ChoiceSolo™

Electronic Enrichment
For Non-Human Primates

User Information
V2.1.0
June 2018

Main Screen

The Main screen of the ChoiceSolo App is shown below before any NHP presentation options have been selected.

Use the Menu Pull-Downs to select features and set-up options.

File/About... - Shows current information about the app.
File/Register... - Used to Register the software with a valid license
        If this item is greyed out, then you already have a licensed copy!
File/Buy... - Use to purchase a license for a specific machine.

Edit/Complexity... Opens Dialog Box to select features displayed to NHP.
Edit/Audio... Opens Music setup dialog box.
Edit/Video... Opens Video setup dialog box.
Edit/History... Opens History tracking dialog box.
Edit/Response Panel... Opens the BlueTooth connection dialog box.

Layout/Main Icons... Open a Dialog to select image files for the main screen icons (TV, Lighting, Music and Paint).
Layout/Video Icons... Open a Dialog to select image files associated with the three TV channels.
Layout/Lighting Icons... Open a Dialog to select image files associated with the four lighting icons.
Layout/Music Icons...   Open a Dialog to select image files associated with the three music channels.
Layout/Paint Icons...   this item is greyed out for future updates.
Layout/Dual Screen Mode - This is a selection button which allows the software to run on two separate screens. This function will enable only if the system detects two screens.

Complexity Set-up

The Edit/Complexity Dialog box allows you to turn various features that are presented to the NHP on and off. This allows you to "train" or build up the NHP's confidence with the app slowly. Start with one item and get them used to touching the screen and getting a response when they touch an Icon.

There are four Main Menu areas of the App:
- Lights: This feature allows the NHP to select a "lamp" on the screen in either Red, Green, Blue or Yellow
- Music: This feature allows the NHP to select one of 3 audio files.
- Video: This feature allows the NHP to select one of 3 video files.
- Paint: This feature enables a finger painting feature.
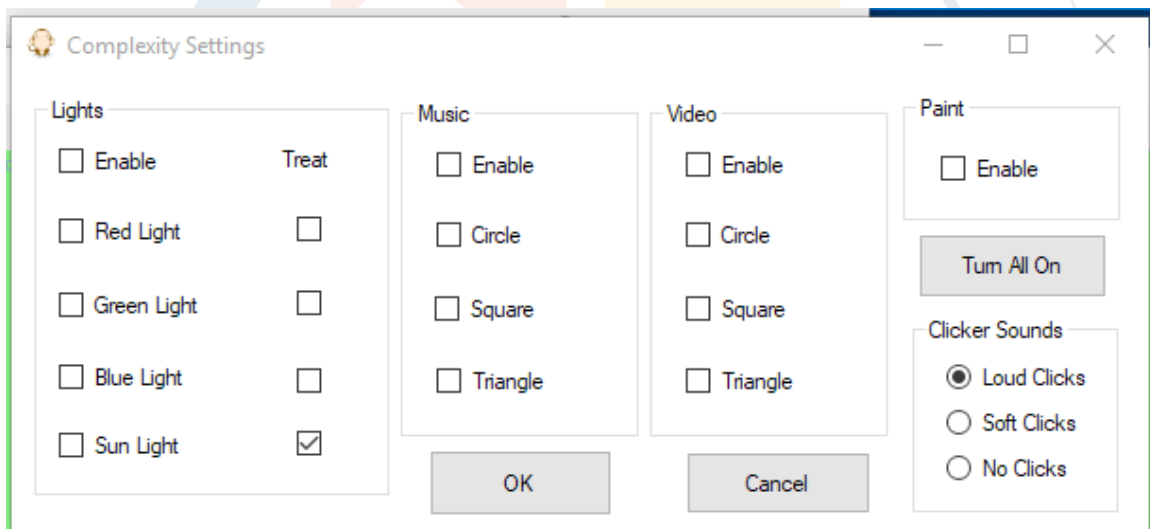
By clicking a check box, you are enabling the feature for presentation and selection by the NHP.

Enable auditory feedback to the NHP accessible buttons by enabling "Clicker Sounds".

For testing and User training, you can click the "Turn All On" button to quickly enable/disable all the check boxes.

The "Treat" check box works in combination with the optional "Response Panel". If the check box is selected, the a treat reward will be dispensed if/when the NHP touches the associated button.
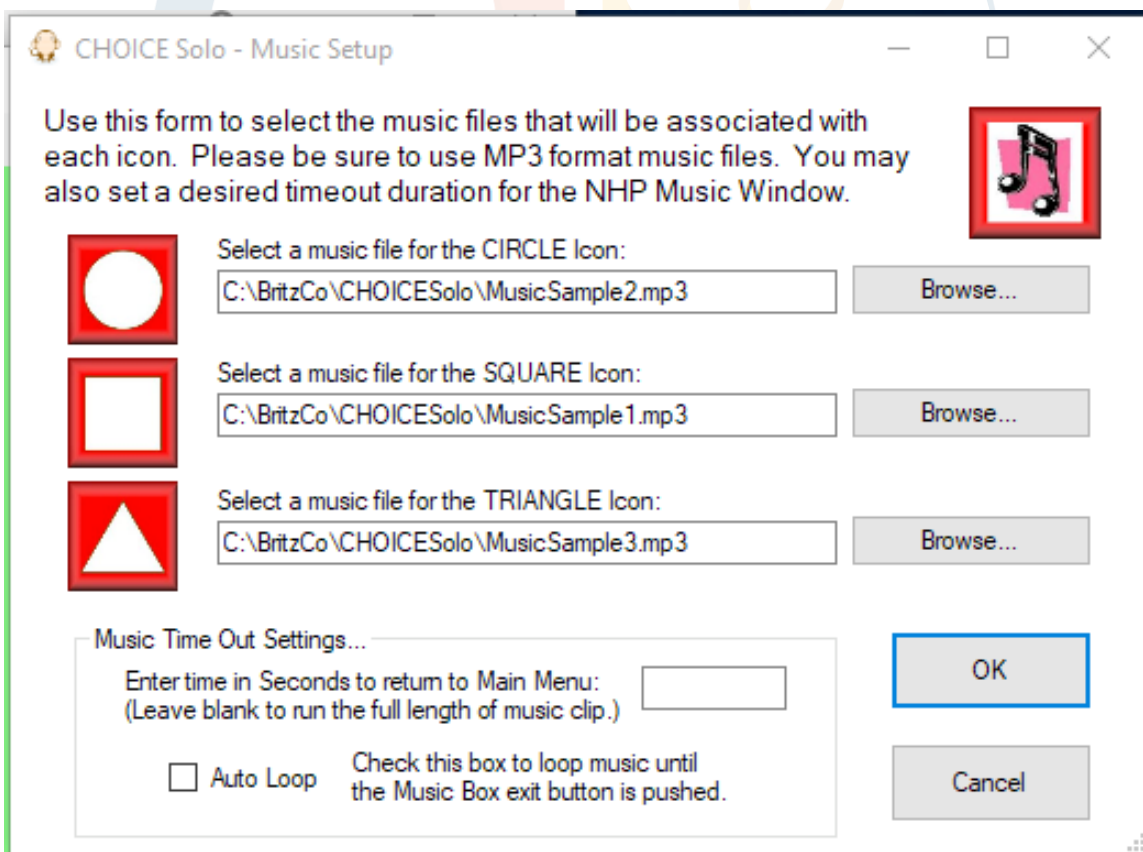
Music Set-up

The Edit/Audio... Dialog box allows you to assign any MP3 audio file to the icons that the NHP will use to choose music in the NHP Music Screen.

Sample Audio files are provided with the initial installation of the ChoiceSolo™ app. These files are found in the following directory: C:\BritzCo\CHOICE Solo\

You may store your MP3 files in any directory on the host tablet. Use the Browse... button and use the File Open dialog to navigate and select the MP3 file you wish to associate with any one of the 3 presentation icons (Circle, Square and Triangle)

At the bottom, select the behaviors you want for the audio selections.

Note: if the Music file selection is left blank for any icon, and the icon is enabled in the NHP Music Screen, then pressing that Icon will result in an error message.
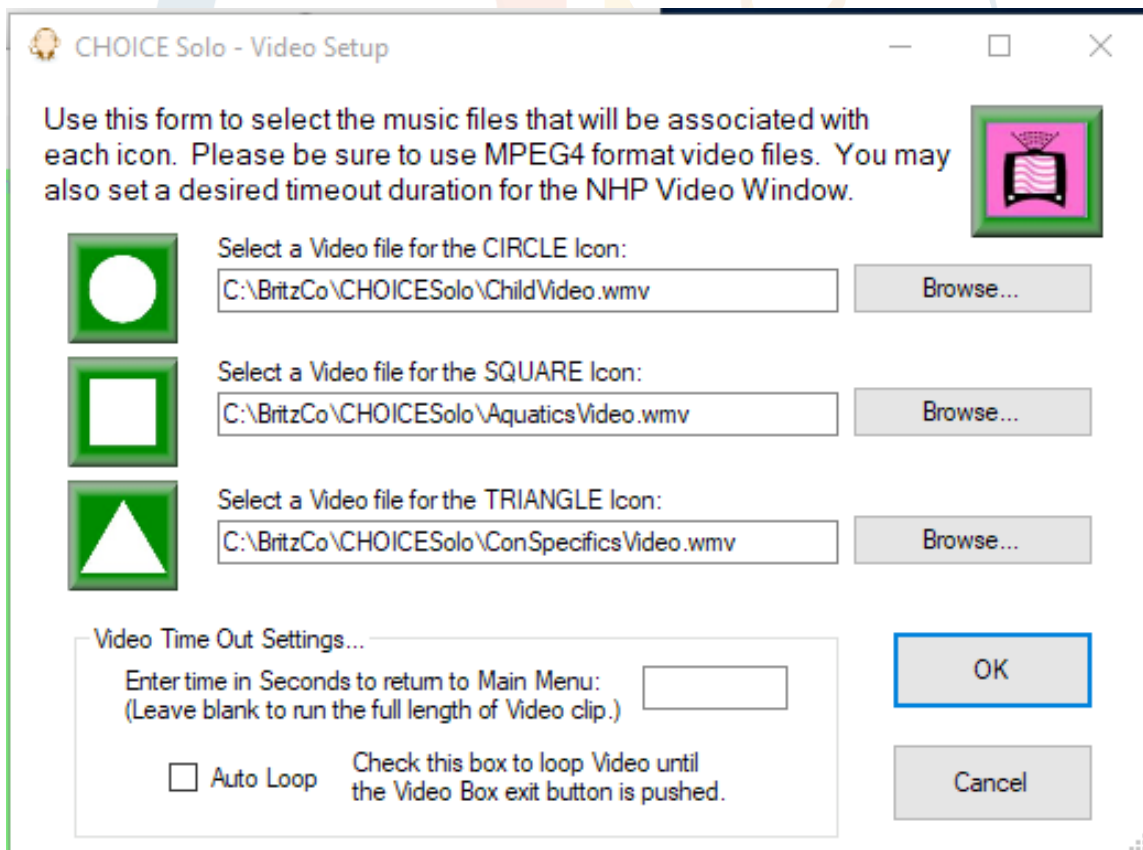
Video Set-up

The Edit/Video… Dialog box allows you to assign any WMV video file to the icons that the NHP will use to choose videos in the NHP Video Screen.

Sample Video files are provided with the initial installation of the ChoiceSolo™ app. These files are found in the following directory: C:\BritzCo\ChoiceSolo\.

You may store your WMV files in any directory on the host tablet. Use the Browse… button and use the File Open dialog to navigate and select the WMV file you wish to associate with any one of the 3 presentation icons (Circle, Square and Triangle)

At the bottom, select the behaviors you want for the video selections.

Note: if the Video file selection is left blank for any icon, and the icon is enabled in the NHP Video Screen, then pressing that Icon will result in an error message.
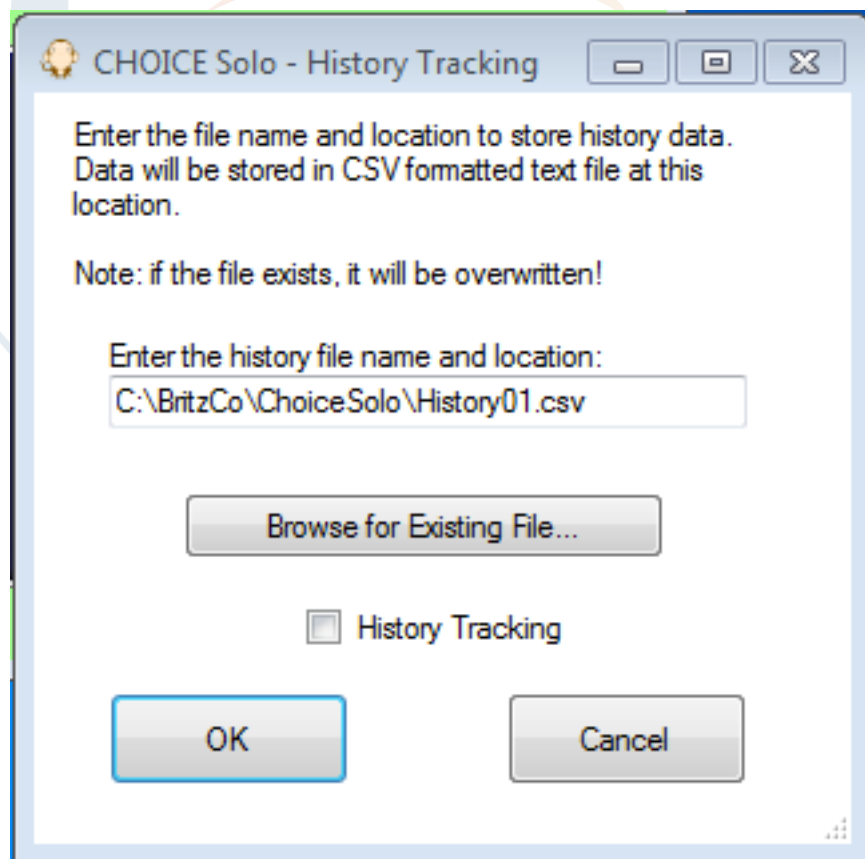
History Tracking Set-up

The Edit/History... Dialog box allows you to setup history tracking so that you can monitor and record NHP usage of the ChoiceSolo™ features.

History files are stored in CSV (comma seperated value) format so that they can later be opened and analyzed with a spreadsheet tool.

Enter the name you wish to use for the History Tracking file. It is recommended that the file name end with the .csv suffix for easy recognition by your spreadsheet tool.

Once your file has been selected, use the check box to enable and start the History Tracking feature.

When your NHP activity is complete, come back to this screen and de-select the checkbox, and press OK. This will close the file with the history data and you can then open it in your spreadsheet tool.

CHOICE Solo - History Tracking

Enter the file name and location to store history data. Data will be stored in CSV formatted text file at this location.

Note: if the file exists, it will be overwritten!

Enter the history file name and location:

C:\BritzCo\ChoiceSolo\History01.csv

Browse for Existing File...
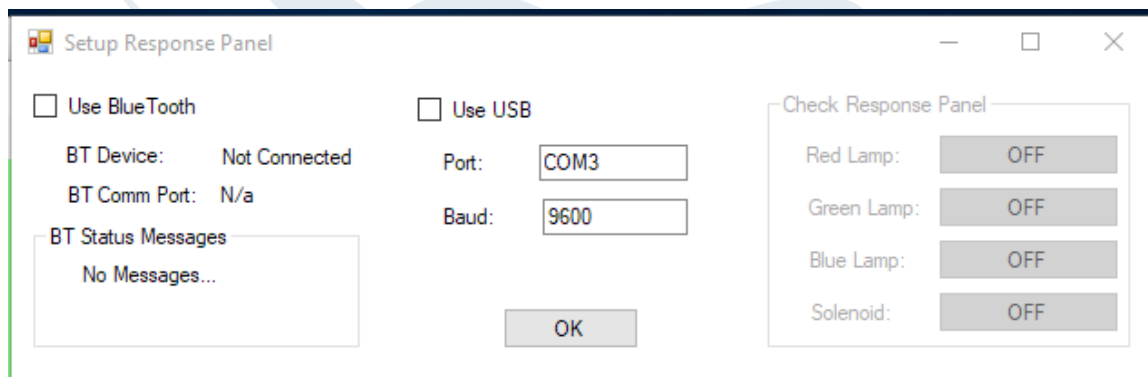
☐ History Tracking

OK   Cancel

Response Panel Setup

If you have purchased the optional ChoiceSolo™ Response Panel, then you will use this dialog box to establish a BlueTooth wireless or hardwired USB connection to the Response Panel. This dialog will allow you to test the Response Panel relays. Once connected, the lights and heater on the Response Panel can be activated by the NHP through the "Lights" panel.

Before Enabling the BlueTooth feature, verify the ChoiceResponse Panel is connected to your Solo touch pad via the "BlueTooth Devices" control panel. If the Response Panel is not shown, then use the "Add Device" function in the control panel. The BlueTooth ID and Pairing number are shown on a label affixed to the Response Panel.

To enable the Response Panel, click the "Enable BlueTooth" check box. A series of messages will appear at the bottom indicating connection status. Once connected, the BT Device and Com Port labels will indicate the connection and the Test push buttons will be enabled.

Use the push buttons to verify the wireless connection to the Response Panel. E.g., press the Red Lamp button and verify the Red LEDs turn on. Once this is complete, you may click OK to dismiss the dialog. The Response Panel will then react to the NHP choices on the LIGHTS interaction page.
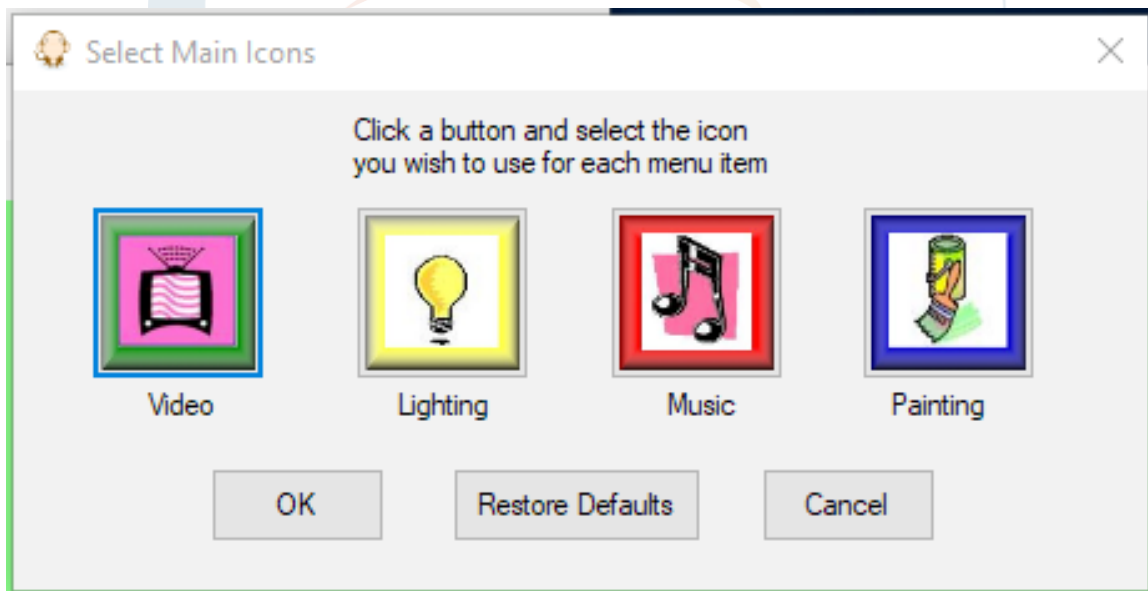
Screen Icon Selections

The Icon selection dialogs all work in a similar manner.   When you begin, the default icons are presented.

Before you can change icons, you need to have your own image files loaded into the app data directory. You will find an example directory that you can use on your system in :   C:\BritzCo Apps\ChoiceSolo\Graphics\NewPics.

Use any Graphic editing tool to make your images and save them as JPEG or PNG format. 240x240 pixels is a good size for your new pics, but the app will resize the image to fit in the buttons.

To change an Icon, click the icon and a file selection dialog will open.   Choose the image file you want and click the "Open" button.   The image will appear in the selected location.   Click ok to accept or Cancel to get out without making changes.

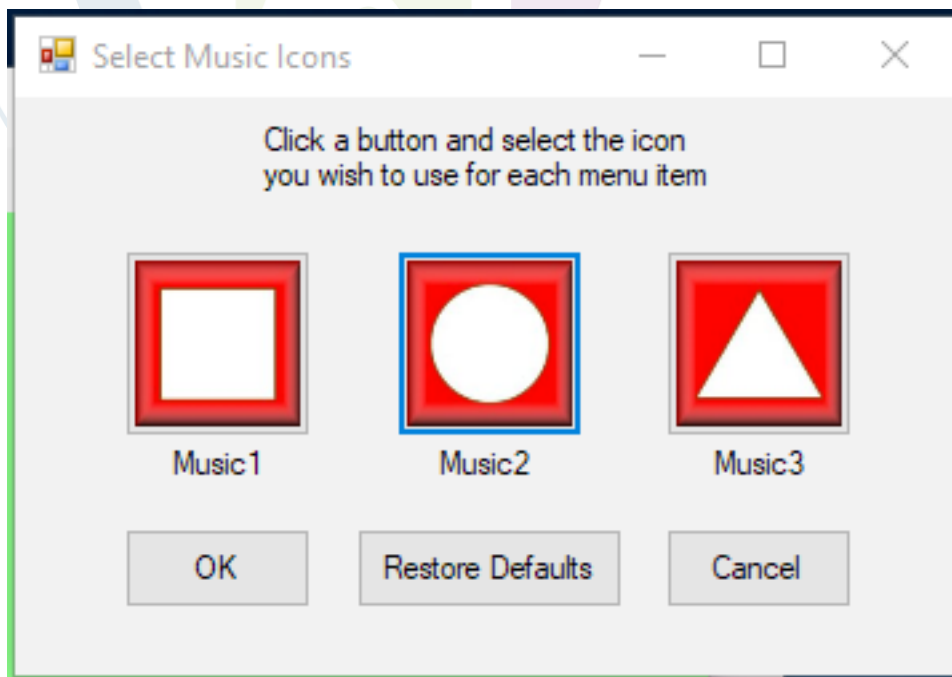Press the "Restore Defaults" button to put everything back to factory defaults (as below).

Video and Music Icon Selection.
These two dialogs function the same way.
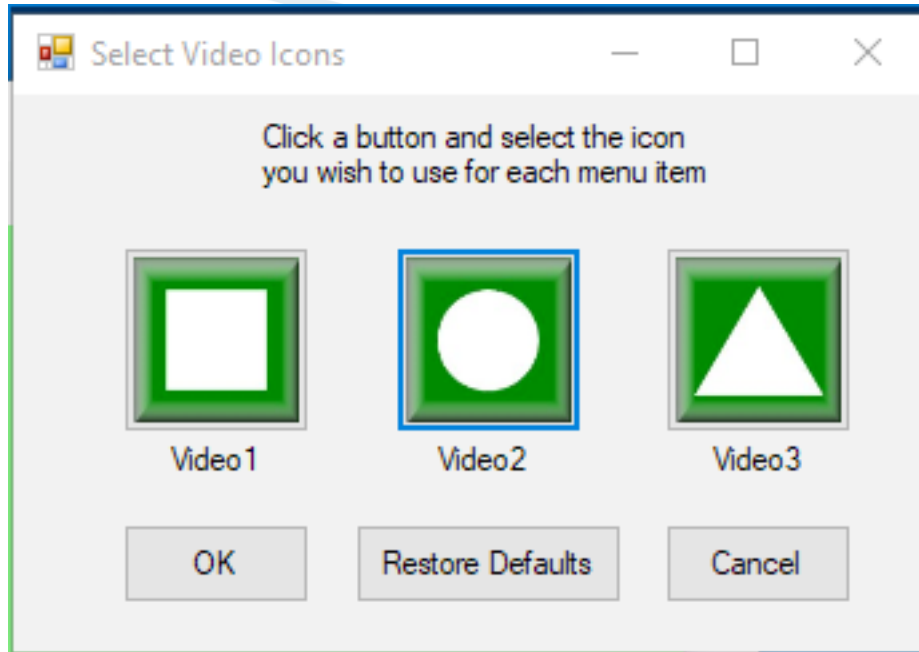
Lighting Icon Selection

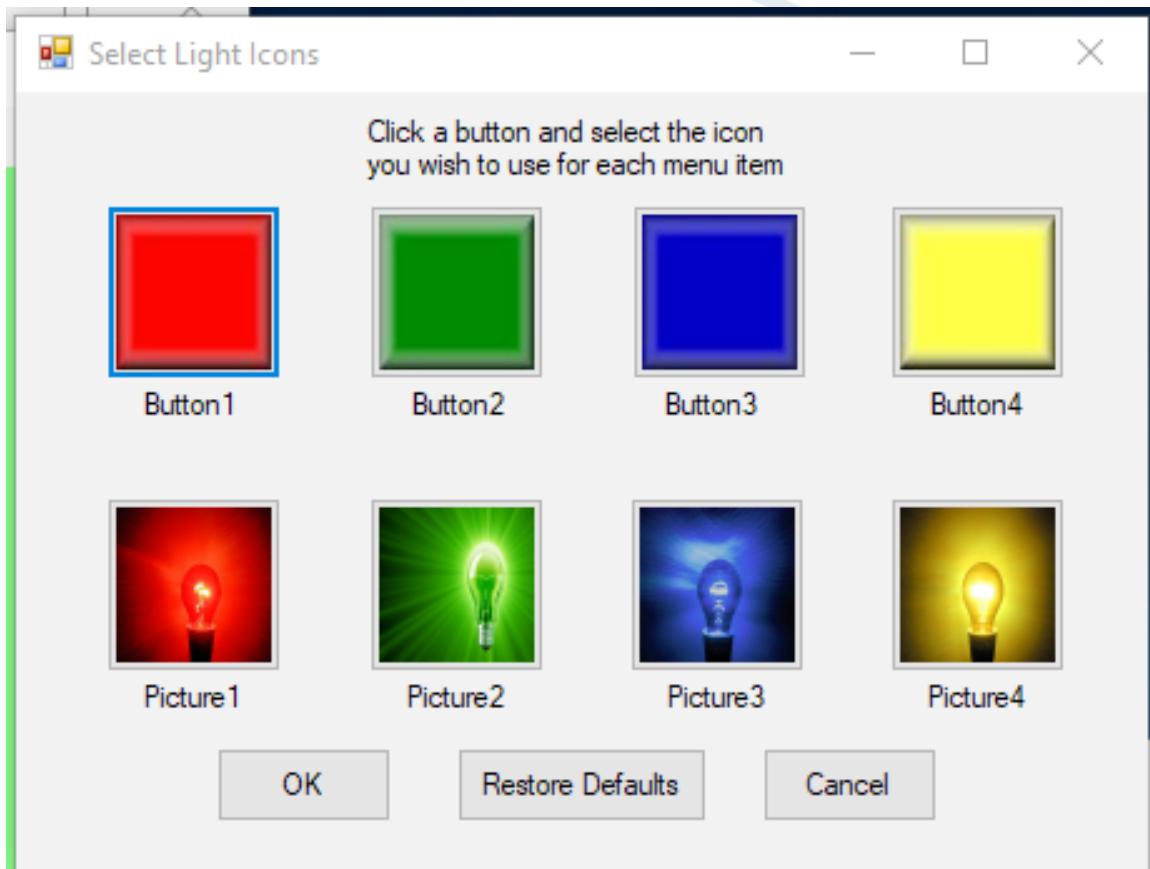On this screen, you can select both the icon for the button AND the image that will be displayed when the button is pressed.

The Picture buttons can be larger and more detailed, but still jpg or png format. Recommend starting with 1280x1040 pixel size.

Dual Screen Mode

This mode is used when the software runs on a laptop or desktop PC and the Monkey screen is displayed on a second, touch screen monitor.

If you select this mode with only one monitor, you will receive the following error.

Dual Screen Error   ✕

❌ Hey! I only found one screen. Gonna stay where I am.

OK

In a valid dual screen setup, the main screen with pull downs remains on the Primary Monitor. The Monkey screen with push buttons will display on the Secondary Monitor. The contents of the Monkey screen will be displayed on the Primary Monitor in a small window so that the User may follow the NHP's progress with the screens.

Windows Setup

We recommend the following Windows feature settings:
- Power and Display – Disable any power saving features (e.g. "sleep") that will turn off the touch pad display.   These are generally found in the Windows Settings app.   The battery may drain more rapidly, but, we want the animal to have a constant visual to the app.
- TaskBar – set the taskbar to "autohide"

Technical Support

The ChoiceSolo™ app is an on-going development project. If you have questions about usage, or, if you find a bug, please contact us!

Please contact us at 1-800-808-5609 or email at sales@britzco.com

Bill Britz *is* the primary software developer and he can be reached at 307-331-4167 or wrbritz@britzco.com

We are not only interested in technical usage issues, but we welcome your feedback on additional features or options that would further enhance the NHP enrichment experience with this new tool.

Version History

V2.1.0 (June 2018)
- Added Icon image selection function.
- Added Dual Display mode.
- Various bug fixes.

V1.5.0 (Sept 2017)
- Added Clicker Sound feature
- Added USB connection to Response Panel

V1.3.0 (Dec 2016)
- Added BlueTooth Response Panel option
- Added the "Sunshine" lamp
- Added automatic portrait/landscape rotation.

BRITZ
& COMPANY
CAGING AND RESEARCH EQUIPMENT SOLUTIONS

BH, Inc. dba Britz & Company
1302 9th Street
Wheatland, WY 82201
Ph: 307-322-4040
www.BritzCo.com

ChoiceSolo™

Enrichment Evolves.

The next evolution in NHP enrichment is about choice...let your animals choose their enrichment. The CHOICE Cage interactive electronic enrichment offers a standalone "solo" software application that allows your NHPs to choose their video, music, lighting or express themselves with finger paints. Complexity settings let you control and add features as animals learn the application. History functions let you track your animals progress. The future of enrichment is all about choices!