

Administration Guide | PUBLIC
DBA Cockpit for SAP IQ
Document Version: 1.5.0 – 2022-11-09

SAP on SAP IQ

© 2024 SAP SE or an SAP affiliate company. All rights reserved.

THE BEST RUN SAP

Content

1 Introduction. . . . 4

2 Architecture Overview. . . . 6

2.1 SAP IQ Components. . . . 6

2.2 SAP IQ Data Access. . . . 7

3 The DBA Cockpit. . . . 9

3.1 The DBA Cockpit on a Local System and on SAP Solution Manager. . . . 10

3.2 Setting up the DBA Cockpit for SAP IQ. . . . 11

3.3 Authorizations for the DBA Cockpit. . . . 11

SAP Authorization Objects. . . . 12

SAP Roles. . . . 14

3.4 The DBA Cockpit: User Interface. . . . 15

3.5 Managing the System Landscape. . . . 19

Configuration of Systems for Remote Monitoring. . . . 19

Architecture Overview: End-to-End Monitoring and Alerting in SAP Solution Manager and DBA Cockpit. . . . 20

Setting Up Database Monitoring and Alerting in SAP Solution Manager. . . . 22

Configuring Systems for Remote Monitoring Manually. . . . 24

Configuring Database Connections. . . . 26

3.6 Performance. . . . 27

Dashboard. . . . 28

3.7 Space. . . . 29

Dbspaces. . . . 29

Dbfiles. . . . 33

Tables. . . . 37

3.8 Backup & Recovery. . . . 38

Database Backup Summary. . . . 38

Backup Files. . . . 40

3.9 Configuration. . . . 40

Database Options. . . . 41

Database Configuration. . . . 42

3.10 Diagnostics. . . . 51

Audit Log. . . . 53

Index Advisor. . . . 54

Query Plan. . . . 55

Users. . . . 57

Roles. . . . 62
Events. . . . 64
Alerts. . . . 67
SQL Editor. . . . 68
Diagnosis Files. . . . 69
Message Files. . . . 70
3.11 System Information. . . . 71
Connections. . . . 71
Database License. . . . 73
System Views. . . . 73
3.12 Documentation. . . . 73

1 Introduction[d1]

SAP NetWeaver Business Warehouse (SAP BW) includes the adapter for SAP IQ as a near-line storage solution. To improve performance in the SAP BW system, use SAP HANA for current data and SAP IQ for historical data. Separate data that you access infrequently and store it in compressed form in SAP IQ to reduce SAP BW system resource requirements.

This guide describes how to administer SAP IQ in an SAP environment using the DBA Cockpit. It provides guidelines and recommendations from SAP as well as references to additional documentation.

The guide is primarily intended for database and SAP system administrators who need to install and maintain an SAP system on the SAP IQ database. The guide assumes a basic understanding of fundamental database concepts and an elementary knowledge of SAP system administration.

For more information, refer to:

- [xref1]http://help.sap.com *SAP NetWeaver* > *SAP NetWeaver* <Release> > *Application Help* > *Function-Oriented View: English* > *Application Server* > *Application Server Infrastructure* > *Architecture of the SAP NetWeaver Application Server*
- [xref2]http://help.sap.com *Database* > *SAP IQ* <Release> > *Introduction to SAP IQ*
- [xref3]http://help.sap.com *Database* > *SAP IQ* <Release> > *SAP IQ Administration: Database*
- [xref4]http://help.sap.com *Database* > *SAP IQ* <Release> > *SAP IQ Administration: User Management and Security*
- [xref5]http://help.sap.com *Database* > *SAP IQ* <Release> > *SAP IQ SQL Reference: Statements and Options*
- SAP Notes 1245200, 1737415, 1974510, and 1998115.

You can also find more SAP Notes in the blog post [xref10]demystifying NLS/ILM error messages.

---

d1 referable-content id: loio063bbf5508658809e10000000a441470 - srcFile:

xref1 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/063bbf5508658809e10000000a441470.xml - element: /buildable-map[1]/referable-content[2]/rcbody[3]/ul[5]/li[1]/p[1]/xref[1] - call-template name="sap-link-classification"

xref2 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/063bbf5508658809e10000000a441470.xml - element: /buildable-map[1]/referable-content[2]/rcbody[3]/ul[5]/li[2]/p[1]/xref[1] - call-template name="sap-link-classification"

xref3 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/063bbf5508658809e10000000a441470.xml - element: /buildable-map[1]/referable-content[2]/rcbody[3]/ul[5]/li[3]/p[1]/xref[1] - call-template name="sap-link-classification"

xref4 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/063bbf5508658809e10000000a441470.xml - element: /buildable-map[1]/referable-content[2]/rcbody[3]/ul[5]/li[4]/p[1]/xref[1] - call-template name="sap-link-classification"

xref5 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/063bbf5508658809e10000000a441470.xml - element: /buildable-map[1]/referable-content[2]/rcbody[3]/ul[5]/li[5]/p[1]/xref[1] - call-template name="sap-link-classification"

xref10 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/063bbf5508658809e10000000a441470.xml - element: /buildable-map[1]/referable-content[2]/rcbody[3]/p[6]/xref[1] - call-template name="sap-link-classification"

Naming Conventions[d1]

This guide uses the following naming conventions:

SAP NetWeaver System / SAP System

SAP NetWeaver system is referred to as *SAP system*. *SAP system* also refers to any application system based on SAP NetWeaver, such as any product in the *SAP Business Suite*.

[d1] section id: loio063bbf5508658809e10000000a441470 - srcFile:

2 Architecture Overview[d2]

You can use either ABAP or JAVA to program the SAP Application Server in an SAP NetWeaver system.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

2.1 SAP IQ Components[d3]

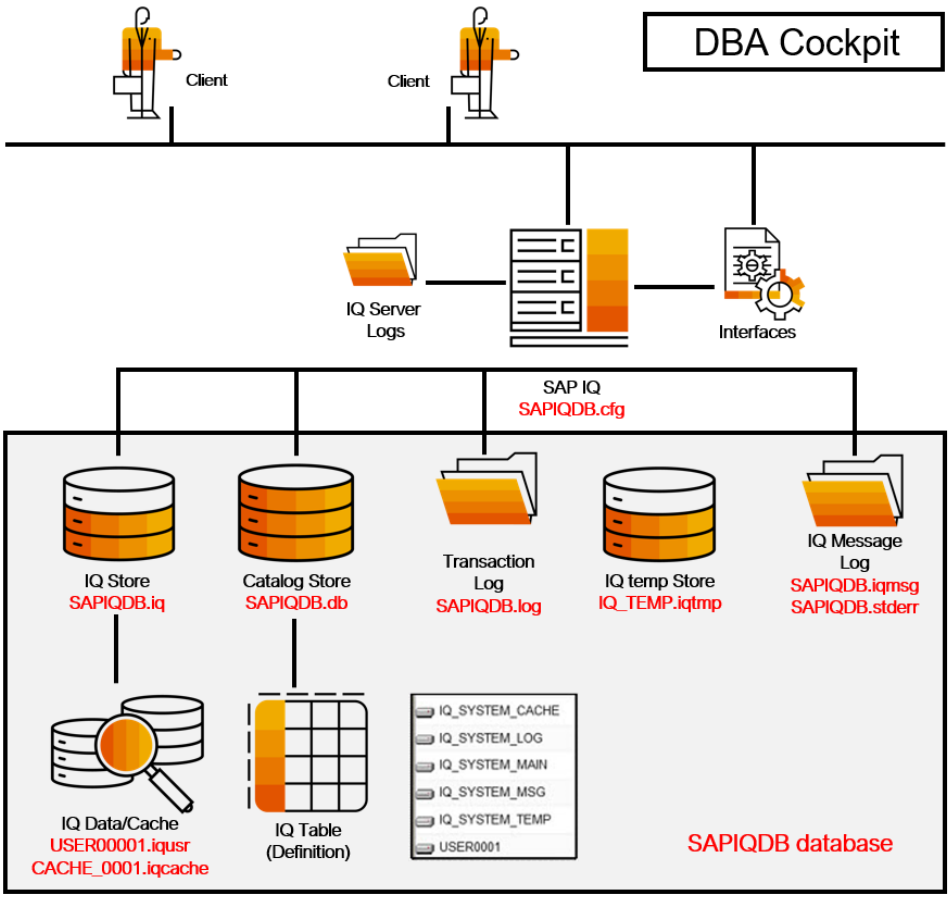
The following components comprise SAP IQ:

- The SAP IQ server software
- The SAP IQ server
  Run only one database per SAP IQ server. Use different servers and ports to start additional databases.
- The user database itself, which contains the data is managed by the DBMS
  Each database contains at least five types of stores, each designed for a particular type of data. For more information, see [xref11]Stores in [xref12]Introduction to SAP IQ.

d2 concept id: loiocec7b052a21ffb27e10000000a44176d - srcFile:
d3 concept id: loiocec7b052a21ffb27e10000000a44176d loio9163a552d8753258e10000000a423f68 - srcFile:
xref11 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/9163a552d8753258e10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[5]/conbody[3]/ul[2]/li[3]/p[2]/xref[1] - call-template name="sap-link-classification"
xref12 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/9163a552d8753258e10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[5]/conbody[3]/ul[2]/li[3]/p[2]/xref[2] - call-template name="sap-link-classification"

The following image shows you the SAP IQ components:

[i1]



For more information, see [xref13]NLS Solution for SAP BW (/4) all Releases.

2.2 SAP IQ Data Access[d4]

To connect SAP NetWeaver to an SAP IQ database, follow the instructions in SAP Note 1737415. For more information, see the section [xref15]Installation and Implementation in the blog post [xref16]NLS Solution for SAP BW(/4) all Releases.

---

i1 image loio: loiofc4ab78fe0c84d8ba31b5ff94125bf70 - srcFile:

xref13 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/9163a552d8753258e10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[5]/conbody[3]/p[5]/xref[1] - call-template name="sap-link-classification"

d4 concept id: loiocec7b052a21ffb27e10000000a44176d loio5328a65262cc7b6ae10000000a423f68 - srcFile:

For information on SAP IQ as a near-line storage solution, see the SAP online documentation:

- SAP BW/4 2021 - [xref17]Configuring SAP IQ as a Cold Store
- SAP BW/4 2.0 - [xref18]Configuring SAP IQ as a Cold Store
- SAP BWoH 7.50 - [xref19]SAP IQ as a Near-Line Storage Solution
- SAP BW 7.40 - [xref20]SAP IQ as a Near-Line Storage Solution

xref15 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5328a65262cc7b6ae10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[6]/conbody[3]/p[1]/xref[2] - call-template name="sap-link-classification"

xref16 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5328a65262cc7b6ae10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[6]/conbody[3]/p[1]/xref[3] - call-template name="sap-link-classification"

xref17 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5328a65262cc7b6ae10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[6]/conbody[3]/p[2]/ul[1]/li[1]/p[1]/xref[1] - call-template name="sap-link-classification"

xref18 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5328a65262cc7b6ae10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[6]/conbody[3]/p[2]/ul[1]/li[2]/p[1]/xref[1] - call-template name="sap-link-classification"

xref19 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5328a65262cc7b6ae10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[6]/conbody[3]/p[2]/ul[1]/li[3]/p[1]/xref[1] - call-template name="sap-link-classification"

xref20 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5328a65262cc7b6ae10000000a423f68.xml - element: /buildable-map[1]/concept[3]/concept[6]/conbody[3]/p[2]/ul[1]/li[4]/xref[1] - call-template name="sap-link-classification"

3 The DBA Cockpit[d5]

The DBA Cockpit is a platform-independent tool for monitoring and administering your database. Designed for the SAP system landscape, the DBA Cockpit helps adapt databases for the workload of SAP systems. A single transaction offers performance tuning, monitoring, and administration tasks.

Centralized Monitoring [d5]

The DBA Cockpit, part of SAP NetWeaver systems, is integrated into SAP Solution Manager. You can run the DBA Cockpit as part of your system administration activities in SAP Solution Manager. The DBA Cockpit is optimized to administer and monitor databases of your entire system landscape from a central system. You can configure databases centrally, then use remote database connections to administer remote databases.

Dashboard[d5]

The dashboard uses a set of plugins to summarize various metrics. Each plugin offers an overview of a certain aspect of SAP IQ monitoring, such as properties of the server, database, or connections.

The dashboard displays when you switch from the *System Landscape* tab to the *Database* tab of the DBA Cockpit.

Administration and Monitoring Functions for SAP IQ[d5]

DBA Cockpit offers these functions when you administer and monitor SAP IQ databases:

- *Server and database configuration*
  View an overview of server and database configuration, including page size and the number of connections.
- *Performance monitoring*
  Monitor cache usage across various data stores.
- *Space monitoring and administration*
  Monitor space consumption by the database, including database objects such as `dbspaces` and `dbfiles`. Analyze space allocation and perform administration activities to change the storage layout of your database.

---

d5 referable-content id: loio72eea9526392fb27e10000000a44176d - srcFile:
d5 section id: loio72eea9526392fb27e10000000a44176d - srcFile:
d5 section id: loio72eea9526392fb27e10000000a44176d - srcFile:
d5 section id: loio72eea9526392fb27e10000000a44176d - srcFile:

The DBA Cockpit lets you:

- Navigate between different actions
- Change to another action without closing the previous action and still hold all data retrieved
- Handle central configuration
- Monitor remote systems using remote database connections
  To use the functions offered for remote monitoring, you must configure the system to be monitored. The local system is configured automatically when you start the DBA Cockpit for the first time.
  Some databases may require additional configuration after you configure the connection.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.1 The DBA Cockpit on a Local System and on SAP Solution Manager[d6]

The DBA Cockpit is part of every SAP NetWeaver-based system. You can run the DBA Cockpit locally on an SAP NetWeaver-based system by calling the `DBACOCKPIT` transaction. Alternatively, you can run the DBA Cockpit on your SAP Solution Manager system, where you can access all databases in your system landscape using remote connections. If you use the DBA Cockpit as part of the SAP Solution Manager system, this allows you to update and administrate all databases from a central system rather than logging on to each individual system separately.

SAP Solution Manager is an SAP toolset in your system landscape to monitor the full stack of an SAP system: from the operating system up to the business process. SAP Solution Manager is typically installed on a separate system, where it provides central access to tools, methods, and preconfigured contents that you can use during the evaluation, implementation, and operations of your systems. For database administrators, SAP Solution Manager offers a range of tools for root cause analysis, alerting, and reporting.

[d6] concept id: loio72eea9526392fb27e10000000a44176d loiof4e14dd2cb3b498aa0f9c5fb43b0a98a - srcFile:

The tools of the DBA Cockpit complement the available SAP Solution Manager tools, which provide high-level overviews of possible database issues, including alerting functions. In addition to the high-level overviews of SAP Solution Manager, the DBA Cockpit serves as an in-depth analysis tool for database-related issues.

The DBA Cockpit not only provides more tools for the expert database administrator, but it also plays an important part in the SAP Solution Manager infrastructure. The remote database monitoring infrastructure of the DBA Cockpit is used by SAP Solution Manager to extract metrics from remote databases. These metrics are then passed on to the different applications in SAP Solution Manager.

3.2 Setting up the DBA Cockpit for SAP IQ[d7]

1. Follow the instructions in SAP Note 1737415.
2. If the web browser-based version of the DBA Cockpit does not start and returns the error *Service cannot be reached*, see SAP Note 1245200 to set up WebDynpro.

The DBA Cockpit for SAP IQ requires at least the following SAP kernel patch levels:

- 742 PL #5
- 741 PL #42
- 740 PL #76

SAP Note 3223681 – New features for DBA Cockpit on SAP IQ (cumulative release) contains the TCI for `SAP_BASIS` releases 750 SP11-SP25 and 753 SP00-SP09 for SAP Basis 7.56 (BW/4 2021) the new DBA Cockpit for SAP IQ is part of the SAP Basis 7.56 SP03.

For more information, see also the blog post [xref24]Enable SAP IQ for DBA Cockpit.

3.3 Authorizations for the DBA Cockpit[d8]

To work with DBA Cockpit, you need basic authorizations and additional authorizations for specific functions.

> **Note**
>
> An authorization check is performed each time you start DBA Cockpit or switch to a different system in DBA Cockpit.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered

d7 topic id: loio72eea9526392fb27e10000000a44176d loioebd4ae522aa17704e10000000a445394 - srcFile:
xref24 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/ebd4ae522aa17704e10000000a445394.xml - element: /buildable-map[1]/referable-content[4]/topic[6]/body[3]/p[5]/xref[1] - call-template name="sap-link-classification"
d8 concept id: loio72eea9526392fb27e10000000a44176d loio9634a95212937704e10000000a445394 - srcFile:

parent link

parent link

previous link

previous link

next link

next link

Related Information

related links

related links

topic/related-links

3.3.1 SAP Authorization Objects[d9]

To perform specific operations on SAP IQ, the appropriate SAP authorization objects are required.

Table 1: SAP Authorization Objects

SAP Authorization Object	Description
S_RZL_ADM	Needed for all SAP IQ systems with a connection to DBA Cockpit. Field <ACTVT> specifies which operations can be executed, and can have the following values: • 01 DBA Cockpit administrator. Allow functions, such as adding a dbspace, changing database options, creating a user, etc. **Note** To create a database user via *Diagnostics* > *User*, you need both S_RZL_ADM with <ACTVT 01> and S_DBCON with <ACTVT 23>. • 03 DBA Cockpit display authorization. None of the maintenance functions can be used. • 07 **Note** <ACTVT 07> is not used with SAP IQ.

[d9] concept id: loio72eea9526392fb27e10000000a44176d loio9634a95212937704e10000000a445394 loio322f34cd44cd401e917e8fe5b4e16e3c - srcFile:

SAP Authorization Object	Description

S_DBCON	Needed for each individual SAP IQ system in DBA Cockpit.
	
	This authorization object has the following fields:
	
	• <DBA_DBHOST>: host name of the database
	• <DBA_DBSID>: database name
	• <DBA_DBUSER>: database user or database login
	• <ACTVT>: permitted operations
	  • 03 (Display)
	  Authorization to display data that has little or no security relevance. For example, the database cache hit ratio, the size of individual data files, or the CPU consumption of the database.
	  • 71 (Analyze)
	  <ACTVT 71> is not used for SAP IQ.
	  • 23 (Maintain)
	  Authorization to change database settings.
	
	  Note
	
	  To create a database user via *Diagnostics* > *User*, you need both S_RZL_ADM with <ACTVT 01> and S_DBCON with <ACTVT 23>.
	  • 36 (Extended Maintenance)
	  This activity is not used for SAP IQ.
	
	You can assign different SAP authorizations to individual users of a database.
	
	Example
	
	If an SAP user has been assigned the S_DBCON role (host, DB name, DB User, Activity) = (pwdf1234; ABC; USER1; 03) and (pwdf1234; ABC; USER2; 03+23), that user can only display information in DBA Cockpit where DB user = USER1.
	
	With DB user = USER2, it is only possible to run the DBA Cockpit maintenance functions in addition to the display functions.

You can use the profile parameter `dbs/dba/ccms_maintenance` to generally disable database maintenance (for all databases integrated in DBA Cockpit). If this profile parameter is not set in the instance profile, the value is set to `1` by default. Setting the profile parameter `dbs/dba/ccms_maintenance` entitles users as follows:

- If the profile parameter is set to `0`, SAP users cannot perform maintenance actions, regardless of their personal authorizations.
- If the profile parameter is set to `1`, SAP users can perform maintenance actions depending on their personal permission for the authorization object `S_RZL_ADM`. The `ACTVT` attribute of this authorization object determines whether a user may maintain objects or only monitor them.

3.3.2 SAP Roles[d10]

To use functionality in DBA Cockpit, the appropriate SAP role is required.

Table 2: SAP Roles

SAP Role	Description
SAP_BC_S_DBCON_USER	Contains display authorizations for DBA Cockpit <S_DBCON, ACTVT=03> and <S_RZL_ADM, ACTVT=03>.
SAP_BC_S_DBCON_ADMIN	Contains maintenance authorizations for DBA Cockpit (<S_DBCON, ACTVT=23> and <S_RZL_ADM, ACTVT=01>). With this role, all the nodes in DBA Cockpit are active and all the functions in each application are enabled.

For more information, about *S_DBCON*, see [xref25]SAP Authorization Objects [page 12].

> → Tip
>
> To display the individual authorization objects in the SAP roles SAP_BC_S_DBCON_ADMIN and SAP_BC_S_DBCON_USER, use transaction code PFCG.

d10 concept id: loio72eea9526392fb27e10000000a44176d loio9634a95212937704e10000000a445394 loioae802100f2d848e6b7134d74e83a6bff - srcFile:

xref25 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/ae802100f2d848e6b7134d74e83a6bff.xml - element: /buildable-map[1]/referable-content[4]/concept[7]/concept[7]/conbody[4]/section[1]/p[2]/xref[2] - resolved in output

3.4 The DBA Cockpit: User Interface[d11]

> **Note**
>
> Please note that some features are only available in WebDynpro and only the latest features are available in WebDynpro and in SAP GUI. For a better understanding where you can find which feature, see the following overview:

WebDynpro and SAP GUI	[xref26]System Views [page 73], [xref27]Database License [page 73], [xref28]Message Files [page 70], [xref29]Diagnosis Files [page 69], [xref30]SQL Editor [page 68], [xref31]Alerts [page 67], [xref32]Events [page 64], [xref33]Roles [page 62], [xref34]Users [page 57], [xref35]Audit Log [page 53], [xref36]Database Configuration [page 42], [xref37]Backup Files [page 40], [xref38]Add Dbspace [page 32]

d11 concept id: loio72eea9526392fb27e10000000a44176d loiof634985245604358e10000000a423f68 - srcFile:

xref26 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[1] - resolved in output

xref27 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[2] - resolved in output

xref28 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[3] - resolved in output

xref29 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[4] - resolved in output

xref30 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[5] - resolved in output

xref31 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[6] - resolved in output

xref32 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[7] - resolved in output

xref33 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[8] - resolved in output

xref34 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[9] - resolved in output

xref35 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[10] - resolved in output

xref36 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[11] - resolved in output

xref37 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[12] - resolved in output

xref38 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[1]/entry[2]/p[1]/xref[13] - resolved in output

WebDynpro	[xref39]Dashboard [page 28], [xref40]Dbspaces [page 29], [xref41]Dbfiles [page 33], [xref42]Extending Dbspaces [page 35], [xref43]Tables [page 37], [xref44]Database Backup Summary [page 38], [xref45]Database Options [page 41], , [xref46]Index Advisor [page 54], [xref47]Query Plan [page 55], [xref48]Connections [page 71]
SAP GUI	[xref49]Viewing Query Plan Data with Performance Trace (ST05) [page 56], [xref50]Documentation [page 73]

The entry screen of the DBA Cockpit with the Web browser-based user interface is divided into the following areas:

Area	Description
Common header area	Provides a standard set of functions, for example, to log off from the DBA Cockpit or to customize the layout.

xref39 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[1] - resolved in output

xref40 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[2] - resolved in output

xref41 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[3] - resolved in output

xref42 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[4] - resolved in output

xref43 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[5] - resolved in output

xref44 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[6] - resolved in output

xref45 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[7] - resolved in output

xref46 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[8] - resolved in output

xref47 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[9] - resolved in output

xref48 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[2]/entry[2]/p[1]/xref[10] - resolved in output

xref49 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[3]/entry[2]/xref[1] - resolved in output

xref50 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/f634985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[8]/conbody[3]/p[1]/note[1]/p[2]/table[1]/tgroup[1]/tbody[3]/row[3]/entry[2]/xref[2] - resolved in output

Area	Description
Top level navigation including second-level navigation	In the top level navigation, you can switch between the following areas: • Cross-system area on the *System Landscape* tab page Provides information about the overall system landscape • Database-specific area on the *Database* tab page Provides information about the selected database In the second-level navigation, the main task areas of database administration are provided, for example, performance monitoring, space management, and job scheduling. For fast navigation, these main task areas provide pull-down menus corresponding to the related detail levels. You can hide the areas *Detail Navigation*, *System Landscape Selector*, and *Favorites* by choosing the *Expand or Collapse Launchpad* pushbutton on the left side of the top level navigation area. If the launchpad is collapsed, the second-level navigation part provides a simplified system selection field with an F4 help. Your chosen screen layout is stored in the user settings and restored at the next start of the DBA Cockpit.
Detail navigation	Contains the main actions of the main task areas. Depending on the selected main action, a subset of related actions is available. **Example** If you choose *Performance* in the top level navigation area, the action *Dashboard* becomes available. Choose *Dashboard* to display its associated gadgets.
System landscape selector	Provides a quick overview of all configured systems. This area is described in more detail under *Customizing of the System Landscape Selector* later in this section.
Favorites list	Contains a list of favorite links to special tools and actions. To provide quick access to specific tools and actions, choose *Personalize* > *Add Favorite* in the common header area. An entry is added to your list of favorites. You can rename or delete favorites by choosing *Personalize* > *Organize Favorites*.
Framework message window	Displays the message window that is provided by the framework. Unlike the classic SAP GUI message processing, this window contains a complete history of all messages that are sent during the session. In addition, you can: • Collapse or expand the window by choosing *Expand Message Window* or *Collapse Message Window*. • Check if a long text for a message is available by double-clicking the message or by choosing *Details*. **Note** By default, the message window is collapsed. When a new message is generated, it is automatically expanded.

Area	Description
Global toolbar	The global toolbar provides a set of globally available functions for navigation and content-related functions like *Refresh*.
Central system data	This area is common to most actions providing, for example, the time of the last refresh, the startup time, and the database name.
Content area	Displays details of the currently selected action. The content area is divided into the following areas that are optionally available depending on the chosen action: • The *Selection* area where you can enter selection criteria for the content to be displayed • The *Summary* area that provides views of data, for example, totals or execution times • The content, which depends on the screen and action you have chosen You can refresh the content by choosing the *Refresh* pushbutton in the global toolbar or by changing the selection criteria and then choosing the *Apply Selection* pushbutton in the *Selection* area.
Chart view in the content area?	Some reports are displayed as a chart. To modify the chart view, you can use the *Chart Type*, *Values*, and *Chart Size* menu buttons that are optionally available depending on the screen. By choosing the *Chart Size* menu button, you can specify the width and height of the chart to be displayed. In addition, you can open a detailed table view by choosing the *Toggle Table Display* pushbutton.
Content detail area	Only appears with certain actions and displays additional information that is related to the selected action. Typically, this area shows details that are related to the information provided in the main content area.

Customizing the System Landscape Selector[d11]

By default, all systems display without grouping or filtering. For each configured system, the alert status, the name of the system, and its database host display. The following menu buttons are available for the list of systems:

- *Refresh System Landscape*
  You can refresh the information about the available systems in the list.
- *Group Systems by Selected Criteria*
  You can customize the displayed list of systems by grouping them according to the selected criteria:
  - *Database Platform*
  - *Name*
  - *Custom*
  - *Alerts*

  To use a custom grouping, you must first define and add a custom group to the list. To do so, choose *Add Group* from the pop-up menu of the menu button *Group Systems by Selected Criteria*. Specify a name for the custom group and assign the systems of your choice.

[d11] section id: loio72eea9526392fb27e10000000a44176d loiof634985245604358e10000000a423f68 - srcFile:

As soon as you have added a custom group, the option *Organize Groups* becomes available in the pop-up menu of the menu button *Group Systems by Selected Criteria*, which lets you maintain an already existing group.

- *Filter Systems by Selected Criteria*
  You can filter the list of available systems to show only those systems that match the filter criteria. You filter, for example, by the alert status of the systems.
- *Search Systems*
  Provides an input field where you can search for a specific system in the list.

3.5 Managing the System Landscape[d12]

The following sections provide information about managing the system landscape.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.5.1 Configuration of Systems for Remote Monitoring[d13]

To be able to use the DBA Cockpit to monitor remote systems, you have to configure those systems in the DBA Cockpit. If the DBA Cockpit is used as part of Solution Manager Diagnostics, the DBA Cockpit setup is part of the SAP Solution Manager setup. This means that when you integrate systems into the SAP Solution Manager landscape, the related databases are configured in the DBA Cockpit and no DBA Cockpit-specific setup is required anymore.

d12 referable-content id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 - srcFile:
d13 topic id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio57304a52a5b9d230e10000000a44538d - srcFile:

Alternatively, you can configure your database system either using database information that is stored in the SLD for automatic generation and update of system entries or by manually creating database connections and system configuration entries.

To access the *System Configuration* screen, choose *System Configuration* on the *System Landscape* tab page of the DBA Cockpit. A table of all monitored systems is displayed. In the first column, an icon indicates the current status of each system.

Normally, when you start the DBA Cockpit, the local system is set as default system. To change this setting, select a system from the list and choose *Default System*.

> ⓘ Note
>
> This setting **only** applies to the user that is currently logged on to the system. It is not a system-wide setting.

To monitor a system remotely, you use the following methods:

- Remote database connections **(mandatory)**
  This method uses additional connections. It is the main access method for monitoring and administration tasks and it is mandatory. You can specify remote connections for any database and maintain the connections using the DBA Cockpit.
- RFC connection **(additional option for SAP ABAP systems only)**
  For this method, you have to assign an RFC connection to your system. RFC connections are available for SAP ABAP systems only. You can use RFC connections as an optional access path for ABAP-related monitoring functions, for example, for the consistency check of the ABAP Dictionary. This means that the DBA Cockpit uses the RFC connection in parallel to the database connection for the same system.

  > ⓘ Note
  >
  > You can **only** maintain RFC connections with transaction SM59, **not** with the DBA Cockpit.

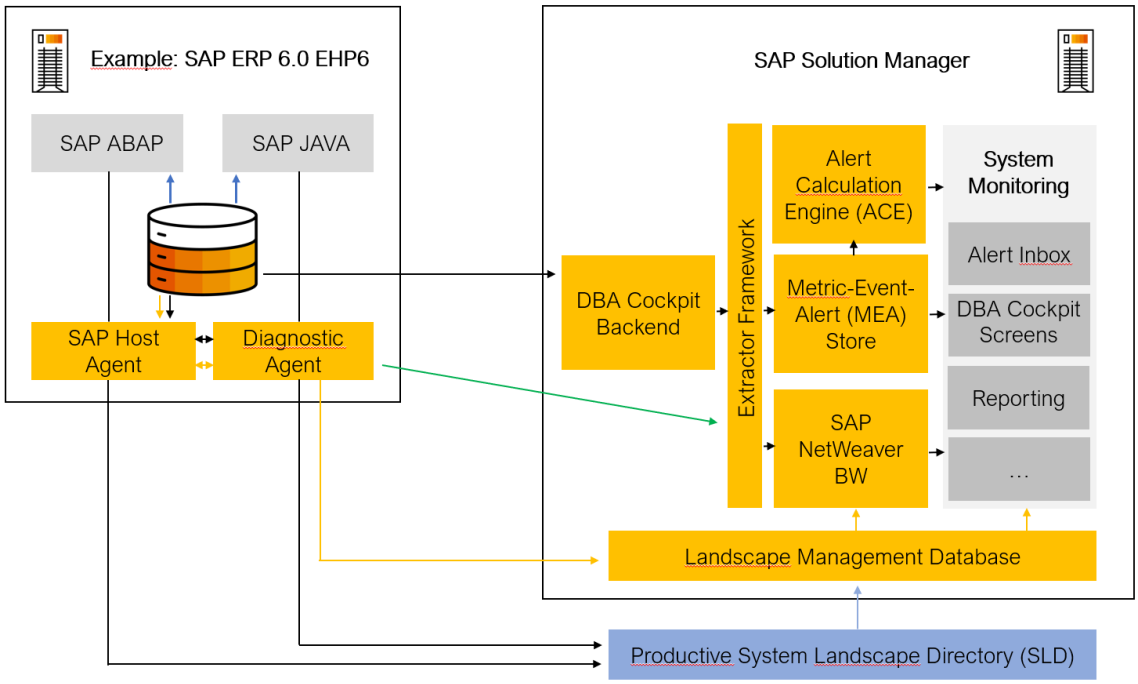
3.5.2 Architecture Overview: End-to-End Monitoring and Alerting in SAP Solution Manager and DBA Cockpit[d14]

The architecture of SAP Solution Manager comprises a number of tools and frameworks that collect detail data about databases and their statuses automatically. The tools and frameworks for automatic discovery of databases and database details include the landscape management database (LMDB), the Diagnostics Agent, and the extractor framework:

Figure 1: Data Collection and Database Monitoring and Alerting with SAP Solution Manager

[d14] concept id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio9e774552efa1d330e10000000a44538d - srcFile:

[i2]



Landscape Management Database (LMDB)[d14]

In SAP Solution Manager, all elements of a system landscape are modeled in the LMDB. The core task of the LMDB is to provide information about the entire system landscape at a central location. The LMDB copies available data from the SLD, but it enriches the data copied from SLD with additional information.

Diagnostics Agent[d14]

The Solution Manager Diagnostics Agent (Diagnostics Agent), which is installed on every local system of your system landscape, gathers information from the managed systems and reports the information to the SAP Solution Manager system. This includes information about the availability of the database and its host.

The Diagnostics Agent uses SAP Host Agent to discover all databases installed on a host. The Diagnostics Agent and the SAP Host Agent transfer some basic information, such as the database host, the database type and its name, to the SLD. In addition, the Diagnostics Agent reports technical attributes like cluster topology, database release, and properties required for a remote database connection to the LMDB. This kind of information mapped in the LMDB with the data provided by the SLD. Information about databases that do not run with an SAP system are also pushed to the LMDB by the Diagnostics Agent.

[i2] image loio: loio60920045722749d780bbf30508c99004 - srcFile:

[d14] section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio9e774552efa1d330e10000000a44538d - srcFile:

[d14] section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio9e774552efa1d330e10000000a44538d - srcFile:

DBA Cockpit Backend, Extractor Framework, and Data Flow[d14]

The DBA Cockpit backend performs data collection via remote database connection and calculates the metrics of the monitored databases, such as performance KPIs, space, or data cache hit ratio. The DBA Cockpit takes snapshots of database statuses, and thus is able to generate historical data (time series), which allows database administrators to keep track of short- and mid-term developments in the database. Data collected by the DBA Cockpit backend is also fed into the extractor framework, the central infrastructure for SAP Solution Manager for data collection and distribution.

The extracted data is reused by the following engines and stores:

- Alert Calculation Engine (ACE)
- Metric-Event-Alert (MEA) Store
- SAP NetWeaver BW for reporting

These engines and stores further process the raw data taken from the databases and generate alerts and metrics for SAP BW reporting, which are then passed on to the different SAP Solution Manager applications, such as the alert inbox, reporting functions and also the SAP BW reporting screens in the DBA Cockpit.

Predefined Alerting Templates Shipped by SAP[d14]

During the SAP Solution Manager setup, you can find predefined monitoring and alerting templates that contain the definitions or values of metrics, events or alerts (MEA).

Depending on the defined threshold values, incidents and notifications are then automatically triggered. For SAP ASE database, predefined metrics, events, and alerts are available for the following:

- Database availability
- Database exceptions

The availability of the end-to-end alerting in SAP Solution Manager depends on your support license.

3.5.3 Setting Up Database Monitoring and Alerting in SAP Solution Manager[d15]

To set up the end-to-end monitoring and alerting infrastructure, you use the standard transactions for setting up SAP Solution Manager. You need to perform the following steps:

1. **Install the Diagnostics Agent on your database systems.**
   The Diagnostics Agent gathers information from the managed systems and reports them to the SAP Solution Manager system. This also includes information about the availability of the database and its host. You need to install a Diagnostics Agent on each server (virtual hostname) that you want to monitor. You can use the SAP installer to install the Diagnostics Agent.

---

d14 section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio9e774552efa1d330e10000000a44538d - srcFile:
d14 section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio9e774552efa1d330e10000000a44538d - srcFile:
d15 topic id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio20794552efa1d330e10000000a44538d - srcFile:

2. **Configure data suppliers in the SLD.**
   Use the transaction *System Landscape Directory: Local Administration* (`RZ70`) to configure SLD data suppliers in the system landscape. Here, you need to provide the port and the host of the SLD. The SLD data suppliers are programs that collect the database attributes *Database Host*, *Database Type* and *Database Name* at defined periods. Once the SLD data suppliers are up and running, they push database attributes from the database to the SLD.
3. **Connect the Diagnostics Agent to SAP Solution Manager.**
   Use the transaction *SAP Solution Manager Configuration (SOLMAN_SETUP)* > *System Preparation* to connect the SAP Diagnostics Agent to SAP Solution Manager.
4. **Configure the systems managed by SAP Solution Manager.**
   Use the transaction *SAP Solution Manager Configuration (SOLMAN_SETUP)* > *Managed System Configuration* to perform the following activities:
   - Connect the SAP Diagnostics Agent to the managed databases
   - Specify system parameters required to configure the managed databases
     Most of these parameters, such as hosts or ports, are automatically detected by the Diagnostics Agent, so only a password is required here.
   - Trigger automatic configuration activities
     This includes the setup of database extractors, which collect data for monitoring the databases in SAP Solution Manager.
5. **Set up technical monitoring, including alerting.**
   Use the transaction *SAP Solution Manager Configuration (SOLMAN_SETUP)* > *Technical Monitoring* to set up the technical monitoring of databases in SAP Solution Manager. You set up the following:
   - Activation or deactivation of auto-notifications (for example, e-mail notifications) about database alerts
     As a default, auto-notification is activated.
   - Recipients and recipient lists of auto-notifications
   - Assignment of monitoring templates to selected systems in scope for monitoring

   Monitoring templates contain the definitions or values of metrics, events, and alerts (MEA) that trigger incidents and notifications. The SAP templates have predefined settings, but you can also adapt the templates to your customer-specific needs.

More information:

- **Complete setup of SAP Solution Manager**: Documentation for SAP Solution Manager on SAP Help Portal at [xref51]http://help.sap.com/solutionmanager
- **Additional database-specific setup steps**: SAP Note 1027146

xref51 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/20794552efa1d330e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/referable-content[9]/topic[7]/body[3]/ul[4]/li[1]/p[1]/xref[2] - call-template name="sap-link-classification"

3.5.4 Configuring Systems for Remote Monitoring Manually[d16]

Use[d16]

Use this procedure to configure systems that you want to monitor using remote database connections. A manual system configuration is only necessary if the monitored database has not been configured during the integration of a system using SAP Solution Manager.

- The system(s) that you want to monitor must have a database release that is compatible with the database release of your local database.
- The user for the database connection must have sufficient database permissions. For more information, see [xref53]Authorizations for the DBA Cockpit [page 11].

Procedure[d16]

The configuration does not include the setup of the monitoring infrastructure, but you perform only a basic setup that is necessary to connect to the monitored database.

> **Note**
>
> Depending on the database platform of the selected system, some options might not be available. In this case, you cannot enter any data in the corresponding fields.

1. Call the DBA Cockpit.
   The *System Configuration* screen appears displaying a list of all available systems with a *Configuration Status* icon that indicates the current system status.

   > **Note**
   >
   > When you start the DBA Cockpit for the first time, the local system is automatically added to the list of all available systems. At least one system entry is displayed.

2. Choose the *Add* pushbutton.
   The wizard *Integrate a System* appears.
   The following table lists the steps and recommended actions:

Step Name	Action
Introduction	Provides an overview of the configuration steps No action to be taken

d16 topic id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio5639a95212937704e10000000a445394 - srcFile:
d16 section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio5639a95212937704e10000000a445394 - srcFile:
xref53 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5639a95212937704e10000000a445394.xml - element: /buildable-map[1]/referable-content[4]/referable-content[9]/topic[8]/body[3]/section[1]/ul[3]/li[2]/p[1]/xref[1] - resolved in output
d16 section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio5639a95212937704e10000000a445394 - srcFile:

Step Name	Action
System Characteristics	Specify the following: • Name of the system that you want to monitor **Note** This name is a unique ID and does not have to be the SAP system ID. You can choose any name **except** the SAP system ID of the **local system** that is reserved for the local system entry. • Description of the monitored system • Connection type Choose *Remote Database Connection*.
Database Connection	Specify the following: • Name of the database connection This is a unique name that you can freely choose. Alternatively, you can search for an already existing connection name using the related search help. In this case, confirm the selected name using the `Enter` key to prefill the connection attributes. • Database platform of the monitored database • Connection maximum that limits the parallel use of this connection by the kernel • Connection optimum that sets the optimum number of open connections **Note** You should set this value to *0* to ensure that the kernel closes connections if they are no longer used. • User name and password for the user that is used for monitoring • List of connection parameters that are required to identify the database
Summary	Summarizes all actions to be performed To save your entries, choose the *Execute* pushbutton.
Execution Protocol	Summarizes all performed actions including error messages To exit the wizard, choose the *Finish* pushbutton and return to the *System Configuration* screen.

3. Optional:
   If you want to change an existing configuration entry, select the system entry in the overview list and choose the *Change* pushbutton.
   In the dialog box *Change System Configuration Entry*, enter and save your changes.
4. Optional:
   If you want to delete a configuration entry, select the system entry in the overview list, choose the *Delete* pushbutton and confirm the deletion.

3.5.5 Configuring Database Connections[d17]

Use[d17]

This section describes how you set and maintain technical attributes for remote database connections on the *Database Connections* screen in the DBA Cockpit. The DBA Cockpit uses these connections for administration and monitoring or for application programs that use secondary connections to external databases.

Usually, new connections are created during the system configuration on the *System Configuration* screen as described in [xref54]Configuring Systems for Remote Monitoring Manually [page 24] and, therefore, do not have to be created on the *Database Connections* screen.

Procedure[d17]

You can also use the *Database Connections* screen to set up database connections that are used for non-monitoring components, for example, for the access to external data resources by BW.

1. Call the DBA Cockpit and on the *System Landscape* tab page, choose *Database Connections*.
   The *Database Connections* screen appears displaying a list of all available database connection definitions grouped by database platform.
   By default, the database connections that are defined in the local system display.
2. To add a database connection, choose the *Add* pushbutton.
   The *Add Connection Entry* dialog box appears.
3. In the *Add Connection Entry* dialog box, enter the following:
   - In the *Connection Name* field, specify the name of the connection.

     > **Note**
     >
     > This name is a unique ID that you can choose freely except for names that are reserved by SAP for generated connections. These can be, for example, administrator connections or connections that are used by systems from the system landscape directory (SLD).

   - In the *Database System* dropdown, choose *SAP IQ* from the dropdown list.
   - In the *Connection Maximum* field, enter an appropriate value. This value limits the number of database connections that are currently held by the SAP system. The SAP system does not let you exceed this limit.
   - In the *Connection Optimum* field, enter an appropriate value. This value is a more flexible limit that can be exceeded.
   - In the *User Name* field, enter the name of the connect user. Make sure that you choose a user with the appropriate authorizations. For more information, see [xref55]Authorizations for the DBA Cockpit [page 11].

---

d17 topic id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio2d38b2520efa6477e10000000a441470 - srcFile:
d17 section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio2d38b2520efa6477e10000000a441470 - srcFile:
xref54 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2d38b2520efa6477e10000000a441470.xml - element: /buildable-map[1]/referable-content[4]/referable-content[9]/topic[9]/body[3]/section[1]/p[3]/xref[2] - resolved in output
d17 section id: loio72eea9526392fb27e10000000a44176d loio9ed48a52130a264fe10000000a445394 loio2d38b2520efa6477e10000000a441470 - srcFile:

- In the *Password* field, enter a password for the connect user and confirm it in the appropriate field.
- In the parameter table, specify the following additional database-specific parameter values:

  Table 3:

Attribute	Description
Database Host	Name of the remote database server
Database Name	Name of the database
Port Number	Port number used by the SAP IQ server. The default port number is 2638.
Engine Name	Name of the SAP IQ server
SAP Object Owner	Name of the user who owns the SAP object
Connection Timeout	Length of time, in seconds, to wait for a response when establishing communications and when disconnecting.
Schema Name	Name of the schema to be monitored **Note** If you omit this field, the name of the SAP connect user is used as schema.

4. To save your entries, choose the *Add* pushbutton.
5. To change a database connection, expand the respective database platform in the *Remote Database Connection* column, select a connection, and choose the *Change* pushbutton.
   The *Change Connection Entry* dialog box appears.
6. Enter your changes in the appropriate fields and choose *Save*.
7. To check if you have entered the correct user and password information as well as the correct technical connection data, you can test a database connection. To do so, select a connection and choose the *Test* pushbutton.
   The test result is displayed in the *Connection Test Protocol* in the content detail area.
8. To delete a connection, select a connection and choose the *Delete* pushbutton.

Caution

If the selected database connection is still used by a system that is registered in the DBA Cockpit, you **cannot** delete it.

3.6 Performance[d18]

The following section provides information to monitor and analyze the performance of SAP IQ.

xref55 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2d38b2520efa6477e10000000a441470.xml - element: /buildable-map[1]/referable-content[4]/referable-content[9]/topic[9]/body[3]/section[2]/ol[3]/li[3]/ul[2]/li[5]/p[1]/xref[2] - resolved in output

topic/related-links

link.sap.child.unordered

link.sap.child.unordered

link.sap.child.ordered

link.sap.child.ordered

parent link

parent link

previous link

previous link

next link

next link

Related Information

related links

related links

topic/related-links

3.6.1 Dashboard[d19]

The dashboard displays automatically when you switch from the **System Landscape** tab to the **Database** tab of the DBA Cockpit.

> ⓘ Note
>
> Dashboard is only available in WebDynpro.

The following performance information is available in Dashboard plugins:

- Instance Overview
- Database Overview
- Main Space Usage
- User Space Usage
- Temporary Space Usage
- Connections
- Cache Information

d18 concept id: loio72eea9526392fb27e10000000a44176d loioef3c985245604358e10000000a423f68 - srcFile:
d19 concept id: loio72eea9526392fb27e10000000a44176d loioef3c985245604358e10000000a423f68 loiof86c8b0ceb3347599f1786009acb0186 - srcFile:

3.7 Space[d20]

SAP IQ databases are comprised of multiple dbspaces. A dbspace is a unit of storage that consists of one or more dbfiles (operating system files).

You can use DBA Cockpit to monitor how SAP IQ allocates disk space, to add dbfiles, and to ensure that data is organized for optimal performance.

The following main task areas exist under *Space* on the *Database* tab page of the DBA Cockpit:

- [xref56]Space: DBSpaces [page 29]
- [xref57]Space: DBFiles [page 33]
- [xref58]Space: Tables [page 37]

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.7.1 Dbspaces[d21]

> **Note**
>
> Dbspaces is only available in WebDynpro.

d20 concept id: loio72eea9526392fb27e10000000a44176d loiob214a852c82ec04ae10000000a44176d - srcFile:
xref56 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/b214a852c82ec04ae10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/conbody[4]/ul[4]/li[1]/p[1]/xref[1] - resolved in output
xref57 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/b214a852c82ec04ae10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/conbody[4]/ul[4]/li[2]/p[1]/xref[1] - resolved in output
xref58 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/b214a852c82ec04ae10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/conbody[4]/ul[4]/li[3]/p[1]/xref[1] - resolved in output

SAP IQ stores data in dbspaces on a raw device or a file system file. Dbspaces that store persistent or temporary data for a special purpose are called stores. For information about types of dbspaces, see [xref59]Manage Data Storage in [xref60]SAP IQ Administration: Database.

Monitor dbspaces to decide if data must be moved, or to see if old versions of data are deallocated.

Access information about dbspaces by calling the DBA Cockpit and choosing *Space* > *DBSpaces* on the *Database* tab page of the DBA Cockpit.

Column:	Description:
Name	Name of dbspace.
Type	Type of the dbspace (`MAIN`, `SHARED_TEMP`, `TEMPORARY`, `RLV`, or `CACHE`).
Writable	"T" (true) if writable, "F" (false) if read-only.
Online	"T" (true) if online, "F" (false) if offline.
Used (%)	Percentage of space in use by all dbspace files
Total Size	Total size of all files in the dbspace in the units B (bytes), K (kilobytes), M (megabytes), G (gigabytes), T (terabytes), or P (petabytes).
Reserve Size	Total reserved space that can be added to all files in the dbspace.
Number of Files	Number of files in the dbspace.
Number of RW Files	Number of read-write files in the dbspace.
Striping	"F" if striping is OFF. By default, SAP IQ internally stripes pages across all files within a dbspace. Additional striping may be necessary as part of implementing storage redundancy for the database, for example, if RAID-5 is used. Disk striping is ON by default for all dbspaces in the main store.
Stripe Size	Amount written to a stripe before moving to the next stripe. Defaults to 1KB, which means that one page is compressed and the compressed page is written to disk as a single operation.
Block Types	Block types identify the version of the data. You must roll back or commit active connections to release space with block type "Y" (old) or "A" (active).
OK to Drop	"Y" indicates that dbspace can be dropped, otherwise, "N" for No.

d21 concept id: loio72eea9526392fb27e10000000a44176d loiob214a852c82ec04ae10000000a44176d loio7209a9526392fb27e10000000a44176d - srcFile:
xref59 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/7209a9526392fb27e10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[6]/conbody[3]/p[3]/xref[1] - call-template name="sap-link-classification"
xref60 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/7209a9526392fb27e10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[6]/conbody[3]/p[3]/xref[2] - call-template name="sap-link-classification"

The Block Types column contains one or more of these values:

Identifier:	Block Type:
A	Active version.
B	Backup structures.
C	Checkpoint log.
D	Database identity.
F	Free list.
G	Global free list manager.
H	Header blocks of the free list.
I	Index advice storage.
M	Multiplex commit identity block (128 blocks). Not used by simplex databases.
O	Old version.
R	RLV free list manager.
T	Table use.
U	Index use.
N	Column use.
X	Drop at checkpoint.

To display detailed information, select the appropriate entry that you want to analyze in the overview table. The detail data displays in the *Device Details* area below the overview table:

- The *Summary* tab shows general information on the dbspace and additional metrics.
- The *Dbfiles* tab shows information about the dbfiles in the dbspace.

To add space to a dbspace, follow the steps in [xref61]Extending Dbspaces [page 35].

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link

xref61 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/7209a9526392fb27e10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[6]/conbody[3]/p[12]/xref[1] - resolved in output

next link

next link

Related Information

related links

related links

topic/related-links

3.7.1.1 Add Dbspace[d22]

You can create a new dbspace and the associated dbfiles for the SAP IQ main store or row-level versioning (RLV) store.

The *Add Space* button allows you to create a new dbspace for the SAP IQ main store or RLV store. The added dbspace can be on a different disk device than the initial dbspace, so you can create stores that are larger than a physical device. The dbspace name and dbfile names are not case-sensitive. However, physical file paths are case-sensitive when the database is `CASE RESPECT`, and case-insensitive when the database is `CASE IGNORE`.

Clicking the *Add Space* button opens a wizard that helps you create a new dbspace.

Input Parameter	Description
DBspace name	This is a mandatory input*. Name of the DBspace.
New file name	Name of the new file. Internal names for dbspaces and dbfiles. A database can have as many as (32 KB - 1) dbspaces, including the initial dbspaces created when the database is created. However, your operating system may limit the number of dbfiles per database.
File path	This is a mandatory input*. The actual operating system filename of the dbfile, prefixed with the path if necessary. <file-path> without an explicit directory is created in the same directory as the database catalog store. Any relative directory is relative to the catalog store.
File size	Specifies the size of the operating system file specified in <file-path> between 0 and 4 terabytes. The default value depends on the store type and block size. For SAP IQ main store, the default number of bytes is 1000* the block size. You cannot specify the SIZE clause for catalog storage. A SIZE value of 0 creates a dbspace of the minimum size, which is 8 MB for SAP IQ main storage. For raw partitions, do not explicitly specify SIZE. SAP IQ automatically sets this parameter to the maximum raw partition size and returns an error if you try to specify a different size.

d22 concept id: loio72eea9526392fb27e10000000a44176d loiob214a852c82ec04ae10000000a44176d loio7209a9526392fb27e10000000a44176d loiod48a434a422f4712bb8181a33d990b27 - srcFile:

Input Parameter	Description
Reserve size	Specifies the size of space to reserve in kilobytes (KB), megabytes (MB), gigabytes (GB), or terabytes (TB) so that dbspace can be increased in the future. The size parameter can be any number greater than 0; the default is megabytes. You cannot change the reserve after the dbspace dbfile is created. When RESERVE is specified, the database uses more space for internal structures (free list). If the reserve size is too large, the space used for internal structures may be larger than the specified size, resulting in an error.
No-Preallocate	By selecting this checkbox, you instruct SAP IQ to bypass pre-allocation of dbspace files on cooked (non-raw) file systems. Pre-allocation can take an inordinate amount of time if large files are allocated to the dbspace on a cooked file system. You cannot change the `NOPREALLOCATE` value. You must delete the dbspace to change the allocation. `NOPREALLOCATE` is not available for the `IQ_SYSTEM_MAIN` and `IQ_SYSTEM_TEMP` dbspaces.
Striping	You can select between *Default, On* or *Off*
Stripe size in KB	Specifies the number of kilobytes (KB) to write to each file before the disk striping algorithm moves to the next stripe for the specified dbspace. If you specify neither striping nor stripe size, the default values of the `DEFAULT_DISK_STRIPING` and `DEFAULT_KB_PER_STRIPE` options apply.

For more information, see [xref62]CREATE DBSPACE Statement in the [xref63]SAP IQ Reference Guide.

3.7.2 Dbfiles[d23]

> **Note**
>
> Dbfiles is only available in WebDynpro.

In SAP IQ, you create databases or dbspaces on a raw device or a dbfile (file system file). For more information, see [xref64]Manage Data Storage in the [xref65]SAP IQ Administration: Database Guide.

To access information about dbfiles, call the DBA Cockpit and choose *Space* > *Dbfiles* on the *Database* tab page of the DBA Cockpit.

In the *Selection* area, choose the dbfile that you want to monitor. Details appear in the content area.

To refresh the details, choose *Apply Selection*.

Column	Description
Name	Name of dbspace.

xref62 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/d48a434a422f4712bb8181a33d990b27.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[6]/concept[5]/conbody[4]/p[4]/xref[1] - call-template name="sap-link-classification"

xref63 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/d48a434a422f4712bb8181a33d990b27.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[6]/concept[5]/conbody[4]/p[4]/xref[2] - call-template name="sap-link-classification"

d23 concept id: loio72eea9526392fb27e10000000a44176d loiob214a852c82ec04ae10000000a44176d loio5c0da9526392fb27e10000000a44176d - srcFile:

xref64 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5c0da9526392fb27e10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[7]/conbody[3]/p[2]/xref[1] - call-template name="sap-link-classification"

xref65 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5c0da9526392fb27e10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[7]/conbody[3]/p[2]/xref[2] - call-template name="sap-link-classification"

Column	Description
File Name	Logical file name.
Path	Location of the physical file or raw partition.
Type	Type of dbspace (MAIN, TEMPORARY, RLV, or CACHE).
Online	T (online) or F (offline).
Used (%)	Percentage of dbspace currently in use by this file in the dbspace.
Size	Current size of the file or raw partition. For a raw partition, this size value can be less than the physical size, in GB.
Reserve Size	Amount of reserved space that can be added to this file in the dbspace, in bytes.
Stripe Size	Always 1, if disk striping is on.
Block Types	Space used by both user data and internal system structures.
First Block	First IQ block number assigned to the file.
Last Block	Last IQ block number assigned to the file.
OK to Drop	Y for Yes, N for No.

The Block Types column contains one or more of these values:

Identifier	Block Type
A	Active version.
B	Backup structures.
C	Checkpoint log.
D	Database identity.
F	Free list.
G	Global free list manager.
H	Header blocks of the free list.
I	Index advice storage.
M	Multiplex commit identity block (128 blocks). Not used by simplex databases.
O	Old version.
R	RLV free list manager.
T	Table use.
U	Index use.
N	Column use.
X	Drop at checkpoint.

To display detailed information, select the entry that you want to analyze in the overview table. The detail data displays in the *Device Details* area below the overview table:

- The *Summary* tab shows general information on the dbspace and additional metrics.

To add space to a dbspace, follow the steps in [xref66]Extending Dbspaces [page 35].

topic/related-links

link.sap.child.unordered

link.sap.child.unordered

link.sap.child.ordered

link.sap.child.ordered

parent link

parent link

previous link

previous link

next link

next link

Related Information

related links

related links

topic/related-links

3.7.2.1 Extending Dbspaces[d24]

> **Note**
>
> Extending Dbspaces is only available in WebDynpro.

A dbspace is a unit of storage within a SAP IQ database that you can administer as a logical subset of total storage. You can allocate individual objects and subobjects to dbspaces, which consist of one or more operating system files. Use this procedure to extend the space of a dbspace in an SAP IQ database.

- The user for the database connection must have sufficient database permissions. For more information, see [xref67]Authorizations for the DBA Cockpit [page 11].
- You can increase the size of the dbspace only if the free list (an allocation map) has sufficient room and if the dbspace has sufficient reserved space.
- Your operating system may limit the number of dbfiles per dbspace.

1. Call the DBA Cockpit and open the Database tab. Choose *Space* > *Dbfiles*.
2. Choose the *Add DBFile* pushbutton.
   The wizard *Extend DBSpace* appears.

xref66 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5c0da9526392fb27e10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[7]/conbody[3]/p[11]/xref[1] - resolved in output

d24 topic id: loio72eea9526392fb27e10000000a44176d loiob214a852c82ec04ae10000000a44176d loio5c0da9526392fb27e10000000a44176d loio0d61ea5257c7287ee10000000a44176d - srcFile:

xref67 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/0d61ea5257c7287ee10000000a44176d.xml - element: /buildable-map[1]/referable-content[4]/concept[11]/concept[7]/topic[5]/body[3]/ul[3]/li[1]/p[1]/xref[1] - resolved in output

The following table lists the steps and recommended actions:

Step Name	Action
Introduction	Provides an overview of the configuration steps Click **Continue**.
DBFile Details	Specify the following: • DBSpace Each type of dbspace stores a particular type of SAP IQ data. Choose among the following: ◦ *iq_main* A sample user dbspace that may not be present in your own databases. In a migrated database, `iq_main` is a dbspace that contains former main dbspaces as files. This dbspace stores user objects like tables, indexes, and table metadata. ◦ *IQ_SYSTEM_MAIN* This dbspace stores incremental backup metadata, database space and identity metadata. Avoid storing user objects here. ◦ *IQ_SYSTEM_TEMP* This dbspace is a work area used for temporary data generated during data loads and queries. • Logical name An internal name for the dbfile. • Path The operating system file name of the dbfile, with a preceiding path where necessary. If you omit an explicit directory, the file is created in the same directory as the database catalog store. • Raw device Select Raw device to create the dbspace on a raw partition instead of a system file. (UNIX-like operating systems only) • Size Specify the size in units of kilobytes (KB), megabytes (MB), gigabytes (GB), or terabytes (TB). Defaults to MB. • Reserve size Space to reserve so that the dbspace can grow in the future. Specify the size in units of kilobytes (KB), megabytes (MB), gigabytes (GB), or terabytes (TB). The size can be any number greater than 0. Defaults to MB. You cannot change the reserve size after creating the dbspace dbfile.
Summary	Summarizes all actions to be performed To save your entries, choose the *Execute* pushbutton.
Execution Protocol	Summarizes all performed actions including error messages To exit the wizard, choose the *Finish* pushbutton and return to the *System Configuration* screen.

3.7.3 Tables[d25]

> **Note**
>
> Tables is only available in WebDynpro.

Data for tables is stored in dbspaces. Divide large tables into partitions to shorten backup times, provide a finer level of granularity for data validation, and support tiered storage.

Manage tables by calling the DBA Cockpit and choosing *Space* > *Tables* on the *Database* tab page of the DBA Cockpit.

In the *Selection* area, choose the table that you want to monitor. You can use the asterisk as a wildcard. Details appear in the content area.

To refresh the details, choose *Apply Selection*.

Column	Description
Name	Name of table.
Owner	Name of table owner.
DBspace Name	Name of dbspace where table is located.
Table Rows	Number of rows in table.
Table Size KBytes	Size of table in KB.
Table ID	Identifier for the table.
Creation Time	Time of table creation.
Update Time	Time of last table update.
RLV Enabled	T (true) if table allows in-memory row-level versioning. F (false) if it does not.

- The *Summary* tab shows general information on the table.
- The *Columns* tab shows column attributes.
- The *Partitions* tab shows partition attributes, such as type.
  The *Partitions* tab lists these details for each partition:

Column	Description
Name	Name of partition. (Hash partitions are unnamed.)
Type	Hash or Range.
Composite Type	Hash-Range. (N/A for hash or range partitions.)
Key	Name of column for the partition key.
Value	Value of the range partition or hash-range partition.
DBspace	Dbspace that contains the partition.
Columns	Column details for columns contained by a hash-range partition. (N/A for other types.)

[d25] concept id: loio72eea9526392fb27e10000000a44176d loiob214a852c82ec04ae10000000a44176d loiofd908f53797b590de10000000a44176d - srcFile:

Use the *Delete* pushbutton to delete a partition.
Use the *Merge* pushbutton to merge two adjacent range or hash-range partitions. Partitions to merge must be adjacent and reside in the same dbspace. No data movement is allowed.

3.8 Backup & Recovery[d26]

The following sections provide information about the main task areas that are available under **Backup & Recovery** on the **Database** tab page of the DBA Cockpit.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.8.1 Database Backup Summary[d27]

> **Note**
>
> Database Backup Summary is only available in WebDynpro.

The database backup summary shows you when the last backup occurred and how much space your backups use. You can use its Backup Dependencies tab to plan data restores.

To access backup summaries, call the DBA Cockpit and choose *Backup and Recovery* > *Database Backup Summary* on the *Database* tab page of the DBA Cockpit.

d26 concept id: loio72eea9526392fb27e10000000a44176d loiocfd13dd8f38249cebd707d563a080807 - srcFile:
d27 concept id: loio72eea9526392fb27e10000000a44176d loiocfd13dd8f38249cebd707d563a080807 loiod994d9529c2f5721e10000000a423f68 - srcFile:

In the *Selection* area, choose the time frame that you want to view and choose *Apply Selection*. Details appear in the content area.

The default view shows the columns Backup Date/Time, Backup ID, Type, DB Space Size (KB) and Comment.

Select any row in the Backup Summary to view details about that backup.

Backup Detail Tab[d27]

The **Backup Detail** tab for a selected backup may include these columns:

Column	Description
Backup ID	Identifier for the backup transaction.
Backup Time	Time of the backup.
Backup Type	Type of backup (Full, Incremental since incremental, or incremental since full).
Selective Type	Subtype of backup (All inclusive, All RW files in RW dbspaces, or Set of RO dbspace/file).
Virtual Type	Type of virtual backup: (Non-virtual, decoupled, or encapsulated).
Creator	Creator of the backup.
Depends on ID	Identifier for backup that the backup depends on. This helps you restore backups in the right sequence.
Backup Size	Size of the backup in KB.
User Comment	User comment.
Backup Command	The backup statement issued (minus the comment).

The default view shows the columns Backup Date/Time, Backup ID, Type, DB Space Size (KB), and Comment.

Click the column header to change the sort order of columns or to specify a custom column filter.

Backup Dependencies Tab[d27]

The **Backup Dependencies** tab displays when you select an Incremental Backup. The tab provides vital information for restoring backups. It shows the path needed to restore to the selected backup. You can easily choose backups in the right sequence to restore to the desired state.

The default view shows the columns Backup Date/Time, Backup ID, Depends on, Type, and Size (KB).

To customize the columns displayed, on the Database Backup Summary, Backup Detail tab, or Backup Dependencies tab, choose *Open Settings Dialog*. Use the *Add* or *Remove* buttons to hide or display columns and click *OK* when finished.

---

d27 section id: loio72eea9526392fb27e10000000a44176d loiocfd13dd8f38249cebd707d563a080807 loiod994d9529c2f5721e10000000a423f68 - srcFile:
d27 section id: loio72eea9526392fb27e10000000a44176d loiocfd13dd8f38249cebd707d563a080807 loiod994d9529c2f5721e10000000a423f68 - srcFile:

3.8.2 Backup Files[d28]

Displays all backup files, provides insight into the file and the ability to download compressed and uncompressed files.

The default file path is: `C:\usr\sap\NLS\data\db` for Windows and `/usr/sap/NLS/data/db` for Unix. If you use a different path, you must configure the backup file path in DBACOCKPIT ▶ *Configuration* ▶ *Database Configuration* ▶.

Button	Description
Display File Content	Displays the contents of the selected file
Download Uncompressed	Download selected files to the local system
Download Compressed	Download selected files to the local system after compression

3.9 Configuration[d29]

The following sections provide information about the main task areas that are available under the **Configuration** tab.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

[d28] concept id: loio72eea9526392fb27e10000000a44176d loiocfd13dd8f38249cebd707d563a080807 loio21d69c7859994fed8621d89757e93f5c - srcFile:
[d29] concept id: loio72eea9526392fb27e10000000a44176d loiof9a464b6e6eb4b64b48340f2a31825b6 - srcFile:

3.9.1 Database Options[d30]

> **Note**
>
> Database Options is only available in WebDynpro.

The *Database Options* screen lets you view or change option settings for database users.

To access *Database Options*, call the DBA Cockpit and open the **Database** tab. Choose *Configuration* > *Database Options* in the navigation frame of the DBA Cockpit.

In the *Selection* area, you can choose the user whose settings you want to view. You may specify all users, the user PUBLIC, or a specific user.

The *Database Options* screen provides information that you can use to answer questions such as:

- Which non-default options has this user set?
- How do options compare to those of other users?
- How do the option settings compare to those of user PUBLIC?

To analyze database option data:

1. Identify users whose systems require analysis, for example, those experiencing database performance issues.
2. In the *Selection* area, you specify ALL USERS or a particular user.
3. Restrict the result set, for example, choosing Non-Defaults Only.
4. To refresh data, choose the *Apply Selection* pushbutton.
   The following information displays:

Column:	Description:
Name	Database option name
Value	Current database option value
Default Value	Default database option value
User	Name of database user

For a complete list of options, defaults, and allowed values, see [xref68]http://help.sap.com > *Database* > *SAP IQ* > `<Release>` > *SAP IQ SQL Reference: Statements and Options*.

To change option settings:

1. Select an option from the details view.
2. Click the *Change* push button.
3. Type the new value in the box and click **OK**.

d30 xref68 concept id: loio72eea9526392fb27e10000000a44176d loiof9a464b6e6eb4b64b48340f2a31825b6 loio5e3e985245604358e10000000a423f68 - srcFile: srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/5e3e985245604358e10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[13]/concept[6]/conbody[3]/ol[8]/li[4]/p[4]/xref[1] - call-template name="sap-link-classification"

3.9.2 Database Configuration[d31]

Displays the SAP IQ configuration with the option for the administrator to change the directory locations for log files, message files, backup files, and the SYBASE system variable.

If you have maintenance rights then by using the *Change* button you can configure the file location of the environment variables Log, Backup, Message, and $SYBASE. This information is important for the backup file, diagnostic files, message file, and database configuration and database license functions because the files/data are read from the configured file location.

For more information, see SAP Note 3017355 - SAP IQ 16.1 SP04 PLx - correct SAPIQDB.cfg settings and the [xref70]SYBASE Infocenter.

Parameter	Description
Backup Directory	The location where the backup files are kept. The default is `C:\usr\sap\<SID>\backup` for Windows and `/usr/sap/<SID>/backup` for Unix.

Log Directory	The location of the SAP IQ log files where the `.srvlog` and `.stderr` files are kept.
	When an SAP IQ server is started with the `start_iq` command, the location of the log files is specified at that time.
	`SERVER_LOG = $IQLOGDIR17/$CLEAN_SERVER_NAME.$NUM.srvlog`
	`STDERR_LOG = $IQLOGDIR17/$CLEAN_SERVER_NAME.$NUM.stderr`
	So `$IQLOGDIR17` or `$IQLOGDIR16` is used to specify the location of the two files.
	In the `cfg` file, if you have set the *-zo* or *-o* set, then that determines the locations of these log files. This log information is never stored in the database itself.
	The default is `C:\usr\sap\NLS\data\log` for Windows and `/usr/sap/NLS/data/log` for Unix.

Message Directory	The location where the SAP IQ message files are kept. The default is `C:\usr\sap\NLS\data\messages` for Windows and `/usr/sap/NLS/data/messages` for Unix.
$SYBASE Environment	The location of the Sybase environment variable. Default `C:\usr\sap\<SID>\<nr>` for Windows and `/usr/sap/>SID>/<nr>` for Unix.

Example

```
### Common options (shared with utility database)
### ----------------------------------------------------------------------
### Name of the server
```

d31 xref70 concept id: loio72eea9526392fb27e10000000a44176d loiof9a464b6e6eb4b64b48340f2a31825b6 loio6c3778225d244a2385d3587f0b62975a - srcFile: srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/6c3778225d244a2385d3587f0b62975a.xml - element: /buildable-map[1]/referable-content[4]/concept[13]/concept[7]/conbody[4]/p[2]/xref[2] - call-template name="sap-link-classification"

```
-n server_<SID>_<nr> or SAPIQDBSERVER
### -c: cache memory for catalog store. Set to 2 - 8 times of the SAPIQDB.db file
-cl 4096m
-ch 8192m
### location of the temporary files for IQ
-dt /usr/sap/IQ2/temp
### -x: specify unused port for IQ server to listen for client logon
-x tcpip(port=30238)
### Use TLS encrypted connection
#-ec TLS(FIPS=Y;IDENTITY=lt5088_IQ2_12.id;IDENTITY_PASSWORD=is!seCret)
-es
### who is allowed to start/stop IQ DB
-gd dba
-gl dba
### -gp: DB page size in bytes. Must match to the value of the IQ block size
-gp 8192
#### Maximum number of connections (-gm = CPUs * 8)
-gm 128
## number of execution threads for the catalog store (-gn = -gm * 1,5)
-gn 192
### IQ server queries (-iqgovern = (2*CPU) + 10)
-iqgovern 42
### IQ thread memory size (-gss = -iqmt * -iqtss )
-gss 8192
### IQ server threads (-iqmt = (60*4) + (50*(CPU - 4)) + (-gm) + 6 )
-iqmt 512
-iqtss 4096
### Cache sizes in MB: Use 80% of existing RAM : 3 for each parameter
### Use 80% of existing RAM.
-iqlm 16384
-iqtc 16384
-iqmc 16384
### IQ heap and RLV size (from 16.1)
```

```
-iqmem 8192
-iqrlvmem 2048
### number of CPU and partitions (-iqpartition = CPU : 8) or Note 2988195
-iqnumbercpus 16
-iqpartition 2
## location IQ log and sizes
-iqmsgsz 32
-iqmsgnum 5
-os 16m
-zs 16m
-oe /usr/sap/IQ2/data/log/SAPIQDB_svr
-zo /usr/sap/IQ2/data/log/SAPIQDB_startlog
```

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.9.2.1 Parameter Information[d32]

In this chapter you will find more detailed explanations of important parameters used in the **Database Configuration** Screen.

[d32] concept id: loio72eea9526392fb27e10000000a44176d loiof9a464b6e6eb4b64b48340f2a31825b6 loio6c3778225d244a2385d3587f0b62975a loio0287219417b5426ba817182667481a24 - srcFile:

Parameter	Description
cl- and ch-	Cache
-gss	Partially sets the stack size for server execution threads that execute requests for server connections. SAP IQ calculates the stack size of these server threads using the following formula: (-gss + -iqtss). See also the description for iqtss.
-iqtss	Specifies the stack size in KB for server execution threads that run either in the background or as part of a thread team that supports the main server connection thread. The default value is 512 KB on 64-bit platforms and 200 KB on 32-bit platforms. For more information, see [xref71]SYBASE Infocenter.
-iqlm	Specifies the maximum amount of memory in MB that SAP IQ can dynamically request from the operating system for temporary use. • Default is 2048MB **Note** • Some load operations may require more memory than the default value of 2GB provides. If memory requirements exceed the default value, use the -iqlm startup option to increase the memory that SAP IQ can dynamically request from the operating system. Set -iqlm as a switch as part of the command or configuration file that starts the server. • In general, large memory requests represent one-third of the total available physical memory allocated to SAP IQ. To ensure sufficient memory for the main and temporary SAP IQ stores, set the -iqlm, -iqtc, and -iqmc startup parameters so that each parameter receives one-third of the total available physical memory allocated to SAP IQ. • In most cases, you should allocate 80% of the total physical memory to SAP IQ to prevent SAP IQ processes from being swapped out. Adjust the actual memory allocation to accommodate other processes running on the same system. For example, on a machine with 32 cores and 128 GB of total available physical memory, you would allocate 100 GB (approximately 80% of the 128 GB) to SAP IQ processes. Following the general rule, you would set the -iqlm, -iqtc, and -iqmc parameters to 33 GB each.

xref71 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/0287219417b5426ba817182667481a24.xml - element: /buildable-map[1]/referable-content[4]/concept[13]/concept[7]/concept[6]/conbody[4]/p[2]/table[1]/tgroup[1]/tbody[4]/row[3]/entry[2]/p[1]/xref[1] - call-template name="sap-link-classification"

Parameter	Description
-iqtc	Sets the size of the SAP IQ temporary cache, in MB. • Default is 64MB **Note** • The switch overrides the default value of 64MB and applies to all databases started from the time the SAP IQ server is started until the server is shut down. In other words, if you start one database at server startup and another later, 2 * -iqtc must be available for the temporary cache. In general, avoid running multiple databases with an SAP IQ server. • Large memory requirements represent one third of all available physical memory. To ensure sufficient memory for the SAP IQ temporary store cache, set the -iqtc startup parameter to one-third of the total available physical memory. • Always specify the size value without specifying the units of measurement; for example, specify -iqtc 32 instead of -iqtc 32MB. If you specify the unit of measure, start_iq ignores this switch, unlike SQL Anywhere, which requires a unit of measure. • Make sure that the IQ_SYSTEM_TEMP dbspace is at least as large as -iqtc.
-iqmc	Specifies the main SAP IQ store buffer cache size, in MB. • Default is 64MB **Note** • The switch overrides the default value of 64MB and applies to all databases started from the time the server is started until it is shut down. In other words, if you start one database at server startup and another later, you must have 2 * -iqmc available for the main buffer cache. • Large memory requirements represent one third of all available physical memory. To ensure sufficient memory for the SAP IQ temporary store cache, set the -iqmc startup parameter to one-third of the total available physical memory. • Always specify the size value without specifying the units of measurement; for example, specify -iqmc 32 instead of -iqmc 32MB. If you specify the unit of measure, start_iq ignores this switch, unlike SQL Anywhere, which requires a unit of measure.
-iqmsgsz	Limits the maximum size of the message log, in MB. -iqmsgsz is an integer from 0-2047 (inclusive), in MB. The default value is 0, which means that there is no limit to the message log size. The IQMsgMaxSize server property corresponds to the -iqmsgsz server switch and takes precedence over the -iqmsgsz value. An -iqmsgsz value of n greater than 0 means that the message log can be up to n megabytes in size. For example, the following command limits the size of the message log to 100 MB: start_iq -n iqdemo iqdemo.db ... <other options> ... -iqmsgsz 100

Parameter	Description
-iqmsgnum	Specifies the number of archives of the old message log maintained by the server. **Note** Allowed values are integers 0 - 64 (inclusive). The default value is 0, which means that the messages are included in the main message log file. Takes effect only if -iqmsgsz or the IQMsgMaxSize server property is a non-zero value. The IQMsgNumFiles server property is equivalent to -iqmsgnum and takes precedence over the value of -iqmsgnum. Value n greater than 0 means that the server maintains n archives of the message log. For example, this command indicates that the server maintains 3 archives of the message log: start_iq -n iqdemo iqdemo.db ... <other options> ... -iqmsgsz 100 -iqmsgnum 3
-os	Specifies a maximum size for the database server message log file, above which the file is renamed. The size is the maximum file size for logging database server messages in bytes. Use k, m, or g to specify units of kilobytes, megabytes, or gigabytes, respectively. The minimum size is 10 KB. By default, there is no maximum size limit. Before logging output messages to the database server message log file, the database server checks the current file size. If the log message causes the file size to exceed the specified size, the database server renames the database server message log file to yymmddxx.slg, where yymmdd is the year, month, and day the file was created, and xx is a number that starts at 00 and increments. Use this option to identify old database server message log files that can be deleted to free up disk space. This option cannot be used together with the -on option. It is recommended that you do not end the name of the database server message log file with .log because this can cause problems for utilities that perform operations with the transaction log.

Parameter	Description
-zs	Limits the size of the request log. The request logging is enabled with the -zr option and redirected to a separate file with the -zo option. You can limit the size of the file with the -zs option. The size is the maximum file size for the request log in bytes. Use k, m, or g to specify units of kilobytes, megabytes, and gigabytes, respectively. If you specify -zs 0, there is no maximum size for the request log file, and the file is never renamed. This is the default value. When the request log file reaches the size specified by either the -zs option or the sa_server_option system procedure, the file is renamed and given the .old extension (replacing an existing file with the same name, if one exists). The request log file is then restarted. **Example** The following example shows how to use the -zs option to control the size of the log file. Suppose you start a database server with the following command line: iqsrv16 -zr all -zs 10k -zo mydatabase.log A new log file mydatabase.log will be created. When this file reaches a size of 10 KB, all existing mydatabase.old files are deleted, mydatabase.log is renamed to mydatabase.old and a new mydatabase.log file is created. This process is repeated each time the mydatabase.log file reaches the specified size (in this case 10 KB).
-oe	Specifies a file name for logging startup errors, fatal errors, and assertions. Each line in the output log file is prefixed with the date and time. Startup errors include errors such as: • Database file could not be opened/read: Database file. • A database server with this name has already been started. Fatal errors and assertions are logged in the Windows application event log or the Unix system log, regardless of whether -oe is specified. It is recommended not to end the filename with .log, as this may cause problems with utilities that perform operations using the transaction log.
-zo	Redirects the request logging information to a file separate from the regular log file. All operating systems and database servers. **Note** • Request logging is turned on with the -zr option. You can redirect the output from this file to another file that is not the regular log file by specifying the -zo option. • This option also prevents the request logging from being displayed in the database server's message window.

Parameter	Description

-ec - Encrypted Connection	Uses transport layer security or simple encryption to encrypt all command sequence communication protocol packets (such as DBLib and ODBC) transmitted to and from all clients. TDS packets are not encrypted.
	
	Allowed Values
	
	• NONE
	accepts connections that are not encrypted.
	• SIMPLE
	accepts connections encrypted with simple encryption. This type of encryption is supported on all platforms and on previous versions of the database server and clients. Simple encryption does not provide server authentication, RSA encryption, or other transport layer security features.
	• TLS
	accepts connections encrypted with RSA encryption. The TLS parameter accepts the following arguments:
	  • FIPS
	  For FIPS certified RSA encryption, specify FIPS=Y. FIPS certified RSA encryption uses a separate certified library, but is compatible with version 9.0.2 or later clients that specify RSA. For a list of FIPS-certified components, see [xref72]Q - The Easy Installer for SAP IQ. The algorithm must match the encryption used to create your certificates.
	  • server-identity-filename
	  Is the path and filename of the server identity certificate. If you use the FIPS certified RSA encryption, you must create your certificates using the RSA algorithm.
	  • password
	  Is the password for the server private key. You specify this password when you create the server certificate.
	
	Applies to
	
	NONE and SIMPLE apply to all servers and operating systems.
	
	TLS applies to all servers and operating systems.
	
	For information about FIPS certified encryption support, see [xref73]Q - The Easy Installer for SAP IQ.
	
	Note
	
	You can use this option to secure communication packets between client applications and the database server using transport layer security.
	
	The -ec option instructs the database server to accept only connections that are encrypted with one of the specified types. You must specify at least one of the supported parameters in a comma-separated list. Connections over the TDS protocol, which includes Java applications using jConnect,

xref72 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/0287219417b5426ba817182667481a24.xml - element: /buildable-map[1]/referable-content[4]/concept[13]/concept[7]/concept[6]/conbody[4]/p[2]/table[1]/tgroup[1]/tbody[4]/row[13]/entry[2]/p[2]/ul[2]/li[3]/ul[3]/li[1]/p[2]/xref[1] - call-template name="sap-link-classification"

xref73 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/0287219417b5426ba817182667481a24.xml - element: /buildable-map[1]/referable-content[4]/concept[13]/concept[7]/concept[6]/conbody[4]/p[2]/table[1]/tgroup[1]/tbody[4]/row[13]/entry[2]/p[6]/xref[1] - call-template name="sap-link-classification"

Parameter	Description
	are always accepted and never encrypted, regardless of the use of the -ec option. If you set the TDS protocol option to NO, these unencrypted TDS connections are not allowed. By default, communication packets are not encrypted, which is a potential security risk. If you are concerned about the security of network packets, use the -ec option. Encryption affects performance only marginally. If the database server accepts simple encryption but does not allow unencrypted connections, all non-TDS connection attempts that do not use encryption will automatically use simple encryption. If you start the database server with -ec SIMPLE, the database server is instructed to accept only simple encryption connections. TLS connections (RSA and RSA FIPS certified encryption) fail, and connections requesting no encryption use simple encryption. If you want the database server to accept encrypted connections over TCP/IP, but also be able to connect to the database from the local computer using shared memory, you can specify the -es option along with the -ec option when you start the database server. The dbrsa16.dll file contains the RSA code used for encryption and decryption. The dbfips16.dll file contains the code for the FIPS-certified RSA algorithm. If you connect to the database server and the corresponding file is not found or an error occurs, a message appears in the database server message window. The server will not start if the specified encryption types cannot be initiated. The client and server encryption settings must match or the connection will fail, except in the following cases: • If the database server specifies -ec SIMPLE but not -ec NONE, connections that do not request encryption can connect and automatically use simple encryption. • If the database server specifies RSA and the client specifies FIPS certified encryption, or vice versa, the connection is successfully established. In these cases, the Encryption Connection property returns the value specified by the database server. For more information, see [xref74]SYBASE Infocenter.

xref74 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/0287219417b5426ba817182667481a24.xml - element: /buildable-map[1]/referable-content[4]/concept[13]/concept[7]/concept[6]/conbody[4]/p[2]/table[1]/tgroup[1]/tbody[4]/row[13]/entry[2]/p[8]/xref[1] - call-template name="sap-link-classification"

Parameter	Description
-sf - Security Feature	Controls whether users have access to features for databases running on the current database server. A secured feature can be accessed only by a user with appropriate privileges, while an unsecured feature can be used by all users. This option allows the database server owner to control whether users have access to features for databases running on the database server. The -sk option enables the database server owner to create a key for secure features of the system that prevents users from accessing features specified with the -sf option. If you start a database without specifying a system secure feature key, the default secure features are secured, and you cannot change the secure feature settings for the database server or the databases running on it. You cannot create the system secure feature key later - you must shut down the database server and specify a system secure feature key when you restart it. The feature-list is a comma-separated list of feature names or feature sets to secure for the database server. When you secure a feature, it is inaccessible to all database users except administrators. Specifying a feature set secures all features contained in that set. To secure one or more, but not all, features in the feature set, specify the name of the individual feature. **Note** Sub-features of feature sets that are secured by default cannot be unsecured from the command line. In other words, the following command does not work: -sf manage_security, -manage_keys Use feature-name to specify that the feature should be secured (made inaccessible), and -feature-name or feature-name- to specify that the feature should be unsecured (accessible to all database users). For example, the following command specifies that only dbspace features are accessible to all users: iqsrv16 -n secure_server -sf all,-dbspace

3.10 Diagnostics[d33]

Use DBA Cockpit diagnostics to track database changes, improve performance, and analyze resource consumption.

The following sections provide information about the main task areas that are available under *Diagnostics* on the *Database* tab page of the DBA Cockpit:

- [xref75]Audit Log [page 53]
- [xref76]Index Advisor [page 54]

d33 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d - srcFile:

xref75 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[1]/p[1]/xref[1] - resolved in output

xref76 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[2]/p[1]/xref[1] - resolved in output

- [xref77]Query Plan [page 55]
- [xref78]Users [page 57]
- [xref79]Roles [page 62]
- [xref80]Events [page 64]
- [xref81]Alerts [page 67]
- [xref82]SQL Editor [page 68]
- [xref83]Diagnosis Files [page 69]
- [xref84]Message Files [page 70]

topic/related-links

link.sap.child.unordered

link.sap.child.unordered

link.sap.child.ordered

link.sap.child.ordered

parent link

parent link

previous link

previous link

next link

next link

Related Information

related links

related links

topic/related-links

xref77 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[3]/p[1]/xref[1] - resolved in output

xref78 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[4]/p[1]/xref[1] - resolved in output

xref79 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[5]/p[1]/xref[1] - resolved in output

xref80 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[6]/p[1]/xref[1] - resolved in output

xref81 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[7]/p[1]/xref[1] - resolved in output

xref82 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[8]/p[1]/xref[1] - resolved in output

xref83 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[9]/p[1]/xref[1] - resolved in output

xref84 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/78ffc75318f75a47e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/conbody[3]/ul[3]/li[10]/p[1]/xref[1] - resolved in output

3.10.1 Audit Log[d34]

Use the audit log to track changes to the database made by the DBA Cockpit and changes to the DBA Cockpit system configuration.

The DBA audit log records all actions of DBA Cockpit that make changes to the database. For example, changing DB options, changing DB configuration, adding a dbspace, creating DB events, creating DB users, and executing statements in SQL editor (SAP Note [xref85]3331129). Note that the audit log only shows changes made with DBA Cockpit. Changes made with other tools are not displayed in the DBA Cockpit audit log.

> **Note**
>
> The audit log in the DBA Cockpit is not a certified tool for auditing.

> **Note**
>
> Depending on your SAP_BASIS Support Package, SQL commands issued from the DBA Cockpit SQL Editor are logged as follows:
>
> 1. In older SPs: only SQL statements that are different from SELECT are logged in the DBA Cockpit audit log.
> 2. In newer SPs: All SQL statements (including SELECT) are logged in the DBA Cockpit audit log and also in the security audit log (transaction `SM20`).
>
> For more information, see SAP Note[xref86]3331129. The specific Support Packages to distinguish between 1. and 2. are listed in this SAP Note.

> **Note**
>
> The SAP IQ audit log is not displayed in the DBA Cockpit. The following blog describes how you can display the SAP IQ audit log: [xref87]https://blogs.sap.com/2022/06/03/sap-iq-audit-process-sap-ilm-sap-bw-nls-dto-and-standalone-sap-iq/.

d34 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio6dd84e52c6a4d130e10000000a44538d - srcFile:

xref85 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/6dd84e52c6a4d130e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[5]/conbody[4]/section[1]/p[1]/xref[1] - call-template name="sap-link-classification"

xref86 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/6dd84e52c6a4d130e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[5]/conbody[4]/section[1]/note[3]/p[3]/xref[1] - call-template name="sap-link-classification"

xref87 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/6dd84e52c6a4d130e10000000a44538d.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[5]/conbody[4]/section[1]/note[4]/p[1]/xref[1] - call-template name="sap-link-classification"

Audit Log Records[d34]

The following information is displayed about changes made to the database:

Field	Description
Date	Start date of the action
Time	Start time of the action
System	Target system on which the action was performed
Action	Type of action (name of the action in DBA Cockpit)
Command	Type of command (for example, ADD, DELETE, or EDIT)
Object	Name of the changed object (for example, database or tablespace name)
User	Name of the SAP user who performed the action
From System	System from which the action was performed

Retention of Audit Log Records[d34]

By default, records in the audit logs are retained for 90 days. After this time, they are automatically deleted.

To change the retention period, you can modify the content of the customizing table `DB6PM_CLN`.

To do this, execute the following UPDATE command:

Sample Code

```
update <sap schema>.db6pm_cln
    set retain = <number of retention days>
    where sysid = '<sapid>' and objecttype = 'U' and stattype = 'D'
```

→ Tip

If you prefer to make this change using transaction SE16, install SAP Note 3186701 *(How to change the Retention Time of the DBA Cockpit Audit Log)*. This change allows you to edit table `DB6PM_CLN` using transaction SE16.

3.10.2 Index Advisor[d35]

Note

Index Advisor is only available in WebDynpro.

The Index Advisor displays messages that suggest additional indexes that might improve performance.

d34 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio6dd84e52c6a4d130e10000000a44538d - srcFile:
d34 subsection id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio6dd84e52c6a4d130e10000000a44538d - srcFile:
d35 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loiof90ebf537b967a2ae10000000a423f68 - srcFile:

Messages focus on the following areas:

- Local predicate columns
- Single-column join key columns
- Correlated subquery columns
- Grouping columns

To use the Index advisor:

1. Call the DBA Cockpit and choose *Configuration* > *Database Options*.
2. Set `Index_Advisor` ON and `Index_Advisor_Max_Rows` to a value greater than zero, for example 10000.
3. Choose *Diagnostics* > *Index Advisor* and examine output.
4. If you decide to follow the recommendations of the index advisor messages, create the suggested indexes in a tool such as Interactive SQL, for example: `CREATE HG INDEX id_hg ON SalesOrderItems (ID) IN Dsp5`.

3.10.3 Query Plan[d36]

> **Note**
>
> Query Plan is only available in WebDynpro.

Query analysis helps you identify high resource and high frequency queries. Query plans allow you to:

- Analyze resource consumption visually by query components
- Include index advisor in each step
- Compare historical resource consumption by query components

SAP IQ generates query plans that are stored in .html files on disk. See [xref89]QUERY_PLAN_AS HTML Option in[xref90]SAP IQ SQL Reference. You must install SAP IQ 16.0 SP08 or higher to view query plans using DBA Cockpit for SAP IQ.

DBA Cockpit for SAP IQ provides scripts that create a system table from which you can retrieve query plan data.

To run the scripts, follow the instructions in the `README.txt` file in **`<IQ_installation_directory>\IQ-16_0\DBACOCKPIT\queryPlanUDF`** on Windows or in **`<IQ_installation_directory>/IQ-16_0/DBACOCKPIT/queryPlanUDF`** on UNIX.

You can retrieve query plan data by:

- Using direct SQL queries to the SAP IQ server
- Running Performance Trace through ST05

d36 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc20dbf537b967a2ae10000000a423f68 - srcFile:

xref89 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/c20dbf537b967a2ae10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[7]/conbody[3]/p[4]/xref[1] - call-template name="sap-link-classification"

xref90 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/c20dbf537b967a2ae10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[7]/conbody[3]/p[4]/xref[2] - call-template name="sap-link-classification"

See [xref91]Viewing Query Plan Data with Performance Trace (ST05) [page 56].

- Calling the DBA Cockpit and choosing *Diagnostics* > *Query Plan* on the *Database* tab page of the DBA Cockpit. In the *Selection* area, filter the plan data and click *Apply Selection*. For example, you can restrict data to a certain time period.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.10.3.1 Viewing Query Plan Data with Performance Trace (ST05)[d37]

> **Note**
>
> Viewing Query Plan Data with Performance Trace (ST05) is only available in SAP GUI.

SQL Trace is part of the ABAP Performance Trace tool (transaction ST05). SQL Trace provides an on-demand log of selected SQL statements issued through OPEN SQL. Use this procedure to view a query plan through SQL Trace.

1. Use transaction code ST05 or choose *Test* > *Performance Trace* in the ABAP Workbench.
2. Choose the *Activate Trace* pushbutton.
3. In your SQL tool, execute the desired queries.
4. In SQL Trace, choose the *Deactivate Trace* pushbutton.
5. Choose *Display Trace*. and select display criteria.

xref91 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/c20dbf537b967a2ae10000000a423f68.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[7]/conbody[3]/ul[9]/li[2]/p[2]/xref[1] - resolved in output

d37 topic id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc20dbf537b967a2ae10000000a423f68 loio4598c55383603f35e10000000a423f68 - srcFile:

6. Review the list of queries and double-click the desired query.
   A query against NLS (SAP IQ) opens DBA Cockpit to the query plan page.
7. Search the list of query plans for the plan desired. Use the display filters at the top of the screen to restrict the logged trace records displayed on the basic list, detailed list, or time-sorted list. Filter by *Database Connection* to restrict statements to those that target SAP IQ.

3.10.4 Users[d38]

Get an overview of all users and the ability to manage users and also create new users.

Column	Description
user_id	A unique number to identify the user.
user_name	The name of the user.
connections	The current number of connections of this user.
failed_logins	The number of failed logins attempts by the user.
last_login_time	Returns the local date and time of the database server (accurate to hours and minutes) when the last connection was made. This value is affected by the simulated time zone.
locked	Indicates whether the user account is locked.

In this screen you can, via the buttons in the menu bar, display the roles of the user, object privileges, unlock users, reassign the login policy, create a new user, change passwords, and delete users.

> **Note**
>
> The *Create*, *Modify*, *Delete* and *Lock/Unlock* buttons are available only for users with the `MAINT (S_DBCON (ACTVT = 23)` authorization, therefore the SAP IQ user must have the SAP IQ system privilege `MANAGE ANY USER`.

In the following sections you can learn more about the corresponding functionalities and their parameters.

Show Roles[d38]

Parameter	Description
role_name	Lists the name of the role/system privilege.
parent_role_name	Lists the role name of the parent role.
grant_type	Lists the type of grant.
role_level	In `Expand_down` mode, 1 indicates the roles granted directly, 2 indicates the next hierarchy below, and so on. In `Expand_up` mode, 0 indicates the roles granted the specified role; -1 indicates the next higher hierarchy, etc.

d38 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:
d38 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:

For more information, see [xref92]sp_displayroles in the SAP IQ SQL Reference.

Grant Roles[d38]

Parameter	Description
role_name	Must already exist in the database. Separate multiple role names with commas.
Grantee	Must be the name of an existing user or role that has a login password. Separate multiple user_IDs with commas.
With NO ADMIN option	Any <grantee> will be granted the underlying system privileges of any <role_name>, but cannot grant <role_name> to any other user.
With ADMIN ONLY option	Any <userID> is granted administrative privileges of any <role_name>, but cannot grant the underlying system privileges of any <role_name>.
With ADMIN option	Each userID is granted the underlying system privileges for each <role_name>, as well as the ability to grant <role_name> to another user.
With no system privilege inheritance	The underlying system privileges of the granting role are not inherited by the members of the receiving role. However, if the receiving role is a user-extended role, the underlying system privileges are granted to the extended user.

System Privileges[d38]

Parameter	Description
system_privilege_name	Must be the name of an existing system privilege.
With NO ADMIN option	The user can administer the system privilege but cannot grant the system privilege to another user.
With ADMIN ONLY option	When the `WITH ADMIN ONLY OPTION` clause is used, each `<user_id>` is granted administrative privileges for each `<system_privilege>`, but not the `<system_privilege>` itself.
With ADMIN option	Each `<user_id>` gets administrative privileges for each `<system_privilege>` in addition to any underlying system privileges of `<system_privilege>`.

Object Privileges[d38]

Parameter	Description
ALL	Grant all privileges to the users
ALTER	Users can modify this table with the ALTER TABLE statement. This privilege is not allowed for views.
DELETE	Users can delete rows from this table or view.
INSERT	Users can insert rows into the named table or view.
LOAD	Users can load data into the named table or view.

xref92 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/421ee85ab8bd49669d8b6a336fca3fa7.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[8]/conbody[4]/section[4]/p[3]/xref[1] - call-template name="sap-link-classification"

d38 subsection id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:

d38 subsection id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:

d38 subsection id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:

Parameter	Description
SELECT	Users can view the information in this view or table. If column names are specified, users can view only those columns. SELECT permissions for columns cannot be granted for views, only for tables.
TRUNCATE	Users can truncate the named table or view.
UPDATE	Users can update rows in this view or table. If column names are specified, users can update only those columns. UPDATE privileges for columns cannot be granted for views, only for tables. To update a table, users must have both SELECT and UPDATE privileges for the table.
WITH GRANT OPTION	The specified user ID is also granted permission to grant the same privileges to other user IDs.

Create Privileges[d38]

Parameter	Description
Dbspace_name	The name of the dbspace

Execute Privileges[d38]

Parameter	Description
Procedure	The name of an existing procedure

Show Object Privileges[d38]

Parameter	Description
grantor	The user ID of the grantor
grantee	The user ID of the grantee
object_name	The name of the object
owner	The name of the object owner
object_type	The type of object
column_name	The name of the column
permission	The name of the privilege
grantable	Whether or not the privilege is grantable

For more information, see [xref93]sp_objectpermission System Procedure.

d38 subsection id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:
d38 subsection id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:
d38 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:
xref93 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/421ee85ab8bd49669d8b6a336fca3fa7.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[8]/conbody[4]/section[5]/p[2]/xref[2] - call-template name="sap-link-classification"

Unlock User[d38]

You can reset the user's login settings to the original values in the login policy. This usually removes any locks that were implicitly set because the user exceeded the number of failed logins or the maximum number of days since the last login. After resetting a login policy, a user can access an account that was locked due to exceeding a limit of a login policy option such as `MAX_FAILED_LOGIN_ATTEMPTS` or `MAX_DAYS_SINCE_LOGIN`.

For more information , see [xref94]ALTER USER Statement and the [xref95]SYBASE Infocenter.

Reassign Login Policy to Lock/Unlock [d38]

Parameter	Description
Lock/Unlock User	Changes the login policy to *lock_users* or *unlock_user*. A login policy *lock_users* or *unlock_user* is created if it does not exist in the system. The user's login policy is set to lock or unlock. The difference here is that the login policy of the selected user is changed with the command `alter user`.

Create User[d38]

A new user can be created and multiple roles/privileges can be assigned. Add roles/privileges so that they can be checked in the table on the right and at the end, when the user is created, all the privileges are assigned to the newly created user. Use *Remove* and *Remove All* to delete added roles/privileges.

Input Parameter	Description
User name	Name of the user.

d38 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:
xref94 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/421ee85ab8bd49669d8b6a336fca3fa7.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[8]/conbody[4]/section[6]/p[3]/xref[1] - call-template name="sap-link-classification"
xref95 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/421ee85ab8bd49669d8b6a336fca3fa7.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[8]/conbody[4]/section[6]/p[3]/xref[2] - call-template name="sap-link-classification"
d38 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:
d38 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:

Input Parameter	Description
Password	The password for the user. You do not need to specify a password for the user. A user without a password will not be able to connect to the database. This is useful if you create a role and do not want someone to connect to the database with the role's user ID. A user ID must be a valid identifier. User IDs and passwords cannot: start with a space, single quotes, or double quotes end with a space contain semicolons. A password can be either a valid identifier or a string (maximum 255 characters) enclosed in single quotes. Passwords are case sensitive. The password should consist of 7-bit ASCII characters, since other characters may not work correctly if the database server cannot convert them to UTF-8 from the client's character set. You can use the `VERIFY_PASSWORD_FUNCTION` option to specify a function to implement password rules (for example, passwords must contain at least one digit). If you use a password verification function, you cannot specify more than one user ID and password in the `GRANT CONNECT` statement. The encryption algorithm used to hash user passwords is `F, PS` certified encryption support: • The `DLL` is named `dbfips10.dll` • The `HASH` function accepts the algorithms: `SHA1_FIPS SHA256_FIPS` • If the `-fips` server option is specified and a non-`F, PS` certified algorithm is passed to the `HASH` function, the database server uses `SHA1_FIPS` instead of `SHA1`, `SHA256_FIPS` instead of `SHA256`, and returns an error if `MD5` is used (`MD5` is not an `F, PS` certified algorithm) If the `-fips` option is specified, the database server uses `SHA256_FIPS` for password hashing.
Login Policy	Name of the login policy to be assigned to the user. If you do not specify a login policy, no change will be made.
Force Password Change	Controls whether the user must specify a new password when logging in. This setting overrides the setting of the `PASSWORD_EXPIRY_ON_NEXT_LOGIN` option in the user's login policy.

For more information, see [xref96]Create User in the SAP IQ SQL Reference.

Change Password[d38]

With this function you can change the password of a selected user.

For more information, see [xref97]Alter User Statement in the SAP IQ SQL Reference.

xref96 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/421ee85ab8bd49669d8b6a336fca3fa7.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[8]/conbody[4]/section[8]/p[2]/xref[4] - call-template name="sap-link-classification"

d38 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:

xref97 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/421ee85ab8bd49669d8b6a336fca3fa7.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[8]/conbody[4]/section[9]/p[3]/xref[1] - call-template name="sap-link-classification"

Delete User[d38]

With this function you can delete a selected user. Deleting users requires the authorization `MAINT (S_DBCON (ACTVT = 23)`, therefore you must have the SAP IQ system privilege `MANAGE ANY USER`.

3.10.5 Roles[d39]

Get an overview of the roles available in the system.

If you specify role administrators (<admin_name>) but do not include the global role administrator (`SYS_MANAGE_ROLES_ROLE`), the global role administrator cannot manage the new role. Therefore, do not specify role administrators during the creation process, but add them afterwards using the `OR REPLACE` clause.

If you do not specify an `ADMIN` clause, the default `WITH ADMIN ONLY` clause is used and the default administrator is the global role administrator (`SYS_MANAGE_ROLES_ROLE`).

When replacing role administrators, if a global role administrator exists, it must be added to the list of new role administrators or it will be removed from the role.

However, if you use the `WITH ADMIN` clause to grant role administrators, because the clause does not apply to global role administrators, you must use the `GRANT ROLE` statement to add the global role administrator (`SYS_MANAGE_RILES_ROLE`) back to the role. If you do not perform this grant, global role administrators will not be able to manage the role.

For granting roles, system privileges and so on, see the section *Create User* in the chapter [xref98]Users [page 57].

Here in this screen you can, via the buttons in the menu bar, display the roles of the user, object privileges, authority, create a new role, and delete roles.

> **Note**
>
> The *Create*, *Modify*, and *Delete* buttons are available only for users with the `MAINT (S_DBCON (ACTVT = 23)` authorization, therefore the SAP IQ user must have the SAP IQ system privilege `MANAGE ANY ROLES`.

All Role-Authority[d39]

You can use this function to generate a report that maps the authorities to the appropriate system roles and role ID. This procedure returns one row for each authority.

---

d38 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio421ee85ab8bd49669d8b6a336fca3fa7 - srcFile:

d39 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc342e4bb2c1e43e0a3f4bdd0b495cb43 - srcFile:

xref98 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/c342e4bb2c1e43e0a3f4bdd0b495cb43.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[9]/conbody[4]/p[5]/xref[2] - resolved in output

d39 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc342e4bb2c1e43e0a3f4bdd0b495cb43 - srcFile:

Show Roles[d39]

Parameter	Description
role_name	Lists the name of the role/system privilege.
parent_role_name	Lists the role name of the parent role.
grant_type	Lists the type of grant.
role_level	In `Expand_down` mode, 1 indicates the roles granted directly, 2 indicates the next hierarchy below, and so on. In `Expand_up` mode, 0 indicates the roles granted the specified role; -1 indicates the next higher hierarchy, etc.

For more information, see [xref99]sp_displayroles System Procedure in the SAP IQ SQL Reference.

Show Object Privileges[d39]

Parameter	Description
grantor	The user ID of the grantor
grantee	The user ID of the grantee
object_name	The name of the object
owner	The name of the owner of the object
object_type	The type of the object.
column_name	The name of the column.
permission	The name of the privilege.
grantable	Specifies whether the privilege can be granted or not.

For more information, see [xref100]sp_objectpermission System Procedure in the SAP IQ SQL Reference.

Show Authority[d39]

Using this button you can assign the authorities to the selected system roles and role identifier (if existing).

d39 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc342e4bb2c1e43e0a3f4bdd0b495cb43 - srcFile:
xref99 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/c342e4bb2c1e43e0a3f4bdd0b495cb43.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[9]/conbody[4]/section[9]/p[2]/xref[2] - call-template name="sap-link-classification"

d39 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc342e4bb2c1e43e0a3f4bdd0b495cb43 - srcFile:
xref100 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/c342e4bb2c1e43e0a3f4bdd0b495cb43.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[9]/conbody[4]/section[10]/p[2]/xref[2] - call-template name="sap-link-classification"

d39 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc342e4bb2c1e43e0a3f4bdd0b495cb43 - srcFile:

Parameter	Description
auth	The name of the authority.
role_name	The name of the corresponding system role.
role_id	The ID of the system role.

Create Role[d39]

You can create a new role or convert an existing user to user extended role.

Table 4:

Parameter	Description
Role name	The name of the role.
Admin name	List of users to be designated administrators of the role.
WITH ADMIN	Each specified <admin_name> is granted administrative privileges for the role in addition to any underlying system privileges. The `WITH ADMIN` clause is not valid if `SYS_MANAGE_ROLES_ROLE` is included in the list.
WITH ADMIN ONLY	Any <admin_name> specified is only granted administrative privileges for the role, not the underlying system privileges.
SYS_MANAGE_ROLES_ROLE	Allows global role administrators to manage the role. May be specified in conjunction with the `WITH ADMIN ONLY` clause.

For more information, see [xref101]Create Role Statement in the SAP IQ SQL Reference.

3.10.6 Events[d40]

Displays the events in the system and the possibility to trigger, create, modify and delete events.

Events are tasks or a set of SQLs that run according to a user-defined schedule or condition.

You can use events in two main ways:

- Scheduling actions
  The database server executes a series of actions according to a schedule. You can use this capability to schedule backups, validity checks, queries to populate report tables, etc.
- Event handling actions
  The database server performs a series of actions when a predefined event occurs. Events that can be handled include disk space limitations (when a disk is filled beyond a certain percentage), when the server is idle, etc.

d39 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioc342e4bb2c1e43e0a3f4bdd0b495cb43 - srcFile:
xref101 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/c342e4bb2c1e43e0a3f4bdd0b495cb43.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[9]/conbody[4]/section[12]/p[2]/xref[2] - call-template name="sap-link-classification"

d40 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio2bed4a6d24c441ef9d8e8fbf69d824f1 - srcFile:

Column	Description
Event ID	The unique number assigned to each event.
Creator	The user number of the owner of the event. The name of the user can be viewed in SYSUSERPERM.
Event Name	The name of the event.
enabled (Y/N)	Indicates whether the event may be triggered or not.
Location	The location where the event may be triggered: C = consolidated R = remote A = all
Event Type ID	For system events, the event type as listed in SYSEVENTTYPE.
Action	The definition of the event handler.
External Action	*Not used.*
Condition	The WHERE condition that controls the triggering of the event handler.
Remarks	A comment string.
Source	This column contains the original source for the event handler if the **PRESERVE_SOURCE_FORMAT** option is **ON**. It is used to preserve the appearance of the original text. For more information, see [xref102]PRESERVE_SOURCE_FORMAT Option [Database] in the [xref103]SAP IQ SQL Reference

Button	Reference for Detailed Description
Trigger Event	[xref104]TRIGGER EVENT Statement
Create Event	[xref105]CREATE EVENT Statement
Modify Event	[xref106]ALTER EVENT Statement
Delete Handler	Should be selected to clear the handler. An empty handler without ‘delete handler’ check-box marked would use the old handler.
Delete Event	[xref107]ALTER EVENT Statement

xref102 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2bed4a6d24c441ef9d8e8fbf69d824f1.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/conbody[4]/table[3]/tgroup[1]/tbody[4]/row[11]/entry[2]/xref[3] - call-template name="sap-link-classification"

xref103 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2bed4a6d24c441ef9d8e8fbf69d824f1.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/conbody[4]/table[3]/tgroup[1]/tbody[4]/row[11]/entry[2]/xref[4] - call-template name="sap-link-classification"

xref104 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2bed4a6d24c441ef9d8e8fbf69d824f1.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/conbody[4]/p[4]/table[1]/tgroup[1]/tbody[4]/row[1]/entry[2]/p[1]/xref[1] - call-template name="sap-link-classification"

xref105 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2bed4a6d24c441ef9d8e8fbf69d824f1.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/conbody[4]/p[4]/table[1]/tgroup[1]/tbody[4]/row[2]/entry[2]/p[1]/xref[1] - call-template name="sap-link-classification"

xref106 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2bed4a6d24c441ef9d8e8fbf69d824f1.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/conbody[4]/p[4]/table[1]/tgroup[1]/tbody[4]/row[3]/entry[2]/p[1]/xref[1] - call-template name="sap-link-classification"

> **Note**
>
> For the *Create* and *Modify* events, in SAP GUI it will show or hide the tabs depending on the selected trigger (manual, condition or schedule). This feature is not available in WebDynpro, but a comment appears in the tab indicating which tab is relevant and which is not.

> **Note**
>
> The *Create*, *Modify*, *Delete*, and *Trigger* buttons are only available to users with the `MAINT (S_DBCON (ACTVT = 23) )` privilege. The SAP IQ user must have the SAP IQ system privilege `MANAGE ANY EVENT` or `ALTER ANY OBJECT` to use the *Create*, *Delete*, *Modify*, and *Trigger* buttons.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.10.6.1 Using Events for Database Backup [d41]

For automation purposes, SAP IQ gives you the ability to define *Event* objects.

An *Event* is based on SQL code, similar to a stored procedure, and you can set conditions for when it triggers. Specifically, if you want to schedule backup operations, you can create a dedicated *Event*. Here, you can specify the schedule information such as time, whether it's daily or weekly, and so on. You can also include the backup SQL statement and any information you want to log or store to keep track of the operation.

xref107 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/2bed4a6d24c441ef9d8e8fbf69d824f1.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/conbody[4]/p[4]/table[1]/tgroup[1]/tbody[4]/row[5]/entry[2]/p[1]/xref[1] - call-template name="sap-link-classification"

d41 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio2bed4a6d24c441ef9d8e8fbf69d824f1 loio8a07a2b79ad54c8da63804120c872e8b - srcFile:

Example

This example instructs the database server to carry out an automatic incremental backup daily at 1 AM:

```
CREATE EVENT IncrementalBackup
SCHEDULE
START TIME '1:00AM' EVERY 24 HOURS
HANDLER
BEGIN
BACKUP DATABASE INCREMENTAL
TO backups/daily.incr
END
```

For more information, see the following resources:

- [xref108]Events [page 64]
- [xref109]BACKUP DATABASE Statement
- SAP Note 2743607 - Database Backup Scheduling using IQ EVENT- SAP IQ
- SAP Note 2511003 - How to add DATE to backup file names - SAP IQ

3.10.7 Alerts[d42]

Get an overview of important performance data.

Parameter	Description
CPU system time	CPU system time in seconds that the SAP IQ server has used since the last time the server was started.
Threads in use	Number of SAP IQ threads in use (in %).

Note

The default thresholds for the *Status* icon are as shown and cannot be configured at this time.

xref108 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/8a07a2b79ad54c8da63804120c872e8b.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/concept[6]/conbody[4]/p[3]/ul[1]/li[1]/p[1]/xref[1] - resolved in output

xref109 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/8a07a2b79ad54c8da63804120c872e8b.xml - element: /buildable-map[1]/referable-content[4]/concept[14]/concept[10]/concept[6]/conbody[4]/p[3]/ul[1]/li[2]/p[1]/xref[1] - call-template name="sap-link-classification"

d42 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio1f0dc02f90124c8aa52ef14723a5d897 - srcFile:

3.10.8 SQL Editor[d43]

You can use the SQL Editor to execute SQL statements, including complex statements.

Prerequisites for Executing SQL Statements[d43]

To be able to use the SQL editor to efficiently analyze a database, specific authorizations are required.

To execute `SELECT` statements the authorization `S_DBCON` with `ACTVT=03` (Display) is required. For all other SQL statements the authorization `S_DBCON` with `ACTVT=23` (Maintain) is required.

Rules for Using the SQL Editor[d43]

When you use the SQL Editor, the following rules apply:

- You can write SQL syntax elements in either upper or lower case.
  To force the system to distinguish between uppercase and lowercase letters in database object names, enter the object name enclosed by double quotation marks. For example: `"My_Table"`
- You can add any number of spaces and line breaks.

Table 5: Functions of the SQL Editor

To...	Do the Following...
Create an SQL query	You can type an SQL query in the *Input Query* pane. To insert code from the clipboard, choose *Insert*.
Save an SQL query	Choose *Save Query*, specify a name for the query, and *Save*. To save a query to a plain text file on your computer, choose *Save as local file*, go to the desired location, and confirm. You can schedule saved queries using the DBA Planning Calendar. For more information, see *DBA Planning Calendar*.
Delete an SQL query	Choose *Delete Query* and confirm.
Load an SQL query	To insert a saved query, select a name from the *Query Name* field and choose *Load Query*. To insert a query from a plain text file on your computer, choose *Load local file*, locate the file, and confirm.

d43 concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loiof0e645670c914106b0699496d5158e7f - srcFile:
d43 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loiof0e645670c914106b0699496d5158e7f - srcFile:
d43 section id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loiof0e645670c914106b0699496d5158e7f - srcFile:

To...	Do the Following...
Execute an SQL query	Choose *Execute*. The output is displayed in the *Results* tab.
Display queries that have been executed	The *History* field displays a list of queries that were executed. Select a query from the history list to insert it into the Input Query pane.

Example

To use native SQL to display current statistics for large tables, adapt the following example statement:

Sample Code

```
EXAMPLE: To see the columns of a system view (e.g. ISYSTABLEPERM) you could
execute the following SQL Statement:
```

```
SELECT T2.TABLE_NAME, T1.COLUMN_ID, T1.COLUMN_NAME, T1.BASE_TYPE_STR from
SYSTABCOL AS T1 INNER JOIN SYSTABLE AS T2 ON T1.TABLE_ID = T2.TABLE_ID WHERE
T2.TABLE_NAME = 'ISYSTABLEPERM'
```

3.10.9 Diagnosis Files[d44]

You can use DBA Cockpit to display and administer diagnosis files.

Diagnosis files are trace files, log files, error messages, or information messages. You can use diagnosis files to analyze issues occurring with an SAP HANA database. Diagnosis files are also useful for SAP Support to analyze and diagnose issues with an SAP HANA database.

The default file path is: `C:\usr\sap\NLS\data\log` for Windows and `/usr/sap/NLS/data/log` for Unix. If you use a different path, you must configure the log file path in DBACOCKPIT ▶ *Configuration* ▶ *Database Configuration* ▶.

Table 6: Functions for Diagnosis Files

To...	Do the Following...
Display an overview of the diagnosis files	Choose ▶ *Diagnostics* ▶ *Diagnosis Files* ▶.

[d44] concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loio57bce87b347543308ebc89d015be0242 - srcFile:

To...	Do the Following...
Display the content of a diagnosis file	Select a row and choose *Display File Content*. → Tip Displaying very large diagnosis files can take several minutes. For very large files, it is recommended to download the diagnosis files. Choose *Download Compressed*. Decompress and display the diagnosis files using operating system tools.
Download the content of the diagnosis files.	Select one or more files, choose *Download Uncompressed* and specify the download location. The content of each file is saved individually as plain text. To download the content of each diagnosis file in compressed (.zip) format, choose *Download Compressed*. Each plain text file is saved in compressed (.zip) format. ⓘ Note A compressed (.zip) file of diagnosis files can be sent to SAP Support to help analyze issues with your SAP HANA database.

3.10.10 Message Files[d45]

Displays the list of SAP IQ message file with the option to open or download the files.

The SAP IQ message file is created when an SAP IQ server is started for the first time.

If the file has been deleted or renamed, the server automatically creates a new SAP IQ message file when the server is restarted. This message file continues to grow over time. However, the DBA can set a maximum file size after which the file will circulate and overwrite the oldest records.

The SAP IQ message file captures:

- Information about the start of the SAP IQ server
- Messages about the time and records for loading, deleting and truncating tables
- Transaction IDs for all connections to the database
- Times of server checkpoints
- Error messages, typically identified by *exception thrown*
- Status messages
- Query plans

The name of the physical file is `dbname.iqmsg`. There is one message log per database, for the file system only.

[d45] concept id: loio72eea9526392fb27e10000000a44176d loio78ffc75318f75a47e10000000a44538d loioba15dbed8dc0487eb0b5168950012111 - srcFile:

Default location is: `C:\usr\sap\NLS\data\messages` for Windows and `/usr/sap/NLS/data/messages` for Unix. If you use a different path, you must configure the message file path in DBACOCKPIT *Configuration* > *Database Configuration*.

3.11 System Information[d46]

The following sections provide detailed system information.

topic/related-links
link.sap.child.unordered
link.sap.child.unordered
link.sap.child.ordered
link.sap.child.ordered
parent link
parent link
previous link
previous link
next link
next link

Related Information

related links
related links

topic/related-links

3.11.1 Connections[d47]

> **Note**
>
> Connections is only available in WebDynpro.

You can use connection diagnostics to:

- Identify suspended connections that may be due to hardware or connection failure
- Observe temporary store and work space usage
- View associated transactions for a specific user

d46 concept id: loio72eea9526392fb27e10000000a44176d loio3ee29aa3d31445ec8a7b04919911b584 - srcFile:
d47 concept id: loio72eea9526392fb27e10000000a44176d loio3ee29aa3d31445ec8a7b04919911b584 loio8e24a755a3665f2de10000000a441470 - srcFile:

1. Call the DBA Cockpit and choose *Diagnostics* > *Connections* on the *Database* tab page of the DBA Cockpit.
   Now you'll see the Connections screen with information for each connection:

Field	Description
User ID	Connected user's identifier
Name	Connected user's name
Creation Time	Date and time the connection started
Connection ID	Connection's identifier
Client IP Address	IP address of the client that made the connection
Connection or cursor	Identifies whether this is a connection or an active cursor

2. Select a row from the connections list.
   The *Connection Details* tab lists these statistics:

Field	Description
Statement Being Executed	The statement being executed by the selected user
Last Request Time	The last time that the selected user executed a request on the server.
Request Type	The type of request executed. (For example, COMMIT.)
Last Command Time	The last date and time that the selected user executed a command on the server.
Command Type	The type of command that the selected user executed.
IQ Temporary Store Usage (KB)	The number of temporary store kilobytes used during the connection.
IQ Temporary Work Space Usage (KB)	The number of temporary workspace kilobytes used during the connection.
Cursor Count	The number of open SAP IQ cursors on the connection.
Thread in Use	The number of threads in use by the selected user.

   The *Associated Transactions* tab lists these statistics

Field	Description
Transaction ID	Unique ID of the transaction. The transaction ID is assigned during begin transaction. It appears in the .iqmsg file by the BeginTxn, CmtTxn, and PostCmtTxn messages, and is the same as the Txn ID Seq that is logged when the database is opened.
Creation Time	Date and time that the transaction started.

Field	Description
State	The state of the transaction control block. This variable reflects internal SAP IQ implementation details and is subject to change in the future. Currently, transaction states are `NONE`, `ACTIVE`, `ROLLING_BACK`, `ROLLED_BACK`, `COMMITTING`, `COMMITTED`, and `APPLIED`. `NONE`, `ROLLING_BACK`, `ROLLED_BACK`, `COMMITTING` and `APPLIED` are transient states with a very small life span. ACTIVE indicates that the transaction is active. COMMITTED indicates that the transaction has completed and is waiting to be APPLIED, at which point a version that is invisible to any transaction is subject to garbage collection. Once the transaction state is `ROLLED_BACK`, `COMMITTED`, or `APPLIED`, ceases to own any locks other than those held by open cursors.

3.11.2 Database License[d48]

Displays the SAP IQ license data and option to open the license file (.lic).

For more information, see [xref112]SAP IQ Guide to Licensed Options.

3.11.3 System Views[d49]

Displays the list of all SAP IQ system views with the possibility to display the content of a system view.

The structure of each SAP IQ database is described by a set of system tables. The system tables are intended for internal use. The DUMMY system table is the only system table that you may access directly. For all other system tables, you access the underlying data through the corresponding views. The tables and views of the SYS owner contain data that is useful for analyzing system performance.

3.12 Documentation[d50]

> **Note**
>
> Documentation is only available in SAP GUI.

d48 concept id: loio72eea9526392fb27e10000000a44176d loio3ee29aa3d31445ec8a7b04919911b584 loio8decba0e80d34c1c9f5990257493d5b8 - srcFile:
xref112 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/8decba0e80d34c1c9f5990257493d5b8.xml - element: /buildable-map[1]/referable-content[4]/concept[15]/concept[7]/conbody[4]/p[1]/xref[1] - call-template name="sap-link-classification"
d49 concept id: loio72eea9526392fb27e10000000a44176d loio3ee29aa3d31445ec8a7b04919911b584 loio51efb057a43145cbb7eaa55ed0a41f89 - srcFile:
d50 concept id: loio72eea9526392fb27e10000000a44176d loio43962e7a58c747829016fd339dfea214 - srcFile:

You can find more information about SAP IQ here:

- [xref113]SAP IQ in SAP Help Portal
- [xref114]SAP IQ in SAP Community
- [xref115]SAP IQ Product Page
- [xref116]Understanding Error Messages and Alerts
- [xref117]SQL Error Codes
- [xref118]Understanding NLS/ILM Error Messages

xref113 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/43962e7a58c747829016fd339dfea214.xml - element: /buildable-map[1]/referable-content[4]/concept[16]/conbody[4]/p[2]/ul[1]/li[1]/p[1]/xref[1] - call-template name="sap-link-classification"

xref114 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/43962e7a58c747829016fd339dfea214.xml - element: /buildable-map[1]/referable-content[4]/concept[16]/conbody[4]/p[2]/ul[1]/li[2]/p[1]/xref[1] - call-template name="sap-link-classification"

xref115 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/43962e7a58c747829016fd339dfea214.xml - element: /buildable-map[1]/referable-content[4]/concept[16]/conbody[4]/p[2]/ul[1]/li[3]/p[1]/xref[1] - call-template name="sap-link-classification"

xref116 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/43962e7a58c747829016fd339dfea214.xml - element: /buildable-map[1]/referable-content[4]/concept[16]/conbody[4]/p[2]/ul[1]/li[4]/p[1]/xref[1] - call-template name="sap-link-classification"

xref117 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/43962e7a58c747829016fd339dfea214.xml - element: /buildable-map[1]/referable-content[4]/concept[16]/conbody[4]/p[2]/ul[1]/li[5]/p[1]/xref[1] - call-template name="sap-link-classification"

xref118 srcFile: file:/home/builder/src/dita-all/bgu1693397260773/loio3c918b259a86404da8d5afb781859ef9_en-US/src/content/localization/en-us/43962e7a58c747829016fd339dfea214.xml - element: /buildable-map[1]/referable-content[4]/concept[16]/conbody[4]/p[2]/ul[1]/li[6]/p[1]/xref[1] - call-template name="sap-link-classification"

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.
About the icons:

- Links with the icon  : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering an SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.
The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Bias-Free Language

SAP supports a culture of diversity and inclusion. Whenever possible, we use unbiased language in our documentation to refer to people of all cultures, ethnicities, genders, and abilities.

www.sap.com/contactsap

© 2024 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company. The information contained herein may be changed without prior notice.

Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see https://www.sap.com/about/legal/trademark.html for additional trademark information and notices.

THE BEST RUN SAP