAME
This column displays the database data set DD name.
DBORG
This column displays the type of database organization.

ACC
This column displays the type of access method used.

TY
This column displays the type of database.

PRIM
This column displays the amount of primary space allocated for the database.

SEC
This column displays the amount of secondary space allocated for the database.

EXT
This column displays the number of extents for this data set.

ALLOC
This column displays the amount of space allocated for the database data set.

ROOTS
This column displays the number of root segments within the database.

TOTSEGS
This column displays the number of segments within the database.

4. If you want to browse the monitor report, Enter Y. If you do not wish to browse the monitor report, Enter N, which is the default. If you enter N, the report is not displayed. If you enter Y, the full report from which the ISPF panels were generated is displayed.

5. You have now finished examining information about the databases that you want to monitor. Press Enter to have your values accepted, or press End to exit the subtask.

Monitor/Reorganize: More Monitor-related jobs
This subtask helps you back up the information in your databases by generating the appropriate reorganization or pointer checker JCL.

1. Select option 4, More Monitor-related jobs from the Monitor/Reorganize Options panel (IDLP30), Figure 62 on page 61. The Select DBDS Group ID panel is displayed.

2. Specify a DBDS group ID on the Select DBDS Group ID panel and press Enter. The Monitor Job List for DBDS Group Test panel is displayed:
3. Enter job-related information in the following fields:

**USERID for jobname**
Enter Y to use the user ID in the jobname to override the Control Suite name.

**USERID jobname suffix**
Enter a character that you want to add as a suffix to the user ID (if the user ID jobname is requested).

**Edit last job built**
Enter Y to edit the previously generated job.

**User JCLPDS library**
If required, enter a user JCLPDS library for image copy or recovery job generation.

Consult the Control Suite online help for descriptions of the fields on this panel.

The following columns are for display purposes:

**JOBNAME**
This column displays the Control Suite-assigned job name.

**ALTNANE**
This column displays a user modifiable alternate job name.

**DESCRIPTION**
This column displays the Control Suite-generated job description.

4. Select a job, and press Enter. The jobs that are available on this panel depend on the databases that you are using. An ISPF Edit panel is displayed that allows you to edit and submit your job:
5. Submit the job by typing `sub` and press Enter, or press End to exit without submitting the job.

6. If you want to save the generated JCL, enter a data set name and member name on the Save JCL panel (IDLGNJCQ), Figure 61 on page 59, and press Enter.

7. You have now finished generating the appropriate reorganization or pointer checker JCL. Press End to exit the subtask.

**Fast Path utility jobs**

This topic explains how to use Fast Path utility programs (hereafter called Fast Path support) with Control Suite.

Fast Path support helps you to:

- Generate JCL more quickly
Monitor and reorganize Fast Path areas using the FPUTIL procedure, which saves time and CPU resource.

**Requirement:** To use these programs you must have access to the FPUTIL procedure, which is supplied with IMS. See *IMS/ESA Installation, Volume 2: System Definition and Tailoring* for a description of FPUTIL. If you do not have FPUTIL, you can create it based on the procedure that is supplied with IMS.

All utilities require the presence of the FPUTIL procedure, except for the Initialization utility.

Most of the Fast Path support utilities execute as IFP utility programs (IFP is a processing parameter that is passed through the IMS Control Region in order to initialize the Fast Path dependent region). These utility programs require the use of a JCL procedure that contains JCL that is generic to all such utilities. You must specify the library and member that contains the IFP utility JCL procedure. If such a JCL procedure does not exist, you can create one by modeling it on the FPUTIL Procedure, which is supplied with IMS.

**Utility descriptions**

Fast Path Support provides access to the following utility programs, which are described in *IMS/ESA Utilities Reference: Database Manager*.

**Compare (DBFUMMH0)**

The Compare utility compares two physical records of two or more area data sets. Two or more areas must be selected in order to use this utility. In case of unequal compares, up to ten unmatched records are printed. The utility then continues until the next unequal compare or until the end of the area data sets.

**Create (DBFUMRI0)**

The Create utility creates one or more copies from multiple DEDB area data sets during online transaction processing. Application programs can continue during the copy process, and the Initialization utility is not required.

The Create utility can use two or more data sets with defective control intervals (CIs) to produce a copy free of defective CIs. Writes requested from application programs are performed to both the available data sets and the new data sets.

**Reorganize (DBFUMDR0)**

The Reorganization utility removes external storage fragments and sequences the root and direct dependent segments in the Control intervals (CIs).

**Initialize (DBFUMINO)**

The Initialization utility initializes one or more data sets of one or more areas of a DEDB. The DEDB must have been previously allocated using IDCAMS. Only one DEDB can be initialized at a time. After data sets have been initialized and DEDB areas have been formatted to the DBDGEN specifications, a user-written program issues INSERT calls to load the data.

**Delete (DBFUMDL0)**

The Delete utility logically deletes sequential dependents within a specified limit of a DEDB area. After the dependent segments are deleted, the utility resets the segment boundaries, and the freed space is available for use. If
no range limit is specified, all current sequential dependent segments in the area are deleted, starting with the oldest.

Scan (DBFUMSC0)

The Scan utility scans and copies sequential dependent segments to a sequential data set. You can then process this data set offline using your own programs. For example, you might do statistical analysis. You can specify an exit routine (other than the one provided by IMS), which can change the segment content and length.

Use the Scan utility to specify a range of segments that you want to copy. If the length exceeds the block size of the SCANCOPY DD data set minus 8 bytes, the utility ends with an error message. If an exit routine is not specified, Scan takes the default and the segment contents pass through the specified range unchanged. If a range limit is not specified, all dependent segments are scanned and copied.

Table 3 summarizes the level of operation (for example, database, area, or area data set) for each utility.

**Table 3. Control Suite Fast Path Utilities**

<table>
<thead>
<tr>
<th>Level of operation</th>
<th>Compare</th>
<th>Create</th>
<th>Reorganization</th>
<th>Initialization</th>
<th>Delete</th>
<th>Scan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area&lt;sup&gt;1&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X&lt;sup&gt;3&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Area data set</td>
<td>X</td>
<td>X&lt;sup&gt;2&lt;/sup&gt;</td>
<td>X</td>
<td>X&lt;sup&gt;3&lt;/sup&gt;</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Notes:**
1. Each area can have up to seven area data sets.
2. The Create utility can operate on multiple area data sets.
3. The Initialization utility can operate on multiple areas and area data sets.

**Running the utilities**

1. Select option 4, Fast Path Support, from the Run Jobs Subtasks panel (IDLP001), Figure 54 on page 53. The Fast Path Specify PROC panel is displayed:

```
IDLSYS | IMS DB CONTROL SUITE(C) V3.2 - BASE
FASTPATH | IMS7P002 Function for CS ID IMS7P IMS Version 7.1
Command ===>

Press ENTER to continue or END to exit

PROCLIB Containing IFP PROC ..

IFP Proc member ..

Fastpath Tools processing requires the use of a PROC for executing the Fast Path Utility Programs (IFP). Such a PROC can be modeled after the FPUTIL Procedure, which is supplied with IMS.
```

_Figure 69. Run Jobs: Fast Path Specify PROC panel (IDLSYS)_
2. Specify the proclib that contains the IFP procedure and the IFP procedure member.
3. Press Enter. The Select DBDS Group for Scan panel is displayed:

```
IDLSAPLS  IMS DB CONTROL SUITE(C) V3.2 - BASE  Row 1 from 1
FASTPATH  function for CS ID FP61A IMS Version 6.1
Command ==>  

Press END to exit

FASTPATH  DBDSGRP list

Enter F string on the ISPF command line to find a DBDSGRP, DBD/DDN/DSN or Description. Enter F by itself to redisplay the full table.

Select (S)

<table>
<thead>
<tr>
<th>DBDSGRP</th>
<th>DESCRIPTION</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP61A002</td>
<td>FP IMS 6.1 TESTING WITH DBCS 3.2</td>
<td>FP</td>
</tr>
</tbody>
</table>

************************************************************************************** Bottom of data **************************************************************************************

Figure 70. Fast Path: Select DBDS Group for Scan panel (IDLSAPLS)
```

4. Select the DBDS group or groups on which you want to use Fast Path and press Enter. The Select Utility for Fast Path Scan panel is displayed:

```
IDLSUBLS  IMS DB CONTROL SUITE(C) V3.2 - BASE  Row 1 from 6
FASTPATH  function for CS ID FP61A IMS Version 6.1
Command ==>  

Press END to exit

FASTPATH  job list for DBDSGRP  FP61A002

USERID for jobname .. N (Y or N) USERID jobname suffix ..

Select (S)

<table>
<thead>
<tr>
<th>JOBNAME</th>
<th>ALTNAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP61COMP</td>
<td></td>
<td>DEDEB Area Data Set Compare Utility (DBFUMMH0)</td>
</tr>
<tr>
<td>FP61CREA</td>
<td></td>
<td>DEDEB Area Data Set Create Utility (DBFUMRIO)</td>
</tr>
<tr>
<td>FP61RORG</td>
<td></td>
<td>DEDEB Direct Reorganization Utility (DBFUMDR0)</td>
</tr>
<tr>
<td>FP61INIT</td>
<td></td>
<td>DEDEB Initialization Utility (DBFUMINO)</td>
</tr>
<tr>
<td>FP61DLET</td>
<td></td>
<td>DEDEB Sequential Dependent Delete Utility (DBFUMDLO)</td>
</tr>
<tr>
<td>FP61SCAN</td>
<td></td>
<td>DEDEB Sequential Dependent Scan Utility (DBFUMSC0)</td>
</tr>
</tbody>
</table>

************************************************************************************** Bottom of data **************************************************************************************

Figure 71. Fast Path: Select Utility for Fast Path Scan panel (IDLSUBLS)
```

5. Select a utility for performing the action and press Enter. Each utility can run independently of the others.

For more information about each utility, see the IMS/ESA Utilities Reference: Database Manager.

The following topics show the flow through Control Suite panels for each utility: Compare, Create, Reorganization, Initialization, Delete, and Scan.

**Compare**

Use the Select Data Sets to be Compared panel to select the data sets that you want to be compared:
Create
Use the Select Data Sets to be Created panel to create copies of one or more area data sets:

<table>
<thead>
<tr>
<th>DBD</th>
<th>AREANAME</th>
<th>DDN</th>
<th>DSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDBJN21</td>
<td>DB21AR11</td>
<td>DE21AR11</td>
<td>VNDO458.FPICS31.DB21AR11</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR11</td>
<td>DE21AR12</td>
<td>VNDO458.FPICS31.DB21AR12</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR11</td>
<td>DE21AR13</td>
<td>VNDO458.FPICS31.DB21AR13</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR11</td>
<td>DE21AR14</td>
<td>VNDO458.FPICS31.DB21AR14</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR11</td>
<td>DE21AR15</td>
<td>VNDO458.FPICS31.DB21AR15</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR11</td>
<td>DE21AR16</td>
<td>VNDO458.FPICS31.DB21AR16</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR11</td>
<td>DE21AR17</td>
<td>VNDO458.FPICS31.DB21AR17</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR21</td>
<td>DE21AR21</td>
<td>VNDO458.FPICS31.DB21AR21</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR21</td>
<td>DE21AR22</td>
<td>VNDO458.FPICS31.DB21AR22</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR21</td>
<td>DE21AR23</td>
<td>VNDO458.FPICS31.DB21AR23</td>
</tr>
<tr>
<td>DEDBJN21</td>
<td>DB21AR21</td>
<td>DE21AR24</td>
<td>VNDO458.FPICS31.DB21AR24</td>
</tr>
</tbody>
</table>

Figure 72. Fast Path: Select Data Sets to be Compared panel (IDL$DDN)

Reorganize
Use the following Reorganization utility panels to:
1. Select the DBD that you want to process. [Figure 74 on page 74]
2. Select the Area that you want to reorganize (Figure 75).
3. Select parameters that are related to reorganization (Figure 76).
4. Select parameters that are specific to a database (Figure 77 on page 75).

**Figure 74. Fast Path: Select DBD to be Processed panel (IDLF$DBD)**

**Figure 75. Fast Path: Select Areas to be Reorganized panel (IDLF$AR)**

**Figure 76. Fast Path: Select Parameters Related to Reorganization panel (IDL.P01RO)**
Initialize

Use the following Initialization utility panels to:
1. Select the DBD that you want to initialize (Figure 78)
2. Select the Areas that you want to initialize (Figure 79)
3. Select the data sets that you want to initialize (Figure 80 on page 76)

Figure 77. Fast Path: Select Parameters Specific to Databases panel (IDLP01R1)

Figure 78. Fast Path: Select DBD to be Initialized panel (IDL$DBD)

Figure 79. Fast Path: Select Individual or All Areas to be Initialized panel (IDLP01I1)
Use the following Delete utility panels to:

1. Select a delete option (Figure 81)
2. Select additional parameters (Figure 82 on page 77)
3. Select data sets that you want to process (Figure 83 on page 77)

**Delete**

Use the following Delete utility panels to:

1. Select a delete option (Figure 81)
2. Select additional parameters (Figure 82 on page 77)
3. Select data sets that you want to process (Figure 83 on page 77)
Example: Using the DEBD Sequential Dependent Scan utility (DBFUMSC0)

This topic provides an example of how you might use Fast Path Support to perform a database scan. This example uses the DEBD Sequential Dependent Scan utility (DBFUMSC0).

Details of the control statements required to run this utility can be found in IMS/ESA Utilities Reference: Database Manager. Control Suite provides appropriate data entry panels for these control statements.

The following panels are an example of the Control Suite Scan utility panel flow:
Select the appropriate utility. The following Select Scan Method panel is displayed:

```
IDLP01SX IMS DB CONTROL SUITE(C) V3.2 - BASE
Command ===>

Select a COMMAND to continue or END to exit

COMMAND . . 5
  1. STARTROOT
  2. STARTBA
  3. STARTIME
  4. MISC
  5. DEFAULT

Select a Y next to the field and using tab key to next field.
INDOUBT: NSQCI: QUITCI:
NOSORT : EXPANDSEG:
SORTSETUP: ( sortsetup mod name )

ERRORACTION: select only one of the actions by type a Y next to it.

STOP: (DEFAULT) SCAN: SCANRUN: ABEND:
EXIT: ( exit routine name )

NOTE : Please review or change your DD(SCANCOPY) DD(SCANIDT)
    for dataset name,space location,data set disposition.
```

**Figure 85. Fast Path: Select Scan Method panel (IDLP01SX)**

In this example, **STARTROOT** is selected. Use this panel to specify the physical path where scanning should begin and press Enter. The Select Scan Start and Stop panel is displayed:
A panel similar to the following Select Areas to be Scanned panel is displayed:

Specify the area or areas that you want to scan and press Enter. When processing is complete, a panel similar to the following Results for Fast Path Scan panel is displayed:

Figure 86. Fast Path: Select Scan Start and Stop panel (IDLP01P1)

A panel similar to the following Select Areas to be Scanned panel is displayed:

Specify the area or areas that you want to scan and press Enter. When processing is complete, a panel similar to the following Results for Fast Path Scan panel is displayed:

Figure 87. Fast Path: Select Areas to be Scanned panel (IDLFSDDN)
This panel contains JCL that is generated as a result of running the Scan utility.

Database Recovery Facility

The Database Recovery Facility lets you recover multiple database data sets and Fast Path areas simultaneously. This simplifies the recovery process by eliminating the need to run separate recovery jobs. For more information, consult the IMS Database Recovery Facility for z/OS User’s Guide and Reference.

Use the Database Recovery Facility to recover information from five distinct entities:

- **RECOVGRP** (recovery group)
- **DBDSGRP** (database data set group)
- **CAGRP** (change accumulation group)
- **DB** (database)
- **DBDS** (database data set)

1. Access the Database Recovery Facility by selecting option 5 on the Run Jobs Subtasks panel (IDLP001). The DRF Jobs panel is displayed:

```
000001 //FPSCAN JOB ('ODE'),BATCH,CLASS=K,REGION=0K,
000002 // MSGLEVEL=(1,1),MSGCLASS=X
000003 //ROUTE PRINT THISCPU/XXXXX
000004 //*
000005 //PROC JCLLIB ORDER=FPX.FABZ.CNTL
000006 //*
000007 //********************************************************************************************
000008 //*
000009 //** FAST PATH UTILITY PROCEDURE TYPE: SCAN
000010 //*
000011 //********************************************************************************************
000012 //IFP EXEC FPUKCTAW,DBD=DEDJN26
000013 //*
000014 //* DBD=DBONAME as target database
000015 //*
000016 //SCANCOPY DD DSN=&SCAN203,DISP=(,PASS,DELETE),
000017 // UNIT=SYSDA,SPACE=(TRK,5),
000018 // DCB=(NCP=5,BLKSIZE=2048)
000019//*
```

Figure 88. Fast Path: Results for Fast Path Scan panel (ISREDDE2)

This panel contains JCL that is generated as a result of running the Scan utility.
2. Specify your selections for each field, select the jobnames from which you want to recover information, and press Enter.

**USERID for jobname**
Enter Y to use the user ID in the jobname to override the Control Suite name.

**USERID jobname suffix**
Enter a character that you want to add as a suffix to the user ID (if the user ID jobname is requested).

**Edit last job built**
Enter Y to edit the previously generated job.

**Verify data sets**
Enter Y in this field to verify the data sets required for a recovery before running the recovery job. The DRF Verification Selection panel is displayed. [Figure 90]

---

**Figure 89. Run Jobs: DRF Jobs panel (IDL$DRFJ)**

**Figure 90. Run Jobs: Verification Selection panel (IDLDRFV1)**

The subtasks on this panel are:

1. **Setup and submit a Verify job**
   Select this option first to display the DRF Entity List panel, [Figure 91 on page 82] Follow the sequence described for this panel to run a recovery job. However, when you submit the final job, the JCL creates a Verify report rather than running a recovery of the data sets.
2. View the Verify report
   Select this option to view the Verify report and verify the data.

3. Submit a job with the verified data
   Select this option when you are ready to run the report. The JCL that is created runs a recovery for the verified entities.

   Enter N in the Verify data sets field to run a recovery job for the selected entity data sets. The DRF Entity List panel is displayed,

   ![Figure 91. Run Jobs: Entity List panel (IDLDRF01)](image)

   Enter an M next to the DBDSGRP to select single group members or enter an S to add the entire DBDSGRP to the recovery list. The Entity Naming panel is displayed,

   ![Figure 92. Run Jobs: Entity Naming panel (IDL$GRLS)](image)

3. Enter a name for the entity that you want to recover information for and press Enter. An ISPF Edit panel is displayed:
This subtask helps you generate jobs for all the database administration functions that Control Suite builds JCL for.

To access All IMS full-function and HALDB database jobs:

1. Select option 6 on the Run Jobs Subtask panel (IDLP001). The Select DBDS Group ID panel is displayed.
2. Select the DBDS group associated with the job that you want to run and press Enter. The Job List panel is displayed:

Figure 93. Run Jobs: ISPF Edit panel (ISREDDE2)

4. Either submit the job or exit the ISPF panel.

All jobs
3. The Job List panel displays the All Jobs list, not including Fast Path tools. Select only one and press Enter. If runtime options are available for the job, a panel is displayed for option selection. Your job will run. After a process message has finished running on your screen, an ISPF edit panel is displayed.

4. If you want to submit, type `sub` and press Enter. The next panel that displays is the Save JCL panel (IDLGNJUCQ), Figure 61 on page 59.

5. Enter a data set name and a member name if you want to save the generated JCL and press Enter. At any point in this sequence, you can press End to exit the subtask.
Chapter 5. Maintaining RECON function

This chapter includes examples of some of the DBRC commands that Control Suite supports. Control Suite supports all DBRC commands, including GENJCL.

The following topics provide additional information:

- "Using the POP command" on page 86
- "Using the Select command" on page 87
- "Listing an image copy record" on page 87
- "Changing an image copy record" on page 89
- "Reports" on page 92
- "Audit log maintenance" on page 98

The Maintain RECON function is an interactive tool that you can use to perform RECON record inquiry and maintenance. It offers significant usability improvements over the traditional way of maintaining the RECON. Access Maintain RECON by selecting option 3 on the Select a Control Suite Task panel (IDLP00). The RECON Maintenance selection panel (IDLRMAI0) is displayed, Figure 95.

The subtasks on this panel are:

1. **DBRC commands for ALL DBDs**
   
   This subtask displays a panel containing DBRC commands for all DBDs. An example is shown in Figure 97 on page 87.

2. **non-DBRC commands and reports for ALL DBDs**
   
   This subtask displays a panel containing non-DBRC commands and reports for all DBDs. An example is shown in Figure 97 on page 87.

3. **DBRC commands selectable by DBDSGRPS**
   
   This subtask displays a panel containing DBRC commands selectable by DBDSGRPS. An example is shown in Figure 98 on page 88.

4. **non-DBRC commands and reports selectable by DBDSGRPS**
   
   This subtask displays a panel containing non-DBRC commands and reports selectable by DBDSGRPS. An example is shown in Figure 98 on page 88.
You do not need to know DBRC command syntax to use the Control Suite Maintain RECON functions. Control Suite panels prompt you for information, and Control Suite creates DBRC commands for you.

Related Reading: For information about the data requested in these panels, refer to the following publications:

Maintain RECON fields are documented in the publications mentioned previously and in Figure 52 on page 50. The Select a Subtask Menu panel displays the following RECON commands: Backup, Change, Delete, Init, List, and Notify. In addition, unique Control Suite Utility DBRC commands are provided.

### Using the POP command

Use the Print Out Panel (pop) command to print a file, save it, or send it to another IBM User ID on your network. To display the Print Out panel, issue the pop command on the command line.

The pop command shows you the last data set that you browsed. You can issue the pop command at any time to access the panel.

For example, if you are looking at the output of your audit log and you want to send it to user ID SYSADM1 on your current MVS system, type SYSADM1 on the Destination field. In MVS, the output can be found in the SDSF Held output queue. If the user ID is on another system, type that system name and user ID on the Destination line; for example, VMSYS1.BOB1.

Use the Save as command to save the output in a sequential or partition data set. If the format of the output is 133 characters and you attempt to save it in a data set of LRECL 80, the output will be truncated.

```
IDLP0010 IMS DB CONTROL SUITE(C) V3.2 - BASE
RECON PRINT OUT PANEL function for CS ID IMS7P IMS Version 7.1
Command ====>

This is the Print Out Panel. Use it to send a dataset to a sysout queue, or to another user

---------------------------------------------

File Name      .  'LGRIM.V317.AUDIT.LOG(T145252)'
Sysout Class   .
Copies         .
Destination    . (In the format: USERID or DESTINATION.USERID)
Save as        .

"Save as" has priority over "Destination" which has priority over "Sysout"
```

Figure 96. RECON: Print Out panel (IDLP0010)
Using the Select command

Enter $ commandname $ on the command line to select a command without scrolling and placing an $ before the command. This command allows you to directly execute your action.

In the Select Command Example panel, $ CIC7 $ has been entered on the command line. This will cause the CIC7 command to execute directly:

```
IDL DMAI0 IMS DB CONTROL SUITE(C) V3.2 - BASE 82 Matches
RECON GROUP SELECTION function for CS ID FP7B IMS Version 7.1
Command ===> s cic7
Scroll ===> HALF
```

Press ENTER to continue or END to exit

Enter $f$ string on the ISPF command line to display commands with that string in the description field. Enter $f$ without a string to display all commands.

Select ($s$) or help ($H$)

```
COMMAND DESCRIPTION
BACKRE7 BACKUP.RECON, BACKUP RECONS COPY1, COPY2, OR BOTH
CDS7 CHANGE.ADS, CHANGE AREA DATASET, VERSION 7
CBA7 CHANGE.BKOUT, CHANGE INVALID BACKOUT RECORDS, VER. 7
CAGRP7 CHANGE.CAGRP, CHANGE CAGRP RECORD, VERSION 7
CC7 CHANGE.CA, CHANGE A CHANGE ACCUMULATION, VERSION 7
CDBDSG7 CHANGE.DBDSGRP, CHANGE A DBDSGRP RECORD, VERSION 7
CDBDS7 CHANGE.DBDS, CHANGE A DBDS RECORD, VERSION 7
CDB7 CHANGE.DB, CHANGE A DB RECORD, VERSION 7
CIC7 CHANGE.IC, CHANGE IMAGE COPY PARAMETERS, VERSION 7
CPART7 CHANGE.PART, CHANGE A PARTITION DATASET, VERSION 7
CPRILOG7 CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (OLDS), VERSION 7
CPRILOG7 CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (RLDS), VERSION 7
CPRILOG7 CHANGE.PRILOG, CHANGE A PRIMARY LOG RECORD (SLDS TSLDS), VER 7
CRECON7 CHANGE.RECON, MODIFY THE RECON, VERSION 7
CSECOLD7 CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (OLDS), VERSION 7
CSECRLD7 CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (RLDS), VERSION 7
CSECRLD7 CHANGE.SECLOG, CHANGE A SECONDARY LOG RECORD (SLDS TSLDS), VER 7
CSG7 CHANGE.SG, CHANGE SERVICE GROUP, VERSION 7
CSUBSYS7 CHANGE.SUBSYS, CHANGE A SUBSYSTEM RECORD, VERSION 7
```

Figure 97. RECON: Select Command Example panel

Listing an image copy record

This example shows how you might list an image copy record.

1. Select the Maintain RECON task on the Select a Control Suite Task panel, Figure 11 on page 14 or select option 3 or 4 from the RECON: Maintenance selection panel (IDL DMAI0), Figure 95 on page 85 The Select a DBDS Group ID panel is displayed:
5. The following DBDs Containing Image Copies panel is displayed:
Changing an image copy record

After listing the records, as described in "Listing an image copy record" on page 87, you might want to edit a record. For example, if you know that a DASD tape has been corrupted, or you do not want database jobs to be run on a corrupted image copy, you can change an image copy record by flagging it as an error.

1. To change an image copy record, proceed in a way similar to that described in "Listing an image copy record" on page 87. On the Instructions for Using the Find Feature panel (IDLRLI2A), Figure 52 on page 50, select \texttt{CICx CHANGE IMAGE COPY PARAMETERS (IC) VERSION x}.

   The command \texttt{CICx} (for example, \texttt{CIC7} or \texttt{CIC8}) depends on the IMS version that you are using. All commands that are related to a specific IMS version will be suffixed with the version number.

2. The panel issues a message if you attempt to select an invalid entry. This is not an error, but you must correct your selection. Other functions might be duplicated, such as \texttt{LIST.HISTORY} and \texttt{LIST.DBDD}. You can select any of the functions. In the case of \texttt{LIST.DBDD}, the \texttt{HISTORY} function is used because it shows all \texttt{LIST.DBDD} output plus additional useful information.

   After you select a function, a panel similar to the Select DBD for Image Copy Change panel is displayed:
To select a single DBNAME to process, type an S next to the DBNAME. To globally change all entities within the specified RECON, type a G next to the DBNAME. Press Enter. A panel similar to the Select Value to Change panel (IDLRCIC2), Figure 102, is displayed:

Specify the changes, (for example, change VALID to INVALID) and press Enter. The DBRC Generated SYSIN panel is displayed:

Figure 101. RECON: Select DBD for Image Copy Change panel (IDLRCIC1)

3. To select a single DBNAME to process, type an S next to the DBNAME. To globally change all entities within the specified RECON, type a G next to the DBNAME. Press Enter. A panel similar to the Select Value to Change panel (IDLRCIC2), Figure 102, is displayed:

Figure 102. RECON: Select Value to Change panel (IDLRCIC2)

4. Specify the changes, (for example, change VALID to INVALID) and press Enter. The DBRC Generated SYSIN panel is displayed:
Press Enter to confirm the change, or press End to cancel the change. If you press End, the Confirmation for Changing Image Copy Record panel is displayed:

Enter Y to confirm the action or N to cancel the action, and press Enter. If you enter Y, a panel similar to the Generated DBRC Command panel is displayed, which shows sample DBRC output:

Figure 103. RECON: DBRC Generated SYSIN panel

Enter Y to confirm the action or N to cancel the action . . Y (Y or N)

Figure 104. RECON: Confirmation for Changing Image Copy Record panel (IDLRCNT)

Enter Y to confirm the action or N to cancel the action, and press Enter. If you enter Y, a panel similar to the Generated DBRC Command panel is displayed, which shows sample DBRC output:

Figure 105. RECON: Generated DBRC Command panel
Reports

This topic details the reports that Control Suite can generate:

- "Utility Exception report"
- "List History report" on page 93
- "Image Copy report" on page 96

Utility Exception report

The Utility Exception report tells you what is wrong with your data sets in the RECON. The report shows exceptions, such as Backout Needed, Recov needed, and others.

Run the Utility Exception report by issuing the `urep01v?` command, where the `?` represents the level of IMS that you are currently running.

After entering the command, the Batch/Foreground Report Generation panel is displayed:

![Batch/Foreground Report Generation panel](image)

These settings are unique to your userid, and will be saved upon exit from Control Suite.

The first time this panel is accessed you are prompted to specify the exception conditions to check. These settings are unique to your user ID and are saved when you exit Control Suite.

Enter Y if you want to run the report in batch mode, or N if you do not want to run the report in batch mode, and press Enter. The output report produced, either in foreground or in batch, is shown in Figure 107 on page 93. Notice that the individual selections are shown in the preface of the UREP01V? report.
List History report

The `LIST.HISTORY` command has been modified to provide additional information. Under each data set name, there is a series of lines that show the data set attributes. (An example of this is shown in Figure 109 on page 94 on the List DBD/DBDS History panel.) Use this information to determine whether the data set needs to be reorganized. If the values are blank, you should check the data set to see whether it has been initialized correctly.

There are three commands, all of which will generate the list history report. They are listed as follows in order of granularity, from most granular to least granular.

- **LIST.HISTORY DBDS**
  This command shows you all the data set information for the DBDS that you are working with.

- **LIST.HISTORY DBD**
  This command shows you all the DBDS for the DBD that you are working with.

- **LIST.HISTORY DBDSGRP**
  This command shows you the group of DBDs that you are working with.
Access the Generating a List History Report panel by issuing the list command within a CS group ID in the Maintain RECON subtask. In this example, a list is produced of the information extracted from the DBRC DBDS records:

```
IDLRLI2A IMS DB CONTROL SUITE(C) V3.2 - BASE 5 Matches
IMS7P002 RECON SELECTION function for CS ID IMS7P IMS Version 7.1
Command ==>> Scroll ==>> PAGE

Press ENTER to continue or END to exit

Enter F string on the ISPF command line to display commands with that string in the description field. Enter F without a string to display all commands.

Select (S) or help (H)
COMMAND DESCRIPTION
LDBD7 LIST.DBD, THE LIST.HISTORY DBD VERSION OF THE COMMAND, VER 7
LDBS7 LIST.DBDS, THE LIST.HISTORY DBDS VERSION OF THE COMMAND, VER 7
LHISTC7 LIST.HISTORY CAGRP, LIST THE HISTORY OF THE GROUP, VERSION 7
LHISTD7 LIST.HISTORY DBD, INCLUDING LIST.DBD AND LIST.DBDS, VERSION 7
LHIST7 LIST.HISTORY DBDSGRP, LIST GROUP HISTORY, VERSION 7

************* Bottom of data *************
```

Figure 108. Generating a List History Report

Select a command and press Enter. The List DBD/DBDS History panel is displayed:

```
IDLRLDB1 IMS DB CONTROL SUITE(C) V3.2 - BASE Matches
RECON LIST HISTORY DB/DBDS function for CS ID IMS7P IMS Version 7.1
Command ==>>

Press ENTER to continue or END to exit

Enter F string on the ISPF command line to display rows with string in them.

Note: Select a NULL definition if you only want to list a DB and not a DBDS or AREA.

Select (S)
DBNAME TYPE SHR PAR DDN DSNAM
SMPORDP1 IMS 3 **NULL** **NULL**
SMPORDP1 IMS 3 SMPORD1P LGRIM.V317.IVP.SMPORD1P.HIDAM.OSAM
SMPORDX1 IMS 3 **NULL** **NULL**
SMPORDX1 IMS 3 SMPORD1X LGRIM.V317.IVP.SMPPAY1P.ESDS
SMPPAY1 IMS 3 **NULL** **NULL**
SMPPAY1 IMS 3 SMPPAY1P LGRIM.V317.IVP.SMPPAY1P.HIDAM.ESDS
SMPPAY1 IMS 3 **NULL** **NULL**
SMPPAY1 IMS 3 SMPPAY1Y LGRIM.V317.IVP.SMPPAY1Y.SECINDEX
SMPPAY1 IMS 3 **NULL** **NULL**
SMPPAY1 IMS 3 SMPPAY1Y LGRIM.V317.IVP.SMPPAY1Y.SECINDEX

************* Bottom of data *************
```

Figure 109. RECON: List DBD/DBDS History panel (IDLRLDB1)

Select a database name and press Enter. The List History Report DBD Selection panel is displayed:
Choose the DBD or area that you want to generate a List History report for and press Enter. The List History report is generated. The settings listed from the SPACE field to the VOLUMES field are extra information that is being produced to help you determine if you need to reorganize. Scroll down to see the entire list history report:

**Figure 110. List History Report DBD Selection panel (IDLRLHI2)**

Choose the DBD or area that you want to generate a List History report for and press Enter. The List History report is generated. The settings listed from the SPACE field to the VOLUMES field are extra information that is being produced to help you determine if you need to reorganize. Scroll down to see the entire list history report:

**Figure 111. List History Report (Part 1 of 2)**
Image Copy report

Use the Image Copy Report to quickly determine whether an image copy has been flagged in error. In this example, the image copy report is a condensed list of information shown in the RECON:
Use the Image Copy Report Selection panel to select either an individual image copy report, or a report on all image copies. In this example, Y indicates that all image copies will be included in the report:

<table>
<thead>
<tr>
<th>DBNAME</th>
<th>DSNNAME</th>
<th>DSNNAME</th>
<th>COPYTIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORDP1A</td>
<td>HORDP1AA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00001</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HORDP1B</td>
<td>HORDP1BA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00002</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HORDP1B</td>
<td>HORDP1BA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00002</td>
<td>02.270 17:09</td>
</tr>
<tr>
<td>HORDP1C</td>
<td>HORDP1CA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00003</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HORDP1C</td>
<td>HORDP1CA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00003</td>
<td>02.270 17:09</td>
</tr>
<tr>
<td>HPAYP1A</td>
<td>HPAYP1AA</td>
<td>VND0452.CSVER2H.IVP.HPAYP1.A00001</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HPAYP1B</td>
<td>HPAYP1BA</td>
<td>VND0452.CSVER2H.IVP.HPAYP1.A00002</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HPAYP1C</td>
<td>HPAYP1CA</td>
<td>VND0452.CSVER2H.IVP.HPAYP1.A00003</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HPAYY1A</td>
<td>HPAYY1AA</td>
<td>VND0452.CSVER2H.IVP.HPAYY1.A00001</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HSUPP1A</td>
<td>HSUPP1AA</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.A00001</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HSUPP1A</td>
<td>HSUPP1AA</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.A00001</td>
<td>02.270 17:09</td>
</tr>
<tr>
<td>HSUPP1A</td>
<td>HSUPP1AB</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.B00001</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HSUPP1B</td>
<td>HSUPP1BA</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.A00002</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HSUPP1B</td>
<td>HSUPP1BA</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.A00002</td>
<td>02.270 17:09</td>
</tr>
<tr>
<td>HSUPP1B</td>
<td>HSUPP1BB</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.B00002</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HSUPP1B</td>
<td>HSUPP1BB</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.B00002</td>
<td>02.270 17:09</td>
</tr>
<tr>
<td>HSUPP1C</td>
<td>HSUPP1CA</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.A00003</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HSUPP1C</td>
<td>HSUPP1CA</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.A00003</td>
<td>02.270 17:09</td>
</tr>
<tr>
<td>HSUPP1C</td>
<td>HSUPP1CB</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.B00003</td>
<td>02.149 15:54</td>
</tr>
<tr>
<td>HSUPP1C</td>
<td>HSUPP1CB</td>
<td>VND0452.CSVER2H.IVP.HSUPP1.B00003</td>
<td>02.270 17:09</td>
</tr>
</tbody>
</table>

---

**Figure 113. Image Copy Report Selection**

This image copy report shows all image copies:

<table>
<thead>
<tr>
<th>Menu Utilities Compilers Help</th>
<th>BRWNCL VND0452.CS.AUDIT.LGF(TJ16252)</th>
<th>Line 0000000 Col 011 120</th>
</tr>
</thead>
</table>
| Command ...
| Scroll ...
<p>| Top of Data ******************* Bottom of data ******************* |</p>
<table>
<thead>
<tr>
<th>DBNAME</th>
<th>DSNNAME</th>
<th>DATASET NAME</th>
<th>COPY</th>
<th>COPYTIME</th>
<th>TDGUNIT</th>
<th>TDGGENSERIAL</th>
<th>TK</th>
<th>STOP</th>
<th>TIME</th>
<th>REC.</th>
<th>COUNT</th>
<th>FIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORDP1A</td>
<td>HORDP1AA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00001</td>
<td>1</td>
<td>02.149 16:54:10.8 - R*</td>
<td>00:00:00:00:00</td>
<td>00:00:00:00:00</td>
<td>14</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HORDP1B</td>
<td>HORDP1BA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00002</td>
<td>1</td>
<td>02.149 16:54:16.7 - R*</td>
<td>00:00:00:00:00</td>
<td>00:00:00:00:00</td>
<td>15</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HORDP1B</td>
<td>HORDP1BA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00002</td>
<td>1</td>
<td>02.149 16:54:16.7 - R*</td>
<td>00:00:00:00:00</td>
<td>00:00:00:00:00</td>
<td>15</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HORDP1C</td>
<td>HORDP1CA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00003</td>
<td>1</td>
<td>02.149 16:54:03.6 - R*</td>
<td>00:00:00:00:00</td>
<td>00:00:00:00:00</td>
<td>15</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HORDP1C</td>
<td>HORDP1CA</td>
<td>VND0452.CSVER2H.IVP.HORDP1.A00003</td>
<td>1</td>
<td>02.149 16:54:03.6 - R*</td>
<td>00:00:00:00:00</td>
<td>00:00:00:00:00</td>
<td>15</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPAYP1A</td>
<td>HPAYP1AA</td>
<td>VND0452.CSVER2H.IVP.HPAYP1.A00001</td>
<td>1</td>
<td>02.149 16:54:05.0 - R*</td>
<td>00:00:00:00:00</td>
<td>00:00:00:00:00</td>
<td>51</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPAYP1A</td>
<td>HPAYP1AA</td>
<td>VND0452.CSVER2H.IVP.HPAYP1.A00001</td>
<td>1</td>
<td>02.149 16:54:10.4 - R*</td>
<td>00:00:00:00:00</td>
<td>00:00:00:00:00</td>
<td>51</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Figure 114. Image Copy Report**
Audit log maintenance

The audit log is a data set that is created the first time that you use Control Suite version 3.2. Its name is derived from the `permdshlq` parameter defined during Control Suite startup. For example, if `permdshlq` is `IMSV8.CS22`, then the audit data set name built is `IMSV8.CSV22.AUDIT.LOG`.

This data set is a partitioned data set, and can be searched with the IBM ISPF Search-For option, or you can view it as with any other PDS. Any output that is created as part of a DBRC maintenance function is created in this library with a member name that contains the time that the function was run. If you sort the PDS by changed date, the most recent changes in the RECON data set are displayed.

You can maintain this PDS by running the Utility Log Maintenance function `UTIL, DELETE AUDIT.LOG MEMBERS`. Use this function to delete all members before a certain date, after which, the audit log is compressed. If you do not want to choose your own date, the default date is two months prior to the current date.

![Figure 115. Audit Log Maintenance panel](image-url)
Chapter 6. Library integrity checking

This chapter describes how to run the Library Integrity Utilities (LIU) in an interactive mode using Control Suite. The Library Integrity Utilities consist of several utilities that help you maintain your databases:

- DBD/PSB/ACB Compare
- DBD/PSB/ACB Mapper
- DBD/PSB/ACB Reverse
- GEN DBD/PSB/ACB
- Compress
- ACBlib Analyzer

These utilities are independent of each other.

The following topics provide additional information:

- “Starting the Library Integrity Utilities”
- “Using the Compare, Map, and Reverse utilities” on page 100
- “Generating PSBs, DBDs, and ACBs” on page 106
- “ACBlib analyzer utility” on page 110

Starting the Library Integrity Utilities

To access the Library Integrity Utilities, select option 4, Perform library integrity checking, on the Select a Control Suite Task panel (IDLP00). The Library Management panel is displayed:

![Library Management panel (IDLP40)](image)

Select one of the library integrity utilities offered by Control Suite. The functions available on this panel are:

**Compare/Map/Reverse utilities**

These three utilities help you analyze DBDs, PSBs, and ACBs:
- The Compare utility compares different versions of the same IMS DBD, PSB, or ACB. It prepares reports that show the differences between control blocks that have the same name, but reside in separate object libraries.
- The Map utility produces printed maps (pictures of the segment hierarchy) from DBDs, PSBs, and ACBs. It also produces detailed reports that describe DBDs, PSBs, and ACBs.
- The Reverse utility converts control blocks back into IMS DBDGEN, PSBGEN, or ACBGEN utility control statements. It optionally produces records that are suitable as control statements to the DBD/PSB/ACB Mapper utility. The Reverse utility also produces useful summary reports of IMS DBD, PSB, and ACB libraries. These reports present IMS member information, such as DBD, PSB, or ACB organization and the relationship among members.

Compress
This utility compresses the DBD, PSB, or ACB library to create more space for newly created control blocks. This is useful if you run into space problems while generating new DBDs, PSBs, or ACBs.

DBDGEN, PSBGEN, and ACBGEN
These utilities create control statements that generate DBDs, PSBs, or ACBs. The control blocks supply the identification and characteristics of a database (such as database name, database organization, logical terminal name, and logical data structure) to IMS.

If you detect a problem with a control block, correct the problem and regenerate the DBD, PSB, or ACB.

ACBlib Analyzer
This utility analyzes ACB libraries. It verifies that all ACB library members are at the same IMS version and release level and that the library was not inadvertently used during a DBDGEN or PSBGEN. This utility can also produce several reports.

Consistency Checker
This utility ensures that the necessary definitions in an IMS subsystem have been created for your database. This utility also decides which definitions are verified depending on the user input and the database organization defined in the specified DBD.

Set up Integrity Checker
This function prevents both batch programs and the IMS system from using the wrong IMS control blocks for access to a database, it verifies the following two DMBs during the database authorization:
- The DMB that was used to load the database
- The DMB that IMS is using to get access to a database

Using the Compare, Map, and Reverse utilities
The process for selecting and running the Compare, Map and Reverse utilities is the same for DBDs, PSBs, and ACBs. For this reason, the Compare, Map, and Reverse discussions in this chapter are generalized and refer to IMS components rather than to DBDs, PSBs, and ACBs.

Select options 1, 4, or 7 on the Library Management panel (IDLP40), Figure 116 on page 99 to display the Select Compare, Map, or Reverse Utilities panel:
The options on this panel are:

**Compare IMS Components**
Select this option if you want to compare IMS components.

**Map IMS Components**
Select this option if you want to map IMS components.

**Reverse IMS Components**
Select this option if you want to reverse IMS components from the execution libraries into source code.

After you select a subtask and press Enter, the DBD Selection panel is displayed:

![DBD Selection panel](image)

Select the DBD that you want to perform the action on and press Enter.

**Compare utility: Specifying member and libraries**
Select option 1, Compare IMS Components from the Select Compare, Map, and Reverse Utilities panel (IDLP41), to display the Compare Parameters panel:
Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

**Member name**
Specify the member name of the DBD, PSB, or ACB that you want to compare.

**Compare from library**
Specify the name of the library that contains the DBD, PSB, or ACB.

**Compare to library**
Specify the name of the "to" library that contains the DBD, PSB, or ACB that you want to compare.

Specify the member name of the object that you want to compare and the libraries that are involved in the comparison, and press Enter. The Compare utility runs and generates a report.

### Compare utility: Browsing and printing output files

Use the Compare Browse or Print Reports panel to browse or print files produced by the Compare utility.

Select option 1, Compare IMS Components on the Select Compare, Map, and Reverse Utilities panel (IDLP41), shown in Figure 117 on page 101. The Compare Browse or Prints Reports panel is displayed:

![Figure 119. Library: Compare - Parameters panel (IDLP411)](image1)

Consult the Control Suite online help for descriptions of the fields on this panel.

Your choices of files are:

- **SYSPRINT**
  SYSPRINT contains the output from the LMU compare report.

- **SYSOUT**
  The SYSOUT data set contains a list of program messages. You can use these messages for diagnostic purposes.
Mapper utility: Specifying member names and libraries

Select option 2, Map IMS Components on the Select Compare, Map, and Reverse Utilities panel (IDLP41), Figure 117 on page 101 and then select a DBD on the Library DBD Selection panel (IDLSMAID) to display the Mapper-Parameters panel:

Specify the member name of the object you want to map and the DBD, ACB, and PSB library names. Consult the Control Suite online help for descriptions of the fields on this panel.

Press Enter. The Mapper utility produces output for you to review.

The fields on this panel are:

Member name
Specify the member name of the DBD, PSB, or ACB that you want to map.

DCB/ACB Library name
Specify the name of the library that contains the DBD or ACB that you want to map.

PSB library name
Specify the name of the library that contains the PSB that you want to map.

MAP ONLY
This option lets you specify whether you want only a map or both a map and a report to be produced.

Mapper utility: Browsing and printing output files

Browse or print files produced by the Mapper utility on the Browse or Print Reports panel.

Select option 2, Map IMS Components on the Select Compare, Map, and Reverse Utilities panel (IDLP41), shown in Figure 117 on page 101 The Mapper Browse or Print Reports panel is displayed:
SYSPRINT contains the output from the Mapper utility. Output can consist of only a map or both a map and a report, depending on how you responded to the MAP ONLY query on the previous panel.

SYSOUT
The SYSOUT file contains a list of program messages. You can use this file for diagnostic purposes.

Reverse utility: Specifying member names and libraries
Select option 3, Reverse IMS Components, on the Select Compare, Map, and Reverse Utilities panel (IDLP41), Figure 117 on page 101 and then select a DBD on the Library DBD Selection panel (IDLSMAID), to display the Reversal-Parameters panel:

Specify the member name and library associated with the object that you want to reverse. You can also specify various control statements. Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

Member name
Use this field to specify the member name of the DBD, PSB, or ACB that you want to reverse.

Library data set name
Use this field to specify the name of the library data set that contains the DBD, PSB, or ACB you want to reverse.
Control Statements Requested
In this field, you can specify various control statements that will produce reports in a variety of formats.

LIST
This keyword specifies the generation of reports in the SYSPRINT data set. The following reports are generated:
- DBD XREF by Access reports
- PSB XREF by Type reports
- ACB(DBD) XREF by Access reports
- ACB(PSB) XREF by Access reports

DECODE
This keyword specifies that this program re-creates the control statements of the IMS DBDGEN/PSBGEN utility in the SYSPUNCH data set.

If you specify the MAPOUT data set, this program generates records that are suitable as input (SYSIN) control statements to the DBD/PSB/ACB Mapper program.

XREF
This keyword specifies the generation of reports in the SYSPRINT data set. The following reports are generated:
- DBD to DBD XREF report
- PSB to DBD XREF report
- ACB(DBD) to ACB(DBD) XREF report
- ACB(PSB) to ACB(DBD) XREF report

DDNAMES
This keyword specifies the generation of reports in the SYSPRINT data set. The following reports are generated:
- DBD XREF by DDNAME report
- ACB(DBD) XREF by DDNAME report

PROCOPT
This keyword specifies the generation of reports in the SYSPRINT data set. The following reports are generated:
- PCB PROCOPT Report
- PCB/ACB(PSB) PROCOPT Report

The PROCOPT keyword is valid when you are reversing a PSB. It is not valid when you are reversing a DBD or an ACB.

In other words, the PROCOPT and DDNAMES keywords are mutually exclusive.

Reverse utility: Browsing and printing the output files
After the reverse has been performed, the Browse Print Files panel is displayed:
Depending on which parameters you specified, you will have a choice of the following data sets to browse or print:

**SYSPUNCH**

SYSPUNCH is a sequential data set that contains the reversed DBD source.

**MAPOUT**

This data set contains the name of the member that was reversed.

**SYSPRINT**

This data set contains several reports:
- DBDNAME and ACCESS METHOD
- ACCESS, COUNT, and DBDNAME
- Reference report
- Referenced report

**SYSOUT**

The SYSOUT file contains a list of program messages. Use this file for diagnostic purposes.

**SYSIN**

This data set contains the control statement that identifies the IMS component to be reversed. Use this file for diagnostic purposes.

**DBDSRC**

This source library file contains the reversed DBD source as a unique member.

---

**Generating PSBs, DBDs, and ACBs**

Use the Generate PSBs, DBDs, and ACBs function to interactively generate a DBD, PSB, or ACB. If you generate a new DBD or PSB, you also should generate an ACB, so that you pick up the latest levels of the DBD or PSB.

If you select DBDGEN, PSBGEN, or ACBGEN from the Library Management panel (IDLP40), the following Bring Down IMS warning panel is displayed, which indicates that you must end IMS before proceeding:
If you want to proceed, or press End to exit.

If you choose to continue, you will be asked for the names of the member, data set, and libraries.

**DBDGEN and PSBGEN**

If you have requested a DBDGEN or a PSBGEN, the DBDGEN and PSBGEN panel is displayed:

Consult the Control Suite online help for descriptions of the fields on this panel.

The fields on this panel are:

**DBD/PSB source data set**
Enter the name of the source DBDGEN or PSBGEN data set.

**Member name**
Enter the name of the member that you want to create.

**DBD/PSB library**
Enter the name of the library where you want to store the newly generated DBD or PSB.

After you have entered the required parameters, the GEN runs, and produces the Browse or Print Reports panel:
You can browse all the files, and print the following files:

**MEMBERNAME.SYSPRINT**
This file contains the assembly listing from the GEN.

**LKED.MEMBERNAME.SYSPRINT**
This file contains the link-edit output from the GEN.

### ACBGEN

If you have requested an ACBGEN, the ACBGEN panel is displayed:

![ACBGEN panel](image)

**Figure 128. Library: ACBGEN panel (IDLP48)**

This panel has two sections: use the top half of the panel to specify advanced ACBGEN parameters; use the bottom half of the panel to specify other ACBEN parameters.

The following four parameters pertain only to advanced ACBGEN:

**Use Fast ACBGEN**
Specify Y if you want to use the advanced ACBGEN utility.

**Load library**
Enter the load library name where the advanced ACBGEN was installed.
ACBSYSIN data set name
Enter the name of the data set where the ACBSYSIN control statements reside.

ACBSYSIN member
Enter the name of the ACBSYSIN member where the ACBSYS control statements reside.

For more information, see the *Fast ACBGEN User's Guide*. The remaining parameters pertain to all ACBGENs; all are required.

SYSIN data set name
Enter the name of the SYSIN data set that contains the control statements.

SYSIN member
Enter the name of the SYSIN member that contains the control statements.

ACB library
Enter the name of the ACB library.

PSB library
Enter the name of the PSB library.

DBD library
Enter the name of the DBD library.

Press Enter to generate the ACB.

Using the Compress utility for DBDs, PSBs, and ACBs
Use the Compress utility to compress DBD, PSB, and ACB libraries.

If you select one of the Compress utilities from the Library Management panel (IDLP40), a warning panel is displayed that indicates that you must end IMS before proceeding.

Restriction: Do not run the Compress utility without bringing down IMS. If you try to execute the utility while IMS is still active, a warning is issued. If you proceed and IMS is still active, the utility will not execute.

If you choose to proceed with the compression, the Specify IMS Library panel is displayed:

```
IDLP43     IMS DB CONTROL SUITE(C) V3.2 - BASE
LIBRARY    ACBCMPRS   function for CS ID IMS6   IMS Version 8.1
Command   ==> [TIME. .15:22:31.41]
          Press ENTER to continue or END to exit.   [DATE. .2001/04/29]
          IMS Library . .   [JDATE. .2001.119]
```

*Figure 129. Library: Compress - Specify IMS Library panel (IDLP43)*

Enter the name of the IMS library that you want to compress and press Enter. The library is compressed.
ACBlib analyzer utility

This utility analyzes ACB libraries. It verifies that all ACB library members are at the same IMS version and release level, and that all members were placed in the ACB library by the ACBGEN process, which means that the library was not inadvertently used during a DBDGEN or PSBGEN. The utility also produces several reports.

For more information on the ACBlib Analyzer Utility, see the Fast ACBGEN User's Guide.

If you select the ACBlib Analyzer Utility from the Library Management panel (IDLP40), Figure 116 on page 99, the ACB Parameters panel is displayed:

```
IDLP4A IMS DB CONTROL SUITE(C) V3.2 - BASE
LIBRARY ACBANLY function for CS ID IMS6 IMS Version 8.1
Command ===> 
Press ENTER to continue or END to exit.
ACBSYSIN data set name ..
ACBSYSIN member ..
ACB library ..
```

Figure 130. Library: ACBlib Analyzer Parameters panel (IDLP4A)

Enter the parameters that identify the ACB to be analyzed:

**ACBSYSIN data set name**
  Enter the name of the data set where the ACBSYSIN control statements reside.

**ACBSYSIN member**
  Enter the name of the ACBSYSIN member where the ACBSYS control statements reside. If it is omitted, the default operand values for the LISTLIB are used.

**ACB library**
  Specify the library where the ACBlib Analyzer utility was installed.
Chapter 7. Accessing other IMS tools

You can use Control Suite to launch other IMS tools that are installed on your system.

To access other IMS tools, select ISPF Links to Other IMS Tools (option 5) on the Select a Control Suite Task panel (IDLP00), [Figure 11 on page 14] The ISPF Links Select a Subtask panel gives you access to several tools.

<table>
<thead>
<tr>
<th>IDLP50</th>
<th>IMS DB CONTROL SUITE(C) V3.2 - BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOOLBOX</td>
<td>function for CS ID IMS7P IMS Version 7.1</td>
</tr>
<tr>
<td>Command</td>
<td>===&gt;</td>
</tr>
<tr>
<td>TIME.</td>
<td>.12:50:33.83</td>
</tr>
<tr>
<td>DATE.</td>
<td>.2005/06/21</td>
</tr>
<tr>
<td>JDTE.</td>
<td>.2005.172</td>
</tr>
</tbody>
</table>

Select a tool to continue or END to exit

Tools . .
1. Database Repair Facility
2. High Performance Change Accum
3. HALDB Conversion and Maintenance Aid
4. IMS Command Control Facility

Figure 131. ISPF Links: Select a Subtask panel (IDLP50)

DATABASE REPAIR FACILITY
Select this option to run the IMS Database Repair Facility, which lets you interactively correct pointer or data errors in IMS database data sets.

Related reading: For more information about the Database Repair Facility, see IMS Database Repair Facility for OS/390 User's Guide.

HIGH PERFORMANCE CHANGE ACCUM
This option launches the IMS High Performance Change Accumulation Utility.

Related reading: For more information about the IMS High Performance Change Accumulation Utility, see IBM IMS High Performance Change Accumulation Utility for z/OS User's Guide.

HALDB Conversion and Maintenance Aid
This option launches the IMS High Availability Large Database Conversion and Maintenance Aid for z/OS.

Related reading: For more information about the IMS High Availability Large Database Conversion and Maintenance Aid for z/OS, see IMS High Availability Large Database Conversion and Maintenance Aid for z/OS User's Guide.

IMS Command Control Facility
This option launches the IMS Command Control Facility.

Related reading: For more information about the IMS Command Control Facility, see IMS Command Control Facility for z/OS User's Guide.
Chapter 8. Managing Control Suite

Use the system administration function to back up and recover your Control Suite table data set and to diagnose system problems.

**Recommendation:** Back up your table data set regularly, especially after you have collected a substantial amount of data.

The following topics provide additional information:
- "System management subtasks"
- "Backing up the Control Suite table data set" on page 114
- "Recovering the Control Suite table data set" on page 114
- "Diagnosing Problems" on page 115

**System management subtasks**

Select option 6, System Administration, from the Select a Control Suite Task panel (IDLP00), Figure 11 on page 14, to display the System Administration Select a Subtask panel:

```
IDLP00 IMS DB CONTROL SUITE V3.2 - BASE
SYSADMIN function for CS ID IMSBH IMS Version 8.1
Command ===> TIME. .14:04:56.59
          DATE. .2004/04/14
          JDTE. .2004.105

Select a Control Suite administration task to continue or END to exit

Subtask . 1. Backup table data set
          2. Recover table data set
          3. Diagnosis
          4. Update table data set after SMPE maintenance
```

*Figure 132. SYSADMIN: Select a Subtask panel (IDLP00)*

The subtasks on this panel are:

**Backup Control Suite Table Data Set**
Use this subtask to back up the Control Suite table data set periodically.

**Recover Control Suite Table Data Set**
Use this subtask to recover Control Suite table data set if it is archived.

**Diagnosis**
Use this subtask to debug Control Suite system problems.

**Update table data set after SMPE maintenance**
Use this subtask if SMPE "++HOLD" instructs you to do so after you apply Control Suite maintenance.
Backing up the Control Suite table data set

1. Select option 1, Backup Control Suite Table Data Set, on the System Administration Select a Subtask panel (IDLPA0), Figure 132 on page 113, and press Enter. The Backup Control Suite Table Data Set panel is displayed:

```
000001 //BACKUPCS JOB,
000002 // MSGLEVEL=1,TIME=5,CLASS=A,MSGCLASS=H,
000003 // NOTIFY=SAMPID,USER=SAMPID,REGION=OM
000004 /*
000005 /*MEMBER=IDLBUJC
000006 */
000007 */
000008 /*MEMBER=IDLBU01
000009 */
000010 /*  IKJEFT01 STEP - IDLTB32 data set backup */
000011 /* */
000012 /*************************** Bottom of Data *******************/
000013 //TRKTM EXEC PGM=IKJEFT01
000014 //SYSTSPRT DD SYSOUT=* 
000015 //SYSTSIN DD *
000016 HBACK 'SAMPID.CSVER227.IDLTABL'
000017 /*
```

Figure 133. System Administration: Backup Control Suite Table Data Set panel (ISREDDE2)

2. Submit the job and press Enter, or press End to exit the subtask.

Recovering the Control Suite table data set

1. Select Option 2, Recover Control Suite Table Data Set, on the System Administration Select a Subtask panel (IDLPA0), Figure 132 on page 113, and press Enter. Control Suite generates a job to recover the table data set:
2. Submit the job and press Enter.

Diagnosing Problems

Use the instructions in this section to assist IBM support when diagnosing Control Suite problems.

1. From the System Administration Select a Subtask panel (IDLPA0), Figure 132 on page 113, select option 3, Diagnosis. The Debugging Options panel is displayed:

```
Command ===>
****** ************************************************************** Top of Data **************************************************************
000001 //RECOVERS JOB ,
000002 // MSGLEVEL=1,TIME=5,CLASS=A,MSGCLASS=H,
000003 // NOTIFY=SAMPID,USER=SAMPID,REGION=0M
000004 */
000005 /*+MEMBER=IDLBUIJC
000006 */
000007 */
000008 /*+MEMBER=IDLBUI01
000009 */
000010 /* IKJEFT01 STEP - IDLTABL data set recovery *
000011 */
000012 //********************************************************************************
000013 //TRKTME EXEC PGM=IKJEFT01
000014 //SYSTSPRT DD SYSOUT=* 
000015 //SYSTSIN DD *
000016 HRECOVER 'SAMPID.CSVER227.IDLTB32'
000017 */
****** ************************************************************** Bottom of Data **************************************************************
```

Figure 134. Job to recover the Control Suite table data set

The functions available on this panel are:

1. **Set Debugging Options**
   
   If IBM support asks you to trace a program, enter the name of the REXX program name here, and re-run your failed scenario. Next, send the trace output to IBM support for problem resolution. IBM support might ask you to enter the keyword SAVEDSNS to save work data sets, and to specify a program name.
2. **System Information**
   This function displays the output of the ISPF diagnostic routine ISPVCALL.

3. **Tool Library APAR Information**
   This function displays the list of installed tools from which you can select one to generate a Load Module APAR Status Report on the tool library.

2. If you select option 1, Set Debugging Options, the Specify Debugging Options panel is displayed. IBM Support will tell you to enter a REXX program name or the keyword SAVEDSNS. Press Enter to re-run the function that IBM Support has requested you to run and capture the data displayed in the product panels for IBM Support use.

3. If you select option 2, System Information, a trace report is displayed. This report lists your session variables and other TSO-related information. IBM Support might ask you to capture this report and provide it to them.

4. If you select option 3, Tool Library APAR Information, a list of the IMS tools installed on your system is displayed, as shown in Figure 136.

```
IDLROIA0 IMS DB CONTROL SUITE V3.2 - BASE
DIAGNOSIS FOR TOOL LIBRARIES function for CS ID SMP7 IMS Version 7.1
Command ===> Select ($) to continue or END to exit

HPIC/ICE Image Copy Extensions IMSTOOL.HPIC31.FAB.SHPXMLD0
High PerformanceUnload IMSTOOL.HPUL.FAB.SHPXMLD0
High PerformanceLoad IMSTOOL.HPLD.FAB.SHPXMLD0
IMS Parallel Reorg IMSTOOL.IPR21.SHPXMLD0
High PerformancePtr. Checker IMSTOOL.HPPC.HPS.SHPXMLD0
Library Integrity Utilities DBMAIN.LIU110.SHPXMLD0
Fast Path Basic Tools IMSTOOL.FPB.FAB.SHPXMLD0
```

Figure 136. Diagnosis for Tool Libraries

You can select a tool and generate a Load Module APAR Status Report. The report shows the module name, alias name, CSECT name, APAR number, APAR fix date, CSECT name and APAR number.
Appendix A. Initial edit macro user exit for running jobs

The following sample ISPF initial edit macro is invoked prior to every Control Suite edit display for job submission. If you want to customize Control Suite-generated JCL prior to edit display and job submission, you can customize it using standard ISPF/PDF edit commands. The macro is found in the SIDLCEXE library as member IDLEMAC1. Replace this sample with your customized version.

```rexx
/* REXX ******************************************************* rexx ******************************************************* /
/* ********************************************************** PROLOGUE ********************************************************** /
/* ********************************************************** Name: IDLEMAC1 ********************************************************** /
/* ********************************************************** Description: Initial Edit Macro user exit for GENJCL ********************************************************** /
/* ************************************************************** LICENSED MATERIALS - PROPERTY OF IBM ************************************************************** /
/* 5655-L08 (C) COPYRIGHT IBM CORP. 2005 ALL RIGHTS RESERVED. ************************************************************** /
/* US GOVERNMENT USERS RESTRICTED RIGHTS - USE, DUPLICATION OR DISCLOSURE RESTRICTED ************************************************************** /
/* BY GSA ADP SCHEDULE CONTRACT WITH IBM CORP ************************************************************** /
/* Status: IMS DB CS 3.2 ************************************************************** /
/* Module type: rexx ************************************************************** /
/* Changes: ************************************************************** /
/* APAR... ID PREREQ. DATE.... DESCRIPTION..................
---+----1----+----2----+----3----+----4----+----5----+----6----+----
Address ISPEXEC "VGET (DEBUG) SHARED"
if DEBUG = 'IDLEMAC1' then trace r
/*********************************************************************/
/* Execute the actual edit commands before the actual edited GENJCL */
/* created data set is displayed for edit. */
/*********************************************************************/
address ISPEXEC ISREDIT MACRO
/*********************************************************************/
/* Sample commands */
/*********************************************************************/
/* Use this command to: */
/* tell ISPF edit to delete all lines from the data set before it is */
/* displayed for editing. */
/*********************************************************************/
/*address ISPEXEC ISREDIT "DELETE ALL NX"*/
/* Use this command to: */
/* tell ISPF edit to change all specified character strings to */
/* another character string before the data set is displayed. */
/*********************************************************************/
/*address ISPEXEC ISREDIT "CHANGE 3480 3390 ALL"*/
/*********************************************************************/
/* Use this command to: */
/* execute the actual edit command " INSERT_AFTER" to add a user */
/* built line after the last line that will be displayed for the */
/* edited data set. */
/*********************************************************************/
```

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/address ISPEXEC ISREDIT "LINE_AFTER .ZLAST = DATALINE" userline/*
/***************************************************************/
/* Use this command to: */
/* Tell ISPF edit that there is no need to display the data set */
/* for edit now, by simulating END (PF3). */
/***************************************************************/
/* address ISPEXEC ISREDIT "END" */
return  
/***************************************************************/
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Bibliography

This section lists the documentation that supports Control Suite. Use the appropriate library for the version of IMS that you are using.

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IMS Version 9 product information
- Administration Guide: Database Manager, SC18-7806
- DBRC Guide and Reference, SC18-7818
- Installation Volume 1: Installation Verification, GC18-7822
- Installation Volume 2: System Definition and Tailoring, GC18-7823
- Utilities Reference: Database and Transaction Manager, SC18-7833
- Utilities Reference: System, SC18-7834

IMS Version 8 product information
- Administration Guide: Database Manager, SC27-1283
- DBRC Guide and Reference, SC27-1295
- Installation Volume 1: Installation Verification, GC27-1297
- Installation Volume 2: System Definition and Tailoring, GC27-1298
- Utilities Reference: Database and Transaction Manager, SC27-1308
- Utilities Reference: System, SC27-1309

IMS Version 7 product information
- Administration Guide: Database Manager, SC26-9419
- DBRC Guide and Reference, SC26-9428
- Installation Volume 1: Installation and Verification, GC26-9429
- Installation Volume 2: System Definition and Tailoring, GC26-9430
- Utilities Reference: Database and Transaction Manager, SC26-9440
- Utilities Reference: System, SC26-9441

Accessibility titles cited in this book
- z/OS ISPF User’s Guide, Volume 1, SC34-4822
- z/OS TSO/E Primer, SA22-7787
- z/OS TSO/E User’s Guide, SA22-7794

Related publications

Additional information can be found in the following publications:
- DFSMS/MVS® Access Method Services for ICF, SC26-4906
- DFSMS/MVS Planning for Installation, SC26-4919
- IMS Parallel Reorganization User’s Guide, SC18–9228
- z/OS MVS JCL Reference, GC28–1757
- z/OS MVS JCL User’s Guide, GC28-1758
- IMS Database Repair Facility for OS/390 User’s Guide, SC27-0942
- IMS High Availability Large Database Conversion and Maintenance Aid for z/OS User’s Guide, SC18-7249
- IMS Command Control Facility for z/OS User’s Guide, SC27-1168
Index

Numerics
3380 specifying for all image copy data sets 26, 46
3390 specifying for all image copy data sets 26, 46

A
ACBGEN 100
ACBGEN parameters 108
ACBlib Analyzer utility 100, 110
accessibility features xv
adding a new database 5
adding and removing IMS Tools, overview 16
All jobs, overview 83
audit log maintenance 98

B
backing up a database
 selecting the CS group ID 54
 selecting the job name 54
backing up the table data set 114
backing-out a DBD change 5
Backup function 54

C
changing a device type 4
changing accounting information 4
changing image copy record, example 89
Collect subtask
 image copy options 22
 specifying DBDS group 22
collecting DBDS group data
 overview 20
 specifying a DBDS group 21
 specifying image copy options 22
Command Control Facility 111
commands
 POP 86
 Select 87
Compare utility
description 100, 101
Compare utility report 102
Compress utility 100, 109
Control Suite
 concepts 3
 DBDS group
 associated title 22
 defined 3
 ID for identifying 3
 specifying 22
 defined 3
 definition of DBDS group 3
 examples of use 4
 Find feature 49

Control Suite (continued)
hardware requirements 5
highlights 1
ID, defined 3
individual control suite, defined 3
online help overview 5
overview 2
preparing to start 7
software requirements 5
starting a session 7
table data set 4
usage scenarios 4
conventions, global 18
creating a new CS ID 9
creating new DBDS group 22
CS ID
 accessing RECON maintenance directly 10
 creating a new CS ID 9
 defined 3

D
DASD
 GDG device type 25, 26, 45
 specifying for image copy data sets 26, 45
data sets
 history 20
 specifying IMS system 18
Database Recovery Facility 111
Database Recovery Facility, overview 80
database share level, propagating 30
databases
 monitoring offline 60
 monitoring online 60
 recovering 57
DBD, building a list file 28
DBDGEN 100
DBDLIB, Collect subtask input 16
DBDS group
 defined 3
 types 3
DBDSGRPs, loading 38
DDNAMES keyword for Mapper utility 105
DECODE keyword for Mapper utility 105
Define subtask, naming conventions 16
defining a control suite environment
data set and JCL conventions 18
overview 17
display attributes, customizing xv
DYNLIB, Collect subtask input 16, 20

E
examples
 RECON
 changing image copy record 89
 listing an image copy record 87

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examples (continued)
  using Scan utility 77

F
Fast Path
  Compare utility 70
  Create utility 70
  Delete utility 70
  Initialization utility 70
  Reorganization utility 70
  Scan utility 71
  support 69
  example using Scan utility 77
  panel flow 71
  utility descriptions 70
  utility features 71
  utilities 71
  utility jobs 69
  FDBDLIST 20, 29
  Find feature 49

G
GDG device type 25, 26, 45
GEN utilities 106
  ACBGGEN 100
  DBDGEN 100
  Library Management 99
  PSBGGEN 100
GEN Utility Listings report 108
global commands 90
  global share level 30
  global variables 18

H
hardware requirements 5
High Availability Large Database Conversion and
  Maintenance Aid for z/OS 111
High Performance Change Accumulation Utility 111
  high-level qualifier
    for CS permanent data sets 8
    length of 8
highlights 1
  history data set, creating 20

I
ID
  Control Suite (CS ID) 3
  Control Suite group ID 4
image copy
  global options panel 25
  options panel 27
  report 96
  specifying online image copy 27, 46
image copy record
  changing 89
  listing 87
  IMS
    backup jobs 54
    data set names 18
    recovery jobs 57
  IMS Command Control Facility 111
  IMS Database Recovery Facility 111
  IMS High Availability Large Database Conversion and
    Maintenance Aid for z/OS 111
  IMS High Performance Change Accumulation
    Utility 111
  IMS tools
    adding and removing 16
    launching from Control Suite 111
    listing installed tools 116
  installation verification procedure (IVP) 8
  ISPF
    links function 111
    using to start Control Suite 8
  IVP (installation verification procedure) 8
J
jobcard data, updating 31
K
keyboard shortcuts xv
L
launching IMS tools 111
Library Integrity utilities
  Compare/Map/Reverse utilities 106
  overview 99
Library Management utilities
  Compress utility 109
  interactive version 111
List History report 93
LIST keyword for Mapper utility 105
  listing an image copy record example 87
  listing installed IMS tools 116
  listing monitored databases 65
  loading DBDSGRPs
    loading in batch 38, 39
    loading one 38, 39
  LookAt message retrieval tool xiv
M
main task panel 13
Maintain RECON task, using the POP command 86
Maintain RECON, overview 85
managing Control Suite, overview 113
Mapper utility
  browsing output files 103
  description 100
Mapper utility (continued)
  printing output files 103
  specifying libraries 103
  specifying member names 103
Mapper utility report 104
message retrieval tool, LookAt xiv
migrating data from 3.1 to 3.2 9
Monitor subtask, described 59
monitoring and reorganizing databases
  listing monitored databases 65
  setting up monitor criteria 61
  submitting monitor job 64
monitoring databases 61
monitoring offline databases 60
monitoring online databases 60
MVS catalog, Collect subtask input 16

N
naming conventions
  Define subtask 16
  in pre-setup phase 7

O
offline databases, monitoring 60
online databases, monitoring 60
online help overview 5
optional parameters 8

P
pointer checker utility 60
POP command 86
problem diagnosis, described 115
PROCOPT keyword for Mapper utility 105
PSBGEN 100

R
RECON
  changing image copy record example 89
  maintaining 85
RECON maintenance
  accessing 10
  DBRC Fast Access 10
RECON, Collect subtask input 16
Recover databases function, described 57
recovering a database
  selecting a CS group ID 57
  selecting a job name 57
Register subtask, overview 16
Reorganize subtask 59
reorganizing databases 61
reports
  available through Control Suite 92
  Browse Space Monitor 65
  Compare Utility 102
  GEN Utility Listings 108
  Image Copy 96

reports (continued)
  List History 93
  Mapper utility 104
  Reversal Utility 106
  Utility Exception 92
  Verify 81
Reverse utility
  interactive version described 104
  interactive version, description 99
  specifying member names and libraries 104
Review subtask 16, 40
reviewing Control Suite definitions
  collected data 43
  defined variables 41
Running jobs, overview 53

S
Scan utility example 77
scenarios
  adding a new database 5
  backing-out a DBD change 5
  changing a device type 4
  changing accounting information 4
screen readers and magnifiers xv
Select command 87
selecting a Control Suite 9
selecting tasks 13
Setup function
  collect DBDS group data 20
  Define environment subtask 17
  described 15
  guidelines 15
  overview 15
  planning for 7
  Review defined/collection data 40
  subtasks 15
SMS and image copy data sets 26, 46
SMS class 41
software requirements 5
space monitor utility 60
starting Control Suite 8
SYSPRINT
  GEN Utility Listings 108
  Mapper utility report 104
  Reversal utility reports 106
system administration 113

T
table data set 4
table data set backup job, building 114
table data set recover job, building 114
tape
data set vol count 26, 46
  low-level qualifier for image copy data sets 26, 46
  retention period 26, 46
tasks, selecting 13
terminology 3
Title parameter 22
tools, adding and removing 16
U

updating jobcard data 31
user interface
default values on panels 21
guidelines 15
using Control Suite 4
using the Find feature 49
utilities
  Compare 100
  Fast Path 70
  Library Integrity 99
  Map 100
  Mapper 103
  pointer checker 60
  Reverse 100, 104
  space monitor 60
Utility Exception report 92
utility variables
  ACBGEN 100, 106
  ACBlib Analyzer 100
  Compare 100, 101
  Compress 100, 109
  DBDGEN 100, 106
  GEN 100
  library management 99
  Map 100
  PSBGEN 100, 106
  Reverse 99, 100, 104

X

XREF keyword for Mapper utility 105