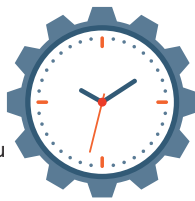


EnterpriseSCHEDULE for Linux Installation and Quick Start Guide



System Requirements for Intel Linux Systems:

- ☐ Intel Linux (Tested on Redhat Linux 7.0)
- ☐ Superuser account
- ☐ ~2.5 Mbytes for
- ☐ 12500 blocks after installation

Welcome to the Schedule for Linux Installation and Quick Start guide.. Before you begin installation, please review the minimum system requirements listed on the left. . This Quick Start Guide will guide you through the installation of the product and help familiarize you with the most commonly used operations of the software. If you have any questions regarding the product, you can contact ISE at (310) 643-7310.

1 SCHEDULE for Linux Installation

1a Installing from the Web or FTP site

Login to your Linux machine as root.

Either download the rpm from http://support.i-s-e.com/Software_Downloads/Linux

or

To download the software, you must have FTP access to the internet from a Linux session. Start by changing to the root directory:

```
cd /
```

Next, enter the following FTP command:

```
# FTP ftp.i-s-e.com
```

Use ftp to download the file to an empty directory

```
ftp> cd /latest_linux
```

```
ftp> get schedule716.rpm.gz
```

Unzip the rpm:

```
# gunzip schedule7616.rpm.gz
```

Run the rpm program:

```
# rpm --install schedule7616.rpm
```

This rpm command will create the subdirectory /opt/ISESCH<version_number> and install the SCHEDULE files there. For advanced rpm installation options, view your Linux man pages.

1b Updating a Version 7.4 or earlier PAS serial number

EnterpriseSCHEDULE PAS serial numbers Version 7.4 and earlier must be updated when upgrading to Version 7.5. Read the FAQ at <http://www.i-s-e.com/FAQ/Schedule/S357/> for a description of the update process.

1c Loading the SCHEDULE PAS serial number

SCHEDULE requires the installation of the SCHEDULE PAS serial number after installation. To load the PAS, enter the following

```
# /schedule_library/schedule_start.bash add_pas
```

Enter the PAS serial number (provided by ISE) and company name at the prompts

```
Enter Company Name: Johnson Enterprises (example)
```

```
Enter new PAS: L50085/*/*/15JAN2012/0201/CNVLSBBBBJB (example)
```

1d Completing the Installation

In order to start the SCHEDULE server, enter the following command:

```
# /schedule_library/schedule_start.bash
```

To verify that the server is running, type the following command:

```
# /schedule_library/schedule_start.bash display (multiple lines will display)
```

2 Getting Started

The Windows client is the quickest and easiest way to work with EnterpriseSCHEDULE for Linux. The following exercise requires it to be installed. If you haven't already installed the client, you can download it from the ISE support or FTP site. See the EnterpriseSCHEDULE for Windows Quick Start Guide or contact ISE for more information.

Connecting to the server using the Windows client

To start the client and connect to the Linux server:

1. Choose Start on the Windows Task bar
2. Select Programs, **EnterpriseSCHEDULE** and then **EnterpriseSCHEDULE remote**
3. When prompted for a server, enter the descriptive name, network address and group number (usually 0) of an active server with EnterpriseSCHEDULE installed and click OK.
4. Enter your usual UNIX/Linux username and password for the server at the prompt.


Loading the Demos


The EnterpriseSCHEDULE Demos can be loaded using the Assistant. To load the Demos:


1. Choose **File>Assistant** from the EnterpriseSCHEDULE main menu bar.
2. Select the Example A from the **Name** drop down.
3. If your home directory is not displayed, change it by clicking the **Change** button.
4. Click on the **Load** button to load the demo and display the layout.
5. Repeat for subsequent demo sets if desired.


Toolbar buttons

The EnterpriseSCHEDULE desktop is where all job scheduling, modification and monitoring takes place. The main components of the desktop along with the buttons that load them to the desktop are:

 **Explorer view** - perform file maintenance tasks on jobs and other objects just as in the Windows Explorer, control job activity and selectively monitor jobs, directories and servers.

 **Layout display** - lay out simple or elaborate job streams, control and monitor job activity and performance.

 **Job Monitor** - monitor activity by job or event and bring up log data, current state and performance data

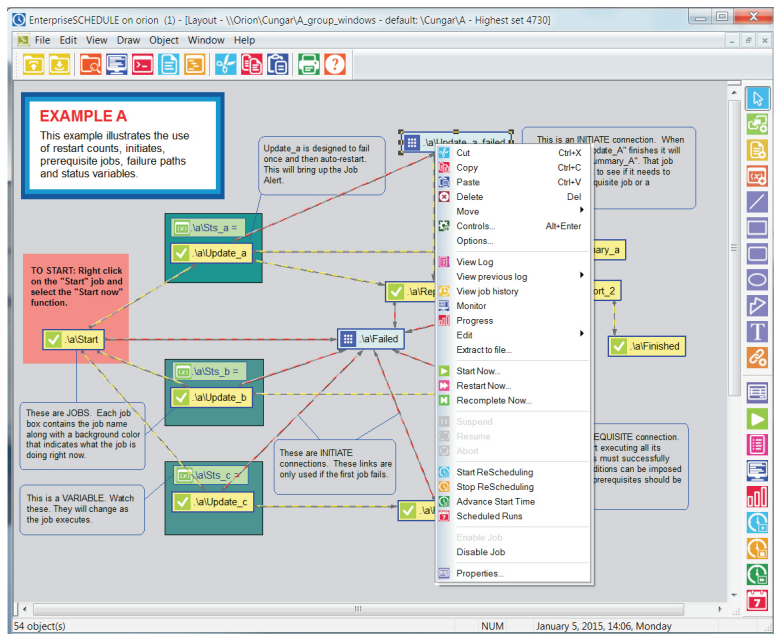
 **Command Line** - control job activity, perform file maintenance tasks on jobs and other objects

3 WORKING WITH JOBS IN THE DEMO LAYOUT

Running the layout job stream




The Job Layout Window can be used to load, create, modify and save layouts. It may be used to access the property page of the job to change its attributes such as when it runs and what it does when it executes. It may also be used to create job streams that establish interdependencies between jobs.

In this step we will submit the first job in the stream (Start) and monitor the progress of the stream as it progresses. To Start the job, right click on the job icon. The menu shown below will appear. This multi-function menu can perform many of the most crucial scheduling tasks including Starting, Stopping, Suspending and Rescheduling and job streams. For this exercise, select **Start Now...** and click on **Submit** when the **Submit Options** dialog appears.



Tracking job progress in the job layout

There are a number of ways to track job progress in EnterpriseSCHEDULE including the Job Monitor, notifications, alert messages and current state information dialogs. You can also track job progress within the Job Layout by observing the changes in the job icons as the job advances through its states. Some of the states you will see are:

-  Waiting for Start time - This job has been assigned a time to start automatically and is being readied to start
-  Successfully completed - This job completed with a successful completion code and will now initiate subsequent jobs.
-  Submitted and Executing - This job is currently submitted and is executing. Notice the progress indicators displaying resource usage by the job.

4 WORKING WITH THE JOB MONITOR

Starting up the Job Monitor

The job monitor tracks job progress with an informative display that tracks job data as it occurs and records event data for past job runs. This historical data can help gauge the success or failure of jobs and help you track any problems and why they occur. The job monitor is accessible in three ways:

1. As a standalone application
2. As a pop up display from an individual job in the Job Layout
3. As a pop up display from an individual job from the Job Explorer

To bring up the job monitor for a particular job in the Job Layout, right click on a job as it is running and select **Monitor...**

Job	State	Progress
\\bmaix3\Cungar\Job2 (48)	P Recently finished	Completed January 5, 2015, 15:27:16
\\bmaix3\Cungar\Job3 (48)	P Recently finished	Failed January 5, 2015, 15:27:27
\\bmaix3\Cungar\Job4 (48)	E Wait for local jobs	
\\bmaix3\Cungar\Start_job (48)	P Recently finished	Completed January 5, 2015, 15:27:10
\\bmaix3\Dc_daily\Job1 (0)	B Wait for start	Holding until January 5, 2015, 21:00:00
\\bmaix3\Cungar\Job6 (48)	P R...	

Job details and log files

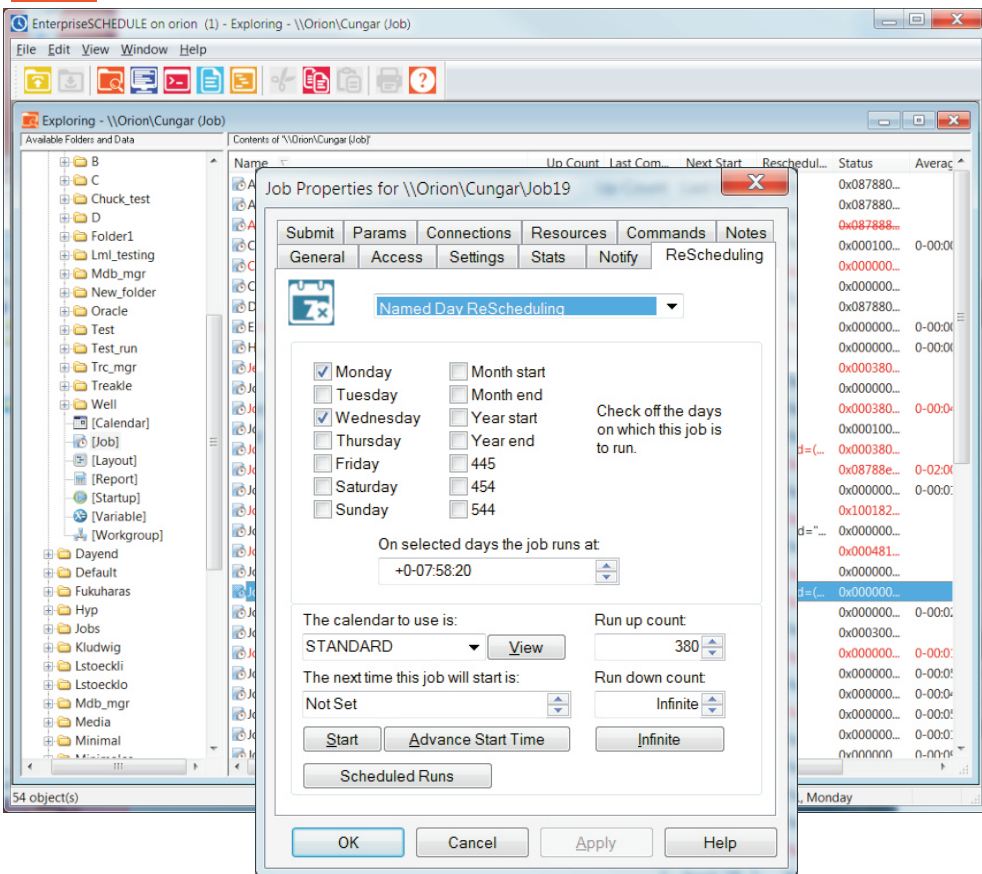
The monitor display lists the recent events that the job has progressed through, including the times of the events. You can right click on the job to view the job's log file, change the jobs properties or view its current state. For now, select Job Progress. This will tell you the latest information for the job including any prerequisite jobs or resources that may be holding it.

The screenshot shows the 'State Details' dialog box for a job. The job is 'P Recently finished' and was completed on January 5, 2015, at 15:27:10. The dialog box displays the following information:

- Job Data:**
 - Initiated on: January 5, 2015, 15:27:10
 - Entered state on: January 5, 2015, 15:27:10
 - Entry number: 23
 - Job identity: [blank]
 - On node: ibmaix3
 - Step number: 0
 - Log number: [blank]
 - Status: 0x8788041
- Set Data:**
 - Identity number: 48
 - Parameter: [blank]
 - Tag value: [blank]

At the bottom, it states: 'No commands in job.No resource processing'.

5 WORKING WITH THE JOB EXPLORER



Viewing a Job Property Page in the Explorer View

The EnterpriseSCHEDULE Job Explorer is the point of access to all jobs, calendars, layouts etc. that make up the job scheduler. From this handy interface, you can access job descriptions, directories, calendars variables and all other built in objects. The Explorer features a interface modeled after the Windows Explorer and is therefore easy to learn and use. To open the Explorer, click on the Explorer icon.

Navigate to the jobs in your home folder (named after your current account) and find the A directory where the jobs that are in the A_Group layout. Now right click on any job. The pop up menu above will appear. As you can see, many of the operations that can be done from the layout can also be performed in the Explorer view. For this exercise, select Properties. This brings up the property page for the selected job where all job attributes are set.

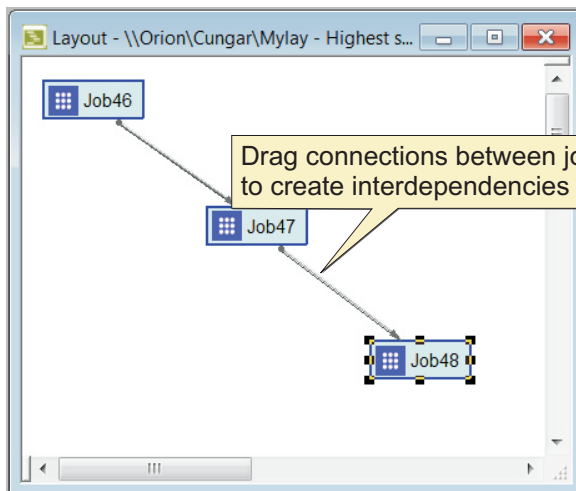
The job property page contains a wealth of important features of the job including what it does, how it runs and what it does after it completes. Feel free to look at all the tabs and begin to see the many features of EnterpriseSCHEDULE jobs. Among the properties are:

- General features** - shows information about recent job runs including when the the job completed and how long it took.
- Rescheduling** - allows you to set the way a job reschedules itself. The choices include running on a named day of the week, run at an interval and run based on the marks in a calendar.
- Commands** - is what the job does when it run. This can be a script, an executable or a shortcut.
- Notify** - describes how the user can be notified when certain events occur. This can be via e-mail, pager or pop up notification.
- Resources** - this powerful feature lets you to base job runs on variables and other factors in order to add a higher level of control to job scheduling.
- Connections** - let you set the dependencies between jobs including initiates that start another job when the current job completes and prerequisites which hold up future jobs until completion

6 CREATE A NEW JOB STREAM

Now that you've worked with EnterpriseSCHEDULE, create a new layout and begin creating a simple job stream.

1. Click on the Layout icon to create a new Layout.
2. Click on the job icon and click 3 times across the layout to add new jobs.
3. Enter CTRL-S to save the Layout and enter a new name for the Layout. Click OK.
4. Click on the Job Connection tool and drag a connection from the first job to the second and the second to the third. Save the Layout again.



5. Right click on a job and select **Edit>Commands** to enter the script or command list that the job will run when it executes.

Your Job Stream is now ready to run. Right click on the first job in the stream and Select Start Now and the jobs will run in succession, initiating the next job as each job completes.

This is just a small sample of what can be accomplished in EnterpriseSCHEDULE layouts. Job Streams can run across nodes or platforms, based on factors such as time, resource variables and completion status. Contact ISE for more on job streams and how they can automate your operations.



How to enter EnterpriseSCHEDULE Commands

EnterpriseSCHEDULE can be controlled, monitored and administered using commands that are described in the EnterpriseSCHEDULE Reference manual. Nearly all functions that are available in the Windows GUI can be accomplished using commands. EnterpriseSCHEDULE objects (jobs, layouts, calendars etc.) are organized in a two tiered directory structure that is internal to EnterpriseSCHEDULE and is not part of the UNIX directory structure. There are three ways to access the EnterpriseSCHEDULE line command shell.

1. Type SCHEDULE at the native Linux shell command prompt
2. Click on the Command Prompt icon in the Windows interface.
3. Select All Programs > EnterpriseSCHEDULE > Command Prompt Remote from the Windows Start menu. This will put you in prompt mode in the Windows DOS shell.

For help on SCHEDULE commands:

```
Schedule> man command_name
```

To exit the SCHEDULE command prompt:

```
Schedule> exit
```

EnterpriseSCHEDULE command examples

To display the contents of a directory:

```
Schedule> lsjob -all
```

What it does: Displays all SCHEDULE objects in a directory including jobs, calendars, variables etc.

To change to another directory:

```
Schedule> cd /directory/
```

What it does: Sets the current default to a new directory.

To display the full characteristics of a job:

```
Schedule> lsjob -full=all job_name
```

What it does: Displays the complete job record including past run info, next start info, rescheduling etc.

To display a list of all jobs that are connected:

```
Schedule> more -initiate -prerequisite job_name
```

What it does: Displays a list of all the jobs that will be triggered and/or held up by this job.

To view the commands that will be submitted by a job:

```
Schedule> more -commands job_name
```

What it does: Displays the list of script commands that this job will run when it is submitted. To submit a job immediately:

```
Schedule> submit -initiate -prerequisite job_name
```

What it does: Submits the designated job and any subsequent jobs that it will trigger upon completion.

To modify a job so that it runs on a one day interval:

```
Schedule> chjob -reschedule=interval:1-00:00:00 job_name
```

What it does: Modifies a job to run on a one day interval starting with the time set in the next start time (see following Command).

To modify a job so the next time it starts is 1:30 AM on February 12, 2006

```
Schedule> chjob -general=next:12-FEB-2006:01:30:00 job_name
```

What it does: Sets the next submission time. To begin a rescheduled submission cycle, the next submission time must be designated. After that submission takes place, the reschedule setting will take over and the job will continue to submit automatically.

To display job state changes

```
Schedule> monque -all
```

What it does: Displays the progress of all jobs as they go through the SCHEDULE queue states. The jobs progress, whether it is held up by resources, when it is executed and it's completion state are all displayed in a dynamic display.



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