## NAME

**mbdefaults** − Set or list default mbio parameters for reading and writing swath sonar data

## VERSION

Version 5.0

## SYNOPSIS

**mbdefaults** [−**B***fileiobuffer* −**D***psdisplay* −**F***fbtversion* −**I***imagedisplay* −**L***lonflip* −**M***mbviewsettings* −**T***timegap* −**U***uselockfiles* −**W***project* −**V** −**H**]

## DESCRIPTION

**mbdefaults** is a utility for setting or listing the default read parameters used by some **MBIO** utilities such as **MBcopy** or **MBgrdviz**. If a user wishes to set default parameters different from those set by the **MBIO** library, then these specialized default values must be stored in the file .mbio_defaults in the users home directory. If any option flag is given in invoking **mbdefaults**, then a new .mbio_defaults file will be written incorporating the newly set parameters along with any old parameters which have not been reset. If no option flag is given, then **mbdefaults** will list the current default values (set by **mbio** if no .mbio_defaults file exists).

## CHANGES FROM VERSION 4.6

Note that prior to version 5.0, the **MB-System** defaults set by **mbdefaults** included the format id, a control for ping averaging, longitude and latitude bounds for windowing by area, and begin and end times for windowing in time. These values are no longer set in the .mbio_defaults file or controlled by **mbdefaults**.

## MB-SYSTEM AUTHORSHIP

David W. Caress
Monterey Bay Aquarium Research Institute
Dale N. Chayes
Center for Coastal and Ocean Mapping
University of New Hampshire
Christian do Santos Ferreira
MARUM - Center for Marine Environmental Sciences
University of Bremen

## OPTIONS

**−B** *fileiobuffer*

Sets the file i/o block buffer size for certain formats (currently formats 88 and 58). The *fileiobuffer* value is in kilobytes, so *fileiobuffer* = 1000 corresponds roughly to a one megabyte buffer. This option allows users to optimize i/o speed of certain large and complex data formats (e.g Reson 7k and current generation Kongsberg multibeam) by increasing the block buffer size from the system default. Making the buffer size larger generally has benefit only when reading over a network; this option has little impact for filesystems mounted from locally attached hard drives. At MBARI, where our primary data storage is accessed over a gigabit ethernet network, setting *fileiobuffer* = 10000 achieves an 8% run time reduction for **mbprocess**. Default: *fileiobuffer* = 0, which corresponds to the system default.

**−D** *psdisplay*

Sets the program used for displaying Postscript graphics files on a screen; this facility is used by shellscripts created through macros like **mbm_plot**. The default Postscript display utility is **gv**. Another common Postscript display utilities is **ghostview**; past postscript viewers included **pageview** (for Sun workstations) and **xpsview** (for Silicon Graphics workstations).

**−F** *fbtversion*
Set the version of fbt files created by **mbdatalist** and **mbprocess**. If*fbtver sion* = 2, "old", or "OLD", then the pre-5.3.1897 version of format 71 will be used to write the "fast bathymetry" or "*.fbt" files. If *fbtversion* = 3, "new", or "NEW", then the new, 5.3.1897-or-later version of format 71 will be used to write the "fast bathymetry" or "*.fbt" files.

**−H** This "help" flag cause the program to print out a description of its operation and then exit immediately.

**−I** *imagedisplay*
Sets the program used for displaying Tiff image files on a screen; this facility is used by shellscripts created through macros like **mbm_grdtiff**. The default image display utility is **xv**. Other common image display utilities are **gimp** (GNU image processing) and **gqview**.

**−L** *lonflip*
Sets the range of the longitude values returned. If *lonflip*=−1 then the longitude values will be in the range from −360 to 0 degrees. If *lonflip*=0 then the longitude values will be in the range from −180 to 180 degrees. If *lonflip*=1 then the longitude values will be in the range from 0 to 360 degrees. Default: *lonflip* = 0.

**−MP** *colortable/colortable_mode/shade_mode*
Sets the default colortable, colortable mode, and shading mode for the programs **MBgrdviz** and **MBeditviz**. The *colortable* identifiers are similar to those used for **mbm_grdplot**:
0 = Haxby colortable
1 = Bright colortable
2 = Muted colortable
3 = Grayscale colortable
4 = Flat Gray colortable
5 = Sealevel 1 colortable
6 = Sealevel 2 colortable
The *colortable_mode* refers to whether low values are represented by "cool" colors (e.g. blue) and high values by "hot" colors (e.g. red), which corresponds to *colortable_mode* = 0, or the opposite, which corresponds to *colortable_mode* = 1.

The *shade_mode* value determines whether shading is off (*shade_mode* = 0), done by illumination(*shade_mode* = 1), or done using slope magnitude (*shade_mode* = 2). Shading by overlay cannot be a default because overlay data are not always defined.

**−MG** *slope_colortable/slope_colortable_mode*
Sets the default colortable and colortable mode for displays of slope using the programs **MBgrdviz** and **MBeditviz**. The colortable and colortable mode identifiers are the same as given above for **-MP**.

**−MO** *secondary_colortable/secondary_colortable_mode*
Sets the default colortable and colortable mode for displays of overlay data using the programs **MBgrdviz** and **MBeditviz**. The colortable and colortable mode identifiers are the same as given above for **-MP**.

**−MI** *magnitude/elevation/azimuth*
Sets the default parameters for shading by illumination using the programs **MBgrdviz** and **MBeditviz**. The*ele vation* and *azimuth* values are in degrees.

**−MS** *magnitude*
Sets the default parameter for shading by slope magnitude using the programs **MBgrdviz** and **MBeditviz**.

**−T** *timegap*
Sets the maximum time gap in minutes between adjacent pings allowed before the data is considered to have a gap. Default: *timegap* = 1.

**−U** *uselockfiles*
Sets whether **MB-System** uses the file locking mechanism to insure that a swath file is only processed or edited by a single program at a time. To revert to pre-lockfile behavior for **mbedit**, **mbeditviz**, **mbclean**, **mbareaclean**, **mbnavedit**, and **mbprocess**, use **−U***0* or **−U***no*. To reinstate use of lock files, use **−U***1* or **−U***yes*.

**−V** Normally, **mbdefaults** outputs only a list of the default values to the stdout stream. If the **−V** flag is given, then **mbdefaults** works in a "verbose" mode and also outputs the program version being used.

**−W** *project*
Sets the name of the default project. This will be used by MB-System database management utilities yet to be created. Default: *project* = "none".

## EXAMPLES

Suppose that one wishes the default Postscript viewer to be xpsview rather than gv. The following will suffice to create (or rewrite) a .mbio_defaults file in the users home directory: mbdefaults −Dxpsview

The output will be:

```
New MBIO Default Control Parameters:
lonflip:  0
timegap:  1.000000
ps viewer:  xspsview
img viewer: xv
project:    none
fbtversion: 3 (new)
uselockfiles: 1
fileiobuffer: 10000 (use 10000 kB buffer for fread() & fwrite())
```

Suppose that one just wishes to see what the current default parameters are. The following will suffice:
mbdefaults

The output will be

```
Current MBIO Default Control Parameters:
lonflip:    0
timegap:    1.000000
ps viewer:  ghostview
img viewer: xv
project:    none
fbtversion: 3 (new)
uselockfiles: 1
fileiobuffer: 10000 (use 10000 kB buffer for fread() & fwrite())
```

## SEE ALSO

**mbsystem**(1), **mbio**(1), **mbcontour**(1), **mbswath**(1), **mbgrdtiff**(1), **mbm_plot**(1), **mbm_grdplot**(1), **mbm_grd3dplot**(1), **mbm_xyplot**(1), **mbm_grdtiff**(1)

## BUGS

Too simple to have any really interesting bugs.

Well, ok, this program occasionally runs wild, destroying filesystems and eating young children. But don’t worry, it could never happen to you...