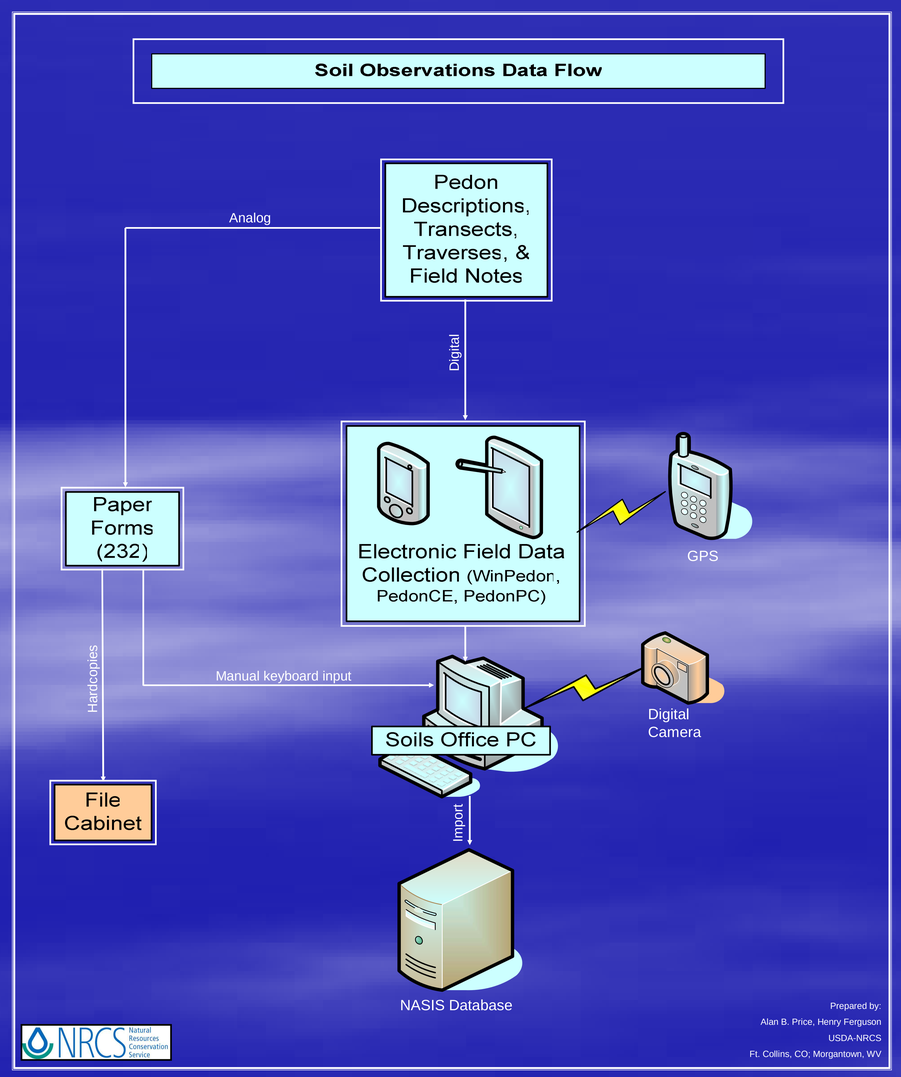
Electronic Field Collection of Soil Data

Traditional process for describing sites, pedons, and transects:

- Enter sites, pedons, and transects on paper forms
- Manually key data into NASIS or
- Store paper forms in binders, file cabinets, etc.

Advantages to electronic data collections:

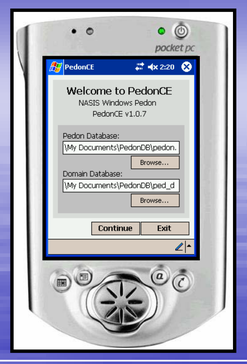
- Descriptions are entered once electronically
- Data are stored in centralized database and are accessible to all NASIS users
- Descriptions may be more complete
- Do not have to remember codes
- Opportunity to learn new technology (hardware is multifunctional)
- Paper forms are not lost (i.e. stored in NASIS)



Prepared by:
Alan B. Price, Henry Ferguson
USDA-NRCS
Ft. Collins, CO; Morgantown, WV

NRCS Natural Resources Conservation Service

PedonCE for Use on a PDA

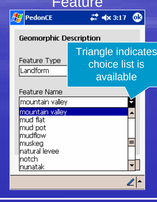


Select Site, Pedon, or Transect

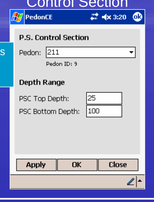
Samples of **Site** Screens

Choose Site Feature to Edit

Select Geomorphic Feature



Input Particle-Size Control Section

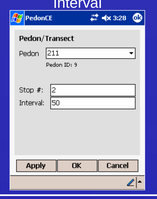


Public Land Survey System Location

Samples of **Pedon** Screens

Create Transects

Transect Stop & Interval



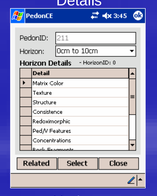
Select Taxonomic Classification

Surface Fragments

Samples of **Horizon** Screens

Input Horizons

Select Horizon Details



Horizon Colors Hue & Moisture

Horizon Colors Value & Chroma

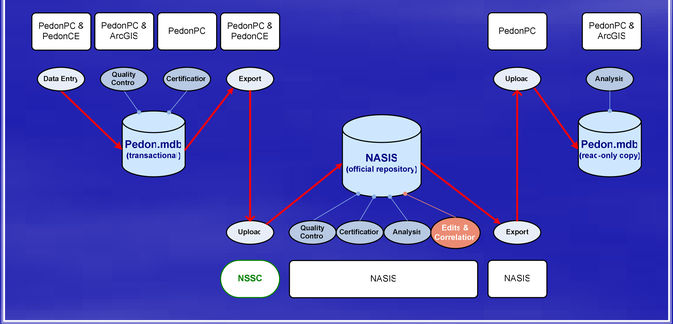
Horizon Structure

Horizon Consistence

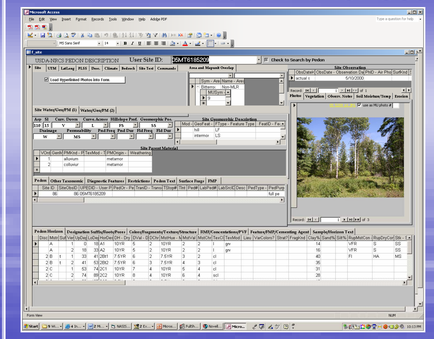
Horizon Reaction

Horizon Rock Fragments

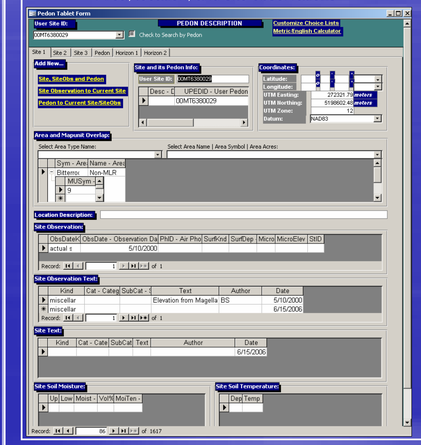
Data Flow for Electronically Collected Field Data



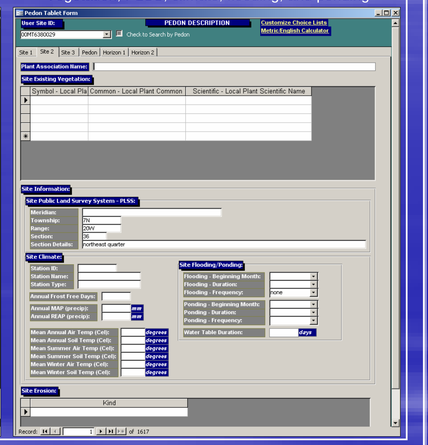
Pedon PC for Use on a PC or Tablet



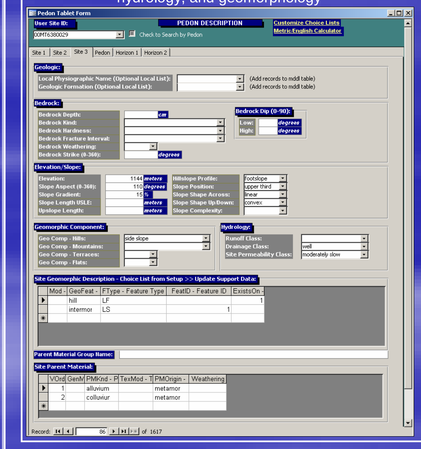
Area, location, and site observations



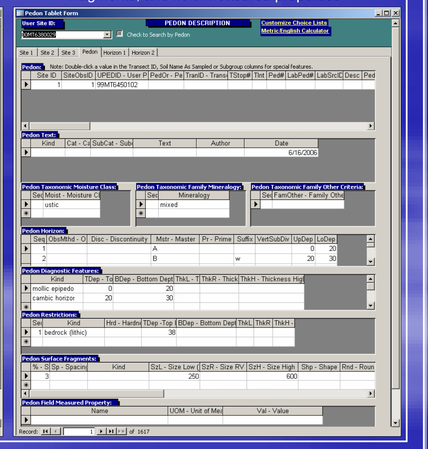
Vegetation, PLSS, climate, flooding, and ponding



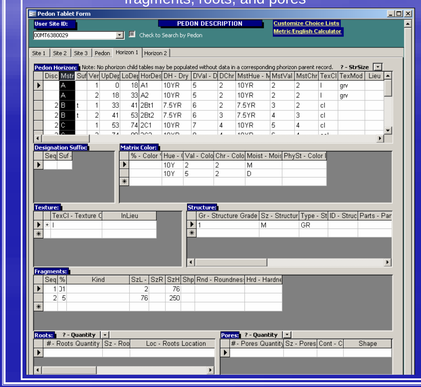
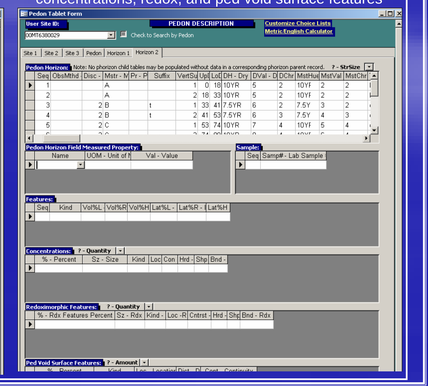
Geology, parent material, elevation, hydrology, and geomorphology



Taxonomy, diagnostic features, restrictions, surface fragments, and field measured properties



Horizon table, color, texture, structure, fragments, roots, and pores



Horizon table, features, field measured properties, concentrations, redox, and ped void surface features