

MAKBD

FUNCTION

Copies one or more AMOS logical disks to a recordable DVD-RAM or Blu-ray disc (BD-RE) in a supported DVD-RAM or Blu-ray drive. DVDs and BD-REs created with MAKBD can be used for system backups. DVDs and BD-REs created with MAKBD can be easily read with the DIRBD or BDRES programs.



AlphaDVD is NOT compatible with AlphaDBD. AlphaDVD supports DVD-RAM media backups. AlphaDBD supports DVD-RAM and BD-RE media. The two packages have different formats. AlphaDVD copies an entire logical, but AlphaDBD copies only used logical blocks. AlphaDVD can not read AlphaDBD media and AlphaDBD cannot read AlphaDVD media.

CHARACTERISTICS

MAKBD copies used blocks from logical AMOS disk drives onto a DVD or BD-RE in a format that is compatible with the DBD program. A DVD can contain up to approximately 4.7 gigabytes of data, and a BD-RE contains up to 23 gigabytes of data. MAKBD creates a drive structure on the DVD or BD-RE that is supported by the DBD program. Only used blocks are copied to the DVD-RAM or BD-RE media. DVD-RAM or BD-RE media may be reused.

MAKBD will start recording at the beginning of the DVD or BD-RE and use only as much space as required to hold the used data blocks.

MAKBD uses the available user memory for data buffers in order to continue supplying data to the DVD-RAM or Blu-ray drive while other system or multi-user activity occurs.

FORMAT

```
MAKBD {switches}
```

OPTIONS

<code>/HELP</code>	Display the available options and exits
<code>/?</code>	Same as <code>/HELP</code>
<code>/V</code>	Display version information and exits
<code>/COUNT:n</code>	Creates n DVDs or BD-REs containing the same data
<code>/DEV:xxx:</code>	Uses device and driver named xxx: instead of the default DBD:

/EJECT	Ejects the DVD or BD-RE in the drive
/ID:n	Uses the DVD-RAM or Blu-ray drive at SCSI ID n instead of scanning the SCSI bus to find a DVD-RAM or Blu-ray drive. The ID can be from 0 to 15.
/NOEJECT	The DVD or BD-RE media will not be ejected from the drive.
/PIC	Displays the Product Installation Code
/VERBOSE	Display additional error messages.

MAKBD with no switches will create a DVD or BD-RE using the DBD: device found by scanning the SCSI bus.

OPERATION



MAKBD works best on a job with 132 columns set as the terminal width.

Before starting the program, place a DVD-RAM or BD-RE media in the drive.



Copying logical disks that are being updated by other users to the DVD-RAM or Blu-ray drive can result in DVD-RAMs or BD-REs containing incorrect or incomplete data.

Type MAKBD from the AMOS prompt:

```
MAKBD 
```

MAKBD will attempt to find a DVD-RAM or Blu-ray drive that is compatible with the DVD-RAM or Blu-ray driver being used. The driver must have the name DBD.DVR and be loaded in system memory. MAKBD will find the DVD-RAM or Blu-ray drive either using the command line switches /DEV and /ID or by defaulting to DBD: if /DEV is not specified and by scanning the SCSI bus if /ID is not specified. If more than one DVD-RAM or Blu-ray type device is found when scanning the SCSI bus, you will be asked to choose the device you wish to use for recording.

After entering the MAKBD command, the following will be displayed:

```
MAKBD Version X.X(xxx) - Copyright 2007, Alpha Microsystems
Initializing SCSI DVD-RAM or Blu-ray Recorder...
```

If MAKBD finds multiple DVD-RAM or Blu-ray drives, the following message will be displayed to allow you to select the drive to use:

Found the following possible DVD-RAM or BD-RE Recorders:

```
      ID  Description
1      nn  xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

```
2  nn  xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

Select one of the above devices:

Additional information about the DVD-RAM or Blu-ray drive, driver, and media is then displayed:

```
Using Generic SCSI DVD-RAM or BD-RE driver (DVDBD).
DVD-RAM or BD-RE Recorder located at SCSI id 4
```

MAKBD then asks for an optional title for the DVD or Blu-ray drive. The title may be up to 60 characters long.

```
You may enter an optional title for the DVD or press RETURN for
none.
Title: END OF MONTH BACKUP...
```

Next MAKBD asks for the AMOS logical drives to copy to the DVD or BD-RE, as follows:

```
Enter list of disk devices to transfer onto the DVD or Blu-ray
media. Devices may be entered as a range (e.g.: DEV0: -20 for
DEV0: thru DEV20:), or may be comma separated, The list is
terminated with a blank line:
```

*
Enter the logical drives to be copied and then just a [return] when all desired drives have been entered.

```
*REX0: -15
*
```

```

L -----B--L--O--C--K--S----- --BITMAP--
#  ITEM  T  --Total---  ---Used---  ---Free---  --words---
1  REX00: E   307200.   20928.    286272.    19200.
2  REX01: E   307200.   216928.    90272.     19200.
3  REX02: E   307200.    2617.    304583.    19200.
4  REX03: E   307200.   36155.    271045.    19200.
5  REX04: E   307200.   63972.    243228.    19200.
6  REX05: E   307200.    7085.    300115.    19200.
7  REX06: E   307200.   57016.    250184.    19200.
8  REX07: E   307200.   17996.    289204.    19200.
9  REX08: E   307200.   40664.    266536.    19200.
10 REX09: E   307200.    8072.    299128.    19200.
11 REX10: E   307200.   32551.    274649.    19200.
12 REX11: E   307200.    3804.    303396.    19200.
13 REX12: E   307200.   84153.    223047.    19200.
14 REX13: E   307200.   19063.    288137.    19200.
15 REX14: E   307200.   52946.    254254.    19200.
16 REX15: E   307200.  241467.    65733.    19200.
TOTAL:      4915200.  905417.   4009783.
(megabytes) 2400.000   442.098   1957.901
(gigabytes)  2.3438    0.4317    1.9120
```

MAKBD then displays information about how much space is required on the media and where recording will start.

```
Calculating space requirements:
  AMOS partition requires 226354 sectors. (442.098 Mb)
  Media sectors available = 2462959
  2236605 unused sectors remain. (4368.369 Mb)
```

MAKBD then gives you the opportunity to abort or to start the recording process.

Note that once started, the recording operation can be stopped by pressing ^C.

Press RETURN to start recording or ^C to abort.

The recording process then begins. As it progresses, status messages are displayed:

```
Transferring REX000:      20928 used blocks   1 of 16
Transferring REX001:     216928 used blocks   2 of 16
Transferring REX002:       2617 used blocks   3 of 16
Transferring REX003:     36155 used blocks   4 of 16
Transferring REX004:     63972 used blocks   5 of 16
Transferring REX005:       7085 used blocks   6 of 16
Transferring REX006:     57016 used blocks   7 of 16
Transferring REX007:    17996 used blocks   8 of 16
Transferring REX008:    40664 used blocks   9 of 16
Transferring REX009:       8072 used blocks  10 of 16
Transferring REX010:    32551 used blocks  11 of 16
Transferring REX011:       3804 used blocks  12 of 16
Transferring REX012:    84153 used blocks  13 of 16
Transferring REX013:    19063 used blocks  14 of 16
Transferring REX014:    52946 used blocks  15 of 16
Transferring REX015:   241467 used blocks  16 of 16
Waiting for DVD-recorder to finish writing...Completed.
```

Also the following information is displayed on the status line:

The percentage complete shows how much of the current logical's used blocks has been written to the DVD-RAM or Blu-ray media.

When all data has been written to the DVD-RAM, the following message is shown:

```
AlphaDBD creation complete.
```

And then the DVD-RAM or BD-RE is ready to use.

REQUIREMENTS AND SETUP

DBD requires the following:

- AM-8000, Eagle 800, or AMPC 7.x system
- A fully interrupt-enabled SCSI dispatcher.
- AMOS 8.1(102)-2 or later.
- A supported DVD-RAM or Blu-ray drive.

The DBD package contains the following required files:

- DBD.LIT

- The device driver (DBD.DVR) for the DVD-RAM or Blu-ray drive, in system memory.
- The SSD overlay file (DVD000.OVR)
- MAKBD.LIT
- DIRBD.LIT
- BDRES.LIT

MODIFYING THE SYSTEM INITIALIZATION FILE:

You must load the device driver into system memory during system initialization by adding the following statement in your system initialization file:

```
SYSTEM DSK0:DBD.DVR[1,6]
```

This statement should be added in the same area of the system initialization file that is currently loading other system device drivers.

MESSAGES

Command line syntax messages:

- Invalid switch
- Invalid switch option

System requirements messages:

- If your memory partition is too small for MAKBD, the following message will display:
%Error - Memory requirements have not been met. CODE: N.
- Minimum memory to run MAKBD.LIT is 430 KB (449,320 bytes)

DVD-RAM or Blu-ray Recorder device or driver messages:

- Device specified is not a DVD-RAM or Blu-ray Recorder.
- Unable to find a DVD or Blu-ray Recorder.

Error messages when setting up or writing to the DVD Recorder

- Error - Buffer not initialized.
- Error - Device is already in use.
This indicates that either another user is running the MAKBD program or the DBD is being used in shared read/write mode.
- Error - Disk in DVD-Recorder is not writeable.
- Error - DVD-RAM driver must be in system memory.
- Error - Total data requirements exceed DVD capacity.
- Error - Unable to load DVD media.
This indicates a hardware problem with the DVD-RAM drive or a problem with the DVD media.

- Error - Unable to open DVD recording session.
Try a different DVD media. This can also indicate a possible DVD-RAM drive problem.
- Error - Unable to open for recording.
Try a different DVD media. This can also indicate a possible DVD-RAM drive problem.
- Error - Unable to read disk information from media.
Try a different DVD media. This can also indicate a possible DVD-RAM drive problem.
- Error - Unable to write to the DVD.
A device error has occurred while attempting to record data on the DVD.
- Fatal SCSI error. Sense key=nn additional sense=nn
DVD drive device error has occurred. Sense key and additional sense provide further error information.
- Please insert a DVD-RAM media
- SCSI error - xxxxxxxx
[sense error message] Code= nn.nn
DVD-RAM drive device error has occurred. Code provides additional SCSI error sense information.
- Warning - Maximum number of devices exceeded - extras ignored.
- Warning - Unable to close DVD.
Device error occurred while closing the current DVD. The DVD-RAM may or may not be usable.

Errors concerning the AMOS DVD data structure:

- Error - Disk geometry calculation was incorrect.
The AMOS hidden sector parameters calculated are invalid.
- Error - memory previously calculated as available isn't
Memory required for data buffers has increased, bump your memory partition.
- Error - No devices specified.
User did not specify any AMOS logical disks to be copied to the CD.
- Error - unable to get AMOS data buffer
The system was unable to acquire memory for data buffers.
- Error- Unable to remove DVD Recorder data buffer from memory.
- Unable to continue due to one or more errors shown above.
Testing of logical disk drive transfer rates resulted in the errors listed above.

Normal informational messages:

- AlphaDBD creation complete
The recording of data on the DVD media is done.
- Calculating space requirements:
AMOS partition requires 16165 sectors
Media sectors available = 2236703
2220538 unused sectors remain.
This shows information about how much space the data consumes on the DVD and how much empty space remains.
- DVD-RAM Recorder located at SCSI id n
This shows the SCSI id of the DVD-RAM Drive being used.
- Note that once started, the recording operation can be stopped by pressing ^C.

- Press RETURN to start recording or ^C to abort.
This is the final prompt before recording begins. You may abort by pressing control-C or start the recording process by pressing RETURN.
- Transferring DSK0:
- Using Generic SCSI DVD-RAM and BD-RE driver (DVDBD)
This message shows the DVD driver name and description being used.
- Waiting for DVD-Recorder to finish writing...Completed.
The memory data buffers and the DVD-RAM Drive's cache buffers are being recorded on the DVD media.
- nn% complete
This message shows percentage of the recording process completed for the current logical. This message appears on the terminal's status line.