

3rd Party Software

Installation Procedure





READ ME FIRST

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1. OVERVIEW

This document explains the **NEW installation** and configuration procedures for installing and setting-up the Cronus 3rd Party Software products. Please contact Cronus if attempting an upgrade or re-installation of the software.

XiText

LPR Printer Driver

SUSPR

S4 Software (if required)

CoSort (if required)

2. INSTALLATION STEPS

- a. **Create an installation directory and sub-directories.**
- b. **Validate spooler user-id**
- c. **Xi-Text Installation**
- d. **Installing LPR Driver and SUSPR**
- e. **S4 Software installation**
- f. **CoSort Software installation**
- g. **Installing licenses of licenses**



3. PRE-INSTALLATION OF 3RD PART SOFTWARE

This section explains how to transfer and unpack the 3rd Party software.

a) Create an installation directory

As the user-id '**sag**' create an installation directory to load and extract the supplied software.

For Example:

```
cd $CRONUS  
mkdir 3rdparty
```

b) Transfer the compressed software packages.

Binary FTP the **compressed** software packages to the Linux server, save it in the **\$CRONUS/3rdparty** directory.

c) Uncompress the software from compressed file.

As the user-id "root"

Uncompress the supplied software using **gunzip** to extract the software packages:

For example:

```
cd $CRONUS/3rdparty  
gunzip x86_64-linux-centos7.0-xitext-23.49.gz
```

d) Extract the software from tarbal file.

As the user-id "root"

```
cd $CRONUS/3rdparty  
tar xvf x86_64-linux-centos7.0-xitext-<vers>.gz  
tar xvf lprdrv.<vers>.tar
```



4. INSTALL XITEXT

a) Validating the spooler user-id

The Xi-Software must be installed as the user “**root**”.

The user “**spooler**” must already exist or be added before commencing with the installation of Xitext.

Check if the user-id ‘**spooler**’ exists.

grep spooler /etc/passwd

Continue **ONLY** with ‘**add**’ if a response is not received from the **grep** command.

Adding users with “**useradd**”

useradd -u 50 -g bin -c “XiText Admin” -d /home/spool -s /bin/bash spooler

(Please refer to the command for the O/S syntax)

Perform the installation as a **root user**, but “**spooler**” will own certain files. The installation will fail if user “**spooler**” is not defined.

b) Running the **INSTALL** (XiText) script

Change to the “**xitext**” sub-directory and execute the **INSTALL** script.

All commands as “**root**”

cd \$CRONUS/3rdparty/x86_64-linux-centos7.0-xitext-23.491
./INSTALL

```
sag@cronus2:~
[root@cronus2 x86_64-linux-centos7.0-xitext-23.491]# pwd
/home/sag/temp/XiText-spooler/x86_64-linux-centos7.0-xitext-23.491
[root@cronus2 x86_64-linux-centos7.0-xitext-23.491]# ls -l
total 32
-rwxrwxr-x. 2 1011 1012 904 Sep 14 2016 INSTALL
-rwxrwxr-x. 1 1011 1012 17764 Sep 14 2016 INSTALL.pl
-rwxrwxr-x. 2 1011 1012 904 Sep 14 2016 INSTALL.sh
-rw-r--r--. 1 1011 1012 444 Sep 14 2016 README
drwxr-xr-x. 10 1011 1012 258 Sep 13 2016 xitext-23.491
drwxr-xr-x. 2 1011 1012 171 Sep 13 2016 xiutil-1.63
[root@cronus2 x86_64-linux-centos7.0-xitext-23.491]# ./INSTALL
```



```
Welcome, Software Performance Improvement, to Xi Software's distribution.

We intend to install the following products intended for the
platform

    "Centos 7.0 Linux 64-bit".

Xi-Text Release: 23.491 Serial: 51609001
Xi-Util utilities      Release: 1.63   Serial: N/A

Before we go any further, please check that the above is correct.
OK to Continue [Yes]? █
```

The software should be installed under ***/usr/local/bin*** – please accept defaults.

Please remember to add the path ***/usr/local/bin*** to the default profile:

Eg: *PATH=\$PATH:/usr/local/bin*

```
I need to ask you which directory you want to put user-level
binaries for Xi Software products in.

This should normally be in each user's PATH, but as root you
may have a more restricted PATH.

Here are the directories on your PATH.

/bin
/sbin
/usr/bin
/usr/sbin
Please give user-level directory: /usr/local/bin █
```

```
F2 or ENTER to continue (and accept default answer)
F8 to abort.

[Please press ENTER to continue]
Installation Requirements
=====

Do you want a full licence [Yes]? No
Do you need a network licence [Yes]? No
Installation directories
=====
```

The software will be installed with a 30day trail license and can be updated later.



This should bring you back to the Installation Directory screen. Modify the default using the values shown below.

```

Installation directories
=====

The installation directories are currently set up as follows:

SHLIBDIR  Location for shared libraries          /usr/lib/xi
INCPATH   Include directory for API header       /usr/include/xi
USERPATH  Location for user programs            /usr/local/bin NB not in PATH
SPROGDIR  Location of internal programs, data    /usr/spool/progs
SPHELPDIR Location of help files                 /usr/spool/progs
SPOOLDIR  Spool directory for pending print jobs /usr/spool/spd
SPOOLPT   Location of printer setup files        /usr/spool/printers

Do you need to change any of those [No]? Yes
Change user path, currently /usr/local/bin [No]? No
Do you want to change the shared library directory [No]? No
Do you want to change the include path [No]? No
Do you want to change the location of the rest [No]? Yes
Do you want to base them all on a common directory [Yes]? Yes
Base directory: /spool
Do you want to use standard subdirs under that [Yes]? Yes

```

The license setup program is ***/usr/local/bin/xt-vwrite***

The Emergency-license setup program is ***/usr/local/bin/xt-emerglic***

Configure XiText “**default privileges**” in order to allow non root users to startup or shutdown the application. (for example ‘sag’ and/or ‘spooler’)

All commands as “**root**”

/usr/local/bin/spuser -i

In order to assign privileges to a user-id, use the “/” command to locate/search the required user-id .(eg. */spooler*)

```

197.85.182.120 - PuTTY
User      def min max cps form      ptr      Class      S/Priv
DEFAULT   150 100 200  10 standard
root      150 100 200  10 standard
bin       150 100 200  10 standard
daemon    150 100 200  10 standard
adm       150 100 200  10 standard
lp        150 100 200  10 standard
sync      150 100 200  10 standard
shutdown  150 100 200  10 standard
halt      150 100 200  10 standard
mail      150 100 200  10 standard
uucp      150 100 200  10 standard
operator  150 100 200  10 standard
games     150 100 200  10 standard
gopher    150 100 200  10 standard
ftp       150 100 200  10 standard
apache    150 100 200  10 standard
spooler   150 100 200  10 standard
vcsa      150 100 200  10 standard
-- 32 more below --
Xi-Text spuser Copyright Xi Software Ltd 2009  (? for help)

```

Set the appropriate privileges using the lowercase “**p**” option.



```
197.85.182.120 - PuTTY
Default privileges
Default is to allow users to Edit admin file: Yes
Default is to allow users to Override class: Yes
Default is to allow users to Can masquerade as other users: Yes
Default is to allow users to Stop spooler: Yes
Default is to allow users to Use other forms: Yes
Default is to allow users to Use other printers: Yes
Default is to allow users to Change priority on Q: Yes
Default is to allow users to Edit other users' jobs: Yes
Default is to allow users to Select printer list: Yes
Default is to allow users to Halt/restart printers: Yes
Default is to allow users to Add/delete printers: Yes
Default is to allow users to Set any priority on Q: Yes
Default is to allow users to Change own default prio/form: Yes
Default is to allow users to Unqueue jobs: Yes
Default is to allow users to View other users' jobs: Yes
Default is to allow users to Edit remote jobs: Yes
Default is to allow users to Edit remote printers: Yes
Default is to allow users to Access queue options: Yes
Default is to allow users to Save new default options: Yes
```

Please note that option uppercase “**P**” will change the privileges for all users.

Confirm the setting with “**Y**” (only applicable with option “**P**”)

One can assign privileges to other users (as required)

To terminate the ‘*spuser*’ function use option “**q**”

5. INSTALL LPR-DRIVER

a) Execute the install script

The LPR-Driver must be installed as the user “**root**”.

After you have extracted the LPR Driver change to the `$CRONUS/3rdparty/lprdrv.<vers>` directory and execute the ***install*** script.

All command as “root”

`cd $CRONUS/3rdparty/lprdrv.<vers>`

`./install`

Accept the defaults



6. INSTALL SUSPR

a) Execute the install script

After uncompressing the **suspr.gz** file, change the permission and install SUSPR to **/usr/local/bin/suspr**

Make sure that you update the permissions on the file to **4755** with **chmod**

All command as “root”

```
cd $CRONUS/3rdparty
chown root:bin suspr
chmod 4755 suspr
cp -rp suspr /usr/local/bin/suspr
```

7. UPDATE THE XITEXT HELP FILE

ONLY perform this after the XiText software has been installed.

The **spq.help** file should be changed to support the Cronus required format. You should first make a copy of the original **spq.help** file before replacing it with the Cronus **spq.help** file.

The **spq.help** file is used to format *Xi*text (*spq*) - we have modified it to allow wider columns and a different “look and feel”

Shutdown the **Xi**text.

```
/usr/local/bin/sstop -y
```

Change to the **/usr/spool/progs** directory

```
cd /spool/progs
```

Create a copy of the original file.

```
cp spq.help spq.help.orig
```



Copy the supplied \$CRONUS/install/spq/**spq.help** file to **/spool/progs**

Using the 'default' Cronus *spq.help* file – new installation ONLY.

```
cd /spool/progs  
cp $CRONUS/install/spq/spq.help .
```

Edit the **spq.help** file and change the XXXXXXX comment to the client name

```
vi spq.help
```

Save the file

Change the permission on the **spq.help** file.

```
chmod 777 spq.help
```

Restart XiText

```
/usr/local/bin/spstart 20000 200
```

(starts XiText and pre-allocates shared memory for 20000 reports and 200 printers).

8. INSTALL S4 SOFTWARE

a) Validating that the “bc” command is available.

Check if the user-id '**spooler**' exists.

```
which bc
```

The response should typically be "/usr/bin/bc"

If not present it can easily be installed via yum.

Installing “bc”

```
yum install bc
```

(Please refer to the command for the O/S syntax)



- b) All the release files are compressed tar file containing the installation documentation and installation programs.

Start by extracting the file: `tar xvf <installfile>.tar.gz`

All commands as "root"

`cd $CRONUS/3rdparty/s4`

`tar xvf <installfile>.tar.gz`

- c) Install S4 Access

All commands as "root"

`cd $CRONUS/3rdparty/s4/`

`./s4access_6.10_LinuxRedHat7`

S4Access Configuration options:

Are you using NIS or NIS+? **N**

Install the Secure4Access PAM library modules? (y/n): **Y**

Do you wish to disable these programs? (y/n): **N**

Do you want the server to be started on boot up? (y/n): **Y**

Enable the Secure4Access syslog? (y/n): **Y**

While S4Access will install the PAM module, for now it will not be activated

-- The passwd disable step answer up to you but they will be wanted it at such time as PAM gets enabled

-- There is an additional S4Access process 's4accinit' which is primarily for LDAP/AD and PAM, so will not be run at this time.

Create a default profile for the user installing the software. (even though you sudo'ed to root)

Example if you log in as 'sag'

`cd /usr/secure4/secure4.upf`

`cp root.upf sag.upf`

Install the license file.

`cd $CRONUS/3rdparty/s4`

`cp s4access.exp /bin/secure4/s4access.dir/`

**Validate the license file.**

```
Current security values are:
[1: 50182e4c, 2: 30100610, 3: 038eb182]

Product code      : Secure4Access - With Active Directory
Serial number     : 14571
Media identifier  : 0/9337045a*
Customer number   : 0
CPU type          : Linux x86-64
Revision          : 6.10.00.1211031 (610) [1.70.01.1206103]
Expiration date   : Fri Mar 20 08:02:08 2020
Options           : 3
Maximum sessions  : 100

[root@drsllnap1d secure4]# /bin/secure4/s4access -v
```

d) Install S4 Privilege

All commands as "root"

```
cd $CRONUS/3rdparty/s4/
./s4priv_2.62_LinuxRedHat7
```

S4Privilege Configuration options:

Are you using NIS or NIS+? (y/n): **N**

Do you want s4privdms to be started on boot up? (y/n): **N**

Install the license file.

```
cd $CRONUS/3rdparty/s4
cp s4priv.exp /bin/secure4/s4priv.dir/
```

Validate the license file.

```
Current security values are:
[1: 501829f7, 2: 70100260, 3: 038ed182]

Product code      : Secure4Privilege - All modules
Serial number     : 14573
Media identifier  : 0/9337045a*
Customer number   : 483
CPU type          : Linux x86-64
Revision          : 2.62.00.1028202 (260) [1.70.01.0822101]
Expiration date   : Sat Mar 7 11:05:46 2020
Options           : 3
Server count      : 100

[root@drsllnap1d secure4]# ./s4priv -v
```



e) Install S4 Audit

All commands as "root"

```
cd $CRONUS/3rdparty/s4/  
./s4audit_2.42_LinuxRedHat7
```

S4Audit Configuration options:

S4Audit Configuration

Do you want s4auditmon to be started on boot up? (y/n): **N**

Do you want s4auditarc to be started on boot up? (y/n): **N**

Install the license file.

```
cd $CRONUS/3rdparty/s4  
cp s4audit.exp /bin/secure4/s4audit.dir/
```

Validate the license file.

```
Current security values are:  
[1: 501829f7, 2: g0100240, 3: 038ef182]  
  
Product code       : Secure4Audit  
Serial number      : 14575  
Media identifier   : 0/9337045a*  
Customer number    : 483  
CPU type           : Linux x86-64  
Revision           : 2.42.00.1027201 (240) [1.70.00.0621008]  
Expiration date    : Sat Mar  7 11:06:15 2020  
Options            : 0  
Server count       : 100  
  
[root@drsllnap1d secure4]# ./s4audit -v
```



9. INSTALL COSORT SOFTWARE

- a) All the release files are compressed tar file containing the installation documentation and installation programs.

Start by binary transferring the files to the installation directory.

All commands as “root”

cd \$CRONUS/3rdparty/cosort

ls -l

```
[root@drsllnapld CoSort_v10.0]# ls -l
-rwxrwxrwx. 1 sag sag 430615449 Dec 17 09:47 com.iri.pelican.workbench-
linux.gtk.x86_64.tar.gz
-rwxrwxrwx. 1 sag sag 16511323 Dec 17 09:41 CoSort1001.el7.tar.gz
-rwxrwxrwx. 1 sag sag 2538826 Dec 17 11:10 CoSort100_manual.pdf
-rwxrwxrwx. 1 sag sag 7031 Dec 17 09:42 cosort-installer.sh
-rwxrwxrwx. 1 sag sag 1282172 Dec 17 11:10 IRI_install_guide.pdf
-rwxrwxrwx. 1 sag sag 63 Dec 17 11:15 SERIAL_NUMBER_TO_USE.txt
```

- b) Install CoSort

Execute the commands as “sag”

cd \$CRONUS/3rdparty/s4/

cosort-installer.sh CoSort1001.el7.tar.gz

```
Creating /opt/cosort10...

/opt/installimages/cronus/CoSort_v10.0/CoSort1001.el7.tar.gz
Extracting CoSort1001.el7.tar.gz
Installation successful.

Would you like to view the Release Notes (readme) now? (y/n) n
Would you like to run "bin/cs_setup" now ? (y/n) y
-----
CoSort 10.0.1 Setup
-----
Select one of the following options:
1. First Time Setup
2. Update License
3. Tune CoSort
4. Exit
Choice: 1

CoSort Customer Registration
```



```
-----  
CoSort Tuning Info  
-----
```

You will now answer a series of important questions related to the performance of CoSort in a multi-user operating system. This is necessary.

Your responses will be saved in a global resource control file named \$COSORT_HOME/etc/cosort.rc. This is a text file you can modify later, and make available with, or without, modification to specific users and even specific CoSort jobs if you want.

The resource control file is created with default values upon completion of registration, and should provide reasonable, automatic performance. Values shown are the values found in the current resource control file. If there is no current file, default values are shown.

```
-----  
CoSort Resource Control Settings  
-----
```

```
1. THREAD_MAX      4  
2. THREAD_MIN      1  
3. MEMORY_MAX      AUTO  
4. WORK_AREAS      ./  
5. BLOCKSIZE  
6. LOG  
7. AUDIT  
8. MONITOR_LEVEL   1  
9. MINIMUM_YEAR    70  
10. ON_EMPTY_INPUT  PROCESS_WITH_ZEROS  
11. OUTPUT_TERMINATOR  INFILE
```

Enter an option number to modify, or 0 to save and continue: 8

```
-----  
CoSort Monitor Level  
-----
```

The level of runtime messaging for CoSort to display.[0 - 9]
Level 0 = OFF
Higher levels may adversely affect performance.

Monitor Level [1]: 0

```
-----  
CoSort Resource Control Settings  
-----
```

```
1. THREAD_MAX      4  
2. THREAD_MIN      1  
3. MEMORY_MAX      AUTO  
4. WORK_AREAS      ./  
5. BLOCKSIZE  
6. LOG  
7. AUDIT  
8. MONITOR_LEVEL   0  
9. MINIMUM_YEAR    70  
10. ON_EMPTY_INPUT  PROCESS_WITH_ZEROS  
11. OUTPUT_TERMINATOR  INFILE
```



Enter an option number to modify, or 0 to save and continue:

Enter an option number to modify, or 0 to save and continue: 0

Save the Resource Control Settings to
[/opt/cosort10/etc/cosort.rc]:

The CoSort registration form can be found at

/opt/cosort10/etc/RegForm.txt

To request a license key, please **email** the file or contents to
licenses@iri.com

Be sure the email address in the form is correct to receive the key.

When you receive your license key from IRI, run \$COSORT_HOME/bin/cs_setup
again and select '2. Update License' from the menu.

Press the Enter key to continue...

You will need to set COSORT_HOME before running bin/cs_setup again.

(sh: COSORT_HOME=/opt/cosort10; export COSORT_HOME)

(csh: setenv COSORT_HOME /opt/cosort10)