IMO Form Entry – Documentation

INTRODUCTION:

IMO Form Entry is designed primarily for visual meteor observers who wish to produce fast summary data for e-mailing to the IMO. The software runs on IBM PC's under a Windows environment (Tested under Win 95, Win 98 and NT4). The software is designed for the Australian Eastern Standard Time Zone (AEST) (ie: +10 hours). Future versions may include other time zones if required.

The data entered covers most major aspects of observing data and includes data for meteor magnitude, colour, speed, train and comments.

The software allows for:

- Up to 6 observing intervals (Hours A to F)
- Up to 9 streams observed
- Up to 50 meteors per stream

The software has been tested on a Pentium 90 with 32MB of RAM and works adequately. The software is slow when it first starts and when you change from one hour interval to another. This is due to the fact that the software must initialise all values on start-up. With the combination shown above a maximum of 2700 meteors can be entered into the system (6 intervals by 9 streams/interval by 50 meteors/stream).

The software can generate three different types of output files:
- A *summary* file which can be e-mailed to the IMO. It summarises meteors into streams and a magnitude distribution. (*.imo)
- A *results* file which holds all data entered. This file can be loaded at a later date to modify or check details on individual meteors. (*.dat)
- A *defaults* file which allows you to store your observer details and location.(*.def) for later use.

All files are plain ASCII text which can be read by any word-processor on any platform. This ensures that the data can be used by the IMO which uses non-IBM

Click on *setup.exe* and follow the setup instructions. If it asks you to reboot – restart your machine and click on *setup.exe* again. The application will then install and place an 'IMO Form' entry in your Programs list.

HOW TO RUN:

Select START-----PROGRAMS----IMO FORM------IMO FORM

This will then show a start-up information screen. Press O.K to continue. After a few seconds the main hour form will be visible.

TOOL TIPS:
I have included tool tips to help with running the software. Simply roll your mouse pointer over buttons or text labels and a yellow 'hints' box will appear.

PROGRAM FUNCTIONS:

A simplified overview of the software requires the user to:
1. Input data on the main hour form (The hour letter is displayed in large font)
2. Click the *Validate Data menu* item. This checks whether all data is correct.
3. Click on the *'New Stream' buttons* and add streams details and meteor details
4. Click on the *Validate button* on the stream form to check data is correct, then click *Return*.
5. Click on the *Hour menu* to select hours B to F and repeat the steps 1 to 4.
6. Click on **File----Save** and select a filename (*.dat extension) to save the data.
7. Click on **Summary------Generate IMO** to generate the IMO summary file (*.imo extension)
8. If you wish to store observer defaults such as name, location etc…. select **Default Values-------Save Defaults** from the menu.

The summary file has an extension of (*.imo). This file can then be e-mailed to the IMO. Please check the IMO web-site at www.imo.net for an updated e-mail address to send visual observations. Alternatively send the results file (*.dat) to vodickar@yahoo.com. I will then generate the summary file and e-mail to the IMO. *Please label all filename using a system such as:*

Adam Marsh 16 Dec 99.dat

FILE MENU OPTIONS:

FILE MENU:

There are 4 options. New, Open, Save, Exit.

New: Click this to remove all data from all forms and start again. To be completely safe it is wise to re-start the program to start again.

Open: Allows you to open a results file (*.dat). This file lists all the data which fills the hour and stream forms. You can use this to edit previous data or to continue where you left off.

Save: Allows you to save a results file (*.dat). Please use the filename convention shown above. **DATA WILL ONLY BE SAVED FOR THOSE HOURS WHICH HAVE A VALID VALUE FOR 'TOTAL OBSERVING TIME'.**

Exit: Shut down the program.

HOUR MENU

Allows you to select a given observing interval from A-F. The first hour of observation on a given night is designated A the next B etc...You can go back and forth through the hours. If you have more than 6 hours of observing on a given night you will need to do it in a new file.

If you select an hour that has no hour data the program will ask if you wish to copy data from the previous hour. If you select ' YES' all previous fields from the hour (except the 'Total # of Meteors seen') will be copied. This is done for convenience to avoid re-typing the same details. **BE CAREFUL TO EDIT ANY FIELDS THAT ARE DIFFERENT IN THE NEW HOUR AFTER DOING A COPY FROM A PREVIOUS HOUR** (eg: the limiting magnitude, cloud cover etc…)

Note: changing between hours on slower PC's can take a short time.

SUMMARY MENU:

This has two options 'Generate IMO' and 'Generate ASVMS'. Selecting 'Generate IMO' generates an IMO visual observation summary file with a *.imo extension. Enter a meaningful filename (see notes above) and click O.K. The program will attempt to validate data before saving. If you get a message to this effect you can cancel the save and fix the problem before trying to save again.

VALIDATE DATA MENU:

This item checks that all data is entered and is reasonable. **NOTE: THE VALIDATE OPTION CANNOT CHECK DATA FOR ALL ERRORS – PLEASE CHECK ALL VALUES CAREFULLY.**

CLEAR THIS FORM:

Clear all data on the hour form for the hour selected.

BUTTONS:

Zero Breaks: This button sets all breaks to zero when clicked

No Cloud: This sets all % cloud cover values to zero. A number must be entered for the total clear observing time in minutes.

New Stream: This allows meteor data for a new stream to be added. Clicking this button brings up the stream form (see below). **NOTE: IF A STREAM IS OBSERVED IT MUST BE LISTED IN ONE OF THE 9 STREAM FORMS AVAILABLE FOR THE HOUR EVEN IF NONE ARE SEEN.**

NOTE: STREAMS CAN ONLY BE DEFINED IN HOUR 'A'. All other hour numbers do not allow the stream name to be edited.

STREAM FORM:

This form appears when the *'New Stream' buttons* are pressed. There are nine stream buttons in total.

The main data is self explanatory and there are no menu items. There is a 'grid' of meteor data. Use the mouse to click on the grid cell to edit.

Magnitude: Enter a value for the meteor magnitude

Colour: Select a colour from the cell from the drop-down box using the mouse.

Train: If the meteor had a train enter the time in seconds

Speed: Select a speed from the cell from the drop-down box using the mouse.

Comments: Add your own comments

NOTE: For the IMO summary colour, speed and comments fields are not used.

If the stream is SPORADIC leave the RA and Dec. fields empty. The IMO Code for sporadics is SPO. If you are not observing any streams label all meteors as sporadic.