Introduction

GEOPAK is a comprehensive software package that was adopted by T.D.O.T. in 2000 for use by all personnel to avoid duplication of effort and to provide a more streamlined data flow between divisions from start to finish of a roadway project.

Using GEOPAK will help ensure consistency and accuracy of design work and generate a significant time savings in the overall effort of producing construction plans.

The dialog views, etc. in this course guide reflect GEOPAK V8i (SELECT Series 2), version 08.11.07.615.

Standard GEOPAK Road Project Filenames

job###.gpk	Binary file which contains all coordinate geometry. This includes topo features, DTM points, horizontal & vertical alignments as well as property parcels. Only one file will be created for each project. T.D.O.T. Survey personnel initially create this file and add the existing data to it. Design adds proposed information and passes it on to Construction and R.O.W. personnel for completion of the project. The "###" is the only variable in this filename. It represents a **job number** (up to 3 alphanumeric characters) unique to a project. The first number corresponds to the T.D.O.T. Region.
***filename*.prj**	Binary file resulting from the creation of a new project.
***filename*.tin**	Binary file containing a triangulated surface also known as the digital terrain model (DTM).
***filename* ###.ioc**	ASCII input file for loading data during a COGO session. "###" represents the job number and "oc" is the operator code (users initials). Filename characters are limited to 5 characters plus the 3 job number character designation.
***filename*###.ooc**	ASCII output file created by GEOPAK during a COGO session. Variables are the same as those defined for COGO input files.
***filename*.inp**	ASCII input file for running some GEOPAK processes such as superelevation. Name is user defined with an .inp extension.
***filename*.dat**	ASCII or Binary file that contains string and point information to be used for digital terrain model creation.

GEOPAK Road Project File Structure

(Class project SR95 used as Example)

C: (drive)
- **Projects** (main folder for all projects)
  - **Roane** (county folder)
    - **SR95PoplarCr** (roadway project folder)
      - **SR95.prj** (project file)
      - ***.dgn** (graphics files)
      - **job101.gpk** (coordinate geometry database)
      - ***.tin** (digital terrain model files)
      - ***101 .i**** (COGO input files)
      - ***101 .o**** (COGO output files)
      - ** .inp** (input files)
      - **projdbs** (project manager folder)
        - **Joe** (user folder)
          - **user.info** (user information file)
          - **SR95.000** (3D Model runs)
          - **SR95.003** (Proposed Cross Section runs)
          - **SR95.004** (Earthwork runs)
          - **SR95.005** (Cross Section Sheet runs)
          - **SR95.008** (Working Alignment runs)
          - **SR95.009** (Existing Ground Profile runs)
          - **SR95.011** (Draw Patterns runs)
          - **SR95.012** (Superelevation runs)
          - **SR95.014** (Plan/Profile Sheet runs)
          - **SR95.b14** (Plan/Profile Sheet runs)
          - **SR95.00a** (Vertical Alignment runs)
          - **SR95.00c** (Limits of Construction runs)
          - **SR95.00d** (Existing Ground DTM runs)
          - **SR95.00e** (Existing Cross Section runs)

When making backup copies of project data do not forget to copy the GEOPAK runs which are found under the users' folder in the **projdbs** folder. All runs use the GEOPAK project name followed by the run extension which depends on the type of run.