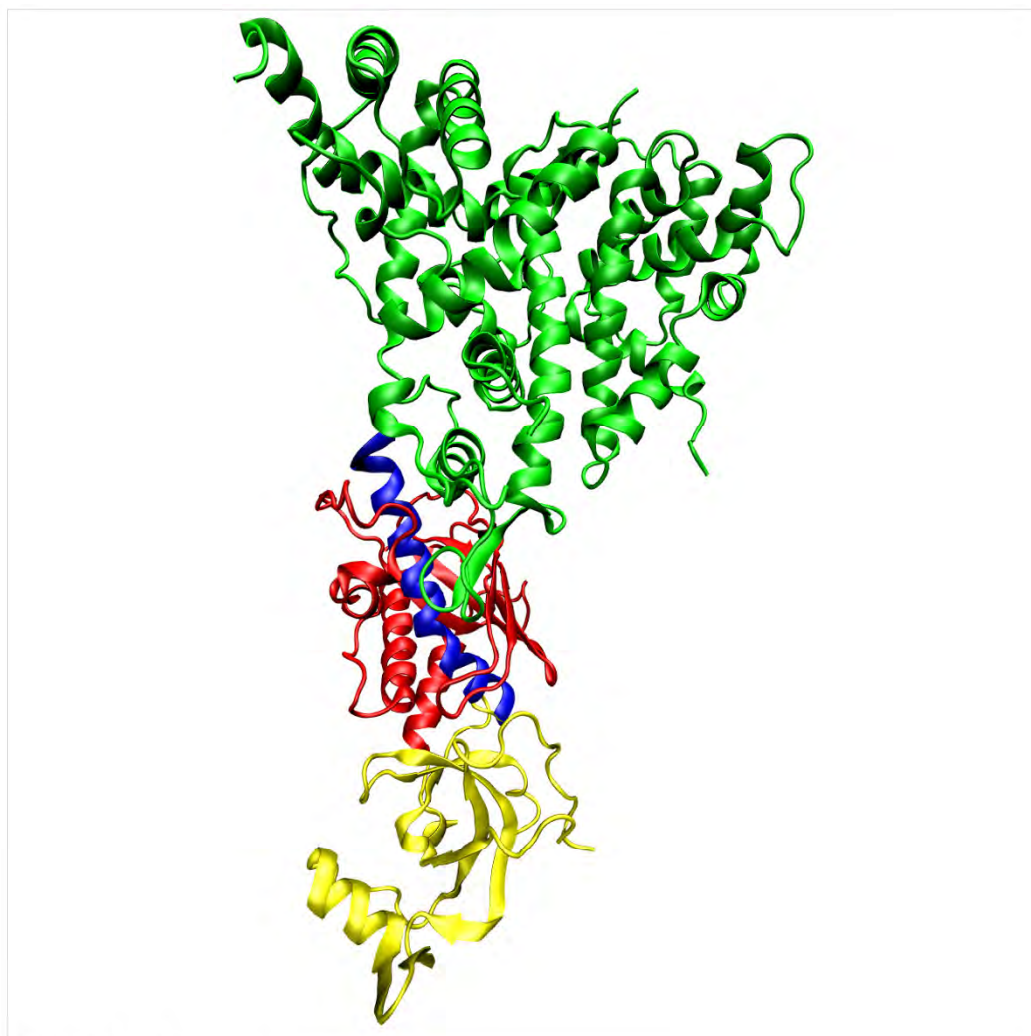# Dicer

Enhancement Summary
Licensed Program 2A55DCR V1R9M0

Spooled File Conversion

Edition

Ninth Edition (January 2014)

This edition applies to the licensed program Dicer (Program 2A55DCR), Version 1 Release 9 Modification 0.

This summary is available as option 1 from the DICER menu, in PDF format in directory /Gumbo/Proddata/2A55DCR/doc on your system, and on the web at www.gumbo.com

Cover image: One molecule of the Dicer-homolog protein (en.wikipedia.org/wiki/Dicer).

Contents

Installation Instructions

Follow these instructions to install Dicer V1R9M0 on IBM i using physical media or a virtual image:

Prepare

If you are upgrading a previous release (if Dicer is currently installed), perform these steps before installing the software:

1. Read the Enhancement Summary to determine if any changes affect your installation.
2. Insure that the product is not in use, as the installation process must clear the product's library. This will fail if objects such as menus are in use. If the installation fails, the previous release will be restored.

Install

Note: If you are installing from a save file downloaded as a self extracting zip (.exe), use the save file specific "readme.htm" instructions included in the download.

1. Sign on to the system as the security officer (QSECOFR).
2. Verify that your machine is at IBM i V7R1M0 or later by running:

   ```
   DSPDTAARA DTAARA(QGPL/QSS1MRI)
   ```

   Note: If you are running a version of IBM i earlier than V7R1M0 you cannot install Dicer V1R9M0 on your machine. You must install an earlier version of Dicer or upgrade the operating system.

3. Verify that user domain objects are allowed in the libraries DICER and QSRV, by running:

   ```
   WRKSYSVAL  SYSVAL(QALWUSRDMN)
   ```

   Take option 5 to display the value. If the value is not *ALL, use option 2 to add libraries DICER and QSRV to the list of libraries where user domain objects are allowed.

   Note: QSRV is required to correctly process PTFs when they are loaded and applied.

4. Insure that IBM i will be able to verify the signatures that we apply to our product's objects by installing our Signing Certificate and Root CA Certificate using Digital Certificate Manager. Alternately, insure that signature verification will not prevent the restore operation by running:

   ```
   WRKSYSVAL SYSVAL(QVFYOBJRST)
   ```

   Take option 5 to display the value. If the value is 3 or higher, use option 2 to temporarily change the value to 1.

5. Mount the physical media or virtual image on the appropriate device.
6. Submit the Restore Licensed Program (RSTLICPGM) command to batch:

   ```
   RSTLICPGM  LICPGM(2A55DCR) DEV(device-name) LNG(2924)
   ```

   Note: Where "device-name" is the device where the media or image was mounted and is usually OPT01.

Note: During the restore operation, the system operator message queue may receive inquiry message CPA3DE4 "Directory not registered. (C G)". Unless you are using a directory naming convention similar to ours (that is the directory specified in the CPA3DE4's second level text is unrelated to our software), you can safely respond with a "G" to reestablish the relationship between the directory and the product. Typically the message will occur three or four times.

Finish

When the RSTLICPGM command completes, library DICER and directory '/Gumbo/ProdData/2A55DCR' contain the new software. To complete the installation:

1. If you have an Authorization letter with your permanent authorization code, enter it now.

   Note: Dicer automatically grants 30 days usage for new installs or 90 days usage for release upgrades.

2. Retrieve the current cumulative Dicer PTF package by running the following command:

   ```
   DICER/RTVGSIPTF
   ```

   Note: *GUMBO* recommends downloading the current cumulative PTF package after installing the software.

3. Visit our PTF page at www.gumbo.com and check the **Additional IBM i PTF Information** section for IBM PTFs you may need to install.
4. You can access the Dicer menu by running the following command:

   ```
   GO   MENU(DICER/DICER)
   ```

Enhancements For Dicer V1R9M0

What's In This Section

This section provides information on Dicer enhancements for release V1R9M0, notes any customer code implications by marking them with a **COMPATIBILITY WARNING**, and describes where to find more information when applicable.

New MRGSPLF Parameters Added

Three new parameters, USER(), USRDTA(), and USRDFNDTA(), have been added to the Merge Spooled File (MRGSPLF) command. With these you can specify the owner of the generated spooled file, the user data and user defined data assigned to the generated spooled file, respectively. If the parameters are not specified, the values are taken from the first spooled file in the merge list which is the old behavior.

MRGSPLF Option Example Added

An additional example program has been added to DCSOURCE. The example program, MRGDCROPT, can be registered as an exit program to implement a custom option for IBM's WRKSPLF, WRKOUTQ and WRKJOB OPTION(*SPLF) commands. Any and all MRGSPLF parameters can be tailored to suit. See the source member for details.

Font Processor Changes

- Font processing was sending message id FNT0022 when a host character set could not be found for a grid specified font. Now the message is postponed until the missing character set is needed and thus avoiding the message when the missing character set doesn't matter.
- New internal version of font processor released. The release reorganizes internal structure to provide on demand or as needed processing of font resources. As a result, some errors such as "font not found" occur later than in earlier releases.
- GCSGID superset - subset data updated for Japanese character sets.
- DBCS fonts identified by FGIDs 53248, 53249 (Japanese), 54563, 54568 (Traditional Chinese), 54565, 54566, 54567, 54568 (Simplified Chinese), and 54560, 53816 (Korean) were incorrectly treated as not scalable, resulting in improper font sizing.
- For fonts identified by an FGID which has an implied height, height overrides were ignored. Overrides are now applied.

FreeType Changes

- Added functions to process type1 fonts.

Integrated File System Changes

- Integrated file system service program recast with storage model *INHERIT to increase product construction flexibility.

National Language Support Changes

- Previously an unknown keyboard type code was treated as an error. Now the job default ccsid is used.
- Several QKBDTYPE values don't have an implied ccsid, for example CAB and JEB. Now when resolving these, the job default ccsid is used instead of returning an error.
- Special value *JOBDFT incorrectly resolved to job ccsid, not job default ccsid.

Program Distribution Changes

- RTVGSIPTF command failed when there were no PTFs issued for the product.
- CDROM no longer contains older releases in addition to the current releases.
- Previously, a missing product directory didn't cause SAVLICPGM or CHKPRDOPT to fail. Now, diagnostic message CPD3D70 is issued for each missing directory and the operation fails.
- /lib has been added to the product's directory structure to facilitate future enhancements.
- Added QSYSLIBL check to trouble shooting instructions.
- RTVGSIPTF fails if no PTFs currently installed.
- The product's prompt message file is now part of the shipped deliverables as a prelude to internationalization.
- Command compilation change to allow *IMOD in all commands that allow *IPGM and to allow *BMOD in all commands that allow *BPGM.
- Incorrectly declared variable prevented RTVGSIPTF command from loading and applying PTFs.

PTOCA Processor Changes

- Added processing for new control sequence x6A Unicode Complex Text (UCT). Previously message ID PTX0005 was issued.

Sfntly Changes

- Initial build. Google's Sfntly library has been compiled into a program to subset font files.

Space Management Changes

- SpcRetrieveSpaceName() was generating avoidable MCH3601 Pointer not set error messages under some error situations. The MCH3601 did not affect processing but was a distraction during problem determination.

Spool User Interface Changes

- Pressing F5=Refresh for a second time on WRKGSISPLF and WRKGSIOUTQ panels caused the panel to reposition to the top of the list. The error is corrected.