EDUCATIONAL TOOLS: APH MANTIS Q40 AND APH CHAMELEON 20

Leslie Weilbacher

Bruce McClanahan

AMERICAN PRINTING HOUSE

Leslie Weilbacher
APH Outreach Specialist
Northwest Region

Bruce McClanahan
Assistive Technology Specialist
WA State School for the Blind

Objectives

- Gain knowledge of the APH Mantis Q40 and Chameleon 20 and how devices work with computers and mobile devices
- Learn about using the Mantis and Chameleon to support literacy for school-age children
- Receive tips and strategies on maximizing students' learning of the Mantis and Chameleon

The American Printing House for the Blind

- The American Printing House for the Blind is the world's largest company devoted solely to creating products and services for people who are visually impaired. APH was founded in Louisville, Kentucky in 1858, making it the oldest institution of its kind in the United States.

The Mantis Q40

- 40 cell braille display
- QWERTY laptop keyboard
- Stand-alone features
- Connects via USB or Bluetooth
- WI-FI

Chameleon 20

- Speech – coming soon
- 20 cell braille display
- Perkins style 8 key keyboard
- Stand-alone features
- Connects USB or Bluetooth
- WI-FI

Learning Braille (both)

- Toggle between contracted and uncontracted in the Editor (Ctrl+Alt+G)
- Multi-modalities when connected to a device with a screen reader
- Increase braille access
- Reading books in Library from BookShare and NFBNewsline
- Braille display iOS Devices, Mac, Chromebooks, PCs, and Android (coming soon)

Math Support (both)

Both have a basic Calculator built in

Chameleon can work with the Braille Math Editor in JAWS (Insert + Space, Shift + =)

Both can use the Desmos Online Calculator

- To read in Nemeth, set Desmos to braille mode Nemeth and change JAWS output to Computer braille through the options, braille, advanced, general

Comparing: Mantis vs Chameleon

Mantis reinforces letter to letter recognition

- Learning to touch type
- For some, keyboard layout is more familiar for JAWS
- Works with Chrombooks

Chameleon is smaller so more portable

- Speech output (coming soon)
- Braille entry for Braille Math Editor with JAWS
- Braille keyboard for braille character reinforcement

NATIVE MODE AND APPLICATIONS

“Visual” Display

Main structure 1

Editor

Terminal

Library

File Manager

Calculator

Date and Time

Main structure 2

Settings

Online Services

User Guide

Power Off

Thumb keys

Previous: Move back one level

Left: Pan the Braille display

Home

Right: Pan the Braille display

Next: Move forward one level

Navigation

Home will place the user in the Editor.

Pressing Home always exit Terminal Mode.

Previous button: Move back one level

Next button: Move forward one level

Options are selected by pressing a Braille Router Key or Enter.

Dot 8 is Enter

Dot 7 is Backspace, Delete

First letter navigation

Editor

Create File

Open File

Editor Settings (Confirm deletion on or off)

Close

Create file

Press a Router Key and begin Brailling.

When done press Space+S

Write a filename, enter.

Saved

Terminal

Connected devices

Add Bluetooth device

Back

Library

Check if the school district will support placing this device on their network.

If not, extract the files from BookShare using a Windows PC and copy them manually through the cable or with a USB drive.

File manager

Books

Documents

Online Books

Release Notes

Individual Files

Back

Full Braille cell: Student at the Root/First level folder

Calculator

Four math operations

Percent, square roots, factorials, exponents

Commands must be entered in computer Braille

Date and Time

Date

Time

Settings

User Settings

Braille Profiles

WI-FI

Bluetooth

Active Exam Mode

Software Update

About

Online Services

Press O then enter on Online Services,

Select Bookshare or NFB Newsline

Use the categories or type in the search field

Browse and choose a book to download

DAISY or BRF Books

Add bookmarks and highlights

Comments

This device does not print, plug it into a Windows PC or a Chromebook when it is at the Editor, and it will act as a Thumb Drive.

Plug this device in when it says Braille display in Terminal mode. Do this before starting the screen reader.

Use File Explorer for the Windows PC or File Manager for Chromebook to transfer files. File Manager should be taught early in instruction.

The APH Chameleon 20 & APH Mantis Q40 require a 2.4 GHz Wi-Fi connection.

CONNECTING TO DEVICES

PC, Chromebook, iPad, iPhone, Macbook

Connecting – Make Discoverable

Press Home key on Mantis or Chameleon

Press T for Terminal and Enter

Press A and Enter on Add Bluetooth Device

Your device is now discoverable

Windows/JAWS or NVDA

USB to USB C Cable

Bluetooth

- Put Mantis in discovery mode
- Win, type Bluetooth, enter on Bluetooth & other devices
- Toggle Bluetooth on
- Choose Mouse, Keyboard, & Pen
- Select APH Mantis Q40 xxxxxxxx

Configure APH in the Braille Device Manager in JAWS

Complete the Connection

Press Home key on Mantis or Chameleon

Press T for Terminal and press enter

Press Enter on Connected Devices

Arrow down to your device’s named and press Enter

You should now be connected

Connecting to IOS Device

Make your device discoverable
On iPad activate VoiceOver
In settings, Bluetooth and tap on your APH device
Press Home key on Mantis or Chameleon
Press T for Terminal and press enter
Press Enter on Connected Devices
Arrow down to your device’s named and press Enter
You should now be connected

Predictive Text

On iPads

IA Writer

Enter text field

Shift braille cursor focus to predictive text suggestions

Press enter on the word that you wish to insert

Chromebook/ChromeVox

The Mantis works with ChromeVox very well

Use the USB cable for best connection

Capslock key becomes Search key

Quick Tips

1. Context Menu (right click)
    - Space M for Chameleon
    - Ctrl M for Mantis

2. Use the Braille Viewer in JAWS to see what is on the students display in print and SimBraille on the screen
    - Go to Utilities, Braille and Text Viewer, Enable Braille Viewer
    - Insert+Space, B, B
    - Or say "Sharky, start Braille Viewer"

Resources and Reach out!

Booth 215 and 314

Use this QR Code to access a folder of resources

Mantis Chameleon User Group

Sign up with this link

Input your email,

Keep Subscribe selected in the dropdown, and

Then select Next.

You should then get an email to confirm your email address.

The Hive

- One-stop shop for professional development
- FREE
- ACVREP credit
- Resources
- Self-paced learning
- Peer Reviewed

APH Resources

National Prison Braille Network

Museum

- Migel Library
- Hall of Fame

InSights Art Contest

Accessibility Hub

NIMAC

Louis Database

Tactile Graphics Image Library

THANK YOU

Leslie Weilbacher
lweilbacher@aph.org
outreach@aph.org
Bruce McClanahan
Bruce.mcclanahan@wssb.wa.gov

AMERICAN PRINTING HOUSE FOR THE BLIND