

14. Maintaining the Viewperiod Database with VPUTIL

VPUTIL is a database management tool for maintaining the RAP viewperiod database. This is the master database containing all RAP 70-M DSN antenna viewperiods. With it you can append, delete, archive, and catalog information from the viewperiod database. This tool is not intended for general users, but only for the FASTER database administrator.

14.1 Starting VPUTIL

- (1) From the Microsoft Windows Program Manager window, double click on the FASTER group icon.
- (2) From the FASTER program group window, double click on the VPUTIL icon.



The “Viewperiod Utilities” dialog window appears.

14.2 Validating Viewperiod Files

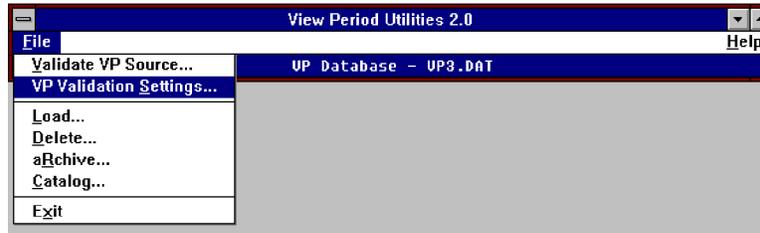
Viewperiod input files can be checked for various anomalies prior to loading into the viewperiod database. Currently, viewperiod anomalies checked are:

- Gaps in viewperiods.
- Multiple viewperiods in one day.
- Drastic change in viewperiod start time pattern.
- Drastic change in viewperiod duration pattern.
- First viewperiod not at beginning of year.
- Last viewperiod not at end of year.

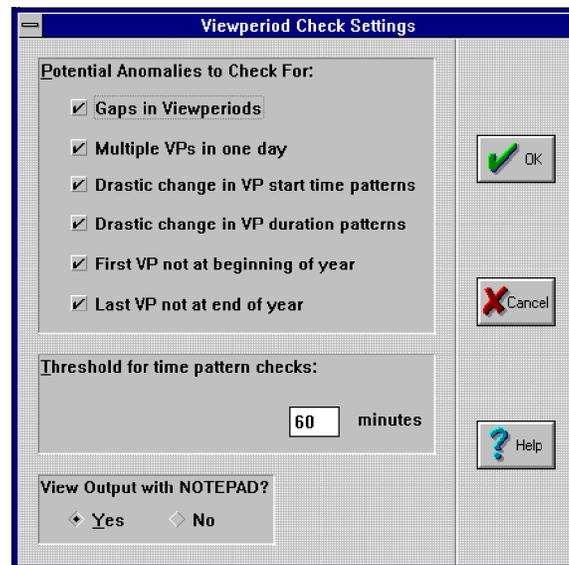
All these checks can be toggled on and off in the “Viewperiod Check Settings” dialog box.

To change viewperiod settings,

- (1) From the **File** pull-down menu of the “Viewperiod Utilities” window, select the *VP Validation Settings...* option.



The “Viewperiod Check Settings” dialog box is displayed.



By default, all viewperiod checks are toggled **on**.

- (2) To toggle one or more **off**, click in the checkmark box beside the validation check you wish turned off.

The following tests are applied to the viewperiods:

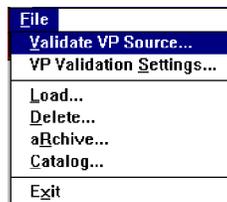
- **Gaps in viewperiods:** Is a user missing viewperiods for an antenna on any day?
- **Multiple viewperiods in one day:** Does a user have multiple viewperiods for the same antenna on one day?
- **Drastic change in viewperiod start time patterns:** Does a particular view start at time X on one day then start at time

greater than the threshold difference on the next? Normally, viewperiod start time shifts by small increments.

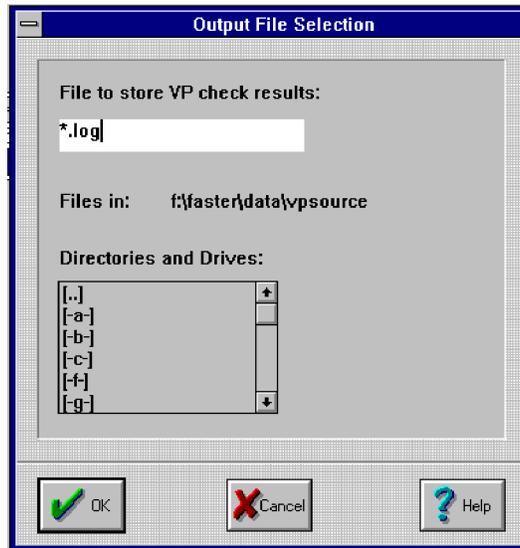
- **Drastic change in viewperiod duration time patterns:** Does a particular antenna's viewperiod duration change by more than the threshold?
 - **First viewperiod not at beginning of year:** Does the input file start at DOY 001?
 - **Last viewperiod not at end of year:** Does the input file end at DOY 365/366?
- (3) Set the time duration value used to check viewperiods in the **Threshold for time pattern checks:** group box. Sixty minutes is a good value to use. Values smaller than sixty may result in large log files.
- (4) The results of the viewperiod validation are written to an ASCII text file that you can have displayed automatically using MS-Windows NOTEPAD utility. If you don't wish to use this function, check the **No** radio button in the **View Output with NOTEPAD?** box.

14.3 Validating Viewperiod Inputs

- (1) From the **File** pull-down menu, select the *Validate VP Source...* option.

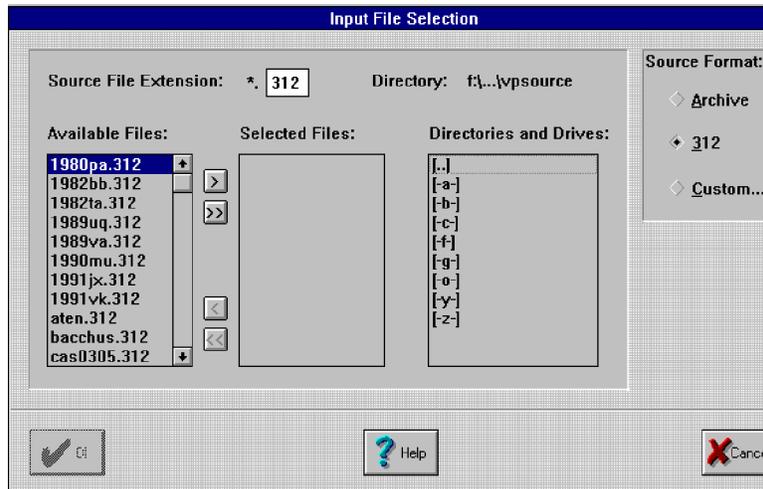


The “Output File Selection” dialog box appears.



- (2) Enter the name of the file to which the validation results will be written by either
 - entering a name in the **File to store VP check results** field, or
 - double clicking on a file name in the **Directories and Drives:** list box.
- (3) Click **OK**.

The “Input File Selection” dialog box appears.



- (4) In the **Available Files** list box, select the file(s) to be validated by either
- clicking the > button to select a single file, or
 - clicking the » button to select all files.
 - clicking either the < or the « buttons to deselect either one or all files.

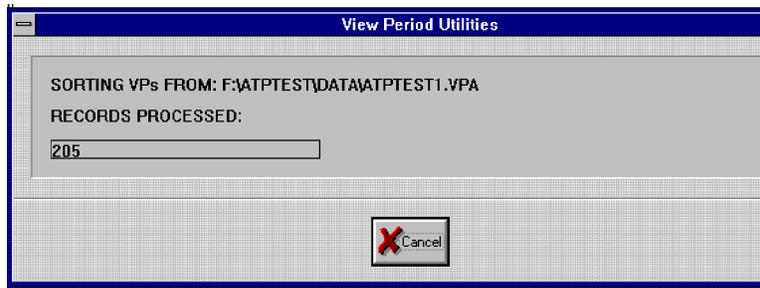
If there are no files listed in the **Available Files** list box, then change drives and/or directories in the **Directories and Drives** list box or modify the input file extension located in the **Source File Extension** field.

- (5) After selecting viewperiod files to be validated, click **OK**.

VPUTIL opens the viewperiod database. At this point, if the active viewperiod database doesn't exist, VPUTIL creates it.



VPUtil then validates the viewperiods, displaying a “View Period Utilities” status message box as it proceeds.

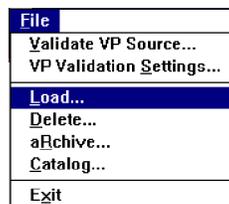


When finished, VPUTIL calls up NOTEPAD and displays the results.

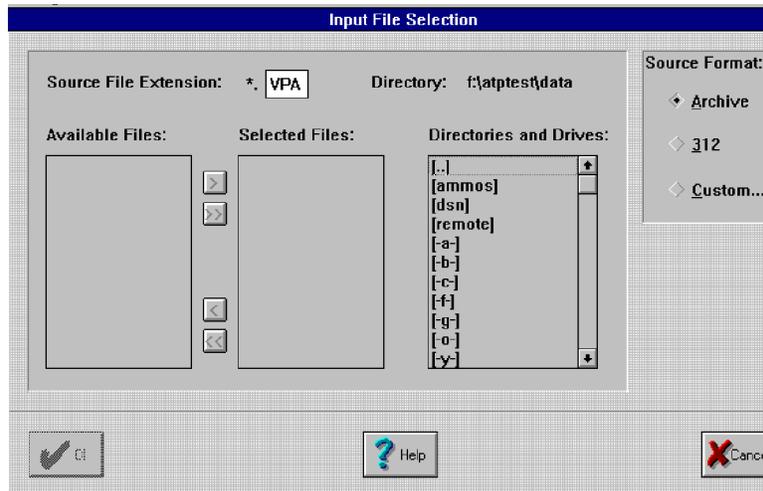
14.4 Loading Viewperiods into the Viewperiod Database

New viewperiods either previously archived or created from outside sources can be added to the currently selected viewperiod database (as identified by the **Viewperiods:** entry in the “FASTER Defaults” dialog box found in the FASTER Control Panel).

- (1) From the **File** pull-down menu of VPUTIL, select the *Load...* option.



The “Input File Selection” dialog box appears.



- (2) From the **Available Files** list box, select the viewperiod input file(s) to be loaded into the database by either
 - Clicking the > button to select a single file.
 - Clicking the » button to select all files.
 - Clicking either the < or the « button to deselect one or all files.
- (3) Click on one of the radio buttons in the **Source Format** group box, as follows:
 - If the file(s) comes from Section 312, click on the **312** radio button.
 - If the file(s) comes from a previously archived run, click the **Archive** radio button.
 - If the file(s) has a different format, click the **Custom...** radio button.
- (4) Click **OK**.

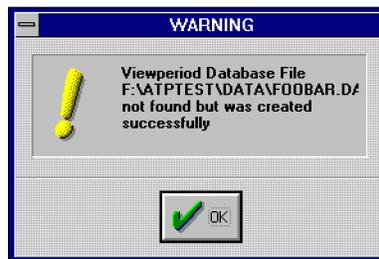
If you clicked the "Custom..." radio button the "Viewperiod File Format Information" dialog box appears.

- (5) Describe the input viewperiod file format, as follows:
- Header:** Each file can have a header consisting of multiple lines or a stream of characters of information. A value of 0 (zero) means that no header is present. The header can have information such as **Mask** and **Viewperiod Generation Date**.
 - Mask:** The mask can either be filled in (**Fill**), found in the **Header**, or found at a specific location within each **Record**. It is always two characters long.
 - Rise Year:** The rise year can either be filled with the specified two digit number (**2-Digit Fill**), or it can be obtained in **4-Digit** format from a specific location (**Position**) within each record. In the former case, 1900 is added to obtain the four-digit equivalent.
 - VP Object:** The location of the antenna and viewperiod object is specified here. The number entered for each location represents the starting character in each record.
 - Viewperiod Generation Date:** The generation date can be obtained from the **Header**, if present or it can be **Filled** in with the specified date given in the MM/DD/YYYY format.
 - Rise:** The rise date and time are fully specified here. The **Month** field is only used if the **Rise/Generation Date Format** is YYYY-MM-DD.

- **Set:** The set date and time are fully specified here. The **DOY** field is needed only if the viewperiod is longer than 24 hours.
- **Rise/Generation Date Format:** The format can either be YYYY-DOY or YYYY-MM-DD.
- **Special:** These options are not expected to be used very frequently. The **Set = Duration** option says that the set time can be used as the length of the viewperiod. In this case, the set date and time are computed by adding this difference to the rise date and time. The **has seconds** option is used when the viewperiods include seconds in the rise and set times. In this case, the **Second** field of the rise and set time is enabled.
- **Sample Record:** The structure of the described record is displayed in this field. This field should be used to verify that the structure is that of the intended description.

(6) After completing the format description, click **OK**.

At this point, if the selected active viewperiod database exists, it is appended, as specified. If the specified viewperiod database does not exist, a new database is created, and a message is displayed warning of the creation of a new database.



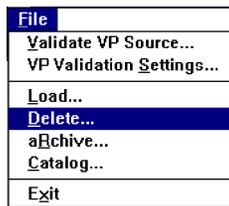
Because of the indexed nature of the database, the loading operation can take some time to complete.

14.5 Deleting Viewperiod Records from the Viewperiod Database

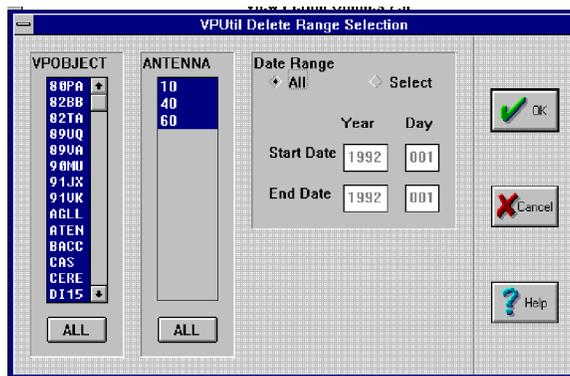
Viewperiod records can be removed from the currently selected viewperiod database.

Warning! This operation cannot be undone, so take care to back up the data before proceeding with the delete operation.

- (1) From the **File** pull-down menu, select the *Delete...* option.



The “VPUtil Delete Range Selection” dialog box appears.



- (2) Specify the viewperiod and/or antenna objects, along with time periods, to delete from the viewperiod database, as follows:

Note: Only those viewperiod objects and antennas highlighted in the **VPOBJECT** and **ANTENNA** list boxes can be deleted.

- (a) In the **VPOBJECT** list box, click on the viewperiod object name(s) to be deleted. One click selects the name,

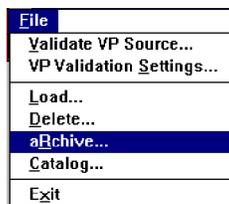
two clicks de-selects it. By default, all view period objects are selected. Clicking the **ALL** button toggles between selecting or de-selecting all viewperiod objects.

- (b) In the **ANTENNA** list box, click on the antenna objects name(s) to be deleted. One click selects the name, two clicks de-selects it. By default, all view period objects are selected. Clicking the **ALL** button toggles between selecting or de-selecting all antennas.
 - If you select **All**, then all data in the viewperiod database will be removed.
 - If you choose **Select**, then the **Start Date** and **End Date** fields become active. Enter in the start year, start week, end year, and end week.
- (3) After selecting the appropriate viewperiod objects, antennas, and dates, click **OK**.

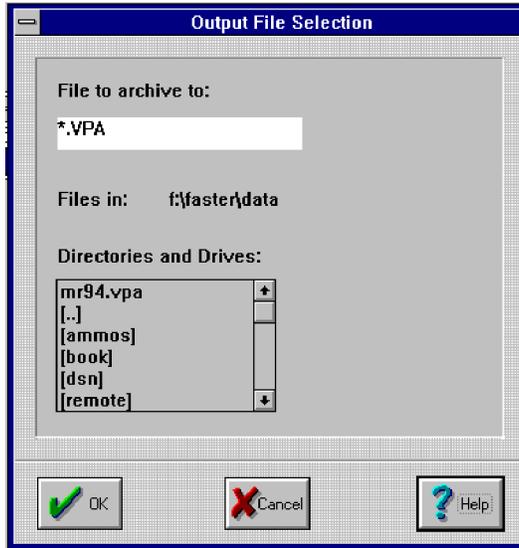
14.6 Archiving Viewperiod Records

You can archive viewperiod records from the currently selected viewperiod database.

- (1) From the **File** pull-down menu, select the *aRchive...* option.



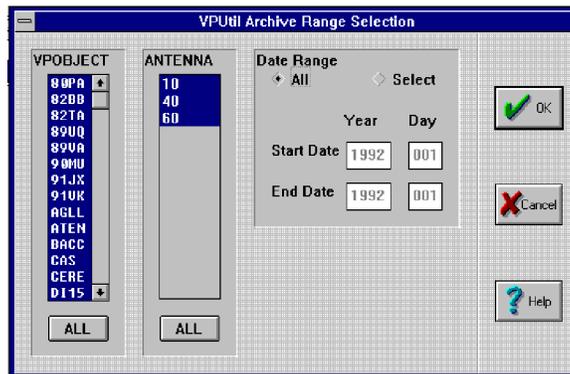
The “Output File Select” dialog box appears.



(2) Enter the name of the archive file to which the archive material will be written, or select a name from the **Directories and Drives:** list box. If you select an existing filename, that file will be overwritten.

(3) After entering or selecting a filename, click **OK**.

The “VPUtil Archive Range Selection” dialog box appears.



(4) Enter the following information:

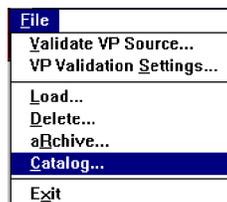
Note: Only those viewperiod objects and antennas highlighted in the **VPOBJECT** and **ANTENNA** list boxes will be archived.

- (a) In the **VPROJECT** list box, click on the viewperiod object name(s) to be archived. One click selects the name, two clicks de-selects it. By default, all view period objects are selected. Clicking the **ALL** button toggles between selecting or de-selecting all viewperiod objects.
 - (b) In the **ANTENNA** list box, click on the antenna object name(s) of the antennas to be archived. One click selects the name, two clicks de-selects it. By default, all antenna objects are selected. Clicking the **ALL** button toggles between selecting or de-selecting all viewperiod objects.
 - (c) In the **Date Range** group box, click on either the **All** or **Select** radio buttons, depending on how much data is to be archived.
 - If you select **All**, then all data in the viewperiod database will be archived.
 - If you choose **Select**, then the Start Date and End Date fields become active. Enter in the start year, start week, end year, and end week.
- (5) Click **OK**.

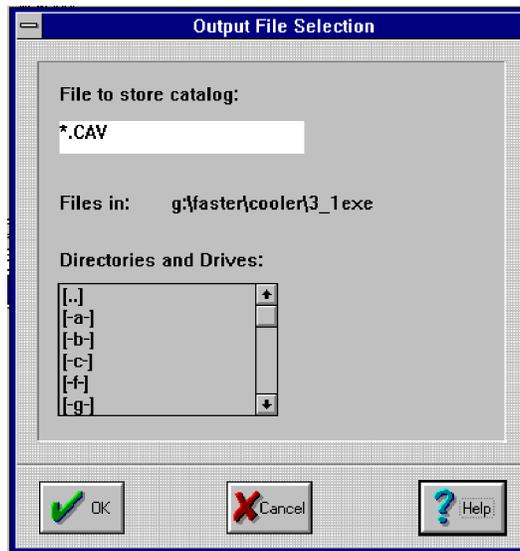
14.7 Cataloging the Viewperiod Database

The viewperiod database can be cataloged to an ASCII file. This text formatted catalog is useful if you wish to know at a glance what schedules are in the database and what range of weeks they cover

- (1) From the **File** pull-down menu, select the *Catalog...* option.



The “Output File Selection” dialog box appears.



- (2) Enter the catalog file name to which the material will be written or select a name from the **Directories and Drives:** list box by double clicking on it. If you select an existing filename, that file will be overwritten.
- (3) After entering or selecting a filename, click **OK**.

The catalog file is created. You can read it using Notepad or another text editor.