
AIX System Diagnostics (ASD)

Quick Reference

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Overview

AIX System Diagnostics (ASD) provides a set of online diagnostic tools. ASD is a Motorola value-add product.

With ASD, you can run diagnostic tests on individual system components:

- SCSI sequential or random access devices (for example, tape and disk tests)
- Floppy devices
- File systems
- Asynchronous serial ports (single-port and port-to-port loopback tests)

You can also run predefined test suites on multiple system components:

- SCSI controllers and associated devices
- Multiple floppy devices
- Internal or external asynchronous subsystems (serial ports)
- Internal or external confidence tests (SCSI, floppy, and serial ports)

Diagnostic operations are presented in a hierarchical series of menus and fill-in forms. When possible, fill-in forms contain defaults to help get you started quickly.

Results, status, and errors for individual component tests, appear in the active ASD window.

Predefined test suites make use of the `launcher` program, which pops up a series of three additional windows that report diagnostic status, output, and errors from user-definable log files. Use `+` or `-` to switch between the three reporting windows. Use `h` or `?` to get help within `launcher`.

You must have `root` privileges to run ASD.

Getting Started

Installing ASD

ASD typically installs automatically with the AIX operating system. To see if ASD is installed on your system, enter the following at the prompt:

```
lslpp -h asd.rte
```

A message appears telling you whether or not ASD is installed.

If you do need to install ASD...

1. Insert the AIX CD into the drive.

2. At the root prompt, enter

```
smit install_selectable_all
```

A fill-in form appears, prompting you for the installation input device.

3. Use `List` to select the installation CD drive, for example,

```
/dev/cd0 (Multimedia CD-ROM)
```

4. Click `Do` or press `Enter`.

Another fill-in form appears, prompting you for the package you want to install.

5. Enter

```
asd.rte
```

6. Click `Do` or press `Enter`.

7. Answer `Yes` to “Commit software updates?” and click `Do` or press `Enter`.

ASD is now installed!

Running ASD

You will use the System Management Interface Tool (SMIT) to run online AIX System Diagnostics.

- ❑ To run the X Windows or ASCII version of ASD, enter the following at the prompt:

```
smit asd
```

(The SMIT tool senses the environment and runs the correct version.)

- ❑ To force the ASCII version of ASD to run on an X terminal, enter the following at the prompt:

```
smit -C asd
```

- ❑ If you are already in the top-level SMIT menu, click on or select

```
AIX System Diagnostics (ASD)
```

Using Fast Paths

“Fast Path” commands get you directly to lower-level tests from the command line. Here are the available commands:

To run diagnostics on...	Use this Fast Path Command...
SCSI Sequential Access Devices (for example, tape devices)	<code>smit sd_tape</code>
SCSI Random Access Devices (for example, disk devices)	<code>smit sd_disk</code>
Floppy Devices (read/read/verify test)	<code>smit sd_flop</code>
File systems (write/read/verify test)	<code>smit sd_fswrite</code>
Single-port asynchronous serial communications	<code>smit sd_asploop</code>
Port-to-port asynchronous serial communications	<code>smit sd_apploop</code>
All SCSI controllers and devices	<code>smit sd_scsi_ts</code>
All floppy devices	<code>smit sd_flop_ts</code>

To run diagnostics on...	Use this Fast Path Command...
All asynchronous serial ports (internal loopbacks)	<code>smit sd_intasync_ts</code>
All asynchronous serial ports (external loopbacks)	<code>smit sd_extasync_ts</code>
All SCSI controllers and devices and asynchronous serial ports (internal loopbacks)	<code>smit sd_intconf_ts</code>
All SCSI controllers and devices and asynchronous serial ports (external loopbacks)	<code>smit sd_extconf_ts</code>

Navigating

ASCII Version Navigation

The title of the current menu always appears at the top of the screen.

Use the arrow keys to navigate up and down through the menu selection list or fill-in form fields.


Use the terminal-specific function keys defined at the bottom of the screen to perform other SMIT navigation functions.

X Windows Version Navigation

SMIT provides visual cues to help you determine where you are in the menu structure:

- ❑ The title of the current menu always appears in the space between the upper and lower SMIT screen windows.
- ❑ The `Return To:` window at the top of the SMIT screen always shows the sequential list of previous menu selections that brought you to the current menu or form.

Navigate through the hierarchy of ASD menus by selecting (clicking on) options that appear in the lower SMIT window or clicking on any item in the Return To : window.

 Backs up to the previous menu.

SMIT exits if you are at the top-level menu and there is no previous menu.

Getting Help

Context-sensitive, online help is available to assist you in using and running ASD.

ASCII Version Help

The Help function key defined for your terminal appears at the bottom of the screen.

For most terminals, F1, PF1, or ESC+1 (press ESC, then 1) displays the context-sensitive help for the menu selection or field that is highlighted.

X Windows Version Help

1. Choose On Context from the SMIT pull-down Help Menu.
The cursor changes to a question mark (?).
2. Click on any of the highlighted menu selection or fill-in form items.
A pop-up help screen appears.
3. Click the **Keep** button to keep the pop-up help menu on the screen.
Click the **Cancel** button to close the pop-up help menu.

If you get an error stating that help is not available, see your system administrator or refer to the *AIX Installation Guide* for information on setting up the language environment correctly.

Obtaining Additional ASD Information

Refer to the `asd` online manual page for the most current information on available ASD diagnostic tests and for a list of related online manual pages.

You can also browse the ASD product menu tree: `/usr/lpp/asd.rte/man`.

SMIT Survival Tips

Here are some tips that will help you with your first encounters with SMIT:


ASCII Version Tips


Terminal-specific SMIT function keys are defined at the bottom of the screen.


If the screen contains garbage characters, repetitive character sequences, or the function keys do not operate properly, either your terminal or terminal description is not set up or defined correctly. Contact your system administrator for assistance.

If the function keys do not work properly, try the equivalent escape sequences—press `Esc`, followed by the specified key. For example, use `Esc+1` for `F1=Help`, `Esc+3` for `F3=Cancel`, or `Esc+0` for `F10=Exit`.


X Windows Version Tips


- ❑ The SMIT “management” functions appear in pull-down menus at the very top of the screen.
`Help` is on the far right-hand side!
- ❑ The `Index` pull-down help function is **not** a linked help index, as it appears at first glance. Instead, this is simply a file containing a collection of SMIT topics. Use the scroll bar to navigate through the file.
- ❑  Click on this button to display the list of available field options.

-  Click on these arrow buttons to move through the list of available field options.


-  Click on this button to perform the current task, function, or command.


The figure in the top right-hand corner provides status on the specified task, function, or command:

 running

 failed

 completed successfully

-  Click on this button to stop the current task, function, or command.

-  Click on this button to close the command window.

SMIT Screen Symbols

Special symbols can appear in various places within fill-in forms, also referred to as dialogs, that signify field types or attributes as follows:

- * required field
- # numeric field
- X hexadecimal field
- / file name
- + list of choices is available for field (appears in ASCII version only)

Obtaining Additional SMIT Information

Refer to the general SMIT Help screens and the InfoExplorer database for more information about SMIT.