04/21/03

PnET 5.1-1.5vb released:

Correction to Scenario routine, the PAR and Precip, O3 ramp calculations. This option is available for PnET-II and PnET-CN. Correction to the CNYearOut routine, spelling of SoilDecRespYr variable. Minor changes to many output formats involve integers for NPP values, and a new column for sum40 ozone in site output files. Also included, an updated HF monthly climate adding years up through 2002, and average ozone. File is HFMON3.clm

09/13/02

PnET 5.1-1.4vb released:

PnEt 4.1-1.2c released:

Update to code in WaterBal routine. DVPD term removed from DwaterTot. See C. Goodale discussion pnet-talk. Effect on Sitka spruce.
Sf.veg file updated for DVPD parameters: .21 and 1 (from .05 and 2)

03/11/02

PnET 5.0-1.4vb released:

Update to Phenology routine to correct senescence section for southern latitudes

01/17/02 Different tutorial, same code. New zip archive, but no change in version number

12/19/01

PnET 5.0-1.3vb released:

Note changes to the tutorial specific to this release.

- Update to Photosynthesis routine to add CO2 effects.
- Modifications to use actual number of days in month.
- Coordination of gridded climate file changes whether on the main menu or on the site/scenario menu.
- Veg type 100 on PnET-II loops through all types in the file Pnetveg.lst
- Nitrogen inputs may be in absolute units or fractional units for ramps for deposition at sites. Nitrogen may only be specified fractionally on the menu for gridded climate.

11/27/01

- Code unchanged. Corrections to HF.sit and updates HB100.clm

8/8/01

PnET 4.1-1.2vb released:

- Correction to Photsyntheseis routine with regard to ozone
- New version numbering.

See website http://www.pnet.sr.unh.edu/subpages/versioning.html

04/30/00

PnET v4.1

- Added ozone (ppm) as input in monthly climate file.

02/01/00

PnET v4.0 released:

- Lat/Lon grid option added.

- Mis-labeled years corrected on output files.

- Changes made to subroutines WaterBal and Photosynthesis that affect NPP and WUE (Water Use Efficiency). No Frost LAI effect.

- Solar constant set to 1367 W/m2. Only used in defunct iomax calc.

- The variable "dayspan" is now calculated by subtracting the current from next month's DOY from the climate file.

- The II and CN modules will now automatically repeat the first year's record when running a timeseries which exceeds the bounds of the driver data in the climate input file.

- Using READi or CALCi on the first line of the climate file, indicates that an identifier must be present. There must be no trailing tabs or spaces after the "i" and there must be not trailing tabs or spaces after the identifiers themselves. If there is no logical identifier for a record, the word "none" (or any other) may be used. Identifiers are limited to 13 characters or less. To omit identifiers for all sites, use the Read or Calc keywords, not the READi and CALCi.

- Titles on output files now list the input climate file, the date, the model identification (PnET-II, PnET-CN or PnET-Day) and info about ozone inclusion.

- We added pop-up windows describing some of the parameters on the vegetation menu screen.

- We fixed "directory/file does not exist" error for Project text box on main PnET screen.

- New site file format with Ramps for DelTmax and DelTmin,Delprec, Delpar, DelWUE, DelCO2, DelO3, DelNO3 wet/dry and DELNH4 wet/dry.

- Removed DWater from the calculation of GrossAmax in routine WaterBal.

- Change in BudC calculations. BudC is reduced when there is insufficient N to pass from PlantN to BudN to produce new foliage. Formerly the Phenology routine was driven by FolMassMax not BudC. This affects CN runs in low nitrogen stands which should require large amounts of time to recover from big N losses. FolNconnew is computed in AllocateYr routine even when BudC is 0.

- Increase in the number of pixels (usually months) that can be displayed (now 3650) if the graphing choice is made. Formerly, this was 1200.

- NEP is now a calculation in CNYEarOut and IIYearOut with respiration terms removed for FolGRespYr, WoodDecRespYr, WoodMRespYr,WoodGRespYr, SoilDecRespYr, RootMRespYr, and RootGRespYR. Formerly NEP was a function of WoodGRespYr, WoodMRespYr, and FolGRespYr. Also SoilRespYR was a function of TAVE rather than DHO and CFracBioMass.

- RunModelFrom in the PnET-II and PnET-CN modules must be consistent with the start of the climate input file. Specifically RunModelFrom cannot be set to a later year than the first climate record. It can, however, be set to an earlier year and the program will assume it should reuse the first records. It is wise for the first 12 records to represent an average year.

- To use an average (not historic) climate for a PnET-CN run, RealClimFrom and RealClimTo can be set beyond the range for which one is running the model (e.g. setting RealClimFrom/To range to 2001-2100 for an climate time series of 1800-2000 will use only the first year's climate record, which would hoepfully be an average.).

12/22/99

Website redesigned. Change log, publications and other sections either updated or added.

09/15/98

PnET v3.0 released:

- Version numbering scheme adopted. Starting with this version of the Visual Basic code, PnET will be released with a numbering scheme. Major feature additions will receive an integer number increment, bug

fixes and minor changes will receive a decimal increment to the version number. Please note that this version number refers to the entire package of nested models (PnET-II, PnET-CN and PnET-Day) collectively referred to as PnET. Version numbering was begun at v3.0 to avoid confusion with the name PnET-II.

- The structure of the input files has changed. Four additional columns have been added (all columns have headers now) to allow direct input of CO2, O3 concentrations and NH4 and NO3 deposition. A column specifying the year for each line has also been added. The CO2 and O3 inputs do not affect model performance yet, but are being developed. N deposition is in g/m2 per time period, wet and dry combined, and will replace the deposition rates generated as specified in the Scenario routine.

- Due to changes in the Visual Basic 5 compiler, PnET no longer supports 16 bit versions of Windows. The model now requires the Microsoft Windows 95,98 or NT operating system and a display resolution of at least 800x600 pixels at 8 bpp.

- This version is delivered with a setup program that will install the model and all ancillary system libraries necessary to run PnET. On most systems these shared libraries should already be installed, but as we have encountered problems in the past we have included them in the distribution.

- Several small bugs have been addressed in the code.

11/24/97

PnET website created and first open sourced version of PnET is released to the public. This version of the model is the first to be written in Visual Basic and package all three versions of the model (PnET-II, PnET-CN and PnET-Day) as nested modules. Support for and development of earlier stand alone versions of these PnET modules (written in Quick Basic) is discontinued.

1997

PnET-CN published in Ecological Modelling 101:61-78

1996

PnET-Day published in Oecologia 106:257-265

1995

PnET-II published in Climate Research 5:207-222

1992

Original version of PnET published in Oecologia 92:463-474

PnET evolution diagram: