Welcome to the Accessible Technology Webinar Series

The Accessible Technology Webinar Series is sponsored by the Great Lakes ADA Center and the Pacific ADA Center, both members of the ADA National Network.

The Session is Scheduled to begin at 1:00 pm CDT

We will be testing sound quality periodically

Tactile Graphics

NFB
National Federation
of the Blind
Voice of the Nation's Blind

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Webinar Features

- **Closed captioning** – click **CC** icon (top of screen) or control-F8 and adjust your screen
- **Questions -** type and submit questions in the Chat Area Text box or press control-M and enter text in the Chat Area
- Please do not use emoticons or hand-raising features during this session

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What are tactile graphics?

- Images designed to be explored by touch
- How do you use them?
- How do you design them?

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What makes a good tactile graphic?

- Not too complex
- Clear outlines
- Spacing
- Variety of heights
- Contrasting textures
- Sufficient difference between textures and heights

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Other considerations when designing tactile graphics

- Consistency in representation
- Durability
- Exactness (e.g. math, science)
- Time to read
- See BANA guidelines at http://www.tactilegraphics.org/

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Braille embossers – TGD Pro
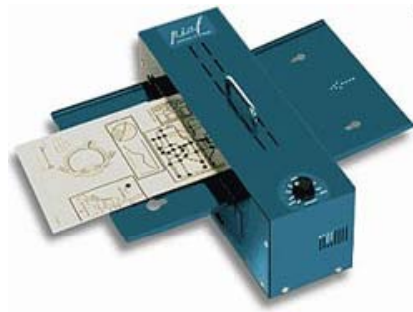
- **Pro**
  - No extra equipment
  - Fast
  - TGD Pro will also work to create Swellform graphics
  - Can import Scientific Notebook graphs

- **Con**
  - Lower resolution
  - Less flexible
  - Only XP and older

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Swellform

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Swellform

- **Pro**
  - Simple process, though no software is provided or suggested for creation
  - Sturdy material
    - Can be re-used by student or teacher

- **Con**
  - Braille is not as consistent or well-defined
  - Harder to produce large quantities
    - High cost per page ($1)
    - Paper can get stuck in copiers at higher volumes
    - Requires copier or HP inkjet printer

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Thermoform

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Thermoform

- **Pro**
  - Well-defined shapes
  - Flexible format
  - Durable
- **Con**
  - Very manual – user has to create a tactile image for thermoform
  - Every copy is unique, and recreating graphics can be tricky
  - Be careful with heat-sensitive materials

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Viewplus Tiger Software Suite

- **Pro**
  - Easy to create labels
  - Easy to reproduce
  - Easy to create consistent Braille and Braille and graphics combinations
  - Excel friendly
- **Con**
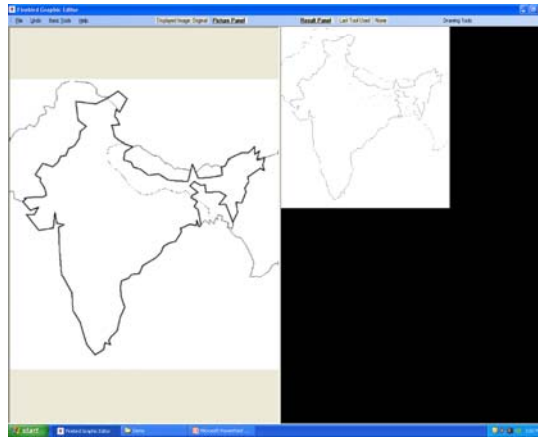 - Time consuming
  - More complex

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TSS Demo

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Phoenix embosser

- Produces high resolution tactile graphics
- Bundled with simple translator and graphics editor
- Interface is simple, somewhat limited
- Only some image types can be imported (BMP, EEG, GIF, JPEG/JPG/JPE, PNG & TIFF/TIF)
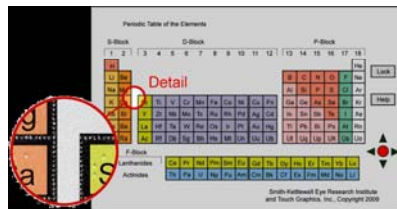- Force of impact can be adjusted

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Firebird Graphic Editor demo

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Additional hardware options

- **STEM binder (Talking Tactile Pen + apps)**
  - Great potential, esp. for STEM content
  - Layered information
  - Combines tactile, audio, large print

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Additional hardware options (cont.)

- IVEO
- Don't neglect what equipment and expertise you may have on hand:
  - Rapid prototyping/3D printing (e.g. Markerbot Replicator, Roland MDX40A)
  - Milling machine
  - Sowing machine
  - Etc.

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A sample 3D printer

- Max. size 225 x145 x150 millimeters or 8.9 x 5.7 x 5.9 inches
- About $2,000 depending on options, starting at $1,749
- About $50 per spool of ABS

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Don't reinvent the wheel

- Use existing tactile images and models
  - National Braille Press
  - Touch Graphics
  - Creative Adaptations for Learning
  - Commercial models and model kits
  - Etc.

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Questions?

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Resources

- See handout!

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Contact me

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Thank You

- Thank you for participating in today's session.
- Please Evaluate the session at
- http://ada-conferences.February142012.sgizmo.com
- Please join us for our next session :
- April 10, 2012- Improving the Web Accessibility Game Plan with Karl Grove, Deque System
- http://ada-audio.org for more information.

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