Verification System Programs

1.0 Introduction

The NWSRFS Verification System is a collection of programs that allow the user to verify river stage forecasts.

The software runs on the archive machines at the river forecast centers (rfcs). In order to properly use the verification software, observed river stage data must be stored in either the pecrsep or pehpsep tables of the archive database for the forecast points where verification is to be done. Furthermore, forecast river stage data must be stored in the pedfsep table of the archive database for those same forecast points.

There are five programs in the Verification System:

1. Vfyruninfo Editor: This graphical user interface is a tool for editing the vfyruninfo table in the archive database. This table, which is new for ob4, is required by the Interactive Verification Program (IVP) Batch Program in order to determine for which forecast points verification statistics are allowed to be calculated. Furthermore, it provides information about which physical elements, forecast type sources, extremums, and observed sensor preferences to include in the forecast-observed data pairing process.

2. IVP Batch Program: This program processes batch command (ASCII) text files and serves two functions:

    a. Construct forecast and observed river stage data pairs and stores them in the vfypairs table of the archive database.
    b. Calculate verification statistics from previously constructed data pairs.

    Both functions require a properly filled in vfyruninfo table in order to execute.

3. Verify Pairs Ingestor: This program provides another mechanism to place forecast-observed data pairs into the archive database. It extracts data pairs from a properly formatted tabular pairs file (Verify ob3-r24 and earlier) and inserts them into the vfypairs table, but only if the data pair matches an entry in the vfyruninfo table.

4. IVP Batch Builder: This graphical user interface can be used to build IVP Batch Program batch files, run the IVP Batch Program, and view resulting output text files.

5. Interactive Verification Program (IVP): This graphical user interface is a tool that can be used to graphically view verification statistics. As with release ob3-r24 of IVP, this program reads in data from a pairs file, which can be generated by the IVP Batch Program. It can then be used to define forecast or observed categories and view verification statistics for those categories.

Documentation for these programs can be found at the following URL:

http://www.nws.noaa.gov/ohd/hrl/verification/verification.htm