

8.12.8 cpio and dd Facts

This lesson covers the following topics:

- Using cpio
- Using dd

Using cpio

The **cpio** command is used to archive files or to extract files from a cpio archive. Although similar to other archive tools, **cpio** is different because it takes only the files names from standard input.

The cpio command:

- Copies files to an archive (copy-out mode).
- Extracts files from an archive (copy-in mode).
- Copies files to a different directory tree (copy-pass mode).

Command	Descriptions		Example
cpio	Option	Description	<p>ls ~/4archive cpio -ov > filename.cpio Creates a cpio archive from the files in the ~/4archive directory.</p> <p>cpio -iv < filename.cpio Extracts the files from the cpio archive.</p> <p>ls ~/copyme cpio -pvd ./newdirectory Copies files from ~/copyme to ./newdirectory.</p>
	-o	Creates the archive in copy-out mode.	
	-v	Causes cpio to display verbose output, showing file names as they're added or removed.	
	-i	Extracts files by invoking copy-in mode.	
	-u	Overwrites existing files.	
	-d	Creates directory paths (if needed) during extraction.	
	-t	Displays archive contents without extracting files.	
	-p	Copies files to a new directory (copy-pass mode).	

Using dd

The dd command stands for “data duplicator” and is used to copy and convert data. The dd command can be used for tasks such as:

- Backing up and restoring the entire hard disk or partition
- Backing up the Master Boot Record (MBR)
- To copy and convert magnetic tape format
- To convert between ASCII and EBCDIC formats
- To convert lower case to upper case

Command	Description	Examples																		
dd	<p>The dd command stands for “data duplicator” and is used to copy and convert data. The dd command can be used for tasks such as:</p> <ul style="list-style-type: none">• Backing up and restoring the entire hard disk or partition• Backing up the Master Boot Record (MBR)• To copy and convert magnetic tape format• To convert between ASCII and EBCDIC formats• To convert lower case to upper case <p>The syntax of dd is: dd options=value</p> <table><tr><th>Option</th><th>Description</th></tr><tr><td>bs=BYTES</td><td>Read and write up to BYTES bytes at a time (default: 512); overrides ibs and obs</td></tr><tr><td>cbs=BYTES</td><td>Convert BYTES bytes at a time</td></tr><tr><td>conv=CONVS</td><td>Convert the file as per the comma separated symbol list</td></tr><tr><td>count=N</td><td>Copy only N input blocks</td></tr><tr><td>ibs=BYTES</td><td>Read up to BYTES bytes at a time (default: 512)</td></tr><tr><td>if=FILE</td><td>Read from FILE instead of stdin</td></tr><tr><td>iflag=FLAGS</td><td>Feed as per the comma separated symbol list</td></tr><tr><td>obs=BYTES</td><td>Write BYTES bytes at a time</td></tr></table>	Option	Description	bs=BYTES	Read and write up to BYTES bytes at a time (default: 512); overrides ibs and obs	cbs=BYTES	Convert BYTES bytes at a time	conv=CONVS	Convert the file as per the comma separated symbol list	count=N	Copy only N input blocks	ibs=BYTES	Read up to BYTES bytes at a time (default: 512)	if=FILE	Read from FILE instead of stdin	iflag=FLAGS	Feed as per the comma separated symbol list	obs=BYTES	Write BYTES bytes at a time	<p>dd if=/dev/sda of=/dev/sdb Will clone one hard disk to another hard disk.</p> <p>dd if=hdadisk.img of=/dev/sdb3 Will restore the above image to an other machine.</p> <p>dd if=/dev/hda1 of=~/partition.img Will backup a partition to an image name partition.img</p>
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		(default: 512)	
	of=FILE	Write to FILE instead of stdout	
	oflag=FLAGS	Write as per the comma separated symbol list	
	seek=N	Skip N obs-sized blocks at start of output	
	skip=N	Skip N ibs-sized blocks at start of input	
	status=LEVEL	The LEVEL of information to print to stderr; 'none' suppresses everything but error messages, 'noxfer' suppresses the final transfer statistics, 'progress' shows periodic transfer statistics	

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