

MAINTENANCE GUIDE

V7R1

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Support Keys

A support key is a unique code specific to a system (or LPAR in the case of a partitioned system) and product option, valid until a particular date, that proves that the system or partition in question has a valid support contract with Ariadne for the product option in question and that you are therefore authorized to install fix packs on that system (or LPAR).

In order to install a CoolSpools fix pack on a particular system (or LPAR in the case of a partitioned system), you will require a valid CoolSpools support key, unless:

- a) you are running CoolSpools during the 30-day grace period after initial installation

or

- b) you are running CoolSpools on a temporary license key

If the system or partition in question has a permanent license for CoolSpools, a support key is required to install a fix pack.

You will be sent a support key valid until the expiry date of your support contract:

- a) when you are first sent a permanent license key for the system or partition in question

and

- b) when you renew your support contract

If you have licensed all chargeable CoolSpools product options, you will be sent a single support key valid for all options. If you have licensed only certain product options, you will be sent individual support keys for those product options.

If you have not received your support key, or if you have mislaid it, contact support@ariadnesoftware.co.uk and ask for your support key. Please quote:

- system serial number
- LPAR number

Please also advise when the server uses a VSN (virtual serial number).

This information is displayed if you take menu option 1 ("Install product options") from the CoolSpools Base Menu (BASEMENU, available as menu option 1 from the main CoolSpools menu COOLMENU).

Saving Support Keys

CoolSpools provides a means of saving your support keys on your system so that they do not need to be keyed in every time you wish to install a fix pack.

When you receive your first support key(s) when you license the product, or when you receive new support key(s) when you renew your support contract, you can run the SAVSUPKEY (Save Support Key) command to save the key to your system.

If you have received your support key from Ariadne by email, the email will contain the command string you need to run to save the key to your system. Simply copy and paste the command to your command line and run it.

This function is also available if you take menu option 5 ("Save support key") from the CoolSpools Base Menu (BASEMENU, available as menu option 1 from the main CoolSpools menu COOLMENU).

Parameters are as follows:

PRODUCT (Product)

At present the only possible value is:

***COOLSPools** CoolSpools

VERSION (Version)

At present the only possible value is:

***V7R1M0** CoolSpools Version 7

OPTION (Option)

The product option to which the support key relates

<u>*ALL</u>	The key is valid for all product options
*BASE	CoolSpools Base option
*SPLCVT	CoolSpools Spool Converter (product option 1)
*EMAIL	CoolSpools Email (product option 2)
*SPLADM	CoolSpools Spool Admin (product option 3)
*DATABASE	CoolSpools Database (product option 4)
*NETSERVER	CoolSpools NetServer Toolkit (product option 5)

SUPPORTKEY (Support Key)

The support key to save. The support key is a 32-character hexadecimal string. It is specified in the form of 4 sets of 8 characters.

Example:

```
SAVSUPKEY
PRODUCT(*COOLSPools)
VERSION(*V7R1M0)
OPTION(*ALL)
SUPPORTKEY(20MXF99C 61W692FE SRW4F4B0 HKEAEP5R)
```

Installing Fix Packs

From time to time, you may need to install a CoolSpools fix pack, either to correct a problem or to take advantage of an enhancement that has been released. This guide explains how to obtain and install CoolSpools fix packs released by Ariadne.

CoolSpools fix packs are also known as *PTFs* (Program Temporary Fixes). Strictly speaking, since CoolSpools Version 7 consists of six product options, each fix pack can in fact comprise up to six individual PTFs, one per product option.

Although it is possible to handle the PTFs that a CoolSpools fix pack comprises just like an IBM PTF, using the LODPTF and APYPTF commands to install them individually, this is not recommended. Since changes to one product option could be dependent on related changes to another product option in the same fix pack, by installing the component PTFs individually you run the risk of ending up with incompatible code for the various product options. We therefore recommend that you use the facilities described in this guide to ensure that all changes included in a fix pack are installed together.

The process of install a fix pack consists of 3 steps:

- Obtaining the fix pack to install
- Loading the fix pack (preparing it for installation)
- Applying the fix pack (activating the changes)

1. Obtaining Fix Packs

There are two ways to obtain a fix pack.

a) RTVFIX (Retrieve Fix) command

The RTVFIX (Retrieve Fix) command is supplied with CoolSpools as part of the base product option. It retrieves a fix pack to your system from the Ariadne FTP site.

Note that in order to use this method of obtaining fix packs your system must be able to connect to the Ariadne downloads location using FTP.

RTVFIX can be run from the command line or is also available as menu option 2 "Retrieve fix pack" on the CoolSpools base option menu BASEMENU (menu option 1 from the main CoolSpools menu COOLMENU).

Parameters are:

FIXNBR (Fix pack number)

This identifies the fix pack that you wish to retrieve.

The default is the special value:

<u>*LATEST</u>	(Default). Retrieves the latest generally available fix pack from the Ariadne FTP site.
-----------------------	---

Alternatively, specify the number of the fix pack you wish to retrieve.

fix_number	The number of the fix pack to retrieve.
-------------------	---

RTVFIX will download the fix pack in the form of a zip file called

PTF7CP0nnn.ZIP

where nnn is the fix pack number and will save it in directory

/CoolSpoolsV7R1/fixes

REPLACE (Replace fix if fix file exists)

Determines whether the fix will be retrieved again or not if it has already been retrieved once before, fully or partially.

Options are:

<u>*NO</u>	The fix will not be retrieved again.
*YES	The fix will be retrieved again and the existing fix file overwritten.

Example:

```
RTVFIX
FIXNBR(123)
```

b) Download fix pack zip files from CoolSpools website

You can also manually download fix packs from the CoolSpools website at <https://coolspools.com/support/guides/guide-coolspools-version-7-installation-options/#CoolSpoolsFixPacks>

You must download the fix pack control file called

PTF7CP0nnn.ZIP

where **nnn** is the fix pack number

AND

the code fix pack install files for each product option you have installed, which are called

Q7CPxnnn.ZIP

where **x** is the product option number **nnn** is the fix pack number

AND

the language fix pack install files for each product option you have installed, which are called

Q7CExnnn.ZIP

where **x** is the product option number **nnn** is the fix pack number

All of these files must be saved in directory

/CoolSpoolsV7R1/fixes

For the full all options product, there is a total of 13 files to download: the control file PTF7CP0nnn.ZIP and two zip files for each product option.

c) Download single combined fix pack zip file from Ariadne FTP site

Alternatively, there is a single combined zip file containing all of the files you need. It can be downloaded from https://ariadnesoftware.co.uk/fixes/FIX_PACK_nnn.ZIP where **nnn** is the fix pack number.

This single zip file contains a set of related zip files. Unzip the contents of the combined zip file FIX_PACK_nnn.ZIP into your system i's IFS directory **/CoolSpoolsV7R1/fixes** but **do not try to unzip the zip files called PTF7CP0nnn.ZIP and Q7Cxnnn.ZIP that FIX_PACK_nnn.ZIP contains: they are encrypted and the LODFIX command will unzip those for you.**

2. Loading Fix Packs

Loading a fix pack prepares it for installation. The new and modified objects are unzipped from the zip file, restored from the save files in which they are packaged and loaded into the product library with a temporary name.

The changes do not actually take effect until they are applied (activated).

Thus, you can carry out the Load step of the fix pack install process at any time convenient to you, including while CoolSpools is in use. You then only need to perform the Apply step while the system is not in use.

Before starting

Time required

Allow at least 20 minutes for the LODFIX command to run. On some older systems, LODFIX could take up to 60 minutes.

Authority

You must be signed on as a user with *SECADM and *ALLOBJ special authorities in order to run LODFIX. We recommend that QSECOFR or equivalent be used.

Support keys

Make sure your support keys have been saved on the system or you have them available to key in. See "Support keys" above for details.

In order to load a fix pack, you must use the LODFIX command.

LODFIX (Load Fix) command

The LODFIX (Load Fix) command is supplied with CoolSpools as part of the base product option. It loads a fix pack ready for final application with the APYFIX command.

In order to use LODFIX, you must have valid support keys for the system or partition on which you wish to install the fix.

LODFIX can be run from the command line or is also available as menu option 3 "Load fix pack" on the CoolSpools base option menu BASEMENU (menu option 1 from the main CoolSpools menu COOLMENU).

Parameters are:

FIXNBR (Fix pack number)

This identifies the fix pack that you wish to load.

fix_number The number of the fix pack to load.

SUPPORTKEY (Support key(s))

Notifies CoolSpools of the support keys for the product options you have licensed. See "Support keys" above for a discussion of what support keys are, how to obtain them and how to save them to your system.

If you used the option to save the support keys to your system, you can simply specify ***SAVED** for this parameter. CoolSpools will retrieve the saved support keys and use them.

If you have licensed all CoolSpools product options, you will have been supplied with a support key valid for all product options and can simply specify that one key on this command. If you have licensed some product options but not others, you will need to specify all of the product option support keys you were sent.

Options are:

*NONE	(Default). No support keys are specified. This option is only valid if no support contract is required in order to install fixes on the system (e.g. if you are running CoolSpools during the initial trial period).
*SAVED	Uses the support keys that were previously saved with the SAVSUPKEY command.
support_keys	List the support keys. Each support key takes the form of a 32-character hexadecimal string specified as 4 sets of 8 hex characters.

Example:

```
LODFIX
  FIXNBR(123)
  SUPPORTKEY((20MXF99C 61W692FE SRW4F4B0 HKEAEP5R))
```

3. Applying Fix Packs

Applying a fix pack activates the changes that were loaded to the system by the LODFIX command.

Before starting

Locks

In order to run the APYFIX command, CoolSpools must not be in use. The command will check for locks on objects in the CoolSpools product library before commencing and will abort the install process if any locks are found. It is recommended that, if possible, you run the APYFIX command while your system is in the restricted state.

If you have the Email module installed, then the CoolSpools SMTP jobs must be ended, you can do this with the following CoolSpools command:

ENDSMTPSVR

If you have the Spool Admin module installed, then the Output Queue monitor jobs must be ended, you can do this with the following CoolSpools command:

ENDMONSPLF

Time required

Allow at least 20 minutes for the APYFIX command to run. On some older systems, APYFIX could take up to 60 minutes.

Authority

You must be signed on as a user with *SECADM and *ALLOBJ special authorities in order to run APYFIX. We recommend that QSECOFR or equivalent be used.

In order to apply a fix pack, it is strongly recommended that you use the APYFIX command. It is possible (but not recommended) to apply the component PTFs that make up a fix pack using the IBM-supplied APYPTF command, but that does not ensure that all required PTFs are applied as a unit and could result in incompatible objects.

Precautions

By default, APYFIX automatically does a full SAVLIB of product library COOLSPV7R1. You can switch this off if you already have a suitable full backup of the library, but it is strongly recommended that you take this option unless you are sure that is the case.

You can also ask APYFIX to take a SAVLICPGM of each product option for which changes are being installed. This is not selected by default as it is not essential if a full SAVLIB has been carried out.

By default, APYFIX will also run the CoolSpools SAVREGFNC command to save a snapshot of your registered functions.

PTFs are installed using the *TEMP option so they can be removed using RMVPTF if there is a need to do so.

This is saved in directory /CoolSpoolsV7R1/fixes as LIB7CP0nnn.SAV where nnn is the fix number. This file can be deleted as soon as you are confident that the fix has

installed correctly and has not caused any unforeseen problems and you do not therefore need to recover.

- A SAVLICPGM of each product option from product 7COOLSP for which changes are being installed. This is saved as in directory /CoolSpoolsV7R1/fixes as LIC7Cx0nnn.SAV where nnn is the fix number and x is P for code changes and E for English-language object changes. These files can be deleted as soon as you are confident that the fix has installed correctly and has not caused any unforeseen problems and you do not therefore need to recover.
- PTFs are applied *TEMP initially.

If you experience an issue with a PTF, contact support@ariadnesoftware.co.uk for advice about recovering.

APYFIX (Apply Fix) command

The APYFIX (Apply Fix) command is supplied with CoolSpools as part of the base product option. It applies a fix pack i.e. makes the changes the fix contains live.

The fix must previously have been loaded (made ready) using the LODFIX command.

APYFIX can be run from the command line or is also available as menu option 4 “Apply fix pack” on the CoolSpools base option menu BASEMENU (menu option 1 from the main CoolSpools menu COOLMENU). Note however that if the fix pack includes changes to the display files for menus BASEMENU or COOLMENU themselves, you must run APYFIX from the command line as the display file will be locked if the option is taken from the menu.

Parameters are:

FIXNBR (Fix pack number)

This identifies the fix pack that you wish to apply.

fix_number	The number of the fix pack to apply.
-------------------	--------------------------------------

PRECAUTION (Precautions)

Save product library

Whether the CoolSpools product library is saved before the fix is applied.

It is strongly recommended you take this precaution unless you are confident you already have a full save of the library and no changes to objects or data have occurred since that save was taken.

<u>*YES</u>	Save library COOLSPV7R1 before applying the fix.
--------------------	--

The library is saved in a stream file called SAVLIBnnn.SAV, where nnn is the fix number, in directory /CoolSpoolsV7R1/fixes.

This file can be deleted as soon as you are confident that the fix has installed correctly and has not caused any unforeseen problems and you do not therefore need to recover.

***NO** No, do not save library COOLSPV7R1 before applying the fix.

Save licensed program

Whether a SAVLICPGM of each CoolSpools product option for which changes are being installed is also taken as an additional precaution.

***NO** No, do not do a SAVLICPGM first.

***YES** Yes, do a SAVLICPGM first.

The SAVLICPGM is output to a stream file in directory /CoolSpoolsV7R1/fixes called LIC7Cxyynn.SAV where nnn is the fix number and x is P for code changes and E for English-language object changes, and y is the product option number.

These files can be deleted as soon as you are confident that the fix has installed correctly and has not caused any unforeseen problems and you do not therefore need to recover.

Save registered functions

Whether the CoolSpools SAVREGFNC command is run to save a snapshot of your registered functions before the fix is applied.

Registered functions manage CoolSpools authority. Loss or corruption of this information could result in CoolSpools options becoming unavailable.

***YES** Run the SAVREGFNC command first.

The SAVREGFNC is output to a stream file in directory /CoolSpoolsV7R1/fixes called SAVREGnnn.SAV where nnn is the fix number.

This file can be deleted as soon as you are confident that the fix has installed correctly and has not caused any unforeseen problems and you do not therefore need to recover.

***NO** No, do not do a SAVREGFNC first.

Example:

**APYFIX
FIXNBR(123)**

On Completion

Resume CoolSpools activity

On successful completion of the APYFIX command, you can advise your users that the CoolSpools application is available for use. If your system was brought down to a restricted state for installation then you can restart subsystems now.

If you ended the CoolSpools SMTP email jobs, they can be restarted with the following CoolSpools command:

STRSMTPSVR

If you ended the Output Queue monitor jobs, they can be restarted with the following CoolSpools command:

STRMONSPLF

HA/DR Fix Pack Considerations

Hardware Replication

If your environment includes mirroring to a Disaster Recovery server using hardware replication, then fix packs installed to your production server should be automatically applied in full to your backup server by mirroring, so no additional action is required to update your HA/DR server.

Software Replication

You may be tempted to allow software replication to mirror fix pack changes to your Disaster Recovery server, but if any object types are excluded from replication, as is suggested in the CoolSpools HA/DR recommendations, this may result in failure of the CoolSpools software on your HA/DR server, due to inconsistencies in the level of application objects.

For this reason, the recommended approach with software replication is to stop mirroring of the CoolSpools library before running the steps to load and apply the fix pack separately on both the production and backup server. Note that both servers should be updated before mirroring is restarted, so the best approach would be to update them both on the same day.