

Rational® Developer for System z
Version 7.6.1

Host Configuration Utility Guide
by: Onno Van den Troost and Paul Meaney



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Note!

Before using this information, be sure to read the general information under "Notices" on page 15

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Preface

About this document

This document discusses the usage of the Host Configuration Utility, available for IBM Rational Developer for System z Version 7.6.1. The Host Configuration Utility is an ISPF panel application that guides you through basic and common optional customization steps for Developer for System z. The application also allows you to execute Installation Verification Procedures (IVPs) and collect debug information.

Who should read this document

This document is intended for system programmers who have been tasked to configure Rational Developer for System z Version 7.6.1. To use this guide, you need to be familiar with ISPF. Some z/OS UNIX experience is useful for a better understanding of certain aspects, but it is not required.

Introduction

The Rational Developer for System z Host Configuration Utility is a utility created to assist customers with Developer for System z host installation customization, installation verification and debug reporting. It will be referred to as the ‘utility’ within this document.

The utility is designed to manage multiple configurations of a single Rational Developer for System z service level, hence providing configurations for test and production implementations of the product.

The utility is intended to ease the complexity of installation and customization of required tasks and selected common optional tasks. This is paired with a detailed logged customization workflow that can be interrupted and restarted at will.

Multiple users can use the same set of configuration files (but not simultaneously). This allows one person to create a configuration, and someone else with proper authority can execute specific steps of the configuration.

Components

The utility consists of a series of partitioned data sets that can be divided into 2 groups, common product data sets and user-specific data sets created by the utility. There are also a few members added to the user’s ISPF profile data set.

Product data sets

The product data sets listed in Table 1 contain REXX execs, ISPF panels, message files, and control files. These data sets should be available in read-only mode to all users of the utility.

Data Set Name	Description
FEK.SFEKEXEC	REXX execs to run the utility
FEK.SFEKINPT	Control files
FEK.SFEKMSG	ISPF message files
FEK.SFEKPANL	ISPF panels
FEK.SFEKSKEL	Skeleton members tailored by the utility
FEK.SFEKTABL	ISPF PF-key tables

Table 1 Product data sets

User-specific data sets

The number of user specific data sets created by the utility varies, as it depends heavily on the type of actions done by the user, and the number of configurations that are created. Each configuration is identified by a 4-digit number (nnnn in Table 2). The data set

names all start with a user specified high level qualifier, followed by a product determined low level qualifier (which can be 1 or 2 qualifiers long).

Data Set Name	Description
hlq.\$R\$D\$Z	Temporary data set which is deleted during the termination procedure.
hlq.RDZLOG	Contains a log file for each version of the commands/JCL create by the utility. The member name is RDZnnnn.
hlq.RDZTABL	Contains the profile table.
hlq.RDZnnnn.ASM	Contains sample assembler code for configuration nnnn. This data set matches the FEK.#CUST.ASM data set referenced in the <i>Host Configuration Guide</i> (SC23-7658).
hlq.RDZnnnn.CMD	Contains generated command files for configuration nnnn.
hlq.RDZnnnn.CNTL	Contains generated command files for configuration nnnn. This data set matches the FEK.#CUST.CNTL data set referenced in the <i>Host Configuration Guide</i> (SC23-7658).
hlq.RDZnnnn.COBOLE	Contains generated command files for configuration nnnn. This data set matches the FEK.#CUST.COBOLE data set referenced in the <i>Host Configuration Guide</i> (SC23-7658).
hlq.RDZnnnn.JCL	Contains generated command files for configuration nnnn. This data set matches the FEK.#CUST.JCL data set referenced in the <i>Host Configuration Guide</i> (SC23-7658).
hlq.RDZnnnn.PARMLIB	Contains generated parmlib updates for configuration nnnn. This data set also matches the FEK.#CUST.PARMLIB data set referenced in the <i>Host Configuration Guide</i> (SC23-7658).
hlq.RDZnnnn.PROCLIB	Contains generated proclib updates for configuration nnnn. This data set matches the FEK.#CUST.PROCLIB data set referenced in the <i>Host Configuration Guide</i> (SC23-7658).
hlq.RDZnnnn.IVP	Contains generated IVP output for configuration nnnn.
hlq.RDZnnnn.DEBUG	Is a sequential dataset that will contain the debug report file when run.for version nnnn.

Table 2 User-specific data sets

ISPF profile data set

FEK* members with user specific preferences are added to the user's ISPF profile data set (DD ISPPROF in TSO) during execution of the utility.

Requirements

The system requirements match those of the Rational Developer for System z release it is part of, and are documented in *Prerequisites* (SC23-7659), which is available in the Developer for System z online library at <http://www-01.ibm.com/software/awdtools/rdz/library/>.

The user ID running this utility must have (at least) the following attributes:

- TSO access with minimum region size of 128M (specify logon SIZE= 131072)
- An OMVS segment defined to the security system (for example, RACF®), both for the user ID and its default group.
 - The HOME field must refer to a home directory allocated for the user (with READ, WRITE and EXECUTE access).
 - The PROGRAM field should be /bin/sh or other valid z/OS UNIX shell
 - The user ID does not require UID 0.
 - The user ID's default group requires a GID.
- User must have READ and EXECUTE access to the Java directories.
- User must have READ, WRITE and EXECUTE access to the /tmp directory

First usage

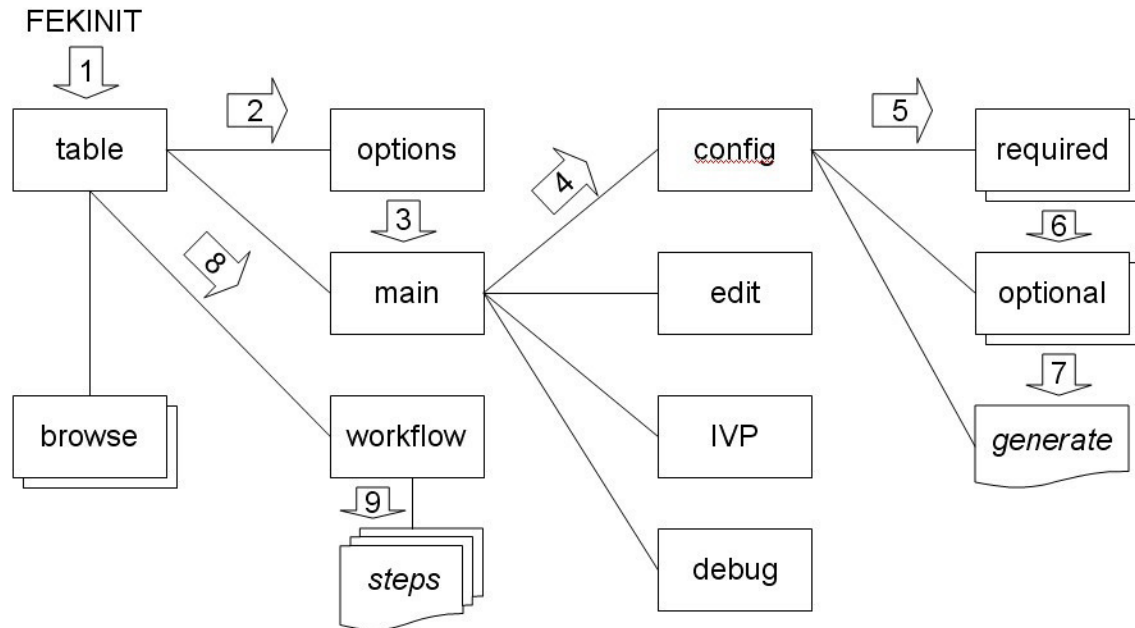


Figure 1 Configuration flow

Figure 1 shows a schematic overview of the panel structure used by the utility. It also marks the flow you follow during the initial configuration of Developer for System z.

1. Starting the utility brings you to a panel that shows all known configurations
2. You start by specifying input and output locations
3. Which leads you to the main menu
4. Here you indicate you want to configure Developer for System z
5. The configuration panel leads you to defining required customization variables
6. And optional customization variables
7. When all input is provided, you generate workflow jobs, which brings you back to the table with the known configurations
8. Now you select the workflow item
9. And execute the listed tasks to build the configured Developer for System z setup

Startup

The utility is started by executing `FEKINIT`, which resides in `SFEKEXEC`, from within an ISPF environment. The following sample invocation command can be used from any ISPF panel command line:

```
TSO EXEC 'FEK.SFEKEXEC(FEKINIT)'
```

`FEKINIT` can accept optional positional parameters:

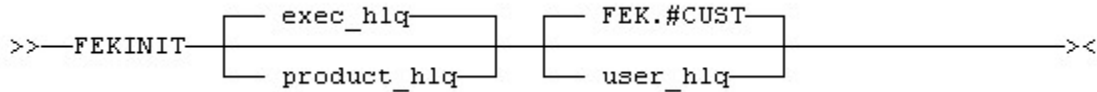


Figure 2 FEKINIT startup arguments

product_hlq High level qualifier(s) of the common product libraries. By default, the value is extracted from the exec startup information provided by TSO.

user_hlq High level qualifier(s) of the user-specific libraries. By default, FEK.#CUST is used.
The user will be asked to confirm or change this value during startup.

```
Rational Developer for System z V7.6 utility initialization
Driver level 20MAY2010
HLQ for install datasets = FEK
A high level qualifier for user configuration datasets is required
Enter the HLQ or press enter to default to FEK.#CUST

HLQ for user datasets = FEK.#CUST
```

Note: Extensive help panels are available for each ISPF panel. They can be accessed with the PF1 key.

Available configurations

The initial panel shows the defined configurations.

```

Rational Developer for System z V76 - Default      Row 1 to 1 of 1
Command ===>                                       Scroll ===> PAGE

O Set Default configuration :

Date          Time          User          Description
19 May 2010   20:37:17   DEFAULT     RDz7.6 Default Configuration
```

On first invocation, or when all the user configurations have been deleted, the panel only displays the default configuration. In this case, the only selection option available is ‘O’ Options to display the options panel.

Library locations

The options panel specifies the names of input and output data sets and directories. MVS based output always goes to one of the user-specific data sets; user_hlq.RDZnnnnn.*, where nnnnn is a number that represents a single configuration.

Note that the input fields are verified, but invalid values are accepted (after a warning). This allows you to create all configurations on one system (the driving system), even if the naming conventions on the target system are different.

```
Rational Developer for System z V76 - Options Menu
Command ==>

Customize and press ENTER to validate the input data
Press PF3 to exit and save or press PF12 to cancel changes

Base system parameters for Rational Developer for System z V7.6

The data set qualifiers or directories below must exist

Enter the high-level qualifier(s) of the product install
  FEK

Enter the product installation directory (RSE home directory)
  /usr/lpp/rdz

Enter the Java directory location          Java Version : Unknown
  /usr/lpp/java/J5.0

The output directories below will be created if they do not exist as
part of running the work flow steps during customization

Enter the directory for the configuration files (RSE config directory)
  /etc/rdz

Enter the project location directory (RSE work directory)
  /var/rdz

Enter the directory for log and temporary files (RSE TEMP directory)
  /var/rdz
```

Note: The **EXIT** command (**PF3**) is used throughout the input panels to save the data and continue to the next panel. The **CANCEL** command (**PF12**) returns to the previous panel without saving.
Usage of the PF keys requires that **KEYLIST ON** is specified in ISPF.

Primary menu

```
Rational Developer for System z V76 - Primary Menu
Option ==>

Select Primary Customization Menus
C  Initial Product Customization
U  Update active configuration files

Select after workflow configuration jobs have been run
I  Installation verification

Select only for IBM service problem analysis
D  Run debug reports
```

The primary menu groups several actions that can be done based upon the data provided in the active configuration. Except for the Initial Product Customization item, all items require a completed setup of Developer for System z.

Customization

Menu option 'C' Initial Product Customization in the primary menu brings you to the customization overview panel. The options in this panel will guide you through mandatory and common optional customization tasks.

```
Rational Developer for System z V76 - Customization
Option ==>

Note: This configuration uses the following HLQ for staging data sets
      FEK.#CUST.RDZ001

Required customization
1 Remote Systems Explorer (RSE)
2 JES Job Monitor (JMON)
3 TSO/ISPF Client Gateway

Optional product customization
4 Common Access Repository Manager (CARMA)
5 SCLM Developer Toolkit (SCLMDT)
6 Application Deployment Manager (ADM)
7 File Manager integration (FM)

Optional runtime customization
8 Configuring build procedures
9 DB2 stored procedures
10 CICS bidirectional language support
11 Enterprise Service Tools (EST)
12 IIRZ messages

Select after the above configuration steps have been completed
G Generate configuration jobs
```

The customization actions are grouped in 3 sections:

- Required customization: mandatory customization required for product startup.
- Optional product customization: customization of optional product components.
- Optional runtime customizations: customizations so that other products can use Developer for system z functions and generated code.

Each option will bring you to an input panel where you can specify values for the related variables. Note that the panels might not cover all possible configuration options to reduce complexity. See the *Host Configuration Guide (SC23-7658)* for a detailed overview of each available option.

Note:

- The input panel might have more lines than supported by your current screen size. You can use **PF7** (up) and **PF8** (down), to navigate through a multi-screen panel.
- CA Endeavor® integration requires that CARMA is configured.

Once you completed the various customizations, select option ‘G’ `Generate` to create a set of tasks (called the work items) that will create the configuration files and do related actions (like security definitions) based upon the specified values.

Generating the work items completes the first step of the customization process for this configuration, so the provided information will be saved for future use. The utility will prompt you for a meaningful name for this configuration.

```
The configuration has been modified and will be saved on exit

Specified below is the default description for this configuration
Modify if desired : RDz7.6 Configuration

Press Enter to continue
```

Available configurations revisited

Once the work items are generated and the configuration data is saved, you are back in the panel that shows the defined configurations.

```
Rational Developer for System z V76 - Configuration      Row 1 to 2 of 2
Command ==>                                           Scroll ==> PAGE

Select the configuration you want to work with:

S Select O Options D Delete W Work Flow
C Command Browse F File Browse L Log Browse

Date          Time          User          Description
19 May 2010 20:47:35 IBMUSER test systems
19 May 2010 20:37:17 DEFAULT RDz7.6 Default Configuration
```

The newly created configuration is now part of the table, and more menu options became available.

Executing workflow items

By issuing the ‘W’ `Work Flow` action against the newly created configuration, a table with the related work items is shown. The number of work items will vary, depending on the items that were configured earlier in the process. The following screen capture shows the work items created for a basic customization with CA Endeavor® integration using the CRASTART startup method.

The Work Items are listed in the suggested order of execution.
 To Generate work items, select G (Generate configuration jobs)
 under the main RDZ configuration panel.

Select the item you want to work with:

A Action Item E or S EDIT B Browse C Mark as Completed L Browse Action Log

Work Item	Type	Status	Authority/Action
FEKASET	Command	Pending	Systems Programmer
FEKCOPY	Command	Pending	Systems Programmer
APF	PARMLIB	Pending	Systems Programmer
LINKLIST	PARMLIB	Pending	Systems Programmer
COMMNDXX	PARMLIB	Pending	Systems Programmer
BPXPRMXX	PARMLIB	Pending	Systems Programmer
FEJCNFG	PARMLIB	Pending	Systems Programmer
JMON	PROCLIB	Pending	Systems Programmer
RSED	PROCLIB	Pending	Systems Programmer
LOCKD	PROCLIB	Pending	Systems Programmer
RSEDEV	rsed.envvars	Pending	Systems Programmer
ISPFCONF	ISPF.conf	Pending	Systems Programmer
RACFINIT	RACF	Pending	RACF Administrator
USER	RACF	Pending	RACF Administrator
DATASET	RACF	Pending	RACF Administrator
STC	RACF	Pending	RACF Administrator
JESCMDS	RACF	Pending	RACF Administrator
SERVER	RACF	Pending	RACF Administrator
PROGCTLM	RACF	Pending	RACF Administrator
PSTICKET	RACF	Pending	RACF Administrator
PROGCTLU	RACF	Pending	RACF Administrator
CARMAVDEF	Command	Pending	CARMA Administrator
CARMAVMSG	Command	Pending	CARMA Administrator
CARMAVSTR	Command	Pending	CARMA Administrator
CARMACRA	CRASRV.propert	Pending	CARMA Administrator
CARMCNFE	crastart.endev	Pending	CARMA administrator

You can now edit each item (**E** or **S** command) to verify what it exactly does, and then execute it (**A** command). Some items will be executed by the utility (like copying members), other items will prompt you to do a manual action with the provided information (for example, updating PARMLIB members).

Also note that some items require authority that you might not have (like RACF administrator). In this case, just give the person with sufficient authority the following info and ask to execute the related work items:

- Startup instructions for the tool (product HLQ and user HLQ are the two related variables)
- Which configuration to select

Other actions

The utility supports more than just initial product configuration. It allows you to build various configurations, define values and work items for them, edit existing configuration files, run Installation Verification Procedures (IVPs) and collect debug information.

All these actions are described in detail in the provided help panels.

Doing the initial configuration of Developer for System z will give you a feel for how the utility is designed. The key concepts you need to remember are:

- The utility is started by executing `SFEKEXEC (FEKINIT)`
- Customizations are grouped in a configuration, which can be selected in the table that is shown when the tool is started.
- The configuration table leads you to the work items and to the configuration specific options.
- The configuration specific main panel allows you to customize the product, edit existing configuration files, execute IVPs and collect debug information.

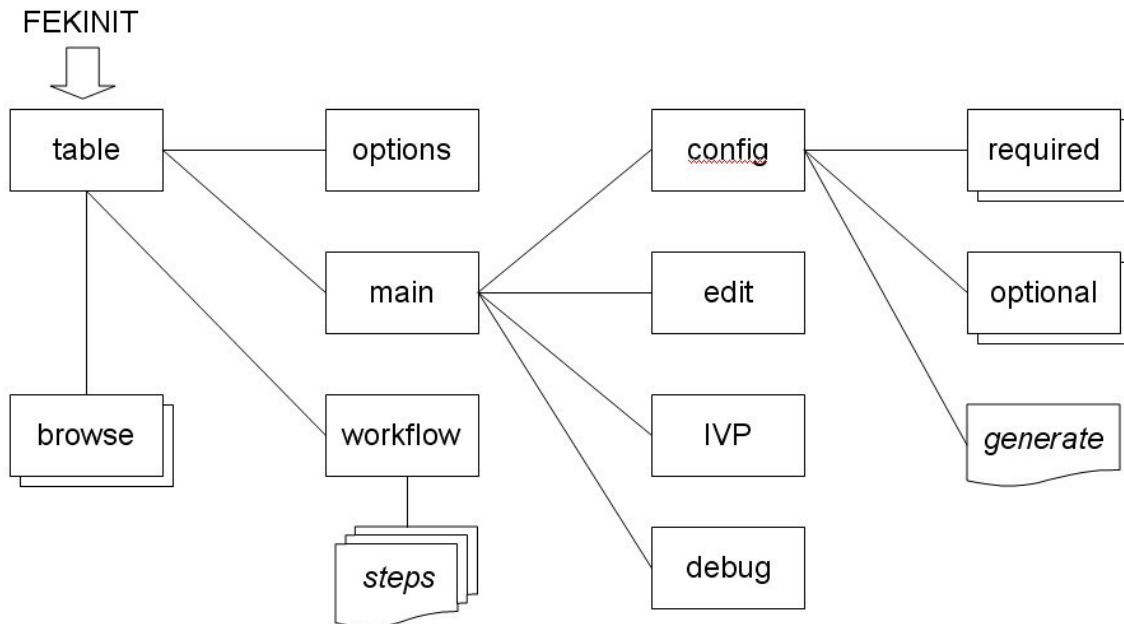


Figure 3 Panel structure

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