## LXI CORP.

LXI scheduler – Job Scheduler

for the iSeries

Software : LXIscheduler

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## Job Scheduler

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#### Introduction

Many reasons exist for choosing LXI*scheduler* for your scheduling, including its wide array of features and functions, ease of implementation, flexibility, and ease of use.

LXIscheduler can increase productivity and help eliminate errors caused by old outdated incomplete scheduling strategies. The flexibility provided by LXIscheduler allows you to customize and change your scheduling strategy as required without having to modify existing code. The strategy that you create can be reviewed at any time to help ensure that all your requirements are met.

Ease of implementation is key to using any software. LXI*scheduler* uses the existing IBM environment and requires no additional modifications to make it function. Since there is no need to make changes to existing code, LXI*scheduler* is active and ready to use after the installation procedure has completed.

### Flexibility When You Need It

Changes are the forte of any data center and LXI scheduler is designed to adapt easily and quickly. The scheduling strategy that worked so well yesterday can be updated to meet today's challenges within a few minutes.

### Working with LXI scheduler

LXIscheduler has features that fit many working environments. Even beginning and intermediate operators can utilize LXIscheduler immediately. For more information on the features available in LXIscheduler, refer to Chapter 2.

### System Defaults

LXIscheduler contains system defaults which can be used or changed as required. The defaults are used when they are not overridden by the user. Overrides can come from IBM commands as well as LXIscheduler. The degree of information captured by LXIscheduler is dependent on the users requirements for information and can be changed as needed.

The LXI scheduler software is fully operational as is when the provided defaults are utilized.

### How This Book is Organized

LXIscheduler is a software product with immense capability and a wealth of features. It is a straightforward and easy-to-learn software package if approached correctly. This book is organized to help you implement and use LXIscheduler quickly and efficiently.

If you are familiar with earlier versions of this product, you should scan the table of contents for new features.

LXI*scheduler* is organized as follows:

#### LXIscheduler System Overview

Chapters 2 through 4 outline the LXI scheduler features and functions. These chapters also provide a guide to the menu system used by LXI scheduler. Chapter 4 contains the Quick Start exercises, which illustrate the simplicity of use.

#### Description of Major Functions

Chapters 5 through 15 detail all LXI*scheduler* functions including the creation of job schedules, calendars, parameters, remote system definitions and report distribution lists.

#### Reports

Chapter 16 shows the reports available and how to use them in establishing a scheduling strategy. These reports provide you with the information necessary to ensure that your jobs are scheduled correctly.

#### Command References

Chapter 17 provides a list of all LXIscheduler commands, command parameters and values allowed. For those familiar with commands and wishing to bypass the menus, the LXIscheduler commands provide a fast means of setting up and using the product.

#### Installation Instructions

Chapter 18 contains the information required to successfully install this product. Information on license keys is also provided.

#### Monitor

Chapter 19 provides information on managing the LXI*scheduler* monitor. This monitor is the key to successful job scheduling.

#### Troubleshooting Guide

Chapter 20 lists the most commonly asked questions regarding LXIscheduler functionality. If LXIscheduler does not function as expected, this appendix can provide you with valuable insight quickly.

#### Software Support

Chapter 21 provides instructions for accessing Electronic Software Support from the LXI technical support staff. In the event that you need a Program

Temporary Fix PTF or online support, this chapter walks you step-by-step through the process of getting help.

### Conventions Used in this Book

The conventions that are used in this manual have been established to help you learn and use the product quickly and easily.

The first time a function is referenced, it displays in **bold** type.

Menus, displays, and command prompts are shown as needed to help explain a function or location of a function.

Default parameters for commands are **bold** and **underlined**.

## Command and Option Security

Command authority for LXIscheduler is achieved in the same way that authority is established for IBM commands. If a user is not authorized to an LXIscheduler command, the function that the restricted command performs will not be available for use. If unauthorized users try to access the command directly via command line, they will receive a message from OS/400 stating that they are not authorized to use the command. Refer to the appropriate IBM manual for details on establishing or changing command authority.

User authority to LXIscheduler menu and panel options is achieved from within LXIscheduler. For more information on changing user authority for LXIscheduler options, refer to Chapter 3.

## Command Key Actions

To help minimize the time required to learn LXIscheduler, IBM command key standards have been followed whenever and wherever possible. The following graph shows some of the commands and their use within this product. The command keys allowed and their function are displayed at the bottom of each menu and panel.

These standard function keys are described only once in this manual to avoid repetition. Function keys whose functions vary from panel to panel are described where applicable.

Command Key	Function	Description
F1	Help	Provides information about using the panel
F3	Exit	Ends the current panel or window and returns you to the LXI-scheduler Menu
F4	Prompt	Provides assistance in entering a command
F5	Refresh	Updates the panel with the most current data
F9	Retrieve	Displays the last command you entered on the command line.  Press F9 again to see the next-to-last command you entered
F11	View 2/View 1	Toggles between views 1 and 2 of this panel
F12	Cancel	Returns you to the previous panel
F21	Command line	Displays an area where you can enter any iSeries command
F23	More options	Displays more available options for the panel. Detailed descriptions of these options are provided in the Fields subsection of panel descriptions
F24	More keys	Describes additional function keys that are available

#### Features and Functions

LXIscheduler is a product rich in features. This chapter documents some of the most important features of the LXIscheduler product.

## Capture Facility

Teach LXIscheduler your procedures automatically, while you submit jobs normally from menus or command lines. The LXIscheduler Capture Facility simplifies and automates job setup by "capturing" all needed information. This feature helps eliminate errors and reduces the time and effort involved in setting up jobs.

## Simple Scheduling

With LXI scheduler, jobs can be set up quickly and easily. Most jobs can be scheduled by specifying a command and a run time. Simplicity when you want it.

### Complex Scheduling

LXIscheduler provides unlimited scheduling options. Define run dates and times within user-defined calendars for even the most complex schedules. Whether a job runs daily, every Monday, or on the last day of the month, LXIscheduler makes scheduling easy.

### **Exception Scheduling**

With LXIscheduler calendars, you can enter an unlimited number of reusable calendars that define run dates, holidays, or even non-working dates, alternate run dates and times for non-working days, or override dates and times for unexpected or special runs.

#### **Unlimited Commands**

With LXI*scheduler*, you can enter up to 999 commands for execution per job without creating a CL or other high-level language program. This feature eliminates the need to write programs to perform job-related functions.

### Job Control

Improving the response to unexpected problems reduces job delays. LXIscheduler offers inquiry message reply support and the ability to enter an error recovery command should your job fail. If an error halts a job, the job will remain in MSGW (message wait) status until the message is answered. Once the program ends, the error recovery command will execute. This provides an easy interface to the LXIpage product for paging individuals should the job fail after normal operating hours.

### **Group Jobs**

This feature allows you to build procedures out of different programs and commands. This ensures that programs are run in the correct sequence.

### Dependent Jobs

LXIscheduler will run a scheduled job based on the outcome of another job, even if the job ran on another system. Automate interrelated jobs no matter how complex. Easily define multiple job dependencies and use the local data area (\*LDA) to pass parameters to and from scheduled jobs. Complex job dependencies that link jobs across your entire network of iSeries are easily created.

### LDA Support

LXIscheduler supports the use of the local data area (\*LDA) to pass parameters to and from a scheduled job. Enhanced support allows the LDA of one job to be used by other jobs.

### Report Distribution

With LXI scheduler report distribution, you can distribute reports throughout your entire iSeries network automatically and define multiple copies of reports to any number of users.

#### Job Documentation

Print centralized run schedules on your host or pull them from any number of remotes for the day, the week, the month, etc.

Fully distribute job information to any number of remote systems. Trouble-free updating of remote systems with new or changed job information will ensure that your run schedule is kept synchronized across an entire network.

Verify the nightly runs. Use LXIscheduler as a repository for all batch job information whether the jobs are automatically submitted by LXIscheduler or simply entered as a reference for the operators. This ensures that no jobs are overlooked.

Track charge-backs and expenses easily by using accounting codes.

### Security

Enhance security by defining job classes that provide various levels of access to job information by LXI*scheduler* users.

### Network Management

Network management allows you to define an unlimited number of remote locations on your network and automatically update or retrieve remote scheduling information.

### Ease of Use

Enter job information within an intuitive set of folders that provide a visual indication of which customizable functions are available for a job to run successfully. This user-friendly interface makes scheduling easier and reduces the likelihood of errors.

Install the product quickly and easily. Because LXIscheduler is SAA compliant, the screens have that familiar iSeries look and feel.

For online help, simply position the cursor anywhere within the field in question and press the **F1** or **Help** key.

#### Menus

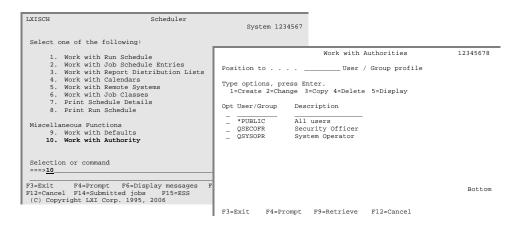
The LXIscheduler menu system is comprised of a main menu which provides easy access to all scheduler functions. When LXIscheduler is initially installed, public (\*PUBLIC) has authority to all menus and functions. Adding users or changing existing authority is easily accomplished through LXIscheduler.

### Menu Security

LXIscheduler security can be implemented for any LXIscheduler menu or menu function. If a user is not authorized to a menu, the secured menu will not be displayed as an option from other LXIscheduler panels. If a user is not authorized to an option, the user is notified when selecting the option. To change the authority of a LXIscheduler menu or command, use the LXIscheduler Work with Scheduler Authority (WRKSCHAUT) command.

### Working with Authorities

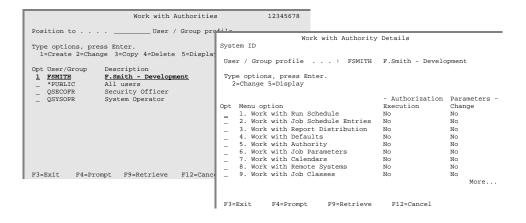
The Work with Scheduler Authority (WRKSCHAUT) command lists authorized users. To add a user profile to the LXI*scheduler*, select **Option 10** from the Scheduler menu and press **Enter**.



#### Adding a User

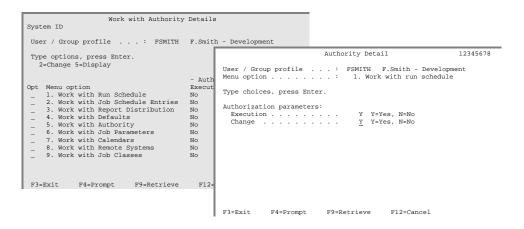
Using **Option 1** from the Work with Authorities panel, enter a valid user profile. This displays the Work with Authority Details panel, which displays the user's current authorization level.

The default for a new user is **No** in the **Execute** and **Change** fields. The **Execute** field is the authorization level to each menu option and the **Change** field is the add, change, and delete authority. A value of **No** means the user does not have authorization and **Yes** means that they do. A value of **N/A** (Not applicable) indicates change authority is not applicable to this menu option. To add the user to the LXI*scheduler*, press **Enter**.



#### Changing Authority

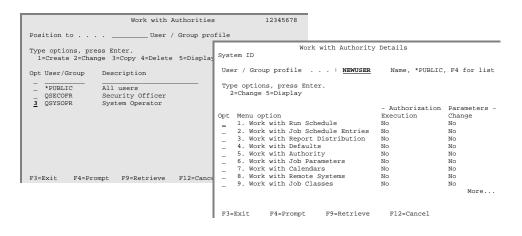
The Work with Authority Details panel displays the user's current authorization level. Using **Option 2** displays the Authority Detail panel for the specified menu option. Change the authority as required and press **Enter**.



#### Copying Authority

Many of the users and groups that use LXIscheduler will probably have similar or identical authority. To accelerate setting up authority, use the copy function. This function copies the authority of an existing user to a new user.

To copy a user's authority to a new user or group, select **Option 3** from the Work with Authorities panel. When the Work with Authority Details panel appears, the User/group profile field at the top of the panel will be empty. Enter the name of the new user or group profile and press **Enter** to complete the copy.



Chapter 3 - Menus 3-3

#### **Deleting Authority**

If a user or group ID no longer exists on the system, remove the profile from the authorization list by using the delete function. Once deleted from the list, the user will not have access to any menu options. To remove a user or group profile, use **Option 4** from the Work with Authorities panel and press **Enter** twice.

#### Displaying Authority

To display user or group authority to each menu option, select **Option 5** from the Work with Authorities panel. This displays the Work with Authority Details panel where the user's authority to each menu option is shown.

### Getting Started

Once LXI scheduler is installed, navigation of the product can begin. The most logical place to begin exploring LXI scheduler is its main menu. The LXI scheduler menu provides the starting off point for almost all of the product's scheduling processes. This chapter introduces how to access the LXI scheduler Menu.

Knowing how to set up jobs is an integral part of using LXIscheduler. To simplify setting up jobs, LXIscheduler utilizes a set of "folders" which ensure that every possible aspect of a job has been defined. This chapter will cover how to access and use these folders.

The purpose of this chapter is to:

- Create a new job using the Run Info Folder
- Setup a run time using the **Times** Folder
- Setup a run day using the **Calendar** Folder
- Create the command to execute using the Cmds Folder
- Setup the local data area using the \*LDA Folder
- Setup job parameters using the Job Parms Folder

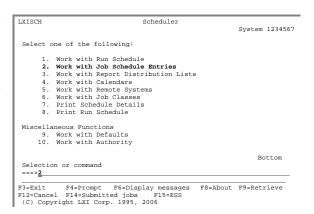
Once these functions are understood, the following advanced functions can be added.

- Dependent Jobs
- Report Distribution

## Step 1.

Ensure that **LXISCH** is in the library list and enter **GO LXISCH**. This will display the Scheduler menu.

Select **Option 2**. This will display the Work with Job Schedule Entries panel.



## Step 2.

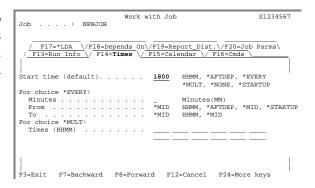
From the Work with Job Schedule Entries panel, create a job by choosing **Option 1** and specifying a job name. Press **Enter**. This will display the Work with Job panel.

## Step 3.

The Work with Job panel displays a series of job definition folders. The **Run Info** is the first folder to display and defines the basic job attributes such as job type, job description and job queue. Fill in the parameters as needed, then press **F8**.

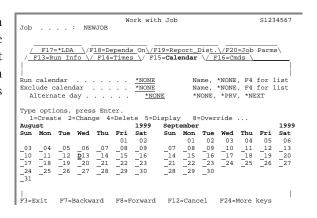
## Step 4.

The **Times** folder specifies the job start time. In this example, **1800** has been specified as the job start time. Fill in the parameters as needed, then press **F8**.



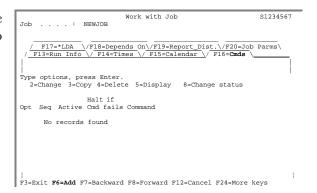
## Step 5.

The **Calendar** folder specifies when the job will run. In this example, the value "**D**" is specified for the current day. This value will run the job on this day only. Fill in the parameters as needed, then press **F8**.



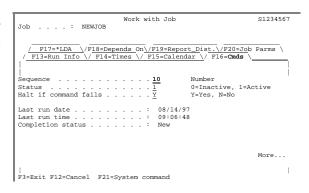
## Step 6.

The **Cmds** folder specifies the command to execute. Press **F6** to add a command.



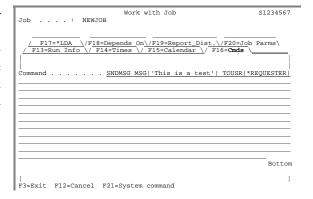
## Step 7.

The next page of the **Cmds** folder specifies the sequence number of the command to add. In this example, the first command entered is at sequence **10**. Review and change the remaining parameters as required, then use the **Page Down** key to go to the next page.



### Step 8.

The last page of the **Cmds** folder specifies the command to execute. In this example, a **SNDMSG** command is used. Commands can be prompted by using the **F4** key. Fill in the parameters as needed, then press **Enter**, then press **F8**.



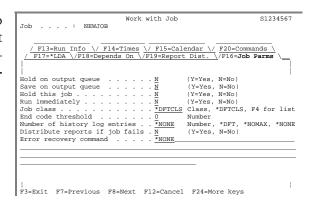
## Step 9.

The \*LDA folder specifies the value to pass in the local data area, if used. If used, enter the value to pass in the local data area, then press F8 three times.

Job	Work with Job : NEWJOB	S1234567
	Info \(\frac{1}{F14=Times}\) \(\frac{1}{F15=Calendar}\) \(\frac{1}{F20=Cmds}\) \(\frac{1}{F18=Depends}\) \(\frac{1}{F16=Job}\) \(\frac{1}{F16=Job}\)	
Use *LDA fro	om job <u>*NONE</u> Name, *NONE, *SAM F4 for list Value	ΙE
Offset 0	*+1+2+3+4+	5
50 100 150		
200 250		
300 350		
		More
F2=Retrieve	*LDA F3=Exit F10=Clear F12=Cancel F24=More	e keys

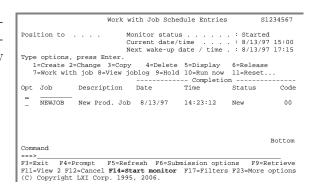
## Step 10.

The **Job Parms** folder specifies job parameters such as job and output queue requirements. Fill in the parameters as needed, then press **Enter**.



## Step 11.

In order for the LXI*scheduler* to submit and process jobs, the job monitor must be started. Use the **F14** key to start the monitor.



See the following pages for detailed information.

σσσ

### Job Classes

Job classes are categories which are used to group scheduled jobs together for authorization purposes. By using job classes, users can be prevented from viewing or modifying certain jobs without losing their authority to view or modify other information. Each class defines which users can add, change, copy, operate, display, or delete jobs within a class.

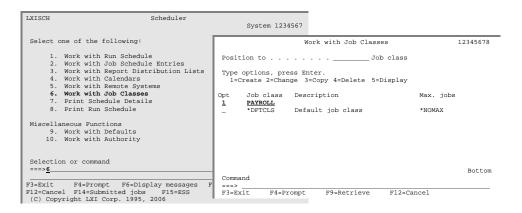
For example, to protect payroll jobs, define a job class that does not allow any users to view or modify the jobs assigned to the payroll job class. The users may still use any functions to which they are authorized so long as none of those functions affect jobs assigned to the payroll job class.

Once the job class has been set up, it can be associated with a job by entering the job class name in the **Job class** parameter.

## Working with Job Classes

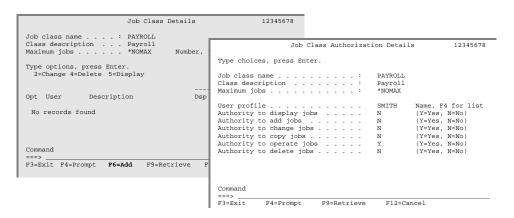
Job classes define a user's authority to work with jobs defined to LXIscheduler. The Work with Job Class (WRKJOBCLS) command lists all job classes. To add a user or modify an existing job class, select **Option 6** from the Scheduler menu and press **Enter**.

Using **Option 1** from the Work with Job Class panel, enter a job class name. This displays the Job Class Details panel, which adds specific users to a job class.



#### Adding a Job Class

Pressing **F6** from the Job Class Details panel displays the Job Class Authorization Details panel where individual user authorities are specified. Enter a valid user profile and select the authorization for each function. A value of "**Y**" indicates that the user is able to use that function and a value of "**N**" prevents the user from using that function. The user must have authority to the LXIscheduler.

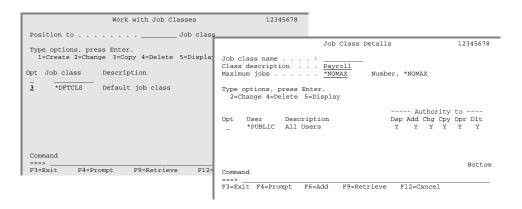


#### Changing a Job Class

As the environment in which LXIscheduler is used changes, job class definitions may need modifications in order to reflect those changes. Changes may include adding or deleting user profiles from a job class or changing an existing user's definition. To modify an existing job class, select **Option 2** from the Work with Job Class panel.

#### Copying a Job Class

Because some job classes may have similar or identical definitions, setting up job classes can be accelerated. The copy function copies the definition of an existing job class to another. Selecting **Option 3** from the Work with Job Class panel, for the job class to copy, will display Job Class Details panel. Fill in the new job class name and description and press **Enter** to process the copy.



#### Deleting a Job Class

If a job class is no longer necessary, remove it by using the delete function. To delete a job class from the system, first ensure that no jobs are using the job class. The system will not delete any job class that is being used. Select **Option 4** from the Work with Job Classes panel and press **Enter** twice.

#### Deleting a User from a Job Class

Selecting **Option 2** from the Work with Job Classes panel displays the Job Class Details panel. Select **Option 4** for the user you wish to remove from the job class and press **Enter** twice.

#### Displaying a Job Class

Using **Option 5** from the Work with Job Classes panel displays the Job Class Details panel. Additional information is available by selecting **Option 5** from the Job Class Details panel.

# Chapter 6

# LXIscheduler Defaults

The LXIscheduler defaults control several aspects of LXIscheduler, including the message queue, the job capture facility, and number of job history entries that are retained per job.

The LXI scheduler defaults provide options in the following areas:

- Message Queue for Completion Messages
- Job Capture (Record) Facility
- Number of History Log Entries

# Changing the Defaults

The Work with Scheduler Defaults (WRKSCHDFT) command lists the defaults. Change the defaults as required and press Enter.

E, *USER
O O O OMAX, *NONE

**Queue for Completion Messages**. Enter the name of the message queue used for sending completion messages of scheduled jobs. The special value \*NONE does not send completion messages; the special value \*USER sends the message to the job's user. If a specific queue is required, enter the message queue name.

**Job Capture Facility**. The Job Capture Facility records jobs submitted by the IBM Submit Job (**SBMJOB**) command to the Work with Job Setups list. Default parameters allow modifications to each submitted job, such as timing parameters. Captured information includes the run command, current \*LDA value, and any control parameters such as the job description and job queue.

The following parameters are part of the job capture facility:

**Prompt detail entry.** Enter whether the Work with Schedule Control Parameters panel is displayed when a job is submitted. The panel contains detail information for the submitted job, such as timing parameters. A value of "**Y**" displays the panel and creates a new job name if the name already exists. A value of "**N**" prevents the panel from being displayed and ignores the job name if it already exists.

**Prompt submit job confirmation.** Enter whether the Submit Job Confirmation panel is displayed when a job is submitted. The panel prompts the Submit job now parameter, allowing the user to perform the submit job function or bypass it. A value of "**Y**" displays the panel. The value "**N**" bypasses the panel and the value used in the **Submit job while capture active** parameter (below) determines if the job is submitted.

**Submit job while capture active.** Enter the default value for the Submit Job Now parameter on the Submit Job Confirmation panel. The value "**Y**" submits the job now and the value "**N**" does not submit the job.

**Number of history log entries.** Enter the number of history log entries to retain for jobs that have a value of \*DFT for the Number of history log entries parameter. The special value \*NONE specifies that no history information is collected for the job; the special value \*NOMAX specifies that all history information is collected for the job. Enter the number of history log entries for the job.

# Chapter 7

## The Folders

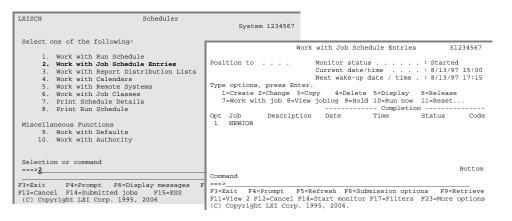
LXIscheduler makes setting up jobs simple. All options needed to set up a job are located on the same panel within a series of folders that cover every aspect of a job. These folders include options to set up calendars, run times, report distribution lists, dependencies, and commands, as well as other job conditions. Once a job is set up, LXIscheduler submits the job based on the specifications designated in these folders.

## This chapter will discuss:

- Run Information Folder
- Time Folder
- Calendar Folder
- Commands Folder
- Local Data Area Folder
- Depends-on Folder
- Report Distribution Folder
- Job Parameters Folder

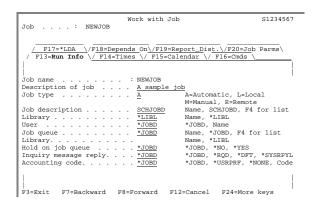
# Creating a Job

Using **Option 2** from the Scheduler menu displays the Work with Job Schedule Entries panel. This panel lists all of the defined jobs, as well as each job's completion statistics for the last time it ran. To create a new job, choose **Option 1** and specify a job name. Press **Enter**. This will display the folders in the Work with Job panel.



## 

Use the **Run Info** folder to set up such job aspects as job name, description, and type, as well as other job-related information. Review and change the parameters as required. Additional information on a parameter is available by placing the cursor on the parameter and pressing **F1**.



If the LXISCH and LXISCH400 libraries are <u>not</u> in the system portion of the library list, they must be added to any job description used to submit jobs. If job description **SCHJOBD** is used, libraries **LXISCH** and **LXISCH400** must be added to the job description's **INLLIBL** parameter.

### Job Types

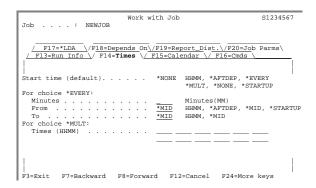
Job types determine how jobs are submitted and which remote systems, if any, are updated. If remote jobs are used, job type "R" should be specified on the local system.

The following chart outlines the job types and the action taken for each.

Job Type	Submitted	Notes					
A	Automatically	1. Submitted when eligible.					
L	Automatically	<ol> <li>Submitted when eligible.</li> <li>Remotes updated when job completes.</li> </ol>					
M	Manually	Does not get submitted.					
R		Completion statistics updated when job completes on remote system.					

## 

The **Times** folder determines what time a job starts. Jobs can be set to run at a specific time, at multiple times, every few minutes, after all dependent jobs have run, or when the LXIscheduler monitor first starts. Review and change the parameters as required. Additional information on a parameter is available by placing the cursor on the parameter and pressing **F1**.



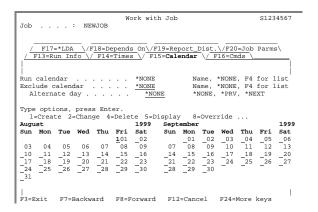
#### Start Times

Start times determine when jobs are submitted and what conditions, if any, must be met. The following chart outlines the start times and the action taken for each. **Note**: When setting a job to run at midnight, use 23:59 or 00:01 for the start time and specify the correct day in the run calendar.

Start Time	The job starts
*NONE	No start time is used.
*AFTDEP	when all dependencies have been satisfied.
*EVERY	every x minutes based on the *EVERY parameter.
*MULT	multiple times based on the times specified in the *MULT parameter.
*STARTUP	when the LXIscheduler monitor starts.
ННММ	based on the user specified time.

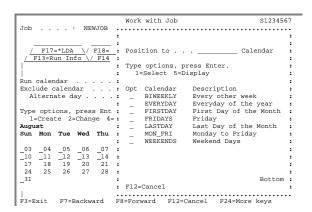
## - Calendars Folder

LXIscheduler provides several options for setting up when a job will run. Jobs can use predefined calendars, or job-specific calendars. The **Calendars** folder specifies the type of calendar to use. If Run/Exclude calendars are specified, job-specific calendars can not be used. For ease of maintaining jobs that have the same scheduling requirements, it is recommended that Run/Exclude calendars be defined. For more information on setting up Run and Exclude calendars, refer to Chapter 8, Run/Exclude Calendars.



## Using Run/Exclude Calendars

To use predefined calendars, enter the calendar name in the Run calendar and/or Exclude calendar parameters and press **Enter**. For a list of defined calendars, position the cursor on the Run or Exclude calendar parameters and press **F4**. The Calendar Selection window will appear. Type a "1" next to the desired calendar and press **Enter**.



#### Creating Job Calendars

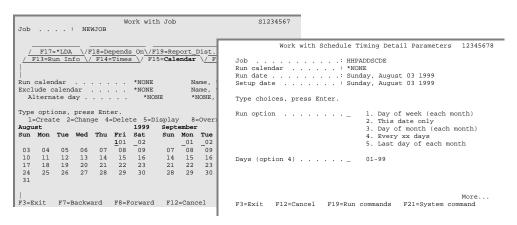
If a predefined Run calendar does not fit a job's needs, create a new calendar from scratch for the job. To create a new calendar, enter \*NONE in the Run and Exclude calendar parameters. Use the options at the top of the screen to set up run parameters for specific days or dates (use **F23** to view additional options). Page up and Page down to view the past and future months of the calendar.

Use the following table to fill in the calendar that appears on the display.

Option	Description
D	Creates the run parameter for the selected date only.
L	Creates the run parameter for the last day of every month.
M	Creates the run parameter for the selected day each month (For example, if the start date is the second Monday of the month, then this job runs the second Monday of each month).
W	Creates the run parameter for each week for this day.

Type the option number next to the days that need run parameters defined. For example, type an "L" next to the last day of a month to have the selected job submitted the last day of the month. Type a "D" next to a date to have the selected job submitted on that day only.

If **Option 1** is used to create run parameters for a specific day, the Work with Schedule Timing Detail Parameters panel will appear. Use this panel to set up both the time and calendar parameters for the specific day or date. Page down to view all of the parameters.



Specify the Run option for the selected day. Based on the day, LXIscheduler defines which other parameters need to be set up. For example, run parameters could be set up weekly or monthly. If the combination of Run options specified for various days or dates overlaps the same date, LXIscheduler uses the run option with the most current start date. The possible values for the Run option are:

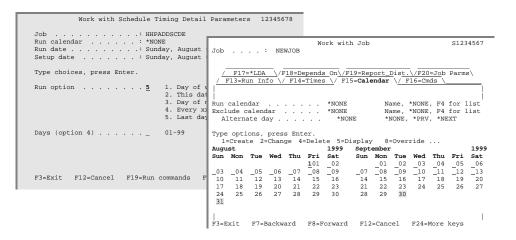
Option	Will run
1	this Day of Week for each month.
2	this date only.
3	this day of Month for each month.
4	every xx days where xx is a value from 01 to 99.
5	the last day of month.

Scrolling to the next page will allow the timing options to be set. Use the following table to setup the start time.

Start Time	The job starts
*AFTDEP	when all dependencies have been satisfied.
*EVERY	every $x$ minutes based on the *EVERY parameter.
*MID	at midnight.
*MULT	multiple times based on the times specified in the *MULT parameter.
*STARTUP	when the LXIscheduler monitor starts.
ННММ	based on the user specified time.

#### Job Calendar Example

In the example below, a job called **NEWJOB** is scheduled to run on the last day of every month, as signified by the value "5" in the Run options parameter. **NEWJOB**, therefore, is only eligible for submission on the last day of every month.



## Changing Job Dates

To change a job calendar, use **Option 2**. If Run/Exclude calendars are used, the run dates can not be changed. To change Run/Exclude run dates, refer to Chapter 8, Run/Exclude Calendars.

## **Deleting All Dates**

To delete all run dates from a job calendar, use **F10**. If Run/Exclude calendars are used, the run dates can not be deleted.

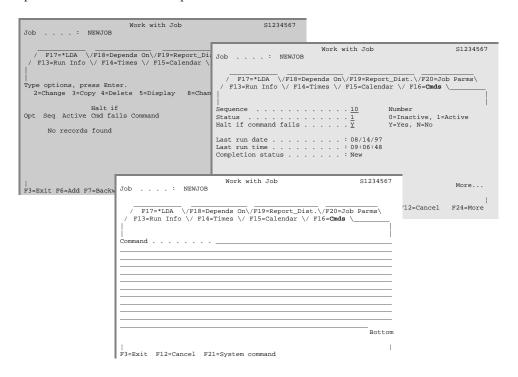
## - Commands Folder

One function jobs perform is the execution of commands. When a job is submitted to run, it executes the commands that have been defined to it. Setting up commands for jobs is easy with LXIscheduler. LXIscheduler also contains the functionality to set up special parameters for commands. This chapter outlines how to set up commands and how to set up special parameters to be used in commands.

Assigning a command to a job is done through the **Cmds** folder of the Work with Job panel. Once a job has a command, the job will execute that command whenever it is submitted. If a job has multiple commands, each command will have a sequence number that indicates the order in which the commands are to be executed.

#### Adding a Command

To add a command to the job, press **F6**. A panel containing the command parameters will appear. **Page Down** to view all of the parameters. Fill in the parameters as needed and press **Enter**.



If a command error occurs, and "Y" is specified for the Halt if command fails parameter, the subsequent commands on the command list are ignored, and the job ends with an abnormal status. If "N" is specified, the next command on the list executes.

The Status parameter defines if the command executes when the job is run. Inactive commands are not processed. A value of "1" indicates that the command is currently active and will execute the next time the job is submitted. A value of "0" indicates that the command is inactive and will be bypassed the next time the job is submitted.

The Completion status displays the current status of the command and will contain one of the following values:

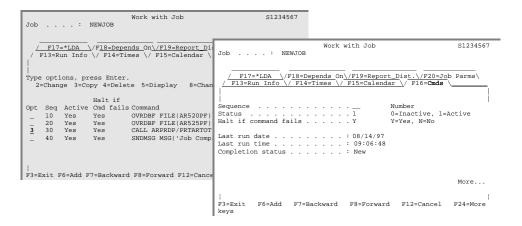
Completion	The command
Status	The command
Abnormal	did not complete successfully. Review the job log.
Completed	completed successfully.
Executing	is currently executing.
New	is new to the job and has not executed.

## Changing a Command

Over time, commands may need updating or changing. To modify an existing command, select **Option 2**, change the parameters as needed and press **Enter**.

#### Copying a Command

LXIscheduler provides the ability to copy the definition of an existing command and use it as the definition for a new command. To copy an existing command definition, select **Option 3**. The command definition will appear but the Sequence parameter will be blank. Fill in the sequence number and change other parameters as necessary. Press **Enter** to process the copy.

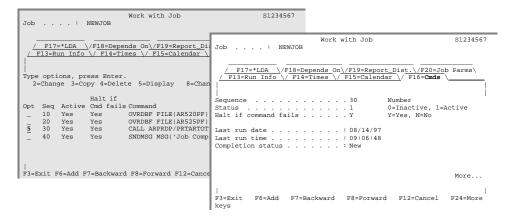


### Deleting a Command

If a command is no longer necessary, it can be removed by using the delete function. This function removes the command from the list of commands. To delete a command, select **Option 4**.

## Displaying a Command

To verify a command definition, select **Option 5**. The command details will appear. Page down to view all of the details.



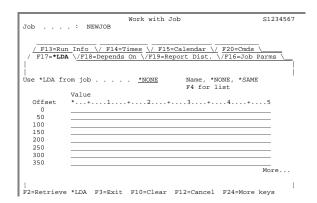
## Changing the Status of a Command

If a command does not need to run, the status of the command can be changed. If a command has an active status, it is executed when the job runs. If the command has an inactive status, it is bypassed.

To change the status of a command, select **Option 8**. If the command was active, it is changed to inactive. If the command was inactive, it is changed to active.

## 

Use the \*LDA folder to define a Local Data Area value for a job. A local data area passes information between jobs in the run schedule.



In the Use \*LDA from job parameter, use one of the following values:

Value	The *LDA is used
*NONE	as input but not updated. Leave blank if not used.
*SAME	as input and updated. Updated values used when job runs.
Name	from the named job. If job has not run, current values used.

Use the Value area to enter the \*LDA value for the job. LXIscheduler allows you to retrieve the current job's \*LDA value by pressing F2. The \*LDA contents, if used, are displayed on the panel.

# - Dependency Folder

Certain jobs do not need to run unless other jobs have run before them. For example, a job that prints checks would not need to run unless the job that calculates the payroll had already completed. Also, not knowing how long the first job will take to run can make guessing when to schedule the second job difficult. Dependencies solve these issues easily.

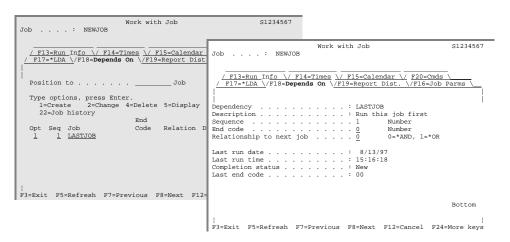
Dependencies are guidelines that are set up to help control when a job is eligible for submission. These guidelines can be based on the completion of another job or date/time information. This section explores dependencies and how to set them up.

### Adding a Dependency

In the **Depends On** folder, each job is assigned a sequence number for dependency checking. Before a job on this panel can run again, it must complete with an end code less than or equal to the End Code value shown on this panel.

For a new job, this panel is blank. To add a dependency job, type a "1", a sequence number, a valid job name and press **Enter**. In the screen shown below, a job named **LASTJOB** is added to the list of dependencies.

After pressing **Enter**, a new panel containing the details of the dependency will appear. Fill in the parameters as needed to define the dependency and press **Enter**.



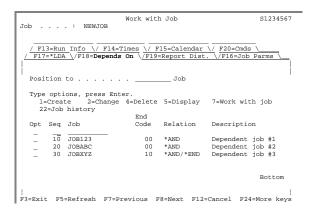
Use the Sequence number to establish the order in which the dependencies are checked. The dependency with the lowest sequence number is checked first. Enter a unique sequence number from 1 to 99.

The End code specifies the completion code threshold for this dependency. A job must complete with an end code value less than or equal to the value specified here before the dependent job becomes eligible for submission. A value of "0" indicates that the job must complete with a completion code of "0" in order for the dependent job to be submitted.

After filling in the parameters as needed and pressing **Enter**, access the **TIMES** folder with the **F14** key. Change the value of the Start time parameter to \***AFTDEP** to indicate that you want the job to start after the completion of the dependency job.

#### Dependency Example

In this example, JOBXYZ is defined as having a sequence number of 30. Two other dependencies, JOB123 and JOBABC, have sequence numbers of 10 and 20 respectively. Because dependency JOBXYZ has the highest sequence number, LXIscheduler will check the end code of JOBXYZ last before determining if job NEWJOB is eligible for submission. Additionally, JOBXYZ is defined as having an end code threshold of 10. This means that NEWJOB will not be eligible for submission unless JOBXYZ completes with an end code less than or equal to 10.



## Changing a Dependency

Over time, the dependencies that were established for a job may need to be modified. To change the job dependency definition, select **Option 2**, change the parameters as needed and press **Enter**.

#### Deleting a Dependency

If a dependency becomes unnecessary, it can be removed using the delete function. To delete a dependency, select **Option 4**.

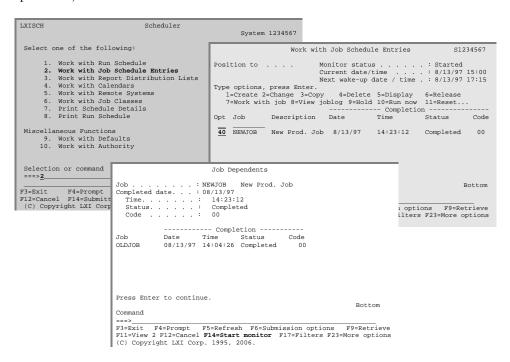
### Displaying a Dependency

To display the definition of a dependency, select **Option 5**.

### Viewing a Dependency

LXIscheduler offers a function that displays which jobs are dependent on a specific job. If a job does not run or complete successfully, for example, this feature displays which other jobs will not run as a result of the failed dependency.

To view the jobs that are dependent on a specific job, select **Option 2** from the Scheduler menu. When the Work with Job Schedule Entries panel appears, select **Option 40** for the job whose dependent jobs you want to see and press **Enter**. The Job Dependents panel will appear with a list of the dependent jobs.



#### Date/Time Dependencies

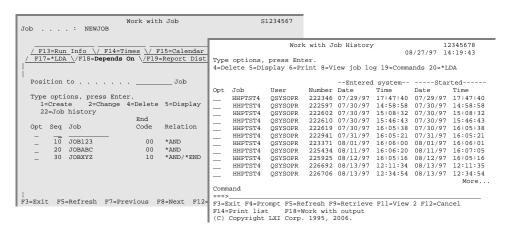
Dependencies must be scheduled. In most cases, the dependency will use the same run schedule as the dependent job. In cases where the dependency does not follow the dependent job, different date/time requirements can be entered. Jobs will not run if not scheduled for the date required.

For example, if you want a job to run Monday through Friday, but the dependency job runs every day, you can introduce time and calendar dependencies to further control when the job is to run.

To add a date/time dependency, set up the time and calendar. Once set up, the job will not be submitted unless the dependency jobs complete and the time and date criteria are met.

## Viewing a Job Dependencies History

To view the job history of a job that has dependencies, use **Option 22**. This accesses the Work with Job History panel for the specified job.

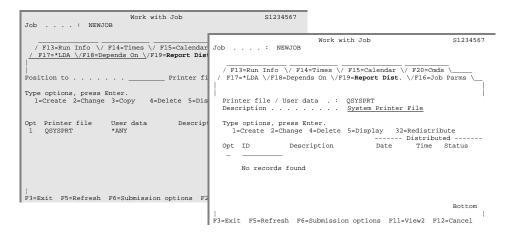


# 

The **Report Dist.** folder establishes where a job's reports are to be distributed. When a job produces reports, they are distributed to the output queue or **SNADS** address specified by the report distribution ID. Report distribution IDs determine which output queue or **SNADS** address to use for distribution. For information on setting up Report Distribution ID's, see Chapter 15, Report Distribution.

### Adding a Printer File

To add a new report distribution entry, type a "1", the printer file name and user data for the report to be distributed and press **Enter**. The next panel displays and lists the information for the printer file, including the report distribution IDs to which the printer file is distributed, if any.

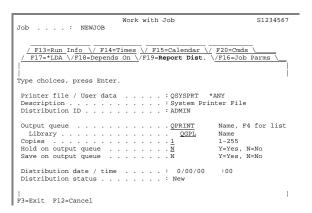


#### Adding a Report Distribution ID

To add a new report distribution ID, enter a "1", a valid report distribution ID and press **Enter**. For a list of valid report distribution IDs, prompt the ID field using the **F4** key.

#### Working with Distribution Detail

The following panel displays the output queue or **SNADS** address. After changing these parameters as needed, press **Enter** twice. The report distribution ID and printer file are added to the job. To add more printer files or IDs to the job, repeat these steps.



#### Changing a Report Distribution

To change a job's report distribution definition, select **Option 2** for the printer file that needs changing and press **Enter**. When the second panel appears, you can change the printer files by adding, deleting or changing the definitions of the report distribution IDs.

## Copying a Printer File

To accelerate setting up report distribution for a job, use the copy function. This function copies the report distribution IDs and definitions from an existing printer file and uses them for a new printer file.

To copy an existing printer file's definition to a new printer file, select **Option 3** from the first panel of the Report Distribution folder and press **Enter**. When the list of report distribution IDs displays, the Printer file/ User data and Description fields at the top of the panel will be blank. Fill in the new printer file name and press **Enter**. After pressing **Enter**, add, change, delete, display, or redistribute the report distribution IDs as needed. Press **Enter** to process the copy.

#### Deleting a Printer File

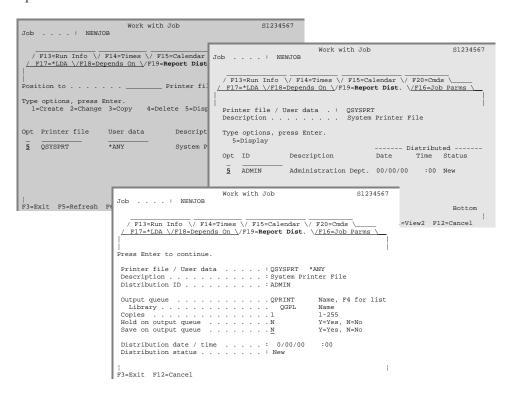
To delete a printer file from a job, select **Option 4**. Deleting a Printer file definition removes all report distribution IDs associated with the printer file.

#### Deleting a Report Distribution

To delete a report distribution ID from a printer file, select **Option 2** for the printer file that contains the ID. When the list of report distribution IDs appears, select **Option 4** for the report distribution ID to be deleted and press **Enter**.

## Displaying a Report Distribution

Selecting **Option 5** for the printer file displays a list of report distribution IDs. Selecting **Option 5** for a report distribution ID displays the output queue information or **SNADS** address.

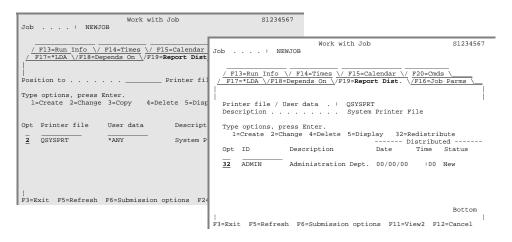


### Redistributing by Printer File

To redistribute reports for a printer file that were not distributed correctly, select **Option 32** from the first panel of the Report Distribution panel. LXI*scheduler* will redistribute any report that was not successfully distributed the last time the job ran.

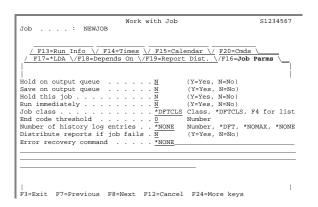
## Redistributing by Distribution ID

To redistribute reports for a report distribution ID that were not successfully distributed, select **Option 2** from the first panel of the Report Distribution folder for the appropriate printer file and press **Enter**. When the printer files report distribution IDs appear, select **Option 32** for the ID that needs reports redistributed. LXIscheduler will redistribute any report that was not successfully distributed the last time the job ran.



## 

The **Job Parms** folder modifies the default run parameters for the job. From this panel, the job's class, error recovery command and run status can be defined. This panel also contains parameters for defining the end code threshold, the number of history entries that are retained for the job and whether reports for the job should be distributed if the job fails. Fill in these parameters as needed and press **Enter**.



**End code threshold**. Enter the end code threshold for the job. If the job ends with an end code greater than the value specified here, you must reset the completion statistics in order to re-run the job. The value "0" indicates that the job must complete normally in order to qualify for the next submission time. If used and the job's status is abnormal, the completion statistics must be reset before the job can run again.

**Number of history log entries**. Enter the number of History Log entries to retain. An entry is created each time a job completes execution. Besides specifying a number, the following special values can be used:

Number of Entries	Means that
*DFT	the default value specified for the <b>Number of history log entries</b> parameter on the Work with Defaults panel is used to determine the number of history log entries to retain for this job.
*NOMAX	the history information is collected and retained until it is manually purged or deleted.
*NONE	no history information is collected for this job.

**Distributing Reports.** Enter whether to distribute reports that were created when the job failed. The value "**Y**" distributes the reports for a job that failed and the value "**N**" prevents reports from being distributed.

**Error Recovery Command.** Enter an iSeries command to execute if the job fails. To enable command prompting, position the cursor anywhere within this field and press **F4**. If no recovery command is desired, specify \*NONE for this parameter.

Predefined variables can also be used within an error recovery command. The following chart lists the variables and the substitution values.

Variable	Substitutes the
&1	name of the job.
&2	user profile name.
&3	job number.
&4	date the job failed.
&5	time the job failed.

## Chapter 8

## Run/Exclude Calendars

Calendars are the heart of any scheduler. They determine when jobs are run and when they are bypassed. They ensure that even the most complex run schemes can be scheduled. LXI*scheduler* provides two types of calendars: run and exclude.

Run calendars are general purpose calendars that determine when a job runs. For example, by creating a general Monday through Friday calendar, the calendar can be applied to any jobs that need to run on a Monday through Friday schedule.

Exclude calendars are used to specify holidays. When specified on a job, LXI*scheduler* will compare the Run dates with the Exclude dates. If a match is found, the job will run based on the value specified in the Alternate day parameter.

This chapter will discuss how to:

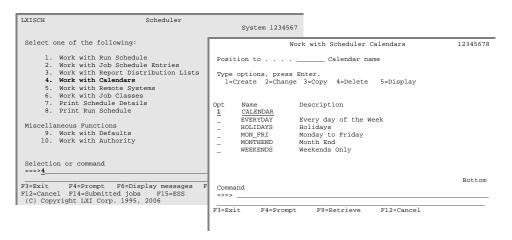
- Create a Run/Exclude calendar
- Specify Run/Exclude dates
- Manage the Run/Exclude calendars

# Working with Run/Exclude Calendars

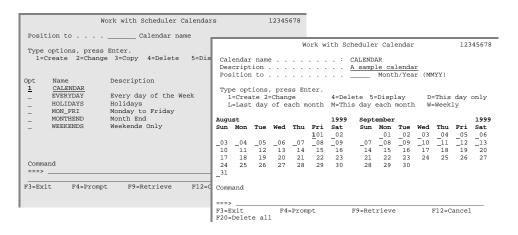
Run calendars are used in job setups to determine on which days a job should run. By setting up general run calendars, those calendars can be applied to multiple jobs without having to recreate a new calendar for each job. For example, by creating a general Monday through Friday calendar, the calendar can be applied to all jobs that need to run on a Monday through Friday schedule.

### Adding a Run/Exclude Calendar

To create or work with an existing run calendar, use **Option 4** from the Scheduler menu. This panel displays a list of existing calendars. To add a new calendar, type a "1", a new calendar name and press **Enter**. Any changes made to a calendar will automatically update the schedule for all jobs associated with it.



Use the Work with Scheduler Calendar panel to set up the specific dates for the new calendar.



The panel displays two months of the calendar at a time. To view different months or years of the calendar, use the Page Up or Page Down keys. To find the particular month and year quickly, type the month and year (MMYY format) in the Position to field at the top of the screen and press **Enter**.

To set up run parameters for specific days, use the options listed on the screen. Type the option number beside the day for which the run parameters are to be set up and press **Enter**. Days that have run parameters set for them are highlighted.

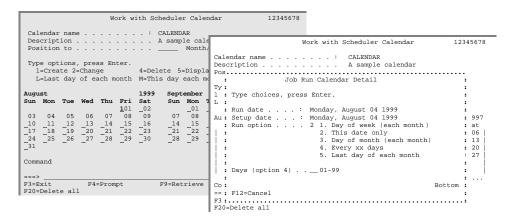
	Work with Scheduler Calendar 12345678												
Calendar name         : CALENDAR           Description         A sample calendar Month/Year (MMYY)													
	e opt												
							lete 5:						only
I	=Last	day	of e	ach m	onth	M=Th:	is day	each	month	ı W:	=Week	ly	
Augu	ıst					1999	Sept	ember					1999
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
					<b>1</b> 01	02		_01	02		04		06
_03	_04	_05	_06	_07	_08	_09	_07	_08	_09	_10	_11	_12	_13
_10	_11	_12	_13	14	_15	_16	_14	_15	_16	_17	_18	_19	
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28	29	30				
31													
Comm	hand												
COILL	ianu												
===>													
F3=Exit F4=Prompt F9=Retrieve F12=Cancel													
F20=Delete all													

Use the following table to fill in the calendar that appears on the page.

Option	Description
1	Creates new run parameters for the selected day or date.
2	Changes the run parameters for the selected day or date.
4	Deletes the run parameters for the selected day or date.
5	Displays the run parameters for the selected day and date.
D	Creates the run parameter for the selected date only.
L	Creates the run parameter for the last day of every month.
M	Creates the run parameter for the selected day each month (For example, if the start date is the second Monday of the month, then this job runs the second Monday of each month).
W	Creates the run parameter for each week for this day.

For example, to set up run parameters for a single day, type a "**W**" next to the day. To set up a job to run every week on Saturday, type a "**W**" next to any Saturday date.

If **Option 1** is used to set the run parameters for a specific day, the Job Run Calendar Detail window will appear after **Enter** is pressed.

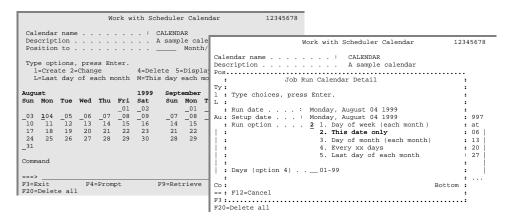


Specify the Run option for the selected day. Based on the day, LXIscheduler defines which other parameters need to be set up. For example, run parameters could be set up weekly or monthly. If the combination of Run options specified for various days or dates overlaps the same date, LXIscheduler uses the run option with the most current start date. The possible values for the Run option are:

Option	Description
1	Specifies the Day of Week for each month.
2	Specifies this date only.
3	Specifies day of Month for each month.
4	Specifies every xx days where xx is a value from 01 to 99.
5	Specifies last day of month.

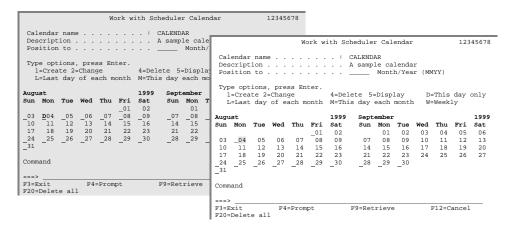
## Run/Exclude Calendar Example 1

In this example, a run calendar named **CALENDAR** is defined to submit jobs only on August 4<sup>th</sup> 1999. First, a "1" is specified on August 4<sup>th</sup> on the calendar displayed on the Work with Scheduler Calendar panel. This displays the Job Run Calendar Detail window where a "2" is specified, indicating that the job is only eligible for submission on August 4<sup>th</sup>, 1999. Pressing **Enter** will redisplay the Work with Calendar Scheduler panel with August 4<sup>th</sup>, 1999 highlighted.



### Run/Exclude Calendar Example 2

The steps outlined in Example 1 can be simplified by specifying a "**D**" on August 4<sup>th</sup> calendar displayed on the Work with Scheduler Calendar panel. Pressing **Enter** will redisplay the Work with Calendar Scheduler panel with August 4<sup>th</sup>, 1999 highlighted.



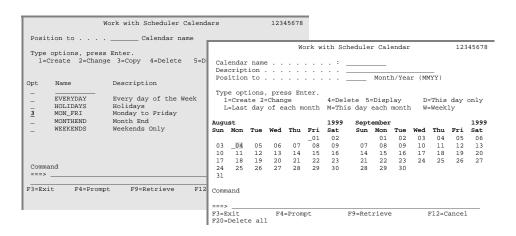
### Changing a Run/Exclude Calendar

To change an existing Run calendar, enter **Option 2** next to any highlighted dates and press **Enter**. The Job Run Calendar Detail panel will appear. Change the run options as needed and press **Enter**.

## Copying a Run/Exclude Calendar

The copy function accelerates the creation of new Run calendars by copying the definition of an existing calendar to a new calendar.

To copy a definition from one calendar to another, select **Option 3** from the Work with Scheduler Calendar panel. When the Work with Job Run Calendar panel appears, the calendar is defined, but the Calendar name parameter will be blank. Fill in a new calendar name and change any of the other definitions as needed. Press **Enter**.



## Deleting a Run/Exclude Calendar

Ensure that no jobs are assigned to the calendar being deleted. The system will not delete any calendars being used.

To delete a calendar, select **Option 4** from the Work with Job Run Calendars panel and press **Enter**.

#### Deleting a Calendar Date

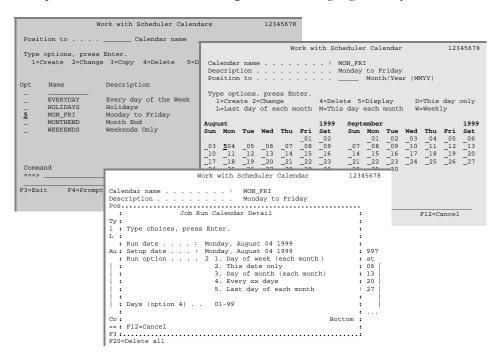
To delete one or more of the dates for which a calendar has run parameters set, select **Option 4** from the Work with Scheduler Calendar panel for the dates to delete and press **Enter**.

#### Clearing All Calendar Dates

To clear all of the dates set up for a calendar, press the **F20** key from the Work with scheduler Calendar panel and press **Enter**.

## Displaying a Run/Exclude Calendar

To display a job Run calendar, select **Option 5** from the Work with Scheduler Calendars panel. The Work with Scheduler Calendar panel will appear. The information on this panel can be viewed but not changed. To view the run options for the calendar, select **Option 5** for a highlighted day.



# Chapter 9

## Overrides

Change is the only certainty in life. This is especially true in data centers where exceptions to normal processing occur frequently. In most cases it is desirable to handle the exception without changing the process flow. Overrides provide a means to do that. With overrides, the exception can be handled without having to change the normal process flow. Since overrides process exceptions, they must be specified for the day that the exception is to occur. This is accomplished through the Calendar folder.

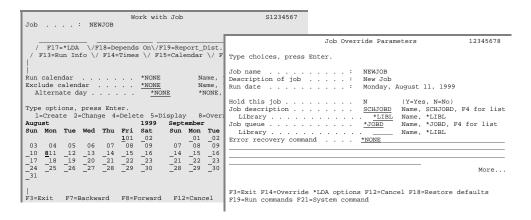
This chapter will discuss how to override:

- Job parameters
- Local data area
- Run commands

# Overriding the Run Parameters

The CALENDAR folder provides the ability to override the run parameters for a specific day without changing the run parameters on any other days. From the CALENDAR folder, type an "8" next to the day whose run parameters you want to override and press Enter.

The Job Override Parameters panel will appear. This panel contains the parameters that can be modified for an override. To restore the defaults for the selected date, press **F18**.



The parameters available are:

**Job Description**. Enter the name of the job description to use when this job is submitted. It is important that a valid user be specified in the **USER** parameter of the job description. Verify this condition *before* allowing LXI-scheduler to submit this job. For a list of job descriptions, position the cursor anywhere in this field and press **F4**. The value **SCHJOBD** can also be used. This value will cause the default job description to be used.

**Error Recovery Command.** Enter an iSeries command to execute if the job fails. To enable command prompting, position the cursor anywhere within this field and press **F4**. If no recovery command is desired, specify \*NONE for this parameter.

Predefined variables can also be used within an error recovery command. The following chart lists the variables and the substitution values.

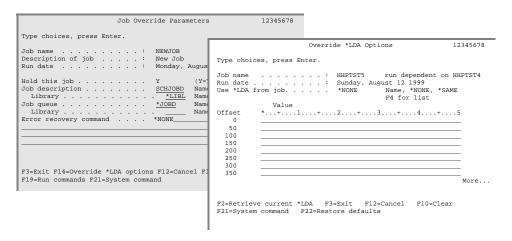
Variable	Substitutes the
&1	name of the job.
&2	user profile name.
&3	job number.
&4	date the job failed.
&5	time the job failed.

#### Job Parameter Override Example

In the example below, the override for the job consists of holding the job on August 11th, 1999, as signified by the "**Y**" in the Hold this job parameter. The job description, job queue, and error recovery command remain the same for the job. As a result of this override, the job will be held on August 11th, 1999 and will not be submitted. Unless other overrides have been put into effect, the job will be submitted normally on other run dates.

#### Overriding the \*LDA Value

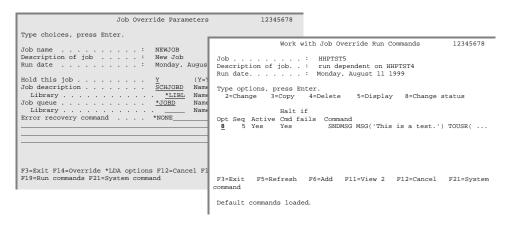
The Job Override Parameters panel contains an option that overrides the \*LDA value for a job on a specific day without changing the \*LDA value on any other days. Press F14 and the Override \*LDA Values panel will appear. To retrieve the job's current \*LDA value, press F2. Fill in the \*LDA parameters as required, then press Enter.



#### Overriding the Commands

The Job Override Parameters panel contains an option that overrides a job's commands on a specific day without changing the commands on any other days. Press **F19** from this panel and the Work with Job Override Run Commands panel will appear. Use these options to modify the status of the job's commands.

In the example below, the command's status is being changed from active to inactive. As a result, the command will be bypassed on August 12<sup>th</sup>, 1999. Unless other overrides have been put into effect, the command will be executed normally on the other dates that this job is submitted.



### Chapter 10

## Controlling Jobs

"Hold that job!" ... a common request in any data center. More exceptions to the processing flow. Exceptions that may have been caused by job failure, change in processing, waiting for data or countless other possibilities. These situations may require that jobs are held until later or started earlier than usual.

LXIscheduler provides the means to control when a job is submitted. If no exceptions occur, the job is submitted as defined in the scheduler. However, if a job needs to be held or started earlier, it is easily accomplished.

If LXIscheduler Report Distribution is used and not all reports from a job were distributed, redistribution of reports can be accomplished.

This chapter ends with an overview of the LXIscheduler Job Capture Facility. This feature will "record" all submitted jobs from the current job and add them to the scheduler. This provides a fast and easy method of getting jobs into the scheduler.

This chapter will discuss how to:

- Change Submission Options
- Filter Jobs
- Hold/Release a Job
- Redistribute Reports
- Reset a Failed Job
- Submit a Job Immediately
- Job Capture Facility

### Working with Jobs

LXIscheduler provides the ability to control jobs through the Work with Job Schedule Entries panel. This panel provides the means to change when a job is submitted, redistribute reports and reset jobs that ended in error. To access the Work with Job Schedule Entries panel, select **Option 2** from the Scheduler menu.

W	ork with Job Sch	edule Ent	ries	S1234	1567
Position to Monitor status : Started Current date/time : 8/13/97 15:00 Next wake-up date / time . : 8/13/97 17:15  Type options, press Enter. 1=Create 2=Change 3=Copy 4=Delete 5=Display 6=Release 7=Work with job 8=View joblog 9=Bold 10=Run now 11=Reset					
Opt Job Desc			Time	ion Status	Code
ARJOB A/R LXIARCHIVE Nigh LXIBMS_002 Nigh	ntly Archive ntly Backups Moves & Returns Process Backups	8/13/97 8/13/97 8/13/97 8/14/97 8/14/97	21:08:46 23:47:43 20:30:02 07:33:51	Completed Completed	00 00 00 00
Command ===>_ F3=Exit F4=Prompt F11=View 2 F12=Cance: (C) Copyright LXI Co	l F14=Start monit			F9=Retr	

### **Changing Submission Options**

LXIscheduler submits internal jobs, like report redistribution, to batch for processing. The default job queue is **QBATCH**. To change the job queue or submit jobs in hold status, use **F6** from the Work with Job Schedule Entries panel.

#### Filtering Jobs

LXIscheduler provides the ability to filter jobs from the Work with Job Schedule Entries panel. This function helps eliminate unwanted entries from the display. Jobs can be filtered by calendar, run date, completion date, status and job class. To filter the jobs, press **F17**, enter the filter criteria and press **Enter**.

#### Holding/Releasing a Job

LXIscheduler can hold a job and not submit it. Once held, it is not submitted again until released. To hold a job, select **Option 9** from the Work with Job Schedule Entries panel.

To release a job that is being held, select **Option 6** from the Work with Job Schedule Entries panel. The job is submitted the next time it is eligible for submission.

#### Redistributing Reports

To redistribute any printer files that were not distributed correctly, select **Option 32** from the Work with Job Setups panel. LXI*scheduler* will redistribute the reports created by the job for all printer files that did not successfully distribute the reports to the defined report distribution ID.

### Resetting a Job

In some situations, a job's completion statistics should be reset in order for that job to become eligible to run again. This is required when:

- The completion status is Abnormal and the reason has been determined and corrected.
- The completion status is Submitted and the job is no longer in the job queue or running. This condition is rare and may occur as a result of an uncontrolled termination.

In these instances, LXIscheduler will not submit the job again until the completion statistics are reset.

To reset a job's completion statistics, select **Option 11** from the Work with Job Schedule Entries panel and press **Enter**. The completion date and time are reset to the current date and time. The completion status will have a value of **Reset** and the job is eligible for submission.

#### Submitting a Job Immediately

LXIscheduler can submit a job immediately, regardless of the job's current schedule by selecting **Option 10** from the Work with Job Schedule Entries panel. If the LXIscheduler monitor is active, the job is submitted immediately. If the monitor is not active, the job is submitted after the monitor is started.

## Job Capture Facility

LXIscheduler can "record" all submitted jobs from a command line or menu, and enter them into the scheduler. This allows jobs to be entered quickly and helps reduce errors. Once entered, job options, such as run times and calendars, can be changed as required.

To start recording jobs:

- Enter **STRJOBCAPF** on a command line. A message is issued stating that the capture facility has been successfully started.
- Submit a job. The Job Capture Facility displays the Run Info folder, if specified in the LXIscheduler defaults. Change the parameters as needed and press Enter. If more commands are needed for the same job, press F16 instead of Enter. This will display the Cmds folder. Press Enter when finished.
- When complete, enter ENDJOBCAPF. A message is issued stating that the capture facility has successfully ended. This ends the Job Capture Facility.

## **Group Jobs**

A group job is a job that controls the submission of multiple other jobs. LXIscheduler provides group support through the Run Scheduled Job (RUNSCHJOB) command. The grouped jobs would be defined independently and would have the value \*NONE for the Run time, Run calendar and Exclude calendar. The main group job would then be created with the appropriate run time, run calendar and Exclude calendar for the grouped jobs to run under. The main group job would have for its run commands the RUNSCHJOB command with the LXIscheduler job to run at that sequence. This process is repeated until all grouped jobs are defined to the main group job.

Additional functionality includes the ability to specify a wait time for the completion of the grouped job before continuing on to the next command defined in the main group job. The value \*MAX will cause the main group job to wait until the grouped jobs complete before proceeding on to the next sequence in the main group job. The value \*NONE will cause the main group job to immediately proceed to the next sequence within the main group job regardless of whether the grouped job has finished. A time frame in minutes can be specified to wait for the completion of the grouped jobs before the main group job proceeds to the next sequence.

### Chapter 11

### **Parameters**

Jobs perform processes based on variables. These variables, when passed into a program, are known as parameters. Parameters provide a variable value to a process. This value may be a date, time, name, or any other value that may change. Accounting processes need date and week ending information. Other processes may need the job name or system name. Some programs like the date in Julian format; others require the date to be in Gregorian format. Parameters eliminate the need to change the value that is input to a program.

LXIscheduler provides most standard date and time parameters plus it allows custom user-defined parameters to be created.

This chapter will discuss how to:

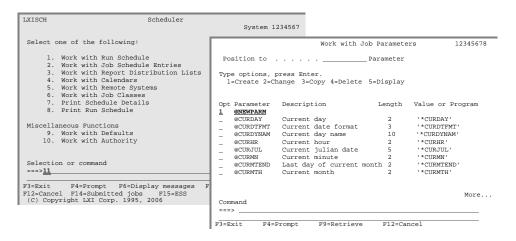
- Create a parameter
- Manage parameters
- Use a parameter in a job

## Working with Parameters

LXIscheduler provides the ability to create parameters and use them when setting up commands. When creating a parameter, specify the value that the parameter will have. This value can be a constant (such as a specific date), special value or a value that is retrieved from a program. The value retrieved from the parameter is substituted in the command before it is executed.

### Adding a Parameter

To create a parameter, select **Option 11** from the Scheduler menu. The Work with Job Parameters panel will appear. Type a "1", a parameter name and press **Enter**. Make sure the parameter name begins with the '@' character.



The Parameter Detail panel will appear. Fill in the parameters as needed and press **Enter**.

Parameter Detail	12345678
Type choices, press Enter.	
Parameter name         : @NEWPARM           Parameter description         \(\begin{align*}{c} \lambda \) sample paramet           Parameter length         : 2	<u>er</u> 1 - 256
Constant or "*SPECIAL" value	F4 for list
Program to call	Name, F4 for list Name
Command ===>	
F3=Exit F4=Prompt F9=Retrieve F12=Cancel	<del></del> -

The key parameters are:

**Parameter name**. Enter the parameter name. Each parameter name must begin with the character "@".

**Parameter length**. Enter the length of the parameter.

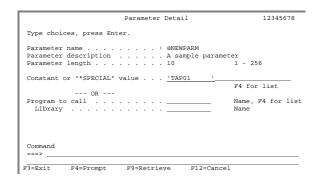
**Constant or '\*SPECIAL' value**. Enter the value substituted for the parameter when executing in a job. This parameter may be a constant value or a special value. Special values are predefined and are identified by an '\*' in the first position of the field. You may also position the cursor anywhere in the input area of this parameter and press **F4** to select a special value from a list.

**Program to call.** Enter the name of the program that retrieves the parameter value. You may also position the cursor anywhere in the input area of this parameter and press **F4** to select a program from a list of programs in the specified library.

**Library**. Enter the library name of the program that retrieves the parameter value.

#### Parameter Example

In this example, a parameter called @NEWPARM is defined as having a parameter length of 10 and a constant value of TAP01. This means that whenever parameter @NEWPARM is used in a job command, the constant value TAP01 will be substituted as the parameter's value.



### Changing a Parameter

Over time, the parameters may need to be modified in order to meet changing requirements. Selecting **Option 2** allows the parameter to be changed. Press **Enter** when complete.

### Copying a Parameter

The copy function accelerates the creation of new parameters by copying the definition of an existing parameter to a new parameter.

To copy a definition from one parameter to another, select **Option 3** from the Work with Job Parameter panel. When the Parameter Detail panel appears, the parameter is defined, but the Parameter name will be blank. Fill in a new parameter name and change any of the other definitions as needed. Press **Enter**.

### Deleting a Parameter

To delete a parameter, select **Option 4** from the Work with Job Parameters panel and press **Enter**.

### Displaying a Parameter

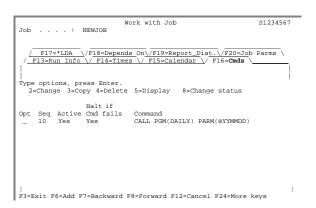
To display a parameter, select **Option 5** from the Work with Job Parameters panel. The Parameter Detail panel will appear. The information on this panel can be viewed but not changed.

### Using Parameters in Job Commands

Once a parameter is created, it can be used by the commands defined for a job. To work with a job's commands, refer to the Command Folder in Chapter 7, *The Folders*.

### Job Command Example

In this example, the job's command uses the special parameter @YYMMDD. When the command is submitted to run, this parameter is replaced with the current year, month, and date. For example, the command defined below would be submitted as CALL PGM(DAILY) PARM(991031) if the job were submitted on October 31, 1999.



### Chapter 12

### Remote Systems

In today's complex multi-system environment, jobs from one system affect jobs on another. In order for LXIscheduler to operate across networked iSeries, remote systems must be defined. When remote systems are defined to LXIscheduler,

- Job completion information is shared
- Remote job schedules can be created/updated
- Remote run calendars can be updated
- Local job definitions can be copied to the remote

Additionally, if local jobs are dependent on the completion of remote jobs, the job completion information is updated on all systems within the network.

This chapter will discuss how to:

- Create a remote system definition
- Update jobs to a remote system
- Manage pending changes
- Refresh a remote system

### **Communication Prerequisites**

Before setting up remote systems, two functions must be performed outside of LXI*scheduler*. First, a user profile must be created. Second, directories using the user profile must be created.

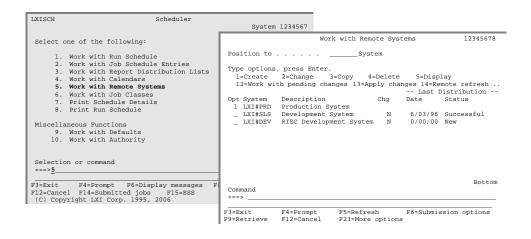
Create the new user profile with the following command:

CRTUSRPRF USRPRF(SCHUSER) +
PASSWORD(\*NONE) +
STATUS(\*DISABLED) +
USRCLS(\*USER) +
TEXT('LXIscheduler') +
MSGQ(LXISCH400/JSMSGQ)

Create two directory entries: one for the local and one for the remote system. Use the **SCHUSER** profile as the user-id and use the remote system address for the address definition. These directory entries must be created on both systems in order for them to communicate. For more information on creating directory entries, refer to the appropriate iSeries documentation.

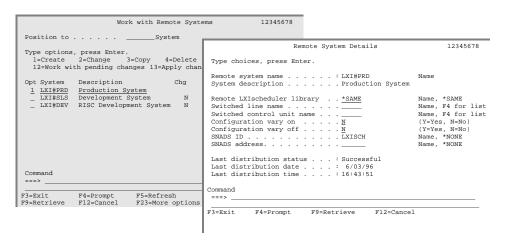
## Working with Remote Systems

Once the **SCHUSER** directory entries exist, a remote system definition can be created. To define remote systems, select **Option 5** from the Scheduler menu and press **Enter**. The Work with Remote Systems panel will appear.



#### Adding a Remote System Definition

To add a remote system definition, type a "1", the remote system name and press **Enter**. This displays the Remote System Details panel. Review or change the parameters for the remote system and press **Enter**.



The key parameters are:

**Remote system name**. Enter the remote system name. The remote location name parameter is found in the APPC device description that connects with the remote system.

**Remote LXI** scheduler library. Enter the library that contains the LXI-scheduler software on the remote system. Using the value \*SAME indicates that the remote LXI scheduler data file library name is the same as the local LXI scheduler data file library name.

If a remote system using LXIscheduler 6.1 or lower is communicating with a system using LXIscheduler 6.2 or higher, ensure that LXISCH400 is specified for the remote scheduler library parameter when defining remote system details on the remote system.

**Switched line name**. Enter the switched line name that connects to the remote system. If there is no switched line for the remote system, ignore this parameter.

**Switched control unit name**. Enter the switched control unit name that connects to the remote system. If there is no switched control unit for the remote system, ignore this parameter.

**Configuration vary on.** Specify the vary on option. If "Y" is specified, the switched line and control unit are varied on before changes are applied to the remote system. This value is only valid when a switched line and control unit are defined.

**Configuration vary off.** Specify the vary off option. If "**Y**" is specified, the switched line and control unit are varied off after changes are applied to the remote. This value is only valid when a switched line and control unit are defined.

**SNADS ID/Address**. Enter the **SNADS** distribution entry to which all local job completion statistics are sent. The **SNADS** address is necessary for LXI*s-cheduler* to send completion statistics between systems.

### Remote System Definition Example

In this example, a remote system named **NEWSYS** has been defined. The value **\*SAME** in the Remote LXI*scheduler* library parameter indicates that the same library contains the LXI*scheduler* data files as on the local system.

The values **FAXLINE** and **FAXUNIT** in the Switched line name and Switch control unit name parameters indicate that the predefined **FAXLINE** switched line and the **FAXUNIT** switch control unit are needed in order to connect to **NEWSYS**. The value "**Y**" in the Configuration vary on and Configuration vary off parameters indicate that the switched line and control unit is varied on before changes are applied to remote system **NEWSYS**, and then is varied off when complete.

The **SNADS** ID and **SNADS** address parameters contain the user profile and address to which all local job completion statistics are sent. The values **USER** and **SYSABC** indicate that the predefined user profile **USER** will receive the Local job's completion messages at the address **SYSABC**.

Remote System Details	12345678
Type choices, press Enter.	
Remote system name : NEWSYS System description New System	Name
Remote LXIscheduler library	Name, *SAME Name, F4 for lis Name, F4 for lis (Y=Yes, N=No) (Y=Yes, N=No) Name, *NONE Name, *NONE
F3=Exit F4=Prompt F9=Retrieve F12=Cance	1

### Changing a Remote System Definition

Over time, the remote system information may need to be modified in order to meet changing requirements. Selecting **Option 2** allows the remote system parameters to be changed. Press **Enter** when complete.

### Copying a Remote System Definition

The copy function accelerates the creation of new remote system definitions by copying the definition of an existing remote system to another.

To copy a definition from one remote system definition to another, select **Option 3** from the Work with Remote Systems panel. When the Remote System Details panel appears, the remote system definition is defined, but the Remote system name will be blank. Fill in a new Remote system name and change any of the other definitions as needed. Press **Enter**.

### Deleting a Remote System Definition

To delete a remote system definition, select **Option 4** from the Work with Remote Systems panel and press **Enter**.

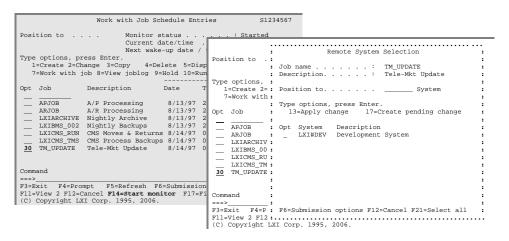
### Displaying a Remote System Definition

To display a remote system definition, select **Option 5** from the Work with Remote Systems panel. The Remote System Details panel will appear. The information on this panel can be viewed but not changed.

## Updating Jobs to a Remote System

If jobs are added, changed, or deleted on one system, the information can be distributed across remote systems through the process of creating and applying pending changes. This process will update user-specified remote systems and ensure that both the local and remote locations have the same job schedule information.

To update a remote system, select **Option 30** from the Work with Job Schedule Entries panel. To delete a remote system update, select **Option 31**. The Remote System Selection will appear listing all defined remote systems. To apply the changes to one or all of the remote systems immediately, select **Option 13**. To create a pending change, select **Option 17**. Press **Enter**.

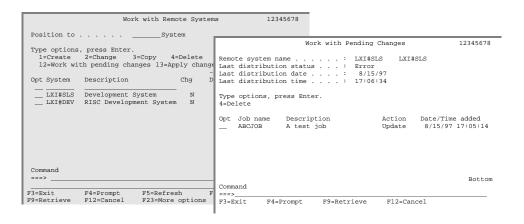


<u>Note</u>: Sending changes to a remote system removes all existing non-matching job scheduler entries from the remote system.

## Working with Pending Changes

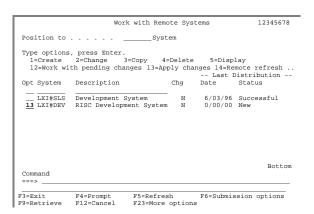
To view the pending changes, select **Option 12** from the Work with Remote Systems panel. This displays the Work with Pending Changes panel. From this panel, the last distribution date, time and status can be viewed.

Also note the action that will occur for this job when the change is applied. A value of **Update** indicates that the job will be added or updated to the run schedule. A value of **Delete** indicates that this job will be deleted from the run schedule.



#### Applying Pending Changes

To apply pending job information changes to a remote system, select **Option** 13 from the Work with Remote Systems panel. A batch job is submitted for the operation.



### Using the APYRMTCHG Command

The Apply Remote Change (APYRMTCHG) command refreshes or applies job schedule updates to a remote system.

Apply Remote System Changes (APYRMTCHG)
Type choices, press Enter.
Remote system name
Bottom F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display F24=More keys

The key parameters for this command are:

**Remote system name**. Enter the name of the remote system.

**Information to update**. Enter the type of information to update.

- \*PNDCHG applies all pending schedule changes to the selected remote system.
- \*REFRESH <u>clears and reloads</u> selected remote systems with <u>all</u> jobs defined in the run schedule on the local system.

**Job queue** (JOBQ). Enter the name of the job queue to use.

**Hold on job queue** (HOLD). Specify if the submitted job is on hold.

### **Deleting Pending Changes**

Use **Option 4** from the Work with Pending Changes panel to delete a pending change.

## Refreshing a Remote System

Refreshing a remote system <u>clears</u> a remote system and reloads the system with all the jobs currently defined in the run schedule on the local system. This feature updates remote systems quickly and ensures that all remote systems contain the same information.

To update a remote system, select **Option 14** from the Work with Remote Systems panel. LXI*scheduler* will submit a batch job that will clear and reload the selected remote system. *Use this option with caution*.

## Applying Run Calendars to a Remote System

LXIscheduler provides the ability to apply the local system's run calendars to a remote system. This process can accelerate setting up calendars on remote systems if you are using the same calendars on all systems. When this function is used, the run calendars defined on the remote system are replaced with the run calendars from the local system.

To apply the local system's run calendars to a remote system, select **Option 15** from the Work with Remote Systems panel. LXI*scheduler* will submit a batch job that will replace the remote system's run calendars with the local system's calendars.

### Chapter 13

### Run Schedules and Forecasting

Need to know what's hot and what's not? LXIscheduler provides the ability to view all jobs running today without having to sort through jobs that aren't. This option shows all currently scheduled jobs and their completion status, if known, at a single glance.

Additionally, a graphic display can be viewed showing when a job is scheduled to start and when it is expected to complete. When all scheduled jobs are included in the graphic view, it is easy to see where problems may arise. The forecast for a job can be overridden and the effects of the change on other jobs can be viewed. This ability allows jobs to be scheduled to use resources more efficiently.

The chapter will discuss how to:

- View the run schedule
- Forecast
- Override the forecast

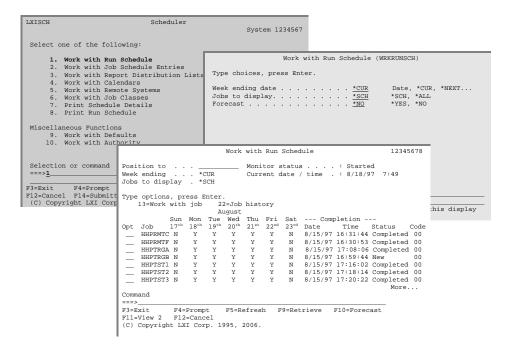
## Viewing the Run Schedule

A run schedule displays the jobs scheduled to run for any given week. This includes status information on the last time the job ran. The schedule provides a fast method of determining which jobs will be running. To work with the run schedule, select **Option 1** from the Scheduler menu.

The Work with Run Schedule panel displays a listing of the jobs that are scheduled to run for the current week (\*CUR). To view the run schedule for a different week, enter the appropriate date in the Week ending date parameter at the top of the panel. If the date entered is not a week ending date, LXIs-cheduler will calculate the week ending date. Use values of \*NEXT and \*PREV to view the next or previous weeks run schedule.

<u>Note</u>: If **DATE(\*NEXT)** or **DATE(\*PRV)** is specified and there is more than one page of jobs, pressing **PAGEDOWN** or **PAGEUP** causes the first page of jobs to display for future or previous dates. To see the second page of jobs, remove \*NEXT or \*PRV from the **DATE** field on the command or from the "Week ending date" field on the panel.

The command can also be used for viewing or printing forecast information. Forecast selection criteria offers a way to view forecast information for the jobs submitted to all or specific job queues.

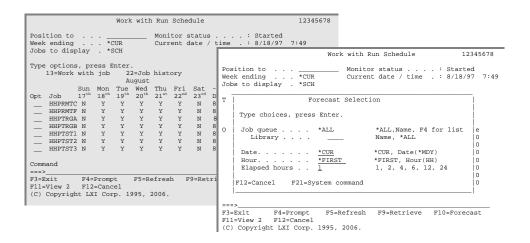


Included on this display is information regarding the job's prior completion status. For the Completion status field, one of the following values is displayed:

Comple- tion Status	The job
Abnormal	did <b>not</b> complete successfully the last time it ran. Review the job log or the LXIscheduler submission and schedule parameters to determine why the job did not complete successfully.
Completed	completed successfully the last time it ran.
Executing	is currently executing.
Joblog	has completed processing and is in the process of updating the joblog. A status of abnormal or completed will appear when this process has completed. If the LXIscheduler monitor is inactive, the status will remain as Joblog until it is started.
New	was created recently and has not been submitted.
Reset	completion status was reset and the job has not been submitted.
Submitted	is currently in the job queue.

## Forecasting Jobs

LXIscheduler forecasting allows the user to select a window of time and view the jobs that will be running during that period. Select to view from a single hour up to an entire 24 hour period. From the Work with Run Schedule panel, press **F10** to display the Forecast Selection window. Use this window to define the period of time to forecast jobs.



The key parameters for this window are:

**Job queue**. Enter the name of the job queue in which the job is placed. The special value \*ALL will display the forecast for jobs submitted to all job queues.

**Date**. Enter the date for which the forecast is to be displayed. The special value \*CUR will display the forecast for the current date.

**Hour**. Enter the start hour for which the forecast is to be displayed. Enter an hour in HH format or use the special value \*FIRST to start the forecast on the first available hour.

**Elapsed hours**. Use this area to enter the number of hours to be displayed from the starting date and hour. Enter one of the following values for this parameter:

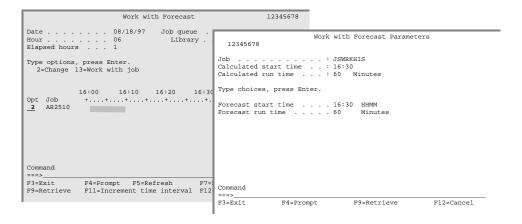
Elapsed Hours	Displays a
1	one hour forecast.
2	two hour forecast.
4	four hour forecast.
6	six hour forecast.
12	twelve hour forecast.
24	twenty-four hour forecast.

After filling in the parameters, press **Enter**. The Work with Forecast panel will appear. Based on the criteria from the Forecast Selection window, the panel displays the jobs that are scheduled to run. The time period that the job will be running is highlighted. To increment the elapsed hour parameter to the next available value, press the **F11** key.

## Overriding the Forecast Schedule

LXIscheduler provides the ability to override the forecast parameters for a job without changing the job's run parameters. The override will change the way the job is forecasted, but will not change the time and date that the job will run. By overriding a job's forecast, you can view a job's possible scheduling alternatives through the forecast schedule without changing the job's setup.

To override the forecast parameters for a job, select **Option 2** from the Work with Forecast panel. The Work with Forecast Parameters panel will appear.



The key parameters for this panel are:

**Forecast start time.** Enter the new forecast start time. Changes made to this parameter have no affect on the run schedule for this job.

**Forecast run time**. Enter the new run time in minutes. Changes made to this parameter have no affect on the run schedule for this job.

### Chapter 14

## History Logs

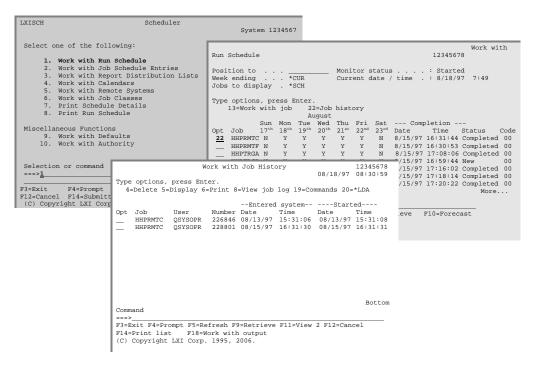
The history log contains information about jobs that were submitted using LXI-scheduler, including when the job was run and what the statistics were upon completion. This log is updated at the completion of each job and is sorted in descending sequence by job start date and time.

This chapter will discuss how to:

- Display the Job History Log
- Display a Job's Job log
- View command history
- View a Job's \*LDA

### Displaying the Job History Log

Use the history log to gain information about a job's past submission. To display the history log, select **Option 1** from the Scheduler menu. This displays the Work with Run Schedule panel. Choose **Option 22** for the job history to display and press **Enter**. The Work with Job History panel will appear with a listing of the job's history log entries.



**Option 22** is also available from the Work with Job Schedule Entries panel.

### Using the WRKJOBHST Command

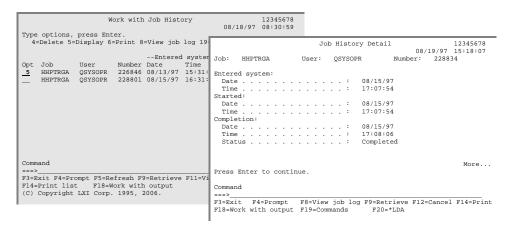
Using the Work with Job History (WRKJOBHST) command displays all or specific jobs. The Work with Job History panel displays the user profile under which the job was run, the job's system assigned number, the date and time the job entered into the system and the date and time the job started execution. Numbers that begin with "S" are assigned by the monitor and are probably caused by a submission error.

### **Deleting Job History Entries**

Depending on how many history entries are allowed for each job, the history log may become very large. A value of \*NOMAX in the Number of job history entries parameter from the job setup, for example, will allow an unlimited number of entries to exist for a job. To delete entries, use **Option 4** from the Work with Job History panel or use the Purge Job History (PRGJOBHST) command, which can be scheduled.

### Displaying Job History Entry Details

Using **Option 5** from the Work with Job History panel displays the Job History Detail panel where detailed job information is displayed.

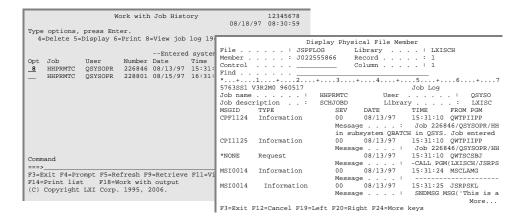


The values on this panel can not be changed. Additional information on the fields is available by positioning the cursor on the fields and pressing **F1**.

## Displaying the Job Log

The job log contains message information for each history log entry. View the job log to see what messages were issued, when a job was executed, the message type, severity, date and time. Job log information is stored within individual file members, so the file member must be accessed in order to view the job log information.

To view the job log for a specific job history entry, select **Option 8** from the Work with Job History panel. The Display Physical File Member panel will appear. This panel allows you to look at the job log data within an individual file member.

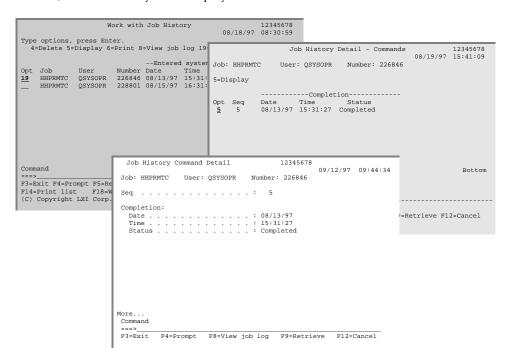


To print this information, press the **F4** key instead of **Enter** at the Work with Job History panel. When the command prompt appears, change the **OUTPUT** parameter to \***PRINT** and press **Enter**.

## Viewing Command History

While viewing job history, it may be useful to know which commands were executed by a job. To view the commands, access the Job History Detail – Commands panel. This panel lists all of the commands executed and the status, which identifies if they were successfully executed.

To view the commands that were executed by a job, select **Option 19** from the Work with Job History panel. This command contains one option, **Option 5**, which allows you to display the command in detail.



# Viewing a Job's \*LDA

LXI*scheduler* provides the ability to view a job's local data area at the time the job ran. To display local data area information, use **Option 20** from the Work with Job History panel.

Work with Job History	12345678 08/18/97 08:30:59	
Type options, press Enter. 4=Delete 5=Display 6=Print 8=View job log 19	Job History Detail - LDA 12: 08/19/97 15	345678
Entered syste Opt Job User Number Date Time 20 HHPRMTC OSYSOPR 226846 08/13/97 15:31:	Job: HHPRMTC User: QSYSOPR Number: 226846	.40.10
HHPRMIC QSISOPR 228801 08/15/97 16:31:	Offset *+1+2+3+4+5	
Command	0 50 100 150 200 250 300 350 400	More
===> F3=Exit F4=Prompt F5=Refresh F9=Retrieve F11=V:	Press Enter to continue.	MOTE
F14=Print list F18=Work with output (C) Copyright LXI Corp. 1995, 2006.	Command ===> F3=Exit F4=Prompt F9=Retrieve F12=Cancel F14=Print	
	F18=Work with output	

### Chapter 15

### Report Distribution

To simplify report distribution procedures, LXI*scheduler* comes equipped with its own report distribution system. Once a job has run, use this system to distribute reports to the necessary output queue or SNADS address.

Additionally, job references provide a quick and easy method of determining the report distributions associated with a job. Options allow specific report distribution IDs to be viewed or deleted.

This chapter explains how to:

- Create a Report Distribution ID
- Managing Report Distribution IDs
- Managing Job References

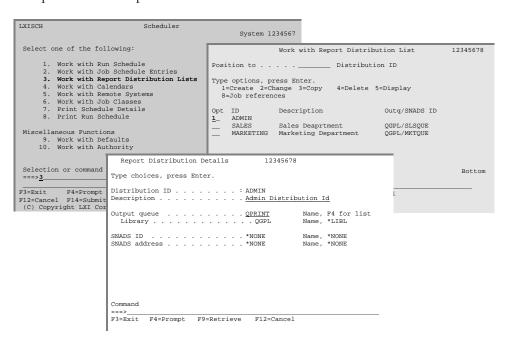
## Working with Report Distribution

Report distribution IDs are used in job setups to determine where reports should be distributed. By setting up a general report distribution ID, the ID can be applied to multiple jobs.

To begin setting up report distribution, access the Work with Report Distribution List panel by selecting **Option 3** from the Scheduler menu. This panel displays the existing entries on the report distribution list. Each of these entries determines to which output queue or **SNADS** address to send reports.

### Adding a Report Distribution ID

To create a new entry, type a "1", a new user-defined report distribution ID and press **Enter**. The Report Distribution Details panel will appear. Fill in the parameters and press **Enter**.



The key parameters for this panel are:

**Distribution ID**. Enter the report distribution ID. This ID can be up to 10-characters and is used as a reference for performing report distribution.

**Output queue**. Enter the output queue name for this distribution. Any report distributed to this ID is placed on this output queue. To select from a list of output queues, position the cursor anywhere in this area and press **F4**. Using the value \*NONE indicates that no output queue is associated with the report distribution ID and the reports are distributed to the specified SNADS ID and address.

**SNADS ID/address.** Enter the **SNADS** directory entry to which reports are sent. The entry must currently exist within your system distribution directory. You may only specify values for these parameters if you have specified **\*NONE** for the output queue parameter described above.

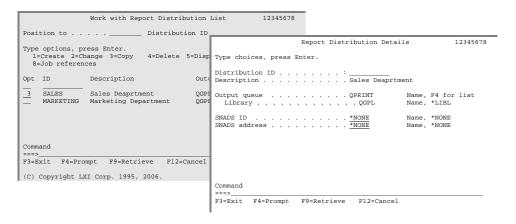
#### Changing a Report Distribution ID

As distribution needs change, the report distribution IDs may need to be changed. To change the definition of an existing report distribution ID, select **Option 2** from the Work with Report Distribution List panel. The Report Distribution Details panel will appear. Modify the parameters as needed and press **Enter**.

#### Copying a Report Distribution ID

To accelerate the process of creating report distribution entries, use the copy function. This will copy the definition from an existing report distribution ID and use it as the definition for a new ID.

To copy the definition from one ID on the report distribution list to another, select **Option 3** from the Work with Report Distribution List panel. The Report Distribution Details panel will appear. Fill in a new report distribution ID and modify the remaining parameters as needed. Press **Enter**.



#### Deleting a Report Distribution ID

To delete the definition of an entry from the report distribution list, select **Option 4** from the Work with Report Distribution List panel and press **Enter**. The system will not delete any report distribution ID that is being used by a job.

#### Displaying a Report Distribution ID

To view the details of a report distribution ID, select **Option 5** from the Work with Report Distribution List panel. The Report Distribution Details panel will appear.

### Report Distribution ID Example 1

In this example, a report distribution ID called **ADMIN** is defined. The report is sent to a predefined user profile called **ADMIN** who is located at address **SYSABC**. If values are specified for the SNADS ID and address, then *no* output queue can be defined for the report distribution ID.

	Report Distribution Deta	ils 12345678
Type choices, press Ente	er.	
Distribution ID Description	: ADMIN	tion Id
	· · · · · *NONE	Name, F4 for list Name, *LIBL
SNADS ID		Name, *NONE Name, *NONE
Command ===>		
F3=Exit F4=Prompt F9	=Retrieve F12=Cancel	

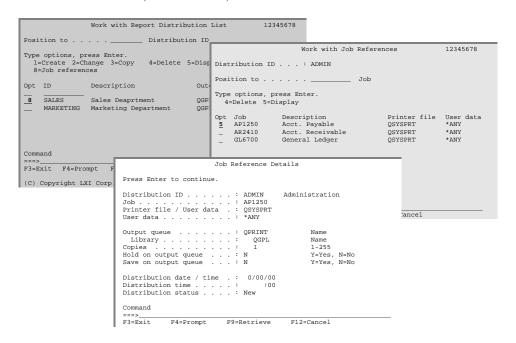
#### Report Distribution ID Example 2

In this example, the definition of report distribution ID **ADMIN** has changed to an output queue and library. With this definition, all of the **ADMIN** reports are sent to output queue **QPRINT**, which is located in library **QGPL**. If an output queue and library are defined for a report distribution ID, then a SNADS ID and address *can not* be defined.

Report Distribution Detail	s 12345678
Type choices, press Enter.	
Distribution ID : ADMIN Description Admin Distribu	tion Id
	Name, F4 for list Name, *LIBL
	Name, *NONE Name, *NONE
Command ===>_	
F3=Exit F4=Prompt F9=Retrieve F12=Cancel	

## Working with Job References

Once jobs are assigned to a report distribution ID, a list of the jobs that have been assigned to each report distribution ID can be viewed. From the Work with Report Distribution List panel, type an "8" next to the report distribution ID job references to be viewed and press **Enter**. The Work with Job References panel will appear with a listing of all of the jobs that distribute reports based on that ID. Enter a "5" next to a job to view its job reference details.



#### **Deleting Job References**

Changing how to distribute reports based on a report distribution ID is easy. Delete the job from the Work with Job References panel using **Option 4** and press **Enter**. Once deleted, the job will no longer distribute reports as defined by the report distribution ID.

# Chapter 16

# Reports

The following is a list of all reports available from LXI*scheduler*. The name of the report, the command(s) used to print them and the printer files are listed. All printer files reside in library LXISCH400.

Report	Command	Printer File
Job Details	PRTSCHDTL	SCHDETRP
Run Schedule	PRTRUNSCH	SCHRUNRP
Job History	PRGJOBHST WRKJOBHST	SCHJBHLST
Job Detail List	WRKJOBHST	SCHJBHL <i>S</i> T
Job Forecast	WRKRUNSCH	SCHRUNRP

## Job Details Report

The Job Details Report displays job information in detail. The information on this report includes the job's submission command, \*LDA (Local Data Area), run schedule, run information, time and calendar data, and parameters for a specific job. To print this report, select **Option 10** from the Scheduler menu or prompt the **PRTSCHDTL** command on a command line.

```
S1234567
                           Job Detail Report
                                            8/18/97 11:35:13
6.2 980316
______
Job name. . . . . . . . . . : GLUPD55 G/L Update
Job type. . . . . . . . . . . . . . . Automatic Last run date . . . . : 7/29/97
Job description . . . . . . : SCHJOBD Last run time . . . : 18:00:21
Completion status . . : Completed
                            *JOBD
Job queue . . . . . . . . . :
Library . . . . . . . . . :
Hold on job queue . . . . . : *JOBD
Inquiry message reply . . . . :
                            *JOBD
Accounting code . . . . . . :
Start time (default). . . . . :
Run calendar. . . . . . . . :
Exclude calendar. . . . . . :
Hold on output queue. . . . . :
Save on output queue. . . . . :
Hold this job . . . . . . . : No
Run immediately . . . . . . :
                            No
Job class . . .
              . . . . . . :
                            *DFTCLS
End code threshold. . . . . : 00
Number of history log entries . : *NONE
Distribute report if job fails. : No
Error recovery command . . . . : *NONE
_____
Job submission command(s) . . . :
Seq Active Halt if Cmd fails Command 5 Yes Yes CALL PGM
                             CALL PGM(GLPGMLIB/GL255)
Use *LDA from job . . . . . : *NONE Offset *..+...1...+...2...+...3...+...4...+...5
    Ω
   50
  100
  150
  200
  250
  300
  350
  400
  450
         ______
Run schedule:
Setup date . . . . . . . . . . . . . Tuesday, July 29 1999
               . . . . . . . The 5th Tuesday of each month.
Run option . . .
Start time (default) . . . . :
Seq Active Halt if Cmd fails
                             Command
                             *Default
```

# Job Run Schedule Report

The Job Run Schedule Report provides a list of the jobs scheduled to run for a specified date range. Use this report to verify which jobs are running on which dates. This report lists the run calendar, job type, completion statistics, and dependencies for each job scheduled to run.

To access the Print Run Schedule, enter **Option 11** from the Scheduler menu or prompt the **PRTRUNSCH** command from a command line.

S1234567 Job Run Schedule Page 1 6.2 980316 Friday, August 18 1999 8/18/97 11:35:13

			Run			Last Co	ompleted -	
Time	Job Name	Description	Calendar	Type	Date	Time	Status	Dep.Jobs
=====	=======		=======	======	=======	=======	=======	=======
12:14	HHPTRGA	job to tri	MON_FRI	Local	8/18/97	12:14:45	Comp.	*NONE
0:00	HHPTRGB	triggered	MON_FRI	Remote	8/15/97	16:59:44	New	HHPTRGA
16:30	HHPRMTF	trigger LXI	MON_FRI	Remote	8/15/97	16:30:53	Comp.	*NONE
0:00	HHPRMTC	job trigger	MON_FRI	Local	8/15/97	16:31:44	Comp.	HHPRMTF
16:48	HHPTST4	run 1 time	MON_FRI	Auto	8/15/97	16:48:19	Comp.	*NONE
0:00	HHPTST5	run depend	MON_FRI	Local	8/15/97	16:49:30	Comp.	HHPTST4
0:00	HHPTST6	rmtdep on	MON_FRI	Remote	7/30/97	11:43:56	New	HHPTST5
17:15	HHPTST1	run 1 time	MON_FRI	Auto	8/15/97	17:16:02	Comp.	*NONE
17:16	HHPTST2	run *every	MON_FRI	Auto	8/15/97	17:18:14	Comp.	*NONE
17:17	HHPTST2	run *every	MON_FRI	Auto	8/15/97	17:18:14	Comp.	*NONE
17:17	HHPTST3	run *mult @	MON_FRI	Auto	8/15/97	17:20:22	Comp.	*NONE
17:18	HHPTST2	run *every	MON_FRI	Auto	8/15/97	17:18:14	Comp.	*NONE
17:18	HHPTST3	run *mult @	MON_FRI	Auto	8/15/97	17:20:22	Comp.	*NONE
17:19	HHPTST3	run *mult @	MON_FRI	Auto	8/15/97	17:20:22	Comp.	*NONE
17:20	HHPTST3	run *mult @	MON_FRI	Auto	8/15/97	17:20:22	Comp.	*NONE
17:20	HHPTST7	run 1 @ 17	MON_FRI	Auto	8/15/97	17:21:54	Comp.	*NONE
17:30	HHPTST8	run by sch	MON_FRI	Auto	8/15/97	17:31:09	Comp.	*NONE

<sup>\*</sup> Indicates override exists for this run date.  $({\tt End\ of\ report})$ 

# Job History Report

The Job History Report lists the history records for a job that was submitted using LXI. To print this report, select **Option 1** from the Scheduler menu. The Work with Run Schedule panel will appear. Enter **Option 22** next to the job that will have a history report generated for it. The Work with Job History panel will appear with a listing of the job history entries for the selected job. Press **F14** to print a report listing the job history entries. If a subset of the list is displayed, only the subset is printed.

Work with Job History - Job List

LXIscheduler6.2 970825

			Entered	£	Starte	£	Complet	cion
Job	User	Number	Date	Time	Date	Time	Date	Time
HHPRMTC	QSYSOPR	226846	08/13/97	15:31:06	08/13/97	15:31:08	08/13/97	15:31:40
HHPRMTC	QSYSOPR	228801	08/15/97	16:31:30	08/15/97	16:31:31	08/15/97	16:31:44
HHPRMTC	QSYSOPR	230437	08/19/97	17:37:17	08/19/97	17:37:19	08/19/97	17:37:49
HHPRMTC	QSYSOPR	230779	08/20/97	16:32:19	08/20/97	16:32:32	08/20/97	16:32:49
HHPRMTC	QSYSOPR	231110	08/21/97	16:30:39	08/21/97	16:30:40	08/21/97	16:30:52
HHPRMTC	QSYSOPR	231730	08/25/97	09:42:52	08/25/97	09:42:53	08/25/97	09:43:15

\* \* \* \* \* E N D O F L I S T I N G \* \* \* \* \*

# Job Detail List Report

In addition to the Job History Report, LXI*scheduler* also generates reports on specific job history entries. The information in these reports includes completion statistics, when the job entered the system and began processing, and \*LDA values. To print a report on a single job history entry, make sure the current screen is the Work with Job History panel, as described previously. From this panel, type a "6" next to the desired entry and press Enter.

```
Work with Job History - Job Detail List
                                                                   Page 1
LXIscheduler6.2 980316
                                                 S1234567 8/13/97 16:43:49
Job: HHPRMTC
                                   Number: 226846
                User: QSYSOPR
Entered system:
                                   Output priority (on output queue) . . : 5
Date . . . . . . : 08/13/97
                                   Printer device . . . . . : PRT010203
Time . . . . . . : 15:31:06
                                   Default output queue . . . : QSYSOPR
Started:
                                   Library. . . . . . . . . : QGPL
Date . . . . . . : 08/13/97
                                   End severity . . . . . . : 30
Time . . . . . . . : 15:31:08
                                   Job switches . . . . . . :
                                                                00000000
Completion:
                                   Accounting code. . . . . :
Date . . . . . . : 08/13/97
                                   Message logging:
Time . . . . . . . : 15:31:40
                                   Severity . . . . . . . . . . . . 4
Status . . . . . : Completed
                                   Level. . . . . . . . . . :
                                   Text . . . . . . . . . :
Subsystem. . . . . : QBATCH
Library. . . . . : QSYS
                                   Log CL program commands. . . :
Subsystem pool ID. . : 2
                                   Inquiry message reply. . . . :
                                                                 *ROD
Job description. . . : SCHJOBD
                                   Run priority . . . . . . :
Library. . . . . . : LXISCH
                                   Time slice in milliseconds . : 5000
Job queue. . . . : QBATCH
                                   Eligible for purge . . . . : *NO
Library. . . . . : QGPL Job priority . . . : 5
                                   Default wait time in seconds :
                                   CPU time used. . . . . . : 1.6
                                   Elapsed auxiliary IO . . . : 184
        -----Completion-----
              Time Status
                                 Command
Seq Date
 5 08/13/97 15:31:27
                       Completed
                                       CALL PGM(GLPGMLIB/GL255)
                 *LDA Value
*LDA Value
Offset *...+...1....+....2....+....3....+....4....+....5
  50
 100
 150
 200
 250
 300
 350
 400
 450
 500
                 * * * * * END OF LISTING * * * * *
```

# Job Forecast Report

The Job Forecast Report lists the jobs and their run times in a graph format. To print this report, select **Option 1** from the Scheduler menu. The Work with Run Schedule command will appear. Enter forecast selection criteria and press **Enter**. This report offers a way to view forecast information for the jobs submitted to all or specific job queues.

.

			Work with F	orecast			Page 1 15:29:45
Hour		:	10	_		: *.	
Job			14:00				22:00
AR0010C AR0015R AR0300R GL0030C PR1200R PR1250C	*	*	*		*	*	
			**** End	d of Report	****		

## Chapter 17

#### Commands

LXIscheduler contains a set of commands that can be used to perform functions that may not appear on any menus or panels. These commands can be used directly instead of the menu and provide faster access to LXIscheduler functions. All of the commands listed in this chapter can be used in either an interactive or batch environment. Before using a LXIscheduler command, ensure that it is allowed in the environment from which you wish to execute it.

The following pages will show all of the LXIscheduler commands with their parameters, if any, and a brief description of what each parameter is used for.

The commands are listed in alphabetical sequence.

# ADDJOBSCHE - Add Job Schedule Entry

Add Job Schedule Entry (ADDJOBSCHE) B/I

Job name		Name
Command		Char
Description		
Job type	*AUTO	*AUTO, *LOCAL, *MANUAL
Job description	<u>SCHJOBD</u>	Name
Library	<u>*LIBL</u>	Name, *LIBL
User	<u>*JOBD</u>	Name, *JOBD
Job queue	*JOBD	Name, *JOBD
Library		Name, *LIBL
Hold on job queue	*JOBD	*NO, *YES, *JOBD
Start time		HHMM, *AFTDEP, *EVERY, *MULT
*EVERY Minutes		Minutes(MM)
From		HHMM, *AFTDEP, *MID, *STARTUP
То		HHMM, *MID
*MULT Times		HHMM
Run calendar	*NONE	
For *NONE: Start date	*NONE	Date, *CURRENT, *NONE
Run option	*DATE	*DATE, *DYOWK, *DYOMT
For *EVERY: Days	7	01-99
Exclude calendar	*NONE	
Alternate day	*NONE	*NONE, *PRV, *NEXT
Use *LDA from job	*NONE	, ,
*LDA value	*NONE	
Inquiry message reply	*IOBD	*JOBD, *JOBD, *RQD, *DFT
Accounting code	*IOBD	
Hold spooled files	*NO	*NO, *YES
Save spooled files	*NO	*NO, *YES
Hold this job	*NO	*NO, *YES
Run now	*NO	*NO, *YES
Job class	*DFTCLS	,
End code threshold	00	0 - 99
History log entries	*DFT	Number, *DFT, *NOMAX, *NONE
Distribute reports on error		*NO, *YES
Error recovery command	*NONE	1,0, 120
Dependencies:	<u> </u>	
Job name		
End code threshold	00	00 - 99
Relationship to next job	*AND	*AND, *OR
Relationship to next job	711117	mid, or

Purpose

The Add Job Schedule Entry (ADDJOBSCHE) command adds a schedule entry to the LXI*scheduler*.

Parameters

JBNAME: Specifies the name of the job schedule entry to be added.

Job-name

Enter the name of the job being defined.

JBCOMD:

Specifies the command that is executed when this job becomes eligible for submission. The command entered must be a valid iSeries command. For command prompting, place the cursor anywhere within this area and press F4=Prompt). If predefined command parameters are used, they must be enclosed in quotes.

Command Enter a valid iSeries command.

JBDESC: Specifies the text description for the job.

Text Enter the text description for the job.

JBTYPE:

Specifies the type of job being defined. The job can either be executed by LXI.scheduler or entered strictly as a repository for your batch processing.

\*AUTO The job is submitted automatically by the monitor

when it becomes eligible for submission.

\*LOCAL The job is submitted automatically by the monitor

when it becomes eligible for submission. When the job completes, the completion statistics are updated on each remote system defined on the Work with Remote

Systems panel.

\*MANUAL The job is not submitted by the monitor.

\*REMOTE The job is not submitted by the monitor. Completion

statistics are updated when the job completes on a re-

mote system.

JBJOBD:

Specifies the name of the job description used during submission of this job. A valid user must be specified in the USER parameter of the job description. Verify this condition and make the necessary change to the job description before allowing LXIscheduler to submit this job.

**SCHJOBD** The default LXI*scheduler* job description is used.

Job-description Enter the name and library of the job description to

use.

USER:

Use this area to specify the name of the user profile to be used when the job is submitted. The following IBM-supplied user profiles can not be specified for this parameter:

- QDBSHR
- QDFTOWN
- QDOC
- QLPAUTO
- QLPINSTALL
- QRJE
- QSECOFR
- QSPL

• QSYS

QTSTRQS

The following values are valid for this parameter:

**\*IOBD** The user profile from the job description is used.

User-profile Enter a valid user profile name to be used for this job.

The user profile must be authorized to the job de-

scription.

JBJOBQ: Specifies the name of the job queue in which the job is placed.

\*IOBD The job queue is determined by the job description.

*Job-queue* Enter the name and library of the job queue to use.

JBHLDQ: Specifies whether this job is held in the job queue.

\*IOBD The job hold status is determined by the job descrip-

tion.

\*NO The job is not held when it is put in the job queue.

\*YES The job is held when it is put in the job queue and re-

mains on hold until released.

STRTIM: Specifies the time of day when the job is to be submitted.

\*NONE Specify for jobs that have no run calendar, job detail

schedule or override schedule and will be run using the Run Now option or the Run Scheduler Job

(RUNSCHJOB) command.

\*AFTDEP The job is submitted once all dependencies have com-

pleted execution. The dependency list for this job is maintained using the Dependencies folder of the Work

with Job panel.

\*EVERY The job is submitted multiple times as defined in the

\*EVERY parameter.

\*MULT The job is submitted multiple times as defined in the

\*MULT parameter.

\*STARTUP The job to be submitted upon startup of the monitor.

HHMM Enter the time using the 24 hour clock and in the

HHMM format where HH=Hours and MM=minutes. For example, to specify the start time as 6:45 P.M., use

a value of 1845.

\*EVERY: Specifies the amount of minutes the monitor must wait

before submitting the job again. This parameter is required if \*EVERY was specified on the Start time

(STRTIM) parameter.

Minutes Enter the number of minutes between sub-

missions.

FROM: Specifies the start time of day for the initial submission

of the job. If the monitor is started after the From time, the monitor's start time is used as the From time.

HHMM Enter a time in HHMM format for the initial

start time.

\*AFTDEP The job is submitted once all dependencies

for this job have completed.

\*MID The job is submitted at midnight, or at the

beginning of the day.

\*STARTUP The job is submitted when the monitor is

started.

<u>TO</u>: Specifies the time of day the \*EVERY procedure is to

expire. The job is not submitted beyond this time.

Enter a time in HHMM format for the **HHMM** 

\*EVERY procedure to end.

\*MID The \*EVERY procedure ends at midnight, or

at the end of the day.

\*MULT: Specifies up to 12 times of the day to schedule the job

> to be submitted. This parameter is required if \*MULT was specified for the Start time (STRTIM) parameter.

RUNCAL:

Specifies the run calendar for this job. Run calendars are used to allow scheduling to be based on a predefined calendar. Calendar schedules are created and maintained using the Work with Job Run Calendars panel. Any changes made to the calendar will automatically be reflected on the job.

\*NONE No run calendar is used in scheduling this job. User

defined detail and override schedules may be specified.

Enter a calendar name. User defined detail and over-Calendar-name

ride schedules may also be specified.

STRDAT: Specifies the start date this schedule entry should start.

This parameter is required if \*NONE was specified for

the Run calendar (RUNCAL) parameter.

\*NONE This parameter is not used for creating a run

schedule. If specified, a value other than \*NONE must be specified for the Run calen-

dar (RUNCAL) parameter.

\*CURRENT The current system date is used as the sched-

ule start date.

Date Enter a date in the current job's date format. <u>RUNOPT</u>: Specifies the run option for the selected date.

**\*DATE** Run this job on this date only.

\*DYOWK Run this job this day every month. For ex-

ample, if the start date is the second Monday of the month, then this job runs the second Monday of each month from the start date.

\*DYOMT Run this job on this day of the month every

month. For example, if the start day is the 15th, then this job runs the 15th of every

month from the start date.

\*EVERY Run this job every xx number of days where

xx represents the number of days specified on the For \*EVERY: Days (DAYS) parameter.

\*LAST Run this job the last day of the month. The

start date is the last day of the month for the

month of the start date (STRDAT).

<u>DAYS</u>: Specifies the number of days between runs. This pa-

rameter applies only if \*EVERY was entered for the

Run option (RUNOPT) parameter.

EXCCAL:

Specifies the exclude calendar for this job. Exclude calendars are used to schedule days that a job will **NOT** run. Calendar schedules are created and maintained using the Work with Job Run Calendars panel. Any changes made to the calendar will automatically be reflected on the job.

**\*NONE** No exclude calendar is used in scheduling this job.

Calendar-name Enter a calendar name.

ALTDAY: Specifies the alternate day for this job. The alternate

day is used to provide an alternate run date if the scheduled date is excluded. To use this option, enter a valid calendar name for the exclude calendar parameter.

**\*NONE** No alternate day scheduling is used.

\*NEXT Run on the next available date following the

exclude date.

\*PRV Run on the first available date prior to the ex-

clude date.

JBLDAJ: Specifies the method in which the \*LDA is used for this job.

**\*NONE** The \*LDA value is used as input to the job when it is

eligible for execution. The returned \*LDA value is not updated when this job completes execution. If you do not wish to input the \*LDA, specify this option and

leave the \*LDA value blank.

\*SAME The \*LDA value is used as input to the job when it be-

comes eligible for execution. The returned \*LDA value is stored and used as input to the job the next

time it is scheduled for execution.

Name Use the \*LDA value from the job named here as input

to this job when it becomes eligible for execution. If the job specified here has not run when this job becomes eligible for execution, the \*LDA value is used as

input.

JBLDAV: Specifies the \*LDA value for this job.

**\*NONE** The job has no \*LDA value.

\*CURRENT The job's current \*LDA value is used.

Value Enter the \*LDA value to use for this job when sub-

mitted.

JBMSGR: Specifies the inquiry message reply option.

\*JOBD The inquiry message reply option is determined by the

job description.

\*RQD A reply is required if an inquiry message is sent from

this job while it is executing.

\*DFT The default reply for the inquiry message is used as the

reply.

\*SYSRPYL The system reply list is used. If the inquiry message is

defined, the reply for that message identifier is used.

JBACGC: Specifies the accounting code.

**\*IOBD** The accounting code from the job description is used.

\*USRPRF The accounting code for the user profile defined in the

job description name is used.

\*NONE No accounting code is used.

Accounting-code Enter an accounting code.

JBHOLD Specifies whether to hold all spooled files in the output queue when this job

completes. You can define these files through the Report Distribution

folder from the Work with Job panel.

**\*NO** Spooled files are not held.

\*YES Spooled files are held.

JBSAVE: Specifies whether to save all spooled files in the output queue when this job

completes. You can define these files through the Report Distribution

folder from the Work with Job panel.

**\*NO** Spooled files are not saved.

\*YES Spooled files are saved.

JBHLDJ: Specifies whether to hold this job.

\*NO The job is not held.

\*YES The job is held.

JBRNXT: Specifies whether to submit now. The monitor must be started to have the

job run now; otherwise, the job is submitted when the monitor is started.

\*NO The job is submitted according to the run schedule.

\*YES If the monitor is active, the job is submitted now; otherwise, it is submitted when the monitor starts.

JOBCLS: Specifies the job class to assign to this job. For a list of all job classes, posi-

tion the cursor anywhere in this field and press F4.

**\*DFTCLS** The default job class is used for this job.

Job-class Enter a valid job class.

ENDCOD: Specifies the end code threshold for this job. If this job ends with an end

code equal to or less than the value entered here, it must be reset in order to

rerun the job.

<u>0</u> No end code threshold has been specified. Comple-

tion statistics must be reset before this job can run

again. This only applies to an abnormal status.

Threshold-value Enter a value from 1 to 99.

LOGENT: Specifies the number of history information entries to retain for this job. A

history entry is created each time a job completes execution.

**\*DFT** The default value specified for the Number of history

log entries parameter on the Work with Scheduler Defaults panel is used to determine the number to retain

for this job.

\*NONE History information is not collected for this job.

\*NOMAX History information is collected and retained until it is

manually purged or deleted.

Number Enter the number of entries to retain. A value of 0 will

cause all history entries for this job to be deleted, and this parameter to be changed to \*NONE the next time

the job completes executing.

JBDSTR: Specifies whether to distribute spooled files that may already be created if

the job fails.

**\*NO** Do not distribute any created spooled files.

\*YES Perform the report distribution function for spooled

files already created before this job failed.

JBRCMD: Specifies a valid iSeries command to be executed if this job fails.

**\*NONE** No error recovery command is specified.

Error-recovery Enter a valid command.

DEPJOBS: Specifies a list of jobs that must complete successfully before this job becomes eligible for submission.

Job name: Specifies the dependent job. The dependent job must complete with an end code less than or equal to the value shown in its corresponding End code field before

value shown in its corresponding End code field before the dependent job becomes eligible for submission.

Name Enter a job name which has previously been defined to the scheduler.

End-code: Use this area to enter the end code threshold for this dependent job. Job A must complete with an end code

value less than or equal to the value entered here before Job B (which is dependent on Job A) becomes eli-

gible for submission.

<u>00</u> There is no end code threshold value for this

dependent job.

End-code Enter an end code threshold value.

Relationship:

Use this area to enter the relationship of this dependent job to the next dependent job entered in the list.

The relation field is ignored for the last job in the de-

pendencies list, but the field must be filled in.

\*AND Specify that this and the next dependent job

must complete with the specified end codes before allowing the job to become eligible for

submission.

\*OR Specify that this or the next dependent job

must complete with the specified end codes before allowing the job to become eligible for

submission.

Examples

ADDJOBSCHEJBNAME(JOBA) JBCMD(submission command) JBTYPE(\*LOCAL) + STRTIM(\*AFTDEP) DEPJOBS((JOBB))

This command would add a job schedule entry called JOBA. This new entry would be submitted to run on the local system and would be dependent on JOBB. Because this job is dependent, it would not be submitted for execution until after JOBB completed.

ADDJOBSCHEJBNAME(JOBA) JBCOMD(submission command) + STRTIM(\*EVERY) + MINUTES(90) FROM(\*MID) TO(\*MID) RUNCAL(MON\_FRI) EXCCAL(HOLIDAYS)

This command adds a job schedule entry called JOBA. This job would be scheduled to run every 90 minutes from midnight to midnight (or from the beginning of the day until the end of the day). The job would run on the days specified by the job run calendar named MON\_FRI and would be prevented from running on the days specified by the HOLIDAYS exclusion calendar.

ADDJOBSCHE JBNAME (JOBA) JBCMD (submission-command)

This command creates a job schedule entry called JOBA using the ADDJOBSCHE defaults. A job command, however, must be specified for the ADDJOBSCHE command.

## APYRMTCHG - Apply Remote System Changes

Apply Remote System Changes (APYRMTCHG) B/I

Remote system name ...... Name

Information to update ...................................\*PNDCHG, \*REFRESH

 Job queue
 QBATCH
 Name

 Library
 \*LIBL
 Name, \*LIBL

 Hold on job queue
 \*NO
 \*NO, \*YES

\_\_\_\_\_

Purpose

The Apply Remote System Changes (APYRMTCHG) command refreshes or applies job schedule updates to one or more remote systems.

Parameters

RMTSYSNAME: Specifies the name of the remote system where the updates will be applied. Re-

mote systems are defined in the Work with Remote Systems option.

\*ALL Send changes to all systems defined on the Work with

Remote Systems panel.

*System-name* Enter the system name.

INFUPD: Specifies the type of information to update.

**\*PNDCHG** Apply all pending job schedule changes to the remote sys-

tem.

\*REFRESH Clear and reload the remote system with all jobs defined in

the run schedule on the local system.

JOBQ: Specifies the name of the job queue where this function is submitted.

**QBATCH** The QBATCH job queue is used.

Job-queue Enter a valid job queue name and library.

HOLD: Specifies whether to hold the submitted job on the job queue.

**\*NO** Do not hold the job on the job queue.

\*YES Hold the submitted job on the job queue.

#### $E\;x\;a\;m\;p\;l\;e\;s$

#### APYRMTCHG RMTSYSNAME(ABC\_SYS)

This command applies any pending changes to the remote system named ABC\_SYS. The other parameters will use the default values.

#### APYRMTCHG RMTSYSNAME(ABC\_SYS) INFUPD(\*REFRESH)

This command applies pending changes to remote system ABC\_SYS, and clears and reloads ABC\_SYS with all the jobs defined in the run schedule on the local system. This command is similar to using the LXIscheduler Remote Refresh function.

# CHGJOBSCHE - Change Job Schedule Entry

#### Change Job Schedule Entry (CHGJOBSCHE) B/I

Job name	Name
Description*SAME	*SAME
Job type* <u>*SAME</u>	*SAME, *AUTO, *LOCAL
Job description*SAME	Name, *SAME
Library	Name, *LIBL
User* <u>*SAME</u>	Name, *SAME, *JOBD
Job queue <u>*SAME</u>	Name, *SAME, *JOBD
Library	Name, *LIBL
Hold on job queue <u>*SAME</u>	*SAME, *NO, *YES, *JOBD
Inquiry message reply *SAME	*SAME, *JOBD, *RQD, *DFT
Accounting code*SAME	
Hold spooled files*SAME	*SAME, *NO, *YES
Save spooled files*SAME	*SAME, *NO, *YES
Hold this job <u>*SAME</u>	*SAME, *NO, *YES
Job class <u>*SAME</u>	*SAME, Name, *DFTCLS
End code threshold *SAME	*SAME, 0-99
Distribute reports on error *SAME	*SAME, *NO, *YES
History log entries <u>*SAME</u>	*SAME, Number, *DFT, *NONE, *N
Run now* <u>*SAME</u>	*SAME, *NO, *YES

Purpose

The Change Job Scheduler Entry (CHGJOBSCHE) command changes the schedule parameters of a predefined job.

Parameters

JBNAME: Specifies the name of the job to change.

Job-name Enter the name of the job being changed.

JSDESC: Specifies the text description for the selected job.

**\*SAME** The parameter value does not change.

Text Enter the new text description of the job.

JBTYPE: Specifies the type of job being defined. The job can be either executed by LXI-

scheduler or entered strictly as a repository for batch processing.

**\*SAME** The parameter value does not change.

\*AUTO The job is submitted automatically by the monitor when it

becomes eligible for submission.

\*LOCAL The job is submitted automatically by the monitor when it

becomes eligible for submission. When the job completes, the completion statistics are updated on each remote system defined on the Work with Remote Systems panel.

\*MANUAL The job is not submitted by the monitor.

\*REMOTE The job is not submitted by the monitor. Completion sta-

tistics are updated when the job completes on a remote

system.

JBJOBD:

Specifies the name of the job description used during submission of this job. A valid user must be specified in the USER parameter of the job description. Verify this condition and make the necessary change to the job description before allowing LXI*scheduler* to submit this job.

**\*SAME** The parameter value does not change.

SCHJOBD The default LXI*scheduler* job description is used.

*Job-description* Enter the name and library of the job description to use.

USER:

Specifies the name of the user profile to be used when the job is submitted. The following IBM-supplied user profiles can not be specified for this parameter:

- QDBSHR
- QDFTOWN
- QDOC
- QLPAUTO
- QLPINSTALL
- QRJE
- QSECOFR
- QSPL
- QSYS
- QTSTRQS

The possible values are:

**\*SAME** The parameter value does not change.

\*JOBD The user profile from the job description is used for this

job.

User-profile Enter a valid user profile name to use. The user profile

must be authorized to the job description.

JBJOBQ: Specifies the name of the job queue in which the job is placed.

**\*SAME** The parameter value does not change.

\*JOBD The job queue is determined by the job description.

Job-queue Enter the name and library of the job queue to use.

JBHLDQ: Specifies whether to hold this job on the job queue.

**\*SAME** The parameter value does not change.

\*NO The job is not held when it is put in the job queue.

\*YES The job is held when it is put in the job queue and remains

on hold until it is released.

\*JOBD The job hold status is determined by the job description.

JBMSGR: Specifies the inquiry message reply option.

**\*SAME** The parameter value does not change.

\*JOBD The inquiry message reply option is determined by the job

description.

\*RQD A reply is required if an inquiry message is sent from this

job while it is executing.

\*DFT The default reply for the inquiry message is used as the

reply.

\*SYSRPYL The system reply list is used. If the inquiry message is

defined, the reply for that message identifier is used.

JBACGC: Specifies the accounting code.

**\*SAME** The parameter value does not change.

\*JOBD The accounting code from the job description is used.

\*USRPRF The accounting code for the user profile is used.

\*NONE No accounting code is used.

Accounting-code Enter an accounting code to use.

JBHOLD: Specifies whether to hold all spooled files in the output queue when this job

completes. You can define these files through Report Distribution folder of the

Work with Job panel.

**\*SAME** The parameter value does not change.

\*NO Spooled files are not held. \*YES Spooled files are held.

JBSAVE: Specifies whether to save all spooled files in the output queue when this job

completes. You can define these files through Report Distribution folder of the

Work with Job panel.

**\*SAME** The parameter value does not change.

\*NO Spooled files are not saved.

\*YES Spooled files are saved.

JBHLDJ: Specifies whether to hold this job.

**\*SAME** The parameter value does not change.

\*NO The job is not held.

\*YES The job is held.

JBCLAS:

Specifies the job class to assign to this job. For a list of all job classes defined, position the cursor anywhere in this field and press F4.

**\*SAME** The parameter value does not change.

**\*DFTCLS** The default job class is used for this job.

*Job-class* Enter a valid job class.

ENDCOD:

Specifies the end code threshold for this job. If this job ends with an end code equal to or less than the value entered here, it must be reset in order to rerun the job.

**\*SAME** The parameter value does not change.

No end code threshold has been specified. Comple-

tion statistics must be reset before this job can run

again This only applies to an abnormal status.

Threshold-value Enter a value from 1 to 99.

JBDSTR:

Specifies whether to distribute spooled files that may already be created if the

job fails.

\*SAME The parameter value does not change.

\*NO Do not distribute any created spooled files.

\*YES Perform the report distribution function for spooled files

already created before this job failed.

LOGENT:

Specifies the number of entries in which to retain history information for this job. An entry is created each time a job completes execution.

**\*SAME** The parameter value does not change.

\*DFT The default value specified for the Number of history

log entries parameter on the Work with Scheduler Defaults panel is used to determine the number to retain

for this job.

\*NONE History information is not collected for this job.

\*NOMAX History information is collected and retained until it is

manually purged or deleted.

Number Enter the number of entries to retain for this job. A value

of 0 will cause all history entries for this job to be deleted, and this parameter to be changed to \*NONE the next

time the job completes executing.

JBRNXT: Specifies whether to submit now. The monitor must be started to have the job

run now; otherwise, the job is submitted when the monitor is started.

\*SAME The parameter value does not change.
\*NO The job is submitted according to the run.

\*YES If the monitor is active, the job is submitted now; other-

wise, it is submitted when the monitor starts.

MTRWKP: Specifies whether to start the monitor. This parameter is used when \*YES is

specified for the Run now parameter. If the monitor is active, this request is ig-

nored.

\*YES

**\*SAME** The parameter value does not change.

\*NO The monitor is not started. If the monitor is inactive and

the Run now parameter has been changed to \*YES, the job is started the next time the monitor is started.

If inactive, the monitor is started.

Examples

CHGJOBSCHE JBNAME (JOBA) JBHOLD (\*YES) JBCLAS (CLASSA) LOGENT (\*DFT)

This command changes the hold status, class, and number of retained history entries for JOBA. After executing this command, JOBA would only be submitted if the job were released using the Work with Job Setups panel, or if the value of the JBHOLD parameter were changed to \*YES. This command would also assign JOBA to a Job Class called CLASSA and would cause the number of history log entries defined on the Work with Default panel to be retained for JOBA.

CHGJOBSCHE JBNAME (JOBA) JBRNXT (\*YES)

This command submits JOBA now, or as soon as the LXI scheduler monitor starts. This command is similar to the LXI scheduler Run immediately function.

# CHKJOBCAPF – Check Job Capture Facility Check Job Capture Facility (CHKJOBCAPF) I (No parameters)

 $P\;u\;r\;p\;o\;s\;e$ 

The Check Job Capture Facility (CHKJOBCAPF) command determines the status of the job capture facility. An informational message is returned indicating the status.

The job capture facility, if activated, will record to the Work with Run Schedule list all submitted jobs, starting from your current job. Default parameters may be set to allow modifications to each submitted job, such as the scheduled timing parameters.

Captured information includes the run command, current \*LDA value, and any control parameters from the submission of the job, such as the job description and job queue.

# ENDJOBCAPF - End Job Capture Facility

End Job Capture Facility (ENDJOBCAPF)	B/I
No parameters)	

 $P\;u\;r\;p\;o\;s\;e$ 

The End Job Capture Facility (ENDJOBCAPF) command ends the LXIscheduler job capture facility.

The job capture facility, if activated, will record to the Work with Run Schedule list all submitted jobs, starting from your current job. Default parameters may be set to allow modifications to each submitted job, such as the scheduled timing parameters.

Captured information includes the run command, current \*LDA value, and any control parameters from the submission of the job, such as the job description and job queue.

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 $P\;u\;r\;p\;o\;s\;e$ 

The End Scheduler Monitor (ENDSCHMON) command ends the LXIscheduler subsystem monitor. This ends jobs SCHEDULER and SCHMONITOR within the QLXISCH subsystem. It is important that the LXIscheduler monitor remain active for the timely submission of user-defined jobs.

## PRGJOBHST - Purge Job History

Purge Job History (PRGJOBHST) B/I

Jobs to purge ...... <u>\*ALL</u>

Time period for purge: Start time and date:

Beginning time ...... \*AVAIL Time, \*AVAIL

Ending date .......\*END Date, \*END, \*CURRENT, \*PRV

Output \*NONE \*NONE, \*PRINT
Reorganize history files \*YES \*YES, \*NO

Purpose

The Purge Job History (PRGJOBHST) command purges the job history information created by LXIscheduler.

Parameters

JOB:

Specifies the name of the jobs for which history information is purged. For a list of LXI*scheduler* jobs, position the cursor on the parameter and press F4. Multiple values can be entered for this parameter. If you need additional values, type a plus sign (+) in the entry field opposite the phrase "+ for more values" and press the Enter key.

\*ALL History information for all jobs is purged.

Name Enter the name of the job to purge.

PERIOD:

Specifies the period of time for which job history information is purged. This parameter contains two lists of two elements each.

Beginning time: Specifies the starting time for which history records are

purged.

\*AVAIL The purge begins with the first available time

for the beginning date specified.

Time Enter the time for the beginning date speci-

fied.

Beginning date: Specifies the starting date for which history records are

purged.

**\*BEGIN** The purge begins with the first available entry

and beginning time.

\*CURRENT The purge begins with the current date and

beginning time.

\*PRV The purge begins with the previous date and

beginning time.

Date Enter the beginning date to use with the be-

ginning time.

Ending time: Specifies the ending time for which history records are

purged.

\*AVAIL The purge ends with the last available entry

for the ending date.

Time Enter the time for the ending date.

Ending date: Specifies the ending date for which history records are

purged.

\*END The purge ends with the last available entry

and ending time.

\*CURRENT The purge ends with the current date and

ending time.

\*PRV The purge ends with the previous date and

ending time.

Date Enter the ending date to use with the ending

time.

OUTPUT: Specifies the type of output generated from this command.

**\*NONE** No output is generated from this command.

\*PRINT Purged entries are printed with the job's spooled output.

REORG: Specifies whether the IBM Reorganize Physical File Member (RGZPFM) com-

mand is to be executed over the LXIscheduler history files once the purge has

completed.

**Note**: This operation must allocate the LXI*scheduler* history files and may take several minutes to complete. For more information on the RGZPFM command,

review the help for this command or related IBM reference manuals.

**\*YES** The history files are reorganized.

\*NO The history files are not reorganized.

Examples

PRGJOBHST JOB(JOBA JOBC) PERIOD((\*AVAIL 091897)) REORG(\*NO)

This command purges the history logs for jobs JOBA and JOBC. For these jobs, all history log entries from the first available history entry to any history entries existing up to 09/18/97 are purged. After the history log is purged, it will not be reorganized.

### PRTRUNSCH - Print Run Schedule

Print Run Schedule (PRTRUNSCH)	B/I	
Time run benedule (Freme 10011)	27.1	
Run date range:		
Starting date*CURRENT		Date, *CURRENT
Ending date *CURRENT		Date, *CURRENT
Print submission command *NO		*NO, *YES
System *CURRENT		
Job queue QBATCH		Name
Library*LIBL		Name, *LIBL
Hold on job queue <u>*NO</u>		*NO, *YES
Output queue <u>*JOB</u>		Name, *JOB
Library		Name, *LIBL
Copies <u>1</u>		1-255
Hold on output queue		*NO, *YES
Save on output queue <u>*NO</u>		*NO, *YES

Purpose

The Print Run Schedule (PRTRUNSCH) command prints the run schedule for jobs that are defined within the LXI*scheduler*.

Parameters

STRRANGE:

Specifies the date ranges to include in the report.

Starting date: Specifies the starting run date for the run schedule.

\*CURRENT The current date is used as the starting date

for the report.

Date Enter the starting date.

Ending date: Specifies the ending run date for the run schedule.

**\*CURRENT** The current date is used as the ending date for

the report.

Date Enter the ending date.

Note: A report is generated for each date se-

lected.

SUBCMD: Specifies if the job submission command is printed in the report.

**NO** The job submission command is not printed.

YES The job submission command is printed.

SYSNAME: Specifies a system nam

Specifies a system name from which to print the run schedule. This prints the run schedule from any remote system you defined in the Work with Remote Systems panel. To select from a list of systems, position the cursor in the input capable area of the System parameter and press F4.

\*CURRENT Prints the run schedule for the local system.

\*ALL Prints the run schedule for the local and all defined remote

systems.

System-name Enter a system name.

JOBQ: Specifies the name of the job queue in which the job is placed.

**QBATCH** The QBATCH job queue is used.

Job-queue Enter the name and library of the job queue to use.

HOLD: Specifies whether to hold this job on the job queue.

NO The job is not held.
YES The job is held.

OUTQ: Specifies the name of the output queue that is used for the spooled report.

\*JOB The output queue used by the current job is used for

spooled files.

Output-queue Enter the name and library of the output queue to use.

COPIES: Specifies the number of copies of output to be printed.

<u>1</u> One copy of the output is printed.

Number-of-copies Enter a value from 1-255.

HOLDQ: Specifies whether or not the spooled output is held on the output queue.

NO The spooled output is not held.
YES The spooled output is held.

SAVE: Specifies whether the spooled output remains on the output queue after it is

printed.

**NO** The spooled output is not saved.

YES The spooled output is saved on the output queue.

Examples

PRTRUNSCH STRRANGE(091897) SYSNAME(ABC\_SYS) COPIES(2)

This command prints a Job Run Schedule Report for jobs on system ABC\_SYS that have run dates between 09/18/97 and the current date. Two copies of the report are printed.

# PRTSCHDTL - Print Schedule Details

Print Schedule Details (PI	RTSCHDTL)	B/I	
Starting job and date range:			
Starting job	*FIRST		
Starting date	*FIRST		Date, *FIRST
Ending job and date range:			
Ending job	*LAST		
Ending date			Date, *LAST
Status			*ALL, *ABN, *EXEC, *COMP
Run calendar	*ALL		
Exclude calendar	*ALL		
System	*CURRENT		
Job class			
Job queue	<u>OBATCH</u>		Name
Library	*LIBL		Name, *LIBL
Hold on job queue	*NO		*NO, *YES
Output queue	*IOB		Name, *JOB
Library			Name, *LIBL
Copies	<u>1</u>		1-255
Hold on output queue	*NO		*NO, *YES
Save on output queue	*NO		*NO, *YES

Purpose

The Print Schedule Details (PRTSCHDTL) command prints the control options for scheduled jobs.

Parameters

STRRANGE:

Specifies the job and date ranges to include in the report to display.

Starting job:

Specifies the starting job name to print. Leave this area blank to print all jobs defined in the run schedule.

\*FIRST The report begins with the first available job

name.

Job-name Enter a valid job name.

Starting date: Specifies the starting date of completed jobs to print.

\*FIRST The report begins with the first completion

date.

Date Enter a starting date.

Ending job:

Specifies the ending job name to print. Leave this area blank to print all jobs defined in the run schedule.

\*LAST The report ends with the last available job

name.

*Job-name* Enter a valid job name.

Ending date: Specifies the ending date of completed jobs to print.

**\*LAST** The report ends on the last completion date.

Date Enter an ending date.

STATUS: Specifies the completion status of the jobs to print.

\*ALL All statuses are printed.

\*ABN Abnormal statuses are printed.

\*EXEC Execution statuses are printed.

\*COMP Completion statuses are printed.

\*JOBLOG Job log statuses are printed.

\*NEW New statuses are printed.

\*RESET Reset statuses are printed.

\*SUB Submitted statuses are printed.

RUNCAL: Specifies the run calendar of the jobs to print.

\*ALL Select all run calendars.

Calendar-name Enter a calendar name.

EXCAL: Specifies the exclude calendar of the jobs to print.

\*ALL Select all exclude calendars.

Calendar-name Enter a calendar name.

SYSNAME: Specifies the system name of the jobs to print. This prints the job details from

any remote system you defined on the Work with Remote Systems panel. To select from a list of systems, position the cursor in the input capable area of the Systems.

tem parameter and press F4.

**\*CURRENT** Prints the job details for the local system.

\*ALL Prints the job details for the local and all remote systems.

System-name Enter a system name.

JOBCLS: Specifies the job class of scheduled entries to be printed.

**\*ALL** Job schedule entries with any job class are printed.

*Job-class* Enter a valid job class.

JOBQ: Specifies the name of the job queue on which the job is placed.

**QBATCH** Job queue QBATCH is used.

*Job-queue* Enter the name and library of the job queue to use.

HOLD: Specifies whether this job is held at the time that it is put on the job queue.

NO The job is not held.
YES The job is held.

OUTQ: Specifies the name of the output queue that is used for the spooled report pro-

duced by this job.

\*JOB The output queue used by the current job is used for

spooled files.

Output-queue Enter the name and library of the output queue to use.

COPIES: Specifies the number of copies of output to print.

<u>1</u> One copy of the output is printed.

Number-of-copies Enter a value from 1-255.

HOLDQ: Specifies whether the spooled output is held on the output queue.

NO The spooled output is not held.
YES The spooled output is held.

SAVE: Specifies whether the spooled output remains on the output queue after it is

printed.

NO The spooled output is not saved.
YES The spooled output is saved.

#### Examples

PRTSCHDTL STRRANGE(JOBA \*FIRST) ENDRANGE(JOBZ 081097) + SYSNAME(ABC\_SYS)

This command prints a job detail report for each time that jobs JOBA through JOBZ have completion dates from the first possible completion date and 08/10/97. The job details would also only be printed for jobs that exist on remote system ABC\_SYS.

PRTSCHDTL STATUS(\*ABN)

This command prints a job detail report for all jobs that completed with an abnormal status.

PRTSCHDTL RUNCAL (END\_MONTH)

This command prints a job detail report for all jobs that use the END\_MONTH run calendar.

PRTSCHDTL STRRANGE(JOBA 080597) ENDRANGE(JOBA 081097)

This command prints a job detail report for each time that JOBA ran and had a completion date the week of 8/5/97 and 8/10/97.

# RMVJOBSCHE – Remove Job Schedule Entry

	Remove	Job Schedule Entry (RM	 VJOBSCHE)	B/I	
	Job name		_		
Purpose		ob Schedule Entry ( with dependencies ca		command removes a scheduled entred.	ry from the
Parameters	JBNAME:	Specifies the nar	,	nedule entry to remove.	
Examples				<i>ler</i> . Once removed, the job will no	o longer be

#### RUNSCHJOB - Run Scheduler Job

Purpose

The Run Job (RUNSCHJOB) command submits a job that has been defined as a Job Schedule Entry. This command should only be used as a job run command. Job run commands are defined in the Job Setup.

The following type of jobs can not be used with this command:

- Jobs which are on Hold.
- Jobs which are defined as type Manual (M).
- Jobs which are defined as type Remote (R).

Parameters

JOB: Specifies the job to submit.

*Job-name* Enter the name of the job being submitted.

WAIT: Specifies the amount of time the command should wait for the job to complete.

\*MAX The command waits indefinitely for the completion of the

job.

\*NONE The command does not wait for the completion of the

iob.

Minutes Enter the number of minutes (1-1440) to wait for the

completion of the job.

TIMOUT: Specifies the action to perform if the submitted job does not complete in the

amount of time specified on the WAIT parameter.

Note: This parameter only applies if a number of minutes was specified on the

WAIT parameter.

\*ABN The command ends abnormally.

\*NORM The command ends normally.

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RUNSCHJOB JOB(JOBA)

This command submits job JOBA to run, so long as JOBA is not defined as type Manual or Remote. JOBA must exist in the job setup in order for it to be submitted with this command.

RUNSCHJOB JOB(JOBA) WAIT(30)

This command submits JOBA to run and would cause LXI*scheduler* to wait 30 minutes for JOBA to complete. If JOBA does not complete within 30 minutes, LXI*scheduler* would give the job a completion status of \*ABN (abnormal).

# STRJOBCAPF - Start Job Capture Facility

Start Job Capture Facility (STRJOBCAPF)	I	
(No parameters)		

Purpose

The Start Job Capture Facility (STRJOBCAPF) command starts the job capture facility. Any jobs being submitted are captured.

The job capture facility, once activated, will record to the Work with Run Schedule list all submitted jobs, starting from your current job. Default parameters may be set to allow modifications to each submitted job, such as the scheduled timing parameters.

Captured information includes the run command, current \*LDA value, and any control parameters from the submission of the job, such as the job description and job queue.

# STRSCHMON - Start Scheduler Monitor

Start S	Scheduler Monitor (STRSCF	IMON) B/I
Missed jobs option Run missed jobs from		*NONE, *ALL, *TIME HHMM
		ON) command starts the LXI <i>scheduler</i> monitor. The LXI <i>s</i> that execute in the QLXISCH subsystem. They include:
		message wait state and is responsible for interrogating job apdates the completion statistics.
submission of		at a message wait state and is responsible for the timely XI.scheduler. SCHMONITOR processes the jobs based on
The STRSCHMON	command should be in-	cluded in system start-up procedures.
MISJOBS:	Specifies how to hand	e missed jobs.
	*NONE	Do not run any jobs that have been missed today.
	*ALL	Run all jobs that have been missed today.
	*TIME	Run all jobs from the time entered in the TIME parameter.
TIME:	1	y to use as the starting time for missed jobs. This parameter MISJOBS parameter value is *TIME.

STRSCHMON MISJOBS(\*TIME) TIME(0700)

Time-of-day

Examples

Purpose

Parameters

This command starts the LXI*scheduler* monitor. All missed jobs since 7:00 A.M. are submitted at this time.

Enter a time within the range 00:01 to 23:59.

# WRKJOBCLS – Work with Job Classes Work with Job Classes (WRKJOBCLS) I (No parameters)

 $P\;u\;r\;p\;o\;s\;e$ 

The Work with Job Classes (WRKJOBCLS) command lists all or specific job classes. A job class groups scheduled jobs together in a logical fashion for authorization purposes. Users can be authorized to add, change, display, delete, copy, and operate jobs within a class.

## WRKJOBHST - Work with Job History

Work with Job History (WRKJOBHST) B/I

Jobs to display ...... \*ALL

Time period for output:

Start time and date:

Beginning time ......\*AVAIL Time, \*AVAIL

End time and date:
Ending time ......\*AVAIL Time, \*AVAIL

Output ..... \* \*,\*PRINT

\_\_\_\_\_

Purpose

The Work with Job History (WRKJOBHST) command lists all or specific history information related to one or more LXIscheduler jobs.

Parameters

JOB:

Specifies the name of the jobs for which history information is shown. For a list of LXI*scheduler* jobs, position the cursor on the parameter and press F4. Multiple values can be entered for this parameter.

\*ALL History information for all LXI*scheduler* jobs is shown.

Name Enter the name of one or more LXI*scheduler* jobs.

PERIOD:

Specifies the period of time for which job history information is shown. This parameter contains two lists of two elements each.

Beginning time: Specifies the starting time for which history records are

shown.

\*AVAIL The list begins with the first available time for

the beginning date specified.

Time Enter the time for the beginning date speci-

fied.

Beginning date: Specifies the starting date for which history records are

shown.

**\*BEGIN** The list begins with the first available entry

and specified beginning time.

\*CURRENT The list begins with the current date and

specified beginning time.

\*PRV The list begins with the previous date and

specified beginning time.

Date The list begins with the specified date and be-

ginning time.

Ending time: Specifies the ending time for which history records are

shown.

\*AVAIL The list ends with the last available time for

the specified ending date.

Time Enter the time for the specified ending date.

Ending date: Specifies the ending date for which history records are

shown.

\*END The list ends with the last available entry and

specified ending time.

\*CURRENT The list ends with the current date and speci-

fied ending time.

\*PRV The list ends with the previous date and speci-

fied ending time.

Date The list ends with the specified date and end-

ing time.

OUTPUT: Specifies the type of output generated from this command.

<u>\*</u> The output is displayed.

\*PRINT The output is printed with the job's spooled output.

Examples

```
WRKJOBHST JOB(*ALL) PERIOD((*AVAIL 090197) (*AVAIL 091997))
```

This command displays the Work with Job History – Job List panel for all jobs that entered the system between 09/01/97 and 09/19/97.

This command displays the Work with Job History – Job List panel for jobs JOBA and JOBB that completed any time from the previous day to the current day.

# WRKJOBLOG - Work with Job Log

	Work	with Job Log (WRKJO	BLOG) B/I
Purpose	The Work wi		BLOG) command lists all or specific job log information generated
P a r a m e t e r s	<b>■</b> JOB: -	Specifies the jo	b, user and job number of the LXI <i>scheduler</i> entry whose job log int.
		Job-name	Enter the name of the LXIscheduler job.
		User.	Enter the user name of the LXIscheduler job.
		Number:	Enter the job number of the LXI <i>scheduler</i> job. Job numbers beginning with the special character 'S' represent a job that was never created (submitted) due to one or more errors.
	OUTPUT:	Specifies the ty	pe of output generated from this command.
		<u>*</u>	The output is displayed.
		*PRINT	The output is printed with the job's spooled output.
Examples	WRKJOBLOG (	JOB(123456/JSM	ITH/JOBA) OUTPUT(*PRINT)
	This command user is JSMITH		for job JOBA, which has a job number of 123456 and whose

# WRKJOBPARM – Work with Job Parameters Work with job Parameters (WRKJOBPARM) I (No parameters)

Purpose

The Work with Job Parameters (WRKJOBPARM) command lists all LXI.scheduler parameters. Parameters entered here may be used when setting up the job submission commands. The value retrieved from each parameter is substituted in the command prior to being executed.

Purpose

The Work with Job Schedule Entries (WRKJOBSCHE) command lists all jobs that have been scheduled in LXI*scheduler*.

## WRKRMTSYS - Work with Remote Systems

		_
Work with Remote Systems (WRKRMTSYS)	Ι	
(No parameters)		

Purpose

The Work with Remote Systems (WRKRMTSYS) command lists all remote system definitions. LXI*scheduler* must be installed on each remote system that is being defined.

If a remote system using LXIscheduler 6.1 or lower is communicating with a system using LXIscheduler 6.2 or higher, ensure that LXISCH400 is specified for the remote scheduler library parameter when defining remote system details on the remote system.

WRKRPTDSTL - Work with Report	Distribution List
Work with Report Distribution List (WRKRPTDSTL)	 I
(No parameters)	

 $P\;u\;r\;p\;o\;s\;e$ 

The Work with Report Distribution (WRKRPTDSTL) command lists all report distribution entries. A distribution entry can either be an output queue name or a remote SNADS distribution entry. You may distribute reports produced by jobs in the run schedule to any or all entries within this list.

#### WRKRUNSCH - Work with Run Schedule

Work with Run Schedule (WRKRUNSCH) B/I

Week ending date	<u>*CUR</u>	Date, *CUR, *NEXT, *PRV
Jobs to display	<u>*SCH</u>	*SCH, *ALL
Forecast	<u>*NO</u>	*YES, *NO
Select jobs for:		
Lab angua	* 4 1 1	Name *AII

 Job queue
 \*ALL
 Name, \*ALL

 Library
 \*ALL
 Name, \*ALL

 Date
 \*CURRENT
 \*CURRENT, Date

 Hours
 \*FIRST
 \*FIRST, Hour

 Elapsed hours
 6
 1, 2, 4, 6, 12, 24

 Output
 \*
 \*, \*PRINT

\_\_\_\_\_

\*CIID

Purpose

The Work with Run Schedule (WRKRUNSCH) command lists all or specific jobs scheduled to run for a specific week.

Parameters

DATE:

Specifies the week for which the run schedule is to be displayed.

**Note**: If DATE(\*NEXT) or DATE(\*PRV) is specified and there is more than one page of jobs, pressing PAGEDOWN or PAGEUP causes the first page of jobs to display for future or previous dates. To see the second page of jobs, remove \*NEXT or \*PRV from the DATE field on the command or from the "Week ending date" field on the panel.

<u>*CUR</u>	The current week ending date.
*NEXT	Next week's run schedule.
*PRV	The previous week from today.
Date	Enter a date in the current job date format to display the

TI- - - - 1- - 1: - 1--

run schedule for this date's week ending date. If a week ending date is not entered, LXI*scheduler* will calculate the week ending date and display the schedule for the calculated date.

lated date.

JOBS: Specifies the type of jobs to be included in the list.

**\*SCH** The jobs that are scheduled to run for the specified week

ending date are listed.

\*ALL All jobs, including jobs not set up to run for the specified

week ending date are listed.

FORCST: Specifies whether forecast information is displayed.

**\*NO** Forecast information is not displayed.

\*YES Forecast information is displayed.

SELECT: Specifies which jobs are to have forecast information displayed . This parameter

contains one list having four elements.

<u>Job queue</u>: Specifies the name of the job queue containing the sched-

uled jobs.

\*ALL Displays the forecast for jobs submitted to all

job queues.

*Job-queue* Enter the name of a valid job queue.

Library: Specifies the name of the library containing the specified

job queue.

\*ALL All libraries are searched for the specified job

queue.

Library-name Enter the name of a valid library.

<u>Date</u>: Specifies the date to use for the beginning forecast date.

\*CURRENT The current date is used.

Date Enter a valid date.

<u>Hour:</u> Specifies the starting hour to use for the specified forecast

date

\*FIRST The first available hour for the specified fore-

cast date is used.

Hour Enter a valid hour.

Elapsed hours: Specifies the starting hour to use for the specified forecast

date.

\*FIRST The first available hour for the specified fore-

cast date is used.

Hour Enter a valid hour.

JOBS: Specifies the type of jobs to be included in the list.

\*SCH The jobs that are scheduled to run for the specified week

ending date are listed.

\*ALL All jobs, including jobs not set up to run for the specified

week ending date are listed.

#### $E\;x\;a\;m\;p\;l\;e\;s$

WRKRUNSCH DATE(092097)

This command displays the run schedule for jobs that are scheduled to run the week whose ending date is 09/20/97.

WRKRUNSCH DATE(\*NEXT) JOBS(\*ALL)

This command displays the next week's run schedule and would include all jobs, regardless of when they are scheduled to run.

WRKSCHAUT - Work with Schedu	ıler Authority
Work with Scheduler Authority (WRKSCHAUT)	I
(No parameters)	

 $P\;u\;r\;p\;o\;s\;e$ 

The Work with Authority (WRKSCHAUT) command lists all LXI*scheduler* user authorities, such as display, create, change, or delete user profiles.

# WRKSCHCAL – Work with Scheduler Calendars Work with Scheduler Calendars (WRKSCHCAL) I (No parameters)

Purpose

The Work with Scheduler Calendars (WRKSCHCAL) command lists all run/exclude calendars. A run calendar defines a run or exclude schedule for a job within LXI*scheduler*. Calendars are used in the Run calendar and Exclude calendar parameters when scheduling jobs.

WRKSCHDFT - Work with Sche	duler	Defaults
Work with Scheduler Defaults (WRKSCHDFT)	I	
(No parameters)		

 $P\;u\;r\;p\;o\;s\;e$ 

The Work with LXI*scheduler* Defaults (WRKSCHDFT) command lists all LXI*scheduler* defaults, such as the message queue for sending completion messages and job capture facility defaults.

#### Chapter 18

#### Install/Uninstall Instructions

This chapter describes the install/uninstall processes. The installation of the LXIscheduler is easy and only takes a few minutes to load and setup. Please read and follow these instructions carefully to avoid problems and assure trouble free product performance.

#### Install Process

The installation process loads/updates the product from CD to disk. To install, follow the instructions in the *Readme* text file provided on the CD. These instructions guide you through the installation process. If this is a first-time install, the installation process creates the following libraries on the system.

LXI Base and Support Programs

LXISCH LXIscheduler Programs

■ LXISCH400 LXIscheduler Files

#### Changing the iSeries

Moving this product from one iSeries to another or upgrading to a different iSeries model requires a new license key. Once the product moves to the new iSeries or the iSeries is upgraded to a different model, call LXI Corp. for a new license key. No install is required.

#### **Uninstall Process**

To remove **LXI** scheduler from the system, perform the following:

```
ENDSBS QLXISCH *IMMED
```

Verify that LXISCH and LXISCH400 are <u>not</u> in the system portion of the library list.

DLTLICPGM LICPGM(OLX0000) OPTION(87)

### Entering the License Key

The LXI Job Scheduler (LXI*scheduler*) requires a valid license key in order to function. The license key is based on the serial number and model of the iSeries. To enter a license key, perform the following:

Step 1.	GO LXI/LXI
Step 2.	Tab to the <b>SETUP</b> option on the menu bar.
Step 3.	Press <b>Enter</b> to view the options available.
Step 4.	Select "Work with License Info.".
Step 5.	Select Option 1 for feature 8700.
Step 6.	Enter the supplied license key.

#### Trial Period

The trial period is valid for a period of 30 days from the time the product is *first* used. In order for LXI*scheduler* to continue scheduling and submitting jobs after the 30-day trial period, a license key must be entered.

#### Permanent License Key

Once the software has been purchased and payment received by LXI Corp., a *permanent license key* will be issued. This permanent license key must be entered into the software to ensure that the product continues without interruption.

The license key remains valid unless the iSeries serial or model number changes. When a change occurs, you should notify LXI Corp. to get another license key.

#### Chapter 19

#### The LXIscheduler Monitor

It is important that the LXI scheduler monitor remain active for the timely submission of user-defined jobs.

## Starting the LXI scheduler Monitor

The LXI*scheduler* monitor consists of two batch jobs that execute in the QLXISCH subsystem. They are:

**SCHEDULER** - This job remains at a message wait state and is responsible for interrogating job completion messages and updating the completion statistics.

**SCHMONITOR** - This job remains at a message wait state and is responsible for the timely submission of jobs and processes the jobs based on user-defined run parameters.

To start the monitor, select **Option 12** from the Scheduler menu or press **F14** from the Work with Job Schedule Entries panel.

The parameters that are found on the Start LXIscheduler Monitor command are:

**Missed jobs option**. Specify how to handle missed jobs. Use one of the following values.

\*NONE – All missed jobs will not be run.

\*ALL – All missed jobs are run.

\*TIME – Missed jobs are run based on the time entered in the time parameter of this command.

Run missed jobs from. Enter the time of day that you wish to run any of today's missed jobs. This parameter must be entered if the MISJOBS parameter value is \*TIME. Enter a time of day within the range 00:01 to 23:59.

# Ending the LXI scheduler Monitor

To end the LXI*scheduler* monitor, select **Option 13** from the Scheduler menu or press **F14** from the Work with Job Schedule Entries panel or issue the End Scheduler Monitor (**ENDSCHMON**) command.

#### Chapter 20

#### Troubleshooting Guide

The purpose of this guide is to list commonly asked questions regarding the use of the LXI*scheduler*. Each question and answer is designed to resolve specific situations as quickly as possible. This guide should be the first place a user looks when encountering any type of function that does not appear to operate as expected. If, after reviewing this guide, a question still exists, contact LXI Product Support for assistance.

#### 1. I entered the license key and LXIscheduler says it's invalid.

The temporary license key is date, serial and model sensitive. If the evaluation time has elapsed, another temporary license key is required. If you are entering a permanent license key, make sure that you entered the license key correctly. Additional information can be found in Chapter 18 – *Install/Uninstall Instructions*. If the code still does not work, call LXI Product Support.

#### 2. Why do my dependent jobs not run as expected?

Several conditions determine if a dependency is submitted.

- Dependent jobs must be defined as to what job they are dependent on.
- The parent job must complete with an end code that is less than or equal to the end code specified in the dependency definition.
- If multiple dependencies exist with a relationship of \*AND, then all jobs must complete with the end code less than or equal to the end code specified in the dependency definition.
- If a time is defined in the dependency, all parent jobs must complete with an end code less than or equal to the end code specified in the dependency definition and the specified time must be reached.

For additional information on dependencies, see Dependency Folder in Chapter 7, *The Folders*.

# 3. How can I change the way a job processes on different days without having to create several different jobs?

There are 2 ways to change the way a job processes.

**Option 8** from the Calendar folder will allow some job attributes, run times, \*LDA, or run commands to be changed. The changes only affect the day being overridden.

**Option 2** from the Calendar folder will change the schedule from the change date forward. Changes can be made to the run times or run commands. For example, if a schedule was defined to run Monday through Friday and a change was done for Tuesday, the change would affect all Tuesdays from that Tuesday forward.

# 4. Why doesn't the LXI*scheduler* monitor start automatically when the startup program executes?

The startup program must have the LXISCH/STRSCHMON command in it. The QPGMR profile **MUST** be authorized to start the monitor. You can verify this by using the Work with Scheduler Authority (**WRKSCHAUT**) command. The QPGMR profile runs the startup job for LXI*scheduler* and if it is not authorized to the Start Monitor option, the monitor will not start.

# 5. I'm constantly receiving messages that file JSPFJHH in LXISCH400 is full. How can I resolve this?

This file contains history information. If there are 100 scheduler jobs and the product is set up to store 5 occurrences for each job, the file will contain up to 500 records. Change the physical file to hold more records or set it to \*NOMAX. This can be accomplished with the IBM Change Physical File (CHGPF) command. Another method would be to reduce the number of History Logs retained for each job defined in the scheduler. Use the Work with Defaults(WRKSCHDFT) command or modify the individual job.

#### Chapter 21

#### Electronic Software Support

Electronic Software Support (ESS) is a module within all LXI Corp. products that provides LXI Technical Support staff access to your system, upon your approval, to help isolate and resolve issues. This process helps ensure that your product is working correctly and performing to design standards.

Online support allows an LXI product technician to sign on to your system for diagnostic purposes. This method is beneficial when issues cannot be resolved easily. Online support requires that you provide LXI with a user profile, password and virtual device for system access.

### Setting up ESS

Before using ESS, some initial setup must be performed. This setup includes defining any special characters or numbers that must be dialed prior to dialing the LXI Corp. Product Support number, determining the modem type and optionally defining the resource name and line speed. This setup only needs to be performed once or if the information changes.

To access the ESS main menu, type GO LXI/ESS on an OS/400 command line and press Enter.

#### Updating the Configuration Data

Select **Option 1** from the Setup pull-down menu. This displays the Configuration Data panel. This panel specifies the LXI Product Support phone number and the modem type parameter.

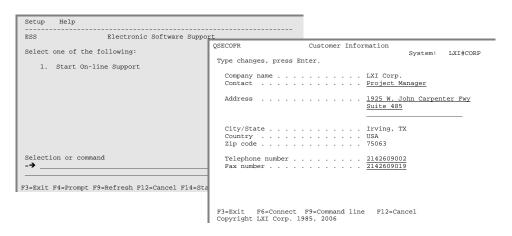
Do not alter the LXI Corp. phone number unless you need to add special characters in front of it for time delay or outside line purposes.

If an **external** modem is specified in the modem type parameter, press **Enter**. This displays two additional parameters which are the resource number of the line being used and the speed of the modem. Review and optionally change the information and press **Enter**.

If an **internal** modem is specified, press **Enter**.

## Requesting Online Support

To start online support, enter **Option 1** from the Electronic Software Support menu. This displays the Customer Information panel. Enter the required information and press **Enter**. To start the **ESS** online support process, press **F6**.



#### **ESS Considerations**

When using an external modem, **ESS** leaves the line varied on. Due to processing restrictions, **ESS** cannot vary the line off.

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