

# Setting Up Band Manager To Work with MAPSPROG

Al Sherkow, MAPSSITE: RENC  
Riveredge Nature Center Banding Team  
al@sherkow.com  
(414)332-3062

Nicole Michel, MAPSPROG Programmer  
Institute for Bird Populations  
nmichel@birdpop.org

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## ***Update Your Versions***

Always use the most recent version of both Band Manager and MAPSPROG. Many of the problems I've been asked to help with had already been fixed, but the sites were not using the most recent version.

## ***Creating the MAPSPROG Export.dbf file for Band Manager***

MAPSPROG Version 4.0 requires the use of the "Four-letter and six-letter alpha codes for birds recorded from the American Ornithologists' Union check-list area" (Pyle and DeSante 2003 & 2005; available for download from IBP's website at <http://www.birdpop.org/AlphaCodes.htm>) codes for banding and breeding status data from 2003 and subsequent years. Although there are very few discrepancies that are likely to be encountered by banders between the species alpha codes described in Pyle and DeSante (2003) and the alpha codes currently used by the BBL – the most notable being the use of "TUTI" by Pyle and DeSante (2003 & 2005) instead of "ETTI" by the BBL for Tufted Titmouse (formerly Eastern Tufted Titmouse) – the current version of Band Manager will not recognize those codes which do differ. In order to ensure consistency between MAPSPROG and Band Manager, IBP has built a conversion routine into MAPSPROG which will convert those alpha codes which do differ into the current BBL codes in the export.dbf file which is produced when the "Create file for Band Manager" step is run – however both NEWMAPS.dbf and the standard banding file, <LOCA><YR>.dbf (e.g., RENC05.dbf), will contain the Pyle and DeSante (2003) codes. Thus, **it is crucial that operators importing a MAPSPROG-produced file into Band Manager run the "Create file for Band Manager" step described above and import the EXPORT.DBF file into Band Manager rather than using the <LOCA><YR>.DBF or NEWMAPS.DBF files (unless you need to import recapture records and/or data from multiple years – see "Importing Recapture Records or Data from Multiple Years" on the next page).**

To create the Export.dbf file, return to MAPSPROG's main menu screen *after you have entered and verified your banding data (your current years' data must be in NEWMAPS)*

and select “Utilities -> Create file for Band Manager.” A message will appear asking whether you would like to remove the “How Aged” and “How Sexed” codes from the file being created for Band Manager. Click “Yes” to delete these codes, or “No” to keep the “How Aged” and “How Sexed” codes in the file. Because some How Aged and How Sexed codes used by MAPSPROG (e.g., “R”) will create errors in Band Manager (see the “More on How Aged Field” and “More on “How Sexed Field” sections below), MAPSPROG gives users the options of deleting this information from the file. Band Manager does not currently require the entry of How Aged or How Sexed codes; we recommend selecting “Yes” and deleting these codes.

After selecting either “Yes” or “No”, a message will inform you that “File ‘Export.dbf’ has been created in your MAPSPROG directory”. The “Export.dbf” file will be created in the directory where you installed MAPSPROG (this is usually C:\IBP). This file will contain records for your Newly banded birds, Lost bands, and Destroyed bands from the *current year only* (the most recent year in NEWMAPS) – all records from previous years, and all Unbanded and Recapture records, will not be copied to this file.

### ***Importing Recapture Records or Data from Multiple Years***

If you need to import data from multiple years into Band Manager, or wish to include your recapture records, you will need to use the standard banding data file produced by MAPSPROG, named with your 4-character location and two digit year (e.g., RENC05.dbf). However, if your data includes any species whose species alpha code differs from the BBL’s code (e.g., ‘TUTI’), Band Manager will produce an “Invalid Species Codes” error box when you import your data. Enter the BBL code for this species (e.g., ‘ETTI’) in the “Newcode” column of the “Invalid Species Codes” box and click “OK” to continue importing the data.

### ***Installation of Band Manager***

Order Band Manager on CD or download it from <http://www.pwrc.usgs.gov/bbl/resources/bandmgr/bandmgr.htm> on the USGS BBL website. Follow the directions on that web page, but with these notes. If you right click on the words “click here” in the section on the user’s manager you can download the manual to your PC as an Adobe PDF file. These notes are not intended to replace the documentation. Read the Band Manager’s User Manual, you may want to print it, as bouncing back and forth between using Band Manager and reading about Band Manager only makes this take longer. Band Manager also has good documentation within the program. Use it.

When the downloaded file runs, it merely unpacks itself onto your hard disk, it does NOT install itself. In the directory where you unpacked the band manager files you will find a file named SETUP.EXE. Execute this file by 'double clicking' and band manager

installation will begin. Do not use directory names or file names that have any portion (between ‘/’s) longer than 8 characters. Do not use spaces or dashes in directory names or file names.

## ***Initial Setup***

When you start Band Manager it begins asking you some basic setup questions.

1. Fill in the initial screen with bander, etc.
2. Fill in your location information (see “Banding Locations for Band Manager” on page 7 for websites you can refer to for coordinates). Be sure your MAPSSITE name is in the location table.
3. You are next asked if you want to add bands to the inventory. I recommend you do not add bands. When you later import data, any bands you use will be added to the inventory.
4. Standard Remark codes are next. These are two letter codes for remarks you want printed on schedules that will be reported to the banding lab. I always add the following code: LG “Best size via leg gauge”.

## ***Prepare for Your MAPSPROG import***

1. Next create a data table, just accept the default structure. I suggest naming it using your 4 character location name and 2 digit year, such as RENC05.DBF. Do Not Import the data yet.

Continue to Step 2 only if you did not delete the “How Aged” and “How Sexed” data from your MAPSPROG-produced Export.dbf file (see “Creating the MAPSPROG Export.dbf file for Band Manager” on pp. 1-2), or if you are importing recapture records and/or data from multiple years.

2. Exit the import process and choose ‘User Defined Lookups’, Select, “HOWAGE”, then “edit lookup” to add the MAPS codes for aging that are not in Band Manager by default. You need to add ‘E’, ‘I’, ‘O’ (see “More on HowAged” on page 4). Change the HowSexed edits to add codes ‘E’, ‘P’, ‘J’, ‘I’, ‘O’ (see “More on How Sexed Field” on page 6 for additional information).

## ***Import MAPSPROG data***

Import and select MAPSPROG as the file type. In the file open dialog point to the Export.dbf (or <LOCA><YR>.dbf, if importing recapture records and/or data from multiple years) file created by MAPSPROG (usually in your C:\IBP directory). For the destination file used select the ‘table’ just created above (e.g., RENC04.dbf), then click the import the file button. Band Manager will validate your data and allow you to make some corrections to the edit table or remapping. For example if you did not follow the recommendations above and did not either delete the “How Aged” and “How Sexed” data from the Export.dbf file, or add the code “O” to the “HowSexed” edit table, you will be asked what to do with the “O”s in the data you are importing (it is much easier if you follow the recommendations!). You will also be asked if the bands used should be added to your inventory and if those bands have already been scheduled.

You are finished with the import. The data should be fairly easy to validate as MAPSPROG does a good job of validating data, but you must do it with Band Manager also.

### ***Validating Your Data***

After completing the import, you have to “check” your data. From the main Band Manager screen select “Data”, then your Band Manager data file (probably named <LOCA>04.dbf). A screen will be displayed with the first “record” of the file. Click on the “Check” button (lower row towards the center).

I’ve found one problem with the current version (Bandmgr.exe dated 22Sep2000). The banding history of initial bandings and recaptures is done with the “date” and “time of weighing” fields. The MAPS protocol records TIMECAP, not TIMEWT. The timecaps are different, but timewt is blank. So Band Manager reports duplicate bandings for all same day recaptures. This has been reported to the Band Manager Help Desk. You can avoid this problem by telling band manager not to check your recap data. This is reasonable because only the initial banding information is reported with your schedules.

Through the “Reports” button you can prepare schedules.

### ***Schedules***

On the main menu Click “Reports”, then schedules, selected ‘unscheduled’ then use the ‘add file’ button to select the file you’ve been working with., click continue. Handle any messages about incomplete strings. Etc.

You can ‘do all with no confirm’ or stop through the scheduling. At the end you must specify a file for the electronic copy of the data. (suggestion: use your own naming convention with a date. This has to be a ‘short’ filename, 8 character name and 3 character extension. I use AMSymmdd.txt, note a single digit for the year ).

The “notes for file” preview will be displayed. Close the preview and print the notes.

I use a ‘footer’ word processing file to put the following on the bottom of the schedule pages:

Data Entered with Band-OPS, imported to Band Manager, Filename: AMSymmdd.TXT  
Report Prepared: March 15, 2001  
Since June 1998 All Birds Aged & Sex via the 1997 Pyle Guide.

Do not print the footer on the ‘notes for file’ page.

### ***More on HowAged***

From the Band Manager Online Documentation: “The How Aged field is a non-required field that is added to the default table structure because many banders will want to use it. It is generally used to indicate how the bander was able to age the bird (plumage, skull etc). If you do not wish to use this field, you may drop it in the table designer.

Although you may use any codes that you wish to for How Aged (or none at all), we have provided as list of How Aged codes that would cover most of the possible methods of aging the bird. This list is included here in the help, and has been implemented in the program as a User Defined lookup on the How Aged field (a pre-set User Defined lookup!). This means that the values in the How Aged field will be checked against the following list UNLESS you drop or modify the User Defined Lookup.

If you do not wish to use these codes, drop the user defined lookup (go to Utilities, User Defined Lookups) or change the lookup to reflect the values that you wish to use. (See User Defined Lookups).”

The following is a table I made of the Band Manager Suggested Codes and the Codes of the MAPS protocol.

<b>Band Manager's Suggested Codes</b>	<b>Description</b>	<b>MAPS Codes</b>	<b>Conflict?</b>
<b>0</b>	Cloacal examination (waterfowl only)		
<b>1</b>	Adult plumage	<b>P</b>	Yes
<b>2</b>	Juvenal plumage	<b>J</b>	Yes
<b>3</b>	Eye color	<b>E</b>	
<b>A</b>	Nestling in nest--no flight feathers present		
<b>B</b>	Nestling in nest--flight feathers in pin		Yes
	The presence of brood patch on adults	<b>B</b>	Yes
<b>C</b>	Nestling recently fledged, incapable of powered flight		Yes
	The presence of a cloacal protuberance on adults	<b>C</b>	Yes
<b>F</b>	Feather wear in the flight feathers	<b>F</b>	
	The external and/or internal appearance, if definitive, of the bill or the presence of a fleshy gape on very young birds	<b>I</b>	
<b>J</b>	Retained juvenal plumage (wispy tertials/notched tail etc)		Yes
<b>L</b>	Molt limit present	<b>L</b>	
<b>M</b>	Multiple ages of remiges (wing feathers)		Yes

	The presence and characteristics, if definitive, of molt, indicated by pinfeathers and/or missing flight feathers in a symmetric pattern.	<b>M</b>	Yes
<b>N</b>	molt limit absent		
	any criterion other than the maps criteria	<b>O</b>	
<b>P</b>	primary covert shape and/or primary feather shape/wear		Yes
<b>S</b>	skulling (not including pinhole windows)	<b>S</b>	
<b>T</b>	tail shape and tail wear		
<b>W</b>	pinhole windows (see skulling)		
<b>Z</b>	web tag (or other auxiliary marker)		

### ***More on How Sexed Field***

The How Sexed field is a non-required field that is added to the default table structure because many banders will want to use it. It is generally used to indicate how the bander was able to sex the bird (plumage, brood patch etc). If you do not wish to use this field, you may drop it in the table designer. Although you may use any codes that you wish to for How Sexed (or none at all), we have provided a list of How Sexed codes that would cover most of the possible methods of sexing the bird. This list is included here in the help, and has been implemented in the program as a User Defined lookup on the How Sexed field (a pre-set User Defined lookup!). This means that the values in the How Sexed field will be checked against the following list UNLESS you drop or modify the User Defined Lookup.

If you do not wish to use these codes, drop the user defined lookup (go to Utilities, User Defined Lookups) or change the lookup to reflect the values that you wish to use.

The following is a table I made of the Band Manager Suggested Codes and the Codes of the MAPS protocol.

<b>Band Manager's Suggested Codes</b>	<b>Description</b>	<b>MAPSPROG Codes</b>	<b>Conflict?</b>
<b>E</b>	egg in oviduct		Yes
<b>O</b>	Behavioral observation not		Yes

	including copulation		
<b>M</b>	Mating/copulation		
<b>B</b>	Brood patch	<b>B</b>	
<b>C</b>	Cloacal protuberance	<b>C</b>	
<b>W</b>	Wing chord	<b>W</b>	
<b>T</b>	tail length	<b>T</b>	
<b>Y</b>	Culmen		
<b>Z</b>	Multiple measurements		
<b>D</b>	DNA/chromosome analysis		
<b>L</b>	Laparotomy		
<b>3</b>	eye color	<b>E</b>	Yes
<b>0</b>	Cloacal examination (waterfowl only)		
<b>1</b>	Adult plumage	<b>P</b>	
<b>2</b>	Juvenal plumage	<b>J</b>	
	Mouth/Bill	<b>I</b>	
	Other	<b>O</b>	Yes

### ***Banding Locations for Band Manager***

To assist in finding location codes the following sites provide exact latitude and longitude for physical and geographic locations. The Canadian Geographical Names site is useful for Canadian lat-longs at <http://www-nais.ccm.emr.ca/cgndb/>. Geographic Names Information System is useful for US locations with locations from 7.5 minute topographic maps. This site has a link to an international latitude/longitude program and is at <http://mapping.usgs.gov/www/gnis/>.

Another site with a basis in astronomy is: <http://www.heavens-above.com>. It calculates sky charts from a huge range of global locations. Halfway down the start page you click on "selecting from our huge database". Arrive at country selection page - Select your country in from the list. Put your town or village in the search field. Your selected location is returned with coordinates (lat. long). If you click on "neighbors" (next to your selection) it will give coordinated of a series of locations within about 3 km radius of the selected location center.

## **Expectations**

Band Manager, at its current level may not replace whatever tool you are currently using for your banding data. The banding team I work with is collecting more data than can be 'added' to Band Manager through the User-Defined Fields capability. Today, we are using Band Manager to prepare our schedules.

## Notes on the Notes

These notes were written based on my personal experience. I was helped with Band Manager by a number of people including Mary Gustafson, Judy Hildenbrand, Jon (Sandy) Dobbyn, Zed Ruhlen and Dan Froehlich. Nicole Michel provided the sections on MAPSPROG.

Please send any comments you have and I will incorporate them into these notes.