



# **Program Directory for IBM DataQuant for z/OS**

V02.01.00

Program Number 5697-P46

FMID HRDZ210

for use with  
z/OS

Document Date: October 2013

GI10-8961-01

**Note**

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 25.

---

# Contents

<b>1.0 Introduction</b>	1
1.1 DataQuant for z/OS Description	2
1.2 DataQuant for z/OS FMID	2
<b>2.0 Program Materials</b>	3
2.1 Basic Machine-Readable Material	3
2.2 Optional Machine-Readable Material	3
2.3 Program Publications	4
2.3.1 Optional Program Publications	5
2.4 Program Source Materials	5
2.5 Publications Useful During Installation	6
<b>3.0 Program Support</b>	7
3.1 Program Services	7
3.2 Preventive Service Planning	7
3.3 Statement of Support Procedures	8
<b>4.0 Program and Service Level Information</b>	9
4.1 Program Level Information	9
4.2 Service Level Information	9
<b>5.0 Installation Requirements and Considerations</b>	10
5.1 Driving System Requirements	10
5.1.1 Machine Requirements	10
5.1.2 Programming Requirements	10
5.2 Target System Requirements	11
5.2.1 Machine Requirements	11
5.2.2 Programming Requirements	11
5.2.2.1 Installation Requisites	11
5.2.2.2 Operational Requisites	12
5.2.2.3 Toleration/Coexistence Requisites	13
5.2.2.4 Incompatibility (Negative) Requisites	13
5.2.3 DASD Storage Requirements	13
5.3 FMIDs Deleted	16
5.4 Special Considerations	16
<b>6.0 Installation Instructions</b>	17
6.1 Installing DataQuant for z/OS	17
6.1.1 SMP/E Considerations for Installing DataQuant for z/OS	17
6.1.2 SMP/E Options Subentry Values	17
6.1.3 Sample Jobs	17
6.1.4 Allocate SMP/E CSI (Optional)	19

6.1.5 Initialize CSI zones (Optional)	20
6.1.6 Perform SMP/E RECEIVE	20
6.1.7 Allocate, create and mount ZFS Files (Optional)	20
6.1.8 Allocate SMP/E Target and Distribution Libraries	20
6.1.9 Allocate File system Paths	20
6.1.10 Create DDDEF Entries	21
6.1.11 Perform SMP/E APPLY	21
6.1.12 Perform SMP/E ACCEPT	23
6.1.13 Run REPORT CROSSZONE	23
6.2 Activating DataQuant for z/OS	24
6.2.1 File System Execution	24
<b>7.0 Notices</b>	<b>25</b>
7.1 Trademarks	26
<b>Reader's Comments</b>	<b>27</b>

---

## Figures

1. Program File Content	3
2. Basic Material: Unlicensed	4
3. Basic Material: Unlicensed for Brazilian Portuguese	4
4. Basic Material: Unlicensed for Portuguese	4
5. Basic Material: Unlicensed for French	4
6. Basic Material: Unlicensed for German	5
7. Basic Material: Unlicensed for Japanese	5
8. Basic Material: Unlicensed for Spanish	5
9. Basic Material: Unlicensed for Arabic	5
10. Publications Useful During Installation	6
11. PSP Upgrade and Subset ID	7
12. Component IDs	8
13. Driving System Software Requirements	11
14. Target System Mandatory Installation Requisites	12
15. Target System Mandatory Operational Requisites	13
16. Total DASD Space Required by DataQuant for z/OS	14
17. Storage Requirements for DataQuant for z/OS Target Libraries	15
18. DataQuant for z/OS File System Paths	15
19. Storage Requirements for DataQuant for z/OS Distribution Libraries	15
20. SMP/E Options Subentry Values	17
21. Sample Installation Jobs	18

---

## 1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of IBM DataQuant for z/OS. This publication refers to IBM DataQuant for z/OS as DataQuant for z/OS.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic program materials and documentation for DataQuant for z/OS.
- 3.0, “Program Support” on page 7 describes the IBM support available for DataQuant for z/OS.
- 4.0, “Program and Service Level Information” on page 9 lists the APARs (program level) and PTFs (service level) that have been incorporated into DataQuant for z/OS.
- 5.0, “Installation Requirements and Considerations” on page 10 identifies the resources and considerations that are required for installing and using DataQuant for z/OS.
- 6.0, “Installation Instructions” on page 17 provides detailed installation instructions for DataQuant for z/OS. It also describes the procedures for activating the functions of DataQuant for z/OS, or refers to appropriate publications.

Before installing DataQuant for z/OS, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that are supplied with this program in softcopy format and this Program Directory; then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 7 tells you how to find any updates to the information and procedures in this Program Directory.

DataQuant for z/OS is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for DataQuant for z/OS are included on the CBPDO tape.

Do not use this program directory if you install DataQuant for z/OS with a SystemPac or ServerPac. When you use one of those offerings, use the jobs and documentation supplied with the offering. The offering will point you to specific sections of this program directory as needed.

---

## 1.1 DataQuant for z/OS Description

IBM DataQuant for z/OS, V02.01.00 (5697-P46) delivers a powerful graphical reporting environment that enables you to quickly and easily develop executive dashboards, information portals, and interactive data visualization solutions. This includes dozens of easy-to-use charts, controls, and graphics that you can drag and drop to quickly create dashboards and reports.

DataQuant for z/OS offers a single streamlined package that includes the following features and benefits:

- Multiple query methods
- Flexible yet comprehensive visual design and presentation options
- Dashboard functions
- Application development interfaces across a variety of platforms

DataQuant for z/OS V02.01.00 delivers the following enhancements:

- Self-service and BI/Analytics reporting options for business users.
- Development tools for technical solution developers.
- Analysis, forecasting, reporting, and presentation capabilities to help users at all levels leverage data, find answers, make decisions, and communicate those decisions to the rest of their business.

**Note:** The DataQuant for Workstation and WebSphere components are shipped on CDs for installation on Windows, Linux, and Mac OS X. Also shipped is an SMP/E installable tape for DataQuant for WebSphere installation on z/OS. The z/OS installation will place a DataQuant for WebSphere EAR file in an HFS or zFS directory on z/OS in preparation for deployment to a WebSphere Application Server for z/OS. This program directory will guide you through the installation of the DataQuant for WebSphere tape via SMP/E only. Refer to the product publication *Installing and Managing DataQuant*, GC19-4003, for complete installation instructions for any of these installation methods.

---

## 1.2 DataQuant for z/OS FMID

DataQuant for z/OS consists of the following FMID:

HRDZ210

---

## 2.0 Program Materials

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product.

The program announcement material describes the features supported by DataQuant for z/OS. Ask your IBM representative for this information if you have not already received a copy.

---

### 2.1 Basic Machine-Readable Material

The distribution medium for this program is physical media or downloadable files. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, "Installation Instructions" on page 17 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for DataQuant for z/OS in the *CBPDO Memo To Users Extension*.

Figure 1 describes the program file content for DataQuant for z/OS. You can refer to the *CBPDO Memo To Users Extension* to see where the files reside on the tape.

#### Notes:

1. The data set attributes in this table must be used in the JCL of jobs that read the data sets. However, because the data sets are in IEBCOPY unloaded format, their actual attributes might be different.
2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

*Figure 1. Program File Content*

Name	ORG	RECFM	LEN	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.HRDZ210.F1	PDS	FB	80	8800
IBM.HRDZ210.F2	PDS	VB	133	1330
IBM.HRDZ210.F3	PDS	VB	256	6233

---

### 2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for DataQuant for z/OS.

---

## 2.3 Program Publications

The following sections identify the basic publications for DataQuant for z/OS.

The following tables identify the basic unlicensed publications for DataQuant for z/OS. Publications can be accessed at the IBM Publications Center website at:

<http://pic.dhe.ibm.com/infocenter/dzichelp/v2r2/topic/com.ibm.db2tools.rdz21.doc/dqhome.htm>

*Figure 2. Basic Material: Unlicensed*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
IBM DataQuant for z/OS License Information	GC19-4128	Internet
Introducing DataQuant	GC19-4002	Internet
Installing and Managing DataQuant	GC19-4003	Internet
Getting Started with DataQuant	SC19-4004	Internet

*Figure 3. Basic Material: Unlicensed for Brazilian Portuguese*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
Introducing DataQuant	G517-1430	Internet
Installing and Managing DataQuant	G517-1431	Internet
Getting Started with DataQuant	SC17-5513	Internet

*Figure 4. Basic Material: Unlicensed for Portuguese*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
Introducing DataQuant	GC17-5510	Internet
Installing and Managing DataQuant	GC17-5511	Internet
Getting Started with DataQuant	SC17-5513	Internet

*Figure 5. Basic Material: Unlicensed for French*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
Introducing DataQuant	GC11-7354	Internet
Installing and Managing DataQuant	GC11-7355	Internet
Getting Started with DataQuant	SC11-7357	Internet



*Figure 6. Basic Material: Unlicensed for German*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
Introducing DataQuant	GC12-4956	Internet
Installing and Managing DataQuant	GC12-4957	Internet
Getting Started with DataQuant	SC12-5012	Internet

*Figure 7. Basic Material: Unlicensed for Japanese*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
Introducing DataQuant	GA88-5426	Internet
Installing and Managing DataQuant	GA88-5427	Internet
Getting Started with DataQuant	SA88-5429	Internet

*Figure 8. Basic Material: Unlicensed for Spanish*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
Introducing DataQuant	GC11-8465	Internet
Installing and Managing DataQuant	GC11-8466	Internet
Getting Started with DataQuant	SC11-8468	Internet

*Figure 9. Basic Material: Unlicensed for Arabic*

<b>Publication Title</b>	<b>Form Number</b>	<b>Media Format</b>
Getting Started with DataQuant	SC20-2277	Internet

### **2.3.1 Optional Program Publications**

No optional publications are provided for DataQuant for z/OS.

---

## **2.4 Program Source Materials**

No program source materials or viewable program listings are provided for DataQuant for z/OS.

---

## 2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 10 on page 6 during the installation of DataQuant for z/OS. To order copies, contact your IBM representative or visit the IBM Publications Center at: <http://www.ibm.com/e-business/linkweb/publications/servlet/pbi.wss>

<i>Figure 10. Publications Useful During Installation</i>	
<b>Publication Title</b>	<b>Form Number</b>
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA22-7770
<i>IBM SMP/E for z/OS Commands</i>	SA22-7771
<i>IBM SMP/E for z/OS Reference</i>	SA22-7772
<i>IBM SMP/E for z/OS User's Guide</i>	SA22-7773

---

## 3.0 Program Support

This section describes the IBM support available for DataQuant for z/OS.

---

### 3.1 Program Services

Contact your IBM representative for specific information about available program services.

---

### 3.2 Preventive Service Planning

Before you install DataQuant for z/OS, make sure that you have reviewed the current Preventive Service Planning (PSP) information. Review the PSP Bucket for General Information, Installation Documentation, and the Cross Product Dependencies sections. For the Recommended Service section, instead of reviewing the PSP Bucket, it is recommended you use the IBM.ProductInstall-RequiredService fix category in SMP/E to ensure you have all the recommended service installed. Use the **FIXCAT(IBM.ProductInstall-RequiredService)** operand on the **APPLY CHECK** command. See 6.1.11, “Perform SMP/E APPLY” on page 21 for a sample APPLY command

If you obtained DataQuant for z/OS as part of a CBPDO, HOLDDATA is included.

If the CBPDO for DataQuant for z/OS is older than two weeks by the time you install the product materials, you can obtain the latest PSP Bucket information by going to the following website:

<http://www14.software.ibm.com/webapp/set2/psearch/search?domain=psp>

You can also use S/390 SoftwareXcel or contact the IBM Support Center to obtain the latest PSP Bucket information.

For program support, access the Software Support website at <http://www-01.ibm.com/software/support/>.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for DataQuant for z/OS are included in Figure 11

UPGRADE	SUBSET	Description
5697P46	HRDZ210	DataQuant for WebSphere z/OS

---

### 3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 12 on page 8 identifies the component IDs (COMPID) for DataQuant for z/OS.

<i>Figure 12. Component IDs</i>			
<b>FMID</b>	<b>COMPID</b>	<b>Component Name</b>	<b>RETAIN Release</b>
HRDZ210	5697N6400	DataQuant for WebSphere z/OS	210

---

## 4.0 Program and Service Level Information

This section identifies the program and relevant service levels of DataQuant for z/OS. The program level refers to the APAR fixes that have been incorporated into the program. The service level refers to the PTFs that have been incorporated into the program.

---

### 4.1 Program Level Information

All DataQuant for z/OS V01.02.18 PTFs that were closed on or before August 1, 2013 are incorporated into DataQuant for z/OS V02.01.00.

---

### 4.2 Service Level Information

No PTFs against this release of DataQuant for z/OS have been incorporated into the product package.

Frequently check the DataQuant for z/OS PSP Bucket for HIPER and SPECIAL attention PTFs against all FMIDs that you must install. You can also receive the latest HOLDDATA, then ensure the **FIXCAT(IBM.PRODUCTINSTALL-REQUIRESERVICE)** operand is on your APPLY CHECK command. This will allow you to review the recommended and critical service that should be installed with your FMIDs.

---

## 5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating DataQuant for z/OS. The following terminology is used:

- *Driving system*: the system on which SMP/E is executed to install the program.  
The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.
- *Target system*: the system on which the program is configured and run.  
The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate IPL-able clone of the running system to use as a target system. The clone must include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.
- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

---

### 5.1 Driving System Requirements

This section describes the environment of the driving system required to install DataQuant for z/OS.

#### 5.1.1 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

#### 5.1.2 Programming Requirements

Figure 13. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
Any <b>one</b> of the following:				
5694-A01	z/OS	V01.12.00	N/A	No
5650-ZOS	z/OS	V02.01.00	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.05.00	N/A	No

**Note:** Installation might require migration to new z/OS releases to be service supported. See [http://www-03.ibm.com/systems/z/os/zos/support/zos\\_eos\\_dates.html](http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html).

## 5.2 Target System Requirements

This section describes the environment of the target system required to install and use DataQuant for z/OS.

DataQuant for z/OS installs in the DBS (P115) SREL.

**Note:** For a detailed list of DataQuant for z/OS hardware and software requirements, see <http://www-01.ibm.com/support/docview.wss?uid=swg27039375>

### 5.2.1 Machine Requirements

The target system can run in any hardware environment that supports the required software.

### 5.2.2 Programming Requirements

**5.2.2.1 Installation Requisites:** Installation requisites identify products that are required and *must* be present on the system or products that are not required but *should* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product.

Figure 14. Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in this product's shipment?
Any <b>one</b> of the following:				
5694-A01	z/OS	01.13.00	N/A	No
5650-ZOS	z/OS	02.01.00	N/A	No
Any <b>one</b> of the following:				
5655-N02	IBM WebSphere Application Server for z/OS	V07.00.00	N/A	No
5655-W65	IBM WebSphere Application Server for z/OS	V08.00.00	N/A	No
5655-W65	IBM WebSphere Application Server for z/OS	V08.05.00	N/A	No
Any <b>one</b> of the following:				
5635-DB2	IBM DB2 for z/OS	V09.01.00	N/A	No
5605-DB2	IBM DB2 for z/OS	V10.01.00	N/A	No
5615-DB2	IBM DB2 for z/OS	V11.01.00	N/A	No
5697-P12	IBM DB2 for z/OS VUE	V09.01.00	N/A	No
5697-P31	IBM DB2 for z/OS VUE	V10.01.00	N/A	No
5697-P43	IBM DB2 for z/OS VUE	V11.01.00	N/A	No

**Note:** Installation might require migration to new z/OS releases to be service supported. See [http://www-03.ibm.com/systems/z/os/zos/support/zos\\_eos\\_dates.html](http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html).

Conditional installation requisites identify products that are *not* required for successful installation of this product but can resolve such things as certain warning messages at installation time. These products are specified as IF REQs.

DataQuant for z/OS has no conditional installation requisites.

**5.2.2.2 Operational Requisites:** Operational requisites are products that are required and *must* be present on the system or products that are not required but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions. These products are specified as PREs or REQs.



Figure 15. Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
Any <b>one</b> of the following:	
5655-N02	IBM WebSphere Application Server for z/OS V07.00.00
5655-W65	IBM WebSphere Application Server for z/OS V08.00.00
5655-W65	IBM WebSphere Application Server for z/OS V08.05.00
Any <b>one</b> of the following:	
5635-DB2	IBM DB2 for z/OS V09.01.00
5605-DB2	IBM DB2 for z/OS V10.01.00
5615-DB2	IBM DB2 for z/OS V11.01.00
5697-P12	IBM DB2 for z/OS VUE V09.01.00
5697-P31	IBM DB2 for z/OS VUE V10.01.00
5697-P43	IBM DB2 for z/OS VUE V11.01.00

Conditional operational requisites identify products that are *not* required for this product to operate its basic functions but are required at run time for this product to operate specific functions. These products are specified as IF REQs.

DataQuant for z/OS has no conditional operational requisites.

**5.2.2.3 Toleration/Coexistence Requisites:** Toleration/coexistence requisites identify products that must be present on sharing systems. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD environment at different time intervals.

DataQuant for z/OS has no toleration/coexistence requisites.

**5.2.2.4 Incompatibility (Negative) Requisites:** Negative requisites identify products that must *not* be installed on the same system as this product.

DataQuant for z/OS has no negative requisites.

### 5.2.3 DASD Storage Requirements

DataQuant for z/OS libraries can reside on all supported DASD types.

Figure 16 lists the total space that is required for each type of library.

Figure 16. Total DASD Space Required by DataQuant for z/OS

Library Type	Total Space Required in 3390 Trks
Target	13 tracks
Distribution	2514 tracks
HFS or zFS	300 Cylinders for /usr/lpp/DataQuant

**Notes:**

1. For non-RECFM U data sets, IBM recommends using system-determined block sizes for efficient DASD utilization. For RECFM U data sets, IBM recommends using a block size of 32760, which is most efficient from the performance and DASD utilization perspective.
2. Abbreviations used for data set types are shown as follows.

- U** Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not need to refer to other tables or program directories for the data set size.
- S** Shared data set, allocated by this product and used by this product and other products. To determine the correct storage needed for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.
- E** Existing shared data set, used by this product and other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old release and reclaim the space that was used by the old release and any service that had been installed. You can determine whether these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

For more information about the names and sizes of the required data sets, see 6.1.8, “Allocate SMP/E Target and Distribution Libraries” on page 20.

3. All target and distribution libraries listed have the following attributes:
  - The default name of the data set can be changed.
  - The default block size of the data set can be changed.
  - The data set can be merged with another data set that has equivalent characteristics.
  - The data set can be either a PDS or a PDSE.
4. All target libraries listed have the following attributes:
  - These data sets can be SMS-managed, but they are not required to be SMS-managed.
  - These data sets are not required to reside on the IPL volume.

- The values in the "Member Type" column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.

5. All target libraries that are listed and contain load modules have the following attributes:

- These data sets can be in the LPA, but they are not required to be in the LPA.
- These data sets can be in the LNKLIST.
- These data sets are not required to be APF-authorized.

The following figures describe the target and distribution libraries required to install DataQuant for z/OS. The storage requirements of DataQuant for z/OS must be added to the storage required by other programs that have data in the same library.

**Note:** Use the data in these tables to determine which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

*Figure 17. Storage Requirements for DataQuant for z/OS Target Libraries*

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SRDZBASE	Sample	any	U	PDS	FB	80	9	5
SRDZNOTC	Sample	Data	U	PDS	VB	133	4	5

*Figure 18. DataQuant for z/OS File System Paths*

DDNAME	T Y P E	Path Name
SRDZHFS	N	/usr/lpp/DataQuant/IBM

*Figure 19. Storage Requirements for DataQuant for z/OS Distribution Libraries*

Library DDNAMEus	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ARDZBASE	U	PDS	FB	80	4	5
ARDZHFS	U	PDS	VB	256	2501	5
ARDZNOTC	U	PDS	VB	133	9	5

---

## 5.3 FMIDs Deleted

Installing DataQuant for z/OS might result in the deletion of other FMIDs. To see which FMIDs will be deleted, examine the ++VER statement in the SMPMCS of the product.

If you do not want to delete these FMIDs at this time, install DataQuant for z/OS into separate SMP/E target and distribution zones.

**Note:** These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E Commands book for details.

---

## 5.4 Special Considerations

The following operational requisites are required for DataQuant for z/OS:

- Microsoft Internet Explorer V7.0 or later
- Mozilla Firefox V4.0 or later
- Apple Safari V5.1 or later
- Google Chrome V7.0 or later

---

## 6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of DataQuant for z/OS.

Please note the following points:

- If you want to install DataQuant for z/OS into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

---

### 6.1 Installing DataQuant for z/OS

#### 6.1.1 SMP/E Considerations for Installing DataQuant for z/OS

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of DataQuant for z/OS.

#### 6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 20. Using values lower than the recommended values can result in failures in the installation. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. See the SMP/E manuals for instructions on updating the global zone.

<i>Figure 20. SMP/E Options Subentry Values</i>		
<b>Subentry</b>	<b>Value</b>	<b>Comment</b>
DSSPACE	(500,500,500)	3390 DASD tracks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

#### 6.1.3 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install DataQuant for z/OS:

Figure 21. Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
RDZALA	SMP/E	Sample job to allocate and initialize a new SMP/E CSI data set <b>(Optional)</b>	IBM.HRDZ210.F1
RDZALB	SMP/E	Sample job to allocate SMP/E data sets <b>(Optional)</b>	IBM.HRDZ210.F1
RDZRECEV	RECEIVE	Sample RECEIVE job	IBM.HRDZ210.F1
RDZZFS	ALLOMZF	Sample job to allocate, create and mount ZFS files <b>(Optional)</b>	IBM.HRDZ210.F1
RDZALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HRDZ210.F1
RDZISMKD	MKDIR	Sample job to invoke the supplied RDZMKDIR EXEC to allocate HFS or zFS paths	IBM.HRDZ210.F1
RDZDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HRDZ210.F1
RDZAPPLY	APPLY	Sample APPLY job	IBM.HRDZ210.F1
RDZACCEP	ACCEPT	Sample ACCEPT job	IBM.HRDZ210.F1

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.6, “Perform SMP/E RECEIVE” on page 20) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 21 on page 17 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the tape or product files by submitting the following job. Depending on your distribution medium, use either the //TAPEIN or the //FILEIN DD statement and comment out or delete the other statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

```
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//*****
/* Make the //TAPEIN DD statement below active if you install*
/* from a CBPDO tape by uncommenting the DD statement below. *
//*****
/*TAPEIN DD DSN=IBM.HRDZ210.F1,UNIT=tunit,
/* VOL=SER=volser,LABEL=(x,SL),
/* DISP=(OLD,KEEP)
//*****
/* Make the //TAPEIN DD statement below active if you install*
/* from a product tape received outside the CBPDO process *
/* (using the optional SMP/E RECEIVE job) by uncommenting *
/* the DD statement below. *
//*****
/*TAPEIN DD DSN=IBM.HRDZ210.F1,UNIT=tunit,
/* VOL=SER=RDZ210,LABEL=(2,SL),
/* DISP=(OLD,KEEP)
```

```

//*****
//* Make the //FILEIN DD statement below active for          *
//* downloaded DASD files.                                  *
//*****
//*FILEIN  DD DSN=IBM.HRDZ210.F1,UNIT=SYSALLDA,DISP=SHR,
//*        VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//          DISP=(NEW,CATLG,DELETE),
//          VOL=SER=dasdvol,UNIT=SYSALLDA,
//          SPACE=(TRK,(20,10,5))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
           COPY INDD=xxxxIN,OUTDD=OUT
/*

```

See the following information to update the statements in the previous sample:

**TAPEIN:**

- tunit** is the unit value that matches the product package.
  - volser** is the volume serial that matches the product package.
  - x** is the tape file number that indicates the location of the data set name on the tape.
- See the documentation that is provided by CBPDO for the location of IBM.HRDZ210.F1 on the tape.

**FILEIN:**

**filevol** is the volume serial of the DASD device where the downloaded files reside.

**OUT:**

- jcl-library-name** is the name of the output data set where the sample jobs are stored.
- dasdvol** is the volume serial of the DASD device where the output data set resides.

**SYSIN:**

**xxxxIN** is either TAPEIN or FILEIN depending on your input DD statement.

## 6.1.4 Allocate SMP/E CSI (Optional)

If you are using an existing CSI, do not execute this job.

If you are allocating a new SMP/E data set for this install, edit and submit sample job RDZALA to allocate the SMP/E data set for DataQuant for z/OS. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

## 6.1.5 Initialize CSI zones (Optional)

If you are using an existing CSI, do not execute this job.

Edit and submit sample job RDZALB to initialize SMP/E zones for DataQuant for z/OS. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

## 6.1.6 Perform SMP/E RECEIVE

If you have obtained DataQuant for z/OS as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the DataQuant for z/OS FMIDs, service, and HOLDDATA that are included on the CBPDO package. For more information, see the documentation that is included in the CBPDO.

You can also choose to edit and submit sample job RDZRECEV to perform the SMP/E RECEIVE for DataQuant for z/OS. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

## 6.1.7 Allocate, create and mount ZFS Files (Optional)

Edit and submit sample job RDZZFS to allocate, create a mountpoint, and mount zFS data sets.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

## 6.1.8 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job RDZALLOC to allocate the SMP/E target and distribution libraries for DataQuant for z/OS. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

## 6.1.9 Allocate File system Paths

The target system HFS or zFS data set must be mounted on the driving system when running the sample RDZISMKD job since the job will create paths in the HFS or zFS.

Before running the sample job to create the paths in the file system, you must ensure that OMVS is active on the driving system and that the target system's HFS or zFS file system is mounted to the driving system. zFS must be active on the driving system if you are installing DataQuant for z/OS into a file system that is zFS.

If you plan to install DataQuant for z/OS into a new HFS or zFS file system, you must create the mountpoint and mount the new file system to the driving system for DataQuant for z/OS.



The recommended mountpoint is `/usr/lpp/DataQuant`.

Edit and submit sample job RDZISMKD to allocate the HFS or zFS paths for DataQuant for z/OS. Consult the instructions in the sample job for more information.

If you create a new file system for this product, consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This action can be helpful if an IPL occurs before the installation is completed.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

### 6.1.10 Create DDDEF Entries

Edit and submit sample job RDZDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for DataQuant for z/OS. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0 if this job runs correctly.

### 6.1.11 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job RDZAPPLY to perform an SMP/E APPLY CHECK for DataQuant for z/OS. Consult the instructions in the sample job for more information.

The latest HOLDDATA is available through several different portals, including <http://service.software.ibm.com/holddata/390holddata.html>. The latest HOLDDATA may identify HIPER and FIXCAT APARs for the FMIDs you will be installing. An APPLY CHECK will help you determine if any HIPER or FIXCAT APARs are applicable to the FMIDs you are installing. If there are any applicable HIPER or FIXCAT APARs, the APPLY CHECK will also identify fixing PTFs that will resolve the APARs, if a fixing PTF is available.

You should install the FMIDs regardless of the status of unresolved HIPER or FIXCAT APARs. However, do not deploy the software until the unresolved HIPER and FIXCAT APARs have been analyzed to determine their applicability. That is, before deploying the software either ensure fixing PTFs are applied to resolve all HIPER or FIXCAT APARs, or ensure the problems reported by all HIPER or FIXCAT APARs are not applicable to your environment.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the APPLY CHECK. The SMP/E root cause analysis identifies the cause only of *errors* and not of *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings, instead of errors).

Here are sample APPLY commands:

- a. To ensure that all recommended and critical service is installed with the FMIDs, receive the latest HOLDDATA and use the APPLY CHECK command as follows

```

APPLY S(fmid,fmid,...) CHECK
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND(NOAPARS,NOUSERMODS)
RETRY(YES)
BYPASS(HOLDSYSTEM,HOLDUSER).

```

Some HIPER APARs might not have fixing PTFs available yet. You should analyze the symptom flags for the unresolved HIPER APARs to determine if the reported problem is applicable to your environment and if you should bypass the specific ERROR HOLDS in order to continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixing PTFs available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

- b. To install the FMIDs without regard for unresolved HIPER APARs, you can add the BYPASS(HOLDCLASS(HIPER)) operand to the APPLY CHECK command. This will allow you to install FMIDs even though one or more unresolved HIPER APARs exist. After the FMIDs are installed, use the SMP/E REPORT ERRSYSMODS command to identify unresolved HIPER APARs and any fixing PTFs.

```

APPLY S(fmid,fmid,...) CHECK
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND(NOAPARS,NOUSERMODS)
RETRY(YES)
BYPASS(HOLDSYSTEM,HOLDUSER,HOLDCLASS(HIPER)).
..any other parameters documented in the program directory

```

This method is the quicker, but requires subsequent review of the Exception SYSMOD report produced by the REPORT ERRSYSMODS command to investigate any unresolved HIPERs. If you have received the latest HOLDDATA, you can also choose to use the REPORT MISSINGFIX command and specify Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

If you bypass HOLDS during the installation of the FMIDs because fixing PTFs are not yet available, you can be notified when the fixing PTFs are available by using the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink.

2. After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

**Note:** The GROUPEXTEND operand indicates that SMP/E applies all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

**Expected Return Codes and Messages from APPLY CHECK:** You will receive a return code of 0 if this job runs correctly.

**Expected Return Codes and Messages from APPLY:** You will receive a return code of 0 if this job runs correctly.

## 6.1.12 Perform SMP/E ACCEPT

Edit and submit sample job RDZACCEP to perform an SMP/E ACCEPT CHECK for DataQuant for z/OS. Consult the instructions in the sample job for more information.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the ACCEPT CHECK. The SMP/E root cause analysis identifies the cause of only *errors* but not *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings rather than errors).

Before you use SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. In this way, you can save the entries that are produced from JCLIN in the distribution zone whenever a SYSMOD that contains inline JCLIN is accepted. For more information about the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E Commands book for details.

After you take actions that are indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

**Note:** The GROUPEXTEND operand indicates that SMP/E accepts all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

**Expected Return Codes and Messages from ACCEPT CHECK:** You will receive a return code of 0 if this job runs correctly.

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edit or bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages that indicate unresolved external references, which will result in a return code of 4 during the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.

**Expected Return Codes and Messages from ACCEPT:** You will receive a return code of 0 if this job runs correctly.

## 6.1.13 Run REPORT CROSSZONE

The SMP/E REPORT CROSSZONE command identifies requisites for products that are installed in separate zones. This command also creates APPLY and ACCEPT commands in the SMPPUNCH data set. You can use the APPLY and ACCEPT commands to install those cross-zone requisites that the SMP/E REPORT CROSSZONE command identifies.

After you install DataQuant for z/OS, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries that describe all the target and distribution libraries to be reported on.

For more information about REPORT CROSSZONE, see the SMP/E manuals.

---

## 6.2 Activating DataQuant for z/OS

### 6.2.1 File System Execution

After the SMP/E installation of DataQuant for z/OS, run the following shell command to expand the installation archive into the various components for the DataQuant for WebSphere product. Run this command from the `-PathPrefix-/usr/lpp/DataQuant/` directory:

```
jar -xf ./ARDZHFS.JAR
```

Refer to the language-specific version of the `readme_xx.txt` file you will find in the `-PathPrefix-/usr/lpp/DataQuant/` directory. The publication *Installing and Managing DataQuant* (GC19-4003) contains the step-by-step procedures to activate the functions of the DataQuant for WebSphere component of DataQuant for z/OS.

**Note:** `-PathPrefix-` was specified in the same job RDZISMKD and RDZZFS if optional job was used.

---

## 7.0 Notices

References in this document to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe on any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, is the user's responsibility.

APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the IBM Customer Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, New York 10504-1785  
USA

For online versions of this book, we authorize you to:

- Copy, modify, and print the documentation contained on the media, for use within your enterprise, provided you reproduce the copyright notice, all warning statements, and other required statements on each copy or partial copy.
- Transfer the original unaltered copy of the documentation when you transfer the related IBM product (which may be either machines you own, or programs, if the program's license terms permit a transfer). You must, at the same time, destroy all other copies of the documentation.

You are responsible for payment of any taxes, including personal property taxes, resulting from this authorization.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.

Your failure to comply with the terms above terminates this authorization. Upon termination, you must destroy your machine readable documentation.

---

## 7.1 Trademarks

IBM, the IBM logo, and [ibm.com](http://ibm.com) are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

The following terms are trademarks of other companies as follows:

Linux	Linus Torvalds
Windows	Microsoft Corporation
Internet Explorer	Microsoft Corporation
Apple Safari	Apple Computer, Inc.
Firefox	Mozilla Foundation

---

## Reader's Comments

### Program Directory for IBM DataQuant for z/OS, October 2013

We appreciate your input on this publication. Feel free to comment on the clarity, accuracy, and completeness of the information or give us any other feedback that you might have.

Use one of the following methods to send us your comments:

1. Send an email to [comments@us.ibm.com](mailto:comments@us.ibm.com)
2. Use the form on the Web at:  
[www.ibm.com/software/ad/rcf/](http://www.ibm.com/software/ad/rcf/)

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

IBM or any other organizations will only use the personal information that you supply to contact you about the issues that you submit.

Thank you for your participation.



Printed in USA

G110-8961-01

