

IBM LoadLeveler for AIX 5L



Diagnosis and Messages Guide

Version 3 Release 1

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Version 3 Release 1

Note

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 111.

First Edition (December 2001)

This edition applies to Version 3, Release 1.0, of IBM LoadLeveler for AIX, program number 5765–E69, and to all subsequent releases and modifications until otherwise indicated in new editions or technical newsletters.

This edition replaces 5765–D61.

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Contents

About This Book	v
Who Should Use This Book	v
How to Use This Book	v
How this Book is Organized	v
Typographic Conventions	v
Related Information	vi
Information Formats	vi
Accessing This Book off the World Wide Web	vi
Accessing LoadLeveler Documentation Online	vi
What's New in Version 3.1	vi
Problem Determination and Resolution Procedures	vi
Improved Error Message "Explanations" and "User Responses"	vi
 Chapter 1. LoadLeveler Messages	 1
2512 Error Messages	1
2539 Error Messages	42
2544 Error Messages	91
 Chapter 2. Error Logging Facility	 97
Error Logging Overview	97
What Events are Recorded	97
Viewing LoadLeveler Error Log Reports	97
Clearing All LoadLeveler Error Log Entries	97
Error Notification	97
How Error Log Events Are Classified	98
Sample Error Log	98
Possible Causes for LoadLeveler Errors	98
 Chapter 3. Problem Determination and Resolution Procedures	 105
Related Documentation	105
Requisite Function	105
Error Information	105
LoadLeveler Log Files	106
Output to stdout and stderr from LoadLeveler commands or APIs	106
Mail Notification to the LoadLeveler User About Job Steps	106
Mail Notification to the LoadLeveler Administrators	106
AIX Error Log	107
Dump Information	107
Missing Dump Data Warnings	107
Error Data Translation Warnings	107
Trace Information	107
Trace Data Expiration Warnings	107
Missing Trace Data Conditions	107
Trace Data Translation Warnings	107
Information to Collect Prior to Contacting IBM Service	108
Diagnostic Procedures	108
Test Description	108
Instructions For Performing Test	108
Instructions To Verify Test	109
Actions to Take if Test Failed	109
 Notices	 111
Trademarks and Service Marks	112

Glossary	115
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About This Book

This book is designed for any user of LoadLeveler who needs to resolve a system message and respond to that message. This book lists all of the error messages generated by the LoadLeveler software and its components and describes a likely solution for each message.

Who Should Use This Book

This book is designed for system programmers and administrators, but should be used by anyone responsible for diagnosing problems related to LoadLeveler. To use this book, you should be familiar with the AIX operating system. Where necessary some background information relating to AIX is provided. More commonly, you are referred to the appropriate documentation.

How to Use This Book

This book contains a listing of all error messages related to the operation and use of LoadLeveler. As such, it is designed to be used as a *reference* manual; that is, it's purpose is to provide the user with a quick place to look up error messages received from LoadLeveler and provide guidance and suggestions for dealing with such errors. This book only contains **error** messages; informational messages are not included.

How this Book is Organized

This book contains the following information:

- “Chapter 1. LoadLeveler Messages” on page 1 lists the LoadLeveler error messages in chronological order, with debugging information included for each.
- “Chapter 2. Error Logging Facility” on page 97 describes the error logging and debugging procedures for LoadLeveler.
- “Chapter 3. Problem Determination and Resolution Procedures” on page 105 describes various resources used for diagnosing and solving problems, as well as a helpful list of information to have ready if you need to contact IBM Service.

A glossary is also included.

Typographic Conventions

This book uses the following typographic conventions:

Type Style	Used For
bold	Bold words or characters represent system elements that you must use literally, such as command names, program names, file names, and flag names. Bold words also indicate the first use of a term included in the glossary.
<i>italic</i>	<i>Italic</i> words or characters represent variable values that you must supply. <i>Italics</i> are also used for book titles and for general emphasis in text.
Constant width	Examples and information that the system displays appear in constant width typeface.

Related Information

In addition to this publication, the following books are also part of the LoadLeveler library:

- *IBM LoadLeveler for AIX5L: Using and Administering*, SA22-7881-00
- *Installation Memo*, GI11-2819-00

Information Formats

Documentation supporting RS/6000 SP software licensed programs is no longer available from IBM in hardcopy format. However, you can view, search, and print documentation in the following ways:

- On the World Wide Web
- Online (from the product media or the SP Resource Center)

Accessing This Book off the World Wide Web

You can view or download this book (in PDF format) from the World Wide Web using the following URL:

http://www.rs6000.ibm.com/resource/aix_resource/sp_books/loadleveler

Accessing LoadLeveler Documentation Online

IBM ships on the product media manual pages, HTML files, and PDF files. In order to use these files you must install the appropriate file sets. For more information, see *LoadLeveler Installation Memo*.

To view the LoadLeveler books in HTML format, you need access to an HTML document browser such as Netscape. Once you install the HTML files, an index to the LoadLeveler books is found in **/usr/lpp/LoadL/html/index.html** .

You can also view the LoadLeveler books from the SP Resource Center, which is available under the Parallel Systems Support Programs (PSSP) or as a separately installed program. You invoke the Resource Center from PSSP by entering **resource_center**. To invoke the Resource Center from the product CD, see the **readme.txt** file.

To view the LoadLeveler books in PDF format, you need access to the Adobe Acrobat Reader 3.0.1. The Acrobat Reader is shipped with AIX Version 4.3 Bonus Pack and is also freely available for downloading from the Adobe web site at URL <http://www.adobe.com>.

What's New in Version 3.1

The following is a list of new material added for this release.

Problem Determination and Resolution Procedures

This section:

- Cites useful material in other LoadLeveler documentation.
- Gives a comprehensive list and description of resources used for diagnosing and solving LoadLeveler problems.
- Provides instructions for contacting IBM service for further assistance.

Improved Error Message "Explanations" and "User Responses"

The entire catalog of error messages has been reviewed for accuracy and clarity. The Explanations give users a better understanding of error conditions, and the User Responses give positive instruction on what to do to fix problems.

Chapter 1. LoadLeveler Messages

2512 Error Messages

2512-001 **Cannot chdir to *directory_type* *directory*, *directory_name* on *hostname*. uid=*uid* errno=*error number*.**

Explanation: The **chdir** system call failed for the specified directory.

User Response: Verify that the directory exists, and that the user has permission to access it.

2512-002 **Cannot open file *filename* in mode *mode name*. errno= *error_num* [*error_msg*].**

Explanation: The **open** system call failed for the specified file.

User Response: Verify that the directory and file exist, and that the user has permission to access them.

2512-003 **Cannot create the *directory_type* *directory*, *directory_name* , on *hostname*. uid=*uid* errno=*error_num* *error_msg*.**

Explanation: The **mkdir** system call failed for the specified directory.

User Response: Verify that the directory does not already exist, and that the user has permission to create it.

2512-004 **Cannot create pipe for *program_name*. errno=*error_num* [*error_msg*].**

Explanation: The **pipe** system call failed.

User Response: Correct the problem indicated by the error number.

2512-005 **Open failed for file *filename*, errno = *error_number***

Explanation: The **open** system call failed for the specified file.

User Response: Verify that the directory and file exist, and that the user has permission to access them. Also ensure that the user has read permission for the history file.

2512-006 **Cannot continue.**

Explanation: An error occurred while running the specified command; the command was unable to recover.

User Response: Retry the command; if the problem persists, then contact IBM service.

2512-007 **LOADL_ADMIN not specified in configuration file! No administrator commands are permitted.**

Explanation: The LoadLeveler configuration file does not contain a list of LoadLeveler administrators; even if DCE is enabled, the configuration file must contain a list of users who are to receive mail for problem notification.

User Response: Add a **LOADL_ADMIN** entry containing one or more administrator uids to the LoadLeveler configuration file.

2512-010 **Unable to allocate memory.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2512-016 **Unable to write file *filename*.**

Explanation: A system call to write to the specified file failed.

User Response: Verify that the file has write permissions, and that the file system containing it is not full.

2512-017 **Command transmission to LoadL_schedd on host *hostname* failed.**

Explanation: The command was unable to contact or send data to the **LoadL_schedd** daemon.

User Response: Verify that the **LoadL_schedd** daemon is running on the specified host, and that the host can be accessed on the network.

2512-019 **Job ids must not be specified when host or user names are also specified.**

Explanation: You cannot specify job ids with host or user names.

User Response: Specify either a job list, or a host/user list with the command.

2512-020 **Internal error: error (file: *filename* line: *line_number*).**

Explanation: You cannot specify job ids with host or user names.

User Response: Verify that the **LoadL_schedd** daemon is running on the specified host, and that the host can be accessed on the network.

2512-021 **Cannot connect to LoadL_schedd on host *hostname*.**

Explanation: The specified command could not contact the **LoadL_schedd** daemon.

User Response: Verify that the **LoadL_schedd** daemon is running on the specified host, and that the host can be accessed on the network.

2512-023 **Could not obtain configuration data.**

Explanation: The specified command was unable to open or read the LoadLeveler configuration files.

User Response: Verify that all of the configuration and administration files exist, and that the user has access to them.

2512-024 **Error occurred getting cluster hostnames.**

Explanation: The specified command was unable to obtain the list of hosts in the LoadLeveler cluster. The failure may be due to an error opening or reading the LoadLeveler configuration files, or to a syntax error in one of the configuration files.

User Response: Verify that all of the configuration and administration files exist, and that the user has access to them. Retry the command; if the problem persists, then contact IBM service.

2512-025 **Only the LoadLeveler administrator is permitted to issue this command.**

Explanation: The specified command must be issued by a LoadLeveler administrator. The user issuing the command is not listed as an administrator in the LoadLeveler configuration file.

User Response: Have an administrator issue the command, or have an administrator add the user to the Leveler configuration file's **LOADL_ADMIN** list. If DCE is enabled, the user's DCE principal must be a member of the **<LoadL-admin>** group.

2512-027 **Dynamic load of *filename* from *system_name* failed. errno=*error_num* [*error_msg*].**

Explanation: The **load** system call failed for the specified file.

User Response: Verify that the specified file has been installed in the correct directory, and that it has the correct permissions.

2512-028 **ERROR** *error at line line_num in file filename .*

Explanation: A LoadLeveler daemon or command terminated as a result of detecting corrupted internal data.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2512-029 **Cannot establish UNIX domain listen socket for path, pathname . errno=error_num [error_msg]**

Explanation: The **listen** system call failed. A LoadLeveler process was attempting to listen on a UNIX domain socket to communicate with another process.

User Response: Correct the problem indicated by the error number.

2512-030 **Cannot stat file filename.**

Explanation: The **stat** system call failed for the specified file.

User Response: Verify that the file exists, and that it has the appropriate permissions.

2512-031 **Cannot change mode on file filename to file permissions .**

Explanation: The **chmod** system call failed while attempting to change permissions on the specified file.

User Response: Verify that the file exists, and that it has the appropriate permissions.

2512-032 **Cannot open file filename. errno = error num**

Explanation: The **open** system call failed for the specified file.

User Response: Verify that the directory and file exist, and that the user has permission to access them.

2512-033 **Cannot open file filename.**

Explanation: The **open** system call failed for the specified file.

User Response: Verify that the directory and file exist, and that the user has permission to access them.

2512-034 **File file not found.**

Explanation: The specified file does not exist.

User Response: Verify that the directory and file exist, and that the user has permission to access them.

2512-035 **Cannot read file file.**

Explanation: You do not have read access to the specified file.

User Response: Verify that the directory and file exist, and that the user has permission to access them.

2512-036 **Unable to invoke path, retcode = code, errno = errno.**

Explanation: The specified calling program failed to invoke an installation exit routine.

User Response: Verify that the directory and file exist, and that the user has execute permission.

2512-037 **User username failed user name validation on host hostname.**

Explanation: A user is required to have the same UID on the host from which a command is issued and the host which receives the command.

User Response: Verify that the specified user has the same UID on all hosts in the LoadLeveler cluster including submit only machines.

2512-038 **The *specified_option* option and the *specified_option* option are not compatible."**

Explanation: The command was issued with conflicting options.

User Response: Reissue the command using at most one of the these options.

2512-039 **The *specified_option* option is not compatible with any of the following options: *option1*, *option2***

Explanation: The command was issued with conflicting options.

User Response: Reissue the command using at most one of the options.

2512-040 **Invalid input specified: *value* is not valid for *parameter*.**

Explanation: An invalid or out of range value is specified for one of the input parameters.

User Response: Specify a valid value according to the LoadLeveler documentation.

2512-041 **Failed to connect to the LoadLeveler.**

Explanation: Attempted to connect to LoadLeveler and failed.

User Response: Check whether LoadLeveler is up and running. Restart Loadleveler if needed.

2512-042 **Failed to obtain the required information.**

Explanation: Attempted to get information from the LoadLeveler and failed.

User Response: Check whether LoadLeveler is up and running. Restart Loadleveler if needed.

2512-043 **The format of character string specified (*string*) is not valid for a LoadLeveler job step.**

Explanation: A string having the format: [*hostname*.]*job_id.step_id* is expected.

User Response: Specify a string of the expected format.

2512-044 **Invalid value *value* for input *input_command*. Default value used.**

Explanation: An invalid or out of range value is specified for one of the inputs.

User Response: Specify a valid value according to the LoadLeveler documentation.

2512-045 **ERROR: *error_msg*.**

Explanation: An error occurred.

User Response: Take action according to the specifics of the actual error message.

2512-051 **This job has not been submitted to LoadLeveler.**

Explanation: The job was not submitted because of an error. This message is preceded by a message explaining the error.

User Response: Correct the error indicated in the previous message.

2512-052 **Submit Filter: *rc* = *return_code*.**

Explanation: The submit filter returned a non-zero exit code. The job was not submitted.

User Response: Contact the LoadLeveler administrator who provided the submit filter to determine the cause of the problem.

2512-053 **Unable to process the job command file (*filename*) from the Submit Filter *filter*.**

Explanation: The **stat** system call failed for the filtered job command file.

User Response: Contact the LoadLeveler administrator who provided the submit filter to determine the cause of the problem.

2512-054 **Unable to process the job command file (*filename*) from the Submit Filter *filter*. No output.**

Explanation: The submit filter returned an empty job command file.

User Response: Contact the LoadLeveler administrator who provided the submit filter to determine the cause of the problem.

2512-055 **Unable to process the job command file *filename* for input, the error is: *error*.**

Explanation: This message is the result of either a failure opening the job command file, or an error running the submit filter.

User Response: Verify that the job command file exists, and that the user has permission to access it. If a submit filter is configured, then contact the LoadLeveler administrator who provided the submit filter to determine the cause of the problem.

2512-056 **Unable to process the job command file *filename* .**

Explanation: This message is the result of either a failure opening the job command file, or an error running the submit filter.

User Response: Verify that the job command file exists, and that the user has permission to access it. If a submit filter is configured, then contact the LoadLeveler administrator who provided the submit filter to help you determine the cause of the problem.

2512-057 **Unable to process the contents of the job command file *filename* .**

Explanation: The job command file does not contain any LoadLeveler commands. A LoadLeveler command or keyword statement must be preceded by: **#@**.

User Response: Correct the job command file, then resubmit the job.

2512-058 **The command file *filename* does not contain any queue keywords.**

Explanation: The job command file does not contain a LoadLeveler **queue** keyword. A LoadLeveler job must have at least one **queue** keyword.

User Response: Correct the job command file, then resubmit the job.

2512-059 **Unable to process the command file *filename* . The syntax is unknown.**

Explanation: The job command file does not contain any valid LoadLeveler statements.

User Response: Correct the job command file, then resubmit the job.

2512-060 **Syntax error: *keyword* unknown command file keyword.**

Explanation: The specified keyword is not a valid LoadLeveler keyword.

User Response: Correct the job command file, then resubmit the job.

2512-061 **Syntax error: *keyword* = *keyword_value* unknown keyword value.**

Explanation: The specified value is not valid for this keyword.

User Response: Correct the job command file, then resubmit the job.

2512-062 Syntax error: *keyword = keyword_value* takes only one keyword value.

Explanation: More than one value was given for the specified keyword. This keyword accepts only one value.

User Response: Correct the job command file, then resubmit the job.

2512-063 Syntax error: *keyword = num_value* is not a valid numerical keyword value.

Explanation: The value given for the specified keyword is not a numeric value. This keyword requires a numeric value.

User Response: Correct the job command file, then resubmit the job.

2512-064 Syntax error: *keyword = value* keyword value must be greater than zero.

Explanation: The value given for the specified keyword is not a positive number. This keyword requires a numeric value greater than zero.

User Response: Correct the job command file, then resubmit the job.

2512-065 Unable to expand job command keyword *keyword = keyword_value* .

Explanation: The keyword cannot be expanded using the job command file macros.

User Response: Correct the job command file, then resubmit the job.

2512-066 Unable to expand job command keyword value *keyword = keyword_value* .

Explanation: The specified macro, used as a keyword value, could not be expanded.

User Response: Verify that the macro is defined correctly in the job command file, then resubmit the job.

2512-067 The *keyword* statement cannot exceed *number* characters.

Explanation: The specified keyword statement, including all substitutions and expansions, cannot exceed the specified length.

User Response: Correct the job command file, then resubmit the job.

2512-068 The specified *job_name* of *keyword* is not valid.

Explanation: The value of the **job_name** statement is not valid. The **job_name** can only contain alphanumeric characters.

User Response: Correct the job command file, then resubmit the job.

2512-069 The specified *step_name* of *command_file* is not valid.

Explanation: The **step_name** of the specified keyword statement is not valid. The step name must: a) start with an alphabetic character, b) contain only alphanumeric characters, and c) cannot be **T** or **F**.

User Response: Correct the job command file, then resubmit the job.

2512-070 Invalid character(s) were specified for *notify_user = user_name* .

Explanation: The |, <, >, and ; characters are not allowed in the name of the **notify_user**.

User Response: Correct the job command file, then resubmit the job.

2512-074 **The priority value is not valid:** *keyword = keyword_value* .

Explanation: The priority value must be between 0 and 100.

User Response: Correct the job command file, then resubmit the job.

2512-076 **The required keyword *keyword* was not found in the administration file.**

Explanation: The specified keyword must appear in the administration file, so that LoadLeveler can process job command files.

User Response: Add the specified keyword to the administration file, then resubmit the job.

2512-077 **A valid class could not be found in the default class list.**

Explanation: The resource limits specified for the job exceed the resource limits for all classes in the **default_class** list for this user.

User Response: Take one of the following actions: a) specify a class in the job command file that satisfies the job's resource limits, b) adjust the resource limits specified in the job command file, or c) have the LoadLeveler administrator add a class capable of accepting the job to the **default_class** list for the user.

2512-078 **Group *group_name* is not valid for user *user_name* .**

Explanation: The group assigned to this job either excludes or does not include the user.

User Response: Take one of the following actions: a) specify a valid group in the job command file, b) have the LoadLeveler administrator allow the user into the specified group, or c) have the LoadLeveler administrator change the default group for the user.

2512-079 **Class *classname* is not valid for user *user_name* .**

Explanation: The class assigned to this job either excludes, or does not include the user.

User Response: Take one of the following actions: a) specify a valid class in the job command file, b) have the LoadLeveler administrator allow the user to use the specified class, or c) have the LoadLeveler administrator change the default class of the user.

2512-080 **Class *classname* is not valid for group *group_name* .**

Explanation: The class assigned to this job either excludes or does not include the user.

User Response: Take one of the following actions: a) specify a valid class for the group, or a valid group for the class in the job command file, b) have the LoadLeveler administrator allow the group to use the specified class, or c) have the LoadLeveler administrator change the default class or default group for the user.

2512-081 **Account number *num* is not valid for user *user_name* .**

Explanation: The account validation program determined that the user is not permitted to use the account number specified in the job command file.

User Response: If the default account validation program is being used, then either use an account number assigned to the user, or have the LoadLeveler administrator add the account number to the user stanza in the administration file. If an installation specific account validation program is being used, then contact the LoadLeveler administrator.

2512-082 **Condition code specified in the statement dependency = *condition_code* is not valid.**

Explanation: The condition code in the dependency statement must be **CC_NOTRUN**, **CC_REMOVED**, or an integer value between 0 and 255.

User Response: Correct the job command file, then resubmit the job.

2512-083 **The condition code integer value specified in the statement `dependency = value` is not within the range of 0 and 255.**

Explanation: The condition code in the dependency statement must be **CC_NOTRUN**, **CC_REMOVED**, or an integer value between 0 and 255.

User Response: Correct the job command file, then resubmit the job.

2512-084 **The expression specified in the statement `dependency = dependency_value` is not valid.**

Explanation: The value for the dependency statement must contain one or more expressions of the form: *stepname operator value*. Multiple expressions must be separated by the logical operators: **&&** or **||**.

User Response: Correct the job command file, then resubmit the job.

2512-085 **The syntax in the statement `dependency = dependency_value` is not valid.**

Explanation: The value for the dependency statement must contain one or more expressions of the form: *stepname operator value*. Multiple expressions must be separated by the logical operators: **&&** or **||**.

User Response: Correct the job command file, then resubmit the job.

2512-086 **The `step_name` in the statement `dependency = dependency_value` is not valid.**

Explanation: The **step_name** in the dependency statement is not valid. The step name must: a) start with an alphabetic character, b) contain only alphanumeric characters, and c) not be **T** or **F**.

User Response: Correct the job command file, then resubmit the job.

2512-087 **The `step_name` in the statement `dependency = dependency_value` was not previously defined.**

Explanation: Any **step_name** used in the dependency statement must be the name of a previously defined job step.

User Response: Correct the job command file, then resubmit the job.

2512-088 **The operator in the statement `dependency = dependency_value` is not valid.**

Explanation: The value for the dependency statement must contain one or more expressions of the form *stepname operator value*. Multiple expressions must be separated by the logical operators: **&&** or **||**.

User Response: Correct the job command file, then resubmit the job.

2512-089 **Syntax error: Class should not be included as part of `keyword_value`.**

Explanation: The **class** keyword cannot be used in **requirements** or **preferences** statements.

User Response: Correct the job command file, then resubmit the job.

2512-090 **The `getcwd` function failed with error `error_num`.**

Explanation: The **getcwd** system call failed when the submit process attempted to retrieve the name of the current working directory.

User Response: Consult the specified error number for more information.

2512-095 **The resource limit `resource_identification` is unknown.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2512-096 This non-AIX version of LoadLeveler does not support check pointing.

Explanation: Checkpointing is only supported on AIX versions of LoadLeveler.

User Response: Correct the job command file, then resubmit the job.

2512-097 This non-AIX version of LoadLeveler does not support parallel job.

Explanation: Parallel jobs are only supported on AIX versions of LoadLeveler.

User Response: Correct the job command file, then resubmit the job.

2512-098 This non-AIX version of LoadLeveler does not support PVM3 jobs.

Explanation: PVM3 jobs are only supported on AIX versions of LoadLeveler.

User Response: Correct the job command file, then resubmit the job.

2512-101 The executable's version of the check pointing library can not be determined.

Explanation: Checkpointing requires that the executable be linked with the checkpointing library.

User Response: Link edit the executable with the correct version of the checkpointing library, then resubmit the job.

2512-102 The CkptVersion cannot be defined in the requirements keyword statement.

Explanation: **CkptVersion** cannot be specified in the **requirements** statement. If a job command file requests checkpointing, then LoadLeveler will add **CkptVersion** to the **requirements** statement implicitly.

User Response: Remove the **CkptVersion** expression from the requirements statement, then resubmit the job.

2512-105 The *keyword_value* conflicts with the Adapter = in the requirements or preferences statements.

Explanation: A job command file cannot contain both a **network** keyword, and an **Adapter** preference, in the **requirements** statement.

User Response: The **network** keyword is the preferred method for requesting adapters. Remove the **Adapter** preference from the **requirements** statement, then resubmit the job.

2512-108 Syntax error: node = *keyword_value* minimum is greater than maximum.

Explanation: The minimum number of nodes must be less than, or equal to, the maximum number of nodes.

User Response: Correct the job command file, then resubmit the job.

2512-109 The *keyword* LoadLeveler keyword is not valid for an NQS job:

Explanation: The specified keyword is not allowed in a job command file for a job that is routed to NQS. The supported level of NQS does not have an option equivalent to this keyword.

User Response: Correct the job command file, then resubmit the job.

2512-110 The NQS_submit keyword must be specified for class *class_name* .

Explanation: The specified class has **NQS_class=true**, but the class does not have the **NQS_submit** keyword, which specifies that the job be submitted to the NQS queue, in the administration file.

User Response: Have the LoadLeveler administrator correct the administration file, then resubmit the job.

2512-111 **The NQS_query keyword must be specified for class *class_name* .**

Explanation: The specified class has **NQS_class=true**, but the class does not have the **NQS_query** keyword, which specifies the NQS queue for job monitoring, in the administration file.

User Response: Have the LoadLeveler administrator correct the administration file, then resubmit the job.

2512-112 **The NQS keyword *keyword_value* is missing a required value.**

Explanation: The NQS keyword requires a value.

User Response: Correct the job command file, then resubmit the job.

2512-114 **Unable to allocate *number* bytes of memory using malloc().**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2512-115 **Unable to connect to a schedd machine.**

Explanation: The **submit** command was unable to connect to a LoadLeveler schedd machine.

User Response: Verify that a **LoadL_schedd** daemon is running on this machine or at least one public scheduling machine, and that the scheduling machine can be accessed on the network.

2512-116 **Unable to submit a job to the schedd machine.**

Explanation: The submit command was either unable to connect, or unable to send the job data, to a LoadLeveler schedd daemon.

User Response: Verify that a **LoadL_schedd** daemon is running on this machine or at least one public scheduling machine, and that the scheduling machine can be accessed on the network.

2512-117 **This check pointing job requires the **CHKPT_FILE** or **CHKPT_DIR** environment variables.**

Explanation: A parallel LoadLeveler job with user initiated checkpointing requires that the **CHKPT_FILE** or **CHKPT_DIR** environment variables be set.

User Response: Set the **CHKPT_FILE** variable (or both variables), then resubmit the job.

2512-118 **A *job_type* = parallel with checkpoint = system_initiated is not valid.**

Explanation: A parallel LoadLeveler job may not use system initiated checkpointing.

User Response: Correct the job command file, then resubmit the job.

2512-119 **Root cannot run a LoadLeveler job.**

Explanation: The root user (id = 0) is not allowed to submit a job command file to LoadLeveler.

User Response: Log on as a different user, then resubmit the job command file.

2512-120 **The directory *directory_name* does not exist.**

Explanation: The specified directory either does not exist, or is not accessible by the user.

User Response: Either create the directory with the proper access permissions, or change the directory specified in the job command file, then resubmit the job.

2512-121 Syntax error: *keyword = keyword_value* invalid keyword value or it cannot be evaluated.

Explanation: The value of the keyword contains a macro (user-defined variable) that either cannot be evaluated, or is not a valid date.

User Response: Correct the job command file, then resubmit the job.

2512-122 Unable to get passwd entry for uid *user_uid*

Explanation: The system call **getpwuid** failed for the specified **uid**.

User Response: Verify that the user has read access to the **/etc/passwd** file, and that the user has an entry in **/etc/passwd**.

2512-123 The command was unable to set the built in macros.

Explanation: LoadLeveler failed to process a macro. This message is preceded by a message describing the cause of the failure.

User Response: Correct the problem indicated by the preceding message.

2512-124 Duplicate step names *step_names* are not allowed.

Explanation: All step names in the job command file must be unique.

User Response: Correct the job command file, then resubmit the job.

2512-125 Unable to convert *keyword = keyword_value* to a valid date/time format.

Explanation: The value of the specified keyword is not a valid date/time.

User Response: Correct the date/time value in the job command file, then resubmit the job.

2512-126 Syntax error: The keyword *keyword* is required in the job command file.

Explanation: This job type requires that the specified keyword appear in the job command file.

User Response: Correct the job command file, then resubmit the job.

2512-127 Unable to calculate the image size. The *keyword* keyword is in error.

Explanation: The job's image size was not stated explicitly using the executable keyword in the job command file. LoadLeveler must be able to calculate the job's image size.

User Response: Consult the preceding message for more information on the error in the executable keyword. Correct the job command file, then resubmit the job.

2512-128 Unable to obtain the request name to build the standard output filename.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2512-129 The NQS keywords *keyword1* and *keyword2* are in conflict.

Explanation: Two of the NQS keywords are in conflict with each other.

User Response: Correct the job command file, then resubmit the job.

2512-130 **The *keyword* is required in the configuration file.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2512-132 **The *step_name step_name* in the requirements statement is not being referenced in the dependency statement.**

Explanation: A requirements statement refers to a machine on which another step will run. To evaluate the requirements statement, the referenced step must run prior to the referencing step. A dependency statement within the referencing step is necessary to insure that the steps are run in the proper order.

User Response: Add a dependency statement to the referencing step, then resubmit the job.

2512-133 **The *machine.stepname* cannot be specified for parallel type job step.**

Explanation: The *machine.stepname* cannot be specified in the requirements statements for a parallel type job step.

User Response: Correct the job command file, then resubmit the job.

2512-134 **The *keyword_value network_type* or *adapter_name* are not defined in an adapter stanza.**

Explanation: A **network** keyword or **Adapter** requirement referenced a **network_type** or **adapter_name** that was not found in the administration file.

User Response: Either change the **network_type/adapter_name** in the job command file, or have the LoadLeveler administrator define the **network_type/adapter_name** in the administration file.

2512-135 **For the *keyword keyword*, maximum number of nodes requested is greater than allowed for this *stanza_name* .**

Explanation: The requested maximum number of nodes exceeds the maximum allowed by the specified administration stanza.

User Response: Either reduce the maximum number of nodes in the job command file, or have the LoadLeveler administrator increase the number allowed.

2512-136 **For the *stanza_name keyword*, the total number of tasks requested is greater than allowed for this *keyword* .**

Explanation: The requested total number of tasks exceeds the maximum allowed by the specified administration stanza.

User Response: Either reduce the total number of tasks in the job command file, or have the LoadLeveler administrator increase the number allowed.

2512-137 **The number of *request_nodes* requested nodes exceeds the number of *requested_tasks* requested tasks.**

Explanation: The requested number of nodes is greater than the requested total tasks.

User Response: Correct the job command file, then resubmit the job.

2512-138 **Syntax error: the *keyword1* and *keyword2* keywords are not allowed in the same step.**

Explanation: Both of these keywords are not allowed in the same job step.

User Response: Correct the job command file, then resubmit the job.

2512-139 The *keyword* keyword is not valid for `job_type = pvm3` job steps.

Explanation: The specified keyword is not allowed in a pvm3 job.

User Response: Correct the job command file, then resubmit the job.

2512-140 The *keyword* keyword is only valid for `job_type = pvm3` job steps.

Explanation: This keyword is only valid when the job type is pvm3.

User Response: Correct the job command file, then resubmit the job.

2512-141 Syntax error: Multiple "*keyword value*" keywords are not allowed in a "*keyword type*" statement.

Explanation: Only one of the specified keywords is allowed in the specified keyword statement.

User Response: Correct the job command file, then resubmit the job.

2512-142 Syntax error: Invalid Adapter operation in a *keyword type* statement.

Explanation: Only the equality operator "==" can be used with **Adapter** in the specified statement.

User Response: Correct the job command file, then resubmit the job.

2512-143 Syntax error: Invalid adapter name in a *keyword type* statement.

Explanation: The name specified in the **Adapter** requirement is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-144 The *keyword* keyword is not valid when the node keyword contains minimum and maximum values which are not equal to each other.

Explanation: This keyword is not valid when the minimum and maximum values specified on the node keyword are not equal to each other.

User Response: Correct the job command file, then resubmit the job.

2512-145 The *keyword* keyword is not compatible with `min_processors` and/or `max_processors`.

Explanation: The keywords (`min_processor` and/or `max_processor`) can not be used within the same job step that specifies the **node** keyword.

User Response: Correct the job command file, then resubmit the job.

2512-146 The *keyword* keyword is not valid for `job_type = serial` job steps.

Explanation: The specified keyword is not valid in a serial job.

User Response: Correct the job command file, then resubmit the job.

2512-147 Job command file, *file*, cannot be a directory.

Explanation: This message is self-explanatory.

User Response: Specify a file which is not in the same directory as the job command file.

2512-148 Syntax error: environment param *parameter*.

Explanation: The specified parameter in the environment statement is not valid.

User Response: Refer to LoadLeveler's *Using and Administering Guide* for information about environment statement parameters.

2512-149 Cannot create environment string.

Explanation: LoadLeveler is unable to duplicate the environment string.

User Response: This is a system error; contact IBM service.

2512-150 Not enough available filesystem space for *file name*. Transfer from *host* aborted.

Explanation: There was insufficient system space or insufficient access rights to write transferred data sent from the specified host.

User Response: Try one of the following: 1) Check that the specified directory exists, 2) check that the specified directory is accessible to the user executing the command, 3) check that the file system contains sufficient disk space to create the file. Rerun the command. If this was not successful, 4) try to reissue the **llacctmrg** command, but specify a different history file name in a different file system; or use the **statvfs** man page to check for other possible problems. If the problem persists, contact the LoadLeveler administrator.

2512-151 Error receiving history file from *host*.

Explanation: An error occurred during the file transfer.

User Response: Check the communication paths to that host. Retry the command, and if the problem persists, then contact the LoadLeveler administrator.

2512-152 GLOBAL_HISTORY is not specified in config file.

Explanation: The **GLOBAL_HISTORY** directory is not specified in the LoadLeveler configuration file, and no directory was specified as a command line parameter to **llacctmrg**.

User Response: Add the directory for the global history file to the **GLOBAL_HISTORY** entry of the LoadLeveler configuration file, or specify the directory as a command parameter to **llacctmrg** .

2512-176 Internal errors detected. Exiting.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2512-177 Unable to obtain machine status information from the central manager.

Explanation: The specified command is unable to obtain information from the central manager about machines in the LoadLeveler cluster.

User Response: Verify that the central manager host is up, and that the **LoadL_negotiator** is running on it.

2512-178 No class information is available in the LoadLeveler administration file.

Explanation: LoadLeveler cannot find class information in the administration file.

User Response: Verify that LoadLeveler is running, and that it is configured correctly.

2512-181 No machinelist specified for purge. Command was not sent.

Explanation: No machine names were passed to the **purge** command.

User Response: Reissue the command with the names of the **LoadL_schedd** hosts you wish to purge.

2512-182 The keyword *keyword* is not valid.

Explanation: A keyword for the **llctl** command was specified that is not valid.

User Response: Refer to the LoadLeveler *Using and Administering Guide* for a list of valid keywords.

2512-183 **Error occurred sending *command_name* command to *hostname* .**

Explanation: An error occurred while sending the specified command to the specified host.

User Response: Verify that the intended host is available over the network, and that LoadLeveler is running. If necessary, contact a LoadLeveler administrator.

2512-184 **Unknown class *class_name* specified in classlist.**

Explanation: A class name was specified with either the **drain**, or the **resume** keyword, that does not exist within the LoadLeveler configuration.

User Response: Reissue the command with a valid class name.

2512-185 **No event name specified for capture. Command was not sent.**

Explanation: No event name was passed to the **capture** command.

User Response: Reissue the command with the name to be used to capture the event.

2512-187 **Cannot evaluate StartdAvail state.**

Explanation: LoadLeveler cannot determine if a **LoadL_startd** is in the **drain** state.

User Response: Verify that the command passes a valid host list.

2512-188 **Error allocating machine object for *machine name*.**

Explanation: LoadLeveler cannot allocate an object corresponding to the specified machine.

User Response: Verify that the command passes a nameserver-resolvable host name.

2512-189 **No schedd host was specified.**

Explanation: No schedd host name was specified when using the **purgeschedd** option of the **llctl** command.

User Response: Retry the command, but be sure to specify a schedd host name.

2512-190 **DCE is enabled for this LoadLeveler cluster. However, *command_name* is unable to determine your DCE identity. Your DCE credentials may have expired."**

Explanation: LoadLeveler cannot determine the DCE identity of the user.

User Response: Verify that the DCE credentials of the user has not expired.

2512-191 **DCE is enabled for this LoadLeveler cluster. The DCE_ADMIN_GROUP keyword of the configuration file must be assigned a value."**

Explanation: The **DCE_ADMIN_GROUP** keyword is not defined.

User Response: Use the **DCE_ADMIN_GROUP** keyword to specify the name of your LoadLeveler DCE administrative group.

2512-192 **DCE is enabled for this LoadLeveler cluster. The DCE_SERVICES_GROUP keyword of the configuration file must be assigned a value."**

Explanation: The **DCE_SERVICES_GROUP** keyword is not defined.

User Response: Use the **DCE_SERVICES_GROUP** keyword to specify the name of your LoadLeveler DCE services group.

2512-193 **DCE is enabled for this LoadLeveler cluster. Only members of the DCE group *group_name* are permitted to issue this command.**

Explanation: Permissions are restricted for this command.

User Response: Login as a member of the DCE LoadLeveler administrative group then reissue the command.

2512-194 **The requested operation did not complete since the remaining lifetimes of your DCE credentials are less than 5 minutes.**

Explanation: Your DCE credentials expired before the operation could complete.

User Response: `dce_login` again to get new credentials then reissue the command.

2512-195 **Unable to determine the existence of the DCE group *group_name* associated with the *keyword* keyword.**

Explanation: LoadLeveler is unable to find the DCE group name specified.

User Response: Assign a valid DCE group name to the appropriate LoadLeveler keyword then reissue the command.

2512-196 **The 64-bit interface of *API name* is not available when DCE is enabled.**

Explanation: This LoadLeveler API can not be invoked from a 64-bit application when DCE is enabled.

User Response: Compile and link the application as a 32-bit application if necessary.

2512-199 ***illegal option* is an unrecognized option.**

Explanation: An unrecognized option was specified.

User Response: Reissue the command, specifying only valid options.

2512-200 **Errors encountered, processing halted.**

Explanation: LoadLeveler encountered errors while processing the command line.

User Response: Correct the reported errors, then reissue the command.

2512-201 **Unable to open the files *file1*, *file2*.**

Explanation: `lldbconvert` is either not being run in the local spool directory, or the user running the program has insufficient permissions to write in the local spool directory. LoadLeveler cannot open the specified files.

User Response: Verify that the paths are correct, and that the files have the appropriate permissions.

2512-202 **Unable to convert job *job number*, *job name*. Previous messages may indicate cause.**

Explanation: LoadLeveler is unable to convert the specified job step from its old format to the new format.

User Response: Make a note of the job number. Earlier messages may indicate the reason for the failure.

2512-203 **Unable to store job *job number*, *job name* in *queue file names* files.**

Explanation: LoadLeveler is unable to store job number.

User Response: Verify that there is disk space available in the local spool directory's file system, and that the associated permissions are appropriate.

2512-204 **Cannot rename file name *file1* to *file2*.Error (*error number*) was: *error message*.**

Explanation: Cannot rename the file from string1 to string2.

User Response: Use the information in the error explanation to correct the problem.

2512-205 **The job_queue files to be converted are in *old LoadLeveler version* format, not in 1.3 format.**

Explanation: Spool files are not in the expected original format or in the desired format.

User Response: **lldbconvert** cannot be used. Delete or rename all spool files before bringing up the new version of LoadLeveler.

2512-206 ***function failed for job = *job_num* , step = *job_step_num*.***

Explanation: LoadLeveler failed to fetch the specified job step at the XDR level. **lldbconvert** will discard an entire job if it fails to convert one of its job steps.

User Response: Make a note of the job number. If the problem persists, then contact IBM service.

2512-207 **Incorrect PROC version number (*version_num*). Converting to NULL PROC.**

Explanation: **lldbconvert** is unable to ascertain the version of a job step, and will try to continue processing other job steps.

User Response: Keep track of the job and job step numbers. If **lldbconvert** succeeds, then issue **llq** (after you have started the new version of LoadLeveler) to see what data was lost. Also, pay attention to additional error messages issued by **lldbconvert**. If the problem persists, then contact IBM service.

2512-220 **Favorjob command has not been sent to the central manager.**

Explanation: The **favorjob** command was not sent to the central manager.

User Response: Verify that the central manager host is up, and that the **LoadL_negotiator** is running on it.

2512-225 **Favoruser command has not been sent to the central manager.**

Explanation: The **favoruser** command was not sent to the central manager.

User Response: Verify that the central manager host is up, and that the **LoadL_negotiator** is running on it.

2512-229 **Only a LoadLeveler administrator is permitted to use the -s option of this command.**

Explanation: A non-administrator is attempting to specify the **-s** option of this command.

User Response: Do not use the **-s** option unless you are a LoadLeveler administrator.

2512-230 **Can not find password entry for user *uid number*.**

Explanation: A matching entry for the **uid** number does not exist in the **/etc/password** file.

User Response: Check the entries in the **/etc/passwd** file.

2512-231 **Hold command has not been sent to the central manager.**

Explanation: The **hold** command was not sent to the central manager.

User Response: Verify that the central manager host is up, and that the **LoadL_negotiator** is running on it.

2512-232 The format of character string specified (= *LoadLeveler job or job step name*) is not valid for a LoadLeveler job or job step.

Explanation: A string having the format: *[hostname.]job_id[.step_id]* is expected.

User Response: Specify a string of the expected format.

2512-238 Length of "environment" string must be less than 8191 bytes.

Explanation: This message is self-explanatory

User Response: Verify that the environment string contains less than 8191 bytes.

2512-239 Syntax error: When *JCL keyword* is specified, the *JCL keyword* must also be specified.

Explanation: Both of the specified keywords are required to appear within the same job step.

User Response: Correct the job command file, then resubmit the job.

2512-240 Syntax error: "*JCL keyword = value*" keyword value must be greater than or equal to the value specified for Blocking.

Explanation: The specified keyword value must be greater than or equal to the value set for Blocking.

User Response: Correct the job command file, then resubmit the job.

2512-241 A "communication level" can only be specified with a communication subsystem mode of US.

Explanation: A communication level was specified in a **network** statement which did not also specify user space. Communication level is only valid on **network** statements which specify user space communication.

User Response: Either remove the communication level specification, or change the mode to user space in the job command file, then resubmit the job.

2512-242 A "communication level" cannot be specified for a communication protocol of PVM.

Explanation: A communication level was specified in a network statement for a PVM job. Communication levels are not supported for PVM jobs.

User Response: Remove the communication level specification from the job command file's PVM **network** statement, then resubmit the job.

2512-243 Priority command has not been sent to the central manager.

Explanation: The **priority** command was not sent to the central manager.

User Response: Verify that the central manager host is up, and that the **LoadL_negotiator** is running on it.

2512-244 Blank space is not allowed between + or - sign and priority adjustment specification.

Explanation: There should be no blank space between the +/- sign and the integer specified in a priority adjustment.

User Response: Remove the blank space. For example: specify **+30**, not **+ 30**.

2512-250 No hostlist was specified. A hostlist is required with the -h option.

Explanation: The **llq -h** command was issued without a hostlist.

User Response: Reissue the command with a hostlist.

2512-251 **No userlist was specified. A userlist is required with the -u option.**

Explanation: The **llq -u** command was issued without a userlist.

User Response: Reissue the command with a userlist.

2512-253 **The -u option and the -s option are incompatible.**

Explanation: The **llq** command was issued with conflicting options.

User Response: Reissue the **llq** command using either the **-s**, or the **-u** option (not both).

2512-255 **A job list must be specified if the -s option is used.**

Explanation: The **llq -s** command was issued with no job ids.

User Response: Specify one or more job ids with the **llq -s** command.

2512-261 **The -u option can not be used when a job list has already been specified.**

Explanation: The **-u** option of the **llq** command cannot be used when a job list has already been specified.

User Response: Do not use the **-u** option when a job list has been specified.

2512-262 **Encountered one or more errors while processing the list of host names.**

Explanation: The **llq** command encountered errors while processing the arguments of the **-h** option.

User Response: Verify that the host names associated with the **-h** option are valid.

2512-263 **Encountered one or more errors while processing the list of user names.**

Explanation: The **llq** command encountered errors while processing the arguments of the **-u** option.

User Response: Verify that the user names associated with the **-u** option are valid.

2512-264 **The -c option and the -s option are incompatible.**

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command using either the **-s** or the **-c** option, but not both.

2512-265 **No class list was specified. A class list is required with the -c option.**

Explanation: The **llq -c** command was issued without a class list.

User Response: Reissue the command with a class list.

2512-266 **Encountered one or more errors while processing the list of class names.**

Explanation: The **llq** command encountered errors while processing the arguments of the **-c** option.

User Response: Verify that the class names associated with the **-c** option are valid.

2512-267 **The -x option is not compatible with the -s, -r, or -f options.**

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command using only valid combinations of options.

2512-268 **The -s option is not compatible with the -u, -x, -r, -f, or -c options.**

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command using only valid combinations of options.

2512-269 **The -l option is not compatible with the -r, or -f options.**

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command using only valid combinations of options.

2512-270 **The -r option is not compatible with the -l, -s, -x, or -f, options.**

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command using only valid combinations of options.

2512-271 **An error was detected while processing the parameters of the -r or -f option.**

Explanation: A parameter of the **-r** or **-f** option is not valid.

User Response: Use the **llq -H** command to obtain a complete list of valid parameters of the **-r** or **-f** option.

2512-272 **The -f option is not compatible with the -l, -s, -x, or -r options.**

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command using only valid combinations of options.

2512-273 **A job list can be specified only once.**

Explanation: More than one job list has been specified.

User Response: Reissue the **llq** command with only one list of job IDs.

2512-274 **A job list can not be specified when a user list has also been specified.**

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command using only valid combinations of options.

2512-275 **An error was detected while processing the list of job names.**

Explanation: A job name or job step has been specified which is not valid.

User Response: Reissue the **llq** command using valid job names or job step names.

2512-276 **A long listing of *schedd machine namejob_idstep_id* is not available since you are not a LoadLeveler administrator or the owner of the job**

Explanation: Only a LoadLeveler administrator, or the owner of a job, can request a long listing.

User Response: Do not use the **-l** or **-x** option of the **llq** command unless you are the owner of the job, or you are a LoadLeveler administrator.

2512-277 **The -h option is compatible with a job list only when the -s option is also specified.**

Explanation: The **-h** option of the **llq** command cannot be used with a job list unless the **-s** option is also specified.

User Response: Do not use the **-h** option when a job list has been specified, unless the **-s** option is also specified.

2512-278 A step id must be specified when the -w and -h options are specified.

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command with only valid combinations of options.

2512-279 The -w option only supports a single hostname.

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command with only valid combinations of options.

2512-280 The combination of -w and -h only supports a single step id.

Explanation: Conflicting options were specified for the **llq** command.

User Response: Reissue the **llq** command with only valid combinations of options.

2512-281 This operation did not terminate normally since a severe error had been detected.

Explanation: The program has terminated due to a severe condition.

User Response: Check the LoadLeveler configuration and administration files.

2512-282 A userlist, hostlist or joblist must be specified.

Explanation: The **llcancel** command is missing data.

User Response: Specify a userlist, hostlist, or joblist with the **llcancel** command.

2512-283 Cancel command has not been sent to the central manager.

Explanation: LoadLeveler encountered an error while sending data to the central manager.

User Response: Verify that the central manager host is up, and that the LoadL_negotiator daemon is running on it. Retry the command; if the problem persists, then contact the LoadLeveler administrator.

2512-293 A duplicate category associated with -f or -r option has been specified.

Explanation: A sub-option of the **-f** or **-r** option was specified more than once.

User Response: Each distinct sub-option should not be specified more than once. Use the **-H** option to get a list of valid sub-options.

2512-294 The central manager is not defined in the LoadLeveler administration file.

Explanation: LoadLeveler is unable to obtain information about the central manager machine.

User Response: Verify that a central manager is defined in the LoadLeveler administration file.

2512-295 The -l, -r, -f options of this command are mutually exclusive.

Explanation: Do not specify the **-l**, **-r**, or **-f** options together in any combination.

User Response: Specify **-l**, or **-r**, or **-f**, but not any combination of these options.

2512-296 An invalid category associated with -f or -r option has been specified.

Explanation: You have specified a non-valid sub-option of the **-f** or **-r** option.

User Response: Specify only valid sub-options. Use the **-H** option to get a list of valid sub-options.

2512-297 **The arguments of this command contain characters not in the ASCII character set. Exiting.**

Explanation: The arguments of this command contain characters non-ASCII characters.

User Response: Specify arguments in valid ASCII characters.

2512-298 **The -l, -r, -f, -R, -F options of this command are mutually exclusive.**

Explanation: Do not specify any of the following options together: -l, -r, -f, -R, or -F.

User Response: Specify any of the following options alone: -l, -r, -f, -R, -F, but not in any combination.

2512-299 **If -F option is specified then a host list can not be specified.**

Explanation: The -F option is not compatible with a host list.

User Response: Do not specify a host list if -F option has been specified.

2512-300 **Program encountered an error while processing data received from the central manager.**

Explanation: Invalid data is returned by the central manager.

User Response: Check to see if the central manager is up and running.

2512-301 **An error occurred while receiving data from the daemon on host *hostname*.**

Explanation: Invalid data is returned or a time-out occurred.

User Response: Use the CLIENT_TIMEOUT keyword to increase the time-out interval from the default value of 30 seconds.

2512-311 *parameter* **is not a valid option for the -r flag. Valid options are: all, resource, throughput, avgthroughput, minthroughput, maxthroughput, numeric.**

Explanation: The specified argument is not valid for the -r flag.

User Response: Refer to the displayed list of valid arguments.

2512-312 **Missing date for -s or -e flag.**

Explanation: One or more dates have been omitted for the -s and -e flags.

User Response: Enter a date for each flag.

2512-313 **The date range specified is not valid.**

Explanation: The Start date is later than the End date.

User Response: Enter a valid date range.

2512-318 *parameter* **is not a valid option for the -d flag.**

Explanation: The specified parameter is not a valid argument for the -d flag.

User Response: Refer to the displayed list of valid arguments.

2512-326 **Syntax error found in the task_geometry expression. Task ID(s) have to be specified.**

Explanation: There are no task IDs specified for a node in the **task_geometry** statement. Task IDs must be unsigned integers, specified within a single set of parentheses. Additional task IDs should be included within the same parentheses, but must be separated from each other by commas.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-327 Syntax error found in the task_geometry expression. The expression must start with a "{".

Explanation: The **task_geometry** statement must start with a "{" (open brace), and end with a "}" (closed brace).

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-328 Syntax error found in the task_geometry expression. The expression must end with a "}."

Explanation: The **task_geometry** statement must start with a "{" (open brace), and end with a "}" (closed brace).

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-329 Syntax error found in the task_geometry expression. Extra characters are found after "}."

Explanation: The entire **task_geometry** statement must be enclosed within the "{" (open brace), and the "}" (closed brace).

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-330 Syntax error found in the task_geometry expression. Left parenthesis cannot be nested.

Explanation: The list of task ID(s) assigned to a node in a **task_geometry** statement must begin with a single open parenthesis. Nested parentheses are not allowed.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-331 Syntax error found in the task_geometry expression. Expected "(", but another character is encountered.

Explanation: The list of task ID(s) assigned to a node must begin with the open parenthesis; the current list of task ID(s) begins with another character.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-332 Syntax error found in the task_geometry expression. "(" is encountered without a corresponding ")"

Explanation: All of the task ID(s) for a node in a **task_geometry** statement must be enclosed between parentheses.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-333 Syntax error found in the task_geometry expression. Task ID(s) have to be specified within parentheses.

Explanation: Task ID(s) must be specified within a set of parentheses; additional task ID(s) for a node must be included within the same parentheses and must be separated from each other by commas.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-334 Syntax error found in the task_geometry expression. The specification of task ID(s) within the parentheses is not valid.

Explanation: Task ID(s) must be unsigned integers, and must be specified within a set of parentheses; additional task ID(s) for a node must be included within the same parentheses and must be separated from each other by commas.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-335 Syntax error found in the task_geometry expression. A task ID has to be an unsigned integer.

Explanation: Task ID(s) must be unsigned integers, and must be specified within a set of parentheses; additional task ID(s) for a node must be included within the same parentheses and must be separated from each other by commas.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-336 **Syntax error found in the task_geometry expression. A task ID has to be an integer from 0 to n-1, where n is the total number of tasks for the parallel job.**

Explanation: Task ID(s) must comprise a complete range of consecutive unsigned integers. The range must start with zero, and end with a value that is one less than the total number of tasks in the parallel job.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-337 **Syntax error found in the task_geometry expression. Duplicate task IDs are specified.**

Explanation: No Task ID(s) may be specified more than once in the **task_geometry** statement.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-338 **Syntax error found in the task_geometry expression. A non-blank character is found between ")" and "}".**

Explanation: No Task ID(s) may be specified more than once in the **task_geometry** statement.

User Response: Correct the syntax error in the **task_geometry** statement, then resubmit the job.

2512-339 **Syntax error: the JCL keyword keyword is not allowed in a step which specifies a class with the master node requirement.**

Explanation: The class which was specified for the step is configured with master_node_requirement set to true. The specified keyword cannot be used in a step that requires the master node feature.

User Response: Either modify the job command file to remove the specified keyword or to change the class specification, or modify the LoadLeveler administration file by setting the master_node_requirement keyword to false in the class stanza.

2512-340 **There is a consumable resource without a value: value.**

Explanation: This message is self-explanatory.

User Response: Verify the syntax of the job command file, configuration file, or administration file.

2512-341 **There is a consumable resource with a wrong value: value.**

Explanation: This message is self-explanatory.

User Response: Verify the syntax of the job command file, configuration file, or administration file.

2512-342 **There is a consumable resource without units: unit.**

Explanation: This message is self-explanatory.

User Response: Verify the syntax of the job command file, configuration file, or administration file.

2512-343 **There is a floating resource with a wrong value: value.**

Explanation: This message is self-explanatory.

User Response: Verify the syntax of the job command file, configuration file, or administration file.

2512-344 **Syntax error: the JCL keyword keyword is not allowed in the command file for an interactive session.**

Explanation: The job command file can not have the specified keyword when the session is interactive.

User Response: Either, remove the specified keyword from the job command file, or submit the job with a different session type.

2512-345 **Syntax error: the *JCL keyword* keyword is not allowed in the command file for an interactive session with host list.**

Explanation: The job command file cannot contain the specified keyword with a host list, and when the session is interactive.

User Response: Either, remove the specified keyword from the job command file, or submit the job with a different session type.

2512-346 **Syntax error: the *keyword* keyword cannot be specified more than once.**

Explanation: This message is self-explanatory.

User Response: Remove the additional keyword from the job command file.

2512-347 **Syntax error: the keyword *keyword* can not have a value *value* for an interactive session.**

Explanation: The job command file cannot contain the specified keyword with a host list, and when the session is interactive.

User Response: Change the value of the specified keyword in the job command file.

2512-348 **The *keyword* keyword is ignored in the command file for an interactive session.**

Explanation: The job command file cannot contain the specified keyword when the session is interactive.

User Response: Change the value of the specified keyword in the job command file.

2512-349 **Syntax error: the *keyword* keyword cannot contain a value other than *value* for an interactive session.**

Explanation: The job command file cannot contain the specified keyword with a host list, and when the session is interactive.

User Response: Change the value of the specified keyword in the job command file.

2512-350 **Syntax error: the *resource name* consumable resource can not have a value lesser than the value of "image_size".**

Explanation: The value for ConsumableVirtualMemory cannot be less than the value specified for the step's image_size.

User Response: Change the value of the specified keyword in the job command file.

2512-351 **Attention: The consumable resource *resource name* is not listed in SCHEDULE_BY_RESOURCES.**

Explanation: This warning is generated when a resource has been requested that does not appear in the SCHEDULE_BY_RESOURCES list.

User Response: Change the value of the specified keyword in either the job command file, or the LoadLeveler configuration file.

2512-352 **Syntax error: *keyword = keyword value* keyword value must be greater than zero.**

Explanation: The value given for the specified keyword is not a positive number. This keyword requires a numeric value greater than zero.

User Response: Correct the job command file, then resubmit the job.

2512-353 **css1 adapter cannot be used to run User Space jobs.**

Explanation: User Space jobs cannot be run on the **css1** adapter alone (css limitation).

User Response: Request the **css0** or **csss** adapter for a User Space job or specify IP Mode for **css1**.

2512-354 **The ENFORCE_RESOURCE_SUBMISSION keyword is true, ENFORCE_RESOURCE_USAGE is required in the job's resources keyword.**

Explanation: The admin has defined the **ENFORCE_RESOURCE_SUBMISSION** keyword to be **True**. All jobs must have the **ENFORCE_RESOURCE_USAGE** resources specified.

User Response: Resubmit the job with the correct resources requested in the **resources** keyword.

2512-355 **The string *string* associated with the resources keyword contains invalid consumable resources information.**

User Response: Resubmit the job with the correct resources specifications.

2512-356 **The specification *data_string* for keyword keyword contains invalid data.**

Explanation: The data string assigned to this keyword contains one or more errors.

User Response: Specify a correct value for this keyword and either resubmit the job or reconfigure LoadLeveler.

2512-357 **The value assigned to *keyword* must be greater than zero.**

Explanation: This keyword accepts only a positive number.

User Response: Specify a correct value for this keyword and either resubmit the job or reconfigure LoadLeveler.

2512-358 **Syntax error found in the task_geometry expression. The value of a task ID can not be outside the range of int32_t.**

Explanation: The task geometry expression contains a task ID having a value outside the (INT32_MIN,INT32_MAX) range.

User Response: Resubmit the job with the correct specification for the **task_geometry** expression.

2512-359 **The character string *string* can not be assigned to the *keyword* keyword."**

Explanation: The user specification in *string* is not appropriate for this keyword.

User Response: Specify a correct value for this keyword and either resubmit the job or reconfigure LoadLeveler.

2512-360 **The string *string_value* associated with the *keyword* keyword is not a valid time specification.**

Explanation: The user specification in *string2* is not appropriate for this keyword.

User Response: Specify a correct value for this keyword and either resubmit the job or reconfigure LoadLeveler.

2512-361 **The value assigned to the *keyword* keyword can not be converted to an integer.**

Explanation: The user specification for this keyword is not a numeric string and hence can not be converted to an integer.

User Response: Specify a correct value for this keyword and either resubmit the job or reconfigure LoadLeveler.

2512-362 **The value *value* assigned to the *keyword* keyword can not be converted to an integer.**

Explanation: The user specification in *value* is not a numeric string and hence can not be converted to an integer.

User Response: Specify a correct value for this keyword and either resubmit the job or reconfigure LoadLeveler.

2512-363 **The stat64 function is unable to determine the status of the file *filename*.**

Explanation: The stat64 system call failed for the specified file.

User Response: Verify that the file exists, and that it has the appropriate permissions.

2512-364 **The size of the file *filename* associated with the *executable* keyword can not exceed *number* bytes.**

Explanation: The size of the file associated with the LoadLeveler executable keyword can not be greater than the indicated number of bytes.

User Response: If the size of the executable is greater than INT32_MAX (2147483647 bytes), create a shell script that invokes this executable and submit the script to LoadLeveler.

2512-377 **The SDR Class *classname* class does not contain any SDR objects.**

Explanation: The specified command was unable to extract any objects from the SDR class.

User Response: Contact the system administrator to start problem determination procedures for the SDR.

2512-378 **The SDR system partition does not contain any machine definitions.**

Explanation: The specified command was unable to find SDR Node class entries for the machines in the system partition definition in the System Data Repository.

User Response: Contact the system administrator to start problem determination procedures for the SDR.

2512-379 **The SDR function *function_name* failed with a return code of *return_code*.**

Explanation: The specified command issued a function to extract data from the SDR and the SDR function failed with the specified return code.

User Response: Contact the system administrator to start problem determination procedures for the SDR.

2512-380 **The SDR attribute *attribute* was not found in the SDR class *classname* object.**

Explanation: The specified command could not find the attribute in the SDR class object.

User Response: Contact the system administrator to start problem determination procedures for the SDR.

2512-381 **An SP_NAME of *SP_NAME* was found. Verify that this is a valid partition.**

Explanation: The specified command could not find the partition.

User Response: Contact the system administrator to start problem determination procedures for the SDR.

2512-403 **Unable to "cd" into directory *directory*.**

Explanation: This message is self-explanatory.

User Response: Review access permissions and other possible reasons for being unable to cd into a directory.

2512-404 **You must be user *username* to execute this script.**

Explanation: This message is self-explanatory.

User Response: Verify that you are logged in as the expected user, then retry the script.

2512-405 **Missing parameter for *parameter*; try "-help".**

Explanation: This message is self-explanatory.

User Response: Issue `llinit -help` to for information on specifying parameters.

2512-406 **Unable to set permission** *permission on target file.*

Explanation: This message is self-explanatory.

User Response: Verify that you have the authorization to set the desired permissions.

2512-407 **Unable to create directory** *target directory.*

Explanation: This message is self-explanatory.

User Response: Verify that you have the authorization to create the desired directory.

2512-408 **Unable to create symbolic link** *target symbolic link.*

Explanation: This message is self-explanatory.

User Response: Verify that you have the authorization to create the desired symbolic link.

2512-409 **Unable to create file** *target file.*

Explanation: This message is self-explanatory.

User Response: Verify that the user has authorization to create the desired file.

2512-410 **Error occurred while trying to edit file** *target file, rc=return from ed command.*

Explanation: This message is self-explanatory.

User Response: Make the corrections indicated by the return code.

2512-411 **Unknown parameter=parameter; try "llinit -H".**

Explanation: This message is self-explanatory.

User Response: Issue llinit -H for information on specifying parameters.

2512-424 **A list of job names or step names must be specified when the -s option is specified.**

Explanation: When **-s** option is specified, a list of job names or step names must also be specified.

User Response: Reissue the **llq -s** command with a valid list of job names or step names.

2512-425 **Machine *machine_name* specified in the host list is not known to the Central Manager. Ignored.**

Explanation: The machine specified is not known to the Central Manager.

User Response: Check the LoadLeveler administration file. Reissue the **llq** command with a valid host name.

2512-426 **None of the machines in the specified host list is known to the Central Manager.**

Explanation: The machines in the host list are not known to the Central Manager.

User Response: Check the LoadLeveler administration file. Reissue the **llq -h** command with a valid list of host names.

2512-427 **Step *step_id* has been canceled because it was rejected *num* time(s).**

Explanation: The number of times that the specified step was rejected exceeds the value specified for MAX_JOB_REJECT in the configuration file, so the step was canceled.

User Response: Check for mail describing this problem, unless **NOTIFICATION** is set to NONE in the job command file. Also, verify that the job's requirements can be met on the machine that rejected it, and that the user's uid is valid.

2512-428 **Step *step_id* has been put on user hold because it has been rejected *num* time(s).**

Explanation: The number of times that the specified step was rejected exceeds the maximum allowed in the job command file, so the step was put on user hold.

User Response: Check for mail describing this problem (unless the NOTIFICATION keyword is set to NONE in the job command file). Also, verify that the job's requirements can be met on the machine that rejected it, and that the user's uid is valid.

2512-429 **Problem with history file.**

Explanation: The schedd has failed to write to its local history file.

User Response: Retry the command. If the problem persists, then contact the LoadLeveler administrator.

2512-430 **Error appending job *job_name* to the history file, errno = *UNIX_error_num*.**

Explanation: This is a history file problem.

User Response: Consult the specified error number for more information.

2512-431 **Accounting has been disabled on machine: *machine_name*.**

Explanation: This is a history file problem.

User Response: Use the error number from message 2512-430 to correct the history file problem.

2512-432 **Re-enable with: *llctl -h hostname reconfig* or *llctl -h hostname recycle*.**

Explanation: This is a history file problem.

User Response: If you are a LoadLeveler administrator, then run ***llctl -h reconfig*** or ***llctl -h recycle***, then retry the command; if you are not, then contact the LoadLeveler administrator.

2512-433 ***step_id* has been put on system hold because it has been rejected *num* time(s).**

Explanation: The specified step was put on system hold.

User Response: Verify that the job's requirements can be met on at least one machine in the LoadLeveler cluster, and that the user's uid is valid on sufficient machines in the LoadLeveler cluster, then resubmit the job. If the problem persists, then contact the LoadLeveler administrator.

2512-440 **Unable to malloc *num* bytes for list.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2512-441 **Specified step name *step_name* is not a valid name for a LoadLeveler job.**

Explanation: The error message is self-explanatory

User Response: Reissue the command specifying a correct LoadLeveler step name.

2512-442 ***statvfs(filename,address)* failed. Errno = *error_num*.**

Explanation: The ***statvfs*** system call failed.

User Response: Correct the problem indicated by the error number.

2512-443 **statfs(filename,address) failed. Errno = error_num .**

Explanation: The **statfs** function call failed.

User Response: Correct the problem indicated by the error number.

2512-445 **Syntax error: Blank required after end quote for keyword keyword .**

Explanation: The specified keyword requires a blank after the end quote.

User Response: Correct the job command file, then resubmit the job.

2512-446 **Syntax error: Quotes mismatched for keyword keyword .**

Explanation: The quotes are mismatched for the specified keyword.

User Response: Correct the job command file, then resubmit the job.

2512-448 **Syntax error: The keyword_LIMIT unit type of keyword_units is not valid.**

Explanation: The type of units in the specified keyword value is not valid

User Response: Correct the job command file, then resubmit the job.

2512-449 **Syntax error: The keyword_LIMIT = keyword_value integer value has too many digits. Maximum allowed is digits.**

Explanation: The specified keyword integer value has too many digits.

User Response: Correct the job command file, then resubmit the job.

2512-450 **Syntax error: The keyword_LIMIT = keyword_value fraction value has too many digits. Maximum allowed is digits.**

Explanation: The specified keyword fractional value has too many digits.

User Response: Correct the job command file, then resubmit the job.

2512-451 **Syntax error: The keyword_LIMIT = keyword_value value must be numeric.**

Explanation: The specified keyword value must be numeric.

User Response: Correct the job command file, then resubmit the job.

2512-452 **Syntax error: The keyword_LIMIT = keyword_value cannot contain a value of zero.**

Explanation: The specified keyword value must be greater than zero.

User Response: Correct the job command file, then resubmit the job.

2512-453 **Syntax error: The keyword_LIMIT value keyword_value has too many characters.**

Explanation: The specified keyword value units has too many characters.

User Response: Correct the job command file, then resubmit the job.

2512-454 **Syntax error: The time keyword format is invalid.**

Explanation: The time format in the specified keyword value is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-455 **Syntax error:** *line*.

Explanation: The specified line in the job command file is not valid; the syntax is unknown.

User Response: Correct the job command file, then resubmit the job.

2512-456 **The *keyword_LIMIT* = *keyword_value* soft limit of (*limit units*) exceeds user hard limit (*limit units*).**

Explanation: The soft limit in the specified keyword value exceeds the hard limit value.

User Response: Correct the job command file, then resubmit the job.

2512-457 **Unable to generate a temporary file name for stdin input file.**

Explanation: The command was unable to generate a temporary file name.

User Response: Verify that the user has valid file permissions. If the problem persists, then report it to the system administrator.

2512-458 **Unable to open command file *filename* for output.**

Explanation: The command was unable to open the specified temporary command file.

User Response: Verify that the user has valid file permissions. If the problem persists, then report it to the system administrator.

2512-459 **Unable to unlink file *filename*.**

Explanation: The command was unable to delete the specified temporary command file.

User Response: Verify that the user has valid file permissions. If the problem persists, then report it to the system administrator.

2512-460 **Unable to write stdin input file to *temp_filename*.**

Explanation: The command was unable to write the **stdin** command file to the specified temporary command file.

User Response: Verify that the user has valid file permissions. If the problem persists, then report it to the system administrator.

2512-461 **Unexpectedly large line from stdin file.**

Explanation: The **stdin** command file is too large.

User Response: Correct the job command file, then resubmit the job.

2512-462 **Write error copying input command file.**

Explanation: The command could not copy the **stdin** command file to the temporary command file.

User Response: Verify that the user has valid file permissions. If the problem persists, then report it to the system administrator.

2512-465 **Syntax error: The time *keyword_value* contains a non-numeric characters.**

Explanation: The specified time format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-466 **Syntax error: The start date must be 12 digits [YYMMDDhhmmss].**

Explanation: The specified date and time format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-467 **Syntax error: For the *keyword* **keyword**, *month_value* is not a valid month.**

Explanation: The specified date format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-468 **Syntax error: For the *keyword* **keyword**, *day_value* is not a valid day.**

Explanation: The specified date format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-469 **Syntax error: For the *keyword* **keyword**, *hour_value* is not a valid hour.**

Explanation: The specified date format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-470 **Syntax error: For the *keyword* **keyword**, *minute_value* is not a valid minute.**

Explanation: The specified time format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-471 **Syntax error: For the *keyword* **keyword**, *second_value* is not a valid second.**

Explanation: The specified time format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-472 **Syntax error: For *keyword* = *keyword_value* , the MM is not valid MM/DD/YY.**

Explanation: The specified date format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-473 **Syntax error: For *keyword* = *keyword_value* , the DD is not valid MM/DD/YY.**

Explanation: The specified date format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-474 **Syntax error: For *keyword* = *keyword_value* , the YY is not valid MM/DD/YY.**

Explanation: The specified date format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-475 **Syntax error: For *keyword* = *keyword_value* , the date format is not valid MM/DD/YY.**

Explanation: The specified date format is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-476 **Unable to switch locale to *locale*, possibly because that locale is not installed on this system. Using locale={*locale*} instead.**

Explanation: The specified command could not switch to the locale specified in the user's environment variables. LoadLeveler is using the default locale specified in the error message.

User Response: Verify that the locale specified by the **LC_ALL** environment variable is installed on the machine where the command is being run. The command will execute, but any locale information—including the message catalog—will come from the default locale.

2512-477 **Unable to restore LC_COLLATE locale to *original value*. It will be left as: *value used*.**

Explanation: The specified command could not restore **LC_COLLATE** to its original value, prior to running the command. The value from the user's environment will be used.

User Response: Verify that the original locale is installed on the machine on which the command is being run.

2512-478 ***job name* could not open *executable name* to check for magic number.**

Explanation: The **lsubmit** command could not open the specified executable to verify that it is in the correct extended object file format (XCOFF).

User Response: Verify that the executable file exists, and that it has appropriate access permissions.

2512-479 ***job name* read(*file descriptor*, *file header address*, *file header size*) for magic number failed.**

Explanation: The **lsubmit** command could not read the specified executable's extended object file format header (XCOFF).

User Response: Verify that the executable is binary, and that it has been compiled on the correct operating system platform.

2512-480 **Bad magic number in xcoff header.**

Explanation: The specified executable's extended object file format (XCOFF) is not recognized as one that will run on the specified machine.

User Response: Verify that the executable is binary, and that it has been compiled on the correct operating system platform.

2512-481 **Bad a.out header size in xcoff header.**

Explanation: The **a.out** header in the job's executable could not be read.

User Response: Verify that the executable is binary, and that it has been compiled on the correct operating system platform.

2512-482 **Read: read(*executable file descriptor*, *a.out header address*, *header size*) failed for *job name* executable.**

Explanation: The read action failed for the specified executable.

User Response: Verify that the executable is binary, and that it has been compiled on the correct operating system platform.

2512-483 **Bad magic number in a.out header.**

Explanation: The job's executable has an inappropriate extended object file format (XCOFF).

User Response: Verify that the executable is binary, and that it has been compiled on the correct operating system platform.

2512-484 *job name* **nlist(executable name ,nl structure array address) call fails. Return code = return code, errno = error num.**

Explanation: The **nlist** system call failed for the specified executable.

User Response: Verify that the executable is binary, that it has been compiled on the correct operating system platform, and that it is not stripped. Consult the specified error message for more information.

2512-485 *job name* **No symbol .MAIN found in executable (executable name).**

Explanation: The specified executable is not linked to run with a pre-LoadLeveler 2.1 checkpoint library.

User Response: Link the specified executable to the correct version of LoadLeveler's checkpoint library; use the script provided in /usr/lpp/LoadL/full/bin to compile and link the executable.

2512-486 *job name* **could not open executable name to check for magic number.**

Explanation: The calling program could not open the specified executable.

User Response: Verify that the executable file exists, and that it has the correct access permissions.

2512-487 *job name* **could not read executable name to check for magic number, errno = error num.**

Explanation: The calling program was unable to read the specified executable to check its extended object file format (XCOFF) header.

User Response: Verify that the executable file has the correct access permissions.

2512-488 *job name* **could not read file header of executable name to check for magic number.**

Explanation: The calling program was unable to read the specified executable's extended object file format (XCOFF) header.

User Response: Verify that the executable has the correct file access permissions, that it is binary, and that it has been compiled on the correct operating system platform.

2512-489 *job name* **Magic number of executable executable name is not SHARE_MAGIC.**

Explanation: The specified executable is not in **SHARE_MAGIC** format.

User Response: Verify that the executable is binary, and that it has been compiled on the correct operating system platform.

2512-490 *job name* **Executable executable name is not compiled for this architecture.**

Explanation: The specified executable is not compiled to run on this operating system platform.

User Response: Verify that the executable is binary, and that it has been compiled on the correct operating system platform.

2512-491 **mbstowcs() error converting string (multibyte character input string).**

Explanation: The command, which uses the **mbstowcs** system call, encountered an error while attempting to convert the command line input from a multibyte character string to a wide character string.

User Response: Verify that the multibyte character input string is valid, then retry the command. If the problem persists, then contact IBM service.

2512-492 **Syntax error: error description. Discovered at line line num in file filename.**

Explanation: The command encountered an error while parsing the command input at the specified line.

User Response: Examine the expression on the specified line for incorrect syntax. Correct the problem, then retry the command.

2512-493 **Unable to evaluate expression in *function* at line *line num*.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2512-494 **Expression *expression name* expected type string, but was *expression type***

Explanation: While processing a set expression, the specified command expected to find a character string, but found the specified type instead.

User Response: If this message has not provided sufficient information, then contact the LoadLeveler administrator.

2512-495 **Input file contains string, *command file line*, with non-ASCII characters.**

Explanation: The command detected non-ASCII characters in the specified line. LoadLeveler expects all input to be in ASCII characters.

User Response: Correct the job command file, then resubmit the job.

2512-496 **Syntax error: For *keyword* = *keyword value*, the MM is not valid [MM/DD/YY or MM/DD/YYYY].**

Explanation: The date format for the specified keyword is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-497 **Syntax error: For *keyword* = *keyword value*, the DD is not valid [MM/DD/YY or MM/DD/YYYY].**

Explanation: The date format for the specified keyword is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-498 **Syntax error: For *keyword* = *keyword value*, the year is not valid [MM/DD/YY or MM/DD/YYYY].**

Explanation: The date format for the specified keyword is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-499 **Syntax error: For *keyword* = *keyword value*, the date format is not valid [MM/DD/YY or MM/DD/YYYY].**

Explanation: The date format for the specified keyword is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-500 **Syntax error: For *keyword* = *keyword value*, the value of YY in [MM/DD/YY or MM/DD/YYYY] can not be in the range 39–68.**

Explanation: The date format for the specified keyword is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-501 **Syntax error: For *keyword* = *keyword value*, the value of YYYY in [MM/DD/YY or MM/DD/YYYY] must be in the range 1969–2038.**

Explanation: The date format for the specified keyword is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-502 **Syntax error: The date specified (*year = year* , *month = month*, *day = day*) is not a valid date.**

Explanation: The specified date is not valid.

User Response: Correct the job command file, then resubmit the job.

2512-777 **XDR_Write failed, returned *return_code*, *fd = file_descriptor* , *errno = error_num*.**

Explanation: XDR encountered an error; XDR is used to transmit data among LoadLeveler commands and daemons.

User Response: Have the system administrator verify that the LoadLeveler daemon is still running. If the problem persists, then contact IBM service.

2512-835 **User *username* is not authorized to checkpoint the job.**

Explanation: Only the owner of a job or an administrator can request a checkpoint for a job.

User Response: Verify that the user has permission to checkpoint the job.

2512-836 **Request to checkpoint job step *job id* is ignored, job step not found.**

Explanation: The job step for the specified id was not found. The checkpoint request is ignored.

User Response: Verify that a valid job step id was specified and that the job step is still running.

2512-837 **Request to checkpoint job step *job id* is ignored, a checkpoint is pending or already is in progress.**

Explanation: A previous request to checkpoint the specified job step is in progress. The checkpoint request is ignored.

User Response: Verify that a job step is not already checkpointing before requesting a checkpoint.

2512-838 **Request to checkpoint job step *job id* is ignored because the job step is not running, current state = *job state*.**

Explanation: The specified job step could not be checkpointing because it was not in a running state.

User Response: Before requesting a checkpoint verify that a job step is running is in a running state and that job processes are actually running.

2512-839 **Request to checkpoint job step *job id* failed because the checkpoint order cannot be sent to the daemon_name on node node_name.**

Explanation: Either the connection to the specified daemon on the specified node failed or the transmission of the checkpoint order failed.

User Response: Verify that the LoadLeveler daemon is running on the specified host, and that the host can be accessed on the network.

2512-840 **Request to checkpoint job step *job id* is ignored because checkpointing is not enabled for the job step.**

Explanation: The **CHECKPOINT** option in the job command file was not set to enable checkpointing.

User Response: Enable checkpointing for the job step by set the **CHECKPOINT** option in the job command file to an appropriate value.

2512-841 Checkpoint operation failed because the process initiating the checkpoint terminated abnormally (exit code = *value* signal = *value*).

Explanation: Under certain circumstances LoadLeveler starts a new process to initiate a checkpoint of a job step. That process terminated with a signal or with a non zero exit code indicating that the checkpoint operation was not started.

User Response: Verify that the binary, **llckptstarter**, is installed in the same directory as the **LoadL_starter** binary and verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes.

2512-842 Step *job step* terminated before checkpoint status could be determined.

Explanation: The status of a checkpoint request could not be determined because either the checkpoint status information could not be sent from the machine(s) initiating the checkpoint or the status information was not received before the job step terminated.

User Response: Examine the files in the checkpoint directory to determine if a successful checkpoint was taken. If the problem persists, then contact IBM service.

2512-845 Restart from checkpoint file, *filename*, failed with the following error: primary error code = *error_code*, secondary error code = *error_code2*, error msg len = *message_length*, error msg = *error_msg*.

Explanation: The restart operation for the job step failed. The job was canceled.

User Response: Correct the error condition indicated by the error codes and error message (if provided).

2512-901 Unable to set gid for user.

Explanation: LoadLeveler could not set the user's gid before starting the user's job step. This message will be followed by a detailed message about the exact cause of the failure.

User Response: Consult the subsequent detailed error message for more information.

2512-902 Unable to set process limits for user.

Explanation: LoadLeveler could not set Resource process limits before starting the user's job step. This message will be followed by a detailed message about the exact cause of the failure.

User Response: Consult the subsequent detailed error message for more information.

2512-903 Unable to set *resource limit* limit for user.

Explanation: The specified process resource limit could not be set before starting the user's job step. This message will be followed by a detailed message about the exact cause of the failure.

User Response: Consult the subsequent detailed error message for more information.

2512-904 Cannot run a job for root, uid=*uid*, gid=*gid*.

Explanation: LoadLeveler will not run any job with root privileges.

User Response: Resubmit the job as a non-root user.

2512-905 Cannot fork process for *task_name*. errno=*error_num* error_msg.

Explanation: The **fork** system call failed for the specified process.

User Response: Consult the specified error message for more information.

2512-906 Cannot set user credentials.

Explanation: Credentials for the user cannot be set for the job step. This message is usually followed by a detailed message about the exact cause of the failure.

User Response: Consult the specified error message for more information.

2512-907 Uid cannot be verified on *hostname*.

Explanation: The starter cannot verify that the **uid** of the user submitting the job is valid on the machine trying to run the job step. This message will be followed by a detailed message about the exact cause of the failure.

User Response: The user must have the same **uid** on the submitting machine as on the running machine.

2512-908 Gid cannot be verified on *hostname*.

Explanation: The starter cannot verify that the **gid** of the user submitting the job is valid on the machine trying to run the job step. This message will be followed by a detailed message about the exact cause of the failure.

User Response: The user must have the same **gid** on the submitting machine as on the running machine.

2512-909 Cannot get user credentials.

Explanation: Credentials for the user cannot be obtained. This message will be followed by a detailed message about the exact cause of the failure.

User Response: Consult the subsequent detailed error message for more information.

2512-911 Cannot receive executable from Schedd.

Explanation: A transaction from the **starter** on a run machine to the **schedd** on a submit machine has failed to retrieve the executable file.

User Response: Examine **SchedLog** and **StarterLog** to determine the cause of the failure.

2512-912 Cannot open *stdin*, *stdout*, or *stderr* file. *error_msg*.

Explanation: The **open** system call failed for one of the **stdio** files for the job step.

User Response: Verify that the directory and file exist, and that the user has permission to access the directory.

2512-913 Unable to validate privileges for stdio.

Explanation: The **llcheckpriv** program was unable to access a **stdio** file for the job step, and was unable to return an error message.

User Response: Examine the **StarterLog** for messages indicating the reason for the failure.

2512-914 Checkpointing was requested but program is not an executable.

Explanation: Only a binary program can be checkpointed. Checkpointing is not valid with a shell script.

User Response: Either specify a binary program for the executable, or turn off checkpointing, then resubmit the job.

2512-915 Checkpointing was requested but program is not linked with LoadLeveler libs.

Explanation: Only a binary program can be checkpointed. Checkpointing is not valid with a shell script. A program that is to be checkpointed must be linked with the LoadLeveler libraries.

User Response: Link the program with the LoadLeveler libraries, then resubmit the job.

2512-916 Program linked with LoadLeveler libs but checkpointing is not requested.

Explanation: The program specified as the executable is linked with the LoadLeveler executables, which are used for checkpointing, but the program will not be checkpointed because checkpointing has not been specifically requested.

User Response: Either link the program without the LoadLeveler libraries, or turn on checkpointing, then resubmit the job.

2512-917 Cannot exec process for *task_name*. *errno*=*error_num* *error_msg*.

Explanation: The **execute** system call failed for the specified process.

User Response: Consult the specified error message for more information.

2512-918 Unable to set uid for user.

Explanation: The **uid** for the user could not be set before starting the user's job step. This message will be followed by a detailed message about the exact cause of the failure.

User Response: Consult the subsequent detailed error message for more information.

2512-919 Cannot receive job data from schedd on *hostname*.

Explanation: An error occurred as the **starter** was requesting the job information from the **schedd** on the specified host.

User Response: Examine the **SchedLog** and the **StarterLog** on the appropriate machines for the exact cause of the failure.

2512-920 Cannot send READY status to the startd, the job step will be rejected.

Explanation: An error occurred as the starter was attempting to send the **READY** status to the **startd**. Because a parallel job step will not continue until all nodes are **READY**, the job step will be rejected.

User Response: Examine the **SchedLog** and the **StarterLog** for the exact cause of the failure.

2512-921 Job was not accepted by NQS.

Explanation: An error occurred when a job was submitted to **NQS**.

User Response: Examine the output from the **qsub** command for the exact cause of the failure.

2512-922 The LoadL_starter process terminated before the job step completed. The job step is vacated.

Explanation: The **LoadL_starter** process which started a job step has terminated abnormally while waiting for the job step to complete. Because the true status of the job step cannot be determined, the job step is vacated. The vacated job step will be rescheduled to run if it is marked restartable.

User Response: Examine the appropriate machine's LoadLeveler logs to determine the cause of the **LoadL_starter** failure.

2512-923 Cannot create PVM control file *filename*, *errno* = *error num* *error message*.

Explanation: The file necessary to start the PVM daemon (**pvmd**) could not be created.

User Response: Consult the specified error message for more information.

2512-924 Cannot get PVM task id on *host name*, PVM error = *PVM error num*, *errno*=*error num* [*error message*].

Explanation: The PVM function, **pvm_mytid**, failed to return the PVM task id for the specified host.

User Response: Consult the specified error message for more information.

2512-925 **Cannot get PVM socket, PVM error = PVM error num, errno= error num [error message].**

Explanation: The PVM function, **pvm_getfds**, failed to return the file descriptor for the socket to the PVM daemon (**pvmd**) on the master node.

User Response: Consult the specified error message for more information.

2512-926 **Cannot register as PVM hoster, PVM error = PVM error num, errno=error num [error message].**

Explanation: The PVM function, **pvm_reg_host**, failed. This function is used to inform PVM that LoadLeveler will select all the hosts, and start the PVM daemon (**pvmd**) on them.

User Response: Consult the specified error message for more information.

2512-927 **Cannot return PVM response to master starter, errno=error num [error msg].**

Explanation: A remote **starter** could not send a PVM message to the master **starter**.

User Response: Consult the specified error message for more information.

2512-928 **PVM daemon is already running on hostname, task id = PVM task ID**

Explanation: A PVM daemon (**pvmd**) is already running on the specified host. When running PVM under LoadLeveler, only one PVM job can be run on a host at a time.

User Response: Stop PVM on the specified host, then resubmit the job.

2512-929 **Cannot remove old PVM socket file, filename, on hostname , errno = error num [error msg].**

Explanation: The socket file left from a previous PVM session cannot be removed, so PVM cannot be started on the host.

User Response: Consult the specified error message for more information.

2512-930 **Cannot read start host message from PVM. Cannot start PVM on remote host.**

Explanation: LoadLeveler received a start host message (**SM_STHOST**) from PVM, but the message was not in a valid format.

User Response: Verify that the correct version of PVM is installed properly, then resubmit the job.

2512-931 **Request to start PVM on host hostname failed. The host was not found in LoadLeveler's host list.**

Explanation: LoadLeveler received a start host message (**SM_STHOST**) from PVM, but the host name was not valid.

User Response: Verify that the correct version of PVM is installed properly, then resubmit the job.

2512-932 **Cannot send start PVM request to Startd on hostname,errno = error num [error msg].**

Explanation: The **master Starter** cannot send a request—to start the PVM daemon (**pvmd**)—to the **startd** on the specified node.

User Response: Consult the specified error message for more information.

2512-933 **PVM could not be started on remote host hostname,errno = error num error msg.**

Explanation: Either the **master Starter** could not receive the start up message from the **remote Starter**, or the PVM daemon (**pvmd**) could not be started on the remote host.

User Response: If the error number indicates a network problem, then resubmit the job after the problem has been corrected. Otherwise, examine the **StarterLog** on the remote node for the cause of the failure.

2512-934 **Unable to set uid for user on *hostname*.**

Explanation: The **uid** for the user could not be set before starting the user's job step. This message will be followed by a detailed message about the exact cause of the failure.

User Response: Consult the subsequent detailed error message for more information.

2512-935 **The switch table cannot be loaded on *host name* because the *adapter name* switch adapter is not configured on the node.**

Explanation: The job step requires that a switch table be loaded for the specified switch adapter, but the switch adapter has not been specified in the LoadLeveler configuration file. This error occurs if the entire LoadLeveler cluster is not reconfigured after adding or deleting switch adapters from the LoadLeveler administration file.

User Response: Add the switch adapter to the LoadLeveler administration file, then use the `llctl -g reconfig` command to reconfigure the entire LoadLeveler cluster.

2512-976 **The name for the DCE *group* group could not be found. Provide this name with the *keyword* keyword in the LoadLeveler configuration file.**

Explanation: `lldcegrpmaint` could not find the specified DCE group name for the current cluster.

User Response: Use the specified keyword to set this group name in the global LoadLeveler configuration file.

2512-977 **No DCE host names could be found for the machines in this LoadLeveler cluster. Run the `llexstDR` command and update the `LoadL_admin` file with the resulting output to obtain this information.**

Explanation: `lldcegrpmaint` could not find any DCE host names in the LoadLeveler administration file's machine stanzas.

User Response: Run the `llexstDR` command, then update the machine stanzas with the command's output.

2512-978 **The DCE service names of the LoadLeveler daemons could not be determined. Make sure that the file `/usr/lpp/ssp/config/spsec` exists on the current machine, and that you have access to it.**

Explanation: The specified file provides Security Services with service names which define LoadLeveler daemons to DCE.

User Response: Verify that `lldcegrpmaint` can access the `/usr/lpp/ssp/config/spsec_defaults` file. If the file is not present, then verify that PSSP has been installed, and that DCE has been configured on this machine.

2512-979 **Unable to create DCE group *DCE group name*. DCE returned the following message: *DCE error message*.**

Explanation: DCE failed to create the specified group.

User Response: Verify that your DCE credentials have not expired, and that the specified group does not already exist in the DCE registry.

2512-980 **Improper format for LoadLeveler **SERVICE**: record in *error message text* file.**

Explanation: The LoadLeveler data in the `spsec_defaults` file is in an improper format.

User Response: Verify that the specified file exists, and the the LoadLeveler data it contains uses the correct syntax for the `spsec_defaults` file.

2512-981 **Unable to *command* DCE principal name *daemon's DCE principal name* "to" or "from" DCE group *DCE group name*. DCE returned the following message: *DCE message*.**

Explanation: `lldcegrpmaint` issued a DCE command to add or remove a principal name from the specified DCE group. DCE issued a failing return code.

User Response: Verify that the principal name is defined in the DCE registry.

2512-982 Unable to determine the name of the current DCE cell.

Explanation: The `lldcegrpmaint` command could not determine the name of the current host's DCE cell.

User Response: Verify that DCE is installed and configured on the current host; if the problem persists, then contact your DCE administrator.

2512-991 Central Manger reported errors but specific data did not get transmitted.

Explanation: API was expecting a list of error codes and stepids but the data members were empty.

User Response: Reissue the modify request.

2512-992 The job step *job_step* was not in *job_state* state. The *modify_enum* was not modified.

Explanation: The step was not in the correct state for the requested modification.

User Response: Change the modify request.

2512-993 Request to modify job step *job_step_id* is ignored, job step not found.

Explanation: The job step for the specified id was not found. The modify request is ignored.

User Response: Verify that a valid job step id was specified and that the job step is in the system.

2512-994 User *username* is not authorized to modify the job step *job_step_id*.

Explanation: Only the owner of a job or an administrator can request to modify a job step.

User Response: Verify that the user has permission to modify the job.

2539 Error Messages

2539-001 Could not open input file (/dev/null) for pipe input.

Explanation: The `open("/dev/null", O_RDONLY)` command failed.

User Response: Contact the LoadLeveler administrator.

2539-002 *command* was not executed.

Explanation: `xloadl` failed to execute a system command.

User Response: The reason for this error should be displayed immediately preceding this message.

2539-003 Could not create stdout pipe from *command*, *errno* = *error_num*.

Explanation: The specified **pipe** command failed.

User Response: Check the *errno* to determine why the command failed.

2539-004 Could not create stderr pipe from *command*, *errno* = *error_num*.

Explanation: The specified **pipe** command failed.

User Response: Check the *errno* to determine why the command failed.

2539-005 Could not fork process for *command*, *errno* = *error_num* .

Explanation: LoadLeveler failed to fork the specified command.

User Response: Check the *errno* to determine why the command failed.

2539-006 **Could not execute command** *command*. **errno=error_num**.

Explanation: LoadLeveler failed to execute the specified command.

User Response: Check the errno to determine why the command failed.

2539-007 **Not a valid selection. Field is not set.**

Explanation: The field was not updated because you entered a non-valid value.

User Response: Reselect a value from the selection box. If you typed a value, then verify that the spelling matches a valid value.

2539-008 **Logging has already been started to file** *filename*.

Explanation: Logging cannot be started because commands are already being logged to the specified file.

User Response: If you want commands logged to the specified file, then you don't need to do anything. If you want to begin logging to another file: select **Stop Logging**, then select **Start Logging** with your new file specified.

2539-009 **No jobs are selected.**

Explanation: The tasks that you want to perform require that you select at least one job step.

User Response: Select a job step, then invoke the command again.

2539-010 **Could not get details for selected jobs.**

Explanation: The information for the selected jobs was not returned.

User Response: Consult the preceding error messages for possible causes; if there aren't any other messages, then verify that the job step has completed.

2539-011 **Could not get Status for selected jobs.**

Explanation: The information for the selected jobs was not returned.

User Response: Consult the preceding error messages for possible causes. If there aren't any other messages, then verify that the job step has completed.

2539-012 **Could not get Report for selected jobs.**

Explanation: The information for the selected jobs was not returned.

User Response: Consult the preceding error messages for possible causes. If there aren't any other messages, then verify that the job step has completed.

2539-013 **No host specified. No selection performed.**

Explanation: Although one of the **by_host** parameters for **job_filter** has been indicated, there is no indication of which machines have been provided.

User Response: The previous setting for filtering jobs will be used. Respecify the new filter by using **Select** on the menu bar.

2539-014 **The selection parameter was not changed.**

Explanation: No matches were found, so the jobs were not filtered. There may be a problem with the regular expression, or there may not be any machines which match the regular expression.

User Response: If there is a problem with the regular expression, then a message explaining that will precede this one. You may need to adjust the regular expression.

2539-015 No user specified. No selection performed.

Explanation: Although one of the **by_user** parameters for **job_filter** has been indicated, there is no indication of which users have been provided.

User Response: The previous setting for filtering jobs will be used. Respecify the new filter by using **Select** on the menu bar.

2539-016 No group specified. No selection performed.

Explanation: Although one of the **by_group** parameters for **job_filter** has been indicated, there is no indication of which groups have been provided.

User Response: The previous setting for filtering jobs will be used. Respecify the new filter by using **Select** on the menu bar.

2539-017 No job specified. No selection performed.

Explanation: Although a **job_filter** has been indicated, there is no indication of which job step ids have been provided.

User Response: The previous setting for filtering jobs will be used. Respecify the new filter by using **Select** on the menu bar.

2539-018 Internal error: *filter_type* is not a valid filter.

Explanation: A non-valid filter type has been selected.

User Response: Exit and restart **xloadl**.

2539-019 No user specified. Order user not performed.

Explanation: A **Favor User** command cannot be issued with a blank user name.

User Response: Type a user name in the text field of the prompt dialog box.

2539-020 Only the LoadLeveler administrator may order users.

Explanation: You must be a LoadLeveler administrator to order users.

User Response: Have a LoadLeveler administrator issue this command.

2539-021 Unknown pulldown number: *pulldown_num*.

Explanation: The item selected on the pulldown menu has translated into an unrecognized number.

User Response: Exit and restart **xloadl**.

2539-022 Could not get tasks for selected jobs.

Explanation: The information for the selected jobs was not returned.

User Response: Consult the preceding error messages for possible causes. If there aren't any other messages, then verify that the job step has completed.

2539-025 No machine is selected.

Explanation: The task you want to perform requires that you select at least one machine.

User Response: Select a machine from the **Machines** window, then invoke the command again.

2539-026 No schedd machine specified. No purge performed.

Explanation: The **Purge** command requires that you specify a **schedd** machine.

User Response: Enter a machine name into the **Purge Machine** dialog box.

2539-027 No machines selected. No machines will be purged.

Explanation: The **Purge** command requires that you specify at least one machine.

User Response: Select a machine from the **Machines** window, then invoke the **Purge** command again.

2539-028 No host is selected for details.

Explanation: The **Details** command requires that you specify at least one machine.

User Response: Select a machine from the **Machines** window, then invoke the command again.

2539-029 Could not get details for selected machines.

Explanation: No details were returned for the selected machines.

User Response: Consult the preceding error messages for reason details were not returned.

2539-031 No host selected for Version.

Explanation: The **Version** command requires that you specify at least one machine.

User Response: Select a machine from the **Machines** window, then invoke the command again.

2539-032 Could not get Version for selected machines.

Explanation: No version information was returned for the selected machines.

User Response: Consult the preceding error messages for reason details were not returned.

2539-033 No host selected for Collecting data.

Explanation: The **Capture Data** command requires that you specify at least one machine.

User Response: Select a machine from the **Machines** window, then invoke the command again.

2539-034 No Operating System specified. No selection performed.

Explanation: To change the selection filter to **by OpSys**, you must specify an operating system. The value returned was **NULL**, so the filter was not changed.

User Response: To reset the selection filter, use the **Select** pulldown menu in the **Machines** window.

2539-035 No Architecture specified. No selection performed.

Explanation: To change the selection filter to **by Arch**, you must specify an architecture. The value returned was **NULL**, so the filter was not changed.

User Response: To reset the selection filter, use the **Select** pulldown menu in the **Machines** window.

2539-036 No host selected for Capture.

Explanation: The **Capture Data** command requires that you specify at least one machine.

User Response: Select a machine from the **Machines** window, then invoke the command again.

2539-038 **Value of *resource_name* is not valid, resetting from *resource_value* to *default_value*.**

Explanation: The value of the specified Resource is not valid, so a default value is being used.

User Response: If the default value is not acceptable to you, then exit **xloadl**, change the value of the Resource in your **Xloadl** or **.Xdefaults** file, and reinvoke **xloadl**.

2539-039 **No ADMIN_FILE specified in LoadL_config. Cannot start LoadLeveler.**

Explanation: LoadLeveler cannot start without an administration file.

User Response: Add an **ADMIN_FILE** keyword and value to your configuration file. For example, "**ADMIN_FILE = /u/loadl/LoadL_admin**".

2539-041 **Can not get configuration information. xloadl cannot continue.**

Explanation: **xloadl** cannot start because it could not get configuration information.

User Response: Verify that the LoadLeveler administration and configuration files are available and accessible.

2539-043 **Unable to malloc() *num* bytes of memory.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-044 **Error returned on regular expression match.**

Explanation: LoadLeveler encountered an error while trying to match a regular expression that is being used as a **By User**, **By Machine**, or **By Group** job selection filter.

User Response: Try setting the job selection filter again. You may need to modify the regular expression you enter.

2539-046 **Error receiving job data.**

Explanation: A request for job information has been unsuccessful. Any data that was returned may be incomplete.

User Response: Reissuing the command, or refreshing the **Jobs** window, may resolve the problem. If the problem persists, then try exiting and reinvoking **xloadl**.

2539-047 **Cannot read machine information from central manager.**

Explanation: An error occurred while the central manager was sending machine information to **xloadl**.

User Response: Redo the action.

2539-048 **Could not send command to cm host.**

Explanation: **xloadl** was able to connect to the central manager, but was unable to send the central manager a command.

User Response: Consult the preceding error message for the reason for the failure.

2539-049 **Could not connect to *daemon_name* on *hostname*. Will reconfig xloadl and retry.**

Explanation: On the first failure to contact a daemon, **xloadl** will reconfig itself and try to contact the daemon again. The cluster may have been reconfigured since **xloadl** was invoked.

User Response: No action is needed.

2539-050 **Could not connect to *daemon_name* on *hostname*. Will retry later.**

Explanation: The **Machines** window was not updated because the specified daemon was not contacted. Another attempt will be made after the automatic refresh interval.

User Response: No action is needed.

2539-051 **Access to this job is denied.**

Explanation: You cannot issue commands for this job.

User Response: Do not try to issue commands for this job.

2539-052 **You do not own Job *job_id* step *step_id*. Access to this job denied.**

Explanation: You cannot issue commands for a job step that you do not own.

User Response: Contact the job owner or an administrator.

2539-053 **Job *job_id* step *step_id* in System Hold. Access to this job denied.**

Explanation: You cannot access this job because a system hold has been put on it.

User Response: Contact the LoadLeveler administrator.

2539-054 **Only the LoadLeveler administrator may order jobs.**

Explanation: Only LoadLeveler administrators have the authority to order jobs using the **Favor Job** command.

User Response: Contact the LoadLeveler administrator.

2539-055 **Unrecognized ORDER type *order_type*. No action taken.**

Explanation: The order type is not valid for **Favor Jobs** or **Favor Users**.

User Response: Reissue the command; if the same message occurs, then exit from **xloadl** and restart it.

2539-057 **Only the LoadLeveler administrator may order users.**

Explanation: You do not have the authority to issue this command.

User Response: Only a LoadLeveler administrator can issue this command.

2539-058 **Error receiving machine data.**

Explanation: A request for machine information has been unsuccessful. Any data that was returned may be incomplete.

User Response: Reissuing the command, or refreshing the **Machines** window, may resolve the problem. If the problem persists, then try exiting and reinvoking **xloadl**.

2539-059 **Only the LoadLeveler administrator may issue LoadLeveler control commands.**

Explanation: You do not have the authority to do this action.

User Response: Only a LoadLeveler administrator has the authority to do this.

2539-060 **Can not find name of executable for LoadL_master in config file.**

Explanation: LoadLeveler did not find the name of the executable for **LoadL_master** in the configuration file.

User Response: Update the keyword **MASTER** in the configuration file (for example, **MASTER = \$(BIN)/LoadL_master**), then reconfigure or restart LoadLeveler.

2539-062 No machines selected. No machines purged.

Explanation: At least one machine must be selected for a purge to occur.

User Response: Select at least one machine, then rerun the command.

2539-063 Could not get class information for *machine name*.

Explanation: Due to internal errors, no classes were returned for the specified machine.

User Response: Reissuing the command, or refreshing the **Machines** window, may resolve the problem. If the problem persists, then try exiting and reinvoking **xloadl**.

2539-064 Cannot obtain this host name. Job not submitted.

Explanation: The official hostname for this machine is not set.

User Response: Ensure the host name for this machine is set.

2539-065 Cannot find password entry for your userid. Job not submitted.

Explanation: The **get_userid()** call returned a value of NULL.

User Response:

2539-066 Cannot find your userid in /etc/passwd. Job not submitted.

Explanation: The **getpwuid()** or **getuid()** call returned a value of NULL.

User Response: *Need response here.*

2539-067 Not valid user priority, *input*, is ignored.

Explanation: The value you typed into the text field for user priority is not valid.

User Response: Type a value between 0 and 100 into the user priority field.

2539-068 Previously set user priority value, *user_priority*, is used.

Explanation: The replacement user priority value is not valid, so the previously set value is used.

User Response: If you want to change the value, then type a value between 0 and 100 into the user priority field.

2539-069 The maximum value for user priority, 100, is used instead of *input_value*.

Explanation: The value you typed is greater than 100 (the maximum value for user priority), so the user priority has defaulted to 100.

User Response: If you want the user priority to be a value other than 100, then type a value between 0 and 100 into the user priority field.

2539-070 min_processors value of *num* is not valid. It is ignored.

Explanation: The value specified for **min_processors** is not valid. The value has defaulted to 1.

User Response: Enter a non-negative number in the **Min # of Nodes** field.

2539-071 max_processors value of *num* is not valid. It is ignored.

Explanation: The value specified for **max_processors** is not valid. The value has defaulted to 1.

User Response: Enter a non-negative number in the **Max # of Nodes** field.

2539-072 **Unrecognized job primary sort request:** *sort_type*.

Explanation: The specified value is not recognized as a sort type.

User Response: Stop and restart **xloadl**.

2539-073 **Unrecognized job secondary sort request:** *sort_type*.

Explanation: The specified value is not recognized as a sort type.

User Response: Stop and restart **xloadl**.

2539-074 **Unrecognized machine primary sort request:** *sort_type*.

Explanation: The specified value is not recognized as a sort type.

User Response: Stop and restart **xloadl**.

2539-075 **Unrecognized machine secondary sort request:** *sort_type*.

Explanation: The specified value is not recognized as a sort type.

User Response: Stop and restart **xloadl**.

2539-076 **Central manager is defined on *machine_name*. Cannot connect to LoadLeveler Central Manager.**

Explanation: The central manager is defined on the specified machine, but **xloadl** cannot connect to it.

User Response: Verify that the central manager is active.

2539-077 **Cannot find a central manager.**

Explanation: **xloadl** did not locate any central manager.

User Response: Exit and restart **xloadl**, then rerun the command. If no central manager is found when running the command, then contact your LoadLeveler administrator.

2539-078 **Entire Script may not have been saved.**

Explanation: The number of bytes that were saved is less than the number of bytes in the file.

User Response: Verify that there is enough space, then try to save the script again.

2539-079 **Unable to save Script. Error in creating tempfile.**

Explanation: The script could not be saved to a temporary file.

User Response: Verify that there is adequate space and permission to save a file to **/tmp**.

2539-080 **You are not a LoadLeveler Administrator. You cannot access Job *machine_name job_id step_id*.**

Explanation: You need to be a LoadLeveler administrator to perform this task.

User Response: You cannot perform this task.

2539-081 **You do not have the needed admin privileges and you do not own this job. You cannot access Job *machine_name job_id step_id*.**

Explanation: To perform this task you need to own the job or have sufficient privileges.

User Response: You cannot perform this task.

2539-082 You do not have the needed admin privileges.

Explanation: To perform this task, you need to have sufficient LoadLeveler, group or class administrative privileges.

User Response: You cannot perform this task.

2539-083 No valid jobs selected. Command not sent.

Explanation: The command was not executed because there were no valid jobs selected for it.

User Response: Select at least one job, then reissue the command. You may want to refresh the **Jobs** window before doing so to ensure that the status presented in the window is more up to date.

2539-084 The length of the regular expression must be less than 1024 bytes.

Explanation: Regular expressions entered in **xloadl** must be less than 1024 bytes long.

User Response: Enter a shorter regular expression.

2539-085 Problem with regular expression, *regular_expression* : *error_msg*.

Explanation: String2 describes a problem with the regular expression in string1.

User Response: Use the message in string2 to determine the cause of the error and correct it.

2539-086 Problem with regular expression, *regex.h* error no. = *error_code* .

Explanation: The specified error code describes a problem with the regular expression.

Explanation: Consult **/usr/include/regex.h** for the error codes and their meanings.

2539-087 Problem with regular expression: [*error message*].

Explanation: The specified error message describes a problem with the regular expression.

User Response: Use the specified message to determine the cause of the error.

2539-088 Both Tasks Per Node and Total Tasks are set. Total tasks is ignored.

Explanation: You cannot have both Tasks Per Node and Total Tasks on a job step in you job command file. Both were set in the Build a Job window, so Total Tasks is ignored when the job command file is created.

User Response: Unset either Total Tasks or Tasks Per Node.

2539-089 Min # of Nodes must be less than Max # of Nodes.

Explanation: The value you have specified in the **Nodes** window is greater than that specified for **Max # of Nodes**.

User Response: Modify one of the values.

2539-090 A range of nodes is not valid when Total Tasks is specified.

Explanation: You have entered values for the **Min # of Nodes** and **Max # of Nodes**, as well as **Total Tasks** , in the **Nodes** window. A range of nodes is not valid when **Total Tasks** are specified.

User Response: Either modify the values so that the **Max # of Nodes** and **Min # of Nodes** are the same, or unset the values so that the conflict no longer exists.

2539-091 Minimum number of nodes, *field value*, is not valid. It is ignored.

Explanation: The value in the **Min # of Nodes** text field is not valid.

User Response: Change the value to an integer that is greater than zero.

2539-092 **Maximum number of nodes, *field value*, is not valid. It is ignored.**

Explanation: The value in the **Max # of Nodes** text field is not valid.

User Response: Change the value to an integer that is greater than the **Min # of Nodes**.

2539-093 **Tasks Per Node, *field value*, is not valid. It is ignored.**

Explanation: The value in the **Tasks per Node** text field is not valid.

User Response: Change the value to an integer that is greater than zero.

2539-094 **Total Tasks, *field value*, is not valid. It is ignored.**

Explanation: The value in the **Total Tasks** text field is not valid.

User Response: Change the value to an integer that is greater than zero.

2539-095 **Minimum number of processors, *field value*, is not valid. It is ignored.**

Explanation: The value in the **Min # of Processors** text field is not valid.

User Response: Change the value to an integer that is greater than zero.

2539-096 **Maximum number of processors, *field value*, is not valid. It is ignored.**

Explanation: The value for the **Max # of Processors** text field is not valid.

User Response: Change the value to an integer that is greater than the **Min # of Processors**.

2539-097 **Node Usage, *field value*, is not valid. It is ignored.**

Explanation: The value for the **Node Usage** text field is not valid.

User Response: Change the value in the **Node Usage** text field to either **shared**, or **not_shared**.

2539-098 **The number of nodes (*number of nodes*) exceeds the number of tasks (*number of tasks*).**

Explanation: The requested number of nodes cannot be greater than the requested total tasks.

User Response: Correct the job command file, then resubmit the job.

2539-099 **Hold, *value for Hold field*, is not valid. It is ignored.**

Explanation: The specified value is not valid.

User Response: Change the value to one of the following: user, system, or usersys.

2539-100 **Could not get adapter information for selected machines.**

Explanation: No details were returned for the selected machines.

User Response: Consult the preceding messages to find out why adapter information was not returned.

2539-101 **Open failed for file *filename*, *errno* = *error_number*.**

Explanation: The open system call failed for the specified file.

User Response: Verify that the directory exists, and that you have permission to access it and create a file.

2539-102 **Unable to write to file *filename*.**

Explanation: Could not write a line into the specified file.

User Response: Verify that the directory and file exist, and that you have permission to access them.

2539-103 **The length of the ckpt file full path name exceeds 255 characters: *ckpt_file_full_path_name*.**

Explanation: The full path name for the ckpt file developed from **Ckpt File**, **Ckpt Dir**, and when needed the **ckpt_dir** of the class and current working directory, is longer than the 255 characters which can be handled by AIX.

User Response: Change the **Ckpt File** and **Ckpt Dir** to ensure the length of your file name is less than 255 characters.

Explanation: Your full path name for the ckpt file contains macros and may, when the macros are expanded, be longer than the 255 characters which can be handled by AIX. Change the **Ckpt File** and **Ckpt Dir** to ensure the length of your file name will be less than 255 characters when macros are expanded.

The type of scheduler currently in use by central manager could not be determined. Stop and Restart **xloadl**.

Display the type of scheduler currently in use by central manager.

Explanation: Some **xloadl** functions require Java 1.3 to run. If you want to use these functions, you need to install the version of Java indicated in the message.

2539-104 **Cannot start Checkpoint Monitor for *job_step_name* because java was not found.**

Explanation: No java executable was found.

User Response: Ensure java is located in the standard directory or that your \$PATH environment variable points to it.

2539-105 **Cannot start Gang Matrix Monitor because java was not found.**

Explanation: No java executable was found.

User Response: Ensure java is located in the standard directory.

2539-120 **Could not get classes for *task name*.**

Explanation: The classes that apply to the task you are trying to perform were not returned due to internal errors.

User Response: Consult the preceding messages for the reason.

2539-130 **Adapter preference is not supported. It is ignored.**

Explanation: Your input contains a **preferences** line which has an unsupported **Adapter** preference in it, so the **preferences** line will be ignored.

User Response: Remove the **Adapter** preference from the input.

2539-131 **Cannot open file *filename* errno=*error num*. Using built-in defaults.**

Explanation: The **open** system call failed for the specified file. Defaults will be used in the **Build a Job** window, instead of information from your file.

User Response: Verify that the directory and file exist, and that the user has permission to access the directory.

2539-132 ***notification option* is not a valid notification option. It is ignored.**

Explanation: Your file specifies an unrecognized option for the notification keyword.

User Response: Specify a valid option. The choices are: **always**, **error**, **start**, **never**, and **complete**.

2539-133 *checkpoint option is not a valid checkpoint option. It is ignored.*

Explanation: Your file specifies an unrecognized option for the **checkpoint** keyword.

User Response: Specify a valid option. The choices are: **user_initiated**, **system_intiated**, and **no**.

2539-134 *restart option is not a valid Restart option. It is ignored.*

Explanation: Your file specifies an unrecognized option for the **restart** keyword.

User Response: Specify a valid option. The choices are: **yes** and **no**.

2539-135 **Requirements line in *input file* is not valid. It is ignored.**

Explanation: The **requirements** line specified in your file is not valid. The line is ignored, and its information is not displayed in the **Build a Job** window.

User Response: Verify that the line includes only the following keywords: **Memory**, **Feature**, **Machine**, **Disk**, **Arch**, **OpSys**, **Adapter**, **Pool**. The line must be in the form of a Boolean expression.

2539-136 **Adapter can only occur once in a valid Requirements line. The Requirements line is ignored.**

Explanation: A **requirements** line is not valid if it specifies more than one adapter.

User Response: Either rewrite the line so that it specifies only one adapter, or remove the **Adapter** preference from the **requirements** line, and use the **network** specification instead.

2539-137 **The "Preferences" line in *input file* is ignored because Adapter Preferences are not valid.**

Explanation: The **preferences** line specified in your file is not valid. The line is ignored, and its information is not displayed in the **Build a Job** window.

User Response: Remove **Adapter** from the **preferences** line.

2539-138 **Preferences line in *input file* is not valid. It is ignored.**

Explanation: The **preferences** line specified in your file is not valid. The line is ignored, and its information is not displayed in the **Build a Job** window.

User Response: Verify that the line includes only the following keywords: **Memory**, **Feature**, **Machine**, **Disk**, **Arch**, **OpSys**, **Pool**. The line must be in the form of a Boolean expression.

2539-139 *option is not a valid job type option. It is ignored.*

Explanation: Your file specifies an unrecognized option for the **job_type** keyword.

User Response: Specify a valid option. The choices are: **pvm3**, **parallel**, and **serial**.

2539-140 **Problem setting network *network protocol* from *input file* name. It is ignored.**

Explanation: There was a problem transforming the network information in your file into the **Build a Job** window.

User Response: Set the information in the **Network** window (for **mpi**, **lapi**) or the **PVM** window (for **pvm**).

2539-141 *network type is not a valid network type. The network keyword is ignored.*

Explanation: Your file specifies an adapter name or network type which is not valid.

User Response: Verify that you have specified a valid adapter name or network type from the **Adapter** stanzas in the LoadLeveler administration file.

2539-142 *adapter_info* is not a valid adapter usage, mode or level. It is ignored.

Explanation: Your file specifies a non-valid Adapter usage, mode, or level.

User Response: Verify that you have specified a valid value. The choices for usage are: **shared** and **not shared**. The values for mode are: **IP** and **US**. The values for level are: **Low**, **Medium**, and **High**.

2539-143 The *adapter usage* or *node* keyword in *filename* is not supported by the job builder.

Explanation: Your file specifies an unrecognized keyword; the keyword is ignored by the job builder.

User Response: Specify a valid value.

2539-144 Cannot read the default file, *xloadl default file*.

Explanation: Unable to open the specified file.

User Response: Check for various conditions: the file might not exist, the permissions might prohibit opening it, no file descriptors may be available, etc. To change the defaults file, modify the **Xloadl** resource "**skelfile**".

2539-145 Could not get details for selected class.

Explanation: The information for the selected jobs was not returned.

User Response: Consult the preceding error messages for possible causes. If there aren't any other messages, then either attempt to run the command again, or run the **llclass -l** classname from the command line.

2539-146 No Class Choices are available.

Explanation: No classes were returned for display in the **Class Choices** selection box.

User Response: This message appears if no Classes are configured in the LoadLeveler administration file. Preceding error messages may indicate if a problem has occurred obtaining the data.

2539-147 Cannot View this job.

Explanation: No job command file information was returned for display by the Job Builder.

User Response: A file is created in the /tmp directory with a random name to hold this information. Check to see that the permissions in the /tmp directory allow this file to be read. If this file is empty, you will see this message.

2539-148 No input to append from script file *script file name*.

Explanation: No lines for appending were obtained from the script file you specified for "Append Script".

User Response: Preceding messages may give an indication of why the input was not available (problem opening or reading the file). If file is empty, you will see this message.

2539-149 You must select a type from the Adapter/Network Selection Box.

Explanation: A network toggle has been turned on, but no Adapter/Network type, which is required, has been selected.

User Response: Either turn off the network toggle, or select a type from the Adapter/Network Selection Box.

2539-150 The Adapter *adapter name* or *network type* in the Requirements line is ignored because there is already a network keyword in the job cmd file.

Explanation: A **network** statement has already been restored into the **Build a Job** window. Because only one **network** keyword can be supported per step in a job command file, the **Adapter** statement will be ignored.

User Response: Do one of the following: 1) update your job command file so that it contains either a **network** keyword, or an **Adapter** requirement; or 2) verify that the **Network** or **PVM** window in the job builder reflects the adapter you wish to use.

2539-151 **The Adapter *adapter name or network type* in the Requirements line is ignored because it is not recognized.**

Explanation: The **Adapter** name referred to in the **requirements** line is not recognized. It must be an **Adapter** name or **network** type from an **Adapter** stanza in the administration file.

User Response: Set the **Adapter** using the **Network** or **PVM** window in the job builder.

2539-152 **The Adapter *adapter name or network type* in the Requirements line is ignored because it is not configured.**

Explanation: The **Adapter** type referred to in the **requirements** line is non-valid. It must be an **Adapter** name, or **network** type, from an **adapter** stanza in the administration file.

User Response: Set **Adapter/Network** in the **Network** or **PVM** window in the job builder.

2539-153 **The Requirements line is ignored because there is already a network keyword in the input file.**

Explanation: A **network** keyword has already been restored into the **Build a Job** window. Because only one requirements statement is supported in a job command file, the **Adapter** preference cannot be converted into a **network** keyword.

User Response: Either update your job command file so that it contains only one **network** keyword or **Adapter** requirement, or verify that the **Network** or **PVM** window in the job builder reflects the adapter you wish to use, then update the **Requirements** window as needed.

2539-154 **Cannot set both Adapter Requirement and Network.**

Explanation: There is already an **Adapter** preference on the **Requirements** line. Because only one or the other (**Adapter** requirement or **Network** keyword) is supported per step in any job command file, entering adapter information into the **Network** or **PVM** window is prevented. This message will only appear once.

User Response: If you wish to enter adapter information, then use the **Network** or **PVM** window.

2539-155 **The *keyword* keyword from your input file is not supported by the *scheduler type* scheduler. It is ignored.**

Explanation: The specified keyword from your job command file is not supported by the scheduler which is currently running. The keyword is ignored, and will not appear in the **Build a Job** window.

User Response: None.

2539-156 **The Adapter *adapter type* in the Requirements line is ignored. It cannot be converted to a network.PVM statement.**

Explanation: The **Adapter** type referred to in the **Requirements** line cannot be converted to a **network.PVM** statement. It is ignored, and will not appear in the **Build a Job** window.

User Response: Update the network information in the **PVM** window of the job builder, as needed.

2539-157 **Cannot set US Mode in a network.PVM statement. Mode is ignored.**

Explanation: The **Adapter** type referred to in the **Requirements** line cannot be converted to a **network.PVM** statement. It is ignored, and will not appear in the **Build a Job** window.

User Response: Update the network information in the **PVM** window of the job builder, as needed.

2539-158 **The network statement in your input file is ignored because an Adapter Requirement was converted to a network statement.**

Explanation: While filling the **Build a Job** window fields from your input file, an **Adapter** keyword on the **Requirements** line was converted to a **network** keyword. Because only one of these two options (**Adapter** requirement/**network** statement) is supported per step in any job command file, the **network** statement is ignored.

User Response: Adjust the settings in the **Network** window, as needed.

2539-159 This input file line contains non-ASCII characters, line. It will be ignored.

Explanation: While filling Job Builder fields from your input file, non-ASCII characters have been encountered. Since only ASCII text is supported, this input line is ignored.

User Response: Adjust Job Builder fields as needed. Use files for input to the Job Builder that contain only ASCII characters.

2539-160 The value for LL_Version is not valid because it must be quoted in the input file. It is ignored.

Explanation: While filling Job Builder fields from your input file, a value for LL_Version that is not valid was found. Values for LL_Version in the job command file must be enclosed in double quotes to be valid. The LL_Version value is ignored, and will not appear in the Job Builder.

User Response: Update the LL_Version information in the Requirements or Preferences window of the Job Builder by entering the value without double quotes (double quotes are not used in the Job Builder), or add the double quotes to the input file to correct the LL_Version and reissue the Restore from file command.

2539-161 Could not get consumable floating resources.

Explanation: No floating resources were returned.

User Response: Consult additional messages for the reason floating resources were not returned.

2539-162 Could not get consumable machine resources.

Explanation: No machine resources were returned.

User Response: Consult additional messages for the reason machine resources were not returned.

2539-163 A task ID is needed for Node *node number*.

Explanation: You have not indicated a task ID for the specified node. Each node must have at least one task ID assigned to it.

User Response: Type a task ID into the input field for the specified node.

2539-164 Task ID *task ID number* on Node *node number* is a duplicate.

Explanation: The task ID specified for this node is already being used on another node. Each task ID must be assigned to one, and only one, node.

User Response: Verify that each task ID appears only once in the **Custom Geometry** window.

2539-165 These task IDs are missing from the specified range: *list of task ID numbers*.

Explanation: The listed task IDs fall within the range of task IDs that you specified in the **Task Geometry** window, but they have not been assigned to nodes.

User Response: You must assign the complete range (from 0 to n - 1, where n is the total number of tasks for your parallel job) of task IDs to nodes. For example, if you have entered task ID 6 into a Node field, then task IDs 0-5 must be assigned to nodes, as well.

2539-166 For Task Geometry, task ID(s) have to be specified.

Explanation: There are no task ID(s) specified for a node in the **Task Geometry** field. Task ID(s) must be unsigned integers specified within a single set of parentheses. Additional task ID(s) should be included within the same parentheses, but must be separated from each other by commas.

User Response: Correct the syntax error in the **Task Geometry** field.

2539-167 For Task Geometry, the expression must start with a "{".

Explanation: The Task Geometry statement must start with a "{" (open brace), and end with a "}" (closed brace).

User Response: Correct the syntax error in the Task Geometry field.

2539-168 For Task Geometry, the expression must end with a "}".

Explanation: The Task Geometry statement must start with a "{" (open brace), and end with a "}" (closed brace).

User Response: Correct the syntax error in the Task Geometry field.

2539-169 For Task Geometry, extra character(s) are found after "}".

Explanation: The entire task-geometry statement must be enclosed within the "{" (open brace) and "}" (closed brace).

User Response: Correct the syntax error in the Task Geometry field.

2539-170 For Task Geometry, left parenthesis cannot be nested.

Explanation: The list of task ID(s) assigned to a node in the Task Geometry field must begin with a single open parenthesis. Nested parentheses are not allowed.

User Response: Correct the syntax error in the Task Geometry field.

2539-171 For Task Geometry, expected "(", but another character is encountered.

Explanation: The list of task ID(s) assigned to a node must begin with the open parenthesis; the current list of task ID(s) begins with another character.

User Response: Correct the syntax error in the Task Geometry field.

2539-172 For Task Geometry, "(" is encountered without a corresponding ")".

Explanation: All of the task ID(s) for a node in a task-geometry statement must be enclosed between parentheses.

User Response: Correct the syntax error in the Task Geometry field.

2539-173 For Task Geometry, task ID(s) have to be specified within parentheses.

Explanation: Task ID(s) must be specified within a set of parentheses; additional task ID(s) for a node must be included within the same parentheses and must be separated from each other by commas.

User Response: Correct the syntax error in the Task Geometry field

2539-174 For Task Geometry, the specification of task ID(s) within the parentheses is not valid.

Explanation: Task ID(s) must be unsigned integers, and must be specified within a set of parentheses; additional Task ID(s) for a node must be included within the same parentheses and must be separated from each other by commas.

User Response: Correct the syntax error in the Task Geometry field

2539-175 For Task Geometry, a task ID has to be an unsigned integer.

Explanation: Task ID(s) must be unsigned integers, and must be specified within a set of parentheses; additional task ID(s) for a node must be included within the same parentheses and must be separated from each other by commas.

User Response: Correct the syntax error in the Task Geometry field.

2539-176 For Task Geometry, the range of task IDs (0 - *largest task ID*) is not complete.

Explanation: Task ID(s) must comprise a complete range of consecutive unsigned integers. The range must start with zero, and end with a value that is one less than the total number of tasks in the parallel job.

User Response: Correct the syntax error in the **Task Geometry** field.

2539-177 For Task Geometry, duplicate task IDs are specified.

Explanation: No Task ID(s) may be specified more than once in the **Task Geometry** field.

User Response: Correct the syntax error in the **Task Geometry** field.

2539-178 For Task Geometry, a non-blank character is found between ")" and "}".

Explanation: There should not be any characters between the closed parenthesis after the last of the task ID(s) assigned to a node and the curly brace that ends the task-geometry statement.

User Response: Correct the syntax error in the **Task Geometry** field.

2539-179 Task_geometry, text in the task_geometry expression, is not valid. It is ignored.

Explanation: Task ID(s) must comprise a complete range of consecutive unsigned integers. The range must start with zero, and end with a value that is one less than the total number of tasks in the parallel job. Task ID(s) must be specified within a set of parentheses; additional task ID(s) for a node must be included within the same parentheses and must be separated from each other by commas.

User Response:

2539-180 Blocking, expression, is not valid. It is ignored.

Explanation: You have specified a value for **Blocking** which is not valid. The acceptable values are either a positive integer, or "unlimited."

User Response: Either enter a valid value in the **Blocking** field in the **Nodes** window, or correct the job command file; then reissue the **Restore From File** command from the **Tools** menu choice.

2539-181 The value for blocking *blocking* exceeds the number of tasks *tasks*.

Explanation: The specified blocking factor is greater than the total number of tasks that have been requested.

User Response: Correct the values in the **Build a Job** window before you submit or save the job.

2539-182 When keyword is specified, keyword must also be specified.

Explanation: When the first keyword is specified, the second keyword must also be specified.

User Response: Correct the values in the **Build a Job** window.

2539-183 The resources statement is not valid. It is ignored.

Explanation: The value specified for resources in your input file is not valid.

User Response: Either enter a valid value into the **Resources** window, or update the resources expression in your input file, then reissue the **Restore From File** command from the **Tools** menu.

2539-184 The resource requirement *resource* does not have a value.

Explanation: Your input file does not contain a value for the specified resource.

User Response: Either enter a valid value into the **Resources** window, or update the resources expression in your input file, then reissue the **Restore From File** command from the **Tools** menu.

2539-185 **The resource requirement *resource* does not have a valid value: *value*.**

Explanation: Your input file does not contain a value for the specified resource.

User Response: Either enter a valid value into the **Resources** window, or update the resources expression in your input file, then reissue the **Restore From File** command from the **Tools** menu.

2439-186 **The resource requirement *resource* must have a value greater than zero.**

Explanation: The value for the specified resource in your input file must be a positive integer.

User Response: Either enter a valid value into the **Resources** window, or update the resources expression in your input file, then reissue the **Restore From File** command from the **Tools** menu.

2539-187 **The value of the resource requirement *resource* is not followed by a).**

Explanation: The value for the specified resource in your input file is not followed by a closing parenthesis. Resource requirement values must be enclosed by parenthesis.

User Response: Either enter a valid value into the **Resources** window, or update the resources expression in your input file, then reissue the **Restore From File** command from the **Tools** menu.

2539-188 **The consumable resource *resource* is not defined. It is ignored.**

Explanation: The specified resource in your input file is not defined in this LoadLeveler cluster.

User Response: All of the defined resources appear in the Resource window. If a new resource needs to be defined, then consult your LoadLeveler administrator.

2539-189 **Unexpected value *value* is found in input field for *resource*.**

Explanation: The value in the specified input field is not a valid integer or integer-unit pair.

User Response: Correct the value in the input field. The value can be either an integer, or an integer followed by one of the following units: "b", "w", "kb", "kw", "mb", "mw", "gb", or "gw".

2539-190 **The value *string* in the input field for *resource* does not start with an integer.**

Explanation: The specified input field must contain a string that begins with a positive integer.

User Response: Verify that the input field begins with a positive integer.

2539-191 **Syntax error in resource requirement.**

Explanation: The value in the specified input field is not a valid integer or integer-unit pair.

User Response: Correct the value in the input field. The value can be either an integer, or an integer followed by one of the following units: "b", "w", "kb", "kw", "mb", "mw", "gb", or "gw".

2539-192 **A value is required for Blocking Integer.**

Explanation: You have chosen the radio button indicating that you will enter a blocking factor expressed as an integer, but no value has been entered in the Integer field.

User Response: Enter a positive non-zero value into the Integer field.

2539-193 **Cannot start LoadLeveler Wizard.**

Explanation: A problem was encountered while attempting to start the LoadLeveler Wizard for Configuration Tasks from xloadl.

User Response: Contact your LoadLeveler administrator to verify that the setup for the wizard is correct.

2539-194 **Cannot set communication level in a network.PVM statement. It is ignored.**

Explanation: A communication level (Low, High, or Medium) cannot be used in a network.PVM statement. It is ignored, and will not appear in the Job Builder.

User Response: Update the network information in the PVM window of the Job Builder, as needed.

2539-195 **Cannot set a communication level with a communication mode of IP. It is ignored.**

Explanation: A communication level was specified in a network statement which did not specify a mode of user space. Communication level is only valid on network statements which request user space.

Your input file contained a checkpoint line which specified **checkpoint = user_initiated**. The option **user_initiated** is being maintained for compatibility with earlier releases and is replaced by **yes** automatically.

Your input file contained a checkpoint line which specified **checkpoint = system_initiated**. The option **system_initiated** is being maintained for compatibility with earlier releases and is replaced by **no** automatically.

User Response: Update the network information in the Network window of the Job Builder, as needed.

2539-196 *option is not a valid Start From Ckpt option. It is ignored.*

Explanation: Your file specifies an unrecognized option for the **restart_ckpt_file** keyword.

User Response: Specify a valid option. The choices are: **yes** and **no**.

2539-197 *option is not a valid Same Nodes option. It is ignored.*

Explanation: Your file specifies an unrecognized option for the **ckpt_same_nodes** keyword.

User Response: Specify a valid option. The choices are: **yes** and **no**.

2539-198 *option is not a valid Save Ckpt File option. It is ignored.*

Explanation: Your file specifies an unrecognized option for the **save_ckpt_file** keyword.

User Response: Specify a valid option. The choices are: **always** and **never**.

2539-199 **More than one job is selected. Select only one and rerun the command.**

Explanation: This command requires that just one job step is selected.

User Response: Select just one job step and rerun the command.

2539-200 **The string *string_name* is not a valid consumable resource name.**

Explanation: The name of a consumable resource can contain only alphanumeric characters or " "

User Response: Redefine the consumable resource name.

Explanation: If the job step can be checkpointed, it must also be able to be restarted, so Restart is being reset to **yes**.

2539-201 **The file *AFS_loadable_object_path* was not found. If this is a submit only machine using AFS then the file must exist.**

Explanation: LoadLeveler uses a loadable object to store code for fetching and setting AFS tokens. LoadLeveler could not find the loadable object when attempting to load it.

User Response: Verify that the LoadLeveler AFS loadable object is installed, then repeat the command.

2539-231 **Job Switch Resource Table could not be loaded on node *node_name* for the following reason:[*error message*].**

Explanation: The Job Switch Resource Table for a job could not be loaded on the specified machine.

User Response: Correct the problem indicated by the error message.

2539-232 **Job Switch Resource Table could not be loaded on node *node_name* because the switch is in use and can not be freed.**

Explanation: The Job Switch Resource Table for a job could not be loaded on the specified machine because the switch is already in use and attempts to free the switch have failed.

User Response: Examine the switch table log in the */var/adm/SP/logs/st/st_log* for the cause of the failure.

2539-233 **Job Switch Resource Table could not be loaded on node *node_name* due to a system error, *st_load_table* returned error *return_code* .**

Explanation: The Job Switch Resource Table for a job could not be loaded on the specified machine because of a system error.

User Response: Examine the switch table log in */var/adm/SP/logs/st/st_log* for the cause of the failure.

2539-234 **Job Switch Resource Table could not be loaded on node *node_name* due to an internal error, *st_load_table* returned error *return_code* .**

Explanation: The **Job Switch Resource Table** for a job could not be loaded on the specified machine because of an internal error.

User Response: Report the failure to IBM service.

2539-235 **Job Switch Resource Table could not be unloaded on node *node_name* due to a system error, *st_unload_table* returned error *return_code* .**

Explanation: The Job Switch Resource Table for a job could not be unloaded on the specified machine because of a system error.

User Response: Examine the switch table log in */var/adm/SP/logs/st/st_log* for the cause of the failure.

2539-236 **Job Switch Resource Table could not be unloaded on node *node_name* due to an internal error, *st_unload_table* returned error *return_code* .**

Explanation: The **Job Switch Resource Table** for a job could not be unloaded on the specified machine because of an internal error.

User Response: Report the failure to IBM service.

2539-237 **Job Switch Resource Table could not be unloaded on node *node_name* for the following reason: [*error message*].**

Explanation: The Job Switch Resource Table for a job could not be unloaded on the specified machine.

User Response: Correct the problem indicated by the error message.

2539-238 **Job Switch Resource Table could not be removed on node *node_name* due to a system error, *st_clean_table* returned error *return_code* .**

Explanation: The Job Switch Resource Table for a job could not be removed on the specified machine because of a system error.

User Response: Examine the switch table log in */var/adm/SP/logs/st/st_log* for the cause of the failure.

2539-239 **Job Switch Resource Table could not be removed on node *node_name* due to an internal error, st_clean_table returned error *return_code* .**

Explanation: The Job Switch Resource Table for a job could not be unloaded on the specified machine because of an internal error.

User Response: Report the failiure to IBM service.

2539-240 **Job Switch Resource Table could not be removed on node *node_name* for the following reason: [error message].**

Explanation: The Job Switch Resource Table for a job could not be removed on the specified machine.

User Response: Correct the problem indicated by the error message.

2539-241 **Could not determine status for switch adapter *adapter_name* . st_query_adapter failed with rc *return_code*.**

Explanation: The switch table service (**st_query_adapter**) failed to obtain and return the status of the switch. The switch will be treated as **NOT_READY**.

User Response: Correct the problem indicated by the return code.

2539-242 **Could not determine status for switch adapter *adapter_name* for the following reason: [error message].**

Explanation: The status of the switch could not be determined due to the indicated error. The switch will be treated as **NOT_READY**.

User Response: Correct the problem indicated by the error message.

2539-243 **Failed to route specification *specification name* (*specification number*).**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-244 **Failed to route expression for *specification name* (*specification number*).**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-245 **Internal error, cannot find tree for configuration type *configuration type*.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-246 **Unknown stanza type *configuration type*.**

Explanation: A value has been defined for the specified stanza type that is not valid.

User Response: Verify that the stanzas in the LoadLeveler administration file are correct.

2539-247 **Cannot make a new stanza of type *stanza type*.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-248 Error refreshing *stanza name* stanza with defaults.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-249 Error merging *first stanza name* stanza with *second stanza name* stanza.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-250 Error inserting intlist. Element is not an array.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-251 Error inserting stringlist. Element is not an array.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-252 Error writing stanza *stanza name*.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-253 Cannot write config file *config file name*.

Explanation: LoadLeveler failed to write to the configuration file.

User Response: Verify that the specified file exists, and that it has the appropriate access permissions.

2539-254 Cannot write final record for file *file name*.

Explanation: LoadLeveler failed to write to the specified file.

User Response: Verify that the specified file exists, and that it has the appropriate access permissions.

2539-255 Verify is not implemented for the *stanza name* stanza.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-256 Error writing stanza type *stanza type*.

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-257 Error reading file *file name*.

Explanation: LoadLeveler failed to read the user's preferred configuration file.

User Response: Verify that the specified file exists, and that it has the appropriate access permissions.

2539-261 Unable to obtain name of operating system from configuration file.

Explanation: LoadLeveler is unable to find the value for **OpSys** in the configuration file.

User Response: Define a value for **OpSys**.

2539-262 Error processing config file *configuration file name* at line *line number*.

Explanation: LoadLeveler failed to parse the configuration file.

User Response: Examine the configuration file syntax at the specified line number.

2539-263 Local configuration file not specified in LoadL_config. Proceeding...

Explanation: No local LoadLeveler configuration file was defined in the global LoadLeveler configuration file.

User Response: Define local LoadLeveler configuration files on machines which are meant to override defaults in the global LoadLeveler configuration file.

2539-264 Error processing local configuration file *file name*! Proceeding ...

Explanation: LoadLeveler failed to process the local LoadLeveler configuration file. Values will be used from the global LoadLeveler configuration file, instead.

User Response: Examine the local LoadLeveler configuration file's syntax.

2539-265 The above line in config file is too long. It must be less than 2048 bytes.

Explanation: The identified line is too long.

User Response: Keep individual line lengths under 2K bytes.

2539-266 Exiting ...

Explanation: The specified program is exiting.

User Response: Refer to the previous error message(s) to determine the cause.

2539-267 Error in configuration file *file name*, line *line number* : **Illegal identifier: *illegal string*.**

Explanation: There is a syntax error in the configuration file.

User Response: Examine the specified line number to find the error.

2539-268 Attention: *keyword* keyword from local configuration file, *filename*, will be ignored.

Explanation: LoadLeveler encountered a keyword that is not valid.

User Response: Examine the configuration file for keywords that are not valid.

2539-272 Attention: Line length is greater than 8191 bytes. Input data may be truncated.

Explanation: A line in the configuration file is longer than 8191 bytes.

User Response: Check the configuration file for lines that are longer than 8191 bytes.

2539-273 Error in configuration file *file name* , line *line number* : **Syntax error.**

Explanation: The specified line in the configuration file contains a syntax error.

User Response: Check the specified line number for errors.

2539-274 **gethostname routine failed, errno = *errno*.**

Explanation: The **gethostname** system call failed.

User Response: Correct the problem indicated by the error number. If the problem persists, then contact IBM Service.

2539-275 **host.domain string length exceeds *length*.**

Explanation: A domain name has a length that is not valid in the LoadLeveler administration file.

User Response: Verify that the machine domain names in the LoadLeveler administration file are correct.

2539-276 **Unable to calloc *number of bytes* bytes for new hostent h_aliases array.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-277 **Unable to re-allocate *number of bytes* bytes for new hostent h_aliases array.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-278 **Unable to calloc *number of bytes* bytes for new hostent h_addr_list array.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-279 **Unable to re-allocate *number of bytes* bytes for new hostent h_aliases array.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-280 **Unable to malloc *number of bytes* bytes for interface address array.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-287 **The value *pool_list* value is invalid for pool_list in the *machine name* machine stanza. Ignored.**

Explanation: The specified value is not valid.

User Response: Verify that the stanzas in the LoadLeveler administration file are correct.

2539-288 **The negative number *pool_list* value found in pool_list of the *machine name* machine_stanza is not allowed. Ignored.**

Explanation: The specified value is not valid.

User Response: Do not use negative numbers in a machine pool list.

2539-290 **Feature statement with *number of characters* characters exceeds limit of 1024.**

Explanation: A feature statement in the configuration file is too long.

User Response: Do not allow configuration file feature lines to exceed 1024 bytes.

2539-291 **Feature values are not set.**

Explanation: Feature values will not take effect due to syntax errors.

User Response: Consult the preceding error message for more information.

2539-292 **Class statement with *number of characters* characters exceeds limit of 1024.**

Explanation: A class statement is too long.

User Response: Do not specify class stanzas longer than 1024 bytes.

2539-293 **Default No_Class assumed.**

Explanation: A default class value of **No_Class** will be used.

User Response: Consult the preceding error message for more information.

2539-294 **Attention: Invalid format found for class statement. Missing braces.**

Explanation: A class statement has incorrect syntax.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for a description of the correct syntax.

2539-295 **Attention: Invalid format found for class statement. Missing double quotes.**

Explanation: A class statement has incorrect syntax.

User Response: Consult LoadLeveler's *Using and Administering* Guide for a description of the correct syntax.

2539-299 **A value of *value* was specified for `max_adapter_window` in the *stanza_type* stanza. Valid values are "1 - 4" inclusive. Default value of "4" will be used.**

Explanation: A default value of 4 will be used in place of a user-supplied value for `max_adapter_window` in the specified stanza.

User Response: Consult the *LoadLeveler Using and Administering Guide* for proper value ranges.

2539-300 **An adapter stanza name of *adapter stanza name* was specified in the *machine stanza name* machine stanza, but an adapter stanza with that name does not exist.**

Explanation: A machine stanza referenced a nonexistent adapter stanza.

User Response: Machine stanzas should refer only to *existing* adapter stanzas.

2539-302 **Attention: A value for both `SCHEDULER_TYPE` and `SCHEDULER_API` has been specified. `SCHEDULER_TYPE` will be used.**

Explanation: Two conflicting keywords (`SCHEDULER_TYPE`, and `SCHEDULER_API`) were used in the configuration file.

User Response: Of the two keywords, only use **SCHEDULER_TYPE** in the configuration file.

2539-303 DCE_AUTHENTICATION is not valid. DCE authentication will not be transmitted with job.

Explanation: DCE_AUTHENTICATION is not a valid keyword.

User Response: Do not specify DCE_AUTHENTICATION.

2539-304 The configuration keyword *keyword name* contains the invalid value *keyword value* . The default value will be used instead.

Explanation: A keyword value has been specified incorrectly.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for correct values.

2539-305 More than one stanza identified as *stanza name* has been found. The first stanza in the LoadL_admin file will be used. All others having the same name will be ignored.

Explanation: Duplicate stanzas were specified in the LoadLeveler administration file.

User Response: Verify that all LoadLeveler administration file stanzas have unique names.

2539-306 *keyword* specified in default *stanza type* stanza. Ignored.

Explanation: The identified keyword should not be specified in the default stanza.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for LoadLeveler administration file stanza syntax.

2539-307 Attention: Unknown keyword *keyword* in *stanza type* stanza *stanza name*. Ignored.

Explanation: The specified stanza contains an unknown keyword.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for LoadLeveler administration file stanza syntax.

2539-308 Attention: Invalid value entered for **spacct_exclude_enable** for machine stanza *machine name*. Default value will be used.

Explanation: The specified machine stanza contains a incorrect value for **spacct_exclude_enable**.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for correct values.

2539-309 Attention: Value missing for *keyword* keyword in *stanza type* stanza.

Explanation: A stanza was defined without the specified keyword.

User Response: Ignore this message if you do not wish to define the associated keyword for this stanza; otherwise, add the keyword, then reconfigure LoadLeveler.

2539-310 Attention: Invalid value for *keyword* in LoadL_admin file: *keyword value*.

Explanation: The specified keyword's value is not valid.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for correct values.

2539-311 RESERVED KEYWORD USED: The reserved keyword *keyword* has been used as a class name. LoadLeveler may not function properly with this reserved keyword used as a class name.

Explanation: A LoadLeveler reserved keyword was used as the name of a job class.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for a list of reserved keywords, and verify that no job classes use reserved keywords as names.

2539-312 Attention: A value for keyword *keyword* is required for stanza *stanza name*. Stanza is ignored.

Explanation: A required keyword is missing from the specified stanza.

User Response: Add the required keyword to the specified stanza, then reconfigure LoadLeveler.

2539-313 Attention: A css adapter was specified for adapter: *adapter stanza name* but no switch_node_number was found. Default value will be used.

Explanation: No **switch_node_number** was associated with the specified adapter stanza. A default value will be used.

User Response: If you do not want to use the default value, then specify **switch_node_number** for the specified adapter stanza.

2539-314 Duplicate central manager specified. Stanza for machine *machine name* will be ignored.

Explanation: The specified machine was defined as a duplicate central manager.

User Response: Define only one machine stanza in the LoadLeveler administration file with **central_manager = yes**.

2539-315 RM_HOST ignored for machine stanza *machine name* .

Explanation: The keyword **rm_host** was used in a machine stanza, but it is obsolete.

User Response: Do not use the **rm_host** keyword any longer. Refer to LoadLeveler's *Using and Administering* Guide for update information about parallel job scheduling.

2539-316 Attention: The keyword **adapter_stanzas is used but no value is specified in stanza *machine name*.**

Explanation: The specified keyword has no value.

User Response: Either specify an appropriate value for the keyword, or remove the keyword, then reconfigure LoadLeveler.

2539-317 Cannot specify **submit_only for a central manager.**

Explanation: The **submit_only** keyword was set to **true** for a central manager machine.

User Response: Do not define a primary or alternate central manager as a submit-only machine.

2539-318 Alias specified in default machine stanza. Ignored.

Explanation: An alias was defined for the default machine stanza.

User Response: Only define aliases for stanzas that are associated with real machines.

2539-319 central_manager specified in default machine stanza. Ignored.

Explanation: The default machine stanza was defined as a central manager.

User Response: Only define real machines as central managers.

2539-320 No central manager defined in LoadL_admin machine list.

Explanation: The primary central manager has not been defined for this cluster.

User Response: Define one primary central manager for your LoadLeveler cluster. This is the only required field in the LoadLeveler administration file.

2539-321 *resource limit name* **resource limit has a value that is too long: value**

Explanation: The specified resource limit has a syntax error.

User Response: Refer to LoadLeveler's Using and Administering Guide for correct resource limit values.

2539-322 **Invalid stanza stanza name. Ignored.**

Explanation: The specified stanza has a type that is not valid.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for correct LoadLeveler administration file stanza types.

2539-323 **Unable to obtain resource limit name resource limit.**

Explanation: The **getrlimit** system call failed for the indicated resource limit.

User Response: Verify that the resource limit name is correct. If the name is correct, then report the machine that issued the error to IBM Service.

2539-324 **Unable to create central manager list, no machine list provided.**

Explanation: A list of central managers cannot be created because there are no machine stanzas in the LoadLeveler administration file.

User Response: Define at least one machine as the primary central manager in the LoadLeveler administration file.

2539-325 **Unable to find a central manager in the LoadL_admin file.**

Explanation: No central manager machine stanza exists in the LoadLeveler administration file.

User Response: In the LoadLeveler administration file, define at least one machine as the primary central manager.

2539-326 **Job Switch Resource Table could not be loaded because the switch node number for node node name is invalid or has not been set.**

Explanation: The switch node number is not set in the file **/spdata/sys1/st/switch_node_number** or the number in the file is not valid.

User Response: Run the command **/usr/lpp/ssp/bin/st_set_switch_number** to set the switch node number.

2539-327 **An invalid FEATURE statement in the configuration file was found.**

Explanation: There is a syntax error in a **FEATURE** keyword in the configuration file.

User Response: Check the syntax of each feature statement in the configuration file; verify that each feature has a pair of double quotes surrounding it. Refer to LoadLeveler's *Using and Administering* guide for more information on the syntax of the feature statement.

2539-328 **An invalid CLASS statement in the configuration file was found.**

Explanation: There is a syntax error in a **CLASS** keyword in the configuration file.

User Response: Check the syntax of each class statement in the administration file; verify that each class has a pair of double quotes surrounding it. Refer to LoadLeveler's *Using and Administering* guide.

2539-329 **Attention: Default stanzas for adapters are obsolete. Values specified in "default adapter stanzas" are ignored.**

Explanation: Default adapter stanzas are no longer supported for adapter stanzas.

User Response: Default values specified in a default adapter stanza are not applied to other adapter stanzas. Remove the default adapter stanza.

2539-330 **Attention:** The *switch name* **switch adapter**, *adapter name*, must have a **css_type** of *value*.

Explanation: For an adapter with the specified **adapter_name**, the **css_type** must be the specified value.

User Response: You must change the **css_type** value to the specified value, then reconfigure LoadLeveler; otherwise, this stanza will be ignored.

2539-331 **The adapter stanza or css_type value is ignored.**

Explanation: Either the adapter stanza, or the **css_type** is ignored.

User Response: Consult the preceding error message for more information.

2539-332 **Attention:** The **css_type** value was specified for the **switch adapter**, *adapter stanza*, is not valid.

Explanation: The specified adapter's **css_type** value was not valid.

User Response: Specify a valid **css_type** value, then reconfigure LoadLeveler. Refer to LoadLeveler's *Using and Administering* guide for the appropriate values.

2539-333 **Attention:** A **css_type** value was not specified for the **switch adapter**: *adapter stanza*.

Explanation: All switch adapters must have the **css_type** keyword specified with an appropriate value.

User Response: Specify a valid **css_type** value, then reconfigure LoadLeveler. Refer to LoadLeveler's *Using and Administering* guide for the appropriate values.

2539-334 **Defaulting css_type to:** *default_css_type*.

Explanation: A **css_type** value was not specified for a switch adapter. LoadLeveler will use the specified default value.

User Response: Enter a **css_type** value for the switch adapter in the LoadLeveler administration file.

2539-335 **Attention:** The **switch name** of *adapter_name* was specified for **adapter**, *adapter stanza*, and is not valid.

Explanation: An incorrect switch name was specified.

User Response: You must specify a valid switch name, then reconfigure LoadLeveler; otherwise, this stanza will be ignored.

2539-336 **Attention:** The **css_type** keyword specified in **adapter stana**, *adapter stanza*, is not valid for non-switch adapters.

Explanation: The **css_type** is not needed for non switch adapters.

User Response: Remove the **css_type** keyword from the adapter stanza, then reconfigure LoadLeveler.

2539-337 **The machine stanza** *machine stanza* lists more than one adapter with the same **adapter_name** of *adapter_name* . **Adapter stanza** *adapter_stanza* is ignored.

Explanation: A machine can not reference more than one adapter stanza of the same name.

User Response: Remove one of the adapter stanzas listed for that machine.

2539-338 **There is a consumable resource without a value:** *value*.

Explanation: This message is self-explanatory.

User Response: Check the LoadLeveler configuration file and/or the administration file for the specified resource, modify its value, and reconfigure LoadLeveler.

2539-339 **There is a consumable resource with a wrong value: *value*.**

Explanation: This message is self-explanatory.

User Response: Check the LoadLeveler configuration file and/or the administration file for the specified resource, modify its value, and reconfigure LoadLeveler.

2539-340 **There is a consumable resource without units: *units*.**

Explanation: This message is self-explanatory.

User Response: Check the LoadLeveler configuration file and/or the administration file for the specified resource, modify its value, and reconfigure LoadLeveler.

2539-341 **There is a floating resource with a wrong value: *value*.**

Explanation: This message is self-explanatory.

User Response: Check the LoadLeveler configuration file and/or the administration file for the specified resource, modify its value, and reconfigure LoadLeveler.

2539-342 **There are more than one consumable resource with same name: *value*.**

Explanation: This message is self-explanatory.

User Response: Check the LoadLeveler configuration file and/or the administration file for the specified resource, modify its value, and reconfigure LoadLeveler.

2539-343 **%2\$s can not be a "FLOATING_RESOURCE"**

Explanation: This message is self-explanatory.

User Response: Check the LoadLeveler configuration file and/or the administration file for the specified resource, modify its value, and reconfigure LoadLeveler.

2539-344 **Could not create a striped adapter.**

Explanation: A striped adapter was requested at job submission but could not be created.

User Response: *Need response here.*

2539-345 **Could not find a striped adapter.**

Explanation: A striped adapter was requested at job submission but does not exist.

User Response: Ensure your LoadLeveler environment has a striped adapter

2539-346 **The *keyword* keyword will be ignored.**

Explanation: Since one or more errors were reported in previous messages regarding this keyword, the keyword and all its specified resources and their values will be ignored.

User Response: Check the LoadLeveler global configuration and/or administration file for the specified resource, modify its value, and reconfigure LoadLeveler.

2539-347 **The keyword *keyword* contains an out of range value *value*. *default_value* will be used instead.**

Explanation: The value of the specified keyword is out of range.

User Response: Refer to the *LoadLeveler Using and Administering Guide* for correct values.

2539-348 The reserved word specified for the **ENFORCE_RESOURCE_USAGE** keyword must be defined in the **SCHEDULE_BY_RESOURCES** keyword. No resources will be enforced.

Explanation: A resource was defined in the **ENFORCE_RESOURCE_USAGE** keyword that was not defined in the **SCHEDULE_BY_RESOURCES** keyword.

User Response: Redefine the resources for **ENFORCE_RESOURCE_USAGE** keyword.

2539-349 The "deactivate" reserved word cannot be specified with any other reserved words in the **ENFORCE_RESOURCE_USAGE** keyword. No resources will be enforced and WLM will not be deactivated.

Explanation: The **deactivate** keyword was specified with other resources for the **ENFORCE_RESOURCE_USAGE** keyword.

User Response: Redefine the resources for the **ENFORCE_RESOURCE_USAGE** keyword.

2539-350 **ENFORCE_RESOURCE_USAGE resource** *resource_name* cannot be enforced. No enforcement of any resources will be done.

Explanation: Only **ConsumableCpus**, **ConsumableMemory** or **deactivate** can be specified for the **ENFORCE_RESOURCE_USAGE** keyword.

User Response: Redefine the resources for the **ENFORCE_RESOURCE_USAGE** keyword.

2539-351 The **ENFORCE_RESOURCE_USAGE** keyword already has *reserved_word* defined. This definition will be ignored.

Explanation: A reserved word was specified more than once for the **ENFORCE_RESOURCE_USAGE** keyword.

User Response: Redefine the resources for the **ENFORCE_RESOURCE_USAGE** keyword.

2539-352 The **ALL** reserved word is not valid with the resource *resource_name*.

Explanation: The resource name specified does not support the **ALL** reserved word.

User Response: Redefine the machine **resources** keyword.

2539-353 *value* is an incorrect value for keyword *keyword*.

Explanation: This value is not one of the valid values allowed for this keyword.

User Response: Specify a valid value for the keyword.

2539-354 Circular preemption detected for class *class_name* under *schedule_type* scheduling.

Explanation: If a class preempt itself after applying the preemption rules repeatedly, then it is circular preemption which is not permitted. If this message is displayed for class **allclasses**, it means that two or more **PREEMPT_CLASS** rules contain "ALL {allclasses}" which is also circular preemption.

User Response: Remove circular preemption from preemption rules.

2539-355 Error processing configuration file *filename*.

Explanation: A severe error is encountered while processing the configuration file. The configuration process is stopped.

User Response: Correct the errors in the configuration file and try again. **llctl reconfig** or **llctl stop** may provide more details about the error than **llctl start** in certain situations.

2539-356 *keyword_name=keyword_value is not valid under schedule_type scheduling.*

Explanation: The value of the specified keyword is not valid for this scheduler.

User Response: Specify a valid keyword value for this scheduler.

2539-357 **The following error(s) occurred while processing *error_list*...**

Explanation: The processing of the information encountered errors/problems.

User Response: See message(s) following this message for more information.

2539-358 **Redundant and/or incorrect information found in the above statement. It is ignored.**

Explanation: Errors were found processing information in message 2539-357. The statement is ignored. Example: **START_CLASS[allclasses]** and **PREEMPT_CLASS[allclasses]** configuration statements are incorrect as **allclasses** is not allowed in the left hand side of those statements.

User Response: Correct the errors in the original input.

2539-359 **Syntax error - expected *value1* and found *value2* instead.**

Explanation: Syntax errors were found processing information in message 2539-357.

User Response: Correct errors in the original input.

2539-360 *value is not a valid integer. The value will be interpreted as *value2*.*

Explanation: A string that should have represented an integer was parsed but errors were found. The value that the string will be interpreted as is displayed in the message. An integer must be a contiguous string of digits, optionally preceded by whitespace and at most one sign and optionally followed by whitespace.

User Response: Correct errors in the original input.

2539-361 *string is not a valid number pair. The value will be interpreted as *value1,value2*.*

Explanation: A string that should have represented two integers separated by a comma was parsed but errors were found. The value that the string will be interpreted as is displayed in the message. An integer must be a contiguous string of digits, optionally preceded by whitespace and at most one sign and optionally followed by whitespace.

User Response: Correct errors in the original input.

2539-362 **The previous message refers to the *keyword* keyword.**

Explanation: A message was displayed while parsing the value for the specified keyword. This message serves to identify the keyword to which the previous message applies

User Response: Refer to the previous message for more information.

2539-363 **The string *string_name* of *resource name* is not a valid consumable resource name.**

Explanation: The name of a consumable resource can contain only alphanumeric characters or " _ "

User Response: Redefine the consumable resource name.

2539-364 **The string *string_name* associated with the *keyword_name* keyword of *resource_type* contains invalid data.**

Explanation: Resource information specified does not have the format: **name(value units) ... name(value units).**

User Response: Redefine the consumable resource specification.

2539-365 **The resource name *resource_name* of *resource_type* has already been defined as a floating resource.**

Explanation: Resource name specified is a duplicate of a previously defined floating resource.

User Response: Redefine the consumable resource name.

2539-366 **The consumable resource *resource_name* of *resource_type* is specified more than once.**

Explanation: The resource name is specified multiple times in the same statement.

User Response: Redefine the consumable resource name.

2539-367 **The value specified for the consumable resource *resource_name* of *resource_type* is not a valid specification.**

Explanation: Resource value assigned to given resource is invalid. It must be a positive number.

User Response: Redefine the consumable resource value.

2539-368 **The *keyword_name* keyword of *resource_type* contains one or more errors.**

Explanation: Resource information specified does not have the format: **name(value units) ... name(value units)**.

User Response: Redefine the consumable resource specification.

2539-369 **The name *resource_name* has already been defined as a resource name in a LoadLeveler machine stanza.**

Explanation: Resource name specified is a duplicate of a previously defined resource name of a machine stanza.

User Response: Redefine the consumable resource name.

2539-381 **Unable to malloc *num* bytes for DCE credentials file.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-382 **Cannot read *filename*. Cannot fetch DCE security credentials.**

Explanation: LoadLeveler is unable to read the specified DCE credentials file.

User Response: Verify that the permissions on the files and credentials cache are appropriate.

2539-383 **Cannot open *filename*. Cannot fetch DCE security credentials.**

Explanation: LoadLeveler is unable to open the specified DCE credentials file.

User Response: Verify that the permissions on the files and credentials cache are appropriate.

2539-384 **Cannot open directory *directory_name*. Cannot fetch DCE security credentials.**

Explanation: LoadLeveler is unable to open the directory containing the DCE credentials files.

User Response: Verify that the permissions on the credentials cache and on the specified directory are appropriate.

2539-386 **Unable to malloc *num* bytes for opaque object.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-387 Unable to create opaque credentials object.

Explanation: LoadLeveler is unable to marshal DCE credentials into XDR format.

User Response: Contact IBM Service.

2539-388 DCE_AUTHENTICATION_PAIR keyword is not valid.

Explanation: An incorrect keyword was entered.

User Response: Correct the specified keyword in the LoadLeveler configuration file.

2539-389 Cannot spawn new GetDce Process. errno - error_num.

Explanation: LoadLeveler was unable to fork and execute the **llgetdce** process to fetch DCE credentials.

User Response: Correct the problem indicated by the error number.

2539-390 Unable to read length of opaque object from process pipe, read returned return_code.

Explanation: The **llsubmit** command could not read the length of the DCE credentials fetched by the **llgetdce** process.

User Response: Contact IBM service.

2539-391 Unable to malloc num bytes for opaque object.

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-392 Unable to read opaque object from process pipe, read returned return_code.

Explanation: The **llsubmit** command could not read the DCE credentials fetched by the **llgetdce** process.

User Response: Contact IBM service.

2539-393 Unable to read stderr from child, read returned return_code.

Explanation: LoadLeveler failed to read from the **stderr** pipe when attempting to get to the **llgetdce** process.

User Response: Contact IBM service.

2539-394 Failed to write size of opaque object (object_size) to stdout, errno = error_num.

Explanation: The opaque object contains DCE credentials fetched by the **llgetdce** process.

User Response: Contact IBM service.

2539-395 Failed to write opaque object to stdout, errno = error_num.

Explanation: The opaque object contains DCE credentials fetched by the **llgetdce** process.

User Response: Contact IBM service.

2539-396 The DCE principal of this daemon, DCE principal name of daemon, is not a member of the LoadLeveler DCE services group LoadLeveler DCE services group.

Explanation: This message is self-explanatory.

User Response: DCE login as "cell_admin" and add the DCE principal name of this daemon to the LoadLeveler DCE services group.

2539-397 **The environment variable KRB5CCNAME is not in the correct format of \'FILE:/dce credentials cache directory\'."**

Explanation: The referenced environment variable is not in the correct format.

User Response: Correct the KRB5CCNAME environment variable for user.

2539-416 **User failed username security validation. Username did not match expected name, *expected username*.**

Explanation: The user name did not match the primary LoadLeveler user name (for example, "loadl").

User Response: Ensure that **/etc/LoadL.cfg** contains the same LoadLeveler user name for all of the machines in the cluster.

2539-417 **Cannot receive hostname from client.**

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-418 **Cannot send hostname.**

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-419 **Attention: Host name returned by `validate_connection (hostname)` does not match caller host name (*host name*).**

Explanation: The name server returned a different name for this host than the name that was expected. Processing continues.

2539-420 **Connection from *hostname* rejected; not in machine list.**

Explanation: The specified host failed validation because **MACHINE_AUTHENTICATE** is set to **TRUE**, and the host is not in the LoadLeveler administration file.

User Response: If you want the host to participate in the LoadLeveler cluster, then add a machine stanza to the LoadLeveler administration file.

2539-421 **Cannot receive remote host name (*IP address port port number*) `errno` = *error num***

Explanation: `gethostbyaddr()` system call failed for the specified IP address.

User Response: Either set **MACHINE_AUTHENTICATE** to **FALSE** (to allow all hosts to participate), or verify the validity of the IP address.

2539-422 **ProtocolReset: Cannot send protocol version.**

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-423 **ProtocolReset: Cannot send machine name.**

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-424 **Cannot send step** *job step name*.

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-425 **Cannot send end of record for step** *job step name*.

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-426 **Cannot send step id** *job step name*.

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-427 **Error receiving acknowledgment for step** *job step name*.

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-428 **ProtocolReset: Cannot receive protocol version.**

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-429 **ProtocolReset: Cannot receive machine name.**

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-430 **Attention: Routing default machine.**

Explanation: Routing an entire machine object rather than transaction-specific machine data.

2539-431 **Unrecognized specification:** *specification name (specification value)*

Explanation: This is an internal LoadLeveler routing error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-432 **Invalid value defined in the** *stanza type stanza stanza name* **for keyword = value.**

Explanation: The specified keyword has an incorrect value.

User Response: Verify that the LoadLeveler administration file stanzas are correct.

2539-433 **Invalid keyword** *keyword* **specified in the** *stanza type stanza stanza name*.

Explanation: The specified keyword is not valid.

User Response: Verify that the LoadLeveler administration file stanzas are correct.

2539-434 **The keyword** *keyword* **specified in the** *stanza type stanza stanza name* **cannot be NULL.**

Explanation: The specified keyword has an incorrect **NULL** value.

User Response: Verify that the LoadLeveler administration file stanzas are correct.

2539-435 **Cannot append to *keyword* in the *stanza_name stanza_type stanza*.**

Explanation: LoadLeveler failed to append a value to a keyword in the named stanza.

User Response: Verify that you are not treating a non-list stanza keyword as a list type.

2539-436 **Cannot find central manager. Unable to queue command (*command number*) to central manager.**

Explanation: The central manager machine could not be found in this daemon's configuration.

User Response: Verify that the central manager is defined in the LoadLeveler administration file, and that it, or an alternate, is running.

2539-437 **No log directory specified in the LoadL_config file for this daemon.**

Explanation: There is no log directory specified for this daemon in the LoadLeveler configuration file.

User Response: Specify a log file for this daemon in the LoadLeveler configuration file, then reconfigure LoadLeveler.

2539-438 **Attention: Cannot chdir to *directory name*. Attempting to continue...**

Explanation: LoadLeveler is unable to change to the specified log directory.

User Response: Verify the existence of the directory, and that it has the appropriate permissions.

2539-439 **No spool directory specified in the LoadL_config file.**

Explanation: The path for the local spool directory was not specified in the LoadLeveler configuration file.

User Response: Add a path for the local spool directory to the LoadLeveler configuration file, then reconfigure LoadLeveler.

2539-440 **No execute directory specified in the LoadL_config file.**

Explanation: The path for the local execute directory was not specified in the LoadLeveler configuration file.

User Response: Add a path for the local execute directory to the LoadLeveler configuration file, then reconfigure LoadLeveler.

2539-441 **Attention: Cannot set userid to *uid number (user name)*. Attempting to continue...**

Explanation: LoadLeveler failed to set the effective userid.

User Response: Verify that the daemon runs as root, and that the **uid** is valid.

2539-442 **Attention: Cannot set groupid to *gid number (group name)*. Attempting to continue...**

Explanation: LoadLeveler failed to set the effective group id.

User Response: Verify that the daemon runs as root, and that the **gid** is valid.

2539-443 **No history file specified in the LoadL_config file.**

Explanation: There is no history file specified in the LoadLeveler configuration file.

User Response: Add a history file to the LoadLeveler configuration file, then reconfigure LoadLeveler.

2539-444 **Attention: Value specified for **cm_heartbeat_interval** is invalid. Default value (= default *cm_heartbeat_interval* value) will be used.**

Explanation: The value specified for **cm_heartbeat_interval** is not valid.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for correct **cm_heartbeat_interval** settings.

2539-445 Attention: Value specified for `cm_timeout` is invalid. Default value (*default `cm_timeout` value*) will be used.

Explanation: The value specified for `cm_timeout` is not valid.

User Response: Refer to LoadLeveler's *Using and Administering* Guide for correct `cm_timeout` settings.

2539-446 No central manager defined. Cannot continue.

Explanation: No central manager is defined in the LoadLeveler administration file.

User Response: Define a central manager in the LoadLeveler administration file, then restart LoadLeveler.

2539-447 LInetProcess: Unable to instantiate LIConfig object.

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-448 Syntax error in LoadLeveler configuration files.

Explanation: There is a syntax error in the administration or configuration files.

User Response: Verify that the syntax of the LoadLeveler configuration and administration files is valid.

2539-449 Unable to instantiate this_machine object.

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-450 Unable to instantiate this_cluster object.

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-451 Attention: No administrator list specified in LoadL_config file.

Explanation: There is no administrator list specified in the global LoadLeveler configuration file.

User Response: To enable administrative functions, specify an administrator list in the global LoadLeveler configuration file.

2539-452 *daemon name* is orphaned! Exiting...

Explanation: The specified daemon is no longer a child of the `LoadL_master` daemon.

User Response: Check the logs to diagnose the problem. Restart LoadLeveler.

2539-453 Illegal protocol (*sender process' protocol version*), received from another process on this machine - *machine name* . This daemon *daemon name* is running protocol version (*version*).

Explanation: Two daemons on this machine have different protocol versions.

User Response: Run `llctl -v` to verify the daemon and command versions. If a software upgrade is needed, then contact the LoadLeveler administrator.

2539-454 **Illegal protocol (*protocol version of sending machine*), received from *name of sending machine* . This machine *receiving machine* is running protocol version (*version*).**

Explanation: LoadLeveler daemons on two different machines are at different protocol levels.

User Response: Run `llctl -v` to verify the daemon and command versions on all of the machines. If a software upgrade is needed, then contact the LoadLeveler administrator.

2539-455 **Attention: Allocating base Machine object.**

Explanation: This is an internal LoadLeveler error.

User Response: Contact IBM service.

2539-456 **Cannot allocate Machine object for new machine: *machine name***

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-457 **Cannot gethostbyname for machine: *machine name***

Explanation: The `gethostbyname()` routine returned an error for the specified machine.

User Response: Verify that the specified machine exists, that the name being used is resolvable, and that the LoadLeveler administration file contains valid machine names.

2539-458 **Unable to find or allocate Machine object for machine (*machine name or IP address*).**

Explanation: LoadLeveler failed to locate data for the specified machine.

User Response: Verify that adequate memory is available on the specified machine, and that the LoadLeveler administration file contains valid machine names.

2539-459 **Cannot gethostbyaddr for machine: *machine name***

Explanation: The `gethostbyaddr()` routine returned an error for the specified machine.

User Response: Verify that the machine exists, that the address being used is resolvable, and that the LoadLeveler administration file contains valid machine names.

2539-460 **Cannot start thread for service *service type* on port *port number*. rc = *return code***

Explanation: LoadLeveler failed to create a thread.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-461 **Attention: Connection to *machine name* port *port number* reset. Retrying . . .**

Explanation: LoadLeveler is attempting to reconnect to named machine via indicated port.

User Response: Attention message - no action.

2539-462 **Attention: Connection to *machine name* path *socket path* reset. Retrying.**

Explanation: LoadLeveler is attempting to reconnect to named machine via indicated socket path.

User Response: Attention message - no action.

2539-463 **Cannot connect to** *machine name service name on port port number. errno = errno*

Explanation: LoadLeveler failed to connect to the specified service on the specified machine and port.

User Response: Correct the problem indicated by the error number.

2539-464 **Cannot connect to** *machine name path socket path. errno = errno.*

Explanation: LoadLeveler failed to connect to the specified machine via the specified socket path.

User Response: Correct the problem indicated by the error number.

2539-465 **sendFile: Cannot get file size. errno = errno**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-466 **sendFile: Cannot send file size. errno = errno.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-467 **sendFile: Cannot flush file size. errno = errno**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-468 **sendFile: Cannot read ready-to-receive. errno = errno**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-469 **sendFile: Requestor refuses file.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-470 **sendFile: Cannot flush file. errno = errno**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-471 **sendFile: No FileDesc specified.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-472 **receiveFile: Cannot receive file size. errno = errno.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-473 **receiveFile: Cannot send status. errno = *errno*.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-474 **receiveFile: Cannot flush file size. errno = *errno***

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-475 **Cannot receive command from client *machine name*, errno =*errno*.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-476 **Got unknown command (*command value*)**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-477 **Cannot fork child process. errno = *errno***

Explanation: The fork system call failed to fork a child process.

User Response: Correct the problem indicated by the error number.

2539-478 **Cannot change process group. errno = *errno***

Explanation: The setpgid system call failed to change a process group.

User Response: Correct the problem indicated by the error number.

2539-479 **Cannot listen on port *port number* for service *service name*.**

Explanation: LoadLeveler cannot listen on the specified port for the specified service.

User Response: Verify that the specified service is not already running on the machine, and that the port is not already in use.

2539-480 **Cannot start main socket. errno = *errno***

Explanation: The listen system call failed to start a socket.

User Response: Correct the problem indicated by the error number.

2539-481 **Cannot start new TransAction thread. rc = *return code***

Explanation: LoadLeveler failed to start a thread.

User Response: Verify that sufficient memory is available, then recycle LoadLeveler. If the problem persists, then contact IBM service.

2539-482 **Cannot start new Stream Connection thread. rc = *return code* .**

Explanation: LoadLeveler failed to start a thread.

User Response: Verify that sufficient memory is available, then recycle LoadLeveler. If the problem persists, then contact IBM service.

2539-483 **Cannot perform chmod on input socket *socket path*. *errno* = *errno***

Explanation: The **chmod** system call failed to change permissions on the specified socket path.

User Response: Verify that the socket path exists, and that the process attempting **chmod** has been authenticated.

2539-484 **Cannot start UNIX socket on path *socket path* . *errno* = *errno***

Explanation: LoadLeveler failed to start a UNIX socket.

User Response: Correct the problem indicated by the error number.

2539-485 **Cannot start new UNIX Connection thread. *rc* = *return code*.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-486 **Cannot start new datagram Connection thread. *rc* = *return code* .**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-487 **DCE authentication requested but unable to initialize Security Services. Loadleveler is terminating. Security Services issued the following error message: *error message*.**

Explanation: A command or daemon cannot communicate with Security Services.

User Response: Verify that DCE is installed on the host, and that the DCE daemons are running.

2539-488 **The *daemon name* daemon must be run as root.**

Explanation: The specified daemon can only be run by the root user.

User Response: **su** to root, then run the daemon.

2539-489 **Unable to open */dev/null* (*errno* = *errno*) to re-direct stdin. Continuing.**

Explanation: The **open** system call failed.

User Response: Correct the problem indicated by the error number.

2539-490 **Unable to open */dev/null* (*errno* = *errno*) to re-direct stdout. Continuing.**

Explanation: The **open** system call failed.

User Response: Correct the problem indicated by the error number.

2539-491 **Cannot start main thread. *rc* = *return code***

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-492 **Unable to set *_user_euid(uid number)***

Explanation: LoadLeveler failed to set the effective user id.

User Response: Verify that the daemon binary file has the appropriate permissions.

2539-493 Unable to set_user_ruid(*uid number*)

Explanation: LoadLeveler failed to set the real user id.

User Response: If the problem persists, then contact the LoadLeveler administrator.

2539-494 Unable to chdir to /tmp: *return code*.

Explanation: LoadLeveler failed to change to the /tmp directory.

User Response: Use the **strerr()** output to diagnose the problem.

2539-495 Failed to set host_entry for machine: *machine name*.

Explanation: LoadLeveler encountered an error while setting host entry information for the specified machine.

User Response: Verify that the specified machine is known to the name server; if the problem persists, then contact IBM service.

2539-496 Machine name, *machine*, exceeds *number* characters.

Explanation: The specified machine name exceeds the maximum number of characters allowed for a host name.

User Response: Verify that the host name is valid; if necessary, update the LoadLeveler administration file.

2539-497 Program Error: *error message*.

Explanation: A LoadLeveler daemon or command detected corrupted internal data.

User Response: If the problem persists, then contact IBM service.

2539-498 Security Services error. The following error message was issued: *error message*.

Explanation: An error was reported by Security Services.

User Response: Check the DCE configuration on your system and correct the problem based on the information provided in the message returned by Security Services. If the problem persists, then contact IBM service.

2539-499 Unable to obtain client credentials. Security Services issued the following error message: *error message*.

Explanation: Either the client or the LoadLeveler daemon has failed DCE security checks.

User Response: Make sure you have logged into DCE using the "dce_login" command before running LoadLeveler commands or APIs. If the problem persists, then contact IBM service.

2539-500 Unable to authenticate server. Security Services issued the following error message: *error message*.

Explanation: A Loadleveler daemon has failed security checks.

User Response: Check the DCE configuration on your system and correct the problem based on the information provided in the message returned by Security Services. If the problem persists, then contact IBM service.

2539-501 Unable to authenticate client. Security Services issued the following error message: *error message*.

Explanation: A connection to a LoadLeveler daemon has failed security checks.

User Response: Make sure you have logged into DCE using the "dce_login" command before running LoadLeveler commands or APIs. Check the DCE configuration on your system. If the problem persists, then contact IBM service.

2539-502 **Client not authorized for transaction. Security Services issued the following error message:** *error message.*

Explanation: Command or daemon cannot successfully initiate communication with Security Services.

User Response: Make sure that the client is a member of the specified DCE group.

2539-503 **Unable to determine client identity. Security Services issued the following error message:** *error message.*

Explanation: Command or daemon cannot successfully initiate communication with Security Services.

User Response: Make sure DCE daemons are running and that the DCE server is responding. If the problem persists, then contact IBM service.

2539-504 **Connection with *daemon* daemon was broken.**

Explanation: A LoadLeveler daemon or command detected an internal error.

User Response: If the problem persists, then contact IBM service.

2539-510 **Unable to determine authentication methods on host. This machine will be dropped from the cluster.**

Explanation: An error occurred while trying to determine the authentication methods defined on the current machine.

User Response: Check the DCE and Security Services configuration on your system. If the problem persists, then contact your DCE Administrator.

2539-511 **DCE authentication has NOT been requested, but only DCE authentication has been authorized on this host. This machine will be dropped from the cluster.**

Explanation: "Compat" authentication mode has been requested, but the current host only supports "DCE" authentication.

User Response: If the problem persists, then contact the DCE Administrator.

2539-512 ***Daemon* daemon unable to log in to DCE. Make sure that the DCE Registry has been set up to recognize LoadLeveler and that DCE keyfiles exist for the LoadLeveler daemons.**

Explanation: The specified daemon was unable to log into DCE. This may mean that DCE initialization required from LoadLeveler has not been performed.

User Response: Verify that DCE Registry setup required for LoadLeveler has been performed. Keyfiles will exist for the daemons if this has been done. If the problem persists, then contact your DCE Administrator.

2539-566 **Failed to route *field (specification code)* in *location***

Explanation: An error occurred attempting to route between daemons. The problem may be a network or TCP problem, or an internal LoadLeveler problem.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-567 ***object fetch function* does not recognize *specification field(specification code)***

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-568 *function name is returning a NULL element for specification specification name (specification value)*

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-569 **Internal Error: Specification specification name is not recognized.**

Explanation: Internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-591 *internal context (specification number) not recognized by fetch()*

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-592 *internal context (specification number) not recognized by insert()*

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-593 **Cannot rename file name to new file name. Logging may be incomplete. errno = errno**

Explanation: The **rename** system call failed to rename the specified file to the new name with a **.old** extension.

User Response: Verify that there is enough files system space, and that the files have the appropriate permissions. Correct the problem indicated by the error number.

2539-594 **Cannot open input file file name for copy, errno = errno.**

Explanation: The **fopen** system call failed to open the specified file for input.

User Response: Verify the existence of the file, and that it has the appropriate permissions. Correct the problem indicated by the error number.

2539-595 **Cannot open log file file name, errno = errno. Logging will go to stderr.**

Explanation: The **fopen** system call failed to open the specified log file.

User Response: Verify the existence of the file, and that it has the appropriate permissions. Correct the problem indicated by the error number.

2539-596 **No name specified for log file. Logging will go to stderr.**

Explanation: There is no log file name specified in the LoadLeveler configuration files for this daemon.

User Response: If you want logging to write to a specific file, then specify a log file in the LoadLeveler configuration file, then reconfigure LoadLeveler.

2539-597 **Error non-translated error line source line number file file name.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-599 **Job job number .step number - Unable to malloc number of bytes bytes for a MACH_USAGE struct**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-600 **Unable to create string for copy of file name.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2539-601 **Incorrect status file name - file name.**

Explanation: This is an internal LoadLeveler error.

User Response: Drain, then recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-602 **status file, file name, already exists**

Explanation: The specified status file already exists.

User Response: None

2539-603 **Cannot create status file, file name, errno = errno [error message].**

Explanation: LoadLeveler cannot create the specified file.

User Response: Verify that the file has the appropriate permissions, that you have specified the correct path to the execute directory, and that there is sufficient filesystem space.

2539-604 **Cannot open status file, file name , errno = errno [error message].**

Explanation: LoadLeveler cannot open the specified file.

User Response: Verify that the file has the appropriate permissions, that you have specified the correct path to the execute directory, and that there is sufficient filesystem space.

2539-605 **Cannot remove status file, file name , errno = error number [error message].**

Explanation: LoadLeveler could not delete the specified file.

User Response: Verify that the file has the appropriate permissions, and that you have specified the correct path to the execute directory.

2539-606 **Cannot write number bytes to status file, filename , errno = errno [error message].**

Explanation: LoadLeveler failed to write to the specified file.

User Response: Verify that the file has the appropriate permissions, that you have specified the correct path to the execute directory, and that there is sufficient filesystem space available.

2539-607 **lseek failed for status file, file name , offset = file offset , whence = offset usage flag , errno = errno [error message].**

Explanation: lseek failed to set a file pointer.

User Response: Verify that the file has the appropriate permissions, and that you have specified the correct path to the execute directory.

2539-608 **Cannot remove usage file, file name , errno = errno [error message].**

Explanation: LoadLeveler failed to delete the specified file.

User Response: Verify that the file has the appropriate permissions, and that you have specified the correct path to the execute directory.

2539-609 **Cannot open usage file *filename* to read. *errno* = *error num*.**

Explanation: LoadLeveler cannot open the specified file.

User Response: Verify that the file has the appropriate permissions, that you have specified the correct path to the execute directory, and that there is sufficient filesystem space.

2539-610 **Cannot route dispatch usage for file *filename*.**

Explanation: The **startd** cannot read or write accounting information to the job usage file.

User Response: Examine the specified file to determine why the **startd** is failing to read or write to it.

2539-611 **Cannot open usage file *filename* to write. *errno* = *error num***

Explanation: LoadLeveler cannot open the specified file.

User Response: Verify that the file has the appropriate permissions, and that you have specified the correct path to the execute directory.

2539-612 **Cannot write dispatch usage file *filename*.**

Explanation: LoadLeveler cannot write to the specified file.

User Response: Verify that the file has the appropriate permissions, and that you have specified the correct path to the execute directory.

2539-751 ***getrlimit* or *setrlimit* for resource name limit failed. *errno=errno* [*error msg*].**

Explanation: The **getrlimit** or **setrlimit** system call failed.

User Response: Consult the specified error message for more information.

2539-752 **The system call name system call failed for user *username*. *errno=error num* [*error msg*].**

Explanation: The specified system call failed.

User Response: Consult the specified error message for more information.

2539-753 **The uid for user, *user name*, on the executing machine (*uid*) does not match uid on submitting machine (*uid*).**

Explanation: The user must have the same **uid** on both the submitting and the executing machines.

User Response: Either configure LoadLeveler to allow the user only to run on machines with the same **uid**, or change the **uid** s on machines in the LoadLeveler cluster.

2539-754 **The gid (*gid*) for user, *user name*, on the submitting machine was not found in the group list for the user on the executing machine.**

Explanation: The user's group id on the submitting machine must also be valid group on the executing machine.

User Response: Either configure LoadLeveler to allow the user only to run on machines where the **gid** is valid, or add the **gid** to the user's group list on all of the machines in the LoadLeveler cluster.

2539-755 **The system call to set the real or effective uid to *uid* failed. *errno=error num* [*error msg*].**

Explanation: The specified system call failed.

User Response: Consult the specified error message for more information.

2539-756 **The setregid system call failed for gid *gid*. errno= *error num* *error msg*.**

Explanation: The **setregid** system call failed.

User Response: Consult the specified error message for more information.

2539-757 ***object ID* does not have a StepVars object.**

Explanation: The specified object was asked for its global keyword value structure, but one does not exist. The object can be a **Job**, a **Step**, or a **StepList**.

User Response: Report the error to the LoadLeveler administrator, and verify that the Job in the source file is correct.

2539-758 ***object ID* does not have a TaskVars object.**

Explanation: The specified object was asked for its global keyword value structure, but one does not exist. The object can be a: **Job**, **Step**, **StepList**, **Node**, **Task** or **TaskInstance**.

User Response: Report the error to the LoadLeveler administrator, and verify that the Job in the source file is correct.

2539-759 ***object type object num* is not contained and cannot return StepVars.**

Explanation: The specified object was asked for its global keyword value structure, but it does not keep one locally, and it is not contained by another object that does.

User Response: Report the error to the LoadLeveler administrator, and verify that the Job in the source file is correct.

2539-760 **Attempt to reassign Task instances to Step *step name*.**

Explanation: LoadLeveler tried to create the task instances for the specified step after machine assignments were made, but the step already had task instances. This indicates a failure in the LoadLeveler process.

User Response: Report the error to the LoadLeveler administrator.

2539-761 ***object type object num* is not contained and cannot return TaskVars.**

Explanation: The specified object was asked for its global keyword value structure, but it does not keep one locally, and it is not contained by another object that does.

User Response: Report the error to the LoadLeveler administrator, and verify that the Job in the source file is correct.

2539-762 **Failed to set AFS credentials. errno=*error num* *error msg*.**

Explanation: LoadLeveler failed to establish AFS token(s).

User Response: Verify that AFS is installed on the executing machine, and that **llafs.shr.o** exists in the same directory which contains **LoadL_master**.

2539-763 **Unable to set DCE security credentials. Job will proceed without DCE credentials. errno=*error num* [*error msg*].**

Explanation: LoadLeveler failed to establish DCE credentials.

User Response: Verify that DCE is installed on the executing machine, and that the executables specified in **DCE_AUTHENTICATION_PAIR** exist. Consult the specified error message for more information.

2539-764 **Unable to import DCE context. Will continue without credentials. errno=error num error msg.**

Explanation: LoadLeveler was unable to import the DCE credentials returned by the **llsetdce** executable.

User Response: Verify that **llsetdce**, or its replacement, exists, and that it matches the interface for a LoadLeveler DCE authentication exit.

2539-765 **Unable to remove DCE credentials.**

Explanation: LoadLeveler was unable to remove DCE credentials.

User Response: Monitor the DCE credential cache to see if LoadLeveler is leaving excess credentials.

2539-766 **Unable to fetch DCE credentials. DCE credentials will not be included in job submission.**

Explanation: The error message is self-explanatory.

User Response: Verify that DCE is installed, and that the **DCE_AUTHENTICATION_PAIR** keyword is set correctly in the configuration file.

2539-767 **STARTER not specified in config file.**

Explanation: The full path for the starter program must be specified in the configuration file.

User Response: Verify that the **STARTER** keyword is specified correctly in the configuration file.

2539-768 **Unable to open database for *job queue* job queue because: errno=error code (error description)**

Explanation: The job queue file could not be opened.

User Response: Consult the specified error message for more information.

2539-769 *function name:* **Error retrieving Job StepList from Queue. Unable to route step type.**

Explanation: The job in the job queue has been damaged, and could not be retrieved.

User Response: Contact the LoadLeveler administrator.

2539-770 *function name:* **Error retrieving Job Steps from Queue. object type (encoding of object) is not a valid type.**

Explanation: The job in the job queue has been damaged, and could not be retrieved.

User Response: Contact the LoadLeveler administrator.

2539-771 **Invalid data type= data type in function name.**

Explanation: This is an internal LoadLeveler error.

User Response: Recycle LoadLeveler on the affected machine(s). If the problem persists, then contact IBM service.

2539-772 **Error returned from SP Security Services [*message*]. Processing will continue without DCE credentials.**

Explanation: Security Services returned an error when LoadLeveler tried to establish the user's DCE credentials. LoadLeveler will attempt to run the job without DCE credentials.

User Response: Correct the problem indicated by the Security Services error message provided.

2539-773 **Error returned from SP Security Services [*message*]. The job will not be run.**

Explanation: Security Services returned an error when LoadLeveler tried to establish the user's DCE credentials. LoadLeveler will not attempt to run the job.

User Response: Correct the problem indicated by the Security Services error message provided, then re-run the job.

2539-774 **Error returned by `kvalid_user` indicating DCE user *DCE user name* may not access the AIX account of user *AIX user name*. The job will not be run.**

Explanation: The `kvalid_user` AIX service routine denied the DCE user access to the listed AIX user's account.

User Response: Either add the DCE principal to the `$HOME/.k5login` file, or verify that the DCE principal is the same as the AIX user, then re-run the job. If the problem persists, then contact your DCE Administrator.

2539-775 **Error returned by `resurok` indicating user *AIX user name* may not access host *AIX host name*. The job will not be run.**

Explanation: The `ruserok` AIX service routine denied the AIX user access to the AIX host. Such access is allowed if the `/etc/host.equiv` and/or `@HOME/.rhosts` files are configured properly.

User Response: Refer to the AIX documentation on `/etc/host.equiv` and `$HOME/.rhosts` files to correct the problem, then re-run the job.

2544 Error Messages

2544-850 **Cannot allocate storage for array of machines.**

Explanation: The program could not allocate virtual memory.

User Response: Verify that the machine has a reasonable amount of virtual memory available for the LoadLeveler processes. If the problem persists, then contact IBM service.

2544-851 **`Wall_clock_limit` not specified, but is required when using Backfill scheduler.**

Explanation: No value could be found in the job command file, or in the administration file, for **`wall_clock_limit`**. This limit must be specified when using the Backfill scheduler. The job step will not be run.

User Response: Specify a value for this limit in either the job command file you are submitting, or the administration file. Refer to LoadLeveler's *Using and Administering* Guide for more information on **`wall_clock_limit`**.

2544-852 **The default scheduler does not support multiple tasks per node.**

Explanation: The default LoadLeveler scheduler does not support the scheduling of multiple tasks on a node, but this has been requested in the submitted job. The job step will not be run.

User Response: Use the Backfill (or some other) scheduler that supports multiple tasks per node. Refer to LoadLeveler's *Using and Administering* Guide for more information on the **`scheduler_type`** keyword in the configuration file.

2544-853 **The default scheduler does not support multiple adapter requirements.**

Explanation: The default LoadLeveler scheduler does not support multiple **Adapter** requirements specified in multiple **network** keywords (as in the submitted job). The job step will not be run.

User Response: Use the Backfill (or some other) scheduler that supports multiple adapter requests. Refer to LoadLeveler's *Using and Administering* Guide for more information on the **`scheduler_type`** keyword in the configuration file.

2544-854 **The default scheduler does not support interactive jobsteps.**

Explanation: The default LoadLeveler scheduler does not support the scheduling of interactive jobsteps. The job step will not be run.

User Response: Use the Backfill (or some other) scheduler that supports interactive job steps. Refer to LoadLeveler's *Using and Administering* Guide for more information on the **scheduler_type** keyword in the configuration file.

2544-855 **Class *class name* with *number of defined initiators* initiators defined and *number of used initiators* currently in use is too busy to run Step *step id* requiring *number of initiators* initiators.**

Explanation: The specified interactive job step could not be scheduled because there were not enough free initiators available.

User Response: Either increase the number of initiators, or wait until some jobsteps of this class complete, then resubmit the job.

2544-856 **User *user name* running *number of steps* steps with maximum of *max number of steps* when Step *step id* is being considered.**

Explanation: The specified user has reached the maximum number of steps allowed by the **maxjobs** keyword in the user stanza in the administration file. The jobstep will not be run.

User Response: The user can wait until some of the jobs complete, or the administrator can increase the value for the **maxjobs** keyword.

2544-857 **Group *group name* running *number of steps* steps with maximum of *maximum steps* when Step *step id* is being considered.**

Explanation: The specified group has reached the maximum number of steps allowed by the **maxjobs** keyword in the group stanza in the administration file. The step will not be run.

User Response: The user can wait until some of the group's jobs complete, or the administrator can increase the **maxjobs** keyword.

2544-858 **Class *class name* is busy: steps running= *number of steps*, max= *maximum steps* when Step *step id* is being considered.**

Explanation: The specified class has reached the maximum number of steps allowed by the **maxjobs** keyword in the class stanza in the administration file. The step will not be run.

User Response: The user can wait until some of the class's jobs complete, or the administrator can increase the **maxjobs** keyword.

2544-859 **Schedd machine *machine name* is running *number of steps* steps with maximum of *maximum steps* when Step *step id* is being considered.**

Explanation: The **schedd** has reached the maximum number of steps allowed by the **max_jobs_scheduled** keyword in the administration file's machine stanza.

User Response: The user can wait until some of the **schedd**'s jobs complete, or the administrator can increase the **max_jobs_scheduled** keyword.

2544-860 **Machine *machine name* in hostlist is not in the cluster when Step *step id* is being considered.**

Explanation: The specified machine name does not match any known machines in the cluster. The step will not be run.

User Response: Either add the specified machine to the cluster, or remove it from the hostlist, then resubmit the job.

2544-861 **Machine *machine name* in hostlist is unavailable when Step *step id* is being considered.**

Explanation: The specified machine is not available. The step will not be run.

User Response: Either wait until that machine becomes available, or remove it from the hostlist, then resubmit the job.

2544-862 **Machine *machine name* is running steps, Step *step id* asks for not shared nodes.**

Explanation: A machine in the hostlist is already busy running steps, but the step being considered is set not to share nodes with other tasks (it is specified as **not_shared**). The step will not be run.

User Response: Either wait until the specified machine frees up, or remove the machine from the hostlist, then resubmit the job.

2544-863 **Machine *machine name* is busy running steps and is being used exclusively when Step *step id* is being considered.**

Explanation: A machine in the hostlist is already busy running steps, and has been allocated to another job exclusively. The step will not be run.

User Response: Either wait until that machine frees up, or remove it from the hostlist, then resubmit the job.

2544-864 **Machine *machine name* is running *number of steps* steps with **max_starters** of *maximum steps* when Step *step id* is being considered.**

Explanation: The machine has reached the maximum number of steps allowed by the **max_starters** keyword in the configuration file. The specified step will not be run.

User Response: The user can wait until some of the machines's jobs complete, or the administrator can increase the **max_starters** keyword.

2544-865 **Machine *machine name* in hostlist is not currently allowed to run steps when Step *step id* is being considered.**

Explanation: When the specified step was being considered, the specified machine was prevented from running jobs by the coding in the configuration file's execution window. The step will not be run.

User Response: Either modify the execution window for the given machine, or remove the machine from the hostlist, then try again.

2544-867 **Machine *machine name* does not have free adapter to run the Step *step id*.**

Explanation: The adapter on the specified machine is in use.

User Response: Wait until the jobstep(s) using the adapter complete, then resubmit the job.

2544-868 **Step *step id* cannot be scheduled at this time because it requires resources already reserved for a higher priority step.**

Explanation: The specified step has been superseded by a higher priority step, which required some of the same resources.

User Response: Try running the jobstep again.

2544-869 **Step *step id* was marked "not runnable" at time due to dependency.**

Explanation: The specified step cannot run because its dependency condition evaluated to false.

User Response: Fix, or eliminate, the failing dependency condition.

2544-870 **Step *step id* was not considered to be run in this scheduling cycle due to its relatively low priority or because there are not enough free resources.**

Explanation: The specified step was not considered because higher priority jobs already consumed all of the available resources.

User Response: Increase the priority of the job step, or wait until higher priority job steps complete, then resubmit the job. Also, verify that you are requesting valid resources (machines, adapters, classes, etc.).

2544-871 **The default scheduler does not support task geometry function.**

Explanation: The default LoadLeveler scheduler does not support task geometry specification in the job just submitted. The job step will not be run.

User Response: Use the Backfill (or some other) scheduler that supports task geometry function. Refer to *LoadLeveler Using and Administering* for more information on the **scheduler_type** keyword in the configuration file.

2544-872 **The default scheduler does not support the blocking function.**

Explanation: The default LoadLeveler scheduler does not support the blocking specification in the recently submitted job.

User Response: Use the Backfill (or some other) scheduler that supports the blocking function. Refer to LoadLeveler's *Using and Administering* guide for more information on the **scheduler_type** keyword in the configuration file.

2544-873 **The default scheduler does not support adapter requests for striped mode (csss).**

Explanation: The default LoadLeveler scheduler does not support adapter requests for striped mode (csss) in the recently submitted job.

User Response: Use the Backfill (or some other) scheduler that supports the adapter requests for striped mode. Refer to *LoadLeveler Using and Administering* for more information on the **scheduler_type** keyword in the configuration file.

2544-874 **Unable to find a common switch fabric among the machines in the hostlist.**

Explanation: LoadLeveler was unable to find a switch fabric that connects all machines in the hostlist for this jobstep. The jobstep cannot be scheduled at this time.

User Response: Determine why a common fabric cannot be found, or wait until all switch fabrics are available and resubmit the job.

2544-875 **Interactive step cannot run on machine *hostname*, machine mode is *machine_mode*.**

Explanation: One of the machines in specified in the hostlist for the jobstep is not configured to accept interactive jobsteps. The jobstep cannot be scheduled at this time.

User Response: Change the hostlist to exclude the machine, or reconfigure the machine to accept interactive jobsteps and resubmit the job.

2544-876 **The default scheduler does not support the restart on same nodes option.**

Explanation: The default LoadLeveler scheduler does not support the **restart_on_same_nodes** specification in the recently submitted job.

User Response: Use the Backfill (or some other) scheduler that supports **restart_on_same_nodes**. Refer to *LoadLeveler Using and Administering* for more information on the **scheduler_type** keyword in the configuration file.

2544-877 **Machine** *hostname* **has** *number* **steps running. Scheduling a new step** *new_step_number* **would exceed the number of allowed steps** *maximum allowable steps*.

Explanation: With WLM enabled a single machine can only run a maximum number of steps. A new step cannot be scheduled to run.

User Response: Job will remain idle until running jobs complete.

Chapter 2. Error Logging Facility

LoadLeveler performs error recording by using the AIX error logging facility.

Error Logging Overview

Subsystems that perform a service or function on behalf of an end user often need to report important events (primarily errors). Because these subsystems cannot communicate directly with the user, they write messages to persistent storage. This process is called error logging, and the logged information is used for debugging.

LoadLeveler uses AIX error log facilities to report events on a per-machine basis. The AIX error log should be the starting point for diagnosing system problems. For more information on AIX error log facilities, see *IBM AIX 4.3 Problem Solving Guide and Reference* SC23-2606, and *IBM General Concepts and Procedures for RISC System/6000* GC23-2202. For more information on Error Log facilities available with the SP, see *IBM Parallel System Support Programs for AIX Diagnosis Guide*, GA22-7350, and *IBM Parallel System Support Programs for AIX Messages Reference*, GA22-7352.

Error log reports include a “DETECTING MODULE” string, which contains information identifying the exact point from which a specified error was reported (e.g., software component, module name, module level, and line of code or function). The DETECTING MODULE string's format depends on the user's particular logging facility. For example, the AIX Error Log facility information appears as:

```
DETECTING MODULE  
LPP=LPP name Fn=filename SID_level_of_the_file L#=Line number
```

What Events are Recorded

The LoadLeveler error logging facility records the following events:

- A LoadLeveler daemon fails its initial start up
- LoadLeveler is improperly installed or customized
- The restarts per hour limit is exceeded
- The **LoadL_master** detects a crashing daemon
- A daemon changes state
- LoadLeveler truncates the log files

Viewing LoadLeveler Error Log Reports

Enter the following command to view a machine's LoadLeveler error reports:

```
errpt -a -N LoadLeveler
```

Clearing All LoadLeveler Error Log Entries

Enter the following command to clear all of a machine's LoadLeveler error log entries:

```
errclear -N LoadLeveler 0
```

Error Notification

You can use the AIX Error Notification Facility to notify you of a LoadLeveler error when it occurs. This facility will perform an ODM method defined by the administrator when a particular error occurs or a particular process fails. *IBM General Concepts and Procedures for RISC System/6000* (GC23-2202) explains how to use the AIX Error Notification Facility.

How Error Log Events Are Classified

Each error report begins with the error's label; every label has a suffix which categorizes each error by type (e.g., pending, temporary, or unknown). Table 1 shows each error log suffix, what type of error the suffix implies, and a brief description of what this means to the user.

Table 1. LoadLeveler Error Label Suffixes Mapped to AIX Error Log

Error Label Suffix	AIX Error Log Error Type	AIX Error Log Description
EM	PEND	The loss of availability of a device is imminent.
ER	PERM	There can be no recovery from this condition. A permanent error occurred.
ST	UNKN	It is not possible to determine the severity of the error.
TR	UNKN	It is not possible to determine the severity of the error.
RE	TEMP	The condition was recovered after several unsuccessful attempts.
DE	UNKN	It is not possible to determine the severity of the error.

Sample Error Log

The following is a sample LoadLeveler error report:

```
LABEL:          LL_TRUNCATE_ST
IDENTIFIER:     05D868E9

Date/Time:      Fri Mar 31 18:07:43
Sequence Number: 271
Machine Id:     000001801000
Node Id:        112
Class:          S
Type:           UNKN
Resource Name:  LoadLeveler

Description
SOFTWARE

Probable Causes
APPLICATION PROGRAM

User Causes
FILE NEEDS REORGANIZATION

Recommended Actions
NO ACTION NECESSARY

Detail Data
DETECTING MODULE
LPP=LoadL,Fn=dprintf_config.c,SID=1.2,L#=392,
DIAGNOSTIC EXPLANATION
Logfile "/u/loadl/log/StartLog" was truncated
```

Figure 1. Sample LoadLeveler Error Log

Possible Causes for LoadLeveler Errors

Table 2 on page 99 contains 18 common error labels; for each error label, the table provides: a description of the symptom, a list of likely causes, and the appropriate user response.

Table 2. Possible Causes for LoadLeveler Failure

<p>Label: LL_INIT_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: LoadL_master owner must be root, and set-user-id bit set.</p> <p>Explanation: The ownership and permissions of the LoadL_master file are incorrect.</p> <p>Cause: This error occurs for one of the following reasons:</p> <ul style="list-style-type: none"> • The LoadL_master file is not owned by the root user • The LoadL_master file does not have Set User ID permission (the -s flag) <p>Action: Perform the following actions:</p> <ul style="list-style-type: none"> • Issue the command: chown root LoadL_master • Issue the command: chmod u+s LoadL_master • Restart LoadLeveler
<p>Label: LL_START_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: LoadLeveler cannot continue; this host not in machine list</p> <p>Explanation: You attempted to start LoadLeveler on a machine that is not defined in the LoadL_admin file, and MACHINE_AUTHENTICATE = TRUE is set in the LoadL_config file.</p> <p>Action: Do one of the following:</p> <ul style="list-style-type: none"> • Define the machine in the LoadL_admin file • Set MACHINE_AUTHENTICATE = FALSE in the LoadL_config file <p>Then, restart LoadLeveler on the machine where the problem occurred.</p>
<p>Label: LL_START_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: START_DAEMONS flag was set to <i>value</i>. Exiting.</p> <p>Explanation: LoadL_master could not start the LoadLeveler daemons.</p> <p>Cause: The START_DAEMONS keyword was not defined, or was set to False.</p> <p>Action: Set START_DAEMONS = true.</p>

Table 2. Possible Causes for LoadLeveler Failure (continued)

<p>Label: LL_START_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: Cannot get address of <i>hostname</i> from nameserver; LoadLeveler not starting.</p> <p>Explanation: LoadLeveler could not resolve the hostname of the machine defined as the central manager.</p> <p>Cause: <code>gethostbyname()</code> failed.</p> <p>Action: Follow standard procedures for resolving nameserver problems.</p>
<p>Label: LL_INSTL_CUST_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: <i>keyword</i> not specified in config file. Admin file not specified in config! Cannot continue.</p> <p>Explanation: The specified keyword is not defined correctly.</p> <p>Cause: This error occurs for one of the following reasons:</p> <ul style="list-style-type: none"> • The keyword value is equal to a blank • The keyword is misspelled • The keyword is commented out • The keyword is missing <p>Action: Define the keyword correctly.</p>
<p>Label: LL_INSTL_CUST_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: <i>keyword=value</i> can not execute</p> <p>Explanation: LoadLeveler was unable to execute the specified keyword (binary).</p> <p>Cause: This error occurs for one of the following reasons:</p> <ul style="list-style-type: none"> • The binary does not have execute permission • The binary name was misspelled • The binary does not exist <p>Action: Correct the problem, then reissue the keyword.</p>

Table 2. Possible Causes for LoadLeveler Failure (continued)

<p>Label: LL_INSTL_CUST_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: Cannot open file <i>filename</i></p> <p>Explanation: LoadLeveler was unable to open the specified file.</p> <p>Cause: This error occurs for one of the following reasons:</p> <ul style="list-style-type: none"> • Incorrect permissions are set for the file • The file does not exist <p>Action: Correct the problem with the file.</p>
<p>Label: LL_RESTART_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: Exceeded nn restarts / hour</p> <p>Explanation: LoadL_master exceeded the maximum allowed restarts for a daemon, as defined by the RESTARTS_PER_HOUR keyword.</p> <p>Cause: The LoadL_master daemon died after exceeding the RESTARTS_PER_HOUR limit.</p> <p>Action: Examine the LoadLeveler error logs and the administrator mail for more information.</p>
<p>Label: LL_CRASH_ER</p> <p>Error Type: PERM</p> <p>Diagnostic Explanation: The <i>daemon_name</i> (process <i>pid</i>) died</p> <p>Explanation: The specified daemon died.</p> <p>Cause: This error occurs for one of the following reasons:</p> <ul style="list-style-type: none"> • The daemon received a signal • The daemon experienced an unrecoverable error <p>Action: Examine the LoadLeveler error logs for more information.</p>
<p>Label: LL_INFO_ST</p> <p>Error Type: UNKN</p> <p>Diagnostic Explanation: Started <i>daemon_name</i>, pid and pgroup=<i>pid</i></p> <p>Explanation: The specified daemon started.</p> <p>Action: None. This is an informational message.</p>

Table 2. Possible Causes for LoadLeveler Failure (continued)

<p>Label: LL_INFO_ST</p> <p>Error Type: UNKN</p> <p>Diagnostic Explanation: Got SHUTDOWN command. Got RECONFIG command.</p> <p>Explanation: LoadL_master received the specified commands.</p> <p>Cause: The llctl command was issued with either the stop, or the reconfig keyword.</p> <p>Action: None. This is an informational message.</p>
<p>Label: LL_INFO_ST</p> <p>Error Type: UNKN</p> <p>Diagnostic Explanation: Alternate central manager <i>cent_manager</i> will become active central manager. Switching central manager to <i>cent_manager</i>.</p> <p>Explanation: LoadLeveler performed central manager recovery.</p> <p>Cause: The backup central manager was unable to contact the primary central manager.</p> <p>Action: Examine the LoadLeveler error logs and the administrator mail for more information.</p>
<p>Label: LL_INFO_ST</p> <p>Error Type: UNKN</p> <p>Diagnostic Explanation: Alternate central manager <i>cent_manager</i> will return to stand-by state.</p> <p>Explanation: LoadLeveler performed central manager recovery.</p> <p>Cause: The backup central manager gave control back to the primary central manager.</p> <p>Action: None. This is an informational message.</p>
<p>Label: LL_INFO_ST</p> <p>Error Type: UNKN</p> <p>Diagnostic Explanation: <i>machine</i> is unable to serve as alternate central manager.</p> <p>Explanation: The specified machine cannot be the alternate central manager because the appropriate negotiator keyword is either defined incorrectly, or not defined for this machine.</p> <p>Cause: The specified machine was defined as the central manager.</p> <p>Action: Define the appropriate keywords.</p>

Table 2. Possible Causes for LoadLeveler Failure (continued)

Label:	LL_TRUNCATE_ST
Error Type:	UNKN
Diagnostic Explanation:	Logfile <i>filename</i> was truncated.
Explanation:	LoadLeveler truncated the specified log file because the file exceeded the size defined in the LoadL_config file.
Action:	None. This is an informational message.

Chapter 3. Problem Determination and Resolution Procedures

Related Documentation

1. *IBM LoadLeveler for AIX5L: Using and Administering*. The following sections contain useful information for diagnosing problems:
 - *Submitting and Managing Jobs - Job Command File Keywords*
 - *Submitting and Managing Parallel Jobs - Keyword Considerations for Parallel Jobs*
 - *Administering and Configuring LoadLeveler- Administering LoadLeveler, Configuring LoadLeveler, and Keyword Summary*
 - *LoadLeveler Commands - Summary of LoadLeveler Commands*
 - *Troubleshooting*
 - *Customer Case Studies*
2. *Installation Memo for IBM LoadLeveler*.
 - *Starting LoadLeveler* - includes some problem diagnosis information and mentions sample jobs which can be used to verify the configuration.
 - *Troubleshooting - Why Won't LoadLeveler Start* - provides checks the administrator can perform to identify reasons why LoadLeveler does not start, and indicates how to obtain additional messages from LoadL_master which will help diagnose the problem.
 - *Using a Switch - Using Switch Table Services* of the *PSSP: Administration Guide*, which describes the Job Switch Resource Table (JSRT).
 - *Diagnosing Job Switch Resource Table Services Problems* of the *PSSP: Diagnosis Guide*, which describes problem determination and resolution procedures for the Job Switch Resource Table (JSRT).
 - *Security on the SP System - Managing and Using SP Security Services* of the *PSSP: Administration Guide*, which describes SP Security Services.

Requisite Function

TCP/IP is used to provide communication between LoadLeveler daemons.

LoadLeveler optionally uses the following:

- LoadLeveler, when running on an SP, uses the Job Switch Resource Table and associated APIs, provided as the ssp.st component of PSSP, to manage switch resources.
- The LoadLeveler command, llexSDR, accesses the System Data Repository (SDR) using associated APIs provided in PSSP, to extract information from the SDR.
- When running DCE, LoadLeveler uses SP Security Services.

Error Information

The primary sources of error information elicited from LoadLeveler are:

- LoadLeveler log files
- Output to stdout and stderr from LoadLeveler commands and APIs
- Mail notification to the LoadLeveler user or administrator
- AIX error log files

The following sections give detailed information on these error conditions, including information on transient error data warnings.

LoadLeveler Log Files

Error Information

LoadLeveler log files.

Description

Messages indicating what the daemon or process is doing and when that processing is occurring, using timestamps. This includes what transactions being received from and sent to other daemons or processes, and indication of error conditions encountered. Indication of transactions sent to daemons as a result of invoking LoadLeveler commands are also included in the daemon logs.

Scope

There is a separate log for each LoadLeveler daemon and one for the starter process on each machine in the LoadLeveler cluster.

Transient Error Data Warnings

Files are copied to .old such that data will eventually be lost, and there is no "warning" to the administrator when data in the logs are about to wrap, and when a recent log is copied to the .old file, overwriting any existing .old file. The **SAVELOGS** keyword can be used to archive log files, instead of overwriting them. Refer to *Administering and Configuring LoadLeveler - Record and Control Log Files* in *LoadLeveler for AIX5L: Using and Administering*, for a definition of the syntax and behavior of the **SAVELOGS** keyword.

Tips for Use

Refer to *LoadLeveler for AIX5L: Using and Administering* for how to control log file contents and maximum size as discussed in *Administering and Configuring LoadLeveler - Record and Control Log Files*. You can find a job step by name in the logs by using the vi editor and looking for JOB_START or other job states.

Translation Warnings

LoadLeveler log files are not translated.

Output to stdout and stderr from LoadLeveler commands or APIs

Description

LoadLeveler commands and APIs write messages to the stdout and stderr file descriptors. Messages written to stdout are generally informational, while those written to stderr generally identify and provide information about a problem encountered while executing the command or API call.

Scope

The messages are limited in scope to the execution of the command or API call.

Mail Notification to the LoadLeveler User About Job Steps

Description

Jobs can be submitted to request that e-mail be sent to a specified user whenever a job step starts, completes, or incurs error conditions, or can request that no e-mail is sent. The e-mail includes the specific date and time that the job step started, completed or encountered an error. Upon job step completion, the exit status returned from the job is included in the notification e-mail.

Scope

Notification of job step start, completion or error condition for a particular job step to a specified userid.

Mail Notification to the LoadLeveler Administrators

Description

LoadLeveler will automatically send e-mail to the list of administrator ids specified in the LoadLeveler global configuration file to notify of error conditions in the LoadLeveler cluster.

Scope

Notification is limited to a given LoadLeveler cluster and its administrators.

AIX Error Log

Description

See “Chapter 2. Error Logging Facility” on page 97 for a discussion of AIX error logs.

Scope

Specific errors recorded by LoadLeveler, as documented in “Chapter 2. Error Logging Facility” on page 97.

Dump Information

LoadLeveler daemon dumps leave core files in /tmp named “core”. LoadLeveler command dumps leave core files in the present working directory. Subsequent core dumps will overwrite an existing core file. This is particularly likely in /tmp. For this reason, if a core dump is encountered, it is a good idea to copy the file to another directory, preserving or noting its time of creation. You can preserve the original time and date by using the `-p` option on the copy command.

Missing Dump Data Warnings

A core file may not be able to be written, or written completely, if the directory becomes full. This can happen easily to /tmp if many programs are writing to /tmp or if excessive data is saved to /tmp. If LoadLeveler cannot write the core file to /tmp for a daemon core dump, no core file is saved.

Error Data Translation Warnings

LoadLeveler daemon logs are not translated.

Trace Information

The content of LoadLeveler daemon and process log files can be controlled by the LoadLeveler administrator by specifying debug control statements in the local and/or global configuration files. The debug control statements contain debug flags which tell LoadLeveler what type of output to include in the specified log file. This is described in detail in *LoadLeveler for AIX5L: Using and Administering*, “Record and Control Log Files”.

Trace Data Expiration Warnings

LoadLeveler trace data dumps leave core files in /tmp named “core”. LoadLeveler trace dumps leave core files in the present working directory. Subsequent core dumps will overwrite an existing core file. This is particularly likely in /tmp. For this reason, if a core dump is encountered, it is a good idea to copy the file to another directory, preserving or noting its time of creation. You can preserve the original time and date by using the `-p` option on the copy command.

Missing Trace Data Conditions

A core file may not be able to be written, or written completely, if the directory becomes full. This can happen easily to /tmp if many programs are writing to /tmp or if excessive data is saved to /tmp. If LoadLeveler cannot write the core file to /tmp for a trace dump, no core file is saved.

Trace Data Translation Warnings

LoadLeveler logs are not translated.

Information to Collect Prior to Contacting IBM Service

Having the following information ready before calling IBM Service will help to isolate problem conditions.

- A description of the problem or failure, and an indication of what workload was occurring when the problem or failure occurred
- The level of LoadLeveler installed. Use **lslpp -h <filesename>**. If different levels of LoadLeveler are being run in the cluster, indicate which level is being run on each machine.
- The LoadLeveler configuration and administration files. If local configuration files are being used on machines that are involved in the specified problem, include them also.
- The LoadLeveler daemon and process log files. These files will exist for each machine running LoadLeveler daemons. They may exist in a file system on the machine, or in a shared file system such as GPFS; their location and maximum size are configurable by the LoadLeveler administrator(s).
- Job output and error files.
- Output to stdout and stderr from LoadLeveler commands and/or APIs. This output must be manually re-created and saved to file.
- The core dump files from LoadLeveler daemons or commands; these will exist on the system if a daemon or command died and was able to write a core file.
- The AIX Error Log; this will exist on the system.
- lslpp output to identify level of LoadLeveler running on all machines
- Description of configuration - /etc/LoadL.cfg LoadL_config, local config and LoadL_admin files
- Whether the LoadLeveler cluster is reading config files from a shared file system, or if the config files reside on each node. Are the LoadL_config files the same on each node? How about the LoadL_admin file?
- Is AFS being used?
- Is DCE being used?
- Is the LoadLeveler cluster on an SP or on a cluster of TCP/IP-connected workstations?
- Is GPFS being used?
- Is there a switch on the SP? If so, what kind?
- Is the problem occurring with the daemons or the commands?
- Are daemons running as expected?
- Are jobs being submitted as expected?
- Are jobs running as expected?

Diagnostic Procedures

Test Description

Submit a series of jobs to verify that LoadLeveler is operating properly.

Instructions For Performing Test

1. Configure LoadLeveler and bring up the LoadLeveler cluster.
2. Start LoadLeveler as detailed in the *Installation Memo for IBM LoadLeveler*
3. Check that all the expected machines are running the LoadLeveler daemons; use the **llstatus** command to do this.
4. If you intend to run parallel jobs and your LoadLeveler cluster includes an SP with a switch, then you should verify that the machine and the adapters are configured and operating correctly by running the parallel jobs in the samples directory , /usr/lpp/LoadL/full/samples, (ipen0.cmd, ipcsc0.cmd, uscsc0.cmd). You must read the parallel job command files because a C program must be compiled to use them. Instructions are provided in the job command files.

Table 3. Diagnosis Tests to Run

Suite	Test	Job Command File	Test Description
Serial			
	Test1	job1.cmd	Simple serial job running a shell script in the job command file
	Test 2	job2.cmd	Checkpointing job
	Test 3	job3.cmd	Simple serial job running a compiled C program
Parallel			
	Test 4	ipen0.cmd	Parallel job using IP over en0
	Test5	ipcsc0.cmd	Parallel job using IP over css0
	Test6	uscsc0.cmd	Parallel job using US over css0 one task per node
	Test 7	musppacsc0.cmd	Parallel job using US over css0 multiple tasks per node

Instructions To Verify Test

If the jobs do not run, then use **llq -s** to find out why. See *LoadLeveler for AIX: Using and Administering*, Appendix A: Troubleshooting. If the jobs do run, use **llq** to monitor their status. When the jobs have completed, inspect output and error files from the jobs; see the job command files for where the output and error files will be written.

Actions to Take if Test Failed

If the jobs did not run or if they ran but terminated with a non-zero exit code, consult *LoadLeveler for AIX: Using and Administering*, Appendix A: Troubleshooting. If the problem persists, then contact IBM Service.

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Glossary

This section contains some of the terms that are commonly used in the LoadLeveler books and in this book in particular.

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Other definitions in this glossary are taken from *IBM Vocabulary for Data Processing, Telecommunications, and Office Systems* (GC20-1699), *IBM DATABASE 2 Application Programming Guide for TSO Users* (SC26-4081), and *Internetworking With TCP/IP, Principles, Protocols, and Architecture*, by Douglas Comer, Copyright 1988 by Prentice Hall, Incorporated

A

AFS. Andrew File System.

AIX. Abbreviation for Advanced Interactive Executive, IBM's licensed version of the UNIX operating system. AIX is particularly suited to support technical computing applications, including high function graphics and floating point computations.

Authentication. The process of validating the identity of a user or server.

Authorization . The process of obtaining permission to perform specific actions.

B

Berkeley Load Average. The average number of processes on the operating system's ready to run queue.

C

C. A general purpose programming language. It was formalized by ANSI standards committee for the C language (X3J11) in 1984 and by Uniform in 1983.

client. *(1) A function that requests services from a server, and makes them available to the user. *(2) An

address space in MVS that is using TCP/IP services.

*(3) A term used in an environment to identify a machine that uses the resources of the network.

cluster. (1) A group of processors interconnected through a high speed network that can be used for high performance computing. (2) A group of jobs submitted from the same job command file. (3) A set of machines with something in common between them. This commonality could be that they are all backed up by one machine or they are all in the LoadLeveler administration file.

D

daemon. A process, not associated with a particular user, that performs system-wide functions such as administration and control of networks, execution of time-dependent activities, line printer spooling, and so on.

datagram. A protocol known as the User Datagram Protocol (UDP). It is an internet standard protocol that allows an application program on one machine to send a datagram to an application program on another machine. UDP uses the Internet Protocol to deliver datagrams. Conceptually, the important difference between UDP and IP is that UDP messages include a protocol port number, allowing the sender to distinguish among multiple destinations (application programs) on the remote machines. In practice, UDP also includes a checksum over the data being sent.

DCE. Distributed Computing Environment.

default. An alternative value, attribute, or option that is assumed when none has been specified.

DFS. Distributed File System. A subset of the IBM Distributed Computing Environment.

H

host. A computer connected to a network, and providing an access method to that network. A host provides end-user services.

M

menu. A display of a list of available functions for selection by the user.

Motif. The UNIX industry's standard user interface, originally developed by the Open Systems Foundation. Motif is based on the X-Window system and is a Presentation Manager look-alike. Motif is available for all IBM AIX workstations.

N

network. An interconnected group of nodes, lines, and terminals. A network provides the ability to transmit data to and receive data from other systems and users.

NFS. Network File System.

node. In a network, the point where one or more functional units interconnect transmission lines. A computer location defined in a network.

NQS. Network Queueing System.

P

parameter. *(1) A variable that is given a constant value for a specified application and that may denote the application. *(2) An item in a menu for which the operator specifies a value or for which the system provides a value when the menu is interpreted. *(3) A name in a procedure that is used to refer to an argument that is passed to the procedure. *(4) A particular piece of information that a system or application program needs to process a request.

process. *(1) A unique, finite course of events defined by its purpose or by its effect, achieved under defined conditions. *(2) Any operation or combination of operations on data. *(3) A function being performed or waiting to be performed. *(4) A program in operation. For example, a daemon is a system process that is always running on the system.

S

SDR. Abbreviation for System Data Repository. A repository of system information describing SP hardware and operating characteristics.

server. (1) A function that provides services for users. A machine may run client and server processes at the same time. (2) A machine that provides resources to the

network. It provides a network service, such as disk storage and file transfer, or a program that uses such a service.

shell. The shell is the primary user interface for the UNIX operating system. It serves as command language interpreter, programming language, and allows foreground and background processing. There are three different implementations of the shell concept: Bourne, C and Korn.

stream. An internet standard transport level protocol that provides the reliable, full duplex, stream service on which many application protocols depend. TCP allows a process on one machine to send a stream of data to a process on another. It is connection-oriented in the sense that before transmitting data, participants must establish a connection. Software implementing TCP usually resides in the operating system and uses the IP protocol to transmit information across the Internet. It is possible to terminate (shut down) one direction of flow across a TCP connection, leaving a one-way (simplex) connection. The Internet protocol suite is often referred to as TCP/IP because TCP is one of the two most fundamental protocols.

System Administrator. The user who is responsible for setting up, modifying, and maintaining LoadLeveler.

U

user. Anyone who is using LoadLeveler.

W

working directory. All files without a fully qualified path name are relative to this directory.

workstation. *(1) A configuration of input/output equipment at which an operator works. *(2) A terminal or microcomputer, usually one that is connected to a mainframe or to a network, at which a user can perform applications.



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