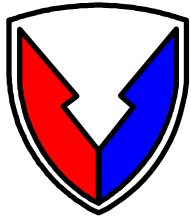# Field Use of Handheld Computers by Combat Engineers
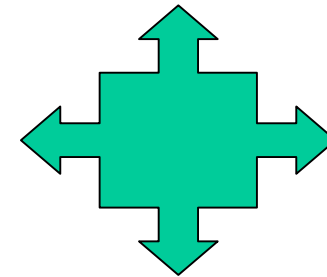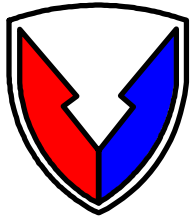
Fred Taverni, ARDEC

Potential Uses

- Special purpose calculator
- Document library
  - Manuals
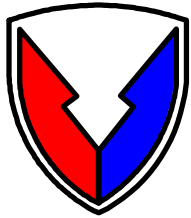 - Maps
- Mission Wizard
- Smart devices integrator

Constraints

- Form factor
- Input mechanism
- Ruggedness
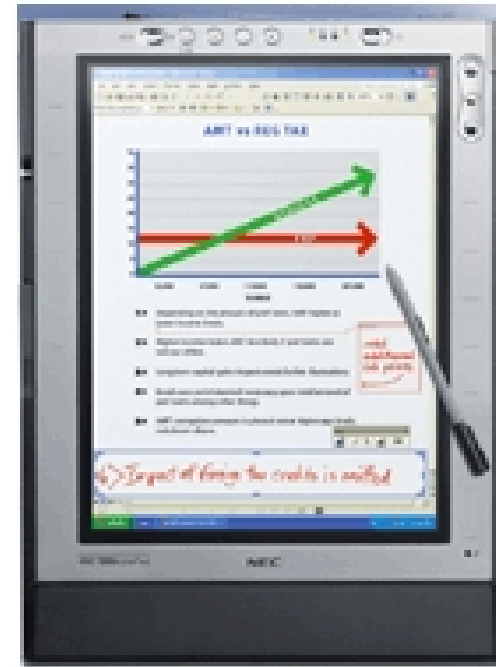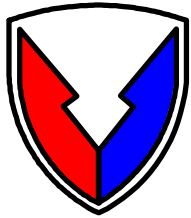- Batteries – life and type
- Wires
- Stealth
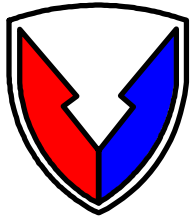
Commercial Form Factors

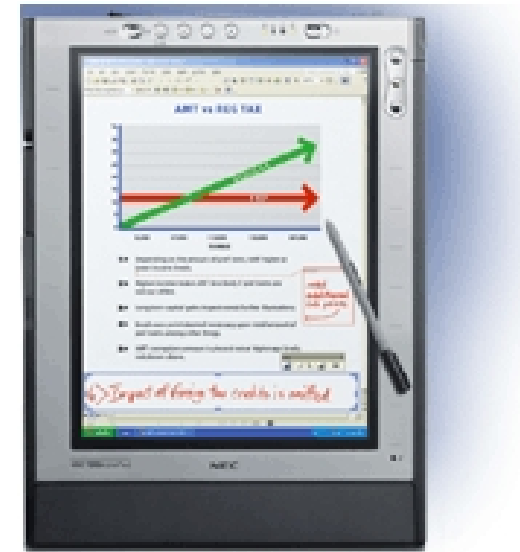## Palm / PocketPC

TabletPC

Palm / PocketPC Form Factor

- Physical: 3 x 5 x ¾ in. / 8 oz.
- CPU: 200Mhz / 64MB / ½GB
- OS: PalmOS or PocketPC
- Entirely solid state
- Touch sensitive screen
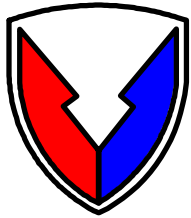- Small / reflective screen
- ~$500

TabletPC Form Factor

- Physical: 9 x 12 x 1½ in. / 4 lb.
- CPU: 1Ghz / ½GB / 30GB
- OS: WindowsXP
- Moving hard drive
- Special stylus needed
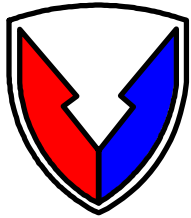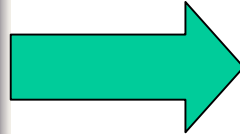- Full size / active screen
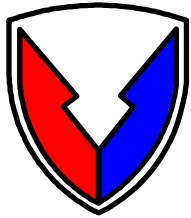- ~$2000

Preliminary Concepts

- USAES – ENFIRE
  - Digital hub to replace field sketching set
    - GPS, Rangefinder, Radio, Camera, etc.

- ARDEC – DemoPuter
  - Automate FM 5-250 *Explosives and Demolitions*
    - Demolition Calculator
    - Mission wizards
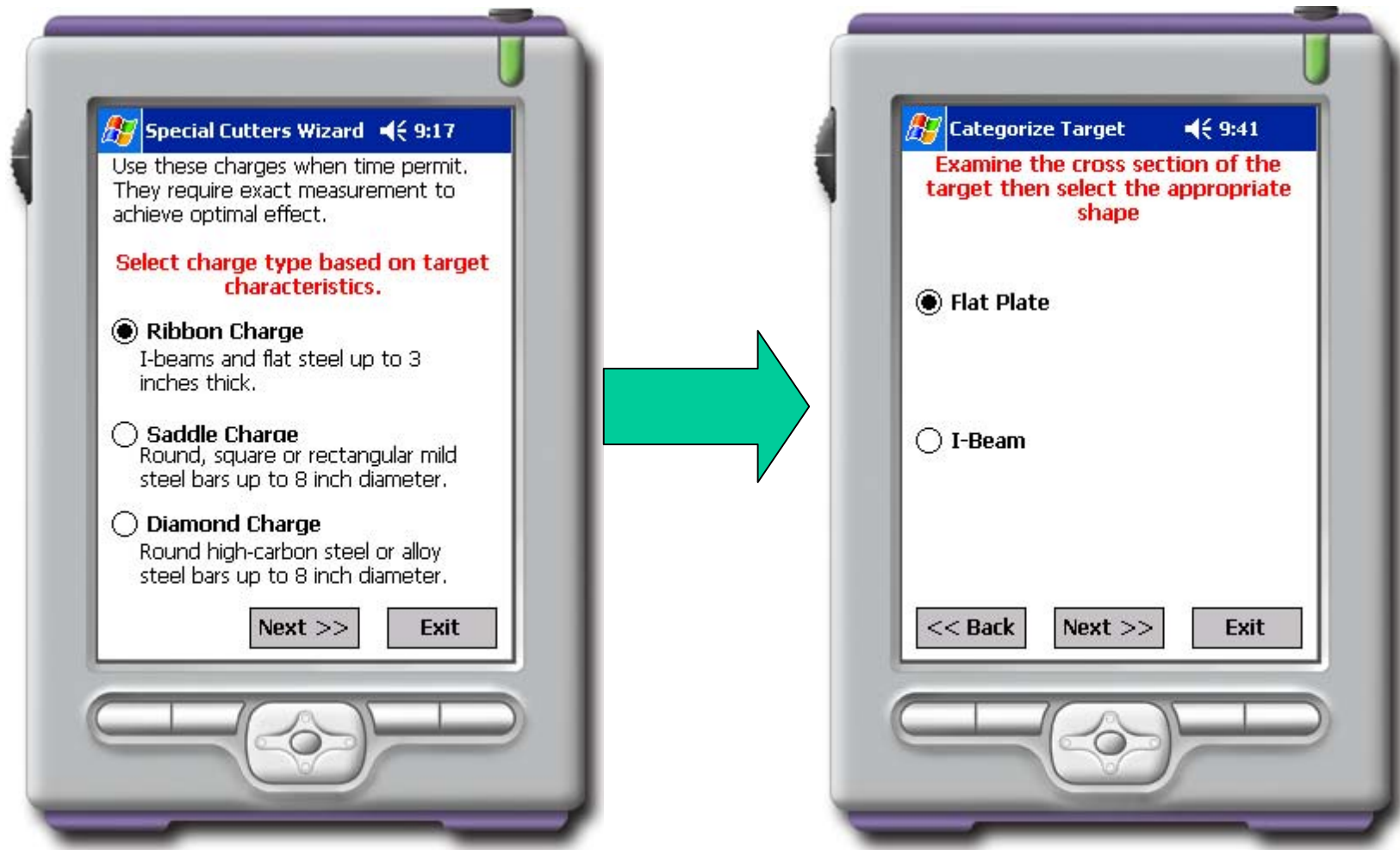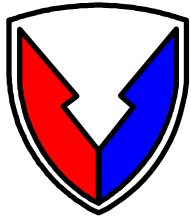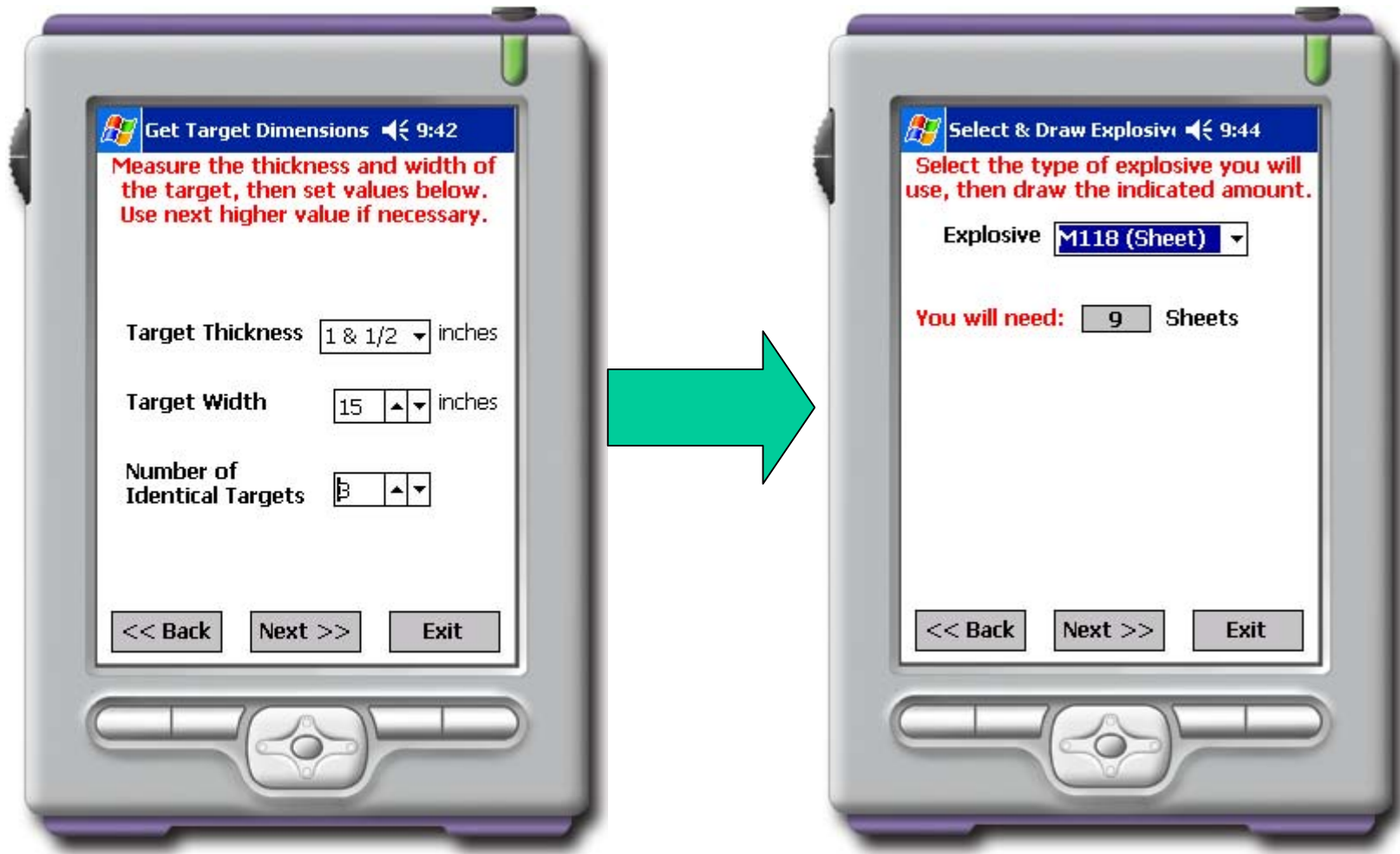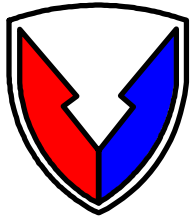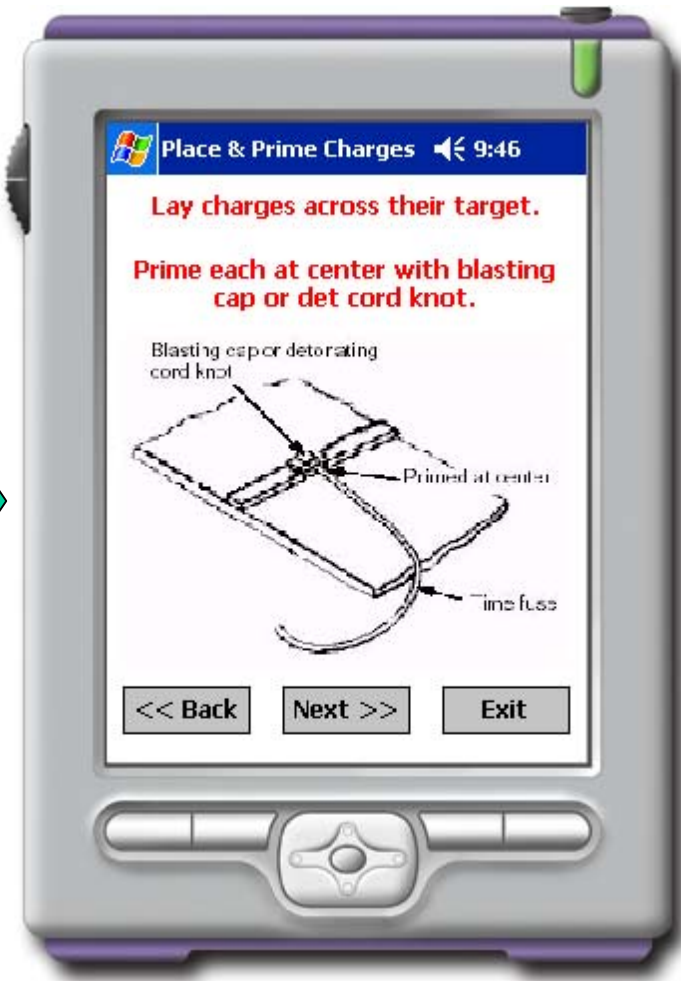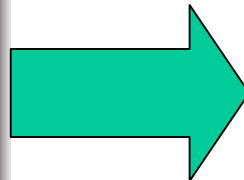 - Consistent with ENFIRE
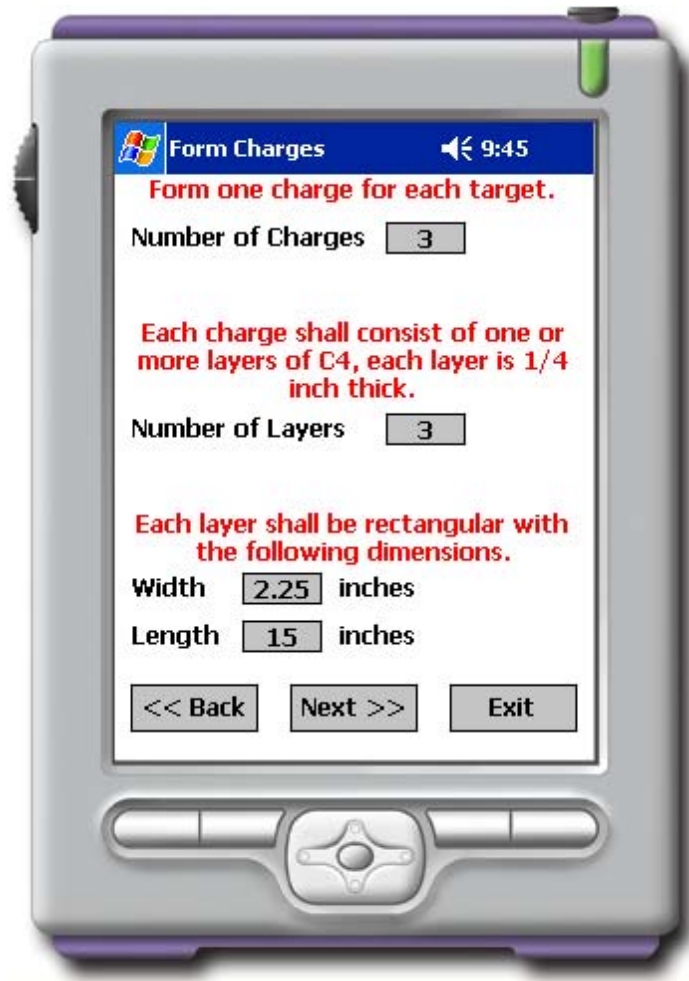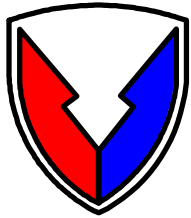 - Prototype software developed

DemoPuter – Demo Calculator
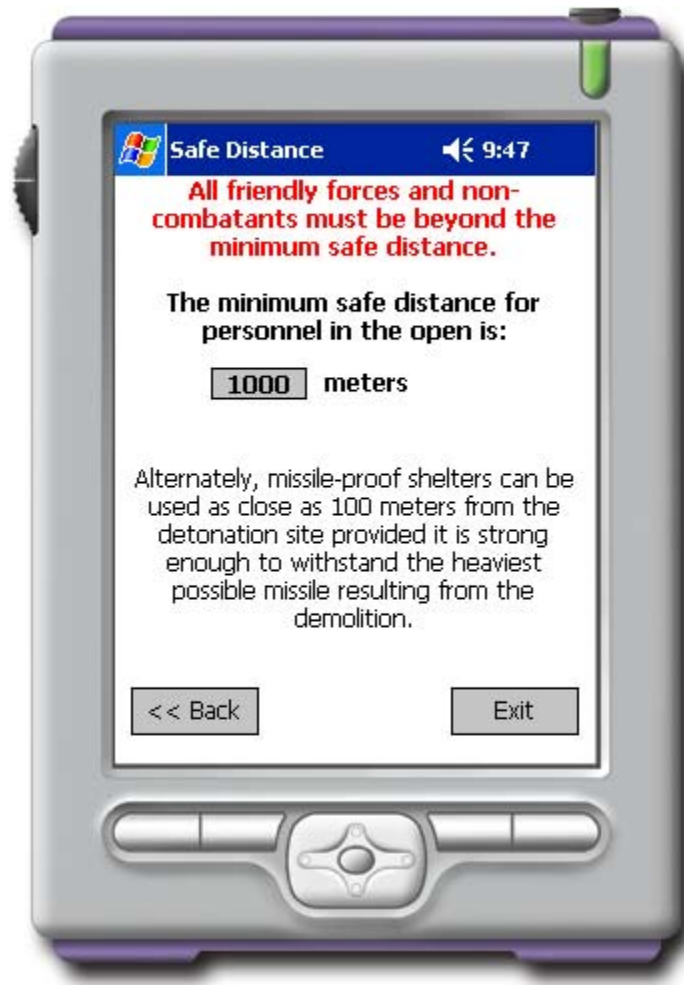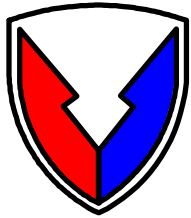
DemoPuter – Demo Wizard

DemoPuter – Demo Wizard

DemoPuter – Demo Wizard

DemoPuter – Demo Wizard

Initial User Reaction

- Prototype left with USAES

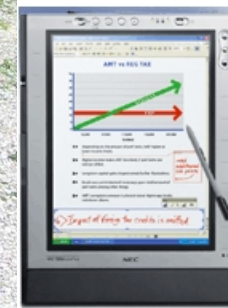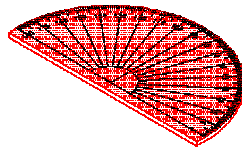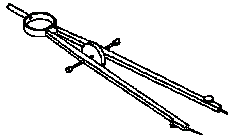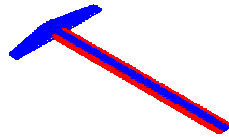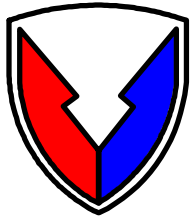- Liked simplicity

- Liked ruggedized palm-size form factor
  - Require standard, replaceable batteries
  - Night vision screen filters
  - Tether for stylus
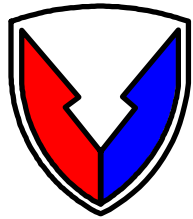
The Not Too Distant Future

Questions and Answers

Fred Taverni

(973) 724-4986

DSN 880-4986

taverni@pica.army.mil