

Documentation for SATUPDAT
by F6BVP
version 1.82e October 1994

SATUPDAT program will read messages from AMSAT copied via packet radio. It extracts keplerian elements both in NASA and AMSAT formats and updates the data into the satellites data base of the F6FBB's BBS file that should be in the directory \fbb\system\sat\SATEL.DAT

Running SATUPDAT without arguments will print the following message on your screen (between lines -----):

```
-----  
Automatic update of satellites orbital parameters for F6FBB's bbs  
Version 1.82e - October 1994 - Bernard Pidoux, F6BVP  
Usage: SATUPDAT [file name<.txt>] </option> </option> </option>
```

```
Reading option:      /a AMSAT format (default)  
                   /n NASA format  
Update option:      /f merging new and old data (default)  
                   /u update only satellites being in the data base  
                   /s keep only satellites being in the input file  
Delete option:      /dxxx delete data older than xxx days  
                   (default xxx=100 days)
```

```
<<768 satellites maximum>>  
-----
```

Version 1.82 October 1994

=====

This version replaces earlier versions to be compatible with REQKEP, a new satellite KEplerian elements REQuest service for F6FBB BBS. A few minor bugs have been fixed and the number of satellites that can be managed by the program was increased to 768.

Version 1.80 November 1993

=====

This new version incorporates a new feature that deletes automatically from the satellites data base, keplerian parameters older than a specified number of days. Default is 100 days. This cleans the data base, removing decayed satellites without sysop intervention.

Both AMSAT and NASA format checksum are verified, providing uncorrupted data feeding of the BBS data base.

SYSOP information:

For automatic update of keplerian elements into F6FBB's bbs, just create a virtual BBS into BBS.SYS file. Its name could be AMSAT for example. Then declare the following forward in the file FORWARD.SYS :

```
-----  
*  
A AMSAT  
*  
  G AMSAT  
  P @  
  C C:\FBB\SYSTEM\SAT\amsat.txt  
*  
-----
```

CAUTION: The name of the disk unit and the path name should be the exact

one of your configuration.

In order to run automatically SATUPDAT when your computer boots, you must modify the batch file like the following example:

```
:direct
rem      horl /s
      if not exist c:\fbb\system\sat\amsat.txt goto appel
      cd c:\fbb\system\sat
      satupdat amsat /n > satupdat.res
      satupdat amsat >> satupdat.res
      del amsat.txt
      cd \fbb
:appel
      echo Running the BBS ^C for stopping
      sleep 3
      serv -t
      if errorlevel 2 goto direct
      if errorlevel 1 goto suite
:suite
```

(Once again be carefull with the disk name and directories !)

SATUPDAT OPTIONS =====

The default extention for input file is .TXT, however you can specify another extention.

Both arguments after the filename in the command line are optional: the first one indicates the reading format, either the AMSAT format or the NASA "2-line" format. The first one is selected by default.

The second option is for the choice of update mode.

By default the program will merge the old list with the new one (same if you select option /f). Old data of satellites which are not present in the input file are kept as is and the other ones are updated.

Option /u can be selected if you dont want to add new satellites to the ones already present. Only keplerian elements from known satellites are updated. This prevents the list to grow with incoming satellites that you are not eventually interested in.

Option /s, on the contrary, gives you the possibility to keep only in the data base the data from the satellites whose name is in the input file. This can help you to suppress old satellites from the data base.

Option /d is optionnal. Default is 100 days. This means that the program will remove data older than 100 days from the satellite data base, and will not take into account keplerian elements older than 100 days from the input file.

In all cases the program takes care of the permanent data of satellites such as the frequency (for doppler) and the step for computing the tracking (the SYSOP must provide both manually only the first time).

If the keplerian elements of the input file are older than the ones already present in the BBS data base, the old ones are kept.

The list is sorted by name in order to help finding of the satellite name when someone is connected to the BBS.

If elements for one satellite are duplicated in the input file, the program will look again for the newest data.

Of course, if CRC computed by the program is not the same as the one in the input file, the program informs you that the CRC is BAD and it does not take the keplerian elements.

In the batch file example given above you have certainly noticed that I call twice the program SATUPDAT with two different format arguments. The first time I ask the program to read the NASA format and the second time to read the default format AMSAT. The reason is that the probability for an error to occur in both formats for the same satellite is very small. Thus if an error occurs in one format the program will complete the update when it finds uncorrupted keplerian elements in the other format. Thanks to the checksum adopted by AMSAT! The results of the update operation is written into the SATUPDAT.RES file.

IMPORTANT NOTICE

A bug was found in the 5.13 FBB's BBS program which erases the catalog number of the satellite when edited manually. This bug creates a problem with the automatic access to satellite characteristics documentation. This is because the characteristic file name is the catalog number of the satellite plus the .SAT extension. To avoid this problem I provide a program called EDISAT.EXE which allows editing the SATEL.DAT data base, until the bug is fixed. This has been done in F6FBB version 5.15.

All remarks and suggestions will be appreciated by F6BVP.

73's de Bernard, F6BVP @F6BVP.FRPA.FRA.EU