
UL/SPF

Installation and Maintenance Guide



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Proprietary Notices

The following products:

- *SirDBA*
- *SirFile*
- *SirLib*
- *SirMon*
- *SirPro*
- *SirScan*
- *UL/SPF*

are proprietary products of Sirius Software, Inc.:

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Introduction to UL/SPF

UL/SPF is a family of products implemented as User Language application subsystems and designed to function together in a *Model 204* Online. Each product in the family can be installed and run independently, or each can be installed and run as a component of the integrated *UL/SPF* (User Language / System Productivity Facilities) framework.

All *UL/SPF* products share a common "look and feel" that is modelled upon IBM's ISPF facilities. *UL/SPF* supplants the sometimes arcane command language of *Model 204*, providing a highly productive full screen interface to a variety of common *Model 204* functions. *UL/SPF* enhances the capabilities of *Model 204* and bypasses many of its restrictions, enabling the performance of routine tasks that were previously impossible or prohibitively time-consuming.

UL/SPF comprises the following products:

- SirDBA*** A system that analyzes *Model 204* databases to determine their logical structure, populating an internal catalog. *SirDBA* is distributed as a component of the *Sir2000 Database Analysis Tools*.
- SirFile*** A comprehensive facility both for monitoring the physical storage utilization of *Model 204* database files and for warning users of the need for file reorganizations. *SirFile* maintains historical information that allows it to predict when file sizing problems *will* occur, allowing a DBA to take preventative action before an application outage results.
- SirLib*** A powerful and flexible system that provides change management and configuration control for *Model 204* User Language applications. *SirLib* is fully integrated within the *Model 204* programming environment, supporting unique *Model 204* constructs such as file groups, while remaining nearly transparent to programmers.
- SirMon*** A comprehensive facility for monitoring the performance and availability of *Model 204* online systems. *SirMon* combines the real time monitoring of *Model 204* performance with intelligent full screen displays that facilitate System Manager duties.
- SirPro*** A collection of powerful and easy to use tools for programmers, database administrators, and application managers. *SirPro* provides programmers with powerful facilities for managing large libraries of User Language procedures, and it provides system managers with intuitive ISPF-like front ends to many *Model 204* system management commands.

SirScan A high performance utility that allows users in a *Model 204* Online to browse the contents of its journal in real time. *SirScan* permits ordinary users to view journal entries generated by their own online session, and it allows users in ADMIN SCLASSES to browse journal entries for any set of users. The data is displayed in a full-screen browser with powerful searching commands and filtering options.

In addition, a number of subsystems that are not linked into the *UL/SPF* menuing structure may be accessed via APSY-transfer from the *UL/SPF* applications. One such subsystem is **FACT**, a utility for browsing *SirFact* dumps.

There are also many sample web and client-server applications developed for the Janus product family that are distributed and installed along with the *UL/SPF* products. These include **JANCAT**, an application that builds normalized views of *Model 204* data for use by *Janus Specialty Data Store* applications, and **JANSSL**, a system for creating and managing SSL certificate requests.

1.1 UL/SPF packaging and installation requirements

All of the *UL/SPF* products are *Model 204* application subsystems written in User Language. *UL/SPF* is distributed as a set of *Model 204* files in a backup format produced by the *Model 204* DUMP command. As of *UL/SPF* Version 6.8, all User Language based products are distributed in a single *Model 204* procedure file called **SIRIUS**.

UL/SPF makes extensive use of specialized User Language \$functions provided by Sirius Software. These \$functions enable the creation of powerful User Language application systems that can support complex environments with minimal server size requirements. The \$functions are part of the *Sirius Mods*, which must be installed according to the instructions contained in ***Sirius Mods Installation Guide*** before any *UL/SPF* product will work.

Although all of the *Sirius Functions* are documented in the ***Sirius Functions Reference Manual***, their use is controlled by a product authorization mechanism. Many functions require that a specific *UL/SPF* product be authorized. Some functions may only be invoked from an authorized procedure that has been “signed” by Sirius. The **SIRIUS** command may be used to examine the status of all Sirius products installed in a *Model 204* Online.

1.2 Integrating UL/SPF with other subsystems

UL/SPF and any of its constituent products can be easily integrated with other User Language subsystems. Whenever a *UL/SPF* component product is exiting, it first checks to see if the global variable `SIRIUS.COMM` exists and has a non-null value. If so, the *UL/SPF* product performs a subsystem transfer using the value in `SIRIUS.COMM` as the name of the target subsystem.

For example, the following code fragment lets you transfer into `SIRMON`. When `SIRMON` exits, control is transferred to the application subsystem `MENUSYS`, provided that `NEXTPROC` is the current subsystem's communication global variable:

```
%RC = $SETG('SIRIUS.COMM', 'MENUSYS')
%RC = $SETG('NEXTPROC', 'XFER')
%RC = $SETG('XFER', 'SIRMON')
STOP
```

In addition to the individual User Language subsystems that implement the *UL/SPF* products (*SirDBA*, *SirFile*, *SirLib*, *SirMon*, *SirPro*, and *SirScan*), Sirius distributes an umbrella *UL/SPF* subsystem: The **ULSPF** subsystem provides a menu that contains entries for all *UL/SPF* components installed at a site.

The *UL/SPF* subsystems support fast path navigation. For example, a *SirMon* user can transfer into *SirPro* Option 1 by typing:

```
=M.1.1
```

1.3 Related manuals

The following manuals are available for public download at <http://sirius-software.com/maint/manlist>, and they may also be obtained by contacting Sirius Software:

- ***SirDBA User's Guide***
- ***SirFile User's Guide***
- ***SirLib User's Guide***
- ***SirMon User's Guide***
- ***SirPro User's Guide***
- ***SirScan User's Guide***
- ***UL/SPF Installation and Maintenance Guide***
- ***Sirius Mods Installation Guide***
- ***Sirius Functions Reference Manual***
- ***Sirius Messages Manual***

The following manuals are part of the *Model 204* documentation set available from the Computer Corporation of America:

- ***Model 204 Command Reference Manual***
- ***Model 204 File Manager's Guide***
- ***Model 204 System Manager's Guide***
- ***Model 204 User Language Manual***

CHAPTER 2 *Preparing for Installation*

This is a step-by-step guide to the installation and maintenance of Sirius Software's *UL/SPF* products under the CMS and MVS operating systems. The *UL/SPF* products, described in the previous chapter, are implemented as *Model 204* subsystems. This manual describes how to install the component subsystems of *UL/SPF* and the sample application files for the Janus product suite.

2.1 Obtaining product installation files

The files necessary for the installation are available either from distribution tapes or from the Sirius web site. Downloading and installing from the web site is generally easier, as you don't have to wait for tapes to arrive and be cataloged onto your system.

To download product files from the Sirius web site:

1. On the Sirius home page, click the "Support" link in the "Sirius Home" list in the yellow navigation frame.
2. In the "Customer Service" section, click the "Download User Language files" link.

This brings you to a Customer Maintenance page that contains a list of Sirius Software User Language dump files. The "Click here" link on this page provides Help information that contains downloading hints, some information about different browser behaviours, file sizing information, and more.

2.2 Getting User Language fixes

User Language maintenance is discussed in "[UL/SPF User Language Maintenance](#)" on [page 25](#). As with product distribution, you can get fixes from Sirius on a product tape, but they can also be downloaded from the Sirius web site.

For fixes from the web, sorted in last-updated order:

1. On the Sirius home page, select the "Support" link in the "Sirius Home" list.
2. In the "Customer Service" section, select the "Download fixes - Sorted by last update" link.

For fixes sorted by product and version: In the "Customer Service" section, select the "Download fixes - Sorted by product and version" link.

If you download fixes, you must upload and apply them as described in [“Using SIRFIX to apply fixes” on page 27](#). However, most users have stopped downloading and applying fixes in favor of downloading the most recent User Language product file dump from the web site and overlaying their current product file.

If you've already done the *UL/SPF* installation once, this latter approach is all you need to do in most cases to upgrade to a higher maintenance release or to a new version. Usually, it is only necessary to run through the entire installation process for a new release if Sirius has added or changed field definitions in a product's data files (as is the case with Version 6.8).

2.3 Determining eligible products

To download files or maintenance from the Sirius web site, you must have a user ID provided by Sirius (contact Technical Support if you need an ID). The web site will show only products for which your organization is up to date on maintenance or rental payments. If a product does not appear on your download page and you believe it should, contact Sirius Technical Support.

If you are working from a distribution tape, files for products not purchased by your organization will be present but empty on the installation tape.

Any step of the installation process may be bypassed if it applies only to a *UL/SPF* module you are not installing.

2.4 System requirements

- *UL/SPF* operates in a *Model 204* online region, and Sirius supports all releases of *Model 204* that are supported by Computer Corporation of America.

In the rest of this document, “Online” refers to a region of *Model 204* running an ONLINE load module containing the *Sirius Mods*.

- The installing user must have System Manager privileges, as well as access to SUBSYSMGMT and the JCL or EXEC that runs the Online *Model 204* region.
- Requirements for server sizes and parameter settings for each product are listed in [“UL/SPF server size and additional customization” on page 18](#).
- *Sirius Mods* custom \$functions must be activated.

The *UL/SPF* products make extensive use of custom \$functions that are part of the *Sirius Mods*. Before continuing with installation, follow the instructions in the ***Sirius Mods Installation Guide*** to make the \$functions active in the target Online.

To test that the *Sirius Mods* is installed and linked, type `SIRIUS` at the *Model 204* command line to display the status of the *Sirius Mods*. An error results if the *Sirius Mods* is not linked into the Online.

Note: As of version 6.8, *UL/SPF* requires a matching or higher *Sirius Mods* version number.

2.5 User privileges

The installing user must have:

- Update access to the JCL or EXECs that bring up the host Online.
- A *Model 204* userid with SUPERUSER privileges to allow file creations and field definitions.

2.6 Full Install or Quick Install

The following chapters describe the steps for a “quick install” option, as well as the steps for a full installation. The quick install, which is not necessarily faster than the full install, is a more manual way of doing some of what the full installation does programmatically, included for users who want to understand better what the installation is doing.

- You can execute the full installation whether you are a new user or a re-installing user. If you re-install, all user settings from the previous version of *UL/SPF* are preserved.
- Sites that have never installed *UL/SPF* must use the full installation, as there are a number of files to allocate and *Model 204* parameters to update.
- Sites that are re-installing the latest version of *UL/SPF* may use the quick-install or the full installation (some of whose steps would already be complete, such as the allocation and initialization of SIRLOCAL).
- If you are upgrading from a previous version or maintenance level, your site already has a SIRLOCAL file, which holds users' profiles and other local customizations. Your existing SIRLOCAL should be left intact and allocated to the Online, as the installation process uses SIRLOCAL information to determine which features should be upgraded.

A “Quick Install” for Existing UL/SPF Sites

If a version of *UL/SPF* earlier than 6.8 is already installed at your site, it is easy to manually convert your *Model 204* Online to handle a version of *UL/SPF* that has all products in a single file. You download a copy of the SIRIUS file from the Sirius website, change a few APSY settings, and (if you are using *SirLib*) allocate one new data file.

If you prefer not to make manual changes to APSYs via SUBSYSMGMT, follow the installation steps for your operating system in the chapters after this, instead of using this “quick install.” Also, “Full Install or Quick Install” on page 7 has comments about whether this “quick install” is suitable for you.

Here are the detailed installation steps:

1. From the “User Language dump files” page in the Support section of the Sirius website, download the SIRIUS file (which is labeled “All *UL/SPF* products in one file”). Then restore this file into a 4200-page file on your mainframe. The DDNAME for this file in your *Model 204* regions is SIRIUS.
2. For all *UL/SPF* subsystems used at your site, use SUBSYSMGMT to change the communication global to NEXT, the exit value to LOG, and the procedure file to SIRIUS.

The *UL/SPF* subsystems are any or all of: SIRDBA, SIRFILE, SIRLIB, SIRPRO, SIRSCAN, SIRMON, FACT, SIRADMIN, ULSPF, and JANCAT.

3. If your site uses *SirLib*, allocate a 2000-page procedure file named SIRTPROC, initialize it (with the largest possible Table D), and add it to the SIRLIB APSY definition as a “REQUIRED” file.
4. If you have any Janus Web links to the canned applications formerly distributed in the JANUS file, change their Janus Web rules to point to file SIRIUS instead of file JANUS.

Note: Version 6.8 of *UL/SPF* is dependent on Version 6.8 or higher of the *Sirius Mods*.

A Summary of the Installation Steps

The following checklist specifies in brief the steps you follow to install *UL/SPF*, whether for MVS or CMS. The following chapters (“[Installing UL/SPF under MVS](#)” on page 13 and “[Installing UL/SPF under CMS](#)” on page 21) describe these steps in greater detail.

1. Install and link the *Sirius Mods* as described in the ***Sirius Mods Installation Guide***. As of version 6.8, *UL/SPF* releases require a matching or greater version number of the *Sirius Mods*.
2. Allocate the space required for the SIRIUS and SIRFIXES datasets, and RESTORE them from tape, where they are stored in DUMP format, or from the DUMP files found on the web site.

In addition, there may be any number of other datasets required for the *UL/SPF* components you are installing. These are listed in “[Installation checklist \(MVS\)](#)” on page 14 and “[Installation checklist \(CMS\)](#)” on page 21.

3. Update the Online JCL or EXEC:
 - Add the DD cards or FILEDEFS for the SIRxxxxx and/or JANxxx files.
 - Verify that the SYSOPT parameter has the 1 and 2 bits set.
4. Update CCAIN parameters:
 - Increase NFILES, NDCBS, and NDIR for the SIRxxxxx and/or JANxxx files.
 - Verify that NORQS is at least 5.
5. Start the Online, using an ONLINE load module that contains the *Sirius Mods* (the \$functions).
6. Open file SIRIUS and execute the following command:

```
INCLUDE SETUP.EXE
```

Follow the instructions on the installation screen (and in the Help text for the screen).

7. Add users to the appropriate SCLASSs for the Sirius APSYs.
8. Verify success of the installation by compiling each Sirius APSY.
9. Read “[UL/SPF server size and additional customization](#)” on page 18 to determine if additional APSY-specific customizations are required at your site.

Detailed instructions follow for installing *UL/SPF* under MVS and CMS.

Installing UL/SPF under MVS

This chapter gives instructions for installing *UL/SPF* under MVS, including the general system and software requirements. If you received your product on tape, the following instructions apply. If like most sites, you download products and updates from the Sirius website, see the instructions in [“A “Quick Install” for Existing UL/SPF Sites”](#) on page 9.

Note: The Sirius installation tape for MVS has an internal label of `SIRIUS`, and it contains ULSPF files in an IEBCOPY unloaded PDS on file 3 of the tape. Before continuing, unless you have downloaded the product files from the web site, *you must load to disk the unloaded PDS before you can RESTORE the individual members to Model 204 files.*

The following JCL will load the ULSPF files to disk:

```
//LOADSIR JOB  Ø,CLASS=A,MSGCLASS=X,NOTIFY=ME
//*
//*      Load Sirius products from tape
//*
//LIB      EXEC PGM=IEBCOPY,REGION=ØM
//T1      DD  UNIT=TAPE,LABEL=(1,SL),DSN=SIRIUS.LIB,
//          DISP=(OLD,PASS),VOL=SER=SIRIUS
//T2      DD  UNIT=TAPE,LABEL=(2,SL),DSN=SIRIUS.LOAD,
//          DISP=(OLD,PASS),VOL=SER=SIRIUS
//T3      DD  UNIT=TAPE,LABEL=(3,SL),DSN=SIRIUS.ULSPF,
//          DISP=(OLD,PASS),VOL=SER=SIRIUS
//*
//D1      DD  DISP=(,CATLG),SPACE=(CYL,(1Ø,Ø,5),
//          DSN=SIRIUS.LIB,UNIT=SYSDA
//D2      DD  DISP=(,CATLG),SPACE=(CYL,(5,Ø,2),
//          DSN=SIRIUS.LOAD,UNIT=SYSDA
//D3      DD  DISP=(,CATLG),SPACE=(CYL,(44,Ø,2),
//          DSN=SIRIUS.ULSPF,UNIT=SYSDA
//SYSPRINT DD  SYSOUT=*
//SYSIN   DD  *
COPY INDD=T1,OUTDD=D1
COPY INDD=T2,OUTDD=D2
COPY INDD=T3,OUTDD=D3
/*
```

The JCL includes references to these files:

<i>File Num / Name</i>	<i>Contents</i>
1 / SIRIUS.LIB	File required for the installation of <i>Sirius Mods</i> . See the <i>Sirius Mods Installation Guide</i> for more details.
3 / SIRIUS.ULSPF(DUMPSIRI)	A <i>Model 204</i> DUMP of the SIRIUS file that is required for all the subsystems.
3 / SIRIUS.ULSPF(DUMPFIX)	A <i>Model 204</i> DUMP of the SIRFIXES file that is required for maintaining all subsystems, if your site uses SIRFIX to apply User Language changes.

5.1 Installation checklist (MVS)

1. Install the *Sirius Mods*. Refer to the ***Sirius Mods Installation Guide*** for details.

Note: The Online in which *UL/SPF* will run must point to a load module containing the *Sirius Mods*. Also, as of version 6.8, *UL/SPF* releases require a matching or greater version number of the *Sirius Mods*.

2. Allocate the space required for the Sirius files, and restore them from the PDS loaded from the SIRIUS tape:

The space required for each dataset is as follows:

SIRIUS 4200 pages (it must always be allocated; this replaces allocations for individual UL/SPF product files, as of version 6.8).

The SIRIUS file has X'0221' privileges, which do *not* allow RESTORE. If you are creating a new SIRIUS file from scratch, this will not be a problem. But if you are restoring into your existing SIRIUS file, you will have to CREATE the file first (to wipe out existing content) before you execute the RESTORE. The command sequence would be something like:

```
CREATE FILE SIRIUS
END CREATE
OPEN FILE SIRIUS
IN SIRIUS RESTORE 192 FROM <whatever>
```

SIRLOCAL 105 pages (must always be allocated).

SIRFIXES 1050 pages (must be allocated if you use SIRFIX to apply User Language fixes).

SIRFILED	1050 pages (if you are installing SIRFILE).
SIRLIBD	1050 pages (if you are installing SIRLIB).
SIRLIBP	700 pages (if you are installing SIRLIB).
SIRTPROC	2000 pages (if you are installing SIRLIB). This file can and should be sized larger if you maintain hundreds or thousands of change decks in SIRLIB.
JANCAT	1050 pages (if you are installing Janus OMNI).
JANSSL	1050 pages (if you are installing Janus SSL).

IMPORTANT:

If you are upgrading from a previous release, use your old copies of SIRLOCAL and any application-specific data files, like JANCAT, SIRLIBD, SIRFILED, or SIRXREFD. The installation process uses these files to determine whether to perform upgrade actions or new-installation actions.

Restore the non-empty files from the ULSPF PDS members.

- Modify LOADPROC in the JCL library created during the \$functions installation (usually `SIRIUS.Vxxx.LIB`, where `xxx` is a version number) to refer to an appropriate load module and CCAxxxx files. Note that LOADPROC may have been customized for your site to include only those files relevant to your installation process.
- Rename database DSNs to conform to local standards.
- Provide a valid logon ID and password for the CCAIN stream for this job. If, for example, you are using the SIRIUS file for the first time, make sure it is created, opened, and initialized before the RESTORE.

3. Update the Online JCL or EXEC:

- a. Add DD (MVS) cards or FILEDEFS (CMS) for the Sirius files. The following list identifies the files for which DD cards or FILEDEFS may be needed:

SIRIUS	must always be allocated
SIRLOCAL	must always be allocated
SIRFIXES	must be allocated if you use the SIRFIX subsystem to apply User Language fixes
SIRFILED	if installing SIRFILE

SIRLIBD, SIRLIBP, SIRTPROC
if installing SIRLIB

JANCAT if installing JANUS OMNI Access Module

JANSSL if installing JANUS SSL Module

- b. Verify that the Online environment allows the use of file groups and APSY subsystems.
 - To use permanent file groups, the Online must have allocated an initialized CCAGRP file, and the SYSOPT parameter must contain the 2 bit.
 - To use APSYs, an Online must have allocated an initialized CCASYS file (with all fields defined), and the SYSOPT parameter must contain the 1 bit.

For more information about APSYs and file groups, see the *Model 204 System Manager's Guide*.

4. Modify the User 0 stream.

Adjust these parameters:

NFILES Increase by the number of *UL/SPF* files.
NDCBS Increase by the number of *UL/SPF* files.
NDIR Increase by the number of *UL/SPF* files.
NORQS Verify setting is at least 5.

5. Start the *Model 204* Online region, verifying that it points to a load module containing the Sirius \$functions.
6. OPEN FILE SIRIUS (no password is required), and execute the following command:

```
INCLUDE SETUP.EXE
```

This procedure performs all installation functions for new users, and all upgrade functions for reinstalling users. No user profiles or other site-specific customization will be lost. If any problems are encountered while running this procedure, correct the problem and re-execute.

The procedure SETUP.EXE also builds an APSY subsystem called SETUP.EXE. If installations need to be re-run, the subsystem may be invoked rather than the procedure.

During APSY execution, some error messages are not suppressed to aid in diagnosing any installation problems. For example, you will be able to see if an installation failed because a file was enqueued in a different Online, etc.

7. Add users to the appropriate SCLASSEs for any private or semi-public Sirius APSYs.

The installing user is automatically added to the administration SCLASS in all Sirius APSYs.

8. Verify the installation of the subsystem(s) by compiling all of the subsystems.

Enter ...

To test the ...

SIRSCAN START	Journal scanner
SIRFILE START	File Monitoring subsystem
SIRPRO START	Developers' Environment
SIRMON START	Online performance monitor
SIRLIB START	Change Management system
ISQL START	Janus Open Client / Interactive SQL system
JANCAT START	Janus OMNI Table manager
JANSSL START	Janus SSL certificate management system

If any of these subsystems fails to compile, ensure that the subsystem is STOPped, and run it under TEST DEBUG mode. For example, to determine why SIRSCAN failed to compile, enter:

```
TEST DEBUG SIRSCAN
```

9. This step is optional but recommended. Modify the online input stream so User 0 initializes (compiles) the *UL/SPF* subsystems. Do this by placing one or more of the following in User 0's input stream:

```
SIRSCAN START  
SIRFILE START  
SIRPRO START  
SIRMON START  
SIRLIB START  
JANMAN START  
JANCAT START  
START SUBSYSTEM ULSPF
```

This ensures that the subsystems are started for non-administrative users, and it shifts the overhead of compilation to a non-peak computing period.

10. Review “[UL/SPF server size and additional customization](#)” on page 18 for specific requirements of individual APSY components of *UL/SPF*.

Note: CCATEMP usage may increase with *UL/SPF*. CCATEMP should be monitored (VIEW TEMPSIZE, TEMPMAX) to ensure that sufficient space is allocated to accommodate the additional activity.

5.2 **UL/SPF server size and additional customization**

The minimum *UL/SPF* server size requirements are listed below. The actual server size requirements may vary slightly, because of table settings in the local Online *Model 204* regions, and because of slight differences between UTABLE requirements in different versions of *Model 204*.

<i>Subsystem Name</i>	<i>Minimum Server</i>
SIRSCAN	150K
SIRDBA	135K
SIRFILE	230K
SIRPRO	150K
SIRLIB	135K
SIRADMIN	150K
SIRMON	120K
ULSPF	135K

UTABLE settings

UL/SPF subsystems capture local UTABLE settings before they reset them to those required by *UL/SPF*. This is done so the original UTABLE settings can be restored on exit from the subsystems. Because of this, START procs in the *UL/SPF* subsystems have to perform slightly more work than START procs that just blindly reset UTABLE parameters.

Initial problems with *UL/SPF* subsystems are usually associated with one or two extremely small default UTABLE settings. Running the failing apsy in TEST DEBUG mode will highlight UTABLE parameters that need to be increased.

Additional setup for SIRLIB

Read and follow the instructions in the appendix “Getting Started” in the *SirLib User's Guide*.

Additional setup for SIRSCAN

The SIRSCAN administrator may use SIRADMIN option 4 to set default I/O and record maximums for users in the various SIRSCAN SCLASSES. This is described at the beginning of the *SirScan User's Guide*.

Additional setup for SIRMON

When users are added to SCLASSES, note that there is a special **BUMP** SCLASS. Any user added to this SCLASS gains the ability to BUMP other users. This class does not provide access to customizing options in SIRMON. Only users in the ADMIN SCLASS are able to add custom screen definitions to SIRMON.

If the SIRMON background monitor is to be used, add the following line to User 0's input stream:

SIRMON BACKGROUND

The Background monitor may also be started automatically in a BATCH2 thread or an sdaemon thread. Consult the ***SirMon User's Guide*** for details.

You can customize statistic thresholds or use the Sirius-supplied defaults to establish problem conditions.

As of *UL/SPF* Version 6.8, SIRMON has a feature to send warnings to e-mail addresses and cell phones (via e-mail). This feature requires *Janus Sockets* and a started *Janus Sockets* port.

Additional setup for SIRFILE

If the SIRFILE background monitor is to be used, add the following line to User 0's input stream:

SIRFILE BACKGROUND

As with SIRMON, the Background monitor may be started automatically in a BATCH2 thread or in an sdaemon thread, and you can consult the ***SirFile User's Guide*** for details.

You can customize the system and file-specific thresholds or use the Sirius-supplied defaults to establish problem conditions.

UL/SPF access privileges and SCLASSES

Each component application of *UL/SPF* has its own APSY definition and privileges associated with SCLASSES. If you have a good reason for doing so, you can redefine any of the *UL/SPF* APSYs as PUBLIC, SEMI-PUBLIC, or PRIVATE. Consult Sirius Software if you are unsure of the effect of a proposed change.

Installing UL/SPF under CMS

This chapter gives instructions for installing *UL/SPF* under CMS, including general system and software requirements. It assumes you have reviewed “[Preparing for Installation](#)” on page 5 for details on *UL/SPF* system requirements.

The Sirius distribution tape shipped with this document contains a single tape file in VMFPLC2 DUMP format which includes these files:

<i>File name</i>	<i>Contents</i>
<i>various</i>	Files required for the installation of <i>Sirius Mods</i> . See the <i>Sirius Mods Installation Guide</i> for more details.
ULSPF DUMPSIRI	A <i>Model 204</i> DUMP of the SIRIUS file that is required for the all subsystems.
ULSPF DUMPFIX	A <i>Model 204</i> DUMP of the SIRFIXES file that is required for maintaining all subsystems, if your site uses SIRFIX to apply User Language changes.

6.1 Installation checklist (CMS)

To install *UL/SPF* under CMS, perform the steps below.

1. Install the *Sirius Mods*.

As of version 6.8, *UL/SPF* releases require a matching or greater version number of the *Sirius Mods*. For information about installing the *Sirius Mods*, see the ***Sirius Mods Installation Guide***.

2. Allocate space for the Sirius files, and restore them from the distribution tape or from the dump files downloaded off the Sirius website.
 - a. Define and format a minidisk to hold the *UL/SPF* installation files. 3400 4096 byte CMS blocks should be sufficient in all cases. This requires a 44 cylinder CMS minidisk on a 3390.
 - b. Attach a tape drive at virtual address 181 to the owner of the installation minidisk defined in step 1. Mount the Sirius distribution tape on this tape drive.

- c. Load the files appropriate to your site with the VMFPLC2 LOAD command. This can be done most simply with the following sequence of commands:

```
TAPE REW
VMFPLC2 LOAD (EOT
```

- d. Allocate space for the required *Model 204* datasets. A skeleton exec, ULSPFAL, is provided for this purpose. Modify this exec to perform the allocations on the appropriate minidisks. Allocate space for the following data sets :

SIRIUS	4200 pages (must always be allocated; replaces allocations for individual UL/SPF product files as of version 6.8).
SIRLOCAL	1050 pages, must always be allocated.
SIRFIXES	1050 pages, must always be allocated.
SIRFILED	1050 pages, if you are installing SIRFILE.
SIRLIBD	1050 pages, if you are installing SIRLIB.
SIRLIBP	700 pages, if you are installing SIRLIB.
SIRTPROC	2000 pages, if you are installing SIRLIB. This file can and should be sized much larger if you maintain hundreds or thousands of concurrent change decks in SIRLIB.
JANCAT	1050 pages, if you are installing Janus OMNI.
JANSSL	1050 pages, if you are installing Janus SSL.

IMPORTANT:

If you are upgrading from a previous release, use your old copies of SIRLOCAL and any application-specific data files, like JANCAT, SIRLIBD, SIRFILED or SIRXREFD. The install process uses these files to determine whether to perform upgrade actions or new-installation actions.

- e. Restore the files appropriate to your site with the LOADPROC exec.

To restore, customize the FILEDEFS inside the LOADPROC exec to conform to local standards. In addition, modify LOADPROC CCAIN to contain a valid login ID and password. If, for example, you are using the SIRIUS file for the first time, make sure it is created, opened, and initialized before the RESTORE.

To run the LOADPROC exec, make sure the Online execs and load modules are on an accessed disk, then type the command:

```
ONLINE LOADPROC
```

3. Complete steps 3 through the end in [“Installing UL/SPF under MVS”](#) on page 13.

You maintain *UL/SPF* User Language via the SIRFIX subsystem. This subsystem takes, as input, “control” and “update” procedures contained in the SIRFIXES database file. **NEVER** directly edit procedures in any *UL/SPF* procedure file, as this will invalidate Sirius-distributed maintenance, and it will almost certainly cause the User Language procedures to run incorrectly.

Many Sirius clients have stopped using SIRFIX in favor of downloading new copies of Sirius procedure files from the Sirius web site. This is probably faster and easier than using SIRFIX, but remember: if you work with whole files, the fixes in file SIRFIXES will not match the current state of the product files.

For example, if you download the dump of SIRIUS and restore it over your current SIRIUS file, it will contain all the latest maintenance. If you try to run SIRFIX against this SIRIUS file without also updating SIRFIXES from either the web site or a distribution tape, SIRFIX will “undo” some of the current maintenance and return SIRIUS to an earlier maintenance level.

The best course is consistency: You can either download new copies of the product files and restore them into place, or you can download a copy of SIRFIXES off the web site and apply maintenance via SIRFIX to all your existing product files. You should decide how you are going to maintain your products, and stick with one method.

7.1 Working with the SIRFIXES file

The SIRFIXES file is distributed as a private file. To define and apply maintenance to the User Language part of *UL/SPF*, you must first define a password that allows you to update procedures in SIRFIXES. This can be done with the LOGCTL command. The recommended privilege setting for SIRFIXES is X'1239'.

SIRFIXES contains two types of procedures:

- **Control procedures**, which list updates to be applied to a *UL/SPF* procedure file.
- **Update procedures**, which describe the updates to be made to individual *UL/SPF* procedures.

Control procedures always have names like:

```
CONTROL.<filename>
```

where <filename> is the name of a procedure file for one of the *UL/SPF* subsystems.

For example, the control procedure for procedure file SIRIUS is named CONTROL.SIRIUS. This control procedure contains a list of update names and descriptions. The update name is eight characters or shorter, and it is the first blank delimited string on each line of the control procedure. For example, CONTROL.SIRIUS might contain the following lines:

```
B1ONENQ * Bug in handling record locking conflict
B1ADMMSG * Fix invalid message in administration menu
B1ADHELP * Correct help screen in administration menu
```

In this example, there are three update names: B1ONENQ, B1ADMMSG, and B1ADHELP. Each of these names has associated with it one or more update procedures which will also be in SIRFIXES.

Update procedures have names like:

```
<filename>.<update-name>.<procedure-name>
```

Where *<filename>* is the target file for the update, *<update-name>* is a logical change identifier, and *<procedure-name>* is the procedure targeted for update.

For example, there might be two updates associated with B1ONENQ. Their names might be SIRIUS.B1ONENQ.TOPR-MAIN.MENU and SIRIUS.B1ONENQ.TONP-ERROR. This naming convention allows Sirius to:

- Distribute updates to all *UL/SPF* products in a single file
- Link changes across procedures to ensure logical consistency across an application

7.2 Obtaining fixes

Sirius distributes software changes in a number of ways. Changes are either sent on a magnetic tape or made available for download from the Sirius web site. If necessary, Sirius will e-mail fixes. But the fixes always are copied to the web site as soon as they're available.

The URLs for downloading fixes are:

```
https://sirius-software.com/maint/fixlist
```

```
https://sirius-software.com/maint/altfixlist
```

The first URL displays fixes in most-recently-updated order. The second URL displays fixes by Sirius product, then by the version of *Model 204* to which they apply. Both URLs display the same set of maintenance.

Note: You can also download whole User Language procedure files for any given product. Sirius does not display the last-modified date on the procedure file page, but the date for dumps is always the same as the update date for fixes for that file.

So, for example, you can check the date for the most recent changes to SIRIUS at one of the links above, then go to the file download page to take a whole file instead. The URL for whole file downloads is:

<https://sirius-software.com/maint/ullist>

If you download whole procedure files, you can skip this section completely as the files downloaded from the web site always have all current maintenance applied.

7.3 Using SIRFIX to apply fixes

All update procedures from Sirius Software should be placed into the SIRFIXES file. In most cases, a whole new CONTROL.<filename> procedure will be sent each time there is maintenance, and the old control procedure can be written over. At other times Sirius may request that you enter a line in the existing control procedure.

For example, you might receive a fix for a bug in the cross-referencer. The fix might be called B1OPNERR. An update procedure called (something like) *SIRIUS.B1OPNERR.XREFP-CROSS.OUT* would be supplied. You place this procedure into SIRFIXES, then edit CONTROL.SIRIUS. At the bottom of CONTROL.SIRIUS, you place a line such as:

```
B1OPNERR * Fix bug opening semi-public files
```

The fix is now ready to be applied. To do this:

1. STOP APSYs that are using procedures in the file.
2. Invoke SIRFIX by typing this command: `SIRFIX`
3. As shown in the figure below, enter the name of the procedure file to be fixed, in this case: `SIRIUS`

```
----- Sirius Maintenance Subsystem -----  
  
Name of procedure file to be fixed ==> SIRIUS  
  
This subsystem will read the fixes listed in CONTROL.pfile where 'pfile'  
is the name of the procedure file to be fixed. CONTROL.pfile must be in  
Model204 procedure format in procedure file SIRFIXES.  
  
CONTROL.pfile contains a list of fix names, optionally followed by a comment  
describing the nature of the fix. A blank must separate the comment from  
the fix name. Any line in the CONTROL.pfile procedure that begins with an  
'*' is ignored.  
  
For each fix name in CONTROL.pfile, there must be one or more procedures  
called pfile.fixname.procname where pfile is the name of the procedure file  
to be fixed, fixname is the name of the fix and procname is the name of  
the procedure requiring an update. The contents of these fix procedures  
must be provided by Sirius Software product support.  
  
-----  
PF3/ Exit
```

SIRFIX

You can run SIRFIX any number of times against a procedure file. Maintenance will only get applied once. You can also back off a fix:

1. Remove the update name from the CONTROL file, or comment the update name out by placing an asterisk (*) at the start of the line describing the update.
2. Run SIRFIX against the appropriate procedure file again.

You can determine the updates that have been applied to most procedures in *UL/SPF* by editing the procedure. SIRFIX inserts a descriptive comment at the top of updated procedures. The only procedures not commented are those that begin with the characters **HELP**, **MSGS**, or **HTML**.

Subsystem SIRFIX should always be stopped after exiting, as it holds enqueues on the *UL/SPF* files.

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