

ariadne
the iSeries specialists

CoolTools



User Guide

*Version V2R1M0
April 2006*

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Introduction

CoolTools is a toolkit for managing iSeries and AS/400 spooled files.

In this second release, **CoolTools** provides:

- The ability to create **spooled file monitors**, which are processes which detect the arrival of spooled files on specified output queues in a ready status and then carry out user-defined actions against those spooled files.
- The facility to define **spooled file rules** which determine what actions are applied to which spooled files.
- The means to specify **spooled file scripts** which determine a sequence of operations to be applied to a spooled file.
- **WRKSPLFPDM** (Work with Spooled Files PDM-style), a command which provides a simple and familiar but powerful and flexible way of operating on sets of selected spooled files. When run interactively, **WRKSPLFPDM** is similar to the PDM commands **WRKLIBPDM**, **WRKOBJPDM** and **WRKMBRPDM**, but whereas those commands allow you to work with libraries, objects and members respectively, **WRKSPLFPDM** provides the equivalent functionality in relation to spooled files.
- **RUNSPLFCMD** (Run Spooled File Commands), a command which provides similar functionality to **WRKSPLFPDM**, but without a user interface
- The ability to customize the standard options provided by **WRKSPLFPDM** and **RUNSPLFCMD** (i.e. you can determine what command string is run when, for example, a user selects option 10 against a spooled file). The number of available standard options of this kind is also increased from 12 to 99.
- Greatly enhanced control over authority to options and command parameters within **WRKSPLFPDM**. For example, you can now manage user authorities to each individual **CoolTools** user-defined option and parameter of the **CVTSPLSTMF** command, as well as to standard options.

CoolTools dovetails with ariadne's **CoolSpools** product which converts spooled files to stream files in a variety of formats such as PDF and Excel. With **CoolTools** and **CoolSpools** together, it's easy to create electronic documents from multiple spooled files automatically. If you also have ariadne's **Communiqué** email product, you can email them too!

To make things even easier, **CoolTools** is also now available as a module in the **CoolSpools Plus** bundle. **CoolSpools Plus** bundles **CoolSpools**, **Communiqué**, **Slipstream** and **CoolTools** as a single licensed program using a single product library. If you are installing **CoolSpools Plus** (licensed program 5COOLSP), refer to the User Guide for **CoolSpools Plus** for details of how to install **CoolSpools Plus**.

Why Choose CoolTools?

Let's look at some possible uses for CoolTools.

If you've got **CoolSpools**, you'll know how much your company can save in time and money and effort by replacing paper with electronic documents such as PDFs. Maybe you're now converting your business reports to PDF format every night rather than printing them so they can be emailed to your users or customers or published on your website or intranet.

With CoolTools, you can make this even easier by detecting every time a spooled file is created on a given output queue and automatically applying one or more actions to that spooled file.

But what about the hundreds or even thousands of archived spooled files you've accumulated over previous years and which you'd now like to convert?

CoolTools can help you here too.

Using the various criteria available, you can easily use WRKSPLFPDM or RUNSPLFCMD to select sets of related spooled files to work with and convert them all to PDF format in a single batch job.

Or maybe you'd like a way of saving your spooled files every night so they don't have to be kept online all the time and clutter up your disk? With WRKSPLFPDM and **CoolSpools** you can easily save an entire output queue in **CoolSpools'** highly compressed archive stream file format by running a single command. These archives can then be backed off to tape or even burnt to CD using a cheap and simple CD writer on an attached PC. If you need them back later, you just load them off the CD on to the iSeries using FTP or a network drive and restore them.

Or perhaps you're just looking for an even better way to manage your spooled files online than WRKSPLF? With WRKSPLFPDM you can:

- Select spooled files by spooled file name
- Select spooled files by output queue
- Select spooled files created between a range of dates
- Repeat options PDM-style using F13
- Apply PDM-style user-defined options to sets of selected spooled files
- Use substitution variables in user-defined options

What's new in Version 2?

Highlights include:

- Extension of the number of available WRKSPLFPDM options from 12 to 99.
- The ability to customize WRKSPLFPDM standard options 01-99 at the system-level or for individual users. This replaces the facility previously available in V1 to define system and user defaults.
- Greatly enhanced control over user capabilities and option security, using registered functions. It is now possible to control who has access to what system features at the level of individual users and groups. These features cover standard WRKSPLFPDM options, user-defined options, CoolSpools parameters and other aspects as well. These new features replace the capabilities by user class that were definable in V1.

- New options for setting up automatic processing of spooled files. As soon as a spooled file is created on a particular output queue with a status of “ready”, it can be detected and processed. What processing should be performed can be specified for each type of spooled file by defining **spooled file rules**.
- **Spooled file scripts** to allowing the definition of a simple sequential list of actions to be performed on a spooled file.
- New WRKSPLFPDM options for selecting spooled files by: spooled file number; age range in days; status; spooled file type.
- Discontinuation of support for user-defined options defined in a PDM options file. All user-defined options must be defined using the WRKUSROPT function.
- Withdrawal of support for WRKSYSCTL. The functions previously provided by WRKSYSCTL are now available from WRKSTDOPT and/or WRKREGFNC.

Prerequisites

OS/400 V5R1M0 or higher.

20 Mb of iSeries disk space.

For spooled file conversion:

CoolSpools (any version)

For email options:

Communiqué (any version)

Upgrade Notes

Please read the following notes carefully before upgrading to Version 2 from an earlier version of CoolTools.

To determine which version of CoolTools you are running, check the name of the library in which the WRKSPLFPDM command object you are using resides, e.g.:

DSPOBJD OBJ(WRKSPLFPDM) OBJTYPE(*CMD)

The library name corresponds to the version of CoolTools as shown in the table below:

Library Name	Version
SPLTLSV1R1	Version 1
SPLTLSV2R1	Version 2

If you have installed the **CoolSpools Plus** product, which bundles CoolTools with CoolSpools, Communiqué and Slipstream, the product library will be COOLSPV5R1.

If your command is in a library other than those shown, you are either running an unsupported, unlicensed version or have moved or copied the command object from its original location. Contact support@ariadnesoftware.co.uk for assistance.

License Keys

You are entitled to upgrade to Version 2 of CoolTools free of charge if:

- the machine on which you wish to run CoolTools V2 has a valid license for an earlier version of CoolTools

and

- you are either in your first 12 months' maintenance period after purchase or have paid your latest annual maintenance invoice.

If you wish to upgrade, you can simply download the software from www.ariadnesoftware.co.uk and install it according to the instructions contained in the "Installation" section of this User Guide. However, if you licensed an earlier version of CoolTools, you will need to request a license key for the new version. Simply e-mail support@ariadnesoftware.co.uk and ask for your key for V2 of CoolTools. Please quote your system serial number(s) and processor group code(s) in your e-mail. These are shown at the top of the WRKLICINF screen.

Without a license key, CoolTools V2 will allow you a 30-day grace period and will then no longer run.

If you have not paid your annual maintenance invoice, and if you need longer than 30-days to test V2, we will, on request, send you a temporary license key to extend the trial period.

If you require additional temporary license keys to assist with testing CoolTools V2, or if you run into any problems during your testing, please do not hesitate to contact us at support@ariadnesoftware.co.uk.

Warning/Disclaimer

We recommend strongly that all production applications are re-tested thoroughly using the new version in your development environment before you switch over to running the new version in your production environment.

All CoolTools versions are packaged as separate licensed programs and install into different libraries. This means that all versions of CoolTools can coexist and run alongside one another on the same machine. You can switch an application from using one version to using another simply by changing the library list of the job to include the appropriate version library or by specifying a different library name when you run the command. Hence it is quite a simple matter to test your applications using the new version while continuing to run the older version in production.

Please note that while ariadne makes every effort to ensure that CoolTools functions in the same way with the same parameters from one version to the next, it is not possible to guarantee this. This is why you should re-test your applications against a new version before going live with it as it is possible that in some cases different parameter settings will be necessary to obtain the same results as before.

ariadne software accepts no responsibility for any damage, expense or loss of income incurred as a result of unforeseen and unwanted effects resulting from installing new versions of its software or applying PTFs.

Minimum OS/400 Release Level

The minimum OS/400 release level required to run V2 of CoolTools is OS/400 **V5R1M0**.

If you are running V4R5M0 or an earlier version of OS400, you will not be able to install V2 of CoolTools.

Product Library

The product library for CoolTools V2 is now SPLTLSV2R1. If you have installed the **CoolSpools Plus** product, however, it is COOLSPV5R1. CoolSpools Plus bundles CoolTools with CoolSpools, Communiqué and Slipstream.

You may need to change library lists in job descriptions and other system objects in order to pick up the new version of the code rather than the old.

This change of library name has the advantage that it allows you to run both V2 and the earlier versions on the same machine. You are therefore able to test V2 before swapping your production applications over to the new version, as we strongly advise you to do.

Licensed Program Id

The licensed program identifiers for the various CoolTools versions are as follows:

Licensed Program Id	Version
---------------------	---------

1SPLTLS	Version 1
2SPLTLS	Version 2

WRKSPLFPDM standard options

The default standard WRKSPLFPDM option numbers, and command strings that underlie them, have both changed.

However, since CoolTools now gives you total control over the definition and availability of these options, allowing you to customize them as you wish:

- You can use the WRKSTDOPT command to modify the system-supplied option descriptions and command strings, or to define new options;
- This can be done either at system-level, or for each individual user;
- You can use the WRKREGFNC command to define who has access to which options

If you decide to use the options as supplied with V2 of CoolTools, you should warn your users that the options have changed. Alternatively, review the options as supplied and amend as appropriate to your environment.

WRKSPLFPDM user-defined options

V2 does not support the use of user-defined options specified in a PDM options file. This has proved necessary in order to allow enhancement of this area of the system, e.g. the use of registered functions to control access to user-defined functions.

A utility (CVTPDMOPT) is supplied to facilitate the conversion of options defined in a PDM options file to CoolTools user-defined options so they can be used with V2.

WRKSYSCTL (Work with System Controls)

V2 does not support the use of the WRKSYSCTL (Work with System Controls) command. Its functions are provided, in a much enhanced way, by the WRKSTDOPT and WRKREGFNC commands:

- The “Capabilities by User Class” feature is replaced by the use of registered functions (defined with WRKREGFNC) which allow control over the use of WRKSPLFPDM standard and user-defined options, and CoolSpools parameters, at the level of individual users and groups.
- CoolSpools parameter defaults are definable separately for each individual WRKSPLFPDM standard option through the use of the WRKSTDOPT command. The command string underlying each standard option can be defined at a system level or by individual user.

A conversion utility (CVTAUT) is provided to allow you to set up Version 2 authorities based on the way your capabilities by user class were defined in Version 1.

Users with Limited Capabilities

Version 1 of CoolTools prevented users with LMTCPB(*YES) specified for their user profile from running commands on the WRKSPLFPDM command line.

In Version 2, you can manage authority to the AR_ST_ALW_LMTCPB_CMD registered function to determine whether a user with LMTCPB(*YES) can run any commands from the WRKSPLFPDM command line.

If a user is not authorized to this function, and the user has LMTCPB(*YES) specified on their user profile, the user will not be able to run any commands from the WRKSPLFPDM command line (as per Version 1).

However, if a user is authorized to this function, and the user has LMTCPB(*YES) specified on their user profile, the user will be able to run commands from the WRKSPLFPDM command line, but only those commands with ALWLMTUSR(*YES) specified.

Installation

If you are installing CoolSpools Plus, please refer to the installation instructions in the CoolSpools Plus User Guide. These instructions apply only where you are installing the standalone version of **CoolTools**.

If you downloaded **CoolTools** from the Internet, or received the product via e-mail, you will have received a zip file called **SPLTLSV2R1.ZIP**. This zip file contains everything you need to get started with **CoolTools**. This section describes two possible procedures for installing **CoolTools** on your AS/400. We are hoping to simplify and automate this area in the near future. However, for the moment, please select one of the two methods described below and follow the steps carefully and in the order indicated. Steps to be carried out on the PC are shown in **green**, steps to be carried out on the AS/400 in **blue**.

Method 1: Installing CoolTools using FTP

This method uses FTP (File Transfer Protocol) to transfer the CoolTools product files from your PC to your AS/400. It is assumed that you have stored the SPLTLSV2R1.ZIP file which you downloaded from the Internet or received via e-mail on your PC and that you have enabled an FTP link between your PC and your AS/400.

Step 1

On your PC, create an install directory for CoolTools, either within Windows Explorer, or from the DOS prompt, e.g.:

```
md c:\SPLTLSV2R1
```

Save or copy the zip file that you downloaded or received into this directory.

Step 2

On your PC, unzip the contents of the zip file into the directory you just created using pkunzip, WinZip, Norton UnZip etc.

Step 3

On your AS/400, decide which library you wish to use for the install procedure and create a save file in that library, e.g.

```
crtsavf lib_name/SPLTLSV2R1
```

where **lib_name** is the name of the library you chose to use.

Step 4

On your PC, start an FTP session to your AS/400. You may use FTP packages such as CuteFTP or simply go to the DOS prompt and type:

```
ftp AS400_name
```

where AS400_name is the name of your AS/400.

You will be prompted to enter your user id and password. Please ensure that you sign on with a user id that has adequate authority. We recommend that you sign on as the Security Officer QSECOFR.

Issue the following FTP commands within the FTP session:

```
binary
```

quote site na 0

This makes sure the iSeries is using naming format 0 (library naming). This is important if your FTP attributes (CHGFTPA command NAMEFMT parameter) have the initial naming format set to *PATH (IFS path naming) rather than *LIB (library/file.member naming). This command instructs FTP not to carry out any conversion on the data to be sent to the AS/400.

cd lib_name

where lib_name is the name of the library in which you created the save file in Step 3. This command makes lib_name your current library on the AS/400.

lcd dir_name

where dir_name is the name of the directory on your PC in which you unzipped the install files earlier. This command makes dir_name your current directory on the PC.

put SPLTLSV2R1.sav SPLTLSV2R1

This command transmits the contents of the file SPLTLSV2R1.sav, which was earlier unzipped from SPLTLSV2R1.zip, and stores them in the save file called SPLTLSV2R1 which you created earlier on your AS/400.

Step 5

On your AS/400, ensure that the previous step worked by displaying the contents of save file SPLTLSV2R1:

dspsavf lib_name/SPLTLSV2R1

If you see the message **(No records in save file)** then something has gone wrong during the preceding steps. Try following them again. If you still cannot get this procedure to work, contact us at support@ariadnesoftware.co.uk.

Step 6

On your AS/400, issue the following command to restore the CoolTools licensed program to your system:

```
rstlicpgm          licpgm(2SPLTLS)
                   dev(*savf)
                   option(*base)
                   rstobj(*all)
                   lng(*primary)
                   output(*none)
                   rls(*first)
                   replacerls(*only)
                   savf(lib_name/SPLTLSV2R1)
```

where lib_name is the name of the library in which you created the save file in Step 3.

Step 7

If you have downloaded CoolTools from the Internet, you can use the product without a license key for up to 30 days. At the end of that period CoolTools will notify you that it can no longer be used without a license key.

To obtain a license key contact ariadne at sales@ariadnesoftware.co.uk.

If you have been issued with a license key, proceed as follows.

On your AS/400, issue the following command to add a license key to enable you to use the CoolTools licensed program:

```
addlickey      lickeyinp(*prompt)
                prdid(2SPLTLS)
                licterm(V3R1)
                feature(5001)
                serial(*local)
                prcgrp(Ppp)
                lickey(XXXXXX YYYYYY ZZZZZZ)
                usglmt(*nomax)
                expdate(exp_date)
                vnddta(*none)
```

where: **XXXXXX YYYYYY ZZZZZZ** is the license key you received by e-mail from
US

exp_date is the expiry date mentioned in the e-mail

and: **Ppp** is the processor group mentioned in the e-mail

CoolTools is now ready for you to use!

If you have any trouble at any point in this procedure, please contact us by e-mail at support@ariadnesoftware.co.uk.

Method 2: Installing CoolTools using the IFS

This method uses a Client Access network drive assigned to the IFS of your AS/400 to transfer the CoolTools product files from your PC to your AS/400. It is assumed that you have stored the SPLTLSV2R1.zip file (which you downloaded from the Internet or received via e-mail) on your PC.

Step 1

On your PC, create an install directory for CoolTools, either within Windows Explorer, or from the DOS prompt, e.g.:

```
md c:\PC_dir
```

where PC_dir is the name of the directory you wish to use for this installation.

Save or move the zip file that you downloaded or received into this directory.

Step 2

On your PC, unzip the contents of the zip file into the directory you just created using pkunzip, WinZip, Norton UnZip etc.

Step 3

On your PC, ensure that you have a network drive assigned to a directory in the root file system of your AS/400's IFS. This can be done in Windows Explorer by selecting Tools, Map Network Drive.

Create a directory in the IFS to receive the CoolTools files. This can be done in Windows Explorer by selecting File, New, Folder, or at the DOS prompt as follows:

```
md i:\IFS_dir
```

where **I:** is the network drive assigned to your AS/400 and **IFS_dir** is the name of the directory you wish to use for this installation.

Step 4

Copy the contents of your PC's install directory created in Step 1 above to the IFS directory created in Step 3 above using Windows Explorer, or from the DOS prompt as follows:

```
copy c:\PC_dir\*. * I:\IFS_dir
```

where **PC_dir** is the name of the directory on your PC, **I:** is the network drive assigned to your AS/400 and **IFS_dir** is the name of the directory you wish to use for this installation.

Step 5

On your AS/400, decide which library you wish to use for the install procedure and create a save file in that library, e.g.

```
crtsave lib_name/SPLTLSV2R1
```

where **lib_name** is the name of the library you chose to use.

Step 6

On your AS/400, copy the contents of the SPLTLSV2R1.sav file from the IFS directory to the save file just created, by issuing the following command:

```
copy fromstmf('/IFS_dir/SPLTLSV2R1.sav')  
tombr('/qsys.lib/lib_name.lib/SPLTLSV2R1.file')  
mbropt(*replace)  
cvtdta(*none)  
endlinfmt(*fixed)  
tabexpn(*no)
```

where **IFS_dir** is the name of the IFS directory into which you copied the install files in Step 4 above, and **lib_name** is the name of the library in which you created the save file in Step 5 above.

Step 7

On your AS/400, ensure that the previous step worked by displaying the contents of save file SPLTLSV2R1:

```
dspsavf lib_name/SPLTLSV2R1
```

where **lib_name** is the name of the library in which you created the save file in Step 5.

If you see the message **(No records in save file)** then something has gone wrong during the preceding steps. Try following them again. If you still cannot get this procedure to work, contact us at support@ariadnesoftware.co.uk.

Step 8

On your AS/400, issue the following command to restore the CoolTools licensed program to your system:

```
rstlicpgm licpgm(2SPLTLS)
```

```
dev(*savf)
option(*base)
rstobj(*all)
lng(*primary)
output(*none)
rls(*first)
replacerls(*only)
savf(lib_name/SPLTLSV2R1)
```

where lib_name is the name of the library in which you created the save file in Step 5.

Step 9

If you have downloaded CoolTools from the Internet, you can use the product without a license key for up to 30 days. At the end of that period CoolTools will notify you that it can no longer be used without a license key.

To obtain a license key contact ariadne at sales@ariadnesoftware.co.uk.

If you have been issued with a license key, proceed as follows.

On your AS/400, issue the following command to add a license key to enable you to use the CoolTools licensed program:

```
addlickey      lickeyinp(*prompt)
                prdid(2SPLTLS)
                licterm(V3R1)
                feature(5001)
                serial(*local)
                prcgrp(Ppp)
                lickey(XXXXXX YYYYYY ZZZZZZ)
                usglmt(*nomax)
                expdate(exp_date)
                vnddta(*none)
```

where: **XXXXXX YYYYYY ZZZZZZ** is the license key you received by e-mail from us

exp_date is the expiry date mentioned in the e-mail

and: **Ppp** is the processor group mentioned in the e-mail

CoolTools is now ready for you to use!

If you have any trouble at any point in this procedure, please contact us by e-mail at support@ariadnesoftware.co.uk.

Maintenance

Periodically we will release Program Temporary Fixes (PTFs) in order to add new features or to resolve any problems found with **CoolTools**.

If you have installed CoolSpools Plus, please refer to the installation instructions in the CoolSpools Plus User Guide. These instructions apply only where you have installed the standalone version of **CoolTools**.

PTFs are supplied in the form of an AS/400 save file stored within a zip file, and can be downloaded from the Download section of the ariadne web site at <http://www.ariadnesoftware.co.uk>.

The procedure for loading and applying a PTF for CoolTools is as follows.

First download the PTF you require from the Internet. The PTF will be held in a file called Q2STnnnn.zip, where nnnn is the PTF id.

This section describes two possible procedures for copying the AS/400 save file held in this zip file to your AS/400. We are hoping to simplify and automate this area in the near future. However, for the moment, please select one of the two methods described below and follow the steps carefully and in the order indicated. Steps to be carried out on the PC are shown in **green**, steps to be carried out on the AS/400 in **blue**.

Method 1: Installing a PTF using FTP

This method uses FTP (File Transfer Protocol) to transfer the PTF file from your PC to your AS/400. It is assumed that you have stored the zip file which you downloaded from the Internet on your PC and that you have enabled an FTP link between your PC and your AS/400.

Step 1

On your PC, create a directory for the PTF installation, either within Windows Explorer, or from the DOS prompt, or re-use the directory you used to install originally, e.g.:

```
md c:\SPLTLV2R1
```

Save or copy the zip file that you downloaded or received into this directory.

Step 2

On your PC, unzip the contents of the zip file into the directory you just created using pkunzip, WinZip, Norton UnZip etc.

Step 3

On your AS/400, first sign off then sign back on again to ensure that you do have any CoolTools objects in your QTEMP library. Then decide which library you wish to use for the PTF install procedure and create a save file in that library. The name of this save file should be Q2STnnnn, where nnnn is the PTF id, e.g.

```
crtsavf lib_name/Q2ST0001
```

where **lib_name** is the name of the library you chose to use.

Step 4

On your PC, start an FTP session to your AS/400. You may use FTP packages such as CuteFTP or simply go to the DOS prompt and type:

ftp AS400_name

where AS400_name is the name of your AS/400.

You will be prompted to enter your user id and password. Please ensure that you sign on with a user id that has adequate authority. We recommend that you sign on as the Security Officer QSECOFR.

Issue the following FTP commands within the FTP session:

binary

This command instructs FTP not to carry out any conversion on the data to be sent to the AS/400.

quote site na 0

This makes sure the iSeries is using naming format 0 (library naming). This is important if your FTP attributes (CHGFTP command NAMEFMT parameter) have the initial naming format set to *PATH (IFS path naming) rather than *LIB (library/file.member naming).

cd lib_name

where lib_name is the name of the library in which you created the save file in Step 3. This command makes lib_name your current library on the AS/400.

lcd dir_name

where dir_name is the name of the directory on your PC in which you unzipped the install files earlier. This command makes dir_name your current directory on the PC.

put Q2STnnnn.sav Q2STnnnn

This command transmits the contents of the file Q2ST0001.sav, which was earlier unzipped from Q2ST0001.zip, and stores them in the save file called Q2STnnnn which you created earlier on your AS/400.

Step 5

On your AS/400, ensure that the previous step worked by displaying the contents of save file Q2STnnnn:

dspsavf lib_name/Q2STnnnn

If you see the message **(No records in save file)** then something has gone wrong during the preceding steps. Try following them again. If you still cannot get this procedure to work, contact us at support@ariadnesoftware.co.uk.

Step 6

On your AS/400, issue the following command to load the PTF on to your system:

```
lodptf          licpgm(2SPLTLS)
                dev(*savf)
                select(2STnnnn)
                savf(lib_name/Q2STnnnn)
```

where lib_name is the name of the library in which you created the save file in Step 3 and nnnn is the PTF id.

Step 7

On your AS/400, issue the following command to apply the PTF to your system:

```
apypf          licpgm(2SPLTLS)
                select(2STnnnn)
                apy(*temp)
```

where: nnnn is the PTF

If you have any trouble at any point in this procedure, please contact us by e-mail at support@ariadnesoftware.co.uk.

Method 2: Installing a PTF using the IFS

This method uses a Client Access network drive assigned to the IFS of your AS/400 to transfer the PTF from your PC to your AS/400. It is assumed that you have stored the PTF zip file (which you downloaded from the Internet or received via e-mail) on your PC.

Step 1

On your PC, create an install directory for the PTF, either within Windows Explorer, or from the DOS prompt, or use the directory you created for the original installation, e.g.:

```
md c:\PC_dir
```

where PC_dir is the name of the directory you wish to use for this installation.

Save or move the zip file that you downloaded or received into this directory.

Step 2

On your PC, unzip the contents of the zip file into the directory you just created using pkunzip, WinZip, Norton UnZip etc.

Step 3

On your PC, ensure that you have a network drive assigned to a directory in the root file system of your AS/400's IFS. This can be done in Windows Explorer by selecting Tools, Map Network Drive.

Create a directory in the IFS to receive the PTF. This can be done in Windows Explorer by selecting File, New, Folder, or at the DOS prompt as follows:

```
md I:\IFS_dir
```

where I: is the network drive assigned to your AS/400 and IFS_dir is the name of the directory you wish to use for this installation.

Step 4

Copy the contents of your PC's PTF directory created in Step 1 above to the IFS directory created in Step 3 above using Windows Explorer, or from the DOS prompt as follows:

```
copy c:\PC_dir\*. * I:\IFS_dir
```

where PC_dir is the name of the directory on your PC, I: is the network drive assigned to your AS/400 and IFS_dir is the name of the directory you wish to use for this installation.

Step 5

On your AS/400, first sign off then sign back on again to ensure that you do have any CoolTools objects in your QTEMP library. Then decide which library you wish to use for the install procedure and create a save file in that library. The save file should be called **Q2STnnnn**, where **nnnn** is the PTF id, e.g.

crtsave lib_name/Q2STnnnn

where **lib_name** is the name of the library you chose to use

and **nnnn** is the PTF id.

Step 6

On your AS/400, copy the contents of the **Q2STnnnn.sav** file (where **nnnn** is the PTF id) from the IFS directory to the save file just created, by issuing the following command:

```
copyfromstmf fromstmf('/IFS_dir/Q2STnnnn.sav')  
tombr('/qsys.lib/lib_name.lib/Q2STnnnn.file')  
mbropt(*replace)  
cvtlda(*none)  
endlinfmt(*fixed)  
tabexpn(*no)
```

where **IFS_dir** is the name of the IFS directory into which you copied the PTF files in Step 4 above, and **lib_name** is the name of the library in which you created the save file in Step 5 above.

Step 7

On your AS/400, ensure that the previous step worked by displaying the contents of save file **Q2STnnnn**:

dspsave lib_name/Q2STnnnn

If you see the message **(No records in save file)** then something has gone wrong during the preceding steps. Try following them again. If you still cannot get this procedure to work, contact us at support@ariadnesoftware.co.uk.

Step 8

On your AS/400, issue the following command to load the PTF on to your system:

```
lodptf licpgm(2SPLTLS)  
dev(*save)  
select(2STnnnn)  
save(lib_name/Q2STnnnn)
```

where **lib_name** is the name of the library in which you created the save file in Step 3 and **nnnn** is the PTF id.

Step 9

On your AS/400, issue the following command to apply the PTF to your system:

```
apyptf licpgm(2SPLTLS)  
select(2STnnnn)  
apy(*temp)
```

where: **nnnn** is the PTF

If you have any trouble at any point in this procedure, please contact us by e-mail at support@ariadnesoftware.co.uk.

Using CoolTools

Concepts

Before you can configure CoolTools to process spooled files automatically, it is necessary to understand some concepts upon which the design of CoolTools is based.

Spooled File Monitors

A **spooled file monitor** is a job which monitors for the arrival of spooled files in a ready status on one or more specified output queues. The spooled file monitor is thus the mechanism whereby CoolTools detects spooled files that it needs to process.

Technically, spooled file monitors rely upon a feature of AS/400 output queues which allow you to associate a data queue with an output queue. If an output queue has a data queue associated with it, every time a spooled file arrives on that output queue in a ready status, a message is sent to the associated data queue. The CoolTools spooled file monitor reads messages from the data queue as they are created and can thus detect spooled files that need to be processed very quickly and with very little load on the system.

It is important to note that messages are sent to the data queue only in respect of spooled files that have a status of RDY (Ready). If the spooled file is created with a status of HLD (Held), no message is sent to the data queue and the spooled file monitor job will not detect the new spooled file.

This provides a means whereby you can easily manage which spooled files are processed by CoolTools and which are not. However, if you have existing applications which create spooled files in a "Held" status, and you wish to have CoolTools process those spooled files automatically, you will need to change the application to create them in a "Ready" status instead, for example by changing printer files from HOLD(*YES) to HOLD(*NO).

Alternatively, rather than using a spooled file monitor to process spooled files automatically as they are created, you could run WRKSPLFPDM or RUNSPLFCMD periodically to process batches of spooled files with a "Held" status.

Spooled File Rules

Once a spooled file monitor job has detected that a spooled file has been created, CoolTools needs to know what to do with it. You tell it what to do with different types of spooled files by defining **spooled file rules**.

A spooled file rule basically consists of:

- A set of **criteria** which are compared with the spooled file's attributes and determine whether the rule is selected or not
- An **action** to be performed against the spooled file when the spooled file matches the criteria and is selected to be processed

The action to be performed can be one of the following:

- **Run a standard option.** These are similar to the standard options available from the WRKSPLFPDM and RUNSPLFCMD commands and cover the basic spooled file operations such as *HLD (Hold the spooled file), *RLS (Release the spooled file) and *DLT (Delete the spooled file), as well as those that require other ariadne products to

be installed such as converting the spooled file to PDF, Excel etc. using CoolSpools or emailing it using CoolSpools and Communiqué.

- **Run a user-defined option.** User-defined options are defined using the WRKUSROPT command. The user-defined option can include substitution variables which are replaced at run time with the actual corresponding spooled file attributes, e.g. &J is replaced with the name of the job which created the spooled file.
- **Run a command.** You can specify a single ad hoc command to be run against the spooled file in question. Again, substitution variables are supported.
- **Run a script.** You can run a CoolTools spooled file script against the spooled file (see below).

Spooled File Scripts

A **spooled file script** provides a way of specifying a group of actions which will occur together in specified sequence. Each individual action is defined as a **spooled file script entry** which can be either:

- a standard spooled file option
- a user-defined option
- a command string
- a call to another script.

Each spooled file script consists of between zero or more script entries (maximum 9,999).

Spooled File Transactions

A data queue is a volatile storage area. It has the great advantage that data can be written to and read from a data queue very quickly and with minimal system overhead. However, once an entry has been removed from a data queue, it has been lost permanently and cannot be recovered.

In order to provide a robust and reliable system for managing spooled file, CoolTools therefore uses a combination of data queues and database files. Data queues are used to notify processes of events that have occurred (such as the creation of a new spooled file) in an efficient manner. However, as soon as a process has been notified of an event, it will save the information it has received in a database file in order to ensure that this information is not lost, and that it can be managed subsequently.

One example of this is the creation of **spooled file transactions**. Each time a new spooled file is created and detected by a spooled file monitor, the monitor will create a spooled file transaction record in a database file. This spooled file transaction record can then be used to manage the operations that are required to be applied to the spooled file subsequently.

Transaction Rule Steps

Each spooled file transaction will be analyzed by CoolTools according to the spooled file rules that have been defined. Where the spooled file in question matches the criteria for a rule, CoolTools will select the rule and will perform the corresponding action or actions that the rule defines on the spooled file. Each action to be performed against a spooled file as a result of a spooled file rule having been selected in relation to a spooled file transaction is called a **transaction rule step**.

Authorities

Version 2 of CoolTools introduces a completely new, and much more flexible and granular system of authorities, allowing close control over which users can perform which functions.

This system of authorities is based upon the concept of **user function registration** which is a feature of the iSeries operating system (see <http://publib.boulder.ibm.com/infocenter/iseries/v5r3/index.jsp>) and is thus highly secure. User authority to registered functions are stored securely as part of the iSeries user profile and can be saved and restored like other iSeries authorities.

CoolTools uses these features to determine which users are able to:

- run WRKSPLFPDM standard options (e.g. who can select option 4=Delete against a spooled file)
- run WRKSPLFPDM user-defined options (e.g. if you define an option MV to move a spooled file to a different output queue, who can run that option)
- use the various parameters of the different CoolSpools' commands (e.g. whether a particular user can modify the default value of the FROMEMAIL parameter of the CVTSPLPDF command)
- select certain specially controlled CoolSpools features (e.g. the "Delete after sending" option of the EMAILOPT parameter).

Each of these features will be identified by means of a named registered function. Authority to particular features can then be set at the level of:

- "Default" (*PUBLIC) authority
- Group profile authority
- Individual user authority

CoolTools WRKREGFNC (Work with Registered Functions) command provides a convenient means of managing these CoolTools authorities, although it is also possible to manage them through the IBM-supplied commands and APIs, if preferred (e.g. WRKFCNUSG).

The CoolTools Menu

The CoolTools menu is the simplest starting point for working with CoolTools commands. You display the CoolTools menu by entering this command:

GO SPLTLSV2R1/COOLTOOLS
GO COOLSPV5R1/COOLTOOLS

(standalone version of CoolTools)
(CoolSpools Plus)

COOLTOOLS

CoolTools Menu

Select one of the following:

- | | |
|-------------------------------------|-----------------------------------|
| 1. Work with spooled files | 2. Process spooled files in batch |
| 11. Work with std. options (system) | 14. Work with std. options (user) |
| 12. Work with user options | 15. Security options |
| 13. Work with registered functions | 16. Convert PDM options |
| 21. Work with spooled file monitors | 23. Work with spooled file rules |
| 22. Work with spooled file scripts | |
| 31. Start monitoring spooled files | 32. End monitoring spooled files |
| 41. Unprocessed splf transactions | 43. All splf transactions |
| 42. Splf transactions in error | 44. Work with transaction status |

Selection or command

===>

F3=Exit F4=Prompt F9=Retrieve F12=Cancel
F13=Information Assistant F16=AS/400 main menu

--

The options available from this menu are as follows:

1 Work with spooled files.

This option runs the WRKSPLFPDM command. It provides an online facility for selecting and managing spooled files.

2 Process spooled files in batch

This option will prompt the submission of a job to run the RUNSPLFCMD command. It allows you to run a job to perform spooled file operations in batch.

11 Work with std. options (system)

This is equivalent to running WRKSTDOPT USER(*SYSDFT). It enables you to customize the default system standard options 1-12 available in WRKSPLFPDM and RUNSPLFCMD.

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

Also, in order to run WRKSTDOPT to customize the system default standard options, you must have authority to function AR_ST_STD_OPT_SYS_DFT_CHG (see “Authorities” earlier in this User Guide).

12 Work with user options

This is equivalent to running WRKUSROPT. It lets you work with CoolTools user-defined options.

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

13 Work with registered functions

This is equivalent to running WRKREGFNC. It lets you work with ariadne registered functions. See the section on “Authorities” earlier in this User Guide for a discussion of registered functions.

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

14 Work with std. options (user)

This is equivalent to running WRKSTDOPT for a user other than *SYSDFT. It enables you to customize the default system standard options 1-12 available in WRKSPLFPDM and RUNSPLFCMD for a particular user (by default, the current user).

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

Also, in order to run WRKSTDOPT to customize the standard options for a user other than yourself, you must have authority to function AR_ST_STD_OPT_OTH_USR_CHG (see “Authorities” earlier in this User Guide).

15 Security functions

Displays the COOLSECUR menu.

16 Convert PDM options

Runs the CVTPDMOPT (Convert PDM options) command to allow the importing of user-defined options from a PDM options file.

21 Work with spooled file monitors

This is equivalent to running WRKSPLMON. It provides a facility for managing spooled file monitors.

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

22 Work with spooled file scripts

This is equivalent to running WRKSPLSCP. This is where you create, change and delete spooled file scripts and their entries.

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

23 Work with spooled file rules

This is equivalent to running WRKSPLRUL. This lets you manage spooled file rules.

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

31. Start monitoring spooled files

This is equivalent to running STRMONSPLF. It starts a set of jobs which monitor and process spooled files.

32. End monitoring spooled files

This is equivalent to running ENDMONSPLF. It ends the jobs started by the previous option.

41. Unprocessed splf transactions

This is equivalent to running WRKSPLTRN OPTION(*UNPRC). It shows you a list of spooled file transactions which have not yet been processed.

42. Splf transactions in error

This is equivalent to running WRKSPLTRN OPTION(*ERROR). It shows you a list of spooled file transactions which are in error.

43. All spooled file transactions

This is equivalent to running WRKSPLTRN OPTION(*ERROR). It shows you a list of all spooled file transactions.

44. Work with transaction status

This is equivalent to running WRKTRNSTS. It displays a screen summarizing the current processing position and providing some basic statistics.

The CoolTools Security Menu

The CoolTools Security menu provides some options relating to CoolTools security.

Select option 15 from the CoolTools menu or run:

GO SPLTLSV2R1/COOLSECUR

(standalone version of CoolTools)

GO COOLSPV5R1/COOLSECUR

(CoolSpools Plus)

COOLSECUR

CoolTools Security Menu

Select one of the following:

1. Activate security features (creates CoolTools registered functions)
2. Deactivate security features (deletes CoolTools registered functions)

11. Save registered functions.
12. Restore registered functions.

21. Convert authorities from V1 to V2

Selection or command

===>

F3=Exit F4=Prompt F9=Retrieve F12=Cancel

F13=Information Assistant F16=AS/400 main menu

--

The options available from this menu are as follows:

1 Activate security features

This option sets up the CoolTools security environment when this was not possible at install time because the product was installed by a user without *SECADM or *ALLOBJ special authorities.

2 Deactivate security features

This option deletes the CoolTools security environment.

11 Save registered functions

Saves a snapshot of your registered functions in a stream file. This allows the authorities to options and parameters to be restored if required subsequently.

12 Restore registered functions

Restores one or more registered functions from the snapshot stream file created by running SAVREGFNC.

21 Convert authorities from V1 to v2

Runs the CVTAUT utility to set up Version 2 authorities based on the way capabilities by user class were defined in your Version 1 configuration.

WRKSPLFPDM (Work with Spooled Files PDM-style)

The **WRKSPLFPDM** (Work with Spooled Files PDM-style) command lets you to operate on sets of related spooled files interactively or in batch.

The first group of command parameters provides selection criteria you can use to define the spooled files you want to work with or process.

To run WRKSPLFPDM, enter this command:

SPLTLSV2R1/WRKSPLFPDM	(standalone version of CoolTools)
COOLSPV5R1/WRKSPLFPDM	(CoolSpools Plus)

USER

The **USER** (User) parameter allows you to select spooled files based on the user profile of the user who created them.

Possible values are:

*CURRENT	(Default) Only files created by the user running this command are selected.
*ALL	Files created by all users are selected.
user-name	Specify a user name. Only files created by that user name are selected.

SPLFNAME

The **SPLFNAME** (Spooled File Name) parameter allows you to select spooled files by spooled file name.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of their name.
-------------	--

generic*-splf	Specify the generic name of the spooled files to be listed. A generic name is a character string that contains one or more characters followed by an asterisk (*).
splf-name	Specify a spooled file name. Only files with that spooled file name are selected.

PRTDEV

The **PRTDEV** (Printer device) parameter allows you to select spooled files based on the printer device with which they are associated.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of the printer device with which they are associated.
prtdev-name	Specify a printer device name. Only files on the device output queue for the specified printer device will be selected.

OUTQ

The **OUTQ** (Output queue) parameter allows you to select spooled files based on the output queue with which they are associated. If a printer device output queue is specified, this is equivalent to specifying the printer device name on the previous parameter.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of the output queue with which they are associated.
outq-name	Specify an output queue name. Only files on the output queue will be selected.

FORMTYPE

The **FORMTYPE** (Form type) parameter allows you to select spooled files based on their form type.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of their form type.
*STD	Only spooled files with the standard form type are selected.
form_type	Specify a form type. Only files with this form type will be selected.

USRDTA

The **USRDTA** (User Data) parameter allows you to select spooled files based on their user data attribute.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of their user data attribute.
user_data	Specify the user data attribute. Only files with this user data attribute will be selected.

JOB

The **JOB** (Job) parameter allows you to select spooled files based on the job with which they are associated.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of the job with which they are associated.
*	The current job. Only spooled files associated with the current job are selected.
qual-job-name	Enter a full qualified job name. Only spooled files associated with this job are selected.
*ANY	Can be used for the user id and job number components of the fully qualified job name to indicate that CoolTools should select jobs based on the job name alone and ignore the user id and/or job number.

SPLNBR

The **SPLNBR** (Spooled File Number) parameter allows you to select spooled files based on their spooled file number.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of their spooled file number.
spl_nbr	Specify the spooled file number. Only files with this spooled file number will be selected.

FROMDATE

The **FROMDATE** (From Date) parameter allows you to select spooled files based on their creation date.

Possible values are:

*EARLIEST	(Default) Spooled files are selected irrespective of how early their creation date is.
from_date	Specify the earliest creation date. Only files with a creation date equal to or after this date will be selected.

TODATE

The **TODATE** (To Date) parameter allows you to select spooled files based on their creation date.

Possible values are:

*LATEST	(Default) Spooled files are selected irrespective of how recent their creation date is.
to_date	Specify the latest creation date. Only files with a creation date equal or prior to this date will be selected.

AGERANGE

The **AGERANGE** (Age Range) parameter allows you to select spooled files based on their creation date, but, rather than entering specific dates on the FROMDATE and TODATE parameters, you may enter an age range in days. This is often more convenient for automated operations than specifying a date range.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of how long ago they were created.
*MIN	The value *MIN for the “from” element of the range indicates that there is no lower limit for the age range, i.e. that spooled files will be included so long as they are more recent than the upper limit.
*MAX	The value *MAX for the “to” element of the range indicates that there is no upper limit for the age range, i.e. that spooled files will be included so long as they are older than the lower limit.
age_range	Enter an age range in days. Spooled files are selected based on their creation date. If the current date minus the creation date falls in this range of days, the spooled file will be selected. The calculation of the number of days is based on the date alone and takes no account of the time. For example, a spooled file created one minute before midnight on one day will be considered to be one day old if processed by CoolTools one minute after midnight (i.e. only two minutes later).

STATUS

The **STATUS** (Spooled File Status) parameter lets you select spooled files based on their status.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of their status.
*READY	Spooled files are selected if their status is “ready”.
*HELD	Spooled files are selected if their status is “held”.
*SAVED	Spooled files are selected if their status is “saved”.

The remaining parameters appear only if F9 or F10 is pressed when the command is prompted.

DEVTYPE

The **DEVTYPE** (Printer device type) parameter allows you to select spooled files based on their printer device type attribute.

Possible values are:

*ALL	(Default) Spooled files are selected irrespective of their printer device type attribute.
*SCS	Only *SCS spooled files are selected.
*IPDS	*IPDS spooled files.
*AFPDS	*AFPDS spooled files.
*AFPDSL	*AFPDSL spooled files.
*LINE	*LINE spooled files.
*USERASCII	*AFPDS spooled files.

MODE

The **MODE** (Run mode) parameter allows you to specify the mode in which WRKSPLFPDM runs.

Possible values are:

*JOBTYPE	(Default) The run mode is determined by the type of job. If the job running the WRKSPLFPDM command is a batch job, WRKSPLFPDM runs in batch mode, otherwise it runs in interactive mode.
*BATCH	WRKSPLFPDM runs in batch mode. If the job running the WRKSPLFPDM command is an interactive job, WRKSPLFPDM runs as it would do if the job were a batch job, in other words the spooled file list is not displayed and the option supplied on the OPTION parameter is automatically applied to each spooled file selected.

OPTION

The **OPTION** (Batch processing option) parameter allows you to specify the option which will be processed against each selected spooled file when the command is run in batch.

This parameter is mandatory when the command is run in batch and is ignored if it is run interactively.

Possible values are:

*NONE	(Default) No option is specified. This is invalid if the command is submitted to batch. In batch mode, an option is required otherwise WRKSPLFPDM has nothing to do.
option	Specify either one of the standard options available when the command is run interactively, or a user-defined option. Refer to the section on the WRKSPLFPDM command above for a list of the standard options supplied with CoolTools. These standard options may be customized using the WRKSTDOPT command. User-defined options are defined using the WRKUSROPT command and, like PDM user-defined options, can include substitution variables.

OPTPARM

The **OPTPARM** (Option parameters) parameter enables you to supply additional command parameters for use with the batch processing option specified on the **OPTION** parameter.

Possible values are:

*NONE	(Default) There are no additional parameters.
parameters	Specify additional parameters which will be used in addition to the basic parameters associated with the option defined on the OPTION parameter.

For example:

```
WRKSPLFPDM
  USER(*CURRENT)
  SPLFNAME(QPJOBLOG)
  OPTION(2)
  OPTPARM('outq(joblogs)')
```

If run in batch mode, this command selects all spooled files for the current user called **QPJOBLOG** and runs option 2 (Change spooled file attributes) against each of them in turn. The attribute which is changed is specified on the **OPTPARM** parameter: the spooled files are moved to output queue **JOBLOGS**.

Substitution variables (see Page 96) may be used on this parameter, for example:

```
WRKSPLFPDM
  ...
  MODE(*BATCH)
  OPTION(20)
  OPTPARM('tostmf(&f.pdf) emailto((&m &e *PRI))')
```

All spooled files selected by this command will have option 20 (Send PDF) applied to each of them in turn. The stream file name will be the name of the spooled file (as denoted by substitution variable **&F**) with an extension of .PDF. The stream files will be emailed to the email address of the user who created the spooled file (as denoted by substitution variables **&M** and **&E**).

CMD

The **CMD** (Command) parameter enables you to specify a full command (typically CVTSPLSTMF but possibly other commands in future) which will be run against each selected spooled file when WRKSPLFPDM is run in batch mode.

This parameter cannot be used at the same time as the **OPTION** parameter. You may tell WRKSPLFPDM what to do with each spooled file selected *either* by using a standard or user-defined option on the **OPTION** parameter *or* by specifying a full command on the **CMD** parameter, but not both.

The main advantage of using the **CMD** parameter over the **OPTION** parameter is that the command you enter will be syntax checked and prompting is available by use of the F4 command. This also allows access to the command help text.

Substitution variables may be used on most parameters (see Page 96). However, due to constraints imposed by the OS/400 command processor and prompter, substitution variables cannot be entered on the **FROMFILE**, **JOB** and **SPLNBR** parameters. Instead,

you should use the special value ***SLT** on those parameters to denote that the command is to be applied to the selected spooled file.

For example:

WRKSPLFPDM

```
..
MODE(*BATCH)
CMD('CVTSPLSTMF FROMFILE(*SLT)
TOSTMF('/home/&U/&F.PDF')
JOB(*SLT)
SPLNBR(*SLT)
TOFMT(*PDF)
STMFOPT(*REPLACE)')
```

Here, the specified CVTSPLSTMF command will be run against each selected spooled file. ***SLT** is specified for each of the FROMFILE, JOB and SPLNBR parameters to indicate that the spooled file to be processed is the one currently selected by CoolTools. The stream file created will be named the same as the spooled file (as indicated by **&F**) and will be placed in the user's home directory (assuming it is named the same as the user profile, which is denoted by **&U**).

ERRACN

The **ERRACN** (Error action) parameter allows you to control how CoolTools behaves when the processing of an option against a spooled file ends in error.

Possible values are:

***STOP**

(Default) If the processing of an option against a spooled file ends in error, CoolTools will not process any further options and will immediately report the error.

In interactive mode, the user will see an error message specific to the failed option in the message subfile followed by message **SPL9998** indicating that an error occurred and that option processing was aborted.

In batch mode, message **SPL9998** is issued as an escape message and the job will end abnormally unless this message is monitored by a calling application.

***CONTINUE**

If the processing of an option against a spooled file ends in error, CoolTools will process any further options and will not report the error until all requested options have been attempted.

In interactive mode, the user will see a message specific to the options attempted in the message subfile followed by message **SPL9999** indicating that one or more errors occurred while processing options.

In batch mode, message **SPL9999** is issued as an escape message and the job will end abnormally, but only after all requested options have been attempted.

LOG

The **LOG** (Log options?) parameter allows you to specify whether option processing is logged in the CoolTools log file.

Possible values are:

- *JOBTYPE** (Default) Logging is determined by the job type, interactive or batch. In batch, options will be logged. Interactively, options are not logged.
- *YES** Option processing is logged.
- *NO** Option processing is not logged.

When logging of option processing is active, CoolTools writes a record to log file **ST_SPLLOG** every time an option is processed against a spooled file. This information provides a useful audit trail for keeping track of what has happened to a spooled file and can be used to drive applications which manage spooled files. For example, an archiving application could check the log file to ensure that a spooled file has been successfully saved before deleting the spooled file.

JOB

The **JOB** (Job description) parameter allows you to specify the job description which is used to submit option processing to batch when F19 is pressed in interactive mode.

Possible values are:

- *USRPRF** (Default) The job description associated with the user profile of the user running the WRKSPLFPDM command is used.
- jobd_name** Specify the job description to be used.

Working with Spooled Files in Interactive Mode

When WRKSPLFPDM is run in interactive mode, it selects spooled files according to the selection criteria defined on the command parameters and then displays the resulting list on screen for you to work with.

The screen looks something like this. The actual option text will depend on whether the standard options have been customized or not.

```
-----  
CoolTools V2R1M0 - Work with Spooled files PDM-style      ARIADNE1  
  
Type options, press Enter.  
  1=SNADS send    2=Change        3=Hold          4=Delete        5=Display  
  6=Release       7=Messages      8=Attributes    9=Status        10=PDF...  
  
                                File  User      Form  
Opt File      Job      User      Number Nbr  Data      Type      Sts  
  ST_LICFNCR  SL_BUILD  ARIADNE   158805    75        *STD      RDY  
  ST_WRKSPLD  ST_BUILD  ARIADNE   158808    48        *STD      RDY  
  ST_USROPTD  ST_BUILD  ARIADNE   158808    49        *STD      RDY  
  ST_STDOPTD  ST_BUILD  ARIADNE   158808    50        *STD      RDY  
  ST_WRKMOND  ST_BUILD  ARIADNE   158808    51        *STD      RDY  
  ST_WRKRULD  ST_BUILD  ARIADNE   158808    52        *STD      RDY  
  ST_WRKSCPD  ST_BUILD  ARIADNE   158808    53        *STD      RDY  
  ST_WRKSCED  ST_BUILD  ARIADNE   158808    54        *STD      RDY  
  
More...  
  
Parameters or command  
====>  
  
F3=Exit      F5=Refresh    F7=Defaults    F8=Select      F11=View 2  
F12=Cancel   F13=Repeat    F14=Subset     F15=Sort date  F24=More keys  -  
-----
```

Pressing F11 displays View 2 showing additional information for the same spooled files.

Type options, press Enter.

1=SNADS send 2=Change 3=Hold 4=Delete 5=Display
6=Release 7=Messages 8=Attributes 9=Status 10=PDF...

Opt	File	Queue or Device	Library	Creation Date	Creation Time	Nbr of Pages	Current Page	Pty
	ST_LICFNCR	PRT01	QUSRSYS	17/02/06	00.18.26	56		5
	ST_WRKSPLD	PRT01	QUSRSYS	17/02/06	00.34.05	25		5
	ST_USROPTD	PRT01	QUSRSYS	17/02/06	00.34.07	11		5
	ST_STDOPTD	PRT01	QUSRSYS	17/02/06	00.34.08	14		5
	ST_WRKMOND	PRT01	QUSRSYS	17/02/06	00.34.09	12		5
	ST_WRKRULD	PRT01	QUSRSYS	17/02/06	00.34.10	12		5
	ST_WRKSCPD	PRT01	QUSRSYS	17/02/06	00.34.11	6		5
	ST_WRKSCED	PRT01	QUSRSYS	17/02/06	00.34.12	10		5

More...

Parameters or command

====>

F3=Exit F5=Refresh F7=Defaults F8=Select F11=View 1
F12=Cancel F13=Repeat F14=Subset F15=Sort date F24=More keys

Options

There are two types of option that can be input against items in the list:

- **Standard options.**

These include the normal spooled file operations such as 3=Hold, 4=Delete, 6=Release as well as special options requiring other ariadne software such as 10=PDF (Convert to PDF using CoolSpools) and 20=Email PDF (Convert to PDF using CoolSpools and email using Communiqué).

Standard options can be customized using the WRKSTDOPT command.

- **User-defined options.**

Any entry in the option field which is not recognized as a standard option will be interpreted as a user-defined option.

User-defined options are created with WRKUSROPT.

Whether a given user has authority to run a particular standard or user-defined option is controlled by the user's authority to the appropriate registered function. Refer to the "Authorities" section for further details.

Standard options

The following standard options are shipped with CoolTools but can be customized using the WRKSTDOPT command.

The underlying command strings are available to view in database file ST_STDOPT.

Standard Options as supplied when CoolTools first installed

Opt	Text 'Description'	Normal Command String
1	Send spooled files using SNADS	?SNDNETSPLF ?*FILE(&f) ?*JOB(&n/&u/&j) ?*SPLNBR(&s)
2	Change Spooled File	CHGSPLFA FILE(&f) JOB(&n/&u/&j) SPLNBR(&s)
3	Hold spooled file	HLDSPLF FILE(&f) JOB(&n/&u/&j) SPLNBR(&s)
4	Delete spooled file	DLTSPLF FILE(&f) JOB(&n/&u/&j) SPLNBR(&s)
5	Display spooled file	DSPSPLF FILE(&f) JOB(&n/&u/&j) SPLNBR(&s)
6	Release spooled file	RLSSPLF FILE(&f) JOB(&n/&u/&j) SPLNBR(&s)
7	Display spooled file messages	&C/WRKSPLFMSG MSGQ(&W/&V)
8	Work with spooled file attributes	WRKSPLFA FILE(&f) JOB(&n/&u/&j) SPLNBR(&s)
9	Work with printing status	&C/WRKPRTSTS FILE(&f) JOB(&n/&u/&j) SPLNBR(&s)
10	Convert spooled file to PDF	&C/CVTSPPLPDF FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
11	Convert spooled file to Excel	&C/CVTSPPLXLS FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
12	Convert spooled file to HTML	&C/CVTSPPLHTML FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
13	Convert spooled file to CSV	&C/CVTSPPLCSV FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
14	Convert spooled file to Text	&C/CVTSPPLTXT FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
15	Convert spooled file to RTF	&C/CVTSPPLRTF FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
16	Convert spooled file to TIFF	&C/CVTSPPLTIFF FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
17	Convert spooled file to spooled file	&C/CVTSPPLSPLF FROMFILE(&F) TOFILE(&F) JOB(&N/&U/&J) SPLNBR(&S)
20	Email spooled file as a PDF	&C/CVTSPPLPDF FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE) EMAIL(*YES)
21	Email spooled file as Excel	&C/CVTSPPLXLS FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE) EMAIL(*YES)
22	Email spooled file as HTML	&C/CVTSPPLHTML FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE) EMAIL(*YES)
23	Email spooled file as CSV	&C/CVTSPPLCSV FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE) EMAIL(*YES)
24	Email spooled file as Text	&C/CVTSPPLTXT FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE) EMAIL(*YES)
25	Email spooled file as RTF	&C/CVTSPPLRTF FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE) EMAIL(*YES)
26	Email spooled file as TIFF	&C/CVTSPPLTIFF FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE) EMAIL(*YES)
30	Save spooled file	&C/SAVSPLF FROMFILE(&F) TOSTMF('&F_&N_&U_&J_&S.&X') JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
50	Run script	&C/RUNSPLSCP SPLFNAME(&F) JOB(&N/&U/&J) SPLNBR(&S)

You can also enter certain standard options in the following form, but be aware that the function performed by these standard options could differ from that implied by the mnemonic if the option command have been customized:

- *SND=standard option 1 (Send spooled file using SNADS)
- *CHG=standard option 2 (Change spooled file attributes)
- *HLD=standard option 3 (Hold spooled file)
- *DLT=standard option 4 (Delete spooled file)
- *DSP=standard option 5 (Display spooled file)
- *RLS=standard option 6 (Release spooled file)
- *MSG=standard option 7 (Display spooled file messages)
- *ATR=standard option 8 (Display spooled file attributes)
- *STS=standard option 9 (Display print status)

The text description and the command string that is run when the option is selected can be modified using the WRKSTDOPT command. It is possible to customize standard options at two levels:

- System defaults. Changes made at system default level affect all users who have not customized the own individual standard options
- User. Individual users may customize standard options for their own use.

User-defined options

One of the most powerful features that WRKSPLFPDM has to offer is its ability to process user-defined options and commands that contain substitution variables.

Note:

Version 2 of CoolTools only supports user-defined options created and managed using the WRKUSROPT command. Unlike Version 1, it no longer supports PDM user-defined options.

If you have PDM user-defined options which you would like to use in Version 2, these can easily be converted to the format that CoolTools supports by means of the CVTPDMOPT command included with the product.

User-defined options can be input against spooled files in the list that is shown when WRKSPLFPDM is run in interactive mode, just as you might enter a PDM user-defined option against an item in a PDM list.

Alternatively, user-defined options can be specified on the OPTION parameter which determines the processing that WRKSPLFPDM or RUNSPLFCMD runs against a set of spooled files when it runs in batch mode.

Finally, user-defined options can be selected as the action to be performed when a spooled file rule is applied to a spooled file.

Function keys

Available function keys are:

- | | |
|-------------------|-----------------------------|
| F3=Exit | Exit the application. |
| F4=Prompt | Prompt a command or option. |
| F5=Refresh | Refresh the list. |

F7=Defaults	Change the standard option definitions. Standard option details specified here are saved by user and are separately definable for each user. For a user to be able to change a standard option, the user must be authorized to registered function AR_ST_STD_OPT_nn_CHG , where nn is the standard option number.
F11=View 1/View 2	Toggles the display between the View 1 and View 2.
F12=Cancel	Return to the previous screen.
F13=Repeat	Repeats an option input against the list to the end of the list (as per PDM).
F14=Subset	Modify the selection criteria to select a different set of spooled files.
F15=Sort by date	Sort the display by date (if not already sorted by date). Displays a date positioner to allow you to position the display by date.
F16=Sort by name	Sort the display by name (if not already sorted by name). Displays a name positioner to allow you to position the display by name.
F17=Top	Position the display to the top of the list.
F18=Bottom	Position the display to the end of the list.
F19=Submit	Submits a job to runs the option in batch.
F20=Prompt/Submit	Prompts the command in the same way as F4, then submits a job to runs the option in batch in the same was as F19.
F23=More options	Displays additional standard options.
F24=More keys	Displays additional function keys

Working with Spooled Files in Batch Mode

The **RUNSPLFCMD** (Run Spooled File Commands) command is identical to WRKSPLFPDM when run in batch mode, i.e. it selects a set of spooled files and runs an option or command against each of those spooled files, but has no user interface. It is basically provided as an alternative to WRKSPLFPDM because some users were uncomfortable with the concept of a “work-with” command which had no user interface!

Parameters are identical to WRKSPLPDM except that the option to run in “interactive” mode is removed.

WRKSTDOPT (Work with Standard Options)

The **WRKSTDOPT** (Work with Standard Options) command lets you customize the standard options used by the WRKSPLFPDM and RUNSPLFCMD commands, and which can be also be used as actions triggered by spooled file rules.

This command is intended to be an administrator function and is shipped with public *EXCLUDE authority. You will need to be signed on as a user with *ALLOBJ authority, or be granted authority by your security officer, in order to run this option.

The following authority considerations apply (see “Authorities” earlier in this User Guide):

- In order to run WRKSTDOPT to customize the system default standard options, you must have authority to function AR_ST_STD_OPT_SYS_DFT_CHG
- In order to run WRKSTDOPT to customize the standard options for a user other than yourself, you must have authority to function AR_ST_STD_OPT_OTH_USR_CHG
- In order to customize a particular option, you must have authority to registered function AR_ST_STD_OPT_nn_CHG where nn is the option number (two digits 01-12)

The program displays the twelve possible standard options.

CoolTools V2R1M0 - Work with Standard Options

ARIADNE1

Options for . . *SYSDFT System defaults

Type options, press Enter.

2=Change 5=Display

Opt	Option	Text
	01	Send spooled files using SNADS
	02	Change Spooled File
	03	Hold spooled file
	04	Delete spooled file
	05	Display spooled file
	06	Release spooled file
	07	Display spooled file messages
	08	Work with spooled file attributes
	09	Work with printing status
	10	Email spooled file using CoolSpools
	11	Convert spooled file using CoolSpools
	12	Save spooled file using CoolSpools

The “Options for” header field indicates at what level you are customizing the standard options:

- **User-level (user name shown)**

Any customization made at this level will only affect the running of the standard option in question for the user concerned.

- **System defaults (*SYSDFT)**

Any customization made at this level will apply system-wide and will affect the running of the standard option in question for all users who do not have a personal customized version of that standard option.

For example, standard option 10 is supplied with the command string set to:

```
CVTSPLPDF
  FROMFILE(&F)
  TOSTMF('&F_&N_&U_&J_&S.&X')
  JOB(&N/&U/&J)
  SPLNBR(&S)
  STMFOPT(*REPLACE)
```

You may well decide that, for safety's sake, you would like the default value of the STMFOPT parameter to be *NONE rather than *REPLACE. You could change the defined command string for option 10 in WRKSTDOPT at *SYSDFT level and the new value would then be used by all users thereafter,

However, if an individual user decided that he or she would prefer, for the sake of convenience, to have STMFOPT default to *REPLACE, and that user had authority to modify the standard option in question., he/she could modify the command string just for his or her personal usage by running WRKSTDOPT *CURRENT.

Options

Options that can be input against entries in the list are:

2=Change

Change the standard option. The changes you make will affect:

- Only the specified user in question if the USER parameter of the WRKSTDOPT command specified a user profile (was not *SYSDFT)
- All users who do not have customized options of their own if the WRKSTDOPT(*SYSDFT) was specified.

5=Display

Display the standard option.

Function keys

Available function keys are:

F3=Exit

Exit the application.

F5=Refresh

Refresh the list.

F10=Normal command

Display the command string used when the standard option is run without prompting (F4).

F11=Prompted command

When the list is showing the command string associated with the user-defined option, pressing F11 displays the descriptive text instead.

F12=Cancel

Return to the previous screen.

Attributes

When a standard option is being created or changed, a screen similar to this one is displayed:

```
Change Standard Option

Option . . . . . 10

Text 'description' . . . Convert spooled file to PDF
Heading text . . . . . 10=PDF
Confirmation required . . N
Normal command . . . . . CVTSPDF FROMFILE(&F) TOSTMF(' &F_&N_&U_&J_&S.&X')
JOB(&N/&U/&J) SPLNBR(&S) STMFOPT(*REPLACE)
```

```
F3=Exit   F4=Prompt  F12=Cancel  F14=Default  PgDn=Prompted command
```

The following attributes are definable:

- | | |
|------------------------------|--|
| Text 'description' | A piece of text associated with the user-defined option and intended to describe its purpose or function. |
| Heading text | A short description of the option which will appear in the option lines at the top of the WRKSPLFPDM screen. |
| Confirmation required | Whether you will be prompted for confirmation before the option is run (as is normal with option 4=Delete). |

Normal command

The command string the system is to run when the option is applied to a spooled file. The string can contain substitution variables (see Page 96).

When defining the command string, F4 can be pressed to prompt the command.

The command defined here is the “normal” command which is run when the option is entered and F4 is not pressed to prompt it.

Prompted command

The command string the system is to run when the option is entered against a spooled file and F4 is pressed to prompt it.

The string can contain substitution variables (see Page 96).

The command string must start with the prompt character “?”. If a ? is not supplied, CoolTools will add it for you. You may also specify selective prompting characters before any parameters which you wish to protect from input, hide, supply defaults for etc.

See the [CL Programming Guide](#) for details of the selective prompt characters that can be used.

Function keys

Available function keys are:

F3=Exit

Exit the application.

F4=Prompt

Prompt the command string.

F12=Cancel

Return to the previous screen.

F14=Default

If defining a user-level customized command, F14 replaces the command string with the current system default command.

If defining a system default command, F14 replaces the command string with the system-supplied command string.

F15=Copy normal

When displaying the prompted command string, F15 copies the normal command string to the prompted command string and adds the necessary ? at the beginning.

PgUp=Normal

When displaying the prompted command, Page Up switches to displaying the “normal” command.

PgDn=Prompted Command

When displaying the “normal” command, Page Down switches to displaying the prompted command.

WRKUSROPT (Work with User Options)

The **WRKUSROPT** (Work with User Options) command lets you define user-defined options which can be used in conjunction with the WRKSPLFPDM and RUNSPLFCMD commands, and which can be also be used as actions triggered by spooled file rules.

The program displays a list of existing user-defined options.

CoolTools V2R1M0 - Work with User-defined Options

ARIADNE1

Position to

Type options, press Enter.

2=Change

3=Copy

4=Delete

5=Display

Opt Option Text

CR Create spooled file transaction

CS CoolSpools

Bottom

F3=Exit

F5=Refresh

F6=Add

F11=Display command

F12=Cancel

Options

Options that can be input against entries in the list are:

2=Change

Change the user-defined option

3=Copy

Copy the selected user-defined option to create a new user-defined option.

4=Delete

Delete the user-defined option.

5=Display

Display the user-defined option.

Function keys

Available function keys are:

F3=Exit

Exit the application.

F5=Refresh

Refresh the list.

F6=Create

Create a new user-defined option.

F11=Display command

When the list is showing the descriptive text associated with the user-defined option, pressing F11 displays the command string instead.

F11=Display text

When the list is showing the command string associated with the user-defined option, pressing F11 displays the descriptive text instead.

F12=Cancel

Return to the previous screen.

Attributes

When a user-defined option is being created or changed, a screen similar to this one is displayed:

Create User-Defined Option

Type choices, press Enter.

Option

Text 'description' . . . *BLANK

Command string

F3=Exit

F4=Prompt

F12=Cancel

The following attributes are definable:

Text 'description'

A piece of text associated with the user-defined option and intended to describe its purpose or function.

Command string

The command string the system is to run when the option is applied to a spooled file. The string can contain substitution variables (see Page 96).

When defining the command string, F4 can be pressed to prompt the command.

WRKREGFNC (Work with Registered Functions)

The **WRKREGFNC** (Work with Registered Functions) command lets you define user-manage user authorities to various CoolTools and CoolSpools features, such as standard options (e.g. 4=Delete), user-defined functions and command parameters.

When run, WRKREGFNC displays a list of registered functions associated with the ariadne software you have installed. The names of these functions all started AR_ (for ariadne) followed by a mnemonic indicating the product to which the function belongs (CS = CoolSpools, ST=CoolTools, CM=Communiqué, SL=Slipstream), then a descriptive name for the function.

```
                CoolTools V2R1 - Work with Registered Functions                ARIADNE1

Position to function . . .
Base function for 7=Copy . . . . . *NONE

Type options, press Enter.
    2=Change    5=Display    7=Copy from base    8=Specials    9=Select as base

Opt Function
AR_COOLSPOLS                CoolSpools V5R1M0
  AR_CS_SPECIAL_OPTIONS      CoolSpools options that can be restricte
    AR_CS_DLT_AFTER_EMAIL_YES Delete after sending?
AR_CS_CVTSPPLCSV            Convert Spooled File to CSV
  AR_CS_CVTSPPLCSV_FROMFILE  From spooled file name
  AR_CS_CVTSPPLCSV_TOSTMF    To stream file name or *FTP
  AR_CS_CVTSPPLCSV_JOB       Job name
  AR_CS_CVTSPPLCSV_SPLNBR    Spooled file number
  AR_CS_CVTSPPLCSV_STMFOPT   Stream file option
  AR_CS_CVTSPPLCSV_FTP       FTP parameters
  AR_CS_CVTSPPLCSV_EMAIL     Email the output?
  AR_CS_CVTSPPLCSV_EMAILOPT  Email options

                                                                More...

F3=Exit    F5=Refresh    F12=Cancel
```

Options

Options that can be input against entries in the list are:

- | | |
|------------------|---|
| 2=Change | Change user authorities to the function |
| 5=Display | Display user authorities to the function. |

7=Copy from base

Set the user authorities to the function by copying the authorities associated with the “base” function. The base function must first be selected by using option 9=Select as base. This facility provides a quick and easy way of setting up authorities: just define them once for a single function, then duplicate those authorities where appropriate for other similar functions.

8=Specials

Display user authorities to the function, but only those that differ from the default authority.

9=Select as base

Select the function to be used as the “base function” for option 7=Copy from base (see above).

Function keys

Available function keys are:

F3=Exit

Exit the application.

F5=Refresh

Refresh the list.

F12=Cancel

Return to the previous screen.

When option 2=Change is selected against a registered function in the list, a screen similar to this one appears. It lists all user profiles defined on the system and shows those users' authorities to the selected function.

Function : AR_CS_CVTSPLCSV_FROMFILE

Description : From spooled file name

*PUBLIC authority . : *YES

Position to user . . .

Type options, press Enter.

1=Authorized 2=Not authorized 4=Remove user special authority

Opt	User	Type	Auth	Spec	Source	Description
	ARIADNE	*GRP	*YES		*USRALLOBJ	ariadne software
	NONDELIVER	*USR	*YES		*PUBLIC	email non-delivery user
	QAUTPROF	*USR	*YES		*PUBLIC	IBM-supplied User Profile
	QBRMS	*USR	*YES		*PUBLIC	IBM-supplied User Profile
	QCLUMGT	*USR	*YES		*PUBLIC	IBM-supplied User Profile
	QCLUSTER	*USR	*YES		*PUBLIC	IBM-supplied User Profile

More...

F3=Exit F5=Refresh F11=Special auth F12=Cancel

Details shown are as follows:

- User** The user profile name.
- Type** ***USR**=Simple user profile
 ***GRP**=Group profile
- Auth** ***YES**=The user has authority to use the function.
 ***NO**=The user does not have authority to use the function.
- Spec** The special authority defined for the user.
 ***YES**=The user has been explicitly granted authority to the function.

***NO**=The user has been explicitly denied authority to the function.

Blank=The user has no special authority to the function and the user's authority to the function will be determined by other factors (e.g. group profile authority, *ALLOBJ special authority or the default authority)

Source

How the user's authority to the function was determined.

***USRALLOBJ** = The user has *ALLOBJ special authority through the user profile.

***GRPALLOBJ**= The user has *ALLOBJ special authority through the group profile.

***USRSPCAUT**= The user profile has been explicitly granted or denied authority to the function.

***GRPSPCAUT**= The group profile has been explicitly granted or denied authority to the function.

***PUBLIC**= Authority was derived from the default (*PUBLIC) authority setting.

***UNKNOWN**= The source could not be determined.

Description

The user profile's text 'description'

Options

Options that can be input against entries in the list are:

1=Authorized

Explicitly grants the user profile explicit authority to the function.

2=Not authorized

Explicitly denies the user profile explicit authority to the function.

4=Remove user special authority

Where the user profile has previously been explicitly granted or denied authority to the function, this option removes that explicit authority. The user's authority to the function will be determined from other sources (group profile, *ALLOBJ special authority, default *PUBLIC authority).

Function keys

Available function keys are:

F3=Exit

Exit the application.

F5=Refresh

Refresh the list.

F11=Spec. auth

When the full list is displayed, this function key switches to just displaying those user profiles with explicitly granted or denied special authority to the function.

F11=All users

When just users with special authority are displayed, this function key switches to displaying the full list of users.

F12=Cancel

Return to the previous screen.

Setting up CoolTools to process spooled files automatically

In order to process spooled files automatically, you must complete the following steps:

Create spooled file monitors

Using the WRKSPLMON or CRTSPLMON commands, or CoolTools menu option 21, define one or more spooled file monitors. Each spooled file monitor will detect new spooled files being created with a status of “ready” on one or more output queues by associating a data queue with those output queues and waiting for messages to arrive on the data queue.

It is possible to specify up to 20 output queues to be monitored by a single spooled file monitor (more than 20 is possible if a generic output queue name or *ANY is specified).

However, it should be borne in mind that using a single spooled file monitor to detect messages generated for multiple output queues could mean that the spooled file monitor job might become a bottleneck if the volume of spooled files being created is large, since all spooled file messages will be processed by a single monitor job. Better throughput may be achieved by defining a separate monitor for each output queue, unless the number of output queues to be monitored is large, in which case the number of monitor jobs might become excessive. A balance must be struck between having too many messages being processed by each monitor job and having too many monitor jobs.

Create spooled file scripts

It is likely that, for every spooled file that you wish to process, you will want a set of actions to be carried out against that spooled file. The simplest way in which to define a set of actions of this kind is to create a spooled file script.

Use the WRKSPLSCP or CRTSPLSCP commands, or option 22 from the CoolTools menu, to define spooled file scripts and their entries.

If you are going to use spooled file scripts, they must be created prior to trying to refer to them in a spooled file rule.

Create spooled file rules

You must now define the rules which tell CoolTools what to do for each spooled file that is created. Use the WRKSPLRUL or CRTSPLRUL commands, or select option 23 from the CoolTools menu, to define spooled file rules.

If you wish to specify rules that work on an exception basis, this is possible by using the “rule priority” and “no error action” attributes together with OPTION(*NONE).

For example, assume you do not wish to process any spooled files created by a system user profile (identified as a user profile starting with a Q, e.g. QSECOFR, QSYSOPR, QPGMR etc.). By assigning a high rule priority, you ensure that this rule is processed before any more specific rules. By specifying NOERRACN(*STOP), you indicate that once the rule has been selected, no other rules should be processed against the spooled file. And by entering OPTION(*NONE), you tell CoolTools not to take any action against the spooled file.

So, the following command defines a rule which would exclude from processing all spooled files created by users whose name starts with a Q:

```
CRTSPLRUL USER(Q*) RULEPY(1) OPTION(*NONE) NOERRACN(*STOP)
```

Start Spooled File Monitoring

Once you have defined your monitor, scripts and rules, you must start the CoolTools jobs before spooled file processing will take place. Use the STRMONSPLF command or select option 31 from the CoolTools menu to start the CoolTools jobs.

Checking Spooled File Processing

In order to check the progress of CoolTools processing, to ensure that backlogs and bottlenecks are not developing, and to resolve any errors that may have occurred, you should use the WRKTRNSTS and WRKSPLTRN commands, or select options 41-44 from the CoolTools menu periodically.

Resolving errors

If an error occurs during the processing of a transaction, and that error is not ignored (because it was included in the list of errors to be ignored on the IGNMSGID parameter of the CRTSPLRUL, ADDSPLSCPE commands etc.), CoolTools will flag the transaction, and the transaction rule step in relation to which the error occurred, as being “in error”.

Transactions that are flagged as being “in error” will not be retried until you tell CoolTools to do so by selecting option 1 against them in the WRKSPLTRN display list. This will remove the error flag and make the transaction available for processing again.

Processing of the transaction will restart from the first transaction rule step which was not successfully processed already

WRKSPLMON (Work with Spooled File Monitors)

The **WRKSPLMON** (Work with Spooled File Monitors) command lets you define spooled file monitors.

A spooled file monitor is a job which monitors for the arrival of spooled files in a ready status on one or more specified output queues. The spooled file monitor is thus the mechanism whereby CoolTools detects spooled files that it needs to process.

See Page 24 for a further discussion of what a spooled file monitor is and what it does.

The program displays a list of the various monitors which are already defined.

Note that changes to spooled file monitors do not take effect until CoolTools jobs are restarted.

CoolTools V2R1M0 - Work with Spooled File Monitors

ARIADNE1

Position to

Type options, press Enter.

2=Change

3=Copy

4=Delete

Opt Monitor	Text
DUMPS	Monitor for QEZDEBUG
JOBLOGS	Monitor for QEZJOBLOG
QPRINT	Monitor for QPRINT

Bottom

F3=Exit

F5=Refresh

F6=Add

F11=Display outqs

F12=Cancel

Options

Options that can be input against entries in the list are:

2=Change	Change the spooled file monitor. Prompts the CHGSPLMON command.
3=Copy	Copy the selected spooled file monitor to create a new spooled file monitor. Prompts the CPYSPLMON command.
4=Delete	Delete the spooled file monitor.

Function keys

Available function keys are:

F3=Exit	Exit the application.
F5=Refresh	Refresh the list.
F6=Create	Create a new spooled file monitor. Prompts the CRTSPLMON command.
F11=Display outqs	When the list is showing the descriptive text associated with the user-defined option, pressing F11 displays the output queues processed by the spooled file monitor.
F11=Display text	When the list is showing the output queues associated with the spooled file monitor, pressing F11 displays the descriptive text instead.
F12=Cancel	Return to the previous screen.

Attributes

When a spooled file monitor is being created or changed, the following attributes are definable:

Spooled file monitor name	The name by which the monitor will be identified.
Output queue	Specify one or more output queues which this spooled file monitor will govern. The monitor job will use the data queue specified below to detect spooled files being created on the specified output queue(s) with a status of "Ready". If you specify a generic name (e.g. QPRINT*) or *ANY for either the output queue name or output queue library, any entries that appear on the data queue which match these names will be selected for processing.
Data queue	Specify the name of the data queue to be used to detect spooled files being created on the output queues listed above. The default is *OUTQ, which indicates that the data queue already associated with the output queue(s) defined above will be used. This value is

not permitted if the list of output queue names includes *ANY or a generic name.

The special value *OUTQNAME indicates that CoolSpools should use a data queue of the same name as the output queue specified. This value is not permitted if more than one output queue is specified or if the output queue name is *ANY or a generic name.

The special value *OUTQLIB for the data queue library indicates that CoolSpools should use a data queue in the same library as the output queue specified. This value is not permitted if more than one output queue is specified or if the output queue name is *ANY or a generic name.

Change outq, if required

Whether CoolTools is permitted to change the attributes of the output queue(s) specified if this is necessary. CoolTools will need to modify the output queue(s) if the data queue specified is not already associated with the output queue(s).

Create data queue, if required

Whether CoolTools is permitted to create the data queue if it does not already exist.

Data queue attributes

The attributes to be used when creating the data queue, if it does not already exist. Display the help text associated with the CRTDTAQ command for details.

Text 'description'

The descriptive text to be associated with the spooled file monitor.

Other commands for working with spooled file monitors

As well as using the **WRKSPLMON** command to work with spooled file monitors, you can manage spooled file monitors from the command line or from a program using the following commands:

CRTSPLMON (Create Spooled File Monitor)

Creates a new spooled file monitor.

CHGSPLMON (Change Spooled File Monitor)

Changes a spooled file monitor,

CPYSPLMON (Copy Spooled File Monitor)

Copies a monitor to create a new monitor.

DLTSPLMON (Delete Spooled File Monitor)

Deletes a monitor.

WRKSPLSCP (Work with Spooled File Scripts)

The **WRKSPLSCP** (Work with Spooled File Scripts) command lets you define spooled file scripts.

A **spooled file script** provides a way of specifying a group of actions which will occur together in specified sequence. Each individual action is defined as a **spooled file script entry** which can be either:

- a standard spooled file option
- a user-defined option
- a command string
- a call to another script.

Each spooled file script consists of between zero or more script entries (maximum 9,999).

The program displays a list of the various scripts which are already defined.

Note that changes to scripts take effect immediately if CoolTools jobs are active.

CoolTools V2R1M0 - Work with Spooled File Scripts

ARIADNE1

Position to

Type options, press Enter.

2=Change

3=Copy

4=Delete

8=Work with script entries

Opt Script Text

DUMPS Process dumps

JOBLOGS Process joblogs

Bottom

F3=Exit

F5=Refresh

F6=Create

F12=Cancel

Options

Options that can be input against entries in the list are:

2=Change	Change the spooled file script. Prompts the CHGSPLSCP command.
3=Copy	Copy the selected spooled file script to create a new spooled file script. Prompts the CPYSPLSCP command.
4=Delete	Delete the spooled file script.
8=Work with script entries	Work with the script entries for the specified script.. Prompts the WRKSPLSCPE command.

Function keys

Available function keys are:

F3=Exit	Exit the application.
F5=Refresh	Refresh the list.
F6=Create	Create a new spooled file script. Prompts the CRTSPLSCP command.
F12=Cancel	Return to the previous screen.

Attributes

When a spooled file script is being created or changed, the following attributes are definable:

Spooled file script name	The name by which the script will be identified.
Text 'description'	The descriptive text to be associated with the spooled file script.

Other commands for working with scripts

As well as using the **WRKSPLSCP** command to work with scripts, you can manage scripts from the command line or from a program using the following commands:

CRTSPLSCP (Create Spooled File Script)

Creates a new spooled file script.

CHGSPLSCP (Change Spooled File Script)

Changes a spooled file script,

CPYSPLSCP (Copy Spooled File Script)

Copies a script to create a new script.

DLTSPLSCP (Delete Spooled File Script)

Deletes a script.

RUNSPLSCP (Run Spooled File Script)

Runs a script against a specified spooled file. If no script name is supplied, you will be prompted to select one.

WRKSPLSCPE (Work with Spooled File Script Entries)

The **WRKSPLSCPE** (Work with Spooled File Script Entries) command lets you define spooled file script entries.

A **spooled file script** provides a way of specifying a group of actions which will occur together in specified sequence. Each individual action is defined as a **spooled file script entry** which can be either:

- a standard spooled file option
- a user-defined option
- a command string
- a call to another script.

Each spooled file script consists of between zero or more script entries (maximum 9,999).

You can run this command by taking option 8 against a script in the WRKSPLSCP (Work with Spooled File Scripts) display or by running the WRKSPLSCPE command itself from the command line. If you run WRKSPLSCPE itself from the command line, you must specify the name of the script whose entries you wish to work with on the **SCRIPT** parameter.

The program displays a list of the script entries which are already defined for the specified script.

Note that changes to scripts take effect immediately if CoolTools jobs are active.

CoolTools V2R1M0 - Work with Splf Script Entries ARIADNE1

Script name . : JOBLOGS Process joblogs

Position to . .

Type options, press Enter.

2=Change 3=Copy 4=Remove

Opt	Seq	Text
	100	Hold the spooled file
	400	Delete the spooled file

Bottom

F3=Exit F5=Refresh F6=Add F11=Display text F12=Cancel

Options

Options that can be input against entries in the list are:

2=Change	Change the spooled file script entry. Prompts the CHGSPLSCPE command.
3=Copy	Copy the selected spooled file script entry to create a new spooled file script entry. Prompts the CPYSPLSCPE command.
4=Remove	Remove the spooled file script entry.

Function keys

Available function keys are:

F3=Exit	Exit the application.
F5=Refresh	Refresh the list.
F6=Add	Add a new spooled file script. entry Prompts the ADDSPLSCPE command.
F11=Display script entry	When the script entry text description is displayed in the list, pressing F11 displays brief details of the action associated with the script entry instead.
F11=Display text	When brief details of the action associated with the script entry is displayed in the list, pressing F11 displays the script entry text description instead.
F12=Cancel	Return to the previous screen.

Parameters

When a spooled file script entry is being added or changed, the following parameters are definable:

SCRIPT	Spooled file script name. The name of the script to which the entry relates.
SEQNBR	Sequence number. A number which identifies the entry within the script and determines the order in which script entries are processed.
OPTION	Option. The action to be carried out when the script entry is executed.

This can either be a CoolTools standard option, a CoolTools user-defined option, a command or a call to another script.

Alternatively, you can enter either a user-defined option (defined using WRKUSROPT).

In addition, the following two special options are also available:

***CMD.** This indicates that you will define an ad hoc command to be run on the **CMD** parameter.

***SCRIPT.** This indicates that you will specify a script to be called on the **SCRIPT** parameter.

OPTPARM

Option parameters.

Additional parameters associated with the standard or user-defined option specified on the OPTION parameter.

For example, if you specify OPTION(*CHG) to indicate that CoolTools should change the spooled file attributes, you can specify the actual attributes to be change on the OPTPARM parameter, e.g.:

OPTION(*CHG) OPTPARM('OUTQ(QPRINT)')

The parameter string may include substitution variables (see Page 96).

CMD

Command to run.

The command string to be executed. This parameter is only available when OPTION(*CMD) is specified.

The command string may include substitution variables where the OS/400 command prompter will accept them (see Page 96).

SCRIPT

Script name.

The name of another script to be run. A script may not run itself.

TEXT

Text 'description'.

The descriptive text to be associated with the spooled file script.

NOERRACN

No error action.

The action to be taken when the action is executed without an error (i.e. no escape message is issued).

***CONTINUE** (default). Processing continues with the next script entry.

***STOP.** No further processing of script entries occurs.

ERRACN

Error action.

The action to be taken when the action is executed and an error occurs (i.e. an escape message is issued).

***STOP** (default).. No further processing of script entries occurs.

***CONTINUE**. Processing continues with the next script entry. The error is ignored.

IGNMSGID

Ignore message ids

A list of up to 100 message identifiers. If an error is reported and the error message identifier is in this list, the error will be ignored and processing will continue as if no error had occurred.

For example, if you wish to hold spooled files, you can specify:

OPTION(*HLD) IGNMSGID(CPF3337)

and if the spooled file is already held, the error message CPF3337, which results when you try to hold a spooled file which is already held, will be ignored.

Note that since the sequence number acts as the identifier for a script entry within a script as well as determining the sequence in which entries are processed, it is not possible to change the sequence number of a script entry once it has been created. Instead, if you wish to change the sequence number of a script entry, you should copy the existing script entry to a new script entry with the required sequence number, then remove the original script entry.

Other commands for working with script entries

As well as using the **WRKSPLSCPE** command to work with script entries, you can manage script entries from the command line or from a program using the following commands:

ADDSPLSCPE (Add Spooled File Script Entry)

Adds a script entry to a script.

CHGSPLSCPE (Change Spooled File Script Entry)

Changes a script entry,

CPYSPLSCPE (Copy Spooled File Script Entry)

Copies a script entry to create a new script entry.

RMVSPLSCPE (Remove Spooled File Script Entry)

Removes a script entry from a script.

WRKSPLRUL (Work with Spooled File Rules)

The **WRKSPLRUL** (Work with Spooled File Rules) command lets you define spooled file rules.

Once a spooled file monitor job has detected that a spooled file has been created, CoolTools needs to know what to do with it. You tell it what to do with different types of spooled files by defining **spooled file rules**.

A spooled file rule basically consists of:

- A set of **criteria** which are compared with the spooled file's attributes and determine whether the rule is selected or not
- An **action** to be performed against the spooled file when the spooled file matches the criteria and is selected to be processed

The program displays a list of the rules which have already been defined.

Note that changes to rules can take effect immediately (if **ACTIVATE(*IMMED)** is specified) and CoolTools jobs are active, or only when the CoolTools jobs are restarted (if **ACTIVATE(*DLY)** is specified or the CoolTools jobs are not active).

CoolTools V2R1M0 - Work with Spooled File Rules

ARIADNE1

Position to

Type options, press Enter.

2=Change 3=Copy 4=Delete

Opt Rule	Text
JOBLOGS	Rule for joblogs
PGM_DUMPS	Rule for program dumps
SVC_DUMPS	Rule for service dumps

Bottom

F3=Exit F5=Refresh F6=Add F11=Display criteria F12=Cancel

Options

Options that can be input against entries in the list are:

2=Change	Change the spooled file rule. Prompts the CHGSPLRUL command.
3=Copy	Copy the selected spooled file rule to create a new spooled file rule. Prompts the CPYSPLRUL command.
4=Delete	Delete the spooled file rule.

Function keys

Available function keys are:

F3=Exit	Exit the application.
F5=Refresh	Refresh the list.
F6=Create	Create a new spooled file rule. Prompts the CRTSPLRUL command.
F11=Display criteria	When the rule text description is displayed in the list, pressing F11 displays brief details of the criteria associated with the rule instead.
F11=Display text	When brief details of the criteria associated with the rule are displayed in the list, pressing F11 displays the rule text description instead.
F12=Cancel	Return to the previous screen.

Parameters

When a spooled file rule is being created, copied or changed, the following parameters are definable:

RULE	Spooled file rule name. The name by which the rule will be identified.
USER	User. Enter the name of the user who created the spooled files to be selected by this rule. A generic name may be entered (e.g. Q*) *ALL (default) = All users
SPLFNAME	Spooled file name. Enter the name of the spooled file to be selected by this rule. A generic name may be entered (e.g. QSYS*)

PRTDEV	<p>*ALL (default) = All spooled files.</p> <p>Print device.</p> <p>Enter the name of the printer device with which spooled files must be associated to be selected by this rule.</p> <p>A generic name may be entered (e.g. QSYS*)</p>
OUTQ	<p>*ALL (default) = All printer devices.</p> <p>Output queue.</p> <p>Enter the name of the output queue with which spooled files must be associated to be selected by this rule.</p> <p>A generic name may be entered (e.g. QPRINT*)</p> <p>*ALL (default) = All output queues.</p> <p>*ANY = Any output queue in the specified library.</p>
FORMTYPE	<p>Form type.</p> <p>Enter the form type which the spooled file must have to be selected by this rule.</p> <p>A generic value may be entered (e.g. INVOICE*)</p> <p>*ALL (default) = All form types</p> <p>*STD = The standard form type.</p>
USRDTA	<p>User data.</p> <p>Enter the user data value which the spooled file must have to be selected by this rule.</p> <p>A generic value may be entered (e.g. SALES*)</p> <p>*ALL (default) = All user data values.</p>
JOB	<p>Job name.</p> <p>Enter the name of the job which must have created the spooled file in order for it to be selected by this rule.</p> <p>A generic name may be entered (e.g. QPADEV*)</p> <p>*ALL (default) = All jobs</p>
PGM	<p>Created by program.</p> <p>Enter the name of the program which must have created the spooled file in order for it to be selected by this rule.</p> <p>A generic name may be entered (e.g. Q*)</p> <p>*ALL (default) = All programs</p> <p>*ANY = Any program in the specified library</p>
DEVTYPE	<p>Printer device type</p>

Enter the printer device type attributes which the spooled file must have in order for it to be selected by this rule.

***ALL** (default) = All types

***SCS** = SCS (SNA Character String)

***IPDS** = IPDS (Intelligent Printer Data Stream)

***AFPDS** = AFP (Advanced Function Printing Data Stream).

***AFPDSL** = Mixed AFP and line data

***LINE** = Line data

***USERASCII** = ASCII data stream

NBRPAGES

Number of pages.

Enter the range in which the spooled file's number of pages attribute must fall in order for this rule to be selected.

*ALL (default) = Any number of pages

The upper value of the range can be specified as *MAX = no upper limit.

SPLFSIZE

Spooled file size (Kb)

Enter the range in which the spooled file's data size attribute must fall in order for this rule to be selected.

The value is measured in kilobytes (1024 bytes).

*ALL (default) = Any size

The upper value of the range can be specified as *MAX = no upper limit.

RULEPTY

Rule priority

A value between 1 and 9999 controlling the order in which rules will be processed when more than one is selected. The lower the priority, the earlier the rule will be processed.

Default = 5000.

OPTION

Option.

The action to be carried out when the rule is executed.

This can either be a CoolTools standard option, a CoolTools user-defined option, a command or a call to another script.

Alternatively, you can enter a CoolTools user-defined option (defined using WRKUSROPT).

In addition, the following two special options are also available:

***CMD.** This indicates that you will define an ad hoc command to be run on the **CMD** parameter.

***SCRIPT.** This indicates that you will specify a script to be called on the **SCRIPT** parameter.

OPTPARM

Option parameters.

Additional parameters associated with the standard or user-defined option specified on the **OPTION** parameter.

For example, if you specify **OPTION(*CHG)** to indicate that CoolTools should change the spooled file attributes, you can specify the actual attributes to be change on the **OPTPARM** parameter, e.g.:

OPTION(*CHG) OPTPARM('OUTQ(QPRINT)')

The parameter string may include substitution variables (see Page 96).

CMD

Command to run.

The command string to be executed. This parameter is only available when **OPTION(*CMD)** is specified.

The command string may include substitution variables where the OS/400 command prompter will accept them (see Page 96).

SCRIPT

Script name.

The name of a spooled file script to be run.

TEXT

Text 'description'.

The descriptive text to be associated with the spooled file script.

NOERRACN

No error action.

The action to be taken when the option, script or command is executed without an error (i.e. no escape message is issued).

***CONTINUE** (default). Processing continues with the next rule.

***STOP.** No further processing of rules occurs.

ERRACN

Error action.

The action to be taken when the option, script or command is executed and an error occurs (i.e. an escape message is issued).

***STOP** (default).. No further processing of rules occurs.

ACTIVATE

***CONTINUE.** Processing continues with the next rule. The error is ignored.

When to activate changes

Whether the changes should be activated immediately or only when CoolTools jobs are restarted.

***IMMED (default).** The changes take effect immediately. If CoolTools jobs are currently active, the processing of spooled files will begin to use the new rules from now onwards.

***DLY.** The changes will not take effect immediately. If CoolTools jobs are currently active, the processing of spooled files will continue using the rules that existed when the jobs started or when the last set of rule changes was activated.

IGNMSGID

Ignore message ids

A list of up to 100 message identifiers. If an error is reported and the error message identifier is in this list, the error will be ignored and processing will continue as if no error had occurred.

For example, if you wish to hold spooled files, you can specify:

OPTION(*HLD) IGNMSGID(CPF3337)

and if the spooled file is already held, the error message CPF3337, which results when you try to hold a spooled file which is already held, will be ignored.

Other commands for working with rules

As well as using the **WRKSPLRUL** command to work with rules, you can manage rules from the command line or from a program using the following commands:

CRTSPLRUL (Create Spooled File Rule)

Creates a spooled file rule

CHGSPLRUL (Change Spooled File Rule)

Changes a spooled file rule

CPYSPLRUL (Copy Spooled File Rule)

Copies a spooled file rule to create a new spooled file rule.

DLTSPLRUL (Delete Spooled File Rule)

Deletes a spooled file rule.

CoolTools Jobs

Work Management

In order to detect and process spooled files, CoolTools needs a number of jobs to be started. All of these jobs use a job description called **COOLTOOLS**. When first installed, this job description is configured to use a job queue called **COOLTOOLS**, which feeds into a subsystem called **COOLTOOLS**.

If you wish to run these jobs in a different subsystem, you will need to modify the **COOLTOOLS** job description to use a different job queue, or add a job queue entry for the **COOLTOOLS** job queue to a different subsystem.

Job description **COOLTOOLS** is also configured so that jobs run under user profile QSYSOPR. If this is inappropriate to your environment, you can change the job description so that they use a different user profile. However, you must ensure that the user profile you select has all the necessary authorities. This should include spool and job control special authorities.

It is important to realize that no spooled file processing will occur unless these CoolTools jobs are active. You should therefore consider including the startup of these jobs in your system startup procedures. There are two possible approaches to this:

a) Include the STRMONSPLF command in your system startup program and specify STRSBS(*YES) RLSJOBQ(*YES) to ensure that the COOLTOOLS subsystem has been started and the COOLTOOLS job queue released.

Note that if you are running the CoolTools jobs in a different subsystem or submitting them to a different job queue, you will need to ensure that this subsystem is active and the job queue released manually, as CoolTools will no longer be responsible for controlling that aspect of the system.

b) A job description called ST_STARTUP is supplied with CoolTools. This is intended for use with an auto-start job. If you add an auto-start job to the COOLTOOLS subsystem description or another subsystem description, specify this job description and the CoolTools jobs will start automatically when the subsystem is started.

For example:

```
ADDAJE    SBS(D(COOLTOOLS) JOB(ST_STARTUP)
          JOBD(ST_STARTUP)
```

You then need to ensure that the subsystem is started as part of your system startup procedures.

Jobs

There are three types of job which CoolTools runs and needs to be active in order to process spooled files successfully,

Control

A single CoolTools Control Job submits, communicates with and manages all of the other CoolTools jobs. It is submitted when you run **STRMONSPLF**.

Its name is **ST_CTLSPLR**.

Monitor

One CoolTools Monitor Job will be started for each spooled file monitor that has been defined.

The purpose of these jobs is to monitor for spooled file messages on the associated data queue and create spooled file transactions to be processed.

The monitor jobs have the same name as the spooled file monitor definition the job is implementing. For example, if you create a spooled file monitor called **JOBLOGS**, the job which monitors for spooled files using this definition will be called **JOBLOGS** too.

Processor

One or more CoolTools Processor Jobs will be started by the CoolTools Control Job.

The number of processor jobs that is started initially is determined by the value of the **NBRPRCJOBS** parameter of the **STRMONSPLF** command which started the Control Job.

Basically, these jobs represent a pool of resources which is available to process spooled file transactions which are waiting to be worked on. The optimum number of processor jobs will depend on the capacity of your machine. The default for **NBRPRCJOBS** is 4. If you find that spooled file transactions are not being processed quickly enough, and appear to be waiting to be processed, you should try starting a larger number of processor jobs. Eventually there will come a point where the extra load on the system of starting an additional processor job will outweigh the benefit of having that additional job available for work. The point where this will be reached depends on many factors and is most likely to be determined by trial and error.

You can start additional processor jobs and end processor jobs that are no longer required using the **STRPRCJOB** and **ENDPRCJOB** commands. These commands provide a more convenient way of managing the number of available processor jobs than the **STRMONSPLF** and **ENDMONSPLF** commands, which start and end all spooled file activity.

The processor jobs are called **ST_PRCSPLR**,

STRMONSPLF (Start Monitoring Spooled Files)

The **STRMONSPLF** (Start Monitoring Spooled Files) command starts the CoolTools jobs which monitor and process spooled files.

Unless these jobs are active, no spooled files will be processed by CoolTools. See the section on CoolTools Jobs on Page 76 for a discussion of the different types of jobs and their importance.

Parameters

When a spooled file rule is being created, copied or changed, the following parameters are definable:

NBRPRCJOBS

Number of processing jobs

The number of processing jobs to start initially.

See the section on CoolTools jobs on Page 76 for a discussion of processing jobs and how to determine the optimum number to run simultaneously.

Additional processing jobs can be started, and unwanted jobs ended, by means of the **STRPRCJOB** and **ENDPRCJOB** commands respectively.

STRSBS

Start subsystem

Whether CoolTools should start the COOLTOOLS subsystem if it is not already active.

*YES= Yes, start the subsystem.

*NO = No, do not start the subsystem.

When first installed, CoolTools is configured to submit CoolTools jobs to the COOLTOOLS job queue. The CoolTools job queue is configured to feed into the COOLTOOLS subsystem. In order for CoolTools jobs to run, the job queue must be released and the subsystem must be started.

If you have modified this configuration, it is your responsibility to ensure that the appropriate job queue has been released and the appropriate subsystem started.

RLSJOBQ

Release job queue

Whether CoolTools should release the COOLTOOLS job queue if it is held.

*YES= Yes, release the job queue.

*NO = No, do not release the job queue.

When first installed, CoolTools is configured to submit CoolTools jobs to the COOLTOOLS job queue. The CoolTools job queue is configured to feed into the COOLTOOLS

subsystem. In order for CoolTools jobs to run, the job queue must be released and the subsystem must be started.

If you have modified this configuration, it is your responsibility to ensure that the appropriate job queue has been released and the appropriate subsystem started.

ENDMONSPLF (End Monitoring Spooled Files)

The **ENDMONSPLF** (End Monitoring Spooled Files) command ends the CoolTools jobs which monitor and process spooled files.

Unless these jobs are active, no spooled files will be processed by CoolTools. See the section on CoolTools Jobs on Page 76 for a discussion of the different types of jobs and their importance.

Once this command has been run, the control and monitor jobs will end almost immediately. Processing jobs which are not currently working on a transaction will also end almost immediately. However, processing jobs which are working on a transaction will attempt to complete the current transaction step before ending. If this step does not complete within 10 minutes, the job will end abnormally. The transaction step will be restarted from the beginning the next time the CoolTools jobs are started. You should bear this in mind when defining spooled file rules and scripts.

STRPRCJOB (Start Processing Jobs)

The **STRPRCJOB** (Start Processing Jobs) command starts one or more CoolTools processing jobs.

See the section on CoolTools Jobs on Page 76 for a discussion of the different types of jobs and their importance.

Parameters

NBRPRCJOBS

Number of processing jobs

The number of processing jobs to start.

See the section on CoolTools jobs on Page 76 for a discussion of processing jobs and how to determine the optimum number to run simultaneously.

ENDPRCJOB (End Processing Jobs)

The **ENDPRCJOB** (End Processing Jobs) command ends one or more CoolTools processing jobs.

See the section on CoolTools Jobs on Page 76 for a discussion of the different types of jobs and their importance.

Parameters

NBRPRCJOBS

Number of processing jobs

The number of processing jobs to end.

See the section on CoolTools jobs on Page 76 for a discussion of processing jobs and how to determine the optimum number to run simultaneously.

WRKSPLTRN (Work with Spooled File Transactions)

The **WRKSPLTRN** (Work with Spooled File Transactions) command lets you work with spooled file transactions and provides a convenient place to carry out a number of operational tasks related to spooled file processing, such as ensuring that no errors have occurred and resolving any errors that have occurred.

CoolTools V2R1M0 - Work with Spooled File Transactions							ARIADNE1	
Unprocessed Transactions								
Position to date/time							Total:	1244
Position to transaction . . .								
Type options, press Enter.							E	
1=Resubmit	4=Delete	5=Display	8=Errors				B r	
							u r	
							s o	
--- Creation ---							y r	
Trn Nbr	Status	Splf Name	Job	User	Date	Time		
3076	Received	QPJOBLOG	QBATCH	QSYS	12/10/04	20:10:38	*	
3075	Selected	QPJOBLOG	ST_WRKTRNR	ARIADNE	12/10/04	19:03:16	*	
2964	Selected	QPJOBLOG	P000000271	QSYSOPR	12/10/04	17:18:13	*	
2963	Selected	QPJOBLOG	P000000272	QSYSOPR	12/10/04	17:18:11	*	
2962	Selected	QPJOBLOG	P000000270	QSYSOPR	12/10/04	17:18:06	*	
2960	Selected	QPJOBLOG	P000000268	QSYSOPR	12/10/04	17:18:02	*	
2959	Selected	QPJOBLOG	P000000262	QSYSOPR	12/10/04	16:45:34	*	
2958	Selected	QPJOBLOG	P000000263	QSYSOPR	12/10/04	16:45:34	*	
2957	Selected	QPJOBLOG	P000000264	QSYSOPR	12/10/04	16:45:34	*	
2956	Selected	QPJOBLOG	P000000261	QSYSOPR	12/10/04	16:45:23	*	
							More...	
F3=Exit	F5=Refresh	F9=Reverse	F10=Errors only	F11=All				
F12=Cancel	F13=Repeat	F17=Top	F18=Bottom					

Parameters

OPTION

Option

Determines what type of information is displayed initially.

***UNPRC** (default). All unprocessed transactions are displayed. Transactions which have been deleted or which completed normally are not displayed.

***ALL**. All available transactions are displayed irrespective of status.

***ERROR.** Transactions where an error has occurred are displayed.

The program displays a list of transactions selected according to the OPTION parameter.

Options

Options that can be input against entries in the list are:

1=Resubmit

Resubmit the transaction.

If a transaction has not been fully processed because of an error, this option allows you to tell CoolTools to retry the transaction.

When an error occurs during the processing of a transaction, and that error is not ignored (because it was included in the list of errors to be ignored on the IGNMSGID parameter of the CRTSPLRUL, ADDSPLSCPE commands etc.), CoolTools will flag the transaction, and the transaction rule step in relation to which the error occurred, as being “in error”.

Transactions that are flagged as being “in error” will not be retried until you tell CoolTools to do so by selecting option 1 against them in this list. This will remove the error flag and make the transaction available for processing.

Processing of the transaction will restart from the first transaction rule step which was not successfully processed already.

4=Delete

Delete the transaction.

Once deleted, the transaction cannot be processed. Only select this option if you are sure that you do not wish to process the spooled file concerned (for example, if the spooled file itself is no longer in the system).

5=Display

Display the transaction.

Details of the spooled file transaction, including its origin, status and any rules selected to be processed are shown.

8=Errors

Display errors.

Details of the errors that have occurred while processing the spooled file transaction are shown.

Function keys

Available function keys are:

F3=Exit	Exit the application.
F5=Refresh	Refresh the list.
F9=Reverse	Toggles the display between showing transactions in ascending chronological order and descending chronological order.
F10=Errors only	When displaying unprocessed transactions or all transactions, switches to showing errors only.
F10=Unprocessed only	When displaying transactions in error, switches to showing unprocessed transactions.
F11=Errors only	When displaying unprocessed transactions or all transactions, switches to showing errors only.
F11=Unprocessed only	When displaying all transactions, switches to showing unprocessed transactions.
F11=All	When displaying unprocessed transactions or transactions in error, switches to showing all transactions.
F12=Cancel	Return to the previous screen.
F13=Repeat	Repeat an option to the end of the list.
F17=Top	Position the display to the top of the list
F18=Bottom	Position the display to the bottom of the list

Positioners

The display can be positioned using the following positioner fields:

Position to date/time	Enter either a date or a date and a time to position the list to the first transaction where the transaction creation date is: <ul style="list-style-type: none">• Greater than or equal to the given date/time (if the list is in ascending order)• Less than or equal to the given date/time (if the list is in descending order)
------------------------------	--

Or

Position to transaction	Enter a transaction number to position the list to the first entry where the transaction number is: <ul style="list-style-type: none">• Greater than or equal to the given number (if the list is in ascending order)• Less than or equal to the given number (if the list is in descending order)
--------------------------------	---

Data

The “**Total**” displayed at the top of the screen is the current number of transactions in the system of the type selected, i.e. transactions in error, unprocessed transactions or all transactions.

The data displayed in the list is as follows:

Transaction number	The unique identifier for the spooled file transaction.
Status	The status of the spooled file transaction. Values are: <ul style="list-style-type: none">▪ Received. The data queue message related to the spooled file in question has been received and a transaction created.▪ Selected. CoolTools has selected the rules to be processed but has not yet fully executed those rules.▪ Completed. Processing has completed normally.▪ Deleted. The transaction has been manually deleted and will not be processed.
Splf Name	The name of the spooled file to which the transaction relates.
Job Name	The name of the job which created the spooled file to which the transaction relates.
User	The name of the user profile which created the spooled file to which the transaction relates.
Creation date/time	The date and time the spooled file transaction was created.
Busy	A flag indicating whether the spooled file is currently being processed. * = Busy. Blank = not busy.
Error	A flag indicating whether processing of the spooled file generated errors which have not been cleared. * = Errors exist. Blank = no errors exist.

Available function keys are:

F3=Exit	Exit the application.
F5=Refresh	Refresh the list.
F12=Cancel	Return to the previous screen

F13=Spjf attr	Displays the attributes of the spooled file.
F14=Spjf job	Displays the job that created the spooled file.
F15=Proc job	Displays the job that is processing or most recently processed the spooled file transaction.

Transaction Details

When option 5=Display is selected against a spooled file transaction in the list, the Transaction Details screen is shown.

The screen displays the following information.

Transaction number	The unique identifier for the spooled file transaction.
Transaction status	The status of the spooled file transaction. Values are: <ul style="list-style-type: none"> ▪ Received. The data queue message related to the spooled file in question has been received and a transaction created. ▪ Selected. CoolTools has selected the rules to be processed but has not yet fully executed those rules. ▪ Completed. Processing has completed normally. ▪ Deleted. The transaction has been manually deleted and will not be processed.
Spjf name/job/number	The name of the spooled file to which the transaction relates. The details of the job which created the spooled file to which the transaction relates. The number of the spooled file to which the transaction relates.
Trns creation date/time	The date and time the spooled file transaction was created.
Dtaq msg received date/time	The date and time the data queue message was received.
Transaction created by job	The details of the job that created this transaction.
Processing started date/time	The date and time processing of the transaction started. If this transaction has been processed more than once, this is the most recent occasion on which processing started.
Processing ended date/time	The date and time processing of the transaction ended. If this transaction has been processed more than once, this is the most recent occasion on which processing ended.

The screen also shows the number of seconds that elapsed between the start and end of processing.

Last processed by job

The job which processed the transaction. If this transaction has been processed more than once, this is the job which processed the transaction most recently.

If rules have been selected to be processed, the screen also lists the transaction rule steps that will be processed or have been processed, and the order in which they will be processed or have been processed.

The list includes:

Seq. Nbr.

The sequence number of the transaction rule step. This consists of two parts. The first part is derived from the rule priority. The second part is a sequential allocated number which distinguishes between actions generated by the same rule. Together they determine the order in which actions are applied to the spooled file.

Rule

The name of the rule which has been selected.

Script

The name of the script to be processed, if any.

Seq

The sequence number of the script entry, if any.

Status

The status of the transaction rule step.

Values are:

- **Ready.** The transaction rule step is ready to be processed but has not yet been processed.
- **Completed.** The transaction rule step has been processed without errors.
- **Error.** One or more errors occurred during the processing of the transaction rule step.
- **Ignored.** This transaction rule step has not been processed because a previous transaction rule step completed without error and the NOERRACN attribute was set top *STOP.

Deleted. The transaction has been manually deleted and will not be processed.

Processing start date/time

The date and time processing of this transaction rule step started, on the most recent occasion.

Entering a 5 against an entry in the list displays the details of the rule step.

Information shown includes:

Trans. Nbr

The transaction number

Sequence Nbr.

The sequence number of the transaction rule step.

This consists of two parts. The first part is derived from the rule priority. The second part is a sequential allocated number which distinguishes between actions generated by the same rule. Together they determine the order in which actions are applied to the spooled file.

Status	The status of this transaction rule step.
Proc. Started	The date and time processing of the rule step started, on the most recent occasion.
Proc. Ended	The date and time processing of the rule step ended, on the most recent occasion.
Proc. Time	The total time required to process the step, in seconds.
Rule name	The name and description of the rule which was selected to create the rule step.
Script	The name and description of the script which was being run as part of this rule step (if any).
Script entry	The name and description of the script entry which was being run as part of this rule step (if any).
Command string	The command string that was executed. This is the final command string after replacement of substitution variables and after conversion of option codes to command strings.

Transaction Error Details

When option 8=Errors is selected against a spooled file transaction in the main list, the Transaction Error Details screen is shown.

The screen displays the following information.

Transaction number	The unique identifier for the spooled file transaction.
Spooled file name	The name of the spooled file to which the transaction relates.
Spooled file job	The details of the job which created the spooled file to which the transaction relates.
Spooled file number	The number of the spooled file to which the transaction relates.

The screen then shows a banner indicating how many errors exist in total and the number in the set of errors of the details shown in the latter part of the screen. Where more than one error exists, pressing Enter displays the next error.

Error number	The unique identifier of the error.
Error reported by job	The details of the job which reported the error.
Error reported at date/time	The date and time that the error was reported.

Error context	The rule number and sequence number that was being processed when the error occurred. If a script was being run, the script name and script entry number are also shown.
Error message id	The message identifier associated with the error.
Error message text	The text associated with the error message.

Other commands for working with transactions

As well as using the **WRKSPLTRN** command to work with transactions, you can also use the following transaction-related commands.

CRTSPLTRN (Create Spooled File Transaction)

This command can be used to generate a spooled file transaction for a spooled file.

It is intended to be used primarily in two sets of circumstances:

- **System initialization.** You can use CRTSPLTRN to import existing spooled files into CoolTools for processing when the system is first being set up. Spooled files which were created prior to the installation of CoolTools can be brought into the system this way.
- **Spooled files created with a “held” status.** CoolTools transactions are only created automatically for spooled files which are created with a “ready” status. If your spooled files are created with a “held” status, they can be brought into CoolTools periodically using this command.

CRTSPLTRN imports a single spooled file into CoolTools. In order to import a batch of spooled files into CoolTools, use RUNSPLFCMD along with CRTSPLTRN.

For example, the following command would select all spooled files on output queue QPRINT created in the last 7 days with a status of “held” and would run CRTSPLTRN to import the spooled file into CoolTools.

```
RUNSPLFCMD  
  USER(*ALL)  
  OUTQ(QPRINT)  
  AGERANGE(0 7)  
  STATUS(*HELD)  
  CMD(CRTSPLTRN SPLFNAME(*SLT) JOB(*SLT) SPLNBR(*SLT))  
  ERRACN(*CONTINUE)
```

Note the use of **ERRACN(*CONTINUE)** : this ensures that if an error occurs (e.g. if the spooled file is already in CoolTools), processing continues and the error is ignored.

Parameters

SPLFNAME

Spooled file name

The name of the spooled file to be imported.

The special value ***SLT** should be used only when CRTSPLTRN is being run from within another CoolTools function (e.g. WRKSPLFPPDM, or RUNSPLFCMD). It indicates that the CRTSPLTRN command should use the name of the currently selected spooled file.

JOB

Job

The qualified name of the job that created the spooled file.

The special value ***SLT** should be used only when CRTSPLTRN is being run from within another CoolTools function (e.g. WRKSPLFPDM, or RUNSPLFCMD). It indicates that the CRTSPLTRN command should use the details of the job that created the currently selected spooled file.

RPTMODE

Reporting mode

Whether this command should send a completion message when the command completes normally. Since this command is often used (in conjunction with WRKSPLFPDM or RUNSPLFCMD) to carry out a mass import of spooled files into CoolTools, having the command send a message for each spooled file can cause a large number of messages to be sent to the joblog. You can avoid this by specifying RPTMODE(*QUIET).

***VERBOSE (default)** = a completion message is sent.

***QUIET** = no completion message is sent.

DLTSPLTRN (Delete Spooled File Transaction)

This command can be used to delete both processed and (optionally) unprocessed spooled file transactions. It provides a database purge facility.

Parameters

USER

User

The USER (User) parameter allows you to select spooled file transactions based on the user profile of the user who created the corresponding spooled file.

Possible values are:

***CURRENT** (Default) Only files created by the user running this command are selected.

***ALL** Files created by all users are selected.

user-name Specify a user name. Only files created by that user name are selected.

SPLFNAME

Spooled file name

The name of the spooled file whose transactions are to be deleted.

AGERANGE

Age Range

The age range parameter allows you to select spooled file transactions based on the creation date of the corresponding spooled file.

Possible values are:

***ALL** (Default) Spooled files are selected irrespective of how long ago they were created.

***MIN** The value *MIN for the “from” element of the range indicates that there is no lower limit for the age range, i.e. that spooled files will be included so long as they are more recent than the upper limit.

***MAX** The value *MAX for the “to” element of the range indicates that there is no upper limit for the age range, i.e. that spooled files will be included so long as they are older than the lower limit.

age_range Enter an age range in days. Spooled files are selected based on their creation date. If the current date minus the creation date falls in this range of days, the spooled file will be selected. The calculation of the number of days is based on the date alone and takes no account of the time. For example, a spooled file created one minute

before midnight on one day will be considered to be one day old if processed by CoolTools one minute after midnight (i.e. only two minutes later).

DLTUNPRC

Delete unprocessed

Whether unprocessed transactions should be deleted.

***NO** (default) = Do no delete unprocessed transactions.

***YES** = Delete unprocessed transactions.

RGZPFM

Reorganize physical files

Whether CoolTools should try to reorganize your physical files after processing deletions.

***NO** (default) = Do no reorganize physical files.

***YES** = Reorganize physical files.

Note that reorganizing files could take a significant amount of time to complete if you have many records in the file. The system will be unavailable while reorganization is in progress. You must ensure that sufficient time is available for the reorganization to complete.

If you are planning to delete several sets of records, specify RGZPFM(*NO) for all but the last set.

WRKTRNSTS (Work with Transaction Status)

The **WRKTRNSTS** (Work with Transaction Status) command displays a summary of the current processing position and provides some basic statistics.

```
                                CoolTools V2R1M0 - Transaction Status                                ARIADNE1

Control job . . . . . : 033104/QSYSOPR/ST_CTLSPLR   Status:  *ACTIVE
Monitors active  :      3  Monitors defined :      3  Processors active:      1

----- Transaction Volumes -----

Total . . . :      4830  Unprocessed :      521  In error . . :      7

----- Transaction Statistics -----
                                Last          1-24          24-48          48-96          96-168
                                Hour          hrs ago          hrs ago          hrs ago          hrs ago
Created . . . :      38          3192          6          1594          0
Nbr of pages :      2158          0          0          0          0
Data size (Mb):      3.4          0.0          0.0          0.0          0.0
Processed . . :      0          2709          6          1593          0
Unprc no error:      38          476          0          0          0
In error . . . :      0          7          0          0          0
Deleted . . . :      0          0          0          1          0
Avg. time (s) :      0.000          87.361          4.295          13.965          0.000

F3=Exit      F5=Refresh      F12=Cancel      F15=Work with jobs
F18=Work with transactions      F21=Command line
```

Function keys

Available function keys are:

F3=Exit	Exit the application.
F5=Refresh	Refresh the list.
F12=Cancel	Return to the previous screen.
F15=Work with jobs	Runs WRKACTJOB SBS(sbsd_name), where sbsd_name is the name of the subsystem in which the control job is running. This provides a

convenient way of checking the various CoolTools jobs that are running.

F18=Work with transactions

Runs WRKSPLTRN to allow you to view and work with transactions at a detailed level. Initially, only unprocessed transactions are displayed.

F21=Command line

Provides a command line.

Data

The data displayed is as follows:

Control job

The name, user and number of the current or most recent CoolTools control job.

Status

The status of the current or most recent control job.

Monitors active

The number of currently active monitor jobs.

Monitors defined

The number of monitors which are defined.

Normally, the number of active monitor jobs and the number of monitors defined should be the same. If these numbers differ, this could be because a new monitor has recently been defined, or an old monitor deleted, and the spooled file jobs have not been restarted since. Alternatively, it could indicate a problem with a monitor job.

Processors active

The number of processor jobs currently active.

If this number is zero, no spooled file will be processed. Too low a number could result in poor throughput.

Transaction Volumes

Total

The total number of transactions in the system. If this number is high (e.g. in excess of 10,000), you should consider running DLTSPLTRN to delete unwanted processed transactions.

Unprocessed

The number of transactions which have not been processed. This includes both transactions not yet processed and those where processing was attempted but could not be completed due to an error.

In error

The number of transactions where processing was attempted but could not be completed due to an error.

Transaction Statistics

The statistics display the numbers of transactions falling into different categories according to 5 different time periods:

- Transactions created in the last hour
- Transactions created between 1 and 24 hours ago
- Transactions created between 24 and 48 hours ago
- Transactions created between 48 and 96 hours ago
- Transactions created between 96 and 168 hours ago

Created	The total number of transactions created in the time period.
Nbr of pages	The number of pages in the spooled files associated with the transactions counted in the above total.
Data size (Mb)	The data size in Megabytes of the spooled files associated with the transactions counted in the above total.
Processed	Of the total created in the time period, how many have been successfully processed.
Unprc. no error	Of the total created in the time period, how many have not yet been processed, but not because an error occurred.
In error	Of the total created in the time period, how many have not yet been processed because an error occurred.
Deleted	Of the total created in the time period, how many have been manually deleted (using WRKSPLTRN option 4)
Avg. time (s)	The average time taken to complete processing of a transaction in the time period, measured in seconds.

Substitution variables

When you create a user-defined option, you can include substitution variables. The following substitution variables are recognized by CoolTools and are converted at run time as shown below.

For example, you could define an option PD to run CoolSpools CVTSPLSTMF command to convert spooled files to PDF format with a particular set of parameters:

```
PD = CVTSPLSTMF    FROMFILE(&F)
                   TOSTMF(&F_&D_&T.&X)
                   JOB(&N/&U/&J)
                   SPLNBR(&S)
                   TOFMT(*PDF)
                   STMFOPT(*REPLACE)
```

When this option is selected against a spooled file, CoolTools will replace the substitution variables as per the table below. The TOSTMF parameter specifies that the stream file that is created should be the spooled file name followed by an underscore, then the creation date of the spooled file, another underscore, then the creation time of the spooled file, a period and the extension appropriate for PDF (PDF).

Substitution Variable	At run time, CoolTools replaces the variable with...
&A	The user data attribute of the spooled file
&B	(Currently unused)
&C	Product library of the command. For example, &C/CVTSPLPDF converts to CVTSPLV5R1/CVTSPLPDF or COOLSPV5R1/CVTSPLPDF, depending on whether you are running CoolTools or CoolSpools Plus.
&D	The date the spooled file was created. The format of this date is determined by the date format attribute of the job running the command.
&E	The email address of the user that created the spooled file, as derived from the system distribution directory
&F	The name of the spooled file.
&G	(Currently unused)
&H	(Currently unused)
&I	(Currently unused)
&J	The name of the job that created the spooled file
&K	The message key of the current spooled file message (if the

	spooled file is waiting for a message to be replied to)
&L	(Currently unused)
&M	The name of the user who created the spooled file, as derived from the system distribution directory.
&N	The job number of the job that created the spooled file
&O	The user profile which owns the spooled file.
&P	The printer device to which the spooled file is allocated.
&Q	The output queue where the spooled file is currently located.
&R	The output queue library.
&S	The spooled file number
&T	The time the spooled file was created in *HMS format (HHMMSS).
&U	The user of the job that created the spooled file
&V	The message queue associated with the writer to which the spooled file is currently allocated.
&W	The library of the message queue associated with the writer to which the spooled file is currently allocated.
&X	The file extension appropriate to the file format selected, e.g. PDF for TOFMT(*PDF), XLS for TOFMT(*XLS), TXT for TOFMT(*TEXT) etc.
&Y	(Currently unused)
&Z	(Currently unused)

CoolTools Log File

Logging of spooled file options is activated if you specify LOG(*JOBTYPE) (the default) when you run WRKSPLFPDM in batch mode, or if you specify LOG(*YES) and run WRKSPLFPDM in either batch or interactive mode.

Spooled files processed by spooled file monitors and processing jobs are not logged in the CoolTools log file since similar information is available from the CoolTools spooled file transactions file ST_SPLTRN.

When the logging of spooled file options is active, **CoolTools** writes a record to the log file **ST_SPLLOG** for every option it processes against a spooled file. This can be useful for a variety of purposes:

- As a permanent audit trail of actions taken against spooled files
- To drive subsequent processing. For example, an archiving application might decide whether to delete a spooled file by first checking the log file to ensure that the spooled file was successfully saved
- As a source of statistics

Each log record represents an option processed against a spooled file by the WRKSPLFPDM command.

Each log record contains the following information:

Field Name	Field Type	Description
SPLFNAME	CHAR(10)	The name of the spooled file to which the option was applied.
SPLFJOB	CHAR(10)	The name of the job in which the spooled file was created.
SPLFUSER	CHAR(10)	The user who created the spooled file.
SPLFJOBNBR	CHAR(6)	The number of the job in which the spooled file was created.
SPLFSPLNBR	BINARY(4)	The spooled file number in the job.
SPLFJOBID	CHAR(16)	The system internal identifier for the job in which the spooled file was created.
SPLFINTID	CHAR(16)	The system internal identifier for the spooled file.
OPTION	CHAR(2)	The option processed.
OPTTIME	TIMESTAMP	The date and time at which processing of the option completed.
OPTJOB	CHAR(10)	The name of the job in which the option was processed.
OPTUSER	CHAR(10)	The user name of the job in which the option was processed.
OPTJOBNBR	CHAR(6)	The number of the job in which the option was processed.
OPTRESULT	CHAR(1)	Whether processing completed successfully or not. 1=Ended without error. 0=Ended in error.