OnScreen

for Windows

On-Screen Keyboards with Assistive Technology

Version 1.80

User's Guide

OnScreen: for Windows; On-Screen Keyboards with Assistive Technology; Version 1.80; User's Guide

IMG Real World Press

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Part I. Getting Started

General information about this guide, the product, installation, and getting started (how to get OnScreen running).

Chapter 1 - Quick Start contains details on the fastest way to install & begin using

OnScreen

Chapter 2 - Getting Started has more information about this guide, OnScreen features, Installing / Un-Installing, Licensing Information, Standard Settings, using OnScreen Setup, Commonly Asked Questions, and information about Customer Support.

Chapter 1. Quick Start

Install OnScreen

There are various ways to obtain IMG software, including (but not limited to):

- Web based / Internet download from IMG's web site
  (http://www.imgpresents.com/demo.htm)

- Shipped CD / DVD physical media - IMG Product Disc

- Download ISO image file and burn IMG Product Disc CD / DVD

- USB Flash Drive (pre-installed or installed from USB media web download)

- Single file install (from local network / internet / other media)

- IMG on-line account

Note: IMG Software is built by product and major version with minor releases. There is only 1 unique build, but can be packaged / delivered / obtained in various ways. When unlicensed, the software acts as a demonstration / evaluation copy, and operation will be limited in length or run-time or capabilities. Once licensed (typically via License Key and Serial Number, or OEM / Company-wide / Enterprise licensing), the software will operate with no limitations.

Recommendation: The quickest and easiest method for obtaining IMG software is to download the current version from IMG's web site (http://www.imgpresents.com/demo.htm). Download, then run the file to install. Test, review, play with, and verify the software meets your needs and requirements.

When ready to purchase, go to the IMG License Manager, and click on the "Purchase License Now" button. If working on a machine without internet access, use the Standard or MSI single file download, or use a Product Disc option. Separately, purchase the license for the product directly on the website - once you have your License Key and Serial Number, you can install and license the software.

The following outlines a standard retail Product Disc based install. For other options, refer to notes and details available at the source. In general, the approach is to install the software, then license the software. The Product Disc Installation Assistant provides an easy way to accomplish these two tasks.

• In Windows, insert the CD or DVD - the

AutoRun feature will load the Installation Assistant - you may Install a licensed product , Install other product demos, or view Release Information. **If you have a Certificate of Authenticity, enter your License Key, Serial Number, and Name to Install and automatically License.**

- If AutoRun is not enabled:

- In Windows, Click on the Start Button

- Select Run

- Select D:SETUP, or type D:SETUP (or E:SETUP if CD/DVD drive E:, etc.)

- Press (ENTER) or click on OK

- In Windows Vista / 7 / 8, you may not have the Run Option - select Computer, your CD/DVD drive, and open Setup

- Answer the questions and follow the instructions on your screen

Warning

**Server Installation
(Terminal Server /
Terminal Services)
Note:** When installing
on a server, for proper
operation, you **MUST**
install the software from
the Control Panel |
Add/Remove Programs
icon.

Note: You may also Un-Install OnScreen
by running SETUP.EXE After OnScreen
has been properly installed. (OnScreen
Setup will ask you if you wish to
Un-Install.) This has been provided as a
convenience to the user. It is
recommended that you use the Control
Panel | Add/Remove Programs Icon to
remove OnScreen.

Start OnScreen

Click on the Start Button, and open the Start Menu.

Select (All) Programs, then Select OnScreen. The OnScreen menu will have selections corresponding to the icons in the group. Select OnScreen to begin operation.

The OnScreen Welcome will automatically run after install. The Tutorial and this manual can be used to learn all the features and capabilities of OnScreen.

Chapter 2. Getting Started

OnScreen User's Guide

Version 1.80

5/7/2013

A Utility for Windows

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Using this Guide

This guide is a comprehensive collection of
details, notes, and information about
OnScreen. Portions are incorporated within the
product itself, and it is also available in various
forms (e.g. printed, on-line, PDF, etc.).

Important User Information

This guide is for users who are familiar with
Windows, its basic concepts, and how to
operate within Windows. If you are not, the
information you may need to fully utilize
OnScreen and this guide may be limited. You
may wish to review Windows help, tutorials,
and other available information on using and

operating Windows before continuing using this guide.

Product Versions

In order to address various customer needs and requirements, there are numerous versions, customizations, and special releases available. This guide is created from a single source, and can contain references and information about other versions, capabilities, and features that may NOT be represented in the version you are using. In some places within this guide, there may be mentions of other supporting software that are part of the IMG family of products.

- **Build-A-Board** - customizable keyboard layout generator with support for multiple platforms

- **CrossScanner** - complete Windows access from a single-switch (for users who can't

use standard input devices)

- **Joystick-To-Mouse** - enables point and click operation within Windows from a joystick or gaming device

- **Touchright Utilities** - right-click access for touchscreens and other pointing devices

Specific notes for these and other products may be found within this guide.

Conventions used within this guide

> **Note:** Notes and other additional information will be indicated in this way

Warning

Special and other important details to pay close attention to will appear this way

What is OnScreen?

OnScreen provides on-screen keyboards, buttons, and utilities that allow any pointing device to operate Windows 8 without the need for a physical keyboard. Numerous user options, enhancements, and Word Completion, allow an individual to type, write documents, compose e-mail, browse the web, and accomplish any other common task effectively and easily.

OnScreen Software is intended to provide all the functionality of a keyboard without using a keyboard, thus allowing the user to remain on the primary input device at all times. OnScreen is also a very useful tool for quick Macros and Windows commands. OnScreen has various screen sizes and its option panels can expand and retract dependent upon your requirements. OnScreen has incorporated all kinds of large & small features and capabilities based on actual user input and requests.

> **Note:** OnScreen is available in many forms, by many names, and can trace its history back to My-T-Mouse, originally introduced to the world at Fall COMDEX 1993 (when COMDEX, i.e. the Computer Dealers Exposition, was the premier trade show for everything happening in the computer industry - My-T-Mouse was featured as one of the highlights of the show in a program called "Computer

Chronicles" (a well known series that ran from 1981 through 2002). You can find this archived video [Computer Chronicles Fall COMDEX 1993] at the Internet Archive (http://www.archive.org)). There are versions that support Windows 3.0 / 3.1, Windows 95 / 98 / Me, Windows NT, Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, Embedded versions (NT/XP/7 & Windows CE), and all Windows Server versions. Other operating system & platform support can be found in Build-A-Board, the next generation of the My-T-Soft software.

Why do I need OnScreen?

OnScreen is intended to give the user all the functionality of a keyboard without using a

keyboard. Because the software is a user-interface enhancement, and a functional replacement for a physical keyboard in many cases, the software is used throughout the world for both simple and complex tasks...

My-T-Mouse is... (the original)

My-Typing-Mouse - The Software That Make Your Mouse a Mouse That Types!

My-T-Pen is...

My-Typing-Pen - The Software That Makes Your Pen a Pen That Types!

My-T-Touch is...

My-Typing-Touchscreen - The Software That Makes Your Touchscreen a Touchscreen That Types!

My-T-Soft is...

My-Typing-Software - The Software That Types!

Features

- Seamless operation from Mouse, Trackball, Touchscreen, Pen, or any other pointing device

- Microsoft Windows 8 Compatible

- Options for interfacing with specialty and assistive technology pointing devices

- CrossScanner Support - includes tight integration with OnScreen and cooperative operational features

- Key Magnifier option - 3 sizes available, enlarges key for easier identification

- Key Highlight option - visual indication of key pointed to

- AutoScroll - for larger sizes (larger than screen) automatic scroll into view

- Scroll Control window for CrossScanner / Touchscreen users

- TurnAway add-on for Head Mouse users

- Text-To-Speech (Windows 98/Me/NT/2000/XP) Option

- Text-To-Speech - audio feedback of key pointed to, with Repeat option

- Text-To-Speech - Speak word typed upon WordCompletion

- Text-To-Speech - Setup & Speak window - echo what has been typed

- Word List options - Now supports whole sentences and spaces between words

- Word List options - International Word lists

- Word List options - Manage & Save Word Lists

- Word List options - Read in and process

external documents & files to add to current Word List

- Keyboard Scanning - operate OnScreen entirely from a single switch (mouse button (left-click))

- Keyboard Scanning - Complete customizable approach for panels, rows/columns, and keys

- Workstation / Network Logon Options

- Developer Tool Kit and Extensions

- Developer examples of integrating into existing applications

- Show & Hide Keys

- Selectable Sizes

- Realistic 3D graphics

- Infinite Sizing

- Support for Build-A-Board layouts - completely customizable user interface

- 11 panels, individually selectable, or create your own with Build-A-Board

- Great for editing - Quick & Easy!

- Special Windows Short-cut Keyboard - Power Users Dream!

- 101 & 104 key layouts

- Multiple Keyboard Layouts with ABC Layout for Non-Typists

- International support - numerous keyboard layouts from around the world

- Create Macro Keys & Panels

- Specific Key & Key Combination Enable / Disable

- Attach Executable programs to Keys & Key Combos or Window Activation

- Includes the Calculator with Calculator Tape & Send Feature

- Time & Date Display

- Memory, Disk Space, Resources status Display

- Completely Configurable for all of your needs

- Color-code Panels for easy identification

- On-line Quick Help for First-Time Users

- Minimizes to a Button for convenient access

- Once you use it, you won't want to live without it!

- Keyboard not required (Just Say No... to your Keyboard.)

- End-user and Developer Support

What You Need

To run OnScreen you need the following equipment (hardware requirements):

- IBM 80386 or higher or compatible
- 200 mb hard disk space available
- 32 mb memory or higher
- Windows 8
- EGA or higher resolution monitor, VGA or SVGA recommended
- Any Windows supported pointing device

Installing / Un-Installing OnScreen

There are various ways to obtain IMG

software, including (but not limited to):

- Web based / Internet download from IMG's web site
  (http://www.imgpresents.com/demo.htm)

- Shipped CD / DVD physical media - IMG Product Disc

- Download ISO image file and burn IMG Product Disc CD / DVD

- USB Flash Drive (pre-installed or installed from USB media web download)

- Single file install (from local network / internet / other media)

- IMG on-line account

> **Note:** IMG Software is built by product and major version with minor releases. There is only 1 unique build, but can be packaged / delivered / obtained in various

ways. When unlicensed, the software acts as a demonstration / evaluation copy, and operation will be limited in length or run-time or capabilities. Once licensed (typically via License Key and Serial Number, or OEM / Company-wide / Enterprise licensing), the software will operate with no limitations.

Recommendation: The quickest and easiest method for obtaining IMG software is to download the current version from IMG's web site (http://www.imgpresents.com/demo.htm). Download, then run the file to install. Test, review, play with, and verify the software meets your needs and requirements. When ready to purchase, go to the IMG License Manager, and click on the "Purchase License Now" button. If working on a machine without internet access, use

the Standard or MSI single file download, or use a Product Disc option. Separately, purchase the license for the product directly on the website - once you have your License Key and Serial Number, you can install and license the software.

The following outlines a standard retail Product Disc based install. For other options, refer to notes and details available at the source. In general, the approach is to install the software, then license the software. The Product Disc Installation Assistant provides an easy way to accomplish these two tasks.

• In Windows, insert the CD or DVD - the AutoRun feature will load the Installation Assistant - you may Install a licensed product , Install other product demos, or view Release Information. **If you have a**

Certificate of Authenticity, enter your License Key, Serial Number, and Name to Install and automatically License.

- If AutoRun is not enabled:

- In Windows, Click on the Start Button

- Select Run

- Select D:SETUP, or type D:SETUP (or E:SETUP if CD / DVD drive E:, etc.)

- Press (ENTER) or click on OK

- In Windows Vista / 7 / 8, you may not have the Run Option - select Computer, your CD/DVD drive, and open Setup

- Answer the questions and follow the instructions on your screen

> # Warning
>
> **Server Installation (Terminal Server / Terminal Services) Note:** When installing on a server, for proper operation, you **MUST** install the software from the Control Panel | Add/Remove Programs icon as Administrator.

Note: You may also Un-Install OnScreen by running SETUP.EXE After OnScreen has been properly installed. (OnScreen Setup will ask you if you wish to Un-Install.) This has been provided as a convenience to the user. It is recommended that you use the Control Panel | Add/Remove Programs Icon to remove OnScreen.

Starting OnScreen

Click on the Start Button, and open the Start Menu. Select (All) Programs, then Select OnScreen. The OnScreen menu will have selections corresponding to the icons in the group. Select OnScreen to begin operation.

The OnScreen Welcome will automatically run the first time you load OnScreen.

The following icons will also be available in the OnScreen group:

OnScreen Welcome - Opening Welcome, access to tutorial, documents, product

OnScreen - runs OnScreen!

OnScreen Setup - Configuration options

Licensing Information - Displays current
license status of OnScreen, allows instant
licensing

Text-To-Speech - Speak and Setup

Licensing Information

OnScreen uses the IMG License Manager to
manage the licensed use of this product. If
unlicensed, the product will run as demo (i.e. a
demonstration version). In the demo
(unlicensed) mode, OnScreen will run for
about an hour (or 250 keystrokes), and then
exit, displaying the license manager
(announcing that it is unlicensed). You may
restart OnScreen up to 100 times (the
demonstration period limit). After the
demonstration period is over, OnScreen will
not operate unless it is licensed. For extended

evaluation and testing purposes, please contact IMG Customer Service for an evaluation license. Once licensed, the operation will not be limited in any way.

The most common methods of licensing are electronic (web/e-mail based) and by certificate (Certificate of Authenticity). In both cases, there will be a registered serial number, and a license key made available once a license has been purchased - these need to be entered into the IMG License Manager to activate a valid license. For further details, refer to the IMG License Manager.

> **Note:** There are numerous license schemes (including OEM, site, & enterprise licenses) available to meet the needs of all our customers. If you have any licensing questions, please contact Innovation Management Group, Inc. directly.

License Manager

In order to License OnScreen, the correct License Key and Serial Number must be entered into the IMG License Manager, along with some text for the Customer (and optional Company) text areas. The License Key and Serial Number can be found on the Certificate of Authenticity, or in the Software Unlock Codes e-mail.

OnScreen License Manager

- Authentication

The License Key and Serial No. entries are a matched pair, and will work together to unlock the software. The Customer entry is required (i.e. some text must be entered in the Customer text area), but is not part of the license unlock process. The Company text area is optional, and will be shown as the Source when the product is licensed.

To quickly and easily license the software (on a system that has internet access), simply click on the "Purchase License Now" button. Once connected to IMG's website, you will be asked to enter billing information and payment information. Once paid, your order will be processed, and you will receive a confirmation e-mail and a separate e-mail with license information. Once the order is fully processed, you can then click the "Retrieve Purchased License" button to automatically license your system.

> **System ID Note:** The System ID is used to accurately match the Product and Version you wish to license with the License Information provided. If the system you wish to License does not have Internet Access, you can use the Copy System ID to Clipboard to accurately copy the System ID to the clipboard (which can be saved in a text file or other document

and moved to a system that does have Internet Access).

Note: The "Retrieve Purchased License" uses a unique identifier to automatically license your system (which is only sent if the "Purchase License Now" is used). If you try this on a different system, or after a system update or re-install (or after a change to this unique ID), the software will not license automatically. You will either need to enter the License Key and Serial Number, or go into Additional License Options (see below) and use your Order Confirmation Number and Order E-mail to retrieve the license.

Important Note: Be sure to save and/or print your Order Confirmation number

(with Order E-mail), along with your License Key and Serial Number in case you need to re-license the software in the future (Operating System Re-install, hard disk reformat, new system, etc.)

Certificate of Authenticity Note: For Electronic Licenses, and Certificate of Authenticity can be retrieved on IMG's website:
https://www.imgpresents.com/orders/account
This requires a valid License Key and Serial Number. Once entered, you may view a PDF of the Certificate, or download the Certificate of Authenticity PDF file (for printing or saving).

OnScreen License Manager

- Additional License Options
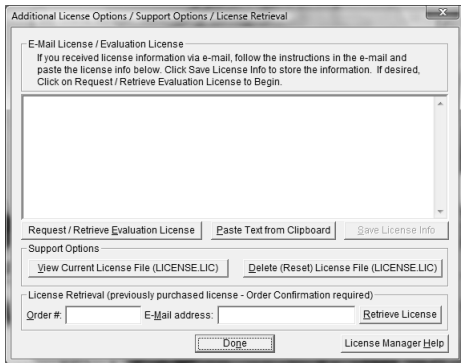
The Additional License Options section has tools and options to Enter or Paste Evaluation or Other License Information; Request and Retrieve Evaluation Licenses; Support Options to View and Delete (Reset) the License file; and a mechanism to retrieve a Purchased

License by entering the Order Confirmation Number and the Order E-mail address.

Often, interested parties want to review or test the software without the demonstration license limitations, and to accommodate this, IMG makes available Evaluation Licenses. These Evaluation Licenses are fully functional licenses, but with a date limit (when the evaluation date has passed, the software will return back to the Unlicensed, Demonstration mode).

Evaluation Licenses may be requested at the Product Download pages on the website, or by using the Request / Retrieve Evaluation License button here. Note that all Evaluation License requests are reviewed, and Evaluation Licenses must be created by IMG personnel (generation is not automated).

An Evaluation License sent via e-mail contains a block of text that has the license details for

the License Manager. When sent via e-mail, the text can be copied and subsequently pasted into the text area here (Paste Text from Clipboard), then saved to enable (set) the License Information (Save License Info).

Alternatively, if an Evaluation License is Requested, then after processing, it may be automatically Retrieved directly by clicking the Request / Retrieve Evaluation License button. Please refer to any additional information provided by the messages shown when using this approach.

The View Current License File (LICENSE.LIC) button will load the file LICENSE.LIC from the installation folder. This file contains the actual license information for the product, or the license information used to validate a License Key and Serial Number.

Note: Because an Evaluation License

uses this same file, the Delete (Reset) option should be used if Licensing the product after using an Evaluation License.

The Delete (Reset) License File (LICENSE.LIC) will remove the existing LICENSE.LIC, then copy the file LICENSE.ORG to LICENSE.LIC (both in the installation folder). The file LICENSE.ORG is the "as shipped" license file, and should be the License File when using a License Key and Serial Number to license the software.

> **Note:** For License Purposes, using the Support Option to Delete (Reset) the License File is essentially the same as un-installing, then re-installing the software. Because this option is quicker and simpler, it is the preferred approach to resolve any license issues. Note that

manually copying the file LICENSE.ORG to LICENSE.LIC (in the installation folder) performs the same operation as this option.

The License Retrieval Option will retrieve License Information from IMG's Website for electronically purchased licenses. The Order Confirmation Number and Order E-mail is required (which appear on the Order Confirmation page provided after successfully placing an on-line order, and are provided separately via an Order Confirmation E-mail).

> **Note:** For Retrieved Licenses (via Retrieve Purchased License, and via the Retrieve License Support Option), License Key and Serial Number information is processed exactly as if this information was directly entered in the Authentication area.

Therefore, all issues that may affect licensing also apply to these automated options (e.g. License File status, User permissions, etc.)

OnScreen License Manager - Licensed Display

When properly Licensed, a screen similar to this will show the License Information for the product. The display of this indicates that the software is Licensed.

> **Note:** Evaluation licenses also show this screen during the days that the Evaluation License is valid.

Tutorial and Standard Settings

The OnScreen tutorial explains each of the panels and keys available. Following is a description of the standard settings for OnScreen and a brief description of the panels that are initially displayed. The tutorial and

Section II of this manual will explain each key and panel in detail. The OnScreen Tutorial may be run from the OnScreen Welcome window or by selecting Tutorial from the OnScreen Menu.

Settings in the standard configuration

Left Mouse button (or pen or touchscreen tap) is set to press a key. Right Mouse button (if supported by touchscreen / pointing device driver) is for opening the OnScreen menu.

The following panels are initially displayed:

The OnScreen WordComplete / Action Panel

The WordComplete / Action Panel provides frequency sorted word completion candidates based on letters typed, along with other action buttons & control keys.

The Keyboard Panel

With a document or input window open, a left

button click on any key on the keyboard panel acts exactly like pressing the corresponding key on the keyboard.

The OnScreen Tool Bar

The Tool (top) button when clicked will open and close the WordComplete / Action Panel (in Basic Mode).

The middle button will pop-up the OnScreen Menu

The bottom button will minimize OnScreen to either an icon or a button as set in the configuration.

OnScreen Setup

To run OnScreen Setup:

Open the Start Menu, Select (All) Programs,

Select OnScreen, then select the OnScreen Setup icon in the OnScreen Program Group Menu.

OR

From OnScreen, click the OnScreen menu button on the tool bar and click OnScreen Setup.

OR

From OnScreen, open the Main Macro Panel, and click on the button labeled "Setup"

If OnScreen is running while you are selecting options from the following setup screens it will change to the new settings immediately after you click OK to save the changes. You do not need to restart OnScreen to configure it with the new settings. On each screen you may also choose to click Cancel to exit without saving the new settings.

Once you have created a configuration that you wish to keep, you may wish to save it so OnScreen will re-open in the same configuration and screen position. To save a configuration or position, open the OnScreen Menu, select Current Settings, and select Save to Save Current Settings (and/or Select Position, Save Current Position). Once saved, OnScreen will always open in the saved configuration until another configuration is saved.

General Information on OnScreen Setup

OK

The OK button will save all your changes.

CANCEL

The CANCEL button will ignore any changes you have made, and restore your previous configuration.

Pull-down Box

US	±

Icelandic	↑
Italian	
Latin American	
Norwegian	
Portuguese	
Spanish	
Swedish	
Swiss French	
Swiss German	
US	
US-International	↓

This is a Pull-down Box.

Radio Button

These are a Radio Buttons.

Active Application

The Active Application is always identified as follows:

1. It has the input focus (the blinking cursor).

2. The Caption (Window Title) bar is colored in the highlighted color.

Cursors

This is a Cursor.

Icons

This is an Icon.

Check-Buttons
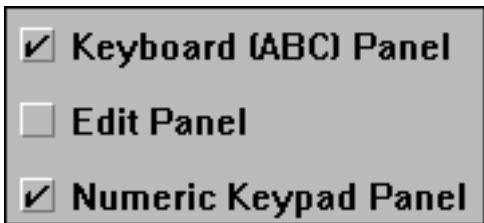
These are Check-box Buttons.

Panels

```
┌─────────────────┐
│    MACRO        │
├─────┬─────┬─────┤
│ DOS │File │Note │
├─────┼─────┼─────┤
│Games│Paint│Setup│
├─────┼─────┼─────┤
│Write│WWWeb│Cal  │
├─────┼─────┼─────┤
│     │     │     │
├─────┼─────┼─────┤
│     │     │     │
└─────┴─────┴─────┘
```

This is an example of a OnScreen Panel.

Commonly Asked Questions

Compatibility

1. Does OnScreen work with all Windows Applications?

Yes.

2. Does OnScreen run in DOS?

No, OnScreen is a Windows Application, although you may operate DOS applications in a DOS Window. For example, try the DOS Macro Panel to see the command prompt in a window.

Display

3. OnScreen covers too much of my Window. What can I do?

a) Resize and/or reconfigure OnScreen. b) OnScreen can be minimized to a button, and will reside in the upper left corner of your active window. This way you can quickly open the OnScreen window when you need it. c) Set your second or third Mouse Button to "Look Through OnScreen." d) Work with Developer's Kit to allow on-demand display

4. Why doesn't OnScreen open the way I last closed it?

OnScreen always opens and first displays with the settings that are saved. To assure that OnScreen opens the way you desire, configure OnScreen and then Open the OnScreen Menu, Select "Current Settings" and then Select "Save Current Settings" from the pop-up Menu. OnScreen will now remember these settings and open with the current configuration. You can also save the Screen position where OnScreen first appears by Saving Current Position from the OnScreen Menu. Note that the Developer's Kit allows extrenal control of settings If there are pre-defined configurations & settings that are controlled externally via another application, then this may override the default action of the software. Check with your system administrator for more details.

5. OnScreen Interferes with my application's Display. What can I do?

Some Windows Applications do not handle the

screen display properly, and don't expect any other window to be displayed over the applications' window. Since OnScreen can display over any window, sometimes a display conflict can occur. Refer to the Advanced User Information .

OnScreen Operation

6. How do I view the Cursor in the Magnifier?

The Magnifier Cursor indicator is Set On in Setup-Configuration-Panels.

7. When I press a key on OnScreen it doesn't do what I expect (or does nothing). What is the problem? Usually this occurs when the key pressed on OnScreen actually does nothing in the active window, or what you didn't expect - verify this by using your computer's actual keyboard. Remember that only one window can be active at a time, and

the active window receives all keyboard and OnScreen keystrokes.

8. Why doesn't the pause key work?

Due to the nature of the Windows operating environment, most applications can not stop the operation of the system in an acceptable manner. OnScreen actually does send the proper Windows Keyboard Events, but most applications ignore this key.

9. Why doesn't the Print Screen Key print the whole screen?

The Print Screen Key on OnScreen captures the image of the Active Window. Maximize the window by pressing MAX on the OnScreen Windows Control Panel, and then use the Print Screen Key.

10. My Macro doesn't work properly. What is the problem?

The Keystroke macro feature is relatively easy to setup and use, however doing complex keystroke macros can be tedious. First, verify the keystroke combinations and sequence by using OnScreen to perform the Macro, then verify that the sequence is exactly the same in the Macro entered. Also, when working with Alt, Control, and Shift keys you must be extra careful that the down and up keystrokes correspond properly to the way the application expects the keystrokes. For example, to do an [Alt]-F you must use [Alt-Down]F[Alt-Up]. It may be necessary to use lowercase letters instead of uppercase to work properly within certain applications. Note that a OnScreen Keystroke Macro character represents a Key-Down, and Key-Up sequence. Finally, make sure that the Caps lock is in the same state as the Keystroke Macro recording. Also see notes in the Build-A-Macro section, and Advanced User Information.

11. Why does OnScreen Move its position for certain windows?

OnScreen senses the active window. When the active window is a certain type of window, OnScreen will act in certain ways, as configured in the initialization file. For example, OnScreen moves off of Windows Dialog boxes, so the information required by the application is not obscured by OnScreen. All of these settings can be modified, but a certain level of understanding of Windows is required. Refer to Operation Options and/or Advanced User Information .

Memory

12. How Much Memory does OnScreen use while running?

This depends on your screen display colors (16, 256, etc.), and the current OnScreen configuration. Normal operation requires less

than 100K RAM. If OnScreen runs slow or you have memory problems see "System Memory Note" in the Advanced User Notes.

13. Is OnScreen a TSR (Terminate and Stay Resident)? [the original product was released so long ago that this was once a commonly asked question - it is left here for perspective]

OnScreen is a normal Windows Application. Nothing stays resident once OnScreen is Closed.

International Operation

14. What do I need to do to operate OnScreen with an International Keyboard layout?

You must select the desired keyboard display for OnScreen and then set the proper keyboard layout in the Windows Control Panel for proper operation.

15. Does OnScreen Translate?

No.

Input Devices

16. Can I Operate my Computer without a Keyboard?

Yes, but special BIOS may be required. Most systems allow your computer to boot-up without a Physical Keyboard - sometimes this isn't intuitive, and may require settings for errors rather than the keyboard. As long as Windows is automatically started, you may run OnScreen on a system without a keyboard.

17. Does OnScreen require a Mouse?

No, but OnScreen does require at least some type of pointing device that emulates a mouse to the extent that the user can move the cursor and click on at least one button. Most Touchscreen and Pen drivers support this type

of interface. Contact your touchscreen or pen manufacturer for more information on compatible drivers.

18. Does OnScreen require any special drivers?

No. OnScreen works with all standard Windows drivers supplied by all well-known touchscreen manufacturers / dealers.

19. Does OnScreen operate with pens, joysticks, touchscreens, digitizer pads, and other pointing devices?

Yes, as long as they truly emulate the mouse cursor movement and mouse button clicks. Contact Innovation Management Group, Inc. regarding My-T-Mouse®, My-T-Pen®, My-T-Touch® & My-T-Soft®.

Customer Support

OnScreen Software is backed by a support staff trained to provide you with fast, courteous service. Over the years, IMG has astounded individuals at the quality of it software and its support. So that we can continue to focus our resources on development and providing high-quality products & support, we do appreciate your assistance in reviewing the help, manual, and support information available at our website to see if the problem or question has already been addressed. However, if you need assistance beyond what the manual, tutorial, help files, and on-line support database provide, please contact IMG Customer Service:

Innovation Management Group, Inc.
Customer Service
179 Niblick Road #454
Paso Robles, CA 93446

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1-800-889-0987 (US & Canada)
+1-818-701-1579
+1-818-936-0200 (fax)
<cs@imgpresents.com>
http://www.imgpresents.com

To open a Technical Support case and create a
support ticket, please refer to
https://www.imgpresents.com/orders/support/tech

Please provide, or have the following
information ready when you ask for assistance:

- OnScreen version number, update level.

- Registered serial number (or if running
  demo)

- Make and Model of your computer.

- Windows version number, any Service Packs or major updates.

- A description of the problem.

- If possible, a list of the steps required to recreate the problem.

- If you have seen an error code, record and report the number.

- Additional information may be required, such as monitor type, type of pointing device, amount of RAM in your system, other software running (anti-virus, spyware, virtual machine, etc.).

Product Catalog

Innovation Management Group, Inc.'s Products

Commercial Division Products...

Indestructible Keyboards & Indispensable Utilities!

My-T-Soft® Build-A-Board

The Ultimate Tool for creating and modifying On-Screen Keyboards, buttons, and Panels. My-T-Soft Family, plus Cross-Platform Support

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On-Screen Keyboards & Utilities for Pen Based Systems

My-T-Touch® for Windows

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The Software That Lets You Run Windows With A Joystick!

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OnScreen

Special Features for disabled & impaired users Word Prediction / Word Completion / Window Control / Scanning

OnScreen with CrossScanner

Complete control of Windows from a single switch! Support for Keyboard, Mouse, Joystick interfaces

SmartClick

Operate Windows without the need to Press/Click a Button

The Magnifier

Area and Full Screen Magnifier, Cursor Locator, Visual Aids

WordComplete

Word Completion, adaptive word prediction, Word List Management, etc. Type Better, Type Less - we do the rest!

For further information...

Contact your Local Software Dealer

or

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http://www.imgpresents.com
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http://www.onscreen-keyboard.com
http://www.build-a-board.com
http://www.joystick-to-mouse.com
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Part II. Using OnScreen

Description of how to operate and configure OnScreen.

Description of how to operate and configure OnScreen.

Chapter 3 - OnScreen Panels contains general operation information, along with specific information about each of OnScreen's panels.

Chapter 4 - OnScreen Menu outlines the various options accessible from the OnScreen menu, and provides details on sizing, minimizing, saving, and closing OnScreen.

Chapter 5 - OnScreen Setup details all of the configuration options and dialogs available to configure and setup OnScreen.

Chapter 6 - OnScreen Logon Utilities covers the specific options available for using the logon utilities that enable using an on-screen keyboard when logging onto Windows.

Chapter 3. OnScreen Panels

General Operation

All features and actions within OnScreen are performed by moving the cursor / pointer over the desired button and single clicking the selected button. OnScreen may be repositioned on the screen by clicking anywhere on the background (anywhere that is not a button) of OnScreen and dragging it to the new screen position.

OnScreen can also assign a secondary button (if supported by the hardware driver) to move OnScreen. See OnScreen Setup Help for more information on how to change your Mouse

Button Assignments.

Themes

Themes use different key images and backgrounds to create a wide range of looks to the OnScreen layouts. The available themes are based on the ThemeList, which lists sub-folders that contain images and details on a particular theme. You can change the current theme to the next available theme via the Advanced Features menu, or (if in use), the Touch Panel. To modify, add, or get more detailed information on Themes, refer to the Initialization File entries for Theme, ThemeList, and ThemesFolder.

> **Note:** The Themes capability allows for custom painting, so a wide-range of looks and customizations can be accomplished using low-level display features via a separate DLL (Dynamically Linked

Library). These affect certain built in features and display capabilities when in use.

Tool Bar Panel and Keys

OnScreen may be configured to operate in a Basic or Advanced Mode, which changes the functionality of the Tool Bar. In Basic Mode, the Top button opens and closes the WordComplete panel (which also toggles WordComplete functionality such as punctuation & capitalization options). In Advanced Mode, the Top button opens and closes the Control Panel, which allows complete control of all OnScreen panels, sizing, etc.

The Tool Bar can also be closed, but this is intended as a developer / integrator function. From the Current Settings | Panels menu you may individually select panels to open and close. There is also a manual override, available in Panels. When this is enabled, a 3-click (1-2-3) click combination will toggle the panel - if opened, it will be closed - if closed, it will be opened. The original design created the Tool Bar as the one panel that can never be closed, and it is handled differently than the other selectable panels. Allowing it to close creates certain usability issues, and in certain cases the Control Panel will be modified to offer other options when the Tool Bar is closed. If the Tool Bar is closed, resizing and certain other actions will force the Tool Bar open.

The Menu Button pops up the OnScreen Menu.
It allows you quick access to some of the
frequently used options as well as the ability to
run OnScreen Help. In Advanced Mode, you
may also save your current configuration &
screen position from the OnScreen Menu . For
further details about menu differences between
Basic and Advanced mode, see OnScreen
Menu.

The Minimize Button minimizes OnScreen to
an icon or a button, based on your current

configuration.

Control Panel and Keys

The Control panel allows you to open and
close all OnScreen panels. Click on each key to

perform the toggle action. Blue (highlighted) letters indicate an open panel, black letters indicate a closed panel. OnScreen also indicates the open panels by latching (or showing as depressed) each panel button. See ControlPanelToggleButtons setting in the Initialization file.

Click on the Tool Button to activate the Control Panel when in the Advanced Mode (in Basic Mode, this panel is not available.)

Keys & Functions

Kybd: opens and closes the alpha keyboard panel
Edit: opens and closes the edit panel
Num: opens and closes the numeric panel
WordC: opens and closes the WordComplete (Action [Act'n] panel)
SzUp: steps up the size of OnScreen currently displayed If the Tool Bar is closed, this button

will change to become Tool. If Tool is clicked on, the Tool Bar will open.

SzDn: steps down the size of OnScreen currently displayed If the Tool Bar is closed, this button will change to become Hide. If Hide is clicked on, the Control Panel will hide. If the Control Panel is the only button panel opened, this button will change to become Swap. If Swap is clicked on, the Tool Bar will open, and the Control panel will close.

Help: opens and closes the Quick Help panel

Info: opens and closes the System Information panel

Win: opens and closes the Windows Controls panel

Macro: opens and closes the Macro panel

Calc: opens and closes the Calculator

Exit: exits OnScreen and Closes the OnScreen Window

Action Panel note: The Action panel is
made available when WordComplete is
disabled in OnScreen Setup | User
Options. The "WordC" button is re-labeled
as "Act'n", and the panel toggle button
operation remains the same, but instead of
the WordComplete / Action panel, only the
Action panel is used.

Keyboard Panels and Keys

When you click any of the keys on the
Keyboard (Alpha) Panel, Edit Panel, and

Numeric Panel, they will respond exactly like the corresponding keystroke on a physical keyboard. In order to type with OnScreen, another window must be the Active Application and have the input focus. Windows typically indicate where typed characters will be displayed by the Caret, or text cursor. This usually is displayed as a flashing bar, although other shapes may be used.

To use combination keys i.e. Shift, Alt, or Ctrl just click on that key. Your cursor will change and OnScreen will display which key is currently locked. For example, if you have clicked on the Alt key, the cursor will have the word Alt visible. The lock will be released after you click on a normal key, i.e. A-Z keys. You may carry more than one combination key at a time.

On some international layouts, the right-most Alt key is treated as the "AltGr" key. When

pressed, this key acts as if both the Ctrl key and the Alt key have been pressed, and the cursor will indicate this combination state. This additional state (e.g. Ctrl & Alt keys both pressed) allows access to additional letters and keys.

There are numerous layouts available for the keyboard panel, accessible through OnScreen Setup, Keyboards - See OnScreen Setup Help for information on available panels and how to change the current keyboard layout.

You may also select from some pre-defined (included) Build-A-Board custom layouts. To create your own layouts, you will need IMG's Build-A-Board.

Keys may be programmed with commands or Macros. See Key Options in Setup and reference the OnScreen Developer's Kit for more information.

WordComplete / Action Panel

WordComplete

Undo	¹ super	Back
Suffix	² superb	Size
More	³ superior	Select
# sup	⁴ supernatural	Move
Clear	⁵ supervise	Arrange

The WordComplete Panel provides a method to complete words as they are being typed, greatly increasing words-per-minute typing

speed. This also is used as an enable/disable option for the various WordComplete options available in OnScreen Setup | User Options when WordComplete is enabled. Options such as "Automatic I Capitalization" and "Automatic spaces & Capitals" are only enabled when the WordComplete panel is open. During normal operation, if you need to type web addresses, e-mails, or other input that uses periods or other punctuation, you may wish to close the WordComplete panel temporarily to disable these automatic WordComplete options, so typing can occur uninterrupted.

WordComplete / Action Panel

When the WordComplete panel is open, the Action panel is automatically included.

There are 3 sets of 5 buttons:

The leftmost buttons are the WordComplete

control buttons (Undo, Suffix, More, Buffer, Clear).

The middle column is the WordComplete Completion buttons (words based on the letters in the WordComplete buffer sorted by frequency). Some or all or none of the buttons may have words in them dependent on the Word Lists, and the letters in the buffer. The Completion button colors may be set within OnScreen Setup.

The rightmost buttons are the Action panel buttons (Back, Size, Select, Move, Arrange). See Action Panel below for descriptions of these buttons.

WordComplete control buttons

Some of these buttons may either be enabled or disabled when appropriate (there is extensive logic to aid the user when the WordComplete Panel is in use). When disabled, the button's

text will appear "grayed" or dimmer than usual.

Undo - selecting this button (when enabled) will undo the last WordComplete Action. Note this only affects word Completions and Suffixes, and should not be confused with the Undo options in other applications.

Suffix / Words - This button will take on different meanings based on where the user is regarding completions. If Suffixes are enabled (in User OptionsUser_Options_Dialog_Box), then Suffix will appear during character typing. Prior to a Completion, the Suffix button may be pressed to display available suffixes. The label will change to Words, to indicate that the completion buttons can be toggled back to the Completion suggestions if no suffix is selected. Note that after a completion (if Suffixes are enabled), then the suffixes will automatically appear.

More - This button will display additional

Completion suggestions (if available), or additional suffixes. Once through the list, the More button will display from the beginning of the list.

Buffer - This button displays the current text being typed, and indicates the text being used to select the Completion suggestions. When KeyAssist is enabled, the # symbol is shown to indicate that KeyAssist can be toggled Active or Inactive. When Active, KeyAssist places small numbers (1 through 5) on the WordComplete buttons, and the number keys on the Keyboard panel (i.e. 1-0) are replaced with 2 sets of keys labeled 1-5 (and colored the same as the WordComplete panels). These keys allow the user to quickly select a WordComplete candidate from the Keyboard panel without having to move the mouse cursor to the WordComplete panel.

CrossScanner note: During CrossScanner operation with Text-To-Speech set to Speak WordComplete words (CrossScanner Auto-Speaks), selecting this button will restart the automatic step through announcing each displayed completion candidate in the WordComplete buttons.

Clear - If selected, this will Clear the Buffer, the Completion suggestions, and essentially reset the whole WordComplete panel.

WordComplete Completion Buttons

These 5 buttons will take on the best suggestions based on the letters in the Buffer button (from the characters being typed by the user), or these buttons will display suffix candidates (if Suffixes are enabled). The logic used is slightly different for a single character vs. more than 1 character, but essentially the

frequency of use is the determining factor for the order of words in the list. Each time a word is used (or a new word is added to the list), its frequency is increased by one. When KeyAssist is enabled and active, these keys will be numbered 1 through 5, indicated with a small number on the upper left of each button.

> **Note:** Suffixes are contained in a "-.TXT" file, and may be modified by the user (contained in the OnScreen installation directory). Suffixes are not sorted.

Action Panel

Action Buttons

Back - This button acts as the Back Space. It is conveniently located on the Action panel as a secondary method for undo-ing a character that

is typed. Note: This button does not support "typematic" type operation.

Size - This will cycle OnScreen through 3 of the most popular sizes, and automatically arrange the current window.

Select - This will select from the current open windows, and select the next window and make it the current active window, and size & arrange the window.

Move - This will move OnScreen to the top or the bottom of the screen dependent on OnScreen's current position.

Arrange - This will Size & Arrange the active window. If there are child windows (windows contained within the main window), these current child window will be maximized.

Windows Control Panels and Keys

UNDO	FIND	Find
CUT	PREV	Enter
COPY	CLOSE	Close
PASTE	MIN	Rstr
PPST	MAX	Max
PPSTR	RSTR	Pg1

MENU	FIND	Find
Prop	RSTR	Enter
NEXT	CLOSE	Close
Yes	MIN	Rstr
No	MAX	Max
Tile	Casc	Pg2

Click on each button to perform the action described. The keystroke equivalent is shown in the [brackets]. Page 1 - Windows Controls Desktop Panel

MENU Opens the control (system) menu of the active window. [Alt][Space]

Prop Properties / Opens the Context Menu (if available) [Shift][F10]

NEXT Go to next window and restore window size. [Alt][Tab]

Yes Yes answer. [Alt][Y]

No No answer. [Alt][N]

Tile Tile the windows/icons. [Shift][F4]

FIND Switches through all open windows. [Alt][Esc]

RSTR Restore the window to its former size. [Alt][Space][R]

CLOSE Close the active window. [Alt][F4]

MIN Minimize the active window (to an icon). [Alt][Space][N]

MAX Maximize the active window (full screen). [Alt][Space][X]

Casc Cascade the windows/icons. [Shift][F5]

Find Find the next child window. [Ctrl][Tab]

Enter Enter Key. [ENTER]

Close Close the active child window of an active window. [Ctrl][F4]

Rstr Restore the child window to its former size. [Alt][Space][R]

Max Maximize the child window. [Alt][Space][X]

Pg2 Move to Page 2 of the Windows Controls.

Page 2 - Windows Controls Application Panel

UNDO Undo last command. [Alt-BkSp]

CUT Cut highlighted object to clipboard. [Shft-Del][Ctrl-X]

COPY Copies highlighted object to clipboard. [Ctrl-Ins][Ctrl-C]

PASTE Pastes object from clipboard to active window. [Shft-Ins][Ctrl-V]

PPST Pastes object from clipboard to previous window.

PPSTR Pastes object from clipboard to previous window and returns.

FIND Switches through all open windows. [Alt-Esc]

PREV Goes to previous active window (if available).

CLOSE closes active window. [Alt-F4]

MIN minimizes active window (to an icon). [Alt][Space][N]

MAX maximizes active window (full screen). [Alt][Space][X]

RSTR Restore the window to its former size. [Alt][Space][R]

Find find the next child window. [Ctrl-Tab]

Enter Enter Key. [Enter]

Close Close the active child window of an active window. [Ctrl][F4]

Rstr Restore the child window to its former size. [Alt][Space][R]

Max maximize the child window. [Alt][Space][X]

Pg1 return to page 1.

In order to use the PPST and PPSTR functions, you must do the following:

1. These functions work best when you have two windows on your desktop.

2. Use the FIND button to select the second window.

3. Verify that both windows are in sequence by using the PREV key.

4. If both windows switch back and forth, then this feature is available.

5. Highlight some text in Window1 and press COPY or CUT.

6. Use PPST to paste to Window2.

7. Use PPSTR to past to Window2 and return to Window1.

8. This feature will continue to be available, until either Window is closed or another window receives the input focus.

Macro Panels and Keys

The purpose of the Macro Panel is to give you the capability of defining your own buttons to launch programs, open other Macro Panels, or create keystroke combinations.

In OnScreen, a Macro is a sequence of keystrokes or actions tied to a button. The Macro is initiated by selecting the button.

The main Macro Panel provided has options

preprogrammed to show you the vast capabilities of this panel. For more information see the User's Guide, or see OnScreen Setup Help (How to create Macros).

Several Example Macro Panels have also been provided. Macro Panels have the ability to Auto-Open when the appropriate application becomes the active window. The Auto-Open feature will only operate if the Macro Panel is open on OnScreen, and the OnScreen window is not minimized.

Calculator Panel

The calculator is a standard four function
calculator. To operate simply press the desired
number, press an operation key, press the next
number, and press an operation key or the total
(=) key. You may then send the displayed
number to the active window by pressing the
SD (Send) button. While there is a number
stored in memory, the calculator's display
window frame will change color to indicate

that memory has a value stored.

Calculator Tape

The Tape key will allow you to run a history of any calculations, just as on paper tape and then you may save it as a file, print it, or import it to another document. If you want to use the tape, it must be activated BEFORE any operations are performed. Click on the Tape button to activate. You may also click on the calculator display window to activate & deactivate the calculator tape. The calculator tape will automatically close if you close the Calculator Panel on OnScreen. If necessary, you will be asked if you wish to save any information recorded in the Tape.

The Calculator Tape window has a drop-down File Menu which has options to save the Tape as file, print, or open a previously saved tape. The drop-down Edit menu has the standard edit functions - Undo, Cut, Copy, and Paste.

Quick Help Panel

My-T-Soft Quick Help - Move Cursor Over Key for Description

The Quick Help panel appears above the currently displayed panels and describes each key as it is passed over with the cursor. You may open or close the Quick Help panel from the OnScreen Menu or from the Help button on the OnScreen Control Panel .

To assign the Quick Help capability to your macros, see How to create Macros in OnScreen Setup Help.

System Information Panel

Mem: 18,446K Res: 57% 16:26:16 Fri 8/24/2001 ≑D: 118,928K

The information panel appears below the

currently displayed panels and shows date, time, system resources, etc. as chosen for display in OnScreen Setup. You may rearrange the order of the information shown by clicking on any item. This will move that item to first place on the left in the information panel. If you have more than one hard-drive or a CD-ROM drive, or if you are operating on a Network , use the up-and-down arrows to display the current free space of each drive.

Time & Date display depend on International display settings set by the Windows Control Panel.

Touch Panel

Touch Panel

The Touch Panel is an

multi-touch/gesture/flicks interface interaction tool that is not enabled for OnScreen (Assistive Technology focused version).

Chapter 4. OnScreen Menu

The OnScreen Menu will give you quick access to the most used functions of OnScreen and Windows System Menu functions. The default operation of the right mouse button (i.e. second button) will open this menu when it is clicked over the OnScreen window.

OnScreen Menu

OnScreen Menu - Basic Mode

In Basic Mode Operation, a limited menu is available. It contains basic items from the full menu, along with several items from the Action panel. In Basic Mode, OnScreen will save your

current settings and position when closed.

OnScreen Setup

Clicking on OnScreen Setup will open
OnScreen Setup Window.

Size

Clicking on Size will open a pop-up menu. You
may select Size Up or Size Down to go up or
go down a single size. Here you can select any
of the 12 smaller sizes of OnScreen. The
current size is indicated with a check-mark.

When larger than Size 12, you may only Size
Up or Size Down.

The Screen-Edge Scroll option will have a
check mark when Enabled. When Enabled and
a portion of the OnScreen window is
off-screen, OnScreen will scroll back
on-screen when the cursor (pointer) is held at
the extreme edge of the screen. This feature

may be useful for larger sizes. NOTE: Certain pointing devices may not react desirably when this feature is Enabled - select the Screen-Edge Scroll to clear the check mark and Disable this feature.

Minimize

OnScreen will minimize to an icon (button on the taskbar).

> **Note:** The default minimize approach can be changed in the Advanced mode of operation.

Select

This will select from the current open windows, and select the next window and make it the current active window, and size & arrange the window.

Arrange

This will Size & Arrange the active window. If there are child windows (windows contained within the main window), these current child window will be maximized.

OnScreen Help!

Clicking on OnScreen Help will open OnScreen Help (information in this guide).

Close

Clicking on Close will close OnScreen.

OnScreen Menu - Advanced Mode

Size

Clicking on Size will open a pop-up menu. You may select Size Up or Size Down to go up or go down a single size. Here you can select any of the 12 smaller sizes of OnScreen. The current size is indicated with a check-mark.

When larger than Size 12, you may only Size Up or Size Down.

The Screen-Edge Scroll option will have a check mark when Enabled. When Enabled and a portion of the OnScreen window is off-screen, OnScreen will scroll back on-screen when the cursor (pointer) is held at the extreme edge of the screen. This feature may be useful for larger sizes. NOTE: Certain pointing devices may not react desirably when this feature is Enabled - select the Screen-Edge Scroll to clear the check mark and Disable this feature.

Minimize to Icon

Minimize to Button

The check-mark indicates the way OnScreen will be minimized, when you click on the Minimize Button. Select which way OnScreen will look when minimized. Note that the Icon

on Taskbar can only be selected via OnScreen Setup. If currently at Button and Minimize to Icon is selected, the Icon option will be used. By clicking on either selection, OnScreen will be minimized immediately.

OnScreen Quick Help

Clicking on OnScreen Quick Help will open and close the Quick Help panel. The check-mark will indicate its current status.

OnScreen Help!

Clicking on OnScreen Help will open OnScreen Help (information in this guide).

OnScreen Tutorial

Clicking on OnScreen Tutorial will begin the OnScreen Tutorial.

OnScreen Setup

Clicking on OnScreen Setup will open OnScreen Setup Window.

Current Settings

> **Note:** Saving BOTH the Settings and
> Position is required for returning to the
> current layout when closing & restarting
> OnScreen. Refer to the Developer's Kit
> notes for other configuration options,
> saving, restoring, etc. Settings refers to
> the current panels shown, and the current
> size (the current, visible layout). Clicking
> on Current Settings will open a pop-up
> menu. Here you can select Save Current
> Settings, or Restore Settings.

Save Current Settings: This will save
OnScreen as it appears. OnScreen will always
open with this saved configuration.
Restore Settings: If you have changed
OnScreen and want to return to the saved
configuration, select Restore Settings.

Panels: Clicking on Panels will open a pop-up menu. This allows you to open and close individual panels. When the panel is already opened, a check mark will be next to the Panel. If the panel is opened, and you select the panel from the menu, it will close the panel. If you select a closed panel from the menu, it will open the panel. From this menu, you may not close a panel if there is only one panel opened.

Position

Clicking on Position will open a pop-up menu. Here you can select Save Position, or Restore Position.

Save Position: This will save OnScreen's current screen position.
Restore Position: If you have moved OnScreen and want to return to the saved position, select Restore Position.

Set Position: Clicking on Set Position will open a pop-up menu. From this menu you may select a screen position for OnScreen from the options available.

Close

Clicking on Close will close OnScreen.

Advanced Features

Selecting Advanced Features will open a pop-up menu. Here you can access some special features.

Transparency

Clicking on Transparency... will open a Transparency control window, allowing you to Enable or Disable this feature. When Enabled, you can set the current Transparency level by sliding the control - to the left is more transparent, to the right is less transparent (or opaque). The current Transparency level is

used if OnScreen is closed and then re-opened.

> **Transparency Notes:** When Transparency is Enabled, the window interface to Windows changes (Layered Windows), and the following are known issues:
>
> - The Magnifier panel can now magnify images under the OnScreen window itself, providing a more intuitive operation.
>
> - When operating with CrossScanner, CrossScanner's IconWindow will be displayed below OnScreen. It is strongly recommended that Transparency not be enabled if using CrossScanner.

Manual Tool Bar Control

Clicking on Manual Tool Bar Control will
Enable or Disable this capability - when
checked, you can click 3 times on a blank
(non-key) area or border, and toggle the Tool
bar Panel - if open, it will close, and if closed it
will open. For further info, see notes in
OnScreen Setup | Panels.

Tablet PC Input Panel

> **Note:** Windows XP Tablet PC Versions
> Only - this interface is not available in
> Windows Vista / 7.

When operating on the Tablet PC, OnScreen
can replace the Tablet PC Input Panel. Clicking
on Tablet PC Input Panel will Enable or
Disable this capability. When enabled, clicking
on the "Tablet PC Input Panel" on the task bar
will toggle the visibility of OnScreen. When

enabled, the OnScreen Tablet PC Interface will be running, and will be in the StartUp group.

> **Note:** You must be an Administrator to fully disable the OnScreen Tablet PC Interface (or have sufficient rights to remove the All Users | StartUp group shortcut). When Enabled, Exit or Close from the Menu will only hide OnScreen and OnScreen will not exit with the Developer's Kit CloseMTS. To fully close OnScreen, first disable the Tablet PC Input Panel option on the Advanced Features Menu, then select Close from the OnScreen menu. For additional information, refer to the PanelWatch in Advanced User Notes.

Touch Panel

Clicking on the Touch Panel menu option will

Enable or Disable the Touch Panel. The Touch Panel allows options to toggle touch modes (Multi-Touch / Gestures / Flicks), change themes, and control the visibility of OnScreen.

Change Theme

Clicking on the Change Theme menu option triggers a theme change event, which will update the current theme to the next available theme (based on the ThemeList).

Chapter 5. OnScreen Setup

OnScreen Setup - Overview

OnScreen Setup provides an easy interface to change options, settings, and the configuration

for OnScreen.

> **Advanced Notes:** The files
> KEYBOARD.KBF and ONSCREEN.INI
> contain all of the configuration information
> for OnScreen. There can also be
> Keyboard Macro files for customized
> Macro panels (e.g. MAC?????.KMF) and
> WordList files. All of these files are stored
> in a location determined by the ConfigPath
> entry in the ONSCREEN.INI file. (Refer to
> the ConfigPath entry in the Initialization file
> for additional information.) This location
> determines if the files are per user or
> shared, and the required permissions for
> normal operation. By default, these files
> are personalized for each user, and the
> specific location can be referenced from
> the File menu in OnScreen Setup. You
> may also access the Windows Control
> Panel from the File menu.

In the **File menu**, you can access Windows
Control Panel, view the current folder location
of the configuration files, Import/Export setting
files, and Exit.

- **Run Control Panel** - This opens the
  Windows Control Panel to access system
  level properties like Appearance, and
  available Keyboard Layouts. For most users,
  the Windows Control Panel not required - it
  is provided here as a convenience.

- **Show Config File Location** - This displays
  the actual path to the OnScreen
  configuration files for the current user. Refer
  to the ConfigPath entry in the Initialization
  file for additional information.

- **Export Current User Configuration** -
  When selected, and the operation confirmed,
  this will save and compress the current
  user's configuration files and place a

OnScreen_Settings.zip file on the Desktop. This file can be saved as a backup, or moved to another system to transfer the configuration from one system to another. If multiple exports are done, each file name will change by adding a "+" symbol to the export file name.

- **Import Configuration** - This will open a File Selection window to select a "???_Settings.zip". If selected, and the operation confirmed, the current user's existing settings will be overwritten and be replaced with the settings contained within the selected file. For best results, use settings files from the same product & version, and perform this operation from OnScreen Setup while OnScreen is closed

- **Exit** - this will Close and Exit OnScreen Setup.

In the Options menu, each major Setup section

can be accessed, along with Save options when running OnScreen.

When OnScreen is running and OnScreen Setup is opened, the setting **Save Settings on Exit** is checked "On" by default. This synchronizes OnScreen with the changes made in Setup and OnScreen. If this option is checked "Off" and OnScreen is running while changing settings, the settings will be saved as normal upon an "OK", but these changes will not be reflected in OnScreen until it is restarted.

- **Save After Move** - the current settings and position are saved after the completion of a move. This can be useful to always preserve the current position while operating OnScreen.

- **Save After Change** - this saves the settings and position after a size or panel change.

This can be helpful in preserving the current configuration.

- **Save At Close** - the configuration and position will be saved when OnScreen is closed. This ensures that OnScreen will always open in the last used configuration.

- **Save At End Session** - if Windows is shut-down or the user logs off, the current settings and position will be saved.

Access to **Help** and the **Help Index** (i.e. access to this guide) are available from the Help Menu.

You may also **Check for Updates...** from the Help Menu in OnScreen Setup.

About OnScreen... in the Help Menu provides version and release information about OnScreen.

User Options

Click on the User Options Button.

OnScreen User Options

OnScreen WordComplete

- ☑ WordComplete Active
- ☑ Suffixes
- ☑ Automatic spaces & Capitals
- ☑ Disable for single line input
- ☑ Automatic U after Q
- ☑ Automatic I Capitalization
- ☑ LetterAssist
- ☑ Show Key (Grayed)
- ☑ Allow Grayed Key
- ☐ WC-Assist (Select WC by #)

Edit Word Lists

OnScreen Operation

- ◆ Basic (Standard)
- ◇ Advanced

☑ OnScreen Action Panel
Buttons Enabled:
- ☑ Back ☑ Size ☑ Select
- ☑ Move ☑ Arrange

☐ Enable Keyboard Scanning

Keyboard Scanning Settings

Operation Options

✓ OK   ✗ Cancel   ? Help

OnScreen lets you set operational preferences within User Options

OnScreen WordComplete

WordComplete Active

WordComplete is an adaptive word-prediction / completion method that allows much faster typing by automatically offering the most likely word candidates as words are being typed.

By selecting WordComplete Active with the Check-Button, you open the WordComplete Panel, and you activate its operation within OnScreen. When Active, Suffixes, Automatic spaces & Capitals, Automatic U after Q, Automatic I Capitalization, and Edit Word Lists Button become available.

> **Note:** If OnScreen is configured to a size larger than 12, and WordComplete Active

will be disabled. You must run OnScreen, resize down to size 12, then return to User Options to access this option. Once changed, you can resize OnScreen up to the desired size.

Suffixes

By selecting Suffixes with the Check-Button you enable the suffix portion within WordComplete. Upon a word's completion, you are presented with a selection of suffixes that can be used to complete the word. Suffixes may also be selected anytime during the entry of a word. The most common suffixes are included, and may be modified if necessary (See Advanced User Notes for further information).

Automatic spaces & Capitals

When selected, this option will automatically

add a space after any word completion or suffix, and add 2 spaces after any punctuation character. As an added convenience, after a punctuation character, the Caps Lock will engage for 1 character to allow for automatic capitalization of the next work (first word of new sentence). (See Advanced User Notes for additional features).

Automatic U after Q

This is a useful option when using WordComplete and OnScreen. When On, the character "u" is automatically sent whenever a "q" is typed.

Automatic I Capitalization

If this option is On, the single letter "i" followed by a space will automatically generate a capital I followed by a space (2 backspaces, "I", then space).

LetterAssist

When LetterAssist is enabled (checked "On"), it coordinates the available keys on the keyboard panel with the WordComplete candidates. This provides immediate feedback via the keyboard panel on which letters are valid based on the available words in the current word list. For example, if you had a very small word list of able, apple, and available, after you type the letter "a", the only letters indicated as valid on the keyboard panel would be the "b", "p", or "v".

Show Key (Grayed)

This is only available when LetterAssist is enabled. When checked "On" this shows the valid keys (i.e. letters that will build a valid word in the current word list) as normal, and invalid keys (i.e. letters that will NOT build a valid word in the current word list) as grayed (dimmed). If this is cleared (checked "Off"), the invalid keys will not be displayed at all.

This mode prevents inadvertent entry by preventing key presses on keys that will not build a valid word.

Allow Grayed Key

When LetterAssist and Show Key (Grayed) are both checked "On", this option is available. When enabled, it allows typing from grayed keys, and the building of words, even if the word is not in the current word list. This allows full keyboard operation, with the grayed keys being a quick visual indicator for the next letters that will build words from the current word list.

WC-Assist (Select WC by #)

When WC-Assist is enabled (checked "On"), it provides a shortcut to the WordComplete candidates by replacing the number keys in the top row of the keyboard panel with 2 sets of keys numbered 1 through 5 (which correspond

to the WordComplete candidates (also numbered 1-5 on the WordComplete panel). This feature allows quick selection of WordComplete candidates without moving off the keyboard panel to the WordComplete panel. For users that have some difficulty positioning the mouse pointer, or when moving the pointer requires discrete actions, or when moving the pointer is relatively slow, this shortcut to the WordComplete panel can be extremely helpful. When numbers are required, the Buffer key on the WordComplete panel can be pressed to clear this mode, and return the number keys to their normal operation. When WC-Assist is enabled and active, the # symbol is shown on the Buffer key, numbers are shown on the WordComplete keys, and the number keys on the Keyboard panel are taken over and colored the same as the WordComplete keys. When inactive, operation is normal, and there is no visual indication. The Buffer key toggles

whether WC-Assist is active or inactive. When WC-Assist is disabled (checked "Off"), the Buffer key will not toggle these 2 modes.

> **Note:** There is also an advanced option to replace the function keys with number keys when WC-assist is active. Refer to the KeysOnlyAssistNumbers setting in the Initialization File Documentation.

Edit Word Lists Button

Opens the Edit Word Lists Dialog box that allows you to manually edit, delete, or add to the Word Lists used within WordComplete. There is an advanced option that allows you to select existing documents, text files, and other files to build word lists & update frequencies.

OnScreen Operation

Basic (Standard)

The Basic Mode of operation provides basic options for using OnScreen and will be sufficient for most users.

Advanced

The Advanced Mode of operation provides additional features & options within all aspects of OnScreen. Macro Panels & Windows Control Panels give sophisticated users more control of Operation within Windows.

OnScreen Action Panel

This Check-Button only becomes available if you have cleared the WordComplete Active Check-Button. (The WordComplete panel includes the Action Panel). If enabled the left-most panel of OnScreen is displayed as the Action Panel which contains the Close, Setup, Select, Move, and Size buttons.

Buttons Enabled:

A check mark in these boxes indicates that the corresponding button is Enabled - clear the box to Disable the button. If you wish to prevent certain actions you can disable the button (for example, you do not wish to "Move" OnScreen, or you do not want to "Arrange" the window for typing).

These buttons offer the following short-cuts:

Back - Shortcut to the Backspace key. Erases the last character typed & back-spaces.

Size - Cycles OnScreen through 3 of the most popular sizes & auto-arranges OnScreen and the typing window.

Select - Selects the Active ApplicationActive_Application, i.e. the Window where OnScreen will type

Move - Moves OnScreen to the Top or the Bottom of the display, and resizes the Active Application.

Arrange - Sizes (Arranges) the Active Application so that it will fill the display area not used by OnScreen.

Enable Keyboard Scanning

When checked "On", this enables panel and key scanning (based on the Keyboard Scanning Settings). The primary usage of keyboard scanning is to enable a user that can only use a switch (or single mouse button) to completely operate all of OnScreen. The scanning implementation within OnScreen uses a transparent overlay to identify the scan area. There are 3 scanning levels - Panels (the individual components of the entire OnScreen display), and then groups of keys on the selected panel (rows / columns), and finally the individual keys in the selected group.

Keyboard Scanning Settings

This is available when Enable Keyboard

Scanning is checked "On". This button opens the Keyboard Scanning Settings Dialog box that provides both basic and advanced options for controlling the way the keyboard scanning operates. It includes basic options like scan delay (speed of scanning), overlay display (transparency & color), and selection of panels to scan. Advanced options allow various changes to the operation, grouping and scanning order, and options for a second button (right mouse button).

Operation Options

This will open the Operation Options dialog allowing you to set your preferences while using OnScreen. These include Auto-Arrange Windows, Reacting to Dialogs and other Windows, Typematic operation, Single Keystroke per Click, Virtual Pointer, Action Button Move, and Key Border.

Edit Word Lists
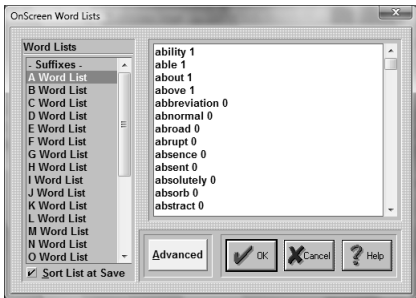
You may select which Word List you wish to edit by double-clicking or highlighting & pressing Enter while on the appropriate list displayed in the list box selections on the left. The words are displayed to the right and may be modified, deleted, or added. When complete, select OK , or select another Word List to edit. You will be asked to verify saving changes if any modifications are made.

Note: You can also add shorthand (abbreviation) expressions to the dictionary. Use the following format:

abr==Expansion - where "abr" is an abbreviation (up to 3 characters) and the "Expansion" is what you want to be entered when the abbreviation is typed and selected (can be a single word or a phrase).

To create an abbreviation / expansion entry, click on the word list to edit, and add a new line, enter the abbreviation, then the double equal (==), followed by the expansion. Finally, make sure to end with a space after the final character and enter a frequency. For example, "fe==for example 5"

After you add the properly formed abbreviation and expansion to the dictionary, once you start typing the abbreviation will appear in the word list candidates based on the frequency &

letters typed. Note only the abbreviation is shown, not the expansion.

Note: Full sentences can also be added to the word lists (word with spaces). The only formatting requirement is that the after the final word, there is a space, followed by a frequency (number).

Formatting Notes

For proper operation of WordComplete, there are several items to be aware of if you choose to Edit Words manually.

1) Each word must be separated from the others by a hard-carriage return. Each word / frequency combination must be on its own line. Do not leave extra lines between words.

2) Spaces are now allowed on the line, so sentences can be used. The space character must be used to separate the word from its frequency count, and the frequency count must be the last entry on the line (before the carriage return). The maximum frequency is 32000 - do not use higher values, do not use commas within the frequency count.

3) Files over 65000 characters will require using WordPad (or another text editor). You must be sure to save the files as Text Only files. The file type must be ANSI, not UNICODE.

Advanced

When clicked on, the Advanced button opens up the Word List Assistant which contains several features for maintaining & working with word lists.

- Building word lists from existing

documents & files

- Selecting alternate word lists

Word List Assistant

What is Word List Assistant?

OnScreen uses multiple sorted text files with frequency counts to identify word completion candidates. Since different users require different types of words, the ability to modify & optimize the word lists to match a specific user is desirable. The Word List Assistant provides various options to help manage multiple Word Lists.

Word List Assistant has the following features and capabilities:

- Always saves the current Word List used by OnScreen by compressing all files into a single, compressed file (using the widely available Zip format)

- Make any available or newly downloaded Word List the current Word List by extracting from the compressed file into the location required for OnScreen

- Read existing Document, Text, HTML files (or of any file type) to count word frequency and add new words

- Remove words from the candidate list so they will not be added into the users Current Word List

- View a Word List

- Rename or Copy a Word List

- Create New Word Lists - an empty list, or with words from existing files

- Merge a Word List with the current Word List

- Delete Word Lists

How do I work with Word List Assistant?

When the Word List Assistant is run, you have 4 main options:
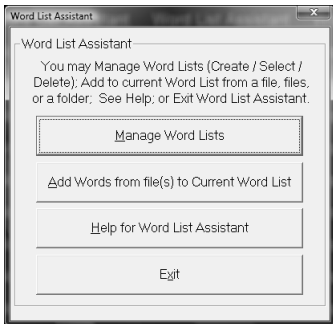
- Manage Word Lists (details below)

- Add Words from file(s) to Current Word List (details below)

- Help for Word List Assistant (this document)

- Exit (closes Word List Assistant)

Manage Word Lists
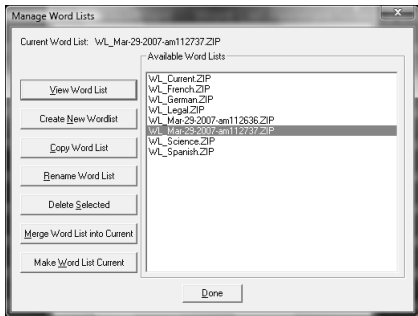
When selected, this option will compress the current Word List (it does not delete the current Word List files) and automatically names the list (WL_[Date]-[am/pm][Time]).

If you select one of the available Word Lists, the list will be opened for viewing.

> **Hints:** Your current Word List will ALWAYS be saved when you enter Manage Word Lists. If the Word List Assistant is used often, this will create many word list files - however, it is easy to select many files (click & drag), then use the Delete Selected option to clear out any unwanted word list files. This automatic approach preserves word lists as snapshots in time, which may be useful if manipulating word lists using the Word List Assistant.
>
> All Word Lists managed with this tool will be prefixed with Word List prefix (WL_) - you do not need to enter it.

> **Note:** The Word Lists are text files with 3 header lines followed by a word (or words

with spaces), a space character, and then
a frequency count, completed with a
carriage return/line feed character
combination. It is recommended to let this
tool & OnScreen manage these word lists
for you. If you wish to work with these lists
directly, you are welcome to, but please be
completely familiar with the structure of
the existing files prior to modifying them.
OnScreen has various checkpoints to
handle ill-formed lists, but there is no
support for OnScreen operational issues if
you modify lists directly.

The internal logic starts at the end of the
line and finds the first space character
(from the end), then uses the resultant text
between this spot and the end-of-the-line
to establish the frequency value of the
entry. All text from the beginning of the line
to this "last-most" space is used as the
word list candidate. Commas are not
allowed in the word lists, as this is the
separator used to identify individual word

list candidates.

The Word List files are stored in a WordLists folder underneath the current user's configuration location. To reference the current location, see OnScreen Setup | File | Show Config File Location. Refer to the ConfigPath in the Initialization file for further details.

View Word List

You can double-click on a word list to view, or select a word list, and click on this button. When viewing a word list from the Word List Assistant, you can sort the list alphabetically, by frequency (either ascending or descending). When frequency sorted, the list shows the internal representation (numbers) used to properly sort the list.
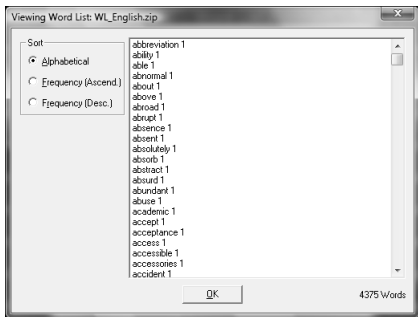
Create New Wordlist

You can create an empty word list, or create a new wordlist from existing files. You will be asked to name the word list. Simply enter the new name (the WL_ prefix and .ZIP extension will be automatically entered). If you select the "from Files" option, you can then select one or more files to use. Depending on your situation, it may be easier to manage many word list files separately, and then merge them to make a final version. Once you are happy with your current

word list, you can return to the Word List
Assistant, select your most recent word list,
and rename (or copy) it to a newly named word
list.
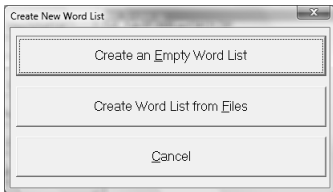
Copy Word List

You can copy an existing word list to a
different word list. Simply enter the new name
(the WL_ prefix and .ZIP extension will be
automatically entered).
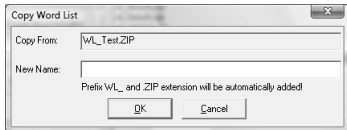
Rename Word List

You can rename an existing word list. Enter the new name (the WL_ prefix and .ZIP extension will be automatically entered).
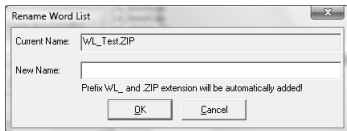
Delete Selected

You can remove (permanently delete!) existing word lists or multiple word lists by highlighting one or many, and click on Delete Selected. IMPORTANT: This will destroy the word list files if you confirm the deletion!

Merge Word List into Current

This merges a selected word list into the current word list. You have the option of deleting any words that are not desired or are inappropriate by highlighting one or many words, and clicking on Delete Selected. Once you are satisfied with the list, click on OK to Add these words to the current word list.
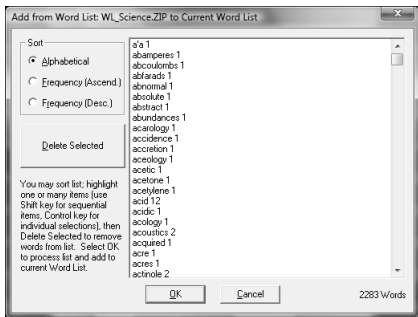
Make Word List Current

This makes the selected word list the current
word list used by OnScreen. IMPORTANT:
This will overwrite your current word list!
Also note that the Word List Assistant
ALWAYS saves your current word list (as
indicated above).
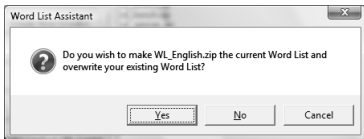
**Add Words from file(s) to Current Word
List**

- Select a File, or Files, or All Files in a Folder

- Process the words - note that large files may
  take some time...

- Review the new additions to delete any
  words you do not wish to add - you may sort

Alphabetically, or by Frequency (both Ascending and Descending).

Hints: To easily add a small number of words, use the Edit Word lists option directly from OnScreen Setup - the Advanced nature of the Word List Assistant means it doesn't duplicate this basic functionality.

To easily add a specific set of words, enter the words into Notepad, and save the file (default type as Text file), then open the file and process it with this option.

If you wish to edit specific words, add them and then return to the Edit Words dialog.

If you need more flexibility or more control, you may also use Notepad to edit the word lists directly (they are saved as Text files).

It is extremely likely that various character sequences and non-words will be added to the list - Always review the list to delete

items that you do not want in your word lists.

If you get a large amount of undesirable character sequences, try converting the file (File | Save As) to a different file type from the source.

Operation Notes

For backwards compatibility, files must be ANSI (rather than Unicode).

A fair amount of error checking is handled within the Word List Assistant, but every last possibility has not been addressed. This tool is meant to bring in basic documents and add the words that a particular user works with most often. If you experience operational errors, reduce the number of files you are processing, increase system memory, or review the documents directly. If you have problems with

a particular file type, you may want to convert the file into a different format and try again.

Words are built from the alphabet, and international characters above 128 (ANSI - see Character Map). All punctuation, brackets, parentheses, and the space character, are treated as non-word characters, and end the current word (except the backslash \ and single-quote ').

> **Advanced Notes:** The 2 folders that Word List Assistant works with are the configuration files folder (where the current Word List files are located), and the WordLists sub-folder (where compressed Word Lists are stored, and where temporary Word List files are created (e.g. A.TXT, B.TXT, etc.)). When Managing Word Lists within the Word List Assistant, it is important to realize the "Current" word list is never touched or modified, unless

one of the options to modify it is selected (Add Words from Files to Current Word List, Manage Word Lists | Merge Word List with Current, and Manage Word Lists | Make Selected Word List Current).

Although saving the current word list every time the Manage Word List option is selected may seem excessive, it guarantees that Word Lists will not be lost, especially when people new to the Word List Assistant start trying the various options. Since these files may be deleted from with the Manage Word List option, and users familiar with the Word List Assistant will not be constantly creating new backups by going into the Manage Word List option, this seemed the appropriate solution, and is less confusing than the approach tried in the previous Word List Assistant (where the user was asked to name the current backup).

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===================================

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Keyboard Scanning
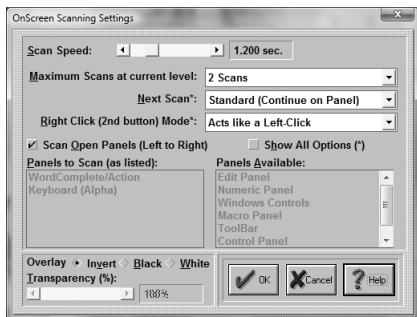
Settings

The scanning capabilities of OnScreen provide a single-click option to access all panels and keys. To address different user capabilities, these settings provide both basic and advanced options. In most cases, the Scan Delay setting (which controls the scanning step speed) will be sufficient for basic users. If a second button is available (e.g. the Right-Click), there are

several options available to control scanning actions when the right-click button is pressed. The Scan Overlay display controls the basic color (color inverted, black, or white) and the transparency level.

OnScreen uses a "Ready to Scan!" image of a hand over a large red switch to indicate scanning is enabled and ready to start. The first switch hit (mouse click) will begin the scan process. The Ready to Scan image always overlays the first panel to be scanned.

As an aid to trainers, there is a physical keyboard based shortcut **Alt-X** that will toggle scanning (when scanning is already enabled in OnScreen Setup). This can be convenient to use to cancel scans to adjust scanning settings (during scans the mouse cursor gets locked into the area being scanned). For users that need more control while scanning, the Right Click Mode of "Up one Scanning level" is the best

option, since scans & scanning can be backed out by right-clicking.

The scanning implementation within OnScreen uses a transparent overlay window to identify the scan area. There are 3 scanning levels (where the term level refers to the particular scanning mode). Panels are scanned, and once a panel is selected, the next level is a panel scan, which scans groups of keys (typically ordered as rows or columns). When this scan group is selected, the lowest level scans the individual keys in the group. These 3 levels are:

- **Panels Scan**
- **Panel Scan** (Rows or Columns)
- **Key scan** (individual row or column scan key by key)

The **Panels Scan** goes panel by panel as determined in the Panels to Scan section. The

scan order is determined by the order of the panels in this list. If a Panel is to be scanned, but it is closed, it is skipped. If all Panels to Scan panels are closed, scanning will be stopped.

The **Panel scan** (by rows or columns) scan is determined by settings in the OnScreen Initialization file. In most cases, this uses a top to bottom row scan, with some modification based on the panel itself. For the WordComplete panel, a column scan is used, as this is more effective for accessing the WordComplete candidates. See Advanced Notes below and the Initialization File Documentation for further details on modifying the panel scan.

The **Key scan** (or individual row or column scan) goes key by key in the order predetermined in the OnScreen Initialization file. The design is extremely flexible, and final

key scans can be in any order (i.e. left to right/right to left/top to bottom/bottom to top, or even can be alternated from outside to the middle).

Ready to Scan!

Next switch (or click) will begin scanning pr...

Panel Scan

All Open Pa... selected pa... scanned dur... Panels Scan

Panel Scan

Rows (or Co... scanned on... selected pa... the Panel S...

Key Scan

All keys are... in the selec... (or column)... Key Scan

Advanced Notes: The Panels to Scan determine which panels will be scanned, and can be set in any order by manipulating the available panels and the Panel to Scan in the list boxes. Each Panel scan is determined by settings in the Initialization file, and uses a list of individual keys, separated by commas, grouped by semi-colons. These settings determine the groupings of keys that define a row (or column). Once a Panel scan is selected, the lowest level Key scan is determined by the order of keys listed in the key grouping. For example, a 1,2,3; will group keys 1-3, and key scan left to right. A 3,2,1; entry will panel scan the same group, but key scan right to left. For Text-To-Speech announcements, a word or phrase in square brackets can be inserted prior to the key listing. For example, instead of 1,2,3; you can list [First Row]1,2,3; and "First Row" will be announced when Text-To-Speech is

enabled in Sounds. For more details, refer to the panel scan settings in the Initialization File Documentation.

Scan Operation Settings

Scan Delay

The Scan Delay determines the amount of time between each "Scan Event" - panels, panel scan (row/columns), and key scans. You can use the scroll button to select between 0.05 seconds and 5 seconds. The scan delay time is displayed to the right of the scroll bar. If Step Scan is selected in the Right Click Mode, then this setting turns into a Timeout After setting, and the time is used as a delay period - if nothing happens in the delay period, then the scan reverts up one level.

Maximum Scans at current level

You can select No Maximum or 1, 2, 3, 4, 5, or 6 scans. When No Maximum is selected, each scan level will continue until a left-click goes to the next level (or selects the key), or a right-click changes the scan level or stops the scanning. If a number of scans is selected, the current scan level will continue for that number of scans, and then the scan level will revert up to the previous level. If the Panels scan reaches the maximum scans, the scanning will stop (leaving the transparent overlay on top of a panel - to restart scanning, left-click on the scan overlay). Note that "No Maximum" is not allowed when there is no Right-Click option available.

Next Scan

(the * indicates this option is only shown/available when Show All Options is On)

After a scan is completed (i.e. a key is selected during a key scan), the default action is to

return up one level, and continue scanning the same panel - this is the normal action - "Normal (Continue on Panel)". If the key scan option is selected ("Re-Scan Current Keys"), the same group of keys will be scanned again after a key selection. The panel scan option ("Scan Current Panel") has a different internal setting, but is effectively the same as the normal action - continue scanning the same panel. The final option "Scan All Panels" will return to the top level, or Panels scan after a key is selected by the left-click, and show the "Ready to Scan!" image.

- "Standard (Continue on Panel)" - this continues scanning the current panel just scanned. For typing, this mode works best, since the user can focus on the keyboard panel while selecting letters. This also works best when the Right Click Mode (see below) is set to "Up one scanning level"

- "Re-Scan Current Keys (*)" - this continues scanning the same row (or column) just scanned. This is only shown when "Show All Options" is On.

- "Scan Current Panel (*)" - this continues scanning the same panel just scanned. This is only shown when "Show All Options" is On.

- "Scan All Panels" - this resets the scan and shows the "Ready to Scan!" image after a completed scan.

Right Click (second button) Mode

(the * indicates this option is only shown/available when Show All Options is On)

If there is no right-click available, or the user cannot effectively use a second button (right-click), the not available option is recommended ("None (no Right-Click available)"). This forces the "Maximum Scans" setting to 2 scans if set at No Maximum - No

Maximum is not an allowable setting when the right-click setting is set to None (otherwise a complete scan would be required during every scan, which could be problematic in various situations). Detailed notes on each Right-Click setting are outlined below.

- "None (no Right-Click available)" - the right-click is not used and it is ignored for scanning operations

- "Scan All Panels (top level) (*)" - a right-click resets the current scan level to the top level (or Panels scan) This is only shown when "Show All Options" is On.

- "Up one scanning level (*)" - this is the default setting, and it reverts the current scan up one level. A right-click while at the Panels scan stops the scan process, leaving a transparent overlay over one panel (left-click to restart scanning). While stopped, another

right-click will clear the panel off of OnScreen entirely - see "Accessing OnScreen during a paused scan" below. This is only shown when "Show All Options" is On.

- "Pause Scanning (*)" - this will immediately stop (or pause) the scanning at the current level (left-click to restart scanning) This is only shown when "Show All Options" is On.

- "Step Scan" - The step scan option provides a controlled scan, using the right-click as an advance (rather than a time based approach (e.g. Scan Speed)). This option creates several interface setting changes, and the scan operation itself requires 2 buttons to scan - right-click advances, left-click selects. To reset or cancel this mode, a Timeout After setting appears where the Scan Speed setting was (and is set to 3 times the current scan speed), and the physical keyboard is

monitored for a Ctrl-Alt combination keypress. The timeout timer always starts after any left or right-click. If the timeout period expires, the scan will revert up one level (see "Up one scanning level" above). Once at the Panels scan, after the timeout after period expires, the scan overlay will disappear - right-click anywhere on OnScreen to restart. (Note this effectively bypasses any other right-click setting in Mouse Buttons when in the step scan mode) This also enables a physical keyboard monitor, so when the Control Key and the Alt key are pressed simultaneously, the scan mode will end & the scan overlay will disappear - right-click anywhere on OnScreen to restart. When this mode is selected, the "Maximum Scans at current level" is automatically set to No Maximum.

• "Abort Current Scan" - a right-click will

abort (or cancel) the current scan, and reset based on the Next Scan setting. If at the top level Panels scan, a right-click will stop (or pause) scanning. In other words, this acts as if the scan was completed & resets based on the Next Scan setting, as if a final key press occurred (e.g. the scan resulted in key selection).

- "Exit Scan Mode" - in this mode, a right-click will disable scanning entirely (to re-enable, you must return to User Options in OnScreen Setup)

- "Acts like a Left-Click" - in this mode, a right-click will act exactly the same as the left click - selecting the current highlighted item

> **Accessing OnScreen during a paused scan:** When at a stopped (paused) scan for "Up one Scanning level" or "Pause

Scanning", and additional right-click will move the scanning overlay off of OnScreen, and place it above or below OnScreen (based on current screen position). This will display a message "Left Click Here to Start Scanning", and change the transparency to mostly opaque. When clicked on, normal scanning will occur (the same as a left-click during a paused scan, i.e. when the overlay is over OnScreen). If OnScreen is moved, the overlay will reset & display over OnScreen Use a Left-click or Right-click to reset as desired.

Operation Notes: The final selection of a key during the Key scan sends a mouse button down/up event message from the scanning window to OnScreen. This is based on the cursor position (which is towards the bottom right of the scan area). Therefore, it is important that the Key

Border option in Operation Options be set at 0 when keyboard scanning is used, otherwise it may conflict with the valid area a mouse click is accepted within OnScreen.

On the toolbar, the 3 buttons are grouped in 2 sets of 2 buttons (with the menu button being shared), so there is a visual action during the Panel Scan. In use, the menu button results in a menu being shown, which cannot be scanned by the user, and the minimize button minimizes OnScreen, disabling the scan entirely, so neither of these buttons is a good choice for the scanning user. Therefore, if scanned and selected, the menu and minimize buttons resets the scan to the top level.

If the scan is stopped, the scan overlay will be hidden during OnScreen move, resizing, or reconfiguring. If OnScreen is minimized, scanning is stopped. When

OnScreen is opened from a minimized state, if scanning is enabled, it will automatically be started once OnScreen is displayed in its opened state.

Scan Open Panels (Left to Right)

When this option is set On, scanning will always use a left-to-right approach, and will scan all open panels. To customize the panels and/or order, you must clear this option, and use the "Panels to Scan" list below. This setting also has a subtle operational approach difference - when Scan Open Panels set On, and scanning is enabled, when OnScreen is started (with keyboard scanning enabled), the scanning will be in a stopped mode, waiting for a switch hit (mouse-click) to begin. If Scan Open Panels is NOT selected, and OnScreen starts, scanning will automatically start.

Show All Options (*)

This affects the 2 drop down lists "Next Scan" and "Right Click (2nd button) Mode". When Show All Options is On, additional items are added to the lists of available options. When Show All Options is cleared, the most common options are shown. Note the order of items also changes when Show All Options is On.

Panels to Scan

Panels to Scan (as listed)

The Panels to Scan shows the panels to scan (in the order listed). To remove a panel, double-click or highlight and press the Space bar. By removing and adding panels, and order of Panels to scan can be selected. The final list will indicate the panels and the order that they will be scanned, during the top level Panels scan.

Panels Available

The Panels Available show the panels that will NOT be scanned. Double-click or highlight and press the Space bar to select the panel, and place it at the bottom of the list in Panels to Scan.

Scan Overlay Display

Overlay (overlay color)

The scan overlay uses a transparent overlay that outlines (or highlights / indicates) the scan area. You can select this color by selecting the Invert, Black, or White options. The Invert option (default) uses an opaque window (Transparency automatically set at 100%), and inverts the current OnScreen display using built-in display options to invert the current display colors (this is useful for high-contrast viewing). When Black or White is selected, the transparency is set at a much lower level to make a translucent overlay. For Black or White, a fairly low transparency level is

recommended (note a completely opaque overlay prevents viewing the keys, so some level of transparency below 100% must be selected for effective scanning). Whenever one of these overlay options is selected, the transparency level is automatically selected for the current selection to a recommended setting. After selection, you may change the transparency level to your desired level.

> **Note:** When Invert is selected as the overlay option, you will obtain different results for the scanning overlay based on the current selected colors & display options. See Colors for OnScreen display options.

> **Note:** When Invert is selected as the overlay option, be sure to disable the "Highlight Key under pointer" option in the

Enhance display options, otherwise key scans will be inverted twice, and the Key scan will not be effective.

Transparency

The Transparency level (%) determines the transparency of the overlay that outlines (or indicates) the current scanning area. It is recommended 25% to 50% range be used for black or white, and for invert this option is disabled. If the transparency level is set too low, the scanning area may not be easily discernible, and if the transparency level is too high for the black and white options, the opaqueness will prevent seeing the underlying keys/scan area. Note the connection between this setting and the overlay technically means this is an opaqueness setting, but transparency is a better understood term.

Basic Appearance

Click on the Appearance Button
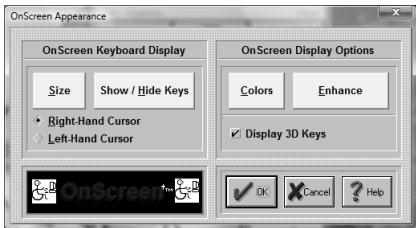
OnScreen Keyboard Display

Size Button

This will open a Size Selection Dialog Box which enables you to select one of the 12 base sizes, along with OverSize options.

Show / Hide Keys Button

This opens OnScreen in a special mode that allows keys on the main keyboard panel to be hidden. To hide a key, click on the key - OnScreen will be repainted without the key just selected. To re-display a hidden key, click on the space where the key normally would appear, and the key will be shown again. To Save the current setting, click on OK. Select CANCEL to ignore any changes. Select Reset to Show All Keys on OnScreen.

Cursor

Select either Right-Hand Cursor or Left-Hand Cursor to alter which cursor is displayed over OnScreen, and used to select keys & buttons on OnScreen.

Colors Button

This opens a selection Dialog Box that allows you to choose the colors to be displayed on the OnScreen Keyboard panel. For more advanced color selection options, Advanced Mode must be set in User Options.

Enhance Button

This opens a Dialog Box that allows you to select Visual Enhancement options - Key Highlight and/or Key Zoom (key magnification window).

Display 3D Keys

Check this option On to enable the display of the shaded, three-dimensional look keys. For resolutions of 256 colors or less, it is recommended that this option be set Off. OnScreen checks the current display capabilities when started, and may override this option. Note that the 3D keys are only

displayed for sizes 8 or higher (the smaller sizes do not have enough displayed pixels to effectively render the 3-D look).

OnScreen Appearance

Click on the Appearance Button

Within Appearance, you will be able to set conditions that influence how OnScreen will appear and behave on screen.
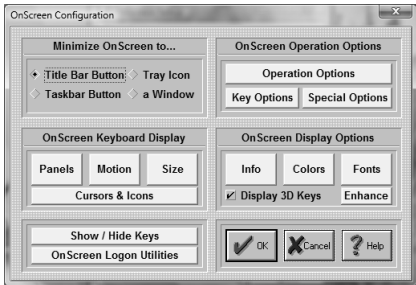
Within Appearance, you will be able to set conditions that influence how OnScreen will appear and behave on screen.

Minimize OnScreen to...

You can select how OnScreen will act when it is minimized.

Title Bar Button - In order to minimize OnScreen to a Title Bar Button, do the following steps:

1. Click on the diamond-shaped Radio-Button with the title "Title Bar Button".

2. Press the OK Button.

OnScreen now will minimize to a button, which is always attached to the active application's title bar (top caption bar). To restore the window back to full size, click on the button once.

> **Note:** There are numerous customer requested button size & positioning options - see detailed information in Initialization File Documentation.

TaskBar Button - In order to minimize OnScreen to a Taskbar Button, do the following steps:

1. Click on the diamond-shaped Radio-Button with the title "Taskbar Button".

2. Press the OK Button.

OnScreen now will minimize to a button on the Taskbar. To restore the window back to full size, click on the button on the Windows Taskbar, or right-click and select restore or maximize.

Tray Icon - In order to minimize OnScreen to an icon in the System Tray, do the following steps:

1. Click on the diamond-shaped Radio-Button with the title "Tray Icon".

2. Press the OK Button.

OnScreen now will minimize to an icon in the System Tray (in the area with the clock & volume control). To restore the window back to

full size, click on the small icon in the task bar, or right-click and select restore.

Window - In order to minimize OnScreen to an floating Window, do the following steps:

1. Click on the diamond-shaped Radio-Button with the title "a Window".

2. Press the OK Button.

OnScreen now will minimize to a small floating window. To restore the window back to full size, click on the window. The minimized floating window can be resized and positioned as desired - when OnScreen is minimized, the last position and size of the minimized floating window will be used.

Operation Options

This will open an Operation Options dialog allowing you to set your preferences while using OnScreen. These include Reacting to

Dialogs and other Windows, Typematic operation, Keystroke / Click option, Virtual Pointer, Action Button Move, Lower Case display, Track Pointing Device Input, and Key Border.

Key Options

This opens the Key Options dialog where you can select Keys and Key combos (Ctrl, Shift, Alt) that may be Enabled or Disabled. Additionally, a Key or Key Combo can launch an executable. In conjunction with the OnScreen Developers Kit, this capability can be used to create new operational features, such as Minimize after the Enter key is pressed.

Special Options

This opens the Special Options dialog box where Special handling features for Advanced users, developers, and integrators can be found. Includes the Supervisor/Operator mode

options, and Custom Logo Feature, along with the ability to react to other windows in the system as they become active (Special Handling), including the ability to launch a separate executable.

The six buttons in the middle of the dialog box offer additional configuration options for OnScreen.

Panels Select the panels which OnScreen displays.

Motion Select the motion of your panels.

Size Select the size of OnScreen.

Info Select the information displayed in the Information panel.

Colors Select the colors for each panel.

Fonts Select different character display for OnScreen.

Display Options

Display 3D Keys - Check this option On to enable the display of the shaded, three-dimensional look keys. For resolutions of 256 colors or less, it is recommended that this option be set Off. OnScreen checks the current display capabilities when started, and may override this option. Note that the 3D keys are only displayed for sizes 8 or higher (the smaller sizes do not have enough displayed pixels to effectively render the 3-D look).

Enhance Button

This opens a Dialog Box that allows you to select Visual Enhancement options - Key Highlight and/or Key Zoom (key magnification window).

Show & Hide Keys

This opens OnScreen in a special mode that allows keys on the main keyboard panel to be hidden. This is useful for controlled

applications where certain keys or key combinations need to be unavailable - for example, hiding the Alt key makes Alt-F4 impossible. To hide a key, click on the key - OnScreen will be repainted without the key just selected. To re-display a hidden key, click on the space where the key normally would appear, and the key will be shown again. To Save the current setting, click on OK . Select CANCEL to ignore any changes. Select Reset to Show All Keys on OnScreen.

OnScreen Logon Utilities

In order to logon onto Windows & obtain access to Network resources, the appropriate logon configuration is required within Windows. There are various options available in OnScreen to display & interact with the logon requirements. This opens the appropriate configuration options for the Windows platform running. See OnScreen Logon

Utilities for more information.

> **Note:** In general, when you make changes
> within OnScreen Setup, the changes are
> immediate and reflected by OnScreen.
> However, some display option
> combinations may require a restart of
> OnScreen for proper display. The logon
> options typically require a restart of
> Windows.

OnScreen Panel Selection

Dialog Box
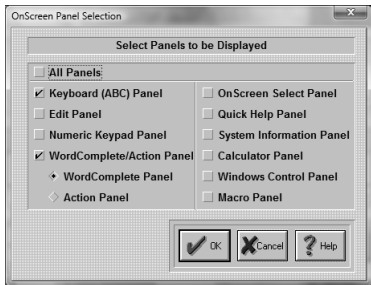
OnScreen lets you select which panels are open every time you start OnScreen.

If you want ALL panels to be open every time you run OnScreen, click on the "All Panels" Check-Button.

You can click on-and-off each individual panel.

The panels with a check-mark will be open each time you start OnScreen.

Press the OK Button.

If you do not want to save your changes, press the CANCEL button.

Operation Options

OnScreen Operation Options

☑ Auto-Arrange Windows (Maximize Typing Window)
☐ Auto-Arrange Active Window
☑ Auto-Save Position after moving
☑ React to Dialogs and other Windows (Window Contention)
☑ Enable Auto-Repeat (Typematic Operation)
☐ No Keystroke Generated until Down and Up Click Completed
☑ Virtual Pointer in Use   ☐ Alternate Virtual Interface
☑ Allow Manual Repositioning of OnScreen (Action Button Move)
☐ Track Pointing Device Input at All Times
☐ Display Upper Case Characters on Keyboard Panel Always
0 Key Border (# of pixels inside key edge ignored as key press)

✔ OK   ✗ Cancel   ? Help

IMPORTANT NOTE: There are various settings here to change how OnScreen

operates. If you are having problems
typing, see Interface Settings.

**Auto-Arrange Windows (Maximize Typing
Window)**

This Check-Button enables or disables the
automatic operation of arranging windows. If
enabled, OnScreen will automatically size &
position window upon selection of a new active
window using the Select button on the Action
Panel. NOTE: A window will always be
arranged when the Arrange button on the
Action panel is used.

Auto-Arrange Active Window

This Check-Button is only available if
Auto-Arrange Windows is enabled. This option
enables or disables the monitoring of the active
window. If enabled, OnScreen will
automatically size & position window when

the mouse cursor (pointer) is over OnScreen, or by opening a new application (typing) window. For certain users and in certain types of usage, this can be a great help, as the automatic arranging of windows is a constant on-going process. However, this option is default off, and when disabled, only by using Select on the Action Panel with Auto-Arrange Windows enabled will a window be automatically arranged.

Auto-Save Position after moving

This Check-Button enables or disables the automatic saving of position after OnScreen has been moved (Action Button Move, or Right-button move). If enabled, OnScreen will process the Save command after every move has been completed (Same as Menu | Position | Save Position).

React to Dialogs and other Windows (Window Contention)

This is a global setting for OnScreen that will change the internal operation of the software. If set On, OnScreen will move off of dialogs, and react to other Windows based on Special and Macro Panel settings. If set Off, this sensing & reacting to other windows in the system will be disabled. For certain types of use, having OnScreen remain in a particular screen location at all times and not affecting other windows in the system is preferred.

> **IMPORTANT NOTE:** OnScreen's automatic sensing for Special & Macro Panel options will NOT operate if this is set Off.

Enable Typematic Operation

The automatic typing of a character while a particular key is pressed down for a period of

time requires that Enable Typematic Operation be set On. If set Off, this automatic typing operation is disabled. Specific settings for Typematic operation can be found in the ONSCREEN.INI initialization file. See Advanced User Information for more details.

No Keystroke until Down and Up Click Completed

OnScreen reacts like a physical keyboard, and a Click then Drag motion off of a particular key results in the down and subsequent release of that key, resulting in a keystroke being generated. To disable this default action, set the option On. Setting this option On is preferred by users who do not have precise control over the positioning of the mouse pointer while a click occurs. When set On, Typematic Operation is automatically set Off to disable multiple keystrokes of the same key. This the forces the pointing device to complete the

Down & Up Click to generate the keystroke initially selected by the Down click.

Virtual Pointer in Use

This setting should be set On if a device used to move the mouse cursor (pointer) is not a standard mouse, or trackball. Any hardware device that interacts via a "device driver" with Windows should not be considered a Virtual Pointer (unless the implementation does not fully emulate a standard mouse [which is more common than otherwise]). Various Assistive Technology devices such as cameras or lasers that track the eye, other biometric sensors, or other software based translation interfaces (such as the MouseKeys in Microsoft's Accessibilities options) when used should have the Virtual Pointer setting On. This feature forces OnScreen to operate slightly differently for "Clicks" (button down, button up), and during moving the OnScreen window.

Alternate Virtual Interface

This setting should be set on ONLY when there are typing difficulties AND the pointing device does not activate the down/up display of OnScreen buttons. This setting may be required for software interfaces, and other non-physical approaches to operating the mouse cursor and generating clicks. Older versions of "Joystick-To-Mouse" will require this to be set On.

Allow Action Button Move

The setting is default On, and it allows the Action button (as set in OnScreen Setup, Mouse Buttons, Action button) to move the OnScreen window by clicking on the frame or any unused area (Click, drag, then release). If the mouse cursor is not always tracked accurately, it is recommended that this be set to Off to prevent accidental moves. This may also be set off to prevent the operator from moving

the OnScreen window (note that the second
and/or third button must be configured properly
to ensure the move option is unavailable).

> **Note:** This option will be automatically
> disabled if the Key Border is a non-0
> value. If you want this option enabled, be
> sure to check the Key Border setting.

Windows 2000/XP/Vista/7 (This setting does
not apply, and is disabled)

Track Pointing Device Input at all times

This setting is default Off, unless Setup senses
a known driver or interface that requires this
setting On. If there are any focus problems (i.e.
typing [clicking] on OnScreen does not type
[send keystrokes] into the currently active
window), then this setting should be set On to
see if it resolves this problem. In general, this

setting should be Off if at all possible. See Advanced User Notes for more information on this setting and how it affects OnScreen operation.

Use Upper Case Characters Always (Keyboard Panel)

By default, lower case characters are displayed on the Keyboard (Alpha) panel, unless the Shift or Caps lock is engaged. Check this option On to force Upper Case display at all times.

Key Border (# of pixels inside key edge ignored as key press)

This setting is used to reduce the area of each key that can register a press. For maximum effect, the default setting is no border area. As the Key Border values increase, the pixels inside each edge (top, left, bottom, right) are removed from the area of the key that will react to a click. Because of the differing sizes of the

panels and keys, this setting may affect certain size ranges differently. It is recommended that the particular size for usage be selected first, and then the desired Key Border be set to match the current size.

> **Note:** OnScreen automatically sets the "Allow Action Button Move" to Off when there is a border in use (greater than 0). This prevents the undesirable move when clicks & releases are not accurate due to either software driver or operating conditions.

Interface Settings

These are the steps that should be tried if you are having difficulties typing with OnScreen.

1) The following settings are the preferred options:

Virtual Pointer in Use = On

Alternate Virtual Interface = Off

Track Pointing Device Input at All Times = Off

2) If you are working with a Touchscreen or a Pen, and when tapping on OnScreen, you observe the buttons being pressed, but the active application (where you are trying to type into) becomes inactive, try setting Track Pointing Device Input at All Times to On.

Virtual Pointer in Use = On

Alternate Virtual Interface = Off

Track Pointing Device Input at All Times = On

3) If you are working with a virtual, assistive, or another non-hardware pointing device, and

when clicking on OnScreen, you do not observe the buttons being pressed, set the Alternate Virtual Interface to On

Virtual Pointer in Use = On

Alternate Virtual Interface = On

Track Pointing Device Input at All Times = Off

Other Notes

The Virtual Pointer in Use should ONLY be set Off if you are using a physical mouse, or a device that interfaces like a physical mouse. The device MUST support the GetAsyncKeyState for the VK_LBUTTON & VK_RBUTTON. In general, there is no negative aspect to having this setting On even if you are using a physical mouse.

The Alternate Virtual Interface overrides the Track Pointing Device Input at All Times, so

there is never a case where they BOTH would be On.

If you are still having difficulties with OnScreen after trying the above, check the device settings to see if there are other options available - it is possible it is operating in a mode that is not compatible with other Windows programs. You may also wish to test with a physical mouse to see if the pointing device is truly emulating a mouse pointer.

If you continue to have difficulties, please contact Technical Support.

Key Options
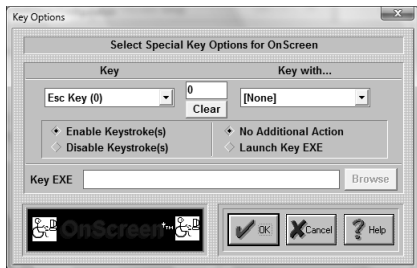
Key Options offers customization capabilities for keys on the main Alpha Keyboard Panel and the Edit panel. Keys may be disabled, assigned to other functions, and can be re-mapped using the Launch Key EXE in conjunction with the Developer's Kit (e.g. the Esc key could be re-mapped to send Alt-F4).

Select Key

This Drop-Down list allows you to select the

specific key you wish to work with. The
number in parentheses is the internal ID used
by OnScreen for the key's position. Refer to
the Build-A-Macro Notes for more details on
these internal IDs.

Select Key Modifier (Key with...)

This Drop-Down list allows you to select a
specific key combination (i.e. Ctrl-Alt-Delete)
for the currently selected Key. All combination
options are available. Note that with the proper
setting, you can disable Ctrl-F1, but not F1, or
just disable Alt-F4, or Shift-Esc. Due to the
complexity of available applications, each
possible option for each key is given. See the
Key Display (below) which is a quick visual
aid to see if a particular key has any enhanced
settings.

Key Display

This is a visual aid only. When it is 0 (zero),

there are no enhanced key settings in use. All keys are Enabled, and there is no Launch setting on. Any non-zero display means that at least one enhanced key setting is selected for the currently selected Key.

Clear

This button will remove all enhanced settings for the currently selected key. All keystrokes will be Enabled, and any Launch settings will be removed (No Additional Action will be selected to every possible keystroke). This will not remove the Key EXE entry, but this is disabled since all Launch settings will be cleared.

Enable Keystroke(s) / Disable Keystroke(s)

This defines the state of the particular key and its current modifier (Ctrl, Shift, Alt). If Enabled, then OnScreen will generate & send the keystroke. If Disabled, then the

keystroke(s) will be removed and no action by OnScreen will occur when the particular keystroke(s) is/are initiated by the user. Note that this action is independent of the Launch Key EXE capability.

No Additional Action / Launch Key EXE

In general, the No Additional Action for any keystroke is the typical setting. Due to customer requests, we have added the capability of also initiating other actions tied to specific Keystrokes. By using the OnScreen Developers Kit, these (or any other developer selected action) can be tied to a particular keystroke or combination. Some of these requested capabilities are:

- Minimize to button upon Enter (type Enter, then minimize = Enter Key Enabled, Launch MINMZMTS.EXE)

- Ctrl-Alt-Delete restarts system

(Ctrl-Alt-Delete Launches NTRSTART.EXE)

- Alt-F4 cannot close window (Alt-F4 Disabled)

- Make F1 run special Application Help program tied to a different key (F1 Key Disabled, Launch SDSTRMTS.EXE with appropriate alternate keystroke used)

This adds a great deal of flexibility to the general keyboard (similar to the capabilities of the Macro panels), but it also creates a greater chance of confusion. These should only be used when implementing a system for only 1 type of use. In general, these settings are potentially more dangerous then helpful. Wondering why the keyboard disappears everytime you press Enter is certainly not the end goal of productivity - so please be extremely careful when using these options, and document any changes for developers to come and for your users!

Key EXE

This is an Executable file that will be run if the "Launch key EXE" option is selected for the particular Key Combination. Note you may add command line options, but be sure to click on OK when you are through editing the selection.

Browse

This button will open a File Open Browse Dialog that will let you explore your system to select an executable. Because of backward compatibility, only short path & file names are used.

It is strongly recommended that only Developer Kit EXEs be used.

OnScreen Special Handling

Dialog Box
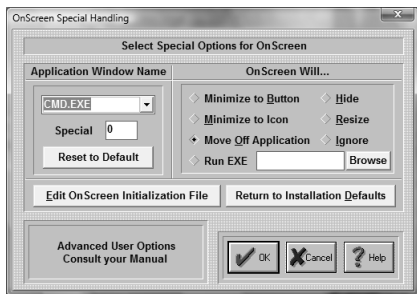
Important Note: This dialog box contains advanced user options. In general, most users should ignore these settings.

Select Special Options:

Some Windows applications do not conform to pre-defined Windows standards, or require

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special handling to work along with OnScreen. Some known applications are included in the Pull-down box box on the left. On the right, click on a Radio-Button to select the action each application should perform to work along OnScreen. You may add new Applications by typing the name in the top box on the left. This will add the Application Name to the list. Once selected, choose one of the options on the right to indicate how OnScreen should react when the selected Application becomes active. To delete an entry, highlight the entire selection, press the Delete key to remove the text, and then press Enter to remove the entry from the list.

Minimize to Button

When OnScreen overlaps the Application, a "Goto Button" command will minimize OnScreen to a Button.

Minimize to Icon

When OnScreen overlaps the Application a "Goto Icon" command will minimize OnScreen to an Icon.

Move Off Application

This will move OnScreen below the Application Window. Note that based on window size and OnScreen size, areas may be moved off screen.

Hide

This option currently matches the Minimize to Icon.

Resize

This will move OnScreen off the window, and resize the Application so that it occupies the rest of the screen area above OnScreen.

Ignore

This option is meant for the user who may want different actions based on changing

circumstances, and may not want special action during a period of time.

Run EXE

The ability to Run an Executable file adds great flexibility, and should be used in conjunction with the OnScreen Developers Kit. The executable file is run once until another executable is launched via OnScreen (typically when some other window becomes active that is in the Special Handling list). Primarily this is meant to be used to position or reconfigure OnScreen as different windows become active (different web pages, different applications, etc.). OnScreen only checks the Active window when it is open normally (NOT as an Icon or Button). Also, the React to Dialog and other Windows in Operation Options can override these settings.

Browse

This button will open a File Open Browse Dialog that will let you explore your system to select an executable. For maximum compatibility, only short path & file names are used. When the Run EXE is updated, it is also saved for the currently selected "Application Window Text". If you wish to modify the entry (e.g. add command line options), you must then click on OK to save these changes.

Notes on Application Window Text & Advanced Notes

The entire Caption bar (or entire Window Name) is searched for a match, starting in the order of the Special List. Any part of the window name will match, therefore being specific is important. This substring match can cause problems, especially if the Window Text is common, e.g. "Word" will match WordPad, Microsoft Word, WordPerfect, etc. Because each entry is checked regularly by OnScreen, it

can affect system operation as the list grows. This list should be used sparingly with extreme care, and only when using the Developers Kit within a separate Application is not an option.

Edit OnScreen Initialization file:

Pushing this button will allow you to directly edit the contents of the OnScreen initialization file. Caution: Editing the .INI file can cause OnScreen to operate incorrectly! Know what you are editing. Refer to the OnScreen User's Guide section on the Initialization File for complete coverage of this option.

Return to Installation defaults:

If you would like to return all options to the original defaults, press this button. This will replace the current initialization file (ONSCREEN.INI) and the configuration file (KEYBOARD.KBF) with the files from the time of original installation. EVERYTHING

will be reset to the configuration at that time
(i.e. the time immediately after installation).

OnScreen Panel Motion Dialog Box
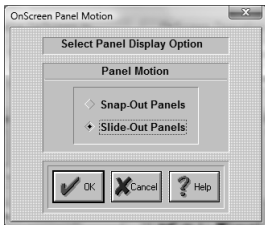
Panel Motion

Choose "Snap-Out Panel" and OnScreen's
panels will snap in & out. The new
configuration will be displayed without
intermediate displays.

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Choose "Slide-Out Panel" and OnScreen's panels will slide in & out. The new configuration will be displayed with a visual effect of motion.

Press the OK Button.

If you do not want to save your changes, press the CANCEL button.

OnScreen Size Selections

Dialog Box
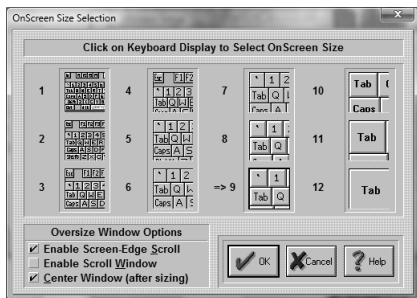
The size Dialog box allows you to select which size OnScreen will be displayed each time you start the program.

NOTE: This is not available if OnScreen is using a size larger than 12 (infinite sizing). For sizes larger than 12, you must use SzUp & SzDn from the OnScreen Control Panel.

Each of the 12 pictures show the approximate

size of OnScreen. In order to select a size for OnScreen, do the following steps:

1. Click on the picture of the size you want OnScreen to be.

2. Press the OK Button.

If you do not want to save your changes, press the CANCEL button.

NOTE:

You can change OnScreen's size also directly from the OnScreen Control Panel or select a new size from the OnScreen Menu.

Oversize Window Options

Oversize refers to the state when the OnScreen window is wider than the screen display width. These are the options available here to accommodate the user.

Enable Screen-Edge Scroll

When the OnScreen window (keyboard display window) is larger than the actual display (e.g. OnScreen is wider than the screen width), select this option to enable the automatic scroll when the mouse pointer (cursor) is held at the edge of the screen. If OnScreen is off-screen at that edge, it will automatically scroll completely into view when this option is checked On.

Enable Scroll Window

This option is available for CrossScanner / Touchscreen users who may have difficulty holding the mouse pointer (cursor) at a screen edge. When checked On, and OnScreen is larger than the actual display, a separate Scroll Control window will appear with options available to reposition OnScreen.

Please note the following with this option:

- Will automatically appear when this option is

enabled, and when portion of OnScreen moves off-screen

- This is only available for the horizontal (width), there is no control for the height

- Designed for OnScreen being displayed at top of screen

- << moves extreme left onto visible part of screen, >> shows extreme right

- < & > move the indicated end of OnScreen towards visible part of screen

- Slider can be used to adjust OnScreen directly

- Select Close to close the Scroll Control window

If Closed and you wish to re-open the window, you can use the Move button on the Action panel (or when WordComplete is open), and the Scroll Control window will automatically re-open.

Center Window (after sizing)

This option is default On, and centers the keyboard after a change in size. If OnScreen is oversized, this will mean certain portions of the window will be off-screen and not available. If this option is set Off, the left most portion of the window will align with the left side of the screen - this setting may be desirable for CrossScanner users.

System Information Display Dialog Box

The System Information Dialog Box allows you to select which options are to be displayed in the Information Panel:

Mem: 18,446K Res: 57% 16:26:16 Fri 8/24/2001 ◆D: 118,928K

This is the System Information Panel.
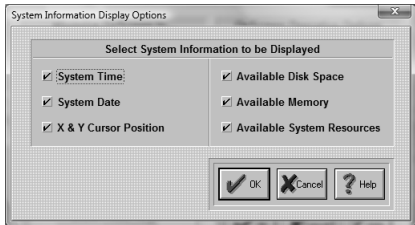
You can click on-and-off each individual
Check-Button. The options with a check-mark
will be displayed each time you start
OnScreen. To Sort the display, either add
individually or click on the item in the System
Information window to move the item to the
front of the list (leftmost).

Press the OK Button.

If you do not want to save your changes, press
the CANCEL button.

Basic OnScreen Colors
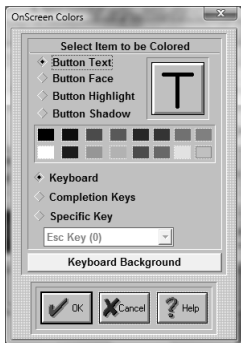
Panel Colors

In order to color a OnScreen panel, do the following steps:

Select Panel to Color

1. Choose Keyboard, Completion Keys, or select Specific Key.

2. Click on the diamond-shaped Radio-Button of the panel (or Key) you wish to color.

Select Item to be Colored

1. Click on the diamond-shaped Radio-Button of the part of the button you wish to color. You may also Click on the appropriate area of the oversized button on the right.

2. Click on a color that is provided below (16 colors) to select the color.

3. The item you have selected will change its color, and show you a preview of the in the oversized button window.

4. Repeat this process for all button parts you want to color.

Once you are finished coloring one panel, you either press OK Button to save, or select

another panel to color. If you select another panel to be colored, the previous colored panel will change its colors immediately.

Keyboard Background

To Select Keyboard Background Color

Use the Keyboard Background Button to change the color of the keyboard background & frame.

OnScreen Colors Dialog

Box
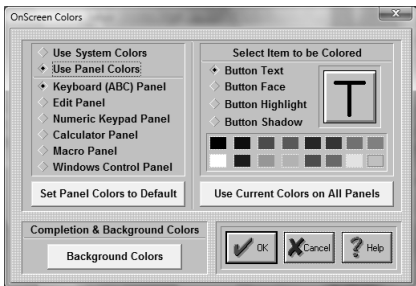
IMPORTANT NOTE - 3D Display, Themes affect Colors: As OnScreen has become more flexible, the original intent of these color options has diminished. Because the Button Text color is used, and the original display option is still available, the configuration options here remain intact. However, when the 3D display is enabled, or any other theme is selected, typically only the Button Text color will be

reflected on the OnScreen display. For notes and access to more information on themes, refer to General Operation.

Select Color Source Select "Use System Colors" to use the Windows scheme (available in Display Properties, Appearance)

NOTE:

When System Colors are used in conjunction with 3D keys, only pure RGB colors are allowed. (RGB - Red, Green, Blue - 3 values between 0 and 255 indicating the amount of Red, Green, or Blue used to "build" a color - this is sometimes referred to as 24-bit color (3 x 1 byte <=> 3 x 8 bits = 24 bits) - pure RGB means a value of either 0 or 255 (no bits set, or all bits set)) Due to the shading & desire for a clean appearance, preservation of the system color is not possible (disable 3D keys to see

actual system color). The following algorithm is used to create a "pure" RGB color: The system color is split into the 3 RGB components, and then the smallest value is subtracted away from all elements, leaving 0, 1, or 2 positive values - these then are used to determine use of a solid color (i.e. value of 255) or no color (i.e. a value of 0). This is used as the "background" of the shaded keys. In most cases, this is in the same color scheme as the System Colors. You may adjust the Windows Appearance, "Display 3D keys", or revert back to "Use Panel Colors" to review the various display options.

Select "Use Panel Colors" to use OnScreen Colors. OnScreen colors allows you to customize OnScreen by coloring each panel's keys and buttons.

Panel Colors

In order to color a OnScreen panel, do the

following steps:

Select Panel to Color

1. Choose among the seven panels.

2. Click on the diamond-shaped Radio-Button of the panel you wish to color.

Select Item to be Colored

1. Click on the diamond-shaped Radio-Button of the part of the button you wish to color. You may also Click on the appropriate area of the oversized button on the right.

2. Click on a color that is provided below (16 colors) to select the color.

3. The item you have selected will change its color, and show you a preview of the in the oversized button window.

4. Repeat this process for all button parts you want to color.

Once you are finished coloring one panel, you either press OK Button to save, or select another panel to color. If you select another panel to be colored, the previous colored panel will change its colors immediately.

Use current Colors on all Panels

If you want your current selected colors to be the colors for all panels, press this button.

Set Panel Colors to Default

If you want to return one or all your panels to their default colors, press this button. To change one panel back to default colors, do the following steps:

1. Click on the diamond-shaped Radio-Button of the panel you wish to change.

2. Click on "Set Panel Colors to Default" button.

3. The colors will return to default.

To change all panels back to default colors, do the following steps:

1. After completing 1-3 above, press "Use current Colors on all Panels".

2. All panels will change to default colors.

Keyboard Background

To Select Keyboard Background Color

Use the Keyboard Background Button to change the color of the keyboard background & frame.

OnScreen Background

Colors Dialog Box
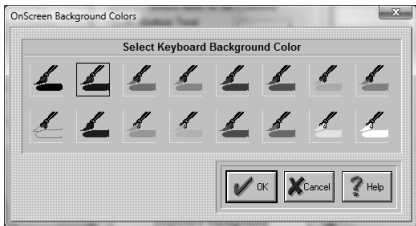
This Dialog Box allows you to switch the colors of the OnScreen panels. The following panels will be affected:

1. Alpha Keyboard Panel

2. Edit Panel

In order to select a color for OnScreen panels, do the following steps:

1. Click on the picture of the color you want OnScreen to be. A black frame will appear around your selection.

2. Press the OK Button.

If you do not want to save your changes, press the CANCEL button.

Enhance - Visual Enhancements

Visual Enhancement Options
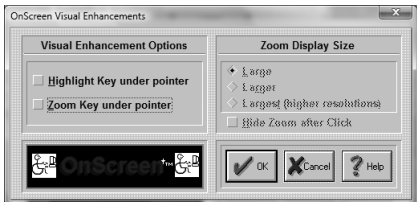
Highlight Key under pointer

Check On this option to enable a visual
highlight of the key currently under the mouse
pointer (mouse cursor). This may be useful to
some individuals who have difficulty seeing
the mouse cursor, or find the additional visual
feedback helpful. The highlight is
accomplished using a display color inversion,
and different colors will display different
highlight colors.

> **Note:** If scanning is enabled, it is
> recommended that this option be set off
> when the Invert overlay is used.

Zoom Key under pointer

Check On this option to enable a magnification
window that expands the key under the mouse
pointer (mouse cursor). During OnScreen

operation, the window will follow the pointer
and magnify the key into the magnification
window. The size of the window will change
based on the size of the key pointed to, and the
Zoom Display Size (see below). This is a
visual enhancement that may help some
individuals identify the key easier, prior to
selection. If a portion of the key is off-screen,
the Zoom will not display the magnification
window. The position of the window relative to
the pointer (cursor) depends on the position of
OnScreen, the size of the magnification
window, and the screen edges.

Zoom Display Size

When Zoom Key under pointer is checked On,
these 3 choices will be enabled. Select Large
for a 3 times magnification, Larger for a 5
times magnification, and Largest for a 7 times
magnification. The Largest is probably best
used if your display is running at a very

high-resolution (e.g. 1600 x 1200 or higher).

Hide Zoom after Click

For Touchscreen users and other types of pointing devices that do not constantly cause mouse motion, this checking this option On will hide the magnified Zoom window after a click to reveal any keys or buttons hidden by the Zoom window.

Once you have made your Visual Enhancement choices, click on the OK Button.

Press the CANCEL button to Close the Dialog & cancel the Select Visual Enhancements operation.

Fonts
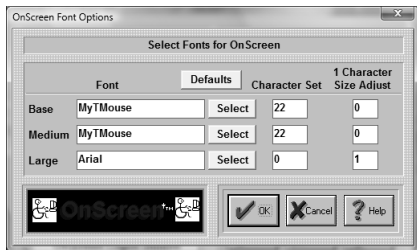
IMPORTANT NOTE:

The Font capabilities of OnScreen are limited for a variety of reasons. These limited options have only been included as a specific solution for a small subset of customers. Use OnScreen Build-A-Board for more complete control over the appearance.

Base / Medium / Large Selections

Sizes 1-6 are the Base sizes. For almost all

uses, the MyTMouse font is the best choice.

Medium Sizes are 7-9.

Large Sizes are 10-12.

Select Button for Base / Medium / Large

Each button selects the corresponding size range font. A System Font Selection dialog is available to select from installed fonts.

Only the (Font) Face Name is preserved.

Character Set for Base / Medium / Large

For MyTMouse, use 22. For most others, 0 is the best choice (ANSI). Symbols use character set 2. Other choices are:

ANSI_CHARSET = 0

DEFAULT_CHARSET = 1

SYMBOL_CHARSET = 2

MyTMouse = 22

MAC_CHARSET = 77

SHIFTJIS_CHARSET = 128

HANGEUL_CHARSET = 129

HANGUL_CHARSET = 129

JOHAB_CHARSET = 130

GB2312_CHARSET = 134

CHINESEBIG5_CHARSET = 136

GREEK_CHARSET = 161

TURKISH_CHARSET = 162

VIETNAMESE_CHARSET 163

HEBREW_CHARSET = 177

ARABIC_CHARSET = 178

BALTIC_CHARSET = 186

RUSSIAN_CHARSET = 204

THAI_CHARSET = 222

EASTEUROPE_CHARSET = 238

OEM_CHARSET = 255

1 Character Size Adjust for Base / Medium / Large

This setting refers to the amount subtracted from the available area of the key (total pixels) used to display the font character. Even though it strongly affects key displays of 1 character (i.e. alphanumeric keys on the Keyboard (Alpha) panel), it does have some effect on all buttons displayed. In some ways, this is similar to the Key border concept in Operation Options - the only use for this value is in calculating the best point size for the key display.

Sounds

Click on the Sounds Button.
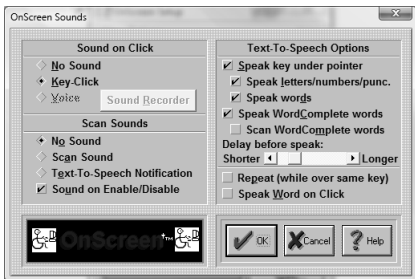
There are 2 main areas of sound feedback available in OnScreen - Key Press

Acknowledgement (feedback), and
Text-To-Speech

**Sound on Click - Key Press
Acknowledgement Sound Options**

OnScreen lets you select No Sound, Key-Click
sound, or Voice sound audio feedback for key
presses.

No Sound

Select No Sound to disable any sounds when
keys are clicked on OnScreen.

Key-Click

Select Key-Click to play a click sound when
each key is clicked on OnScreen.

Voice

Select Voice to hear voices describe each key
on the OnScreen Keyboard. This also enables
the Sound Recorder, and you may add your
own voicing to OnScreen. See below for basic

overview, and also see Advanced User Notes for more details & requirements. If Enable Keyboard Scanning is checked On in User Options, the Voice option is not available.

Scan Sounds

OnScreen lets you select sounds for keyboard scanning (available when Enable Keyboard Scanning is checked On in User Options).

No Sound

If this is selected, no sound will be played when a scan event occurs.

Scan Sound

If this is selected, a clear "pop" sound will be played at each scan event (when a new scan area is highlighted).

Text-To-Speech Notification

If this is selected, Text-To-Speech will be used to notify the user of the current highlighted

scan area. Some of the text must come from settings in the Initialization File. This setting is only available when the system supports Text-To-Speech.

Sound on Enable/Disable

When set On, OnScreen plays a special sound when scanning is enabled, and a different sound when disabled.

Text-To-Speech Options

OnScreen lets you select basic Text-To-Speech operation when using OnScreen.

Speak key under pointer

Select this option to enable basic Text-To-Speech while using OnScreen. When the mouse pointer hovers over a key, the selected Voice will say the key name (or Text on key), e.g. the Enter key will say "Enter", the ! key will say "Exclamation Point.;" To change

voice or rate, see the Text-To-Speech Speak and Setup in the Start Menu Program group (Start Menu | (All) Programs | OnScreen | Text-To-Speech). When selected, this option automatically enables and selects the "Speak letters/numbers/punc." and "Speak words", and it selects "Speak WordComplete words" if unselected, effectively providing Text-To-Speech for the entire OnScreen keyboard. Various subsets of the keys may be selected for Text-To-Speech operation as described below.

Speak letters/numbers/punc.

This option offers Text-To-Speech for the single character keys (common keys). For intermediate or advanced users, hearing these keys may not be necessary or desired, so Text-To-Speech for the subset of single character keys may be enabled/disabled with this option.

Speak words

This option offers Text-To-Speech for the keys
that contain words, excluding the
WordComplete words (see below). This option
provides a second subset of the keys, so
Text-To-Speech for the keys that contain words
may be enabled/disabled.

Speak WordComplete words

Select this option to enable Text-To-Speech
processing of the WordComplete completion
candidate words. This option is automatically
enabled when the "Speak key under pointer"
under pointer is selected, but is independent of
that option. Primarily used by individuals who
do not need verbal feedback of the basic
keyboard, but appreciate the feedback from the
WordComplete words. Also designed for use
with CrossScanner to enable automatic scan of
WordComplete words - when this option is
checked On, CrossScanner Auto-Speaks the

words, and enables selection via the current
input option.

Scan WordComplete words

Select this option to enable automatic scan of
WordComplete words - when this option is
checked On, OnScreen will step through
available WordComplete words, and
Auto-Speak them. A mouse left-click will
select the highlighted word. The automatic
scan will begin once the WordComplete
candidates are displayed. Suffixes will also be
scanned when enabled. You may use a
right-click to cancel the scan, or wait until the
scan is complete. Do not use this feature with
CrossScanner - CrossScanner performs a
similar operation automatically when Speak
WordComplete words is checked On.

Delay before speak

The scroll bar can be moved to set the delay

(shorter to the left, longer to the right). This delay affects the following when Text-To-Speech is in use:

- The repeat rate (when enabled)
- The delay between the start of one key and the period when a different key will be spoken
- The time allowed for the key to be spoken
- How long the pointer must be over the key before it is spoken

The delay should be made longer if you experience the following:

- Speech is cut off prior to hearing the entire word
- Keys are spoken too quickly as the pointer is moved across the keys

• The hover time (dwell time) seems too quick

Repeat (while over same key)

Select this option to enable automatic repetition of the key name while the pointer remains over the key. This may be useful for individuals who want the continuous feedback of hearing which key is currently under the mouse pointer.

Speak Word on Click

This option speaks the word when selected from the Word Completion Candidates. This is a good option to use when you have selected Voice key press acknowledgement - this acts as Word Completion key press acknowledgement. Using "Speak Key Text under pointer" and "Speak Word on Click" together can be confusing, and is not recommended.

Once you have made your Sound selection, click on the OK Button.

Press the CANCEL button to Close the Dialog
& cancel the Select Sound operation.

**Advanced Notes on Sound and
Text-To-Speech**

Custom Sounds - Voice and Key-Click

For foreign keyboards and other uses,
OnScreen allows the user to replace the
pre-recorded voice descriptions of the keys.
Note that "Voices" must be selected in
OnScreen Setup, Sounds to enable this feature.
To add your own wave file, simply record the
description required, and then place the wave
file into the installation directory in the Sounds
folder (directory) using the following
conventions:

- Each numbered key description should have
  a wave file associated with the naming
  convention - Key 0, the Escape key, would

be "0.WAV" - Key 1, the F1 key, would be "1.WAV" and so on up to "100.WAV", etc. see Advanced User Notes for the complete list of keys & wave file numbers.

• In other words, if there is a "0.WAV" file in the Sounds folder, and Voices is the selected Sounds option, then the "0.WAV" file will be played whenever the Escape key is pressed on OnScreen.

• Also note the following: If the Sound option is Key-Click and there is a "KEYCLICK.WAV" in the Sounds folder, then this wave will be played whenever a key on OnScreen is pressed.

Text-To-Speech Advanced Notes

The Text-To-Speech requires the appropriate Speech Components installed. The file MSSPEECH.MSI must be installed (it requires the Windows Installer) - review the Release

Notes on the distribution media for more details. Once installed, you can test & setup the appropriate voice in the Text-To-Speech Speak and Setup, available in the program group for OnScreen.

Text-To-Speech Speak and Setup provides 2 important functions:

1. The ability to select the Voice and Rate of speech - select, click on Speak to test, then click on Close to save these settings for the current user (stored in the Registry for the Current User) - these settings will be used by OnScreen for any enabled Text-To-Speech option.

2. The ability to type into the text area, and click on Speak to say the words typed - this can be both fun and also extremely useful for individuals who cannot articulate words well.

You may click on Notes for more details about the options in Text-To-Speech Speak and Setup - you can also open existing text files into the text area, then click on Speak to "read" the file.

Other Text-To-Speech notes:

- When OnScreen starts, and when the Sounds dialog is open in Setup, if Text-To-Speech is installed, you will hear "Text-To-Speech is available" spoken in the current selected voice.

- You may remove the Speech Components by re-running MSSPEECH.MSI and selecting remove, or using Control Panel | Add/Remove Programs

Select Keyboard Layouts

Click on the Keyboards Button.

OnScreen can operate with many different

keyboard layouts. By selecting the same keyboard layout that Windows uses, you can synchronize the display on OnScreen with the characters generated in your application.

The main US keyboard layout is called the 101 United States Standard (sometimes called the QWERTY layout (for the top left row of keys)). To change to a different US Keyboard layout, do the following:

1. On the right-hand side of the dialog, Select a layout by clicking on its name.

2. Press the OK Button. (If you do not want to change the current layout, press the CANCEL button).

Some Special US Layouts

Dvorak Standard

Dvorak Left Handed

Dvorak Right Handed

My-T-Easy - alphabetically ordered (ABC) keyboard layout

> **Note:** The special US layouts will only operate correctly with the US Standard layout selected in Windows.

In order to change the OnScreen keyboard layout to another language, do the following steps:

1. Select a language (layout) by clicking on its name.

2. Press the OK Button. (If you do not want to change the selected language, press the CANCEL button).

Important: This process will only change the OnScreen keyboard layout. If you wish to change your physical keyboard layout, you must change your Windows driver from the Windows Control Panel (available in Keyboard Properties, Layout).

For proper font display & typing, you may need to set Regional Settings (available in Regional Settings).

For additional notes, see Keyboard Layouts & Windows and see Advanced Notes on Keyboard Layouts.

When an International keyboard is selected, OnScreen offers the option to run the Windows Control Panel. On some International layouts, the right [Alt] key becomes a combination [Ctrl][Alt] keystroke, and may be labeled [AltGr].

Important: Many non-US layouts incorporate an additional key not available on the 101 layouts. In almost all cases, the recommended and supported layout is the 104 layout for any non-US selection. In some cases, only the 104 layout has been updated.

Additional Keyboard Notes:

Note: Some layouts date back to Windows 3.1/Windows 95. These layouts are labeled "(old)". For later releases of Windows, these layouts may not match changes to the current keyboard layouts in Windows. Some layouts may only operate correctly under Windows 95/98 - refer to the layouts available in your version of Windows to select which layout to use in OnScreen.

The old layouts are included as a reference & reminder that keyboard layouts are not as consistent as one might believe. Because manufacturers have flexibility in keyboard layouts (e.g. look at different laptop keyboards), constant changes to the underlying operating system, and there are no specific international standards that can be used as a reference, a keyboard layout can only be viewed as snapshot in time. And for all we know, these "old" layouts may one day be useful again. Refer to Developer Kit utilities for further information on Keyboard layouts, and refer to IMG's Build-A-Board for full keyboard layout customization capabilities.

Asian layouts require fonts for the East Asian languages - on some versions of Windows, these are not installed automatically - refer to

Regional and Language options in Control Panel for adding these supplemental files. Note that the Asian languages may not be supported at all in certain versions of Windows!

Some layouts are designed for operation in the localized versions of Windows. Arabic, Greek, Hebrew, Russian, & Central / Eastern European layouts may not correctly display all characters if a different ANSI code page is in use.

Typical users operate with only 1 keyboard layout, but it is possible to switch between active layouts for various applications in Windows. To automatically have OnScreen synchronize with changes to the active layout in Windows, refer to the KeyboardSync utility in the Developer's Kit.

Select Custom Build-A-Board Layouts
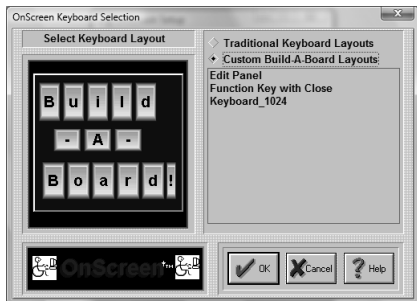
There are a few sample, custom Build-A-Board
Layouts available. Additional Build-A-Board
layouts can be created, and when placed in the
Installation Folder will be added to this list.
When selected, the KEYBOARD.KBF in the
users configuration folder is replaced with the
selected layout. When OnScreen is run, the
layout is recognized, and the Build-A-Board
compatible run-time (MYTSOFT2.EXE) is
used to operate with the version 2.x keyboard
layouts.

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Using Build-A-Board Layouts: Custom Build-A-Board layouts are displayed by MYTSOFT2.EXE (which is a completely different executable program), and as such, the configuration options documented for OnScreen are not referenced or used by the Build-A-Board based executable. All configuration options available for Build-A-Board layouts are controlled via Build-A-Board, and contained within the 2.x version layout file (KeyBoard File (KBF File)). The support for Build-A-Board custom layouts is available as part of the license to OnScreen to add even more flexibility and utility to the OnScreen product. However, a separate license for Build-A-Board is required to obtain all the capabilities of Build-A-Board. For continuity and name recognition, the trademarked name My-T-Soft is used for both the newer Build-A-Board layouts (2.xx version) and original software (1.xx version), along with

the fully encompassing My-T-Soft Family.

Keyboard Layouts & Windows

Windows has various Regional & Keyboard Layout settings, and these are best managed within the Windows Control panel. Changing the Keyboard in OnScreen only affects OnScreen. Proper operation of the selected layout may depend on the version of Windows, your current Keyboard Layout, and Regional (International) settings.

If you wish to change the physical keyboard layout used by Windows, you must change your Windows driver from the Windows Control Panel (available in Keyboard Properties, Layout). You may be required to

have your Windows CD (or original installation media) when loading a previously unused keyboard layout.

For proper font display & typing, you may need to set Regional Settings (available in Regional Settings).

NOTES:

When an International keyboard is selected, OnScreen offers the option to run the Windows Control Panel.

On some International layouts, the right [Alt] key becomes a combination [Ctrl][Alt] keystroke, and may be labeled [AltGr].

OnScreen keyboard layouts include the characters displayed on OnScreen and the low-level keyboard scancodes (scancodes are the hardware level information about which key was pressed). Most keyboard layouts are similar, but if you experience improper display

or incorrectly typed characters, you must verify the OnScreen layout, Windows Keyboard Properties, and Windows Regional Settings.

Font character set, AltGr handling, and the Lowercase display setting are automatically updated when required for keyboard layouts selected through OnScreen Setup. Refer to Advanced Notes on Keyboard Layouts for additional documentation.

Font & Character set issues can be referenced in Fonts.

Advanced Notes on Keyboard Layouts

Keyboard Layouts & Specific Notes

Notes:

The keyboard language/layout must be
changed for the keyboard to type correctly
based on the Windows Keyboard Layout,
Windows Regional settings, and the displayed
Layout.

Most users operate on one version of Windows,
and are used to one keyboard layout. After
selecting the layout when they first configure
OnScreen, they may never return to the
Keyboard Layout selection again. This is what
the objective was for the design & approach to
handling keyboard layouts in OnScreen.
Changing the keyboard layout in OnScreen
only affect OnScreen's display & operation. To
synchronize the display and operation with
Windows, both OnScreen and Windows must
be set to the same layout.

During the various updates in Windows
versions, keyboard layouts have changed. Keys
have been moved/added, internal scan codes

changed, etc. It is important to note there is no standards body that determines what a particular keyboard layout should be. Technically, it is left up to the manufacturer to determine the physical keyboard layout (e.g. look at different keyboard layouts on laptops/notebooks/desktops). Microsoft must support these different hardware implementations, and also is involved in layout modifications (e.g. adding keys, such as the Windows Key). The end result is that the keyboard layout files must be viewed as dynamic and may be different between one version of Windows and the next. If you experience a problem with a layout, please contact technical support, or refer to our Developer's Corner (http://www.imgpresents.com/imgdev.htm) for options available.

Regional Settings (Refer to notes below)

Optional = the Regional Settings doesn't have to change for showing the correct labels.

Suggested = the Regional Settings has to change for showing the correct labels

Char Set numbers has to be changed in OnScreen to matching keyboard language/layout.

There are several settings that take affect when the keyboard is selected through OnScreen Setup. The appropriate character set is automatically selected, the status of whether or not the software should handle the AltGr keystroke is set, and the setting for whether or not the Lowercase display is allowed on the keyboard panel is set for some layouts. Because of display issues, these settings have been pre-set for various layouts. Refer to Advanced User notes and the setting for KeyboardUpdate (in initialization file description), and see manual setting below for

additional details on the actual implementation.

In some cases, the logic behind the upper/lowercase display causes minor display issues with certain layouts - these issues are documented under the layout.

Arabic

Char Set = 178

Belarusian

Regional Settings = Belarusian (Suggested)

Keyboard Language/Layout = Belarusian/Belarusian

Char Set = 204

Bulgarian

Regional Settings = Bulgarian (Suggested)

Keyboard Language/Layout = Bulgarian/Bulgarian

Char Set = 204

Bulgarian (Latin)

Regional Settings = Bulgarian (Suggested)

Keyboard Language/Layout =
Bulgarian/Bulgarian (Latin)

Char Set = 204

Croatian

Regional Settings = Croatian (Suggested)

Keyboard Language/Layout =
Croatian/Croatian

Char Set = 238

Czech (Qwerty)

Regional Settings = Czech (Suggested)

Keyboard Language/Layout = Czech/Czech
(Qwerty)

Char Set = 238

Czech

Regional Settings = Czech (Suggested)

Keyboard Language/Layout = Czech/Czech

Char Set = 238

Estonian (Code Page might not be fully supported by some version of Windows)

Regional Settings = Estonian (Optional)

Keyboard Language/Layout = Estonian/Estonian

Char Set = 186

Suggested Font: MS Sans Serif

Greek

Regional Settings = Greek (Suggested)

Keyboard Language/Layout = Greek/Greek

Char Set = 161

Hebrew

Char Set = 177

Hungarian

Regional Settings = Hungarian (Optional)

Keyboard Language/Layout = Hungarian/Hungarian

Char Set = 238

Irish

Regional Settings = English (Ireland) (Optional)

Keyboard Language/Layout = English (Ireland)/Irish

Char Set = 0

Korean

Regional Settings = Korean

Keyboard Language/Layout = Korean (IME)

Char Set = 129

On the 104 layout, the key above the enter and next to the right-shift appear the same. The correct letter is displayed in Windows Vista/7, but not in Windows XP. The 2 keys generate different virtual keys (220 & 226), but both generate the same character.

Latvian (Latin) (Code Page might not be fully supported by some version of Windows)

Regional Settings = Latvian (Optional)

Keyboard Language/Layout = Latvian/Latvian (Latin)

Char Set = 186

Latvian (Code Page might not be fully supported by some version of Windows)

Regional Settings = Latvian (Optional)

Keyboard Language/Layout = Latvian/Latvian

Char Set = 186

Polish

Regional Settings = Polish (Optional)

Keyboard Language/Layout = Polish/Polish

Char Set = 238

Polish Programmer

Regional Settings = Polish (Optional)

Keyboard Language/Layout = Polish/Polish

Char Set = 238

Romanian

Regional Settings = Romanian (Suggested)

Keyboard Language/Layout = Romanian/Romanian

Char Set = 238

Russian

Regional Settings = Russian (Suggested)

Keyboard Language/Layout = Russian/Russian

Char Set = 204

Slovak

Regional Settings = Slovak (Suggested)

Keyboard Language/Layout = Slovak/Slovak

Char Set = 238

Slovak (Qwerty)

Regional Settings = Slovak (Suggested)

Keyboard Language/Layout = Slovak/Slovak (Qwerty)

Char Set = 238

Turkish (F Type)

Regional Settings = Turkish (Optional)

Keyboard Language/Layout = Turkish/Turkish (F type)

Char Set = 162

Turkish (Q Type)

Regional Settings = Turkish (Optional)

Keyboard Language/Layout = Turkish/Turkish (Q type)

Char Set = 162

HOW TO SETUP ADDITIONAL KEYBOARD LAYOUTS MANUALLY

Make sure the OnScreen keyboard is closed during these steps!

Step 1) Copy All (or the appropriate) KYBD????.KMF file to the OnScreen Installation folder

\Program Files\ONSCREEN

Step 2) Modify the ONSCREEN.INI file

> **Important:** Refer to the ConfigPath entry in the Initialization file to determine which

ONSCREEN.INI file is the correct file to modify!

- OnScreen Setup | Configuration | Special Options | Edit Initialization File

- Find the Keyboard=? setting in the [Configuration] section (top of file)

- Change to the appropriate numbered keyboard layout

Layout Numbers

The values 1-96, and 101-196, and any 200+ entries listed are valid, and are related as follows:

01 = U.S. Standard, 02 = U.S. Dvorak Standard, 03 = U.S. Dvorak Left-Handed, 04 = U.S. Dvorak Right-Handed, 05 = U.S. My-T-Easy (ABC) Alphabetic Keyboard, 06 = Belgian (comma), 07 = British, 08 = Canadian

Multi-lingual, 09 = Danish, 10 = Dutch, 11 =
Finnish, 12 = French, 13 = French Canadian,
14 = German, 15 = Icelandic, 16 = Italian, 17 =
Latin American, 18 = Norwegian, 19 =
Portuguese, 20 = Spanish, 21 = Swedish, 22 =
Swiss French, 23 = Swiss German, 24 = U.S.
International, 25 = Hungarian (Old), 26 =
Belgian (period), 27 = Arabic, 28 = Belarusian,
29 = Bulgarian, 30 = Bulgarian (Latin), 31 =
Croatian, 32 = Czech (Old), 33 = Czech
(Qwerty), 34 = Estonian, 35 = Greek, 36 =
Hebrew, 37 = Hungarian, 38 = Irish, 39 =
Latvian, 40 = Latvian (Latin), 41 = Polish
(Old), 42 = Romanian, 43 = Russian (old), 44
= Slovak, 45 = Slovak (Qwerty), 46 = Turkish
(F type), 47 = Turkish (Q type), 48 = Spanish
(Mexico), 49 = U.S. Fazekas, 50 = U.S.
Chubon, 51 = Slovenian, 52=Japanese, 53 =
Chinese, 54 = Korean, 55 = French (Belgian),
56 = French (Luxembourg), 57 = German
(Austrian), 58 = German (Leichtenstein), 59 =

German (Luxembourg), 60 = Spanish (Argentina), 61 = Spanish (Bolivia), 62 = Spanish (Chile), 63 = Spanish (Columbia), 64 = Spanish (Costa Rica), 65 = Spanish (Dominican Republic), 66 = Spanish (Ecuador), 67 = Dutch (Belgian), 68 = Dutch (Netherlands), 69 = Italian (Switzerland), 70 = Norwegian (Bokmal), 71 = Portuguese (Brazilian), 72 = Spanish (Guatemala), 73 = Spanish (El Salvador), 74 = Spanish (Honduras), 75 = Spanish (Modern Sort), 76 = Spanish (Nicaragua), 77 = Spanish (Panama), 78 = Spanish (Paraguay), 79 = Spanish (Peru), 80 = Spanish (Puerto Rico), 81 = Spanish (Uruguay), 82 = Spanish (Venezuela), 83 = English (Australian), 84 = English (New Zealand), 85 = English (Jamaica), 86 = English (United Kingdom), 87 = Chinese (Cangjie), 88 = Canadian Multilingual, 89 = Polish, 90 = Polish Programmer, 91 = Thai, 92 = U.S. Plum, 93 = Russian (Cyrillic), 94 = Danish

(ABC), 95 = U.S. (Numpad Enter), 96 = Czech, 97 = Belgian (period), 101-197 are the 104 key layouts matching the above, 200 = 104 British (1st alternate), 201 = 104 British (2nd alternate), 202 = 104 Hebrew (Alt.), 203 = 104 Chinese (Zhuyin) (Alt.), 204 = 104 Arabic (Alt.)

- Save the file

Step 3) Change the Font / Character Set

- OnScreen Setup | Configuration | Fonts

- See above for character set numbers

Step 4) Verify Windows Keyboard Layout & Regional Settings

Step 5) Close OnScreen Setup, run OnScreen

Build-A-Macro

Click on the Build-A-Macro Button.
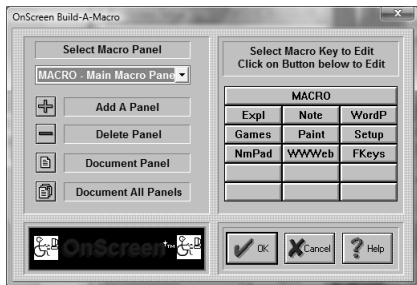
OnScreen lets you create your own Macros to work within Windows and DOS in a Window.

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In OnScreen, a Macro is a sequence of keystrokes or actions tied to a button. The Macro is initiated by selecting the button.

A virtually unlimited number of user-defined panels can be created. Each panel can group keys that support actions such as: Application macros, Commands, Keystroke sequences, names, addresses, pre-defined paragraphs, letters, and even launch Programs.

Click on the Select Macro Panel Pull-down box to choose an existing panel.

Click on Add A Panel to add a new panel.

Click on Delete Panel to delete the current panel.

Click on Document Panel to create documentation for the selected panel.

Click on Document All Panels to create documentation for all Macro Panels.

The selected Macro Panel is displayed on the right. Click on the top button to modify features & properties of the Macro Panel, and click on any button to create / edit the Macro triggered by that button. The Main Macro Panel cannot be deleted, however all of its keys may be changed (except the panel (top) key).

> **Advanced Notes:** The panels included have been setup with various options to help illustrate the functions available. They may be changed or deleted as you desire. When running OnScreen, clicking the top panel of the Main Macro panel will open OnScreen Setup and go directly to Build-A-Macro. This is useful for fast macro panel / button changes. Macro Panels may be nested up to ten levels. Clicking on the top button of a nested panel will return to the previous panel, which is a shortcut for advanced users. In general, it is better to use a button to

indicate the panel to open.

Limitations

There is an upper limit of 2000 characters maintained by the Build-A-Macro section of OnScreen. This amount was arbitrarily selected as enough keystrokes to do just about any kind of task. Note that one character can result in as many as 10 keystrokes being required to generate the character via the selected active keyboard layout in Windows. Therefore it is possible that a large amount of text may overflow the 32000 bytes reserved for these macros (i.e. 3 bytes per keystroke x 10 keystrokes x 1000 characters). If these limits are reached during macro operation, the following issues may be relevant:

- Not all characters may be generated from the saved Macro

- The Shift, Alt, and Ctrl keys may be in an undefined state.

- Any additional keystrokes or macros may not operate properly until the Shift, Alt & Ctrl keys are synchronized to the system.

- Only characters not represented by the active keyboard layout require may push these limits - either limit the macro character size to under 500 characters, or select a more appropriate keyboard layout for the characters required.

Steps to create a new Macro panel and insert a new Macro.

Click on Add a Panel.

In the new dialog box, add a 5 character identifier, for example Word.

In the Macro Panel Description, enter some information for your own use, for example Word for Windows.

Press the OK Button.

On the right side of the dialog box, a blank Macro panel will appear.

Click on the first button (top left corner).

A new dialog box opens. Here you define your Macro Button.

First, enter a key label, for example Open.

Under Key Description [Quick Help], enter what you would like to appear in the quick help bar on top of OnScreen.

Under This Key will... select which option you would like the button to perform.

In this case, you want to launch an application.

Click on Launch an Application.

If you do not know the correct path for your application, find the applications executable file by using the browse button.

Click on the OK Button.

Verify your action.

Steps to create a keystroke Macro.

- Press on the next empty button.
- Under key label, enter "PreVu".
- Under description, enter "Shows a Print Preview".
- Click on Activate Keystroke Macro.
- Click on Zoom.

Here you will create your keystroke Macro.

- Use the up-and-down arrows to select the appropriate keystrokes.

- In this case, double-click on Alt-Down to insert the keystroke (i.e. pressing the Alt button down).

- Now, double-click on the letter F.

- Now, release the Alt button by double-clicking on Alt-Up.

- Finally, double-click on the letter v.

- This Macro will bring up the Print Preview while running MS Word!

- Click on the OK Button.

- Verify your action.

Information on Advanced Macro Editing

When working with Macro Panels, there are

various advanced options available to manage the panels, including documenting every detail of the panel (or panels) as a text file.

Add-A-Macro Dialog Box
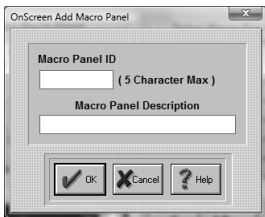
Macro Panel ID

Enter a five letter identifier for your new Macro Panel.

This identifier will appear on the top button or your new Macro Panel.

Macro Panel Description

Enter a description for your new panel. This description will appear in the Quick Help bar when activated.

Click on the OK Button to save the current options.

Click on the CANCEL button to Close the & cancel the Add operation.

Once you have added a panel, it will be automatically selected for editing.

Delete-A-Macro Dialog Box
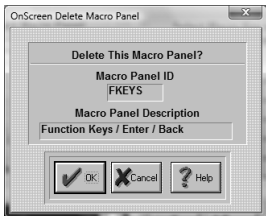
Delete this Macro Panel?

The Macro panel named in the box below
Macro Panel ID will be deleted.

Warning

Use with extreme caution. Once the panel is deleted, it cannot be recovered! Press the OK Button to Delete the Selected Macro Panel. If you do not want to delete your panel, press the CANCEL button.

Note: You cannot delete the Main Macro Panel.

Document Macro Dialog

Box

The documentation will correspond to the selected Macro Panel.

Post to Clipboard

Click on this button to Post the Panel Documentation onto the Windows Clipboard. You may then paste the textual information into any word processor, or other application that uses text.

Save to File

This will open the File Save Dialog which will allow you to save the textual Panel Documentation to a file & save the information

to disk.

Press the CANCEL button to Close the Dialog
& cancel the documentation operation.

Document All Macros Dialog Box

The documentation contains All Panel
documentation for All Macro Panels.

Post to Clipboard

Click on this button to Post the All Panel
Documentation onto the Windows Clipboard.
You may then paste the textual information

into any word processor, or other application that uses text.

Save to File

This will open the File Save Dialog which will allow you to save All the textual Panel Documentation to a file & save the information to disk.

Press the CANCEL button to Close the Dialog & cancel the documentation operation.

Documentation File Save Dialog Box

You may simply enter the name of the file name you wish to save in the File Name box on the left, or select the file name from an existing file in your system. Once you have entered or selected the name, click on the OK Button to

save the file. Press the CANCEL button to
Close the Dialog & cancel the File Save
operation.

Macro Key Dialog Box
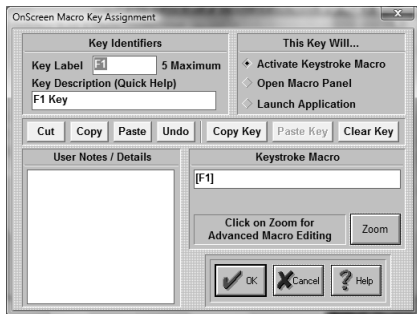
Key Identifiers

Enter a key label. This label will appear on the
key in the Macro Panel. Enter a key

description. The key description will appear in the Quick Help bar.

This key will...

Activate Keystroke Macro

Click on this Radio-Button if you want to create a Macro consisting of keystrokes. Use the edit box below (Keystroke Macro) to enter your Macro, or press Zoom to use the Macro Editor. You may use any Windows supported ANSI characters.

> **Note:** As keys are entered, characters are treated as both the press and release events. Case is preserved, and Caps Lock is assumed OFF when playing back the macro. Therefore, using lowercase characters is preferred. If a Keystroke macro is initiated with the Caps Lock on, then the Macro WILL be affected and the end-result may not be as originally

intended!

Open Macro Panel

Click on this Radio-Button if you want to open another panel. Enter the Macro name in the edit box below (Macro Panel), or press Select to select an existing Macro Panel.

Launch Application

Click on this Radio-Button if you want to assign an application to your Macro button. Enter the application name and path in the edit box below (Application), or press Browse to select an application. You may also enter a Working Directory, which will be the current directory used by the Application once it is launched. Short file names are used for maximum compatibility.

User Notes / Details

You may enter helpful information, notes, or details regarding the settings for this key. This is used only for reference and will appear on the Panel Documentation.

Cut, Copy, Paste, Undo

These shortcut keys may be used to manipulate the text. This may help you enter information & interact with other Windows applications.

Copy Key, Paste Key, Clear Key

These shortcut keys may be used to manipulate & operate within OnScreen Setup / Macro Key Editing. For example, you could Copy Key information from an existing panel to be pasted into another Macro Panel.

Click on the OK Button to save the current options.

Click on the CANCEL button to Close the Dialog & cancel any changes.

Macro Panel Dialog Box
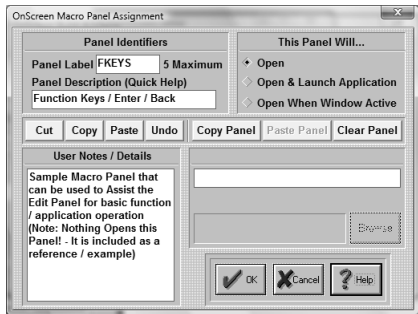
When you click on the top button of a Macro Panel in OnScreen Setup, you may edit the Panel settings for the current Macro Panel.

Panel Label

Enter a panel label. This label will appear on the top key in the Macro Panel.

Enter a panel description. The panel

description will appear in the Quick Help bar, if it is open.

This panel will...

Open

Click on this Radio-Button if you want to open this Macro Panel. This means no additional action will occur when the panel is opened.

Open and launch Application

Click on this Radio-Button if you want to assign an application to this Macro Panel. Enter the application name and path in the edit box below (Application), or press Browse to select an application. You may also enter a Working Directory that will become the current directory when the Application is launched. When accessed, the panel will open & then automatically launch the application.

Open When Window Active

Click on this Radio-Button if you want your Macro Panel to be open as soon as the application is opened. Enter the application name in the edit box below Window Name, or press Select to choose from currently active windows. You MUST take the Window name from the caption bar of your application. It MUST appear exactly as on the caption bar. For example, the caption bar title for this help file is "Macro Panel Dialog Box". The name entered should not have information including a current file name, or open document. You may also shorten the name to provide additional functionality. For example, if you enter the name as "Word", the Macro Panel will automatically enter when the Microsoft Word, WordPad, or WordPerfect is active.

> **Note:** Because of the system memory required for this operation and constant monitoring, it will affect the system speed!

User Notes / Details

You may enter helpful information, notes, or
details regarding the settings for this panel.
This is only used for reference and to appear
on the Panel Documentation.

Cut, Copy, Paste, Undo

These shortcut keys may be used to manipulate
the text. This may help you enter information
& interact with other Windows applications.

Copy Panel, Paste Panel, Clear Panel

These shortcut keys may be used to manipulate
& operate within OnScreen Setup / Panel
Editing. For example, you could Copy Panel
information from an existing panel to be pasted
into a newly created panel.

Click on the OK Button to save the current
options.

Click on the CANCEL button to Close the Dialog & cancel any changes.

Macro Zoom Dialog Box
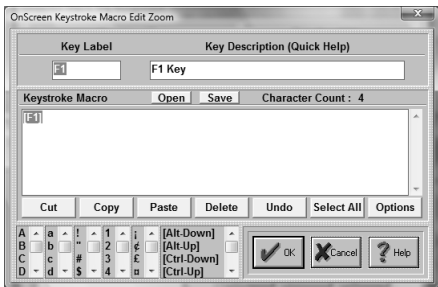
Key Label

Key label will show which button is currently edited.

Key Description

Enter a detailed description (will appear on Quick Help).

In order to create a keystroke Macro follow these steps:

There are six vertical selection lists in the bottom left corner of the dialog box. Select & double-click to add to the Keystroke Macro.

- Use the up-and-down arrows to select the appropriate keystrokes, then double-click to enter into the Keystroke Macro.
- For example, double-click on Alt-Down to simulate pressing the Alt button down.
- Now, double-click on the letter F.
- Now, release the Alt button by double-clicking on Alt-Up.
- Finally, double-click on the letter v.

- This Macro [Alt-Down]f[Alt-Up]v will bring up the Print Preview while running MS Word!

You may edit the Keystroke Macro directly in the Edit window. You may wish to refer to the Advanced User Notes for options & details regarding the keystroke macros.

Reserved words in brackets [ ] will only function properly when typed exactly! They may be used to indicate combination keystrokes. For example, to execute Ctrl-S it must appear as [Ctrl-Down]s[Ctrl-Up]. This allows you to execute more than one character with the combination key depressed.

NOTE: For proper operation, you must have EVERY keystroke required! (Don't forget [Enter]) If the macro does not operate as desired, review & verify that each keystroke and the sequence of keystrokes is accurate. Also make sure that the correct Application is

Active when the Macro is initiated.

There are seven buttons with standard editing options:

CUT - Cuts the highlighted portion of a Macro.

COPY - Copies the highlighted portion of a Macro.

PASTE - Pastes the highlighted portion of a Macro (must be preceded by a CUT or COPY).

DELETE - Deletes the highlighted portion of a Macro. (UNDO will not recover!)

UNDO - Undoes the previous operation (like a CUT OR DELETE).

SELECT ALL - Selects the whole Macro.

OPTIONS - Changes to a different set of seven editing buttons.

There are seven buttons with advanced editing options (Useful if you are pasting in text from

other applications):

CLEAR ALL - Clears the editing Window, even if nothing is highlighted. (Erases the entire macro).

CR - Changes carriage returns to [Enter]. (ANSI character 13)

CRLF - Changes carriage return-line feed to [Enter}. (ANSI characters 13 10)

TAB - Changes tab to [Tab]. (ANSI character 9)

STRIP - Strips all ANSI characters. (Removes all non-ANSI characters from text)

ALL - Does all of the above (CRLF, TAB, STRIP)

EDITING - Returns to the previous seven buttons.

The Open and Save buttons are available as conveniences for developers using the

MACROBAT and other IMG utilities. These will use the Zoom Edit screen as an the Editing area - Open will open, read, and place the contents of a previously Saved Macro into the Zoom Edit area. The KMF (Keyboard Macro File) format is used.

The special selections [Time], [Date], and [Pause] can be used as follows: [Time] and [Date] insert the current system time as formatted via the System Information panel (formatted as set in the Windows Regional Settings).

[Pause] inserts an "empty" keystroke in the sequence of keystrokes. This is a special option along with other specialty macros otherwise undocumented.

Click on the OK Button to save the current options.

Click on the CANCEL button to Close the

Dialog & cancel any changes.

Macro Select Dialog Box
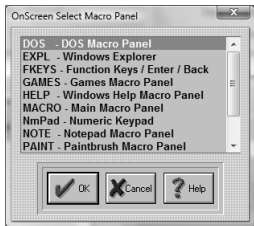
Use the up-and-down arrows or your Mouse to select one of the existing Macro panels.

Press Enter, or click on OK Button.

Click on the CANCEL button to Close the Dialog & cancel any selection.

Active Window Dialog Box

This list shows all of the current active
windows running on your system. You may
select the Window Name from the list. You
may wish to modify the name to remove any
open documents, or other information that may
change. OnScreen must have an exact match to
recognize the need to automatically open the
Macro Panel.

Once you have found the name double click on
it or highlight your selection & click on the OK
Button. Press the CANCEL button to Close the

Dialog & cancel the Select operation.

Browse Programs Dialog Box

This opens the OnScreen Browse that allows you to select from available programs on your system. Short file names are used for maximum compatibility. Once you have found the name of the program to run double click on it or highlight your selection & click on the Open Button Press the Cancel button to Close the Dialog & cancel the Browse operation.

Basic Mouse Buttons

Click on the Mouse Buttons Button
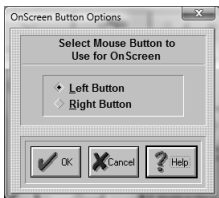
Important: The term Mouse is used generically for any pointing device that moves the cursor (mouse pointer) within Windows. For Pen and Touchscreen

drivers, often only 1 button is available (Left Button): In all cases, the Left Button should be selected as the Action button.

Select Mouse Button to use on OnScreen

OnScreen lets you define which button on your Mouse (or other pointing device) is going to be used as a point-and-click button. This button will be the execution button that presses on a OnScreen button. Select Left Mouse Button for standard operation, or Select Right Mouse Button.

> **Important Note:** You may also use the Swap Mouse Buttons option available in the Windows Control Panel, but this will affect the operation throughout Windows. This OnScreen setting only affects OnScreen operation.

Note: In the Advanced Mode, OnScreen lets you define functions for all your Mouse buttons (2 or 3 button Mice). This can make you work more efficiently by eliminating frequently used tasks and key combinations.

Configure your Mouse Buttons

Click on the Mouse Buttons Button
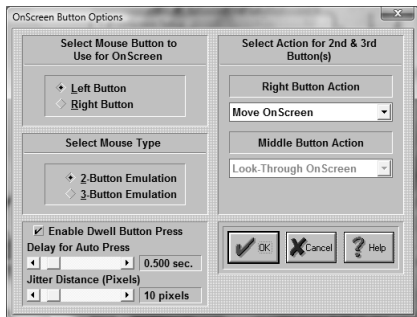
Important: The term Mouse is used
generically for any pointing device that
moves the cursor (mouse pointer) within
Windows. For Pen and Touchscreen
drivers, often only 1 button is available
(Left Button): In all cases, the Left Button
should be selected as the Action button.

OnScreen lets you define functions for all your
Mouse buttons (2 or 3 button Mice). This can

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make you work more efficiently by eliminating frequently used tasks and key combinations.

Select Mouse Button to use on OnScreen

Here you define which button on your Mouse is going to be used as a point-and-click button. This button will be the execution button.

Select Type of Mouse

If you have a two-button Mouse, click on 2-Button Mouse. If you have a three-button Mouse, click on 3-Button Mouse.

> **Note:** If you have a three button Mouse, be sure that you are loading the correct driver. If you are loading a two-button Mouse driver with a three-button Mouse, you will not be able to use the middle button. Go to Windows Control Panel | Mouse to install a different Mouse driver.

Mouse Button Action Pull-down Boxes In order to assign a different function to the OnScreen Mouse buttons, do the following steps:

1. Click on the down-arrow of the 1st Pull-down box.

2. Use the scroll-bar to scroll up and down within the Pull-down box.

3. Select a function by clicking on its name.

4. Press the OK Button.

5. Repeat the steps 1-4 on the 2nd Pull-down box.

6. Press the OK Button.

7. If you do not want to change the current Mouse buttons setup, press the CANCEL button.

This functionality is only available while your Mouse pointer is over OnScreen.

Some of these actions are:

1. Ignore the button press (no reaction at all)

2. Move OnScreen around the screen (click and drag)

3. Look Thru OnScreen (while holding the button down you will be able to see the screen behind OnScreen)

4. Open the OnScreen Menu

5. Minimize OnScreen

6. Choose from a list of single or combination keystrokes, such as [Enter], [F1], [Alt-F4], etc.

Enable Dwell Button Press - When enabled, and the mouse cursor (pointer) hovers (dwells) over OnScreen, a timer based on the "Delay for

Auto Press" will begin and continue to count down as long as the pointer itself stays within the "Jitter Distance (Pixels)" from the starting point. Once the delay expires, and automatic Action button press will occur (i.e. Left Button press) at the starting point. This allows a user to operate OnScreen simply by hovering over select keys or buttons for the delay period.

> **Note:** The actual button press occurs at the original point tracked when the delay timer begins, not the position of the mouse cursor at the end of the delay timer

> **Jitter Distance:** Care should be taken to make sure this value is as small as possible that allows the user to be effective. As the setting gets larger, it is possible to visually be over a different key when the mouse button occurs on the

original key when the delay timer started. In order to assist users with mouse control difficulties, this aspect may affect users who have good mouse control. Therefore, it is important to take the time to set the correct Dwell timing and Jitter distance for a particular user.

Note: If the mouse cursor moves off of OnScreen, the dwell timer stops.

OnScreen uses a visual display highlight to indicate the key that is currently selected by the dwell timer, and uses a diminishing rectangle. When the rectangle diminishes to nothing, the button press will occur. The visual result will be slightly different if Key Highlighting is enabled. The display itself is a percentage based on the dwell timer, so a longer timer

period will cause the rectangle to diminish slower.

Select the Cursor and Icon
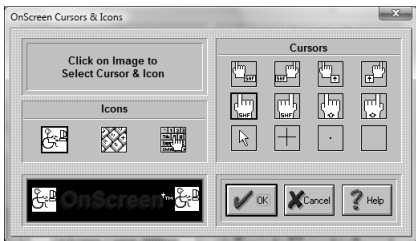
OnScreen enables you to select different Cursors and different Icons for use with OnScreen.

Cursors

There are 12 Cursors available; 4 right-handed,

4 left handed Cursors, and 4 specialty Cursors. They are on the right side, titled "Cursors". In order to select a Cursor, do the following steps:

1. Click on one of the 12 cursor pictures; it will be framed by a black rectangle.

2. Press the OK Button.

3. If you do not want to change the current layout, press the CANCEL button.

   Note: For Touchscreen & Pen based systems, the "Blank" or "Invisible" cursor should be used if other applications do not show a cursor when in use. Otherwise, select the most appropriate cursor from those available.

Icons

There are 3 Icons available. They are on the left side titled "Icons". In order to select an Icon, do the following steps:

1. Click on one of the 3 Icon pictures; it will be framed by a black rectangle.

2. Press the OK.Button.

3. If you do not want to change the current layout, press the CANCEL button.

   Note: The Icon is only used for the Minimize to Icon option in Configuration.

Exit OnScreen

Click on the Exit Button

This will exit OnScreen Setup and Close the OnScreen Setup Window.

Chapter 6. OnScreen Logon Utilities

OnScreen Logon Utilities Overview

The OnScreen Logon Utilities enable complete operation from a pointing device, allowing secure logons to network & workstations via the on-screen keyboard interface. Because of fundamental differences in operation and security between the Windows 2000 / XP and Windows Vista / 7 / 8 platforms, please refer to the appropriate version and help sections when referencing the Logon Utilities. For support of Windows Vista / 7, please refer to version 1.79 or 1.78. For support on Windows 95/98/Me &

Windows NT, please refer to version 1.77 or earlier.

Important Notes

- The proper configuration and implementation of this utility requires a user with Administrator rights

- Proper licensing is required or the Logon module will revert to a demonstration and eventually disable itself

- All configuration should be done via the OnScreen Logon Utilities program accessible from the Program Menu for OnScreen

- In Windows Vista, Microsoft completely changed the approach used for Logon, and no longer supports the GINA interface used for 2000 / XP. Refer to the OnScreen Logon Utilities for Windows 8 below.

OnScreen Logon Utilities for Windows 8

The OnScreen Logon Utilities for Windows 8 have been provided to bring flexibility to the implementation of Pen and Touchscreen systems without requiring a physical keyboard. By using the OnScreen Logon Utilities, the following benefits can be realized:

- Consistency in the user interface
- Flexibility for different screen resolutions and user interfaces
- Secure Logon operation without the need for a physical keyboard
- Control of user input options may provide additional security (e.g. limiting keyboard layout in conjunction with other logon authentication tools)

OnScreen can also interact with the new Start Screen and provide several options to customize the logon/startup sequence.

In addition, the Automatic Logon option has also been incorporated as a convenience within this utility, allowing a fixed user/password combination to start up Windows 8 without any user interaction required.

Important Notes

- The proper configuration and implementation of this utility requires a user with Administrator rights

- Proper licensing is required or the Logon module will revert to a demonstration and eventually disable itself

- All configuration should be done via the OnScreen Logon Utilities program accessible from the Program Menu for

OnScreen

Windows Logon Setup Options

When configuring the OnScreen Logon Utilities, there are 3 options available (listed based on common usage):

1. Setup Start Screen Options

2. Setup / Configure Logon Utility

3. Setup Automatic Logon

Setup Start Screen Options provides ways to start OnScreen in conjunction with the Windows Start Screen (Windows 8 Start Menu) - options available include the capability of bypassing the Start Screen and going direct to the Desktop, starting minimized, and opening without the normal splash screen.

Setup / Configure Logon Utility enables options prior to running OnScreen after the user has logged onto the system. There are various security options that can affect the way the system is used, and this allows the keyboard to be available at secured screens, along with a way to generate a Ctrl-Alt-Delete option when a system is secured with this requirement.

Setup Automatic Logon is an option to allow

modification to the built-in Windows option that allows Automatic logon - this is a convenience tool for System Administrators.

Configure Start Screen Options

- Open OnScreen Logon Utilities from Start Menu | (All) Programs | OnScreen

- Select Setup Start Screen Options
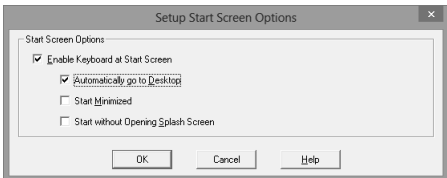
When running the Keyboard at the Start Screen

is enabled, there are 3 options available

1. Automatically go to Desktop

2. Start Minimized

3. Start without Opening Splash Screen

The additional actions/options are disabled unless the Enable Keyboard at Start Screen is checked On.

Check Enable Keyboard at Start Screen On to enable the automatic startup of OnScreen after the user logon and during the display of the Start Screen. With no other options selected, OnScreen will appear as it is currently configured.

Each option is independently selectable and can be selected in any combination.

Automatically go to Desktop inserts a Win-D keystroke combination into the system, and

will take the logged on user directly to the Windows Desktop screen.

Start Minimized - when selected, this will start OnScreen and then display in the currently configured minimized state. Note some minimize options may not be available / visible at the Start Screen (e.g. if you do not select Automatically go to Desktop). It is recommended that the Button or Window option be used if this option is selected.

Start without Opening Splash Screen bypasses the splash screen opening when being launched via this feature.

> **Technical Notes:** The older Windows StartUp Group option will not launch an application until the user goes to the Desktop. These Start Screen options provide additional features and capabilities by integrating with newer Windows capabilities via the Ease of Access tools.

The actual file ONSCREEN_RUN.EXE is used to launch OnScreen in different ways based on options set via the OnScreen Logon Utilities | Setup Start Screen options. The program uses mutexes and command line options to launch OnScreen. This is configured at HKEY_LOCAL_MACHINE\SOFTWARE\Micro NT\CurrentVersion\Accessibility\ATs\img_my t-soft_v180 and configured to run in the HKEY_CURRENT_USER\SOFTWARE\Micro NT\CurrentVersion\Accessibility via the Configuration Key. If used, this should be disabled prior to un-installing the software - no accommodation to remove this registry entry is performed, so if this option is in use and the software is uninstalled, this entry will remain. However, with the software removed, its existence will have no affect on the system, although it will appear in Ease of Access under keyboard options.

Setup / Configure Logon Utility

There is 1 option available - Setup / Configure Logon Utility (My-T-Soft 2 Keyboard Logon)

The My-T-Soft 2 software used which allows customized layouts of the logon keyboard, an the My-T-Soft 2 approach enables the use of a My-T-Soft 2 keyboard during the secure logon sequence. The keyboard can be modified with IMG's "Build-A-Board" (ANSI 2.10 version).
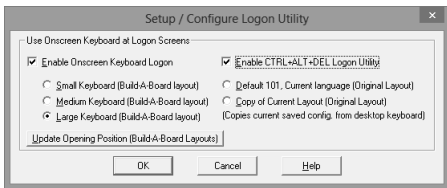
There is 1 section available with 2 options

• Use Onscreen Keyboard at Logon Screens

Use Onscreen Keyboard for data entry

When **Enable Onscreen Keyboard Logon** is checked "On", the default logon options are used, but the My-T-Soft (version 2) keyboard is displayed within the secure logon screens. The keyboard layout may be modified with IMG's "Build-A-Board." See below for options specific to the My-T-Soft 2 Keyboard.

Use Onscreen Keyboard for data entry

My-T-Soft 2 Keyboard options

There are 2 approaches available when My-T-Soft 2 is selected for displaying the keyboard layout (i.e. what the user sees). My-T-Soft 2 is the next generation of the popular OnScreen keyboards, and has a more flexible approach to designing and operating keyboard layouts. To address customers who want customized and specialized layouts, My-T-Soft 2 can read Build-A-Board layouts (ANSI 210) along with Original KBF files (layouts for My-T-Mouse, My-T-Touch, My-T-Pen, My-T-Soft and OnScreen).

There are 3 generic Build-A-Board layouts provided - **Small Keyboard**, **Medium Keyboard**, and **Large Keyboard**. Small works well for pen system and Large is better for touchscreens & fingers, but the actual resolution of the display will determine the best choice.

There are also 2 options available for dealing

with Original layouts (NOTE: These layouts only display the alphabetic portion of the keyboard). Select **Default 101, Current language** to use a preset standard 101 keyboard configuration with the currently selected language/layout in My-T-Soft/My-T-Touch/My-T-Pen. If you need a different size, you have the option of selecting **Copy of Current Layout** to copy the current saved layout. This current saved layout is the KEYBOARD.KBF in the installation directory. To update the layout, run My-T-Pen/My-T-Touch/My-T-Soft, select a different size, then open the menu (middle-button of tool bar), and select Current Settings | Save Current Settings. Run the Logon Utilities, and select Copy of Current Layout, then click OK (this will copy the KEYBOARD.KBF into the LOGON folder).

Enable CTRL+ALT+DEL Logon Utility

When enabled, a utility with a screen displayed large red button is used and available at the separate Ctrl-Alt-Del screen. It is important to understand this is not a security solution, but a utility for systems that need to operate in situations where security policies have machines that display this screen. It is recommended that the Ctrl-Alt-Del requirement be removed (see below for further information and how to configure a system to remove this screen). In instances when a system will display the CTRL+ALT+DEL screen, this Logon Utility can be enabled, and will provide a way for a touchscreen/pen based user to generate the system notification and bypass the screen.

> **Note:** User Account control must be enabled (it cannot be Off) for the system to generate the Secure Attention Sequence (SAS). Also, the system SAS.DLL must be

present on the system (Originally included with Windows 7 - Windows Vista users should apply Service Packs or refer to Microsoft)

Technical Notes: There is a Group Policy / Security setting that can affect the operation of this feature. Refer to the Group Policy Editor (GPE) Microsoft Management Console (MMC) snap-in at Computer Configuration | Administrative Templates | Windows Components | Windows Logon Options | Disable or enable software Secure Attention sequence. If this is disabled, the SendSAS via the SAS.DLL will not operate, preventing the CTRL+ALT+DEL Logon Utility from operating as intended.

The CADBTN.exe is configured at HKEY_LOCAL_MACHINE\SOFTWARE\Micr

NT\CurrentVersion\Accessibility\ATs\img_my
t-soft_v220 and configured to run in the
HKEY_CURRENT_USER and
HKEY_LOCAL_MACHINE via the
Configuration Key at
SOFTWARE\Microsoft\Windows
NT\CurrentVersion\Accessibility. It will
appear in the Ease of Access under
keyboard options, but for best results,
enable/disable via the OnScreen Logon
Utilities.

Keyboard Logon Technical Notes

The My-T-Soft 2 option for the Logon portion
of Windows 8 uses MTS2.EXE, a special build
of My-T-Soft 2 for this usage. The layout
displayed by My-T-Soft 2 is the
KEYBOARD.KBF file in the LOGON folder
under the installation directory. The above
options in the Logon Utilities handle this

manipulation for you. If you use
Build-A-Board to create your own layout, you
will want to copy your "built" layout into the
LOGON folder, AFTER selecting the
My-T-Soft 2 option in the Logon Utilities.
Note that if you re-run the Logon Utilities, and
click OK on the Setup/Configuration screen,
your "built" layout will be copied over! For
reference, or if you want to take over the
pre-built layouts, this lists the file names and
their associated selection in the Logon
Utilities:

Small Keyboard =
LOGON\KEYBOARD.SML =>
LOGON\KEYBOARD.KBF

Medium Keyboard =
LOGON\KEYBOARD.MED =>
LOGON\KEYBOARD.KBF

Large Keyboard =
LOGON\KEYBOARD.LRG =>

LOGON\KEYBOARD.KBF

Default 101 = LOGON\KEYBOARD.ORG =>
LOGON\KEYBOARD.KBF

Copy of Current Layout = KEYBOARD.KBF
=> LOGON\KEYBOARD.KBF

> **Note:** ConfigPath changes - The Setting
> of ConfigPath in the Initialization file can
> change where the Copy of Current Layout
> uses when copying the "current" layout.
> This is based on the ConfigPath setting
> and the current user. In general, the
> default, and any ConfigPath setting other
> than ConfigPath=0 will result in copying
> the current user's layout and INI into the
> Installation Folder. This will also have a
> result of creating a new "default" layout &
> configuration (e.g. KEYBOARD.KBF and
> INI file), which will consequently be used
> for any new users running the My-T-Soft
> software on the desktop (assuming they

don't already have a current configuration). In other words, if the Copy of Current Layout is selected, from then on the Logon layout AND the default OnScreen layout will be this Current Layout when ConfigPath is set to anything but 0. For further details on ConfigPath, see the Initialization File Documentation.

The Small Keyboard layout project (Build-A-Board 2.10) is included as KEYBOARD.ZIP in the LOGON folder. The larger layouts were simply resized & cleaned up with a larger font selected.

Older KBF/KMF support

My-T-Soft 2 can read & operate older (i.e. pre-version 2.00) layouts, and this approach is used for the "Original Layout" selections. This option is included for 2 main reasons. 1) Easier way to select different sizes, and 2) Match

selected keyboard layout in both Logon and
Desktop operation. For example, if you have a
Dutch layout on your desktop, when one of
these options is selected, the same layout (i.e.
KMF) will be used for the Logon keyboard.

> **Note:** There are some limitations with the
> My-T-Soft 2 handling of older layouts:
>
> The Shift-AltGr states require selecting
> Shift, then AltGr.
>
> Caps-Lock display always uses the Shift
> label, and some keys may show an
> incorrect label vs. the character generated
> by the keystroke.
>
> The default font will not handle non-ANSI
> layouts correctly.

Positioning
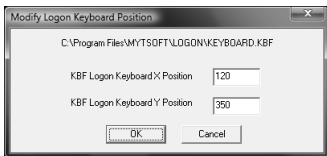
If you do not have Build-A-Board, and wish to change the opening position of the Small/Medium/Large Build-A-Board layouts, there is a basic utility called KBFLOGON.EXE in the LOGON folder. You can access this by clicking on **Update Opening Position (Build-A-Board Layouts)**. By running this utility, you can change the opening X / Y position of the current selected Build-A-Board layout to match your screen orientation & resolution.

Original layouts are treated differently, and are centered horizontally and position at the bottom of the screen. The KBFLOGON.EXE will not affect this positioning, and should not

be used for these layouts.

> **Advanced Technical Notes:** Starting in
> Windows Vista, the older GINA WinLogon
> interface was removed, and a more
> flexible "Credential Provider" interface was
> created. The DLL that manages and runs
> the My-T-Soft software (keyboard) in the
> logon context is the
> IMGLogonProvider.DLL. (Note: for 64-bit
> systems, this must be a native 64-bit
> compiled DLL - 1.78 Release 4 provided a
> user-installable update, and the 1.79
> includes both 32-bit & 64-bit versions).
> The Credential Providers are listed as
> classes in the registry at
> HKEY_LOCAL_MACHINE\SOFTWARE\Micr
> Providers, and the class ID for the
> IMGLogonProvider.dll is {CEE78DCC-
> 539B-4b6c-B829-21D189C5112F} This
> entry must be in place, and the CLSID
> entries in the HKEY_CLASSES_ROOT
> must also be set for proper operation and

integration into the system via the Credential Provider interface.

Ctrl-Alt-Del requirement

In the Windows NT/GINA model, the Ctrl-Alt-Delete special keyboard sequence created a Secure Attention Sequence (SAS). In the newer Windows security model, the Ctrl-Alt-Delete is a separate screen. This added security is for the physical keyboard only - if the virtual keyboard is allowed to bypass this screen, no additional security improvement results. You can simply disable it via Local Security Policy - see Control Panel | System Maintenance | Administrative Tools | Local Security Policy - Local Policies | Security Options | "Interactive Logon: Do not require CTRL+ALT+DEL" | Enabled. You can also use Start Menu | in the search box, type **netplwiz[Enter]**, and refer to the Advanced tab. Alternatively, to quickly access the setting, use the Start Menu |

then type **secpol.msc[Enter]**, then go
into Local Policies | Security Options and
find the setting for: "Interactive Logon: Do
not require CTRL+ALT+DEL", and set to
Enabled | OK.

The reason the keyboard sequence
Ctrl-Alt-Delete was chosen is the keyboard
interface (going back to the original IBM
PC) generates a hardware interrupt for this
keystroke combination. In a secured
system, the ONLY way this hardware
interrupt could occur is if someone was
physically at the keyboard, pressing those
keys. Because of the physical security this
provided (i.e. a remote user could not
generate this sequence), this became the
event that triggered the logon request for
user name/password.

In the newer logon model, if the user via
the virtual keyboard can bypass this
screen, there is absolutely no additional
physical security (i.e. on a system where

the physical keyboard will NOT be used to bypass this screen). The only change is the extra screen step. The critical issue to understand is no security benefit occurs if a software only option is allowed to mimic/bypass this hardware interrupt based event - it ends up being just another screen. The real issue is security vs. expectations of security, and human inertia (i.e. familiarity with the older GINA approach). If there is just an expectation, or inertia, that the Ctrl-Alt-Del provides real security when accessed via the touchscreen keyboard (or the CTRL+ALT+DEL Logon Utility), then it is important to review and understand the architecture and structure & and security provisions within a Windows based system.

If a physical component is necessary (and you do not or can not use the physical keyboard), then for a true/secure approach, a smart card, biometric, or

other physical approach may be required. There really is no additional "security" that the keyboard software can provide (with or without the Ctrl-Alt-Del requirement). Because it is possible there are system wide security options that may affect systems with OnScreen installed, this feature is available, but unless there are these type of requirements, it is recommended that the CTRL+ALT+DEL option not be used.

Configure Automatic Logon for Windows

• Open OnScreen Logon Utilities from Start Menu | (All) Programs | OnScreen

• Select Setup Automatic Logon

There are 3 options available

1. Enable Auto Logon

2. Default Logon Name

3. Default Password

The Name and Password fields are disabled unless the Enable Auto Logon is checked On.

Check Enable Auto Logon On to enable the automatic logon of the Default User / Default Password combination. You must enter a valid User Name along with the proper Password to

ensure proper operation of the Automatic Logon.

Notes:

- If the Default User Name has a blank Password, this option will only work once - the next time you turn on the system, the Name / Password Logon screen will appear. A Password must be entered to ensure proper operation of the Automatic Logon.

- You must have Administrator Rights to update the system with any changes.

 Technical Notes: This section and settings are just a convenient user interface to registry settings specified by Microsoft (dating back to Window NT) to allow an automatic user logon. There are security issues - check with a System Administrator if there are any questions about using this convenience feature.

There are 3 entries affected by this section: DefaultUserName, DefaultPassword, and AutoAdminLogon in the HKEY_LOCAL_MACHINE/Software/Microso NT/CurrentVersion/WinLogon registry key. When enabled, AutoAdminLogon=1, and when disabled, AutoAdminLogon=0. The DefaultPassword entry is stored as plain text. For an automatic logon, AutoAdminLogon=1, and a valid DefaultUserName with correct DefaultPassword must be set.

Part III. OnScreen Technical Documentation

Advanced User Notes, Technical Documentation, File Information, and various Other

Information about OnScreen.

Chapter 7 - Advanced User Notes details additional product information, Final Release Notes, Technical Notes, Developer information, product history, and Customer Suggestions.

Chapter 8 - Files & File Notes & Installation Information lists all files, general information, location, along with usage details. Additional Installation Information is also included here.

Chapter 9 - Operation Notes is a collection of specific issues, advanced notes, and additional documentation on Build-A-Macro, Command Line options, Sounds, and Build-A-Board support.

Chapter 10 - Initialization File

Documentation provides comprehensive technical documentation on all the configuration settings available in the ONSCREEN.INI file, along with other advanced user notes.

Chapter 11 - Error Messages and Numbers lists all internal errors, number references, and possible solutions if these errors are experienced.

Chapter 7. Advanced User Notes

Advanced User Notes & Information

The Advanced User Notes and Technical Documentation covers a wide-range of topics & information. It is important to understand that most users will simply type with the software, so detailing all of the features, options, settings in the standard product help would overwhelm the majority of users.

> **Note:** For up-to-date information, and other specific technical issues, it will always be important to refer to the on-line

support database at
http://www.imgpresents.com/imgfaq.htm

If you have been referred to this section, or
have been unable to resolve your question(s) or
problems within this manual, on-line help, and
tutorial, or are an advanced user familiar with
Windows Initialization files (INI type files), the
Registry, and wish to learn all of the OnScreen
configuration Options, please read the
following chapters. For developers, integrators,
or technicians, the following information
should be read in its entirety - also refer to the
Developer's Kit for even more options & other
advanced information.

> **Note:** Some of the notes contained here
> date back to the original development in
> 1992. Certain information may be dated or
> no longer relevant, but is kept for historical

reasons and as a reference back to the actual implementation. This detail may also help answer questions about settings and features, and why things have been done in a particular manner.

Final Release Notes

Specific Application Notes & Release information are included in the APPLICATION NOTES section below.

Quick Help is available only for the U.S. Standard 101 Keyboard.

Gaps in version numbers usually caused by OEM or non-public releases. List is chronological from original public release.

Version 1.30 - Product release 1/30/94

Version 1.31 - Changes for Trident 256-color drivers in Display routines & Macro Panel Updates. 3/31/94

Version 1.32 - Modification to keyboard interface DLL for compatibility with Windows 95 August 24, 1995 release. 8/30/95

Version 1.35 - The INSTALL.EXE has been removed, and SETUP.EXE has an installation option. Several minor inconsistencies have been corrected. 3/5/1996

Version 1.40 - Enhanced Graphics, 3 new sizes, complete compatibility & enhancements for Windows 95, multi-language versions, new macro panels & features, and a whole lot more. 3/1/97

Version 1.41 - WordComplete, Action Panel, Basic & Advanced Modes, and a wide range of features based on beta-test feedback.

My-T-Soft AT 7/1/1997

Version 1.42 - 1.44 - Various minor changes to accommodate CrossScanner compatibility - OnScreen / My-T-Soft AT 9/1/1997

Version 1.45 - Dwell timer added. OnScreen / My-T-Soft AT finalized & released.

My-T-Soft AT 9/15/1997

Version 1.45 - Enhancements for operation within Windows NT/2000. Incorporation of features from My-T-Touch, My-T-Pen, My-T-Soft AT. All basic operation confirmed. Issues with certain dialog edit fields, some window flash during typing, some dialogs/message boxes lose input focus, no logon support. 10/1/97

Version 1.46 - Various minor modifications. No Splash Option, better operation with Menus, flexibility added for non-type into windows, default settings for common programs included. 12/9/97

Version 1.47 - Addition of NoType capability to bypass other floating windows, custom logo in operator mode, settings for Microsoft Office. 7/15/98

Version 1.49 - Complete change for lower level interface into Windows, various new features, advanced macro support, released for integrators only (pre formal 1.50 public release). 4/9/1998

Version 1.50 - Numerous additions, Windows 98 - My-T-Soft AT 9/1/1998

Version 1.50 - All features tested & verified, complete documentation update, all known issues addressed, updated Developers Kit, addition of Logon Utilities. 11/1/1998

Version 1.52 - Maintenance release, match to commercial products - My-T-Soft AT 5/2/1999

Version 1.53 - Maintenance release, match to commercial products - My-T-Soft AT 9/1/1999

Version 1.60 - WinLogon options, e-commerce version, 11/1/99

Version 1.61 - Maintenance release, AddFontResource removal, 2/1/2000

Version 1.67 - 3D Keys & infinite sizing, Incorporation of Windows 95/98 software to create retail version that allows install for Windows 95/98/Me/NT/2000, software distribution on CD, updates from 1.61 versions of My-T-Touch/My-T-Pen. 7/16/2000

Version 1.70 - Integration & updates to Logon utilities for both 95/98/Me and NT/2000, integration with My-T-Soft TS (Terminal Server version), updated help, additional keyboard layouts Win 2000 specific features, modifications for non-mouse drivers. 3/17/2001

Version 1.70 - OnScreen merged with 1.70 code, added

WordList/TurnAwayScrlCrtl/Text-To-Speech. 7/17/2001

Version 1.73 - OnScreen minor updates, changes to Text-To-Speech, integration with CrossScanner various maintenance updates, Terminal Server updates, etc. 3/17/2002

Version 1.75 - Various maintenance updates, new features to OnScreen, help updates, additional keyboards. 5/17/2002

Version 1.75a-1.75J - Several additional settings & customizations for OEMs. 8/30/2002

Version 1.76 - Support for Build-A-Board layouts for both Windows Logon (IMGGINA2.DLL), and at run time (My-T-Soft TS), maintenance updates. 11/17/2002

Version 1.77 - 104 key layouts, updates to 101 layouts, additional Spanish/German/French

layouts, Chinese/Japanese/Korean layouts, customer requests & maintenance updates. 7/7/2003

Version 1.78 - Support for Windows Vista, user configuration files, synchronization with OnScreen release, Build-A-Board layout selection, Download Manager (managed updates), keyboard scanning, keyboard layout updates, numerous customer requests and maintenance updates. 4/18/2007

Version 1.78 Release 2 - Updates to keyboard scanning, maintenance updates, integration with Developer's Kit 1.78 Release 3. 3/5/2008

Version 1.78 Release 3 - My-T-Soft TS and My-T-Mouse releases, maintenance updates. 7/16/2009

Version 1.78 Release 4 - Updates to OnScreen for scanning requests, Settings Import/Export, Windows 7 compatibility 11/24/2009

Version 1.79 - MultiTouch support, Themes, Logon Windows 64-bit support, maintenance updates. 9/17/2012

Version 1.80 - Windows 8 compatibility.

Version 1.80 - 5/7/2013

Important User Notes

OnScreen WAS NOT intended to emulate the Windows keyboard interface in its entirety. Although OnScreen appears to operate just as the keyboard does, due to its design, certain applications may not function properly with OnScreen. Special software considerations have been made to make OnScreen as flexible as possible, and the notes below offer information on configuration settings that may make OnScreen work within your applications.

Also below is a complete discussion of settings, options, and possible solutions to any incompatibilities.

OnScreen WAS intended to make certain operations easier because the user can concentrate on the task at hand, not which input device is required at the moment.

OnScreen allows the user to keep their eyes on the screen, so the flow of work on a computer is uninterrupted. In essence, OnScreen is just a standard Windows application that provides special functionality.

When asked "How do I do a right-click from OnScreen?" we try to be patient and explain that OnScreen is a text input tool, and not a pointing device. The touchscreen / pen interface replaces the desktop mouse as the pointing device, and OnScreen replaces the physical keyboard. You need a pointing device to work with OnScreen, and if you can't

perform a right-click with your pointing device, you need to talk to the pointing device vendor for options (or refer to IMG's TouchRight Utilities (http://www.imgpresents.com/righttch/trt.htm) which provides right-click options & tools for pointing devices). Also note there are keyboard short-cuts/options that can be used via OnScreen to possibly resolve the underlying access issue - Shift-F10 will open the context menu (or the Properties key on the 104 layouts) which often is what people want when asking about the right-click action. Finally, look at a standard physical keyboard, and find the right-click button - it isn't there (unless the keyboard has some sort of pointing device capability).

Technical Notes

OnScreen is a standard Windows Application and does not require any special drivers, and should work with all keyboard and mouse emulation drivers that are compatible with the ones that ship with Microsoft Windows.

For other pointing devices, OnScreen calls and uses the GetAsyncKeyState & GetKeyState API calls for certain actions of the mouse. These must be supported by the hardware & driver emulating the mouse. The 1.40 release addresses some of these limitations, and OnScreen operates properly with Joystick-To-Mouse, CrossScanner, Mouse Keys, and other pointing methods that do not use the actual mouse driver.

When working with Virtual Machines, certain pointing device functions operate differently because of the way the mouse integrates

through the virtual machine layer. Some functions may not operate correctly, or the virtual machine may need to be full screen (or windowed) to operate correctly. We are aware of issues with the Windows API ClipCursor and SetMousePos when using VMWare and Parallels virtual machines. These limitations then affects the keyboard scanning feature when running OnScreen in Windows within a virtual machine.

Application Notes

THE FOLLOWING ARE SPECIFIC APPLICATIONS IN WHICH OnScreen DOES

NOT NEED SPECIAL SETTINGS BUT IN WHICH OnScreen REQUIRES

SPECIAL CONSIDERATION

Note: Because of the general improvement by Microsoft & other Windows developers, this list has not been updated since the original releases. It remains here as an appropriate place if there are any specific applications that require additional notes when operating with OnScreen.

Dashboard for Windows

Publisher: Hewlett-Packard

Version: 2.0

Dashboard can cause some painting problems when OnScreen is

launched from a Layout due to the way Dashboard positions

opening windows. We suggest you set OnScreen to open as a

Normal Window, and position Dashboard away from the center of

the screen.

MS-DOS Window

Publisher: Microsoft

Version: Windows 3.0,3.1

OnScreen will not work with a Full Screen DOS application.

OnScreen will work with a DOS application in a DOS Window.

There are a few items that should be noted when using OnScreen

with a DOS Window. You may want to use a PIF file for operating

a DOS Application in a DOS Window.

1. Keystroke Macros MUST BE ENTERED IN LOWER CASE.

2. If the arrow or edit keys do not respond properly, turn the Num Lock off.

Paintbrush, Solitaire, Reversi

Publisher: Microsoft

Version: Windows 3.0,3.1

The edit keys are used by these applications to move the cursor.

Using the arrows, etc. on OnScreen will move the Cursor onto the

Application, moving the cursor off OnScreen, resulting in a very

short usefulness of OnScreen.

PC Tools for Windows

Publisher: Central Point

Version: 1.x, 2.0

When OnScreen is minimized to a button, the OnScreen button

display can obscure some of the PC Tools windows. Set

CaptionWatch=1 in the ONSCREEN.INI file to alleviate any

interference.

PIF Editor

Publisher: Microsoft

Version: Windows 3.0,3.1

If you have built an Application Short-Cut key with the PIF

Editor, it will not respond in all cases to the Short-Cut if

typed on OnScreen.

Recorder

Publisher: Microsoft

Version: Windows 3.0,3.1

When working with OnScreen & Recorder - make sure that

OnScreen does not obscure any window you will be working with

and you may NOT start a macro with a keyboard short-cut from

OnScreen.

Either start the macro from Recorder or try to remember where you

left your keyboard and use the keyboard short-cut.

Windows Tutorial - (WINTUTOR.EXE)

Publisher: Microsoft

Version: Windows 3.1

OnScreen hides behind the Windows Tutorial except in a few cases,

and these may be confusing to new users. New users should run the

tutorial without OnScreen, and learn the Windows Concepts before

using OnScreen.

Acrobat Reader (ACROREAD.EXE)

Publisher: Adobe

Version: All

When viewing documents as full screen, Acrobat will destroy the

Keyboard display on OnScreen. This is due to improper windows

application operation within Acrobat. Keep OnScreen minimized,

or do not use Acrobat in this fashion.

Windows Developers

> **Note:** As a starting point, please refer to the **Install Developer's Kit** icon in the installation program group.

Developers Notes, downloadable files, sample code, and other useful integration and programming information is available at Innovation Management Group, Inc.'s Web Site:
http://www.imgpresents.com/imgdev.htm.
(http://www.imgpresents.com/imgdev.htm)

Developers wishing more technical information about OnScreen, messaging information, and details how applications can interface with OnScreen should contact Innovation Management Group, Inc.

For Questions or other information you may contact:

Innovation Management Group, Inc.
Customer Service
179 Niblick Road #454
Paso Robles, CA 93446
USA
1-800-889-0987 (US & Canada)
+1-818-701-1579
+1-818-936-0200 (fax)
<cs@imgpresents.com>
http://www.imgpresents.com

About this product

OnScreen was conceived in its simplest form by Kermit Komm in a brainstorming session at a company called Future Technologies. The

original name "My-T-Mouse" was a contraction of "My Typing Mouse", and the original product was designed as a mouse utility to enable a mouse to type and perform any operation within the GUI (Graphical User Interface) without the need for a physical keyboard (this aspect of the design has become the underlying theme for the acceptance of the products and their technology in the marketplace).

> **Note:** My-T-Mouse was originally introduced to the world at Fall COMDEX 1993 (when COMDEX, i.e. the Computer Dealers Exposition, was the premier trade show for everything happening in the computer industry - My-T-Mouse was featured as one of the highlights of the show in a program called "Computer Chronicles" (a well known series that ran from 1981 through 2002). You can find this archived video [Computer Chronicles Fall

COMDEX 1993] at the Internet Archive
(http://www.archive.org)).

Legal note: The My-T-Mouse name (and
its resultant phonetic pronunciation)
created a trademark dispute raised by
Viacom (with its cartoon character having
a similar sounding name), eventually
winding up before the Trademark Trials &
Appeals board and setting a citable
precedent, with Viacom's opposition to the
My-T-Mouse® trademark being dismissed.

When introduced in 1993, the concept of an
on-screen keyboard was new and far from the
mainstream, and in the beginning years much
education was required to explain "why"
anyone would want or use an on-screen
keyboard. Over the years, with the introduction

of handheld devices, the growth of touchscreen based systems, and the maturation of pen-based systems, the concept of an on-screen keyboard has become commonplace, and in many situations, expected as an alternate input mechanism.

Since the original product was named "My-T-Mouse", much effort was expended in explaining that the product would work with touchscreens or pen based systems (or, in fact, any pointing device that could act like a mouse), so "My-T-Pen" and "My-T-Touch" were created to address the needs of the marketplace. In order to encompass the now growing family of on-screen keyboards, the name "My-T-Soft" (i.e. My Typing Software) was created and eventually used as the encompassing trademark of the entire My-T-Soft® family of on-screen keyboards and utilities. There is also a version enhanced for

people with specialized needs was originally named My-T-Soft AT (or My-T-Soft with Assistive Technology), and eventually renamed OnScreen to differentiate its capabilities with the more commercially focused versions.

Conceived during the original development of My-T-Mouse, the concept of Build-A-Board has been under constant refinement and development during the entire lifetime of My-T-Mouse and its derivatives. At some point in the future, Build-A-Board's capabilities will be expanded to enable not only completely customizable layouts, but to meet or exceed all of the capabilities of the original products and its derivatives.

Many of the enhancements and utilities came from all involved and OnScreen users.

In the 20 years as a commercial product, many individuals have been involved at various levels, and thanks & acknowledgements go to

everyone so involved.

> **Note:** The following acknowledgements
> are for the original release in 1993.

Production:

Product Concept, Screen Presentation &
Usability: Irwin Handelman

Logo & Graphic Artwork & Fonts: Marc
Handelman

Development:

Windows Interface & Keyboard Emulation:
Kermit Komm

Keyboard Display & Display Interface: George
Merritt

OnScreen Setup & Graphic Artwork & Help
Files: Darrel Niemann

Customer Suggestions

We appreciate and welcome suggestions from our users for features that you would like to see in future versions of OnScreen. Please feel free to send us any comments you may have that would make our product more useful to you. All suggestions and ideas become the property of Innovation Management Group, Inc.

Send to:

Innovation Management Group, Inc.
Customer Service
179 Niblick Road #454
Paso Robles, CA 93446
USA

Or contact us directly:

 1-800-889-0987 (US & Canada)
 +1-818-701-1579
 +1-818-936-0200 (fax)
 <cs@imgpresents.com>
 http://www.imgpresents.com

Date:_____

Name:_____

Address:_____

City:_____State:_____Zip

OnScreen Comments and Suggestions:

_____

_____

_____

_____

Version 1.80

5/7/2013

Chapter 8. Files & File Notes & Installation Information

This section outlines details about each file, minimum file requirements, and reference information on the product installation.

OnScreen Files & File Notes & Installation Information

MY-T-SOFT FILES & FILE NOTES

Files located in the OnScreen Installation Directory:

The following files are REQUIRED for proper

operation of

OnScreen: (Version specific files indicated)

* - indicates the minimum files required for functional operation of OnScreen

** - the Font file is not absolutely necessary, depending on size & Font settings,

however for basic operation with minimal file configuration, it is recommended that it remain.

- ONSCREEN.EXE* - OnScreen executable

- ONSSETUP.EXE (???SETUP.EXE, Version specific) - OnScreen Setup executable

- ONSTUTOR.EXE (???TUTOR.EXE, Version specific) - OnScreen Tutorial & Calculator Tape Executable Tutorial & Calculator Tape cannot run at the same time.

- MYTLIB.DLL* - OnScreen Dynamic Link Library

- MYTLIB32.DLL* - OnScreen Dynamic Link Library

- IMGVERS.DLL* - IMG Dynamic Link Library. IMGVERS64.DLL is the 64-bit version.

- IMGLM.EXE (2000/XP/WS2003) (*Required for Terminal Server licensing)

- BWCC32.DLL* - Borland International Inc.'s Dynamic Link Library

- CW3215.DLL* - Windows 32 support Dynamic Link Library

- IMGLOGON.DLL - (2000/XP) (*Required for 2000/XP Logon) - IMG Logon Dynamic Link Library In the 1.76 & later releases, the IMGLOGON.DLL is installed from PKG00003.ZIP and extracted during install prior to Program Group creation.

- IMGLOGON.EXE - IMG Logon

Configuration Utility (also used by ???SETUP.EXE) IMGLOGON.X64 is the 64-bit version.

- IMGGINA2.DLL - (2000/XP) (*Required for 2000/XP Logon, OnScreen 2 Keyboard layout) - IMG Logon DLL In the 1.76 & later releases, the IMGGINA2.DLL is installed from PKG00003.ZIP and extracted during install prior to Program Group creation.

IMGGINA2.003 - (2000/XP) For support in Windows XP & Windows Server 2003, the file IMGGINA2.003 is used. This overwrites IMGGINA2.DLL at install when installed on Windows XP or Windows Server 2003.

- IMGVistaLogon.DLL - (Vista/7) (*Required for Vista / 7 / 8 Logon, OnScreen 2 Keyboard layout) (this is analogous to the IMGGINA2.DLL for 2000/XP), but provides the interface in Vista / 7 / 8 to allow the logon keyboard. IMGVistaLogon.X64 is the 64-bit

version. This interfaces via the Credential Provider interface.

The following files are used by IMGGINA2.DLL / IMGVistaLogon.DLL, and only are used when OnScreen 2 is enabled as the logon option for 2000/XP

- MTS2.EXE - (My-T-Soft 2 executable to display LOGON\KEYBOARD.KBF)

- MTSLIB.DLL - Support for MTS2.EXE / MYTSOFT2.EXE

- BABDLL.DLL - Support for MTS2.EXE / MYTSOFT.EXE, Build-A-Board common functions

- STOCK.DLL - Support for MTS2.EXE / MYTSOFT2.EXE, Resources for 3D keys

- LOGON\KEYBOARD.KBF - the Keyboard Layout for Logon (Created in Build-A-Board)

- LOGON\MACROBAT.EXE - Macro Batch

processor for MTS2.EXE

- LOGON\KEYBRD01.KMF - Default Keyboard Macro File for MTS2.EXE

- LOGON\MAC00000.KMF - Default Macros for MTS.EXE

- LOGON\KEYBOARD.SML - Small layout (Build-A-Board layout)

- LOGON\KEYBOARD.MED - Medium layout (Build-A-Board layout)

- LOGON\KEYBOARD.LRG - Large layout (Build-A-Board layout)

- LOGON\KEYBOARD.ORG - Default layout (Original layout)

- LOGON\KEYBOARD.ZIP - Build-A-Board layout Project for Small keyboard

> **Note:** The actual layouts are different between 2000 / XP and Vista / 7

- LOGON\KBFLOGON.EXE - Utility to change opening position for Small/Medium/Large Build-A-Board layouts In the 1.76 & later releases, these support files for IMGGINA2.DLL are installed from PKG00003.ZIP & extracted during install prior to Program Group creation.

- PNLWATCH.EXE / PWLIB.DLL - Utility & Support library to handle Tablet PC interface for Windows XP. In the 1.77 & later releases, these support files are installed from PKG00003.ZIP & extracted during install prior to Program Group creation.

- MYTSOFT2.EXE - Executable for Build-A-Board created keyboard layouts

- MACROBAT.EXE - Macro Batch Processor for MYTSOFT2.EXE In the 1.76 & later releases, MYTSOFT2.EXE,

MACROBAT.EXE, and Support DLLs are installed from PKG00004.ZIP & extracted during install prior to Program Group creation.

(1.76 add-on - IMGSOUND & default Wave file)

- IMGSOUND.EXE - Executable process used to play sounds

> **Note:** In the Assistive Technology version, IMGSOUND.EXE is always run, even if there are no sound options turned on. It can be renamed or removed to prevent it from launching if sounds are not required and you do not want this process to be run because of memory or security reasons. Also see the NoAnnounce setting in the Initialization File Documentation. In Commercial versions, IMGSOUND.EXE is only run when Sound=1.

- SOUNDS\KEYCLICK.WAV - Wave file for default KeyClick sounds (Sounds=1) In the 1.76 & later releases, IMGSOUND.EXE, and SOUNDS\KEYCLICK.WAV are installed from PKG00005.ZIP & extracted during install prior to Program Group creation.

- HELP*.html, HELP\IMAGES*.png - OnScreen Help (PKG00008.ZIP)

- MTSOPEN.EXE - OnScreen Welcome

- SEETHRU.EXE (2000/XP - Transparency) Standalone window with dialog to control transparency of keyboard

- KEYBOARD.KBF* - OnScreen Keyboard Configuration & Description File

- *.KBF - other KBF files (pre-built sample Build-A-Board layouts included as examples)

- KEYBRD01.KMF - Base macro file, preserves original naming convention, used by

both MTS & MTS2. 1.77 note - significant name change KEYBRD?? changed to KYBD???? to accommodate 104 layouts & future layout additions

- KYBD0001.KMF - KYBD????.KMF (*.KMF File specified in INI file (Keyboard=)) - OnScreen Keyboard Layout & Macro File for individual Keyboards In the 1.76 & later releases, the KYBD0002.KMF - KYBD????.KMF files are installed as PKG00001.ZIP and extracted during install prior to Program Group creation.

- MAC00000.KMF - MAC00???.KMF (*Appropriate files IF Macro panel in use) - OnScreen Macro Panel Files In the 1.76 & later releases, the MAC00001.KMF - MAC?????.KMF files are installed as PKG00002.ZIP and extracted during install prior to Program Group creation.

- ONSCREEN.INI* - OnScreen Initialization

File

- LICENSE.EXE* - IMG License Manager

- LICENSE2.EXE* - IMG License verification only (read-only access)

- LICENSE.LIC* - IMG License File

- LICENSE.ORG - Original IMG License File

- LICENSE.TXT - IMG End User License Agreement

- README.TXT - Product Installation text file

- MANIFEST.TXT - Reference File from Build

- IMGUTIL.EXE - used for installation and uninstallation of software

Support Files

- MYTSTORY.TXT - Tutorial Text file (PKG00006.ZIP)

- KEYBOARD.ORG - Original KEYBOARD.KBF file for recovery

- ONSCREEN.ORG - Original ONSCREEN.INI file for recovery

Developer Utilities: (Installed in Installation Directory)

- DEVKTDOC\DEVKIT.CHM - OnScreen Utilities & Information (PKG00006.ZIP)

- CTALTDEL.EXE - Dev Kit utility to restart Windows, used as an example for Key Launches - (pre 1.70 RESTRTWN.EXE, from NTRSTART.EXE)

- CADBTN.EXE - This is logon utility tool that displays a large button and integrates with SAS.DLL to generate a user-based Secure Attention Sequence (i.e. Ctrl-Alt-Del)

- ONSCREEN_RUN.EXE - Start Screen interface tool for running OnScreen

- DVKTINST.EXE - tool for quick installation of Developer's Kit

- ZIP32.DLL - Zip library for compressing exports / Word Lists

- UNZIP32S.DLL - Unzip library, required for installation of Dev Kit with DVKTINST.EXE

- WORDLIST.EXE - Word List Assistant, read in files, save Word List files, install new Word Lists, Requires ZIP32.DLL, UNZIP32S.DLL. This is also the utility that handles the Export/Import menu options, but only provides the Word List Assistant in the OnScreen releases.

- DKT??????.ZIP - latest release of Developers Kit (If included with distribution files) Use DevKit Installer (DVKTINST.EXE), or WinZip or use PKUNZIP with the -d option to preserve directory (folder) structure. Recommended to Unzip in Installation directory for easier file management. The latest Developer's Kit may be downloaded using the IMG Download Manager.

> **Note:** The font and the files established in \Program Files\Common Files\Innovation Management Group are not un-installed when OnScreen is un-installed. These remain in case future IMG products are installed. Refer to the IMG System Manager for further information (if available).

- MYTMOUSE.FON** - OnScreen Keyboard Font File for smaller sizes

- ADDFONT.EXE - Utility to Add font post installation, e.g. "Addfont add"

Located in the Windows System Directory (or Windows Fonts folder):

- MANAGER\ESTABLISH.EXE - this is a post installation utility that establishes or updates the IMG Download Manager and IMG License Manager files as outlined below.

Located in \Program Files\Common Files\Innovation Management Group\Download Manager directory:

- IMGCLEAN.EXE - used to complete uninstall of software, required for Control Panel Add/Remove Programs

- IMGDLM.EXE - The IMG Download Manager - Installed by MANAGER\ESTABLISH.EXE

- IMGNET.DLL - The IMG Download Manager Library - Installed by MANAGER\ESTABLISH.EXE

Located in \Program Files\Common Files\Innovation Management Group\License Manager directory:

- LICENSE.DLL - library used by the IMG License Manager and IMG Download Manager. LICENSE64.DLL is the 64-bit version.

Files created during use:

- ONSCREEN.BAK - OnScreen previous Initialization File (in configuration location for user's ONSCREEN.INI file - see ConfigPath entry in Initialization File Documentation

OnScreen Add-Ons

- KEYBOARD.KB1* - Keyboard Layout for Action panel configuration

- A.TXT - Z.TXT,-.TXT, etc. - Word List files

- IMGSOUND.EXE* - Used for Key-Click Sounds and Text-To-Speech

- SCRLCTRL.EXE - Used for Screen Control of larger than screen keyboard configurations

- TTSAPP.EXE - Speak and Setup for Text-To-Speech, required to change voices when using Text-To-Speech

- TURNAWAY.EXE - Head Mouse users App to cover screen until Exit is clicked.

OnScreen Folders (The Developer's Kit creates numerous sub-folders - see Dev Kit docs)

SOUNDS - OnScreen Voice & Key-Click replacements

WORDLISTS - OnScreen Word Lists - saved and international

OnScreen with CrossScanner Add-Ons (CrossScanner folder)

- XSCAN.EXE - CrossScanner

- XSCAN_S.EXE - CrossScanner Setup

- XSCANSRV.EXE - CrossScanner Support

- KEYBOARD.KMF - CrossScanner Support

- MYTCLIB.DLL - CrossScanner Support

- XTOGGLE.EXE - CrossScanner Support - Separate executable for controlling CrossScanner

- XSCAN.INI - OnScreen Support - Configuration File for USB Device operation

- MANIFEST.TXT - OnScreen Support - Reference File from Build

- HELP*.html, HELP\IMAGES*.png - OnScreen Help

CrossScanner 4.00 additional files

- XADMIN.EXE - OnScreen Support - Administrative setup for CrossScannerLogon.DLL

- CrossScannerLogon.dll - OnScreen Support - Logon Interface DLL for Windows Vista / 7

- MTS2.EXE - My-T-Soft Executable - Keyboard for Logon Interface

- MTSLIB.DLL - Support for My-T-Soft Executable

- BABDLL.DLL - Support for My-T-Soft Executable

- STOCK.DLL - Support for My-T-Soft Executable

- LOGON\KEYBOARD.KBF - the Keyboard Layout for Logon (Created in Build-A-Board)

- LOGON\MACROBAT.EXE - Macro Batch processor for MTS2.EXE

- LOGON\KEYBRD01.KMF - Default Keyboard Macro File for MTS2.EXE

- LOGON\MAC00000.KMF - Default Macros for MTS.EXE

- LOGON\KEYBOARD.SML - Small layout (Build-A-Board layout)

- LOGON\KEYBOARD.MED - Medium layout (Build-A-Board layout)

- LOGON\KEYBOARD.LRG - Large layout (Build-A-Board layout)

- LOGON\KEYBOARD.ORG - Default layout (Original layout)

- LOGON\KEYBOARD.ZIP - Build-A-Board layout Project for Small keyboard

- LOGON\KBFLOGON.EXE - MTS2.EXE Utility

Note that as files are removed, the possibilities for errors or operational limitations increases. Also note that a large portion of the MYTLIB.DLL are bitmaps that may not be in use for particular fixed size configurations - contact IMG if a small footprint installation is required.

> **Note:** The following notes indicate various options for some of these files. There may also be additional information in Advanced User Notes, Operation Notes, and the Initialization File Documentation..

OnScreen Setup options: The ???SETUP.EXE program can take a few command line options. The command line "BUILD" is used when the top button MACRO is pressed on the Main Macro panel in OnScreen to automatically open Setup with the Build-A-Macro dialog. There also is a "HELPCMD" option to display the internal help request prior to using the HelpInterface function from IMGVERS.DLL. This is currently used as the lookup from the ONSCREEN.INI file to open the appropriate help file from the HELP folder. The lookup table approach was required because Microsoft has constantly changed preferred help formats through various versions of Windows. Help is currently available in HTML files so the same help files can be used in the product and be made available on the product website.

Installation Information

CD/DVD may contain:

SETUP.EXE - Installation Assistant to determine platform / install files

AUTORUN.INF - AutoRun for AutoPlay CD/DVD

RELEASE.TXT - Release information

Located on the OnScreen Distribution media:

Compressed Files of the OnScreen Installation Files and:

README.TXT - For the Experienced User

LICENSE.TXT - OnScreen License Agreement

SETUP.EXE - Setup Utility to Install OnScreen onto your Hard Drive

The IMG installer can support these options:

/? Displays a message box with info about options

/Q (Quiet install) runs a quiet install (no dialogs/user interaction)

/I (Install) runs a quiet install (no dialogs/user interaction)

/U runs a quiet un-install (no dialogs/user interaction)

/Q and /I are handled the same (customer requested /Q)

OnScreen Add-ons

WordLists Folder - contains available Word Lists

Speech Folder - Microsoft Speech Components, Text-To-Speech

The following information is for those users who are curious and want to know, or wish to

Uninstall OnScreen & do not have the original distribution media.

There are 2 approaches to Setup, an IMG installer and the Windows Installer (MSI). The reason 2 installers are available is for flexibility and support purposes. Installing any product is a relatively easy process, but can become complicated as more & more features and capabilities are included. In any complicated sequential process, it is inevitable that some sequence or step is not handled properly. By using a second approach, a verifiable comparison based mechanism is created where a definitive end-result of files & settings can be attained, ensuring the integrity of the installation steps.

Post Installation information:
IMGUTIL.EXE performs various post installation tasks. For reference, if the installation media has LICENSE.LIC in the

same folder as SETUP.EXE, or in the \LICENSE folder, IMGUTIL will copy this into the installation folder (this is useful for evaluation and other types of licensing). If the installation media has a DK??????.ZIP file in the same folder as SETUP.EXE, or in the \DEVKIT folder, it will be copied to the installation folder.

For reference information, you can refer to the INSTALL.XML used by the IMG SETUP.EXE for all post installation operations. In Windows Installer (MSI) installs, these same actions occur.

SETUP.EXE will sense if OnScreen is Installed or not. If OnScreen is not installed, then Install must be checked to Install the OnScreen software. If OnScreen is already installed, you may Un-Install by selecting the Un-Install option and selecting OK throughout

the following screens.

The following outlines relevant information about the MSI (Microsoft Installer) packages, and command line options to msiexec to manage installation with these files

> **IMPORTANT NOTE:** The MSI support is being phased out due to issues with User Account Control, Permissions, Security, Code-signing, and user support. For best results, if using the MSI, do so as an Administrator with User Account Control disabled. Another effective option is to run the CMD prompt and Run as Administrator, then use the appropriate msiexec command below.

The MSI files are essentially databases of information used by the Windows Installer to

install the files and setup a system. The executable to use is "msiexec.exe" and any appropriate command line switches. In general, if you double click on an MSI file, Windows launches msiexec with the /i install option (e.g. "msiexec /i prodver_target.msi").

For some basic, frequently asked for options, here are a few that can be used with the standard IMG MSI install files (these switches are not case sensitive):

In these examples, the msi file should be replaced with the msi file you want to operate on

msiexec /i mts178_2000xp.msi (This installs My-T-Soft 1.78 (using the user interface))

msiexec /qn /i mts178_2000xp.msi (This silently installs My-T-Soft 1.78 (with NO user interface))

msiexec /qn /x mts178_2000xp.msi (This

silently un-installs My-T-Soft 1.78 (with NO user interface))

msiexec /a mts178_2000xp.msi /qn TARGETDIR="C:\Documents and Settings\Full User\Desktop\Test" (This silently installs My-T-Soft 1.78 (with NO user interface) to a different target directory (for testing, etc.))

Further notes on command line switches:

/a = Administrative install - allows use of TARGETDIR override

/i = standard install

/x = standard un-install

/q? = user interface options

/qn = Displays no user interface.

/qb = Displays a basic user interface.

/qr = Displays a reduced user interface with a

modal dialog box displayed at the end of the installation.

/qf = Displays the full user interface with a modal dialog box displayed at the end.

/qn+ = Displays no user interface, except for a modal dialog box displayed at the end.

/qb+ = Displays a basic user interface with a modal dialog box displayed at the end.

/qb- = Displays a basic user interface with no modal dialog boxes.

For further info on msiexec.exe, refer to Microsoft's documentation.

Deployment Information

This section outlines relevant information if OnScreen is going to be imaged via hard disk replication, incorporated into a different

installation package, or handled externally from the publically provided installation approaches. Please refer to the other sections in this chapter to have a basic level of understanding regarding the files and issues involved in the installation of OnScreen

This is a quick summary of the 3 steps typically used to prepare a master image - for more details and reference information, see below

1. Install the software. It is recommended you do not run the software until after the duplication.

2. Copy in custom configuration (if necessary). If configured on a separate system, refer to OnScreen Setup | File menu | Show Config File Location for location of configuration files.

3. Copy in company/site/deployment license (if applicable) - replace LICENSE.LIC in Installation folder.

There are 3 main areas that need to be managed: Deployment, Default Configuration, and Licensing

Deployment

The goal of this step is to ensure that all the required files are on the target system. For practical purposes, these are simply all the files and folders in the Installation folder, e.g. \Program Files\ONSCREEN. Often, the default installation method can be used, with post installation management of configuration and license details handled after the installation.

When Imaging, the basic approach is to install the software onto the master system, then perform any updates to configuration and license files, and then DO NOT RUN the

software (as settings and files can be modified by running the software).

For actual installation (i.e. including the software with an existing application), it is best to wrap the files into the existing application installation approach. Refer to the Zip files in the extended download area, as these are the installation files without any installation add-ons - these are just the program files that need to be installed on a system in a compressed, single file zip format. Often it is easiest to have a test system where normal installation / testing can take place, and refer to the information here, the post installation files on the test system, and also the MANIFEST.TXT text file (a post-build snapshot of the product files) in the installation folder for file details.

Doing folder comparisons, or simply testing on the target system (after imaging/installation), is

the preferred approach to ensure the software
has been deployed correctly.

Default Configuration

The configuration is contained in the
KEYBOARD.KBF / ONSCREEN.INI files
(and the MAC*.KMF files if the macro panels
are used). Typically making sure the desired
(correctly configured) files are the files in the
installation folder is all that is necessary to
bring a new/different default configuration
when the software is run.

The simplest steps to create the desired
configuration files are to configure the software
as desired, then use the menu to Save Current
Settings, and also Save Position. To test,
re-start the software and verify the
configuration is correct. Then obtain the
KEYBOARD.KBF / ONSCREEN.INI file
(refer to the ConfigPath setting / or use Setup |
File menu | Show Config File Location), and

use these on your master image or as part of the installation files.

After duplication, when a new user runs the software, they will receive a copy of these default configuration files from the Installation Folder. They will then have their own personal copy which can be configured as they desire. This is the default setting of the software (ConfigPath=1). Note there are different approaches that could be taken with these configuration files based on the ConfigPath setting and permissions - for example, a fixed configuration for all users that cannot be modified.

> **Note:** If secure logon is required, the Logon Utilities require a registry entry in the WinLogon group, which is not managed by installation or via the configuration files. This option requires proper configuration via the Logon Utilities.

Licensing

If using the default (retail) license scheme, you just need to ensure that the file LICENSE.LIC in the installation folder is the same as LICENSE.ORG (the as shipped license file). If using any other type of license, refer to notes and instructions that were provided to you. In most cases, this means that you will have been provided a custom LICENSE.LIC file, and this must be the file installed as LICENSE.LIC.

Chapter 9. Operation Notes

OnScreen Operation and Release Notes

These notes document some of the known limitations with OnScreen as of this release, and other anecdotal information.

EGA Users

The OnScreen Tutorial will not run in EGA, although the rest of OnScreen will. EGA users will probably prefer different settings for the

default colors, since the light gray is a dithered gray on the EGA display.

Year 2038 Limitations

In versions 1.78 and later, any invalid date is treated as a 0 result and time and dates will not be displayed in the System Information panel properly when run past the year 2037. All important functionality of OnScreen is not affected by the date, and beyond the improper display on the System Information panel, there are no other limitations associated with any date issue. Note that versions 1.77 and earlier will not run when the system date is greater than the year 2037 (due to an invalid/null pointer returned by the time system call). Search the internet for the "Year 2038" problem for further information. Future

versions will update to a more capable system time call well before the year 2037.

Windows Menus

1. The OnScreen Menu does not have any keyboard short-cuts - OnScreen was designed to operate entirely from a pointing device.

2. For Keyboard users who want to close OnScreen, make sure the Cursor is not over the OnScreen display, then Use Alt-Tab to select the OnScreen window, and use Alt-Space to bring up the OnScreen Menu for OnScreen, then arrow down to select Close.

3. Keyboard Users can Minimize OnScreen

by doing the above & selecting a Minimize option.

4. If a Any Windows Menu is up in an application, the following limitations affect OnScreen: You Cannot Move OnScreen, or if you do, the Menu will close. Assignments to Middle & Right buttons will not work! Cannot move through System Menu Bar Highlight if there are no Pop-up menus.

Keyboard Notes

The Print Screen key only captures the Active Application. Maximize the Active application, then use the Print Screen Key to capture a full screen of the display.

The Pause Key properly generates the

keystrokes, and sends them to the active application - the application must respond to these keystrokes for any action or pause to occur.

The Ctrl-Break, Ctrl-Alt-Del, and Sys-Rq Combinations are not supported. However, by assigning executables to the appropriate key, certain emulations can occur. As an example, the default install includes a sample of emulating the Ctrl-Alt-Del sequence to restart Windows.

The Alt-Tab combination works properly, but if used from OnScreen the user will find that only the "top" 2 windows cycle. This is caused by the way Windows re-sorts windows in the Window Manager list. The "quick-switch / select" window is not visible when the Alt-Tab combination is generated by OnScreen. Some tricks can be used by creating macros with Alt-Tab-Tab, or Alt-Tab-Tab-Tab, since these

will select windows deeper down the list. For example, Alt-Tab-Tab from a macro panel will cycle through the top 3 windows in the list.

Using the Shift-F10 combo to bring up property & context menus operates correctly, but additional keyboard functionality is not available when these menus are open.

DOS Windows must operate within the "tty" class within windows, and if you have trouble using the arrow or edit keys in a DOS Window, try turning the Num-Lock off.

Some combo boxes and password entry dialogs do not accept keystrokes and appear to lose focus. This is because of internal operation of the Windows operating system and certain security measures enforced to prevent "software" from comprimising the security of passwords, etc. Contact IMG for additional options available to resolve any mission critical requirements.

KMF layouts, Windows Regional Settings, Windows Keyboard Layouts, etc. At first glance, it would seem that a keyboard is pretty straightforward, and in most cases, it is. However, differences in physical keyboards & physical keyboard layouts, changes to the computer keyboard over time & different manufacturer approaches, along with international/cultural requirements, has turned keyboard handling into quite a complicated affair. In order to isolate differences between different versions of Windows, expectations of operation, and other issues, each supported layout is contained in a KMF (Keyboard Macro File). In general, these are intended to be used in the region & with the appropriate version of Windows.

While people do not complain that their physical keyboard does not change to match the symbols generated, when using a virtual

keyboard, this type of operation is expected. The key labels are also contained within the KMF file, and OnScreen will display the key labels for what is generated from the appropriate Windows Keyboard Layout. If you are experiencing inconsistencies between what is displayed and what is typed, then it is probably related to the selected Windows keyboard layout (see Control Panel | Keyboard). This is handled differently in different versions of Windows (not only platforms, but international releases).

KMFs & KBFs & Build-A-Board

The original design used a KBF (KeyBoard File) to track the physical appearance (keys, panels, size, etc.) (i.e. imagine a blank keyboard), and a KMF (Keyboard Macro File) to track key labels & key operation. This works well when a pure physical keyboard emulation approach is used, since each KMF will result in

the display of different labels, but the relative appearance of the shape & size & key relationships remains the same. For example, if you place physical keyboards from different countries next to each other, they will look pretty much the same except for the key labels.

When Build-A-Board was designed, a completely different approach was used, wherein each layout file would contain everything necessary in a single file, the KBF (KeyBoard File). So KBF files greater than 2.00 not only contain keys, panels, & size information, but also key labels & key operation information.

Build-A-Macro Notes

The following double-characters are reserved in Build-A-Macro:

@@ - Signifies an Alt keystroke to follow

e.g. @@f = [Alt-Down]f[Alt-Up]

~~ - Signifies a Ctrl keystroke to follow

^^ - Signifies a Shift keystroke to follow

$$ - used internally for internal macro uses

%% - used to specify a virtual key, internal keystroke, or a keyboard scan code

You may not use these character combinations in your macros, unless you use them as outlined. For example, you may quickly create a macro for File, New ([Alt]-F, N) by entering "@@fn" and clicking OK. However, using the Reserved words in brackets is the preferred method.

The %% sequence has 4 options, and must be formed properly to be interpreted as an special entry. 4 characters must follow the 2 percent signs, spaces are not allowed. When this is

used, it generates both the Down and Up keyboard messages, (press & release), similar to the entry of a specific character.

The following general form is:

%%cnnn

where c is a character signifying Keystroke or Scancode or Virtual Key Code or ProcessKey keystroke - The only valid characters are k or s or v or p (case does not matter)

The nnn must be 3 decimal digits (values between 000 and 999 are valid). Note that there are only 200+ keys on the panels and 255 Virtual keys - higher numbers may cause memory access errors!

The keystroke (k) numbers refer to the internal numbering of the keyboard - see below for a table of the standard 101 keyboard.

For example, to generate a F10 keystroke, you

may use "%%k010" in the Build-A-Macro portion. In most cases, using the actual character will generate the appropriate scan codes internally, and this is only provided as an enhancement to provide more functionality in certain environments. Documented deficiencies include lack of support for the keys on the Numeric keypad panel. Additionally, by using the scancodes, macros can generate "keystrokes" for keys that are not present on the physical keyboard. Because of the hardware oriented nature of the actual scancode generated by the physical keyboard, and its interpretation by the system hardware and Windows, the scope of these issues requires that they be referenced in appropriate system manuals, and/or documentation on industry standards.

The Virtual Key (v) passes the Windows based Virtual key code directly through OnScreen.

How an application interprets the virtual key code is dependent on regional, language, keyboard layout, and possibly other issues.

The ProcessKey (p) approach uses the internal ProcessKey function which handles more internal processing beyond the AcceptCode function handled by the k, s, or v options. This was added to allow macros to interact with the WordComplete panel on the Assistive Technology version.

> **Technical Information:** The internal interface uses the AcceptCode approach which adds the keystroke to the buffer to be typed. This is managed in different ways as specified based on the k, v, or s options. The p option calls the internal ProcessKey that does various tasks prior to calling the AcceptCode function to insert the keystroke into the output buffer. Because of the tightly interwoven aspects

of ProcessKey, the keyboard panel, and special options such as WordComplete, there may be side-effects if the %%pnnn is used extensively. There may also be other interactions with various other features (Show & Hide Keys, LetterAssist, etc.) that the direct AcceptCode approach will completely bypass. The intended use is to allow a single macro button to type a letter, and interact with the WordComplete panel in the Assistive Technology version.

It is probably worthwhile to state that each of these approaches is important dependent on the context that you want a particular keystroke. Is the keystroke dependent on the physical layout or virtual layout selected? Is the keystroke a character typed into the application with keyboard focus? Is the keystroke acting like it was typed on a the physical keyboard? Is the keystroke macro acting like it was typed on the virtual keyboard? Each can be valid and required depending

on many factors. Supporting each possibility may explain one reason why the software has been around for 20 years.

Quick Reference:

%%knnn, e.g. %%k010 - uses the currently selected KMF (OnScreen layout) and looks up the virtual key / scan code information for this key, sends down/up keystrokes

%%snnn, e.g. %%s112 - sends the scancode, but processed internally. In most cases this will be the same virtual key code as specified, but it may be modified.

%%vnnn, e.g. %%v112 - sends the Windows Virtual Key (refer to Microsoft documentation) unmodified (note decimal notation, hex is not supported).

%%pnnn, e.g. %%p041 - uses the currently

selected KMF (OnScreen layout) and looks up the virtual key / scan code information for this key, sends down/up keystrokes, and processes the key as if typed via the keyboard directly.

Key# Description

0 Escape Key

1 F1

2 F2

3 F3

4 F4

5 F5

6 F6

7 F7

8 F8

9 F9

10 F10

11 F11

12 F12

13 Select key

14 1/!

15 2/@

16 3/#

17 4/$

18 5/%

19 6/^

20 7/&

21 8/*

22 9/(

23 0/)

24 -/_

25 =/+

26 Back space

27 Tab

28 Q

29 W

30 E

31 R

32 T

33 Y

34 U

35 I

36 O

37 P

38 [/{

39]/}

40 Caps Lock

41 A

42 S

43 D

44 F

45 G

46 H

47 J

48 K

49 L

50 ;/:

51 '/"

52 Enter Key

53 Enter Key - make both waves 52.WAV & 53.WAV

54 Shift / Left Shift

55 Z

56 X

57 C

58 V

59 B

60 N

61 M

62 ,/<

63 ./>

64 //?

65 Shift / Right Shift

66 \|

67 Control / Left Control

68 Alt / Left Alt

69 Space Bar

70 Alt / Right Alt / Alt-Gr

71 Control / Left Control

These are on the edit panel

72 Print Screen

73 Scroll Lock

74 Pause

75 Insert

76 Home

77 Page Up

78 Delete

79 End

80 Page Down

81 Up Arrow

82 Left Arrow

83 Down Arrow

84 Right Arrow

These are on the Numeric keypad panel

85 CL indicator / not processed as key

86 NL indicator / not processed as key

87 SL indicator / not processed as key

88 Num Lock

89 /

90 *

91 -

92 7

93 8

94 9

95 +

96 4

97 5

98 6

99 1

100 2

101 3

102 Enter / =

103 0

104 decimal point

Memory

OnScreen uses Windows Global Memory for various things. OnScreen will operate faster if Global memory is physical system memory, and not swapped to disk as virtual memory. Although OnScreen will run in 2 MB systems, operating at 4 MB, 8 MB, or higher is recommended.

It is normal for the OnScreen System Information Mem:????K display to drop as you type on OnScreen, or move over the OnScreen display. You may also note System Resources change as OnScreen is used.

Command Line Options

Quick Reference (Command line options)

- -NoSplash [Open without splash screen]

- !Minimize [Open in the as configured minimized state]

- DEFERSKIPMSG [If this is found in the command line, it only affects the second instance - the default actions will occur, but no message (no dialog/MessageBox) will be shown (see below for notes/details)]

- DEFERNOACTION [If this is found in the command line, it only affects the second instance - nothing will occur when the EXE is launched - the second EXE will just close itself (see below for notes/details)]

- /k=mynew.kbf [Override KeyBoard File (must be in Config Path location)]

- /i=mynew.ini [Override Initialization File (must be in Config Path location)]

- x=123[%] [Override opening x screen position, add % to use screen percentages (calculated)]

- y=321[%] [Override opening y screen position, add % to use screen percentages (calculated)]

Prior to Version 1.76, the only command line option was the ability to specify the NoSplash setting - see NoSplash in the Iniitialization file description. [Path]\ONSCREEN.EXE

-NoSplash In the implementation, the - (dash) is actually the trigger, and the notes specify NoSplash only as a description so maintainers can understand what the command line means - it is not required, and in fact, can be anything as long as there is a - (dash).

In the 1.79 release, a command line based "Open in the minimized state" has been added. Prior to this, the shortcut link properties needed to be modified to indicate the "Run:" state as Minimized (instead of Normal Window (or Maximized)). This is implemented similar to the -NoSplash and can be used as !Minimize or Minimized! - the exclamation point character is the trigger, and if it is present, the internal operation will match the Show Window properties from the shortcut link. It is recommended you include the text of Minimize or Minimized for future maintainers.

Important: In the 1.78 release, the ConfigPath setting determines the default location for the user's configuration file. These notes apply to this location. For example, if you are specifying a different layout, it must reside in the user's specific path, if ConfigPath=1 (default) is set in the Initialization file. See ConfigPath setting in the Initialization file for further details on location You may also reference the configuration files location from the File menu in OnScreen Setup

DEFER overrides - DEFERSKIPMSG & DEFERNOACTION: In 1.79, 2 new DEFER overrides have been added to change the operation of the second instance of the EXE when launched. With no option, the default action is to find the existing Window, restore from minimized state (if in a minimized state), position the

keyboard window at the center bottom of the screen, and display a message indicating only one process (window) can be running. For situations where this message, or these actions are undesirable, one of these 2 options can be included in the shortcut's command line, and change these actions. If DEFERSKIPMSG is included in the command line, all actions will occur, but the final dialog (MessageBox) will NOT be shown. The second instance will open/position the running software, and then close. If DEFERNOACTION is included in the command line, the second instance will perform no actions, and simply close. Running a second instance of the EXE with the DEFERNOACTION option will result in no feedback to the user.

In the 1.76 release, in addition to the

-NoSplash code, there is support for a /k=[file] and/or a /i=[file]. These provide an override to the default KEYBOARD.KBF (/k) and ONSCREEN.INI (/i).

There should be no spaces in the command line entry, except to separate multiple entries.

(e.g. C:\Program Files\ONSCREEN\ONSCREEN.EXE /k=mykbf.kbf /i=mykbf.ini -NoSplash)

The [file] specified must reside in the current configuration folder, as specified by the ConfigPath setting in the Initialization File (except in Terminal Server version).

The code checks for both upper & lowercase k (K) and i (I). The trigger is the = (equal) sign, and the code looks to the previous character for the k or i, and the following characters up until a space or end of line for the [file].

The /k option updates the KEYBOARD.KBF

file with the specified [file]. There is no error checking to guarantee the file exists, or that it is a valid KBF file, so care should be used when implementing these options. The [file] specified with the /k option MUST be a copy of a previously saved configuration (i.e. copy KEYBOARD.KBF to MYKBF.KBF). A Build-A-Board 2.10 generated KBF file may also be used.

The /i option references the given [file] for configuration information, instead of the default ONSCREEN.INI, allowing different settings to be used.

The implementation of the 2 options is internally different (because of internal design). The /k option for OnScreen actually copies the specified [file] to KEYBOARD.KBF, then continues on as normal. The /i option internally references the specified [file], leaving the default

ONSCREEN.INI file intact.

In order to ensure proper operation, certain settings (panels, colors, etc.) are written to the INI file when the /k option is used. This is done to ensure a match between the layout information, and the details in the INI file. When the /k override in the command line is used, the following occurs:

- The specified [file] is copied to KEYBOARD.KBF

- If only the /k option is used, overlapping features from the specified configuration [file] are written to the ONSCREEN.INI.

- if both /k and /i options are used, the INI settings will be used. Therefore, a "matched" pair should be used whenever both options are specified.

- If the /k is used, any other "launch" should

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probably also require the /k option to ensure the desired layout appears.

A "matched" pair means saving both Settings and Position, then closing OnScreen. Copy the KEYBOARD.KBF to MYNEW.CFG, and ONSCREEN.INI To MYNEW.INI.

> **Additional Implementation Notes:** The command line overrides will use the current configuration location - see OnScreen Setup | File menu | Show Config File Location to identify the current user configuration file location. Custom files need to be in this location. The /i=mynew.ini INI override has a quirk - because of internal backup code, the custom named INI should be in the program files location, i.e. \Program Files\ONSCREEN. For ease of use, you can duplicate files in both locations. Often if there are no specific INI settings that affect operation, and the primary

motivation is to use a different layout, it is easiest to only specify the KBF, e.g. /k=mynew.kbf (the KBF must be in the Config File Location).

Terminal Server Note: In the Terminal Server version, the file must reside in the current user's folder.

In the 1.77 release, an X/Y coordinate can also be used, e.g X:200 Y:300 (e.g. C:\Program Files\ONSCREEN\ONSCREEN.EXE -NoSplash x:200 y:300)

The implementation looks for either the : (colon) character, or the = (equal sign), and looks at both upper or lower case x (X), y (Y). So X=200 and Y=300 will also be recognized. Negative numbers can be used. There should

be no spaces in the command line except to separate options.

In the 1.78 Release 2, a percent sign character can be used to position the X/Y coordinates based on the relative position specified (percent of total screen resolution), rather than a fixed location, e.g. x:34% y:70%.

The implementation requires the % character to immediately follow the numeric value. Valid values for X/Y must be in the range 0-100 - negative numbers or numbers over a 100 will revert to acceptable values. The calculation includes the size of the keyboard window, and will keep the entire window visible, so it is a dynamic calculation based on the specified percent, the screen resolution, and the current size of the window. Some examples:
[C:\Program
Files\ONSCREEN\ONSCREEN.EXE x:20%
y:75%], or [C:\Program

Files\ONSCREEN\ONSCREEN.EXE
-NoSplash x=75% y=50%].

> **Note:** When opening in the minimized
> state with the minimize option as a
> Window (Floating Window), these X/Y
> command line overrides will be applied to
> the floating window. Refer to
> ButtonOverrideW/H and
> ButtonOverrideX/Y for additional control
> options specific to the floating window
> minimize option at startup.

Troubleshooting / Diagnosing Startup

In the 1.78 Release 2, "STARTDEBUG" can be
used as the command line to display to the
screen key code points during the initialization
of the software. During the program startup,
there is a direct to display "Reached Code
Marker ID" code indication. As the code

progress and reaches key points in the startup sequence, a code marker (e.g. 1003) is reached, and using a direct to display debugging feature, the code marker is directly displayed on the left side of the system display. If there is an error or other problem starting, the last code marker display will help indicate where the code stopped, and what it was doing.

The following is the list of the codes and what has happened up to that point:

- **1001** In WinMain code, no system calls made yet

- **1002** After check for Window already existing (Previous Instance)

- **1003** After Class Registered with system (Register Class) Pre Window Creation

- **1004** After Window created

- **1005** Free System Timer verified, internal variables initialized

- **1006** DLL's attached

- **1007** Macro file verified / loaded, Read from INI

- **1008** If Win Logon, IMGSERV.EXE launched (95/98/Me) - post launch (Code after OpenFirst=1 drop-out)

- **1009** Several system calls completed

- **1010** After Keyboard Layout read in / prepare for paint

- **1011** System Timer set - last spot before paint

- **1012** After paint, pre System hooks (95/98/M3/NT)

- **1013** After System hooks set (95/98/M3/NT)

- **1014** Final call to DLL's, last spot before message loop

- **1015** After message loop, before all internal cleanup

There are also several "critical error" spots that can be tested easily (refer to ConfigPath setting to ensure you are working with correct file location!)

1) Rename MAC00000.KMF to something else (KM, BAK, etc.)

Run OnScreen - it will stop after 1006 and return false in WinMain

2) Rename ONSCREEN.INI to something else (IN, HLD, etc.)

Run OnScreen - it will stop after 1006 and return false in WinMain

3) Rename KEYBOARD.KBF to something else (KB, HLD, etc.)

Run OnScreen - it will stop after 1009 and return false in WinMain

> **Note:** A normal startup will show through 1014 (and not show 1015 unless you close the software). Setting ClassWatch & WindowWatch in the INI file will identify if message loop is reached, and that the process is acting normally (outside of actual window display). When this setting is enabled, the results will be shown on the top lines of the screen.

As a separate reference, these details were asked by a customer doing custom integration work, and the following is a generalized flow of the startup & important events when the executable is started.

- Opening Check - should MTSOPEN.EXE be run (reference OpenFirst settings in INI file)

- Verify MYTLIB.DLL (Existence, LoadLibrary)

- Register Window Class (RegisterClassEx)

- Create Windows (CreateWindowEx)

- Verify System Timer Available

- Initialize variables, global memory, files, etc.

- Interface Libraries (LoadLibrary)

- INI File

- Keyboard Configuration file

- Show/Update window (splash window - see Note below)

- Message Loop

Splash Window Note (Window painting/WM_PAINT): The NoSplash

setting in the INI file or command line
-NoSplash can be used for removing
splash. The splash processing is an added
sequence prior to normal painting.

Build-A-Board Support

The 1.76 and newer versions now support KBF
files (KeyBoard Files) from IMG's
Build-A-Board 2.10 or later.

The following notes some of the issues on how
this is implemented.

The KEYBOARD.KBF file is the Keyboard
Layout file, and it determines which program
will be used to display & operate the layout.
For KBF files built by Build-A-Board,
MYTSOFT2.EXE will be used. For the default

KEYBOARD.KBF, ONSCREEN.EXE will be used. When MYTSOFT2.EXE is used, the ONSCREEN.INI file is not referenced at all. These are the key issues to be aware of when setting up which keyboard layout / program each user will be presented:

There is no specific way to retrieve the layouts built by Build-A-Board into the OnScreen folder. Build-A-Board should be installed on a development workstation or stand-alone system. Once the required layout(s) are built, these may be copied from the \Program Files\Build-A-Board\Target\[Project] folder, where [Project] is the name of the Build-A-Board Project for the specific layout(s).

Note that the shortcut can be used to launch a specific layout specified via the command line,

e.g. C:\Program Files\ONSCREEN\ONSCREEN.EXE

/k=NUMERIC.KBF, or

C:\Program Files\ONSCREEN\ONSCREEN.EXE /k=KEYBOARD.NUM.

The specified file MUST be in same folder as the EXE.

When ONSCREEN.EXE is run, if the KEYBOARD.KBF file (or specified file via the command line /k=[Keyboard Layout]) is for MYTSOFT2.EXE, ONSCREEN.EXE will terminate, and launch MYTSOFT2.EXE.

The license for MYTSOFT2.EXE is the same as for OnScreen.

Refer to the Administrator Notes in the IMG License Manager for differences in the Terminal Server version.

OnScreen Button Display

OnScreen uses only three graphical icons on its buttons, the rest consist only of text. Two important points must be made about this:

1. It was our intention to make OnScreen easy to use for all levels of computer users. Due to the sizing concerns of OnScreen, and the inherent problems of shrinking and growing graphical images, dealing only with text was the most reasonable solution.

2. Even though a picture may be worth a thousand words, in most cases for OnScreen, one will do. Also, to finalize our point, just sit in front of an unfamiliar application with a graphical button bar, and quickly discern what each button does.

Hopefully, with Quick Help and the button name, a new user to OnScreen can learn the

function of each button quickly.

Finally, since the user can build Panels, imagine the amount of extra effort required to build a graphical icon for each macro...

Stay tuned for Build-A-Board!

OnScreen Setup | Configuration | Special

To properly operate the Special Settings accessible at the OnScreen Special Handling Screen, you must read the details about the Initialization file below. Primarily this screen and its options are intended for advanced users who are already familiar enough with Windows and its concepts. The settings available here allow for the customization of

OnScreen without the need to edit the MyTSpcl???? settings in the Initialization file.

To Add a new Window Name to the list, type the new name, and press Enter. Then select the OnScreen action on the right.

To Delete an existing Window Name, Press the Delete Key and the Press Enter.

You may return to the default settings for MyTSpcl by pressing

the Return to Default button.

You may edit the Initialization file by clicking on the "Edit" button.

You may return to the Installation defaults by clicking on the Return to Installation Defaults button. (This will copy the ONSCREEN.ORG file from the OnScreen Installation Directory to the Windows Directory.) If you do this, we suggest you exit OnScreen and restart.

Windows Notes

Tablet PC (Windows Vista / 7)

The Tablet PC Input Panel interface used in Windows XP is not available in Windows Vista / 7. OnScreen can be used in conjunction with the various Tablet PC Input Panel options available within Windows Vista / 7.

Fast User Switching (Windows XP)

Upon a switch from or to a user session, the software reacts to the WM_WTSSESSION_CHANGE message by verifying the software is not minimized, and restoring setup from the saved configuration. See the SessionChangeEnabled setting in the Initialization file.

Korean Windows, default IME (Windows XP)

The IME creates a VK_PROCESSKEY /

WM_KEYUP message when the pointing device does a ?BUTTONUP event, causing problems with the building of characters from the Korean layout.

Sounds (Advanced Notes)

External Wave File Integration

>**Version Specific Notes:** If Sounds=1 or Sounds=2 is set in the commercial versions (i.e. non-Assistive Technology version), the following details files and naming requirements.

For foreign or custom keyboards and other uses, OnScreen allows the user to replace the pre-recorded voice descriptions of the keys.

Note that "Voices" must be selected in OnScreen Setup, Sounds to enable this feature.

To add your own wave file, simply record the description required, and then place the wave file into the installation directory in the Sounds folder (directory) (Default C:\Program Files\ONSCREEN\SOUNDS) according to the following convention:

Each numbered key description should have a wave file

associated with the naming convention - Key 0, the Escape

key, would be "0.WAV" - Key 1, the F1 key, would be "1.WAV"

and so on up to "100.WAV", etc.

In other words, if there is a "0.WAV" file in the Sounds folder, and

Voices is the selected Sounds option, then the

"0.WAV" file

will be played whenever the Escape key is pressed on OnScreen.

If the Sound option is Key-Click and there is a "KEYCLICK.WAV" in

the Sounds folder, then this wave will be played whenever a key on

OnScreen is pressed.

Key# Description

0 Escape Key

1 F1

2 F2

3 F3

4 F4

5 F5

6 F6

7 F7

8 F8

9 F9

10 F10

11 F11

12 F12

13 Select key

14 1/!

15 2/@

16 3/#

17 4/$

18 5/%

19 6/^

20 7/&

21 8/*

22 9/(

23 0/)

24 -/_

25 =/+

26 Back space

27 Tab

28 Q

29 W

30 E

31 R

32 T

33 Y

34 U

35 I

36 O

37 P

38 [/{

39]/}

40 Caps Lock

41 A

42 S

43 D

44 F

45 G

46 H

47 J

48 K

49 L

50 ;/:

51 '/"

52 Enter Key

53 Enter Key - make both waves 52.WAV & 53.WAV

54 Shift / Left Shift

55 Z

56 X

57 C

58 V

59 B

60 N

61 M

62 ,/<

63 ./>

64 //?

65 Shift / Right Shift

66 \\|

67 Control / Left Control

68 Alt / Left Alt

69 Space Bar

70 Alt / Right Alt / Alt-Gr

71 Control / Left Control

These are on the edit panel

72 Print Screen

73 Scroll Lock

74 Pause

75 Insert

76 Home

77 Page Up

78 Delete

79 End

80 Page Down

81 Up Arrow

82 Left Arrow

83 Down Arrow

84 Right Arrow

These are on the Numeric keypad panel

85 CL indicator / not processed as key

86 NL indicator / not processed as key

87 SL indicator / not processed as key

88 Num Lock

89 /

90 *

91 -

92 7

93 8

94 9

95 +

96 4

97 5

98 6

99 1

100 2

101 3

102 Enter / =

103 0

104 decimal point

Chapter 10. Initialization File Documentation (ONSCREEN.INI)

OnScreen uses ONSCREEN.INI to maintain various options and configuration settings. Depending on the version of Windows and settings, there may be one file per user or a shared file for all users.

OnScreen Initialization File Documentation (ONSCREEN.INI)

Listed below are settings and information for

specific applications that require special actions by OnScreen, along with the Configuration settings for OnScreen. The Brackets [ ] denote the area in the ONSCREEN.INI file, or the application name where special consideration is required. Any lines starting with a semi-colon (e.g. ;) are comments and detailed information not found in the ONSCREEN.INI file.

> **IMPORTANT NOTE:** This documentation stretches back over 20 years, covers 4 major releases of Windows families, and over a dozen specific Windows versions. Due to changes in the operating environment, certain settings and configuration options have become obsolete. In most cases, these remain documented and notated as obsolete. For customer support (and the sometimes extremely specific customer needs), the multitude of options & flexibility has

become a crucial aspect of this software. Because of this, every last capability needs to be documented somewhere, and this chapter is used for that purpose.

All Settings are the default Settings of OnScreen.

[Configuration]

The following is the default configuration for OnScreen at Install.

(Added in 1.78)

ConfigPath=1

This setting determines where the configuration files will be located. ConfigPath=0 means the configuration files will be in the installation folder - there are no per user configuration files with this setting and user permissions must allow read-write access

to at least the KEYBOARD.KBF and ONSCREEN.INI, or users must run with a fixed (read-only) configuration. When ConfigPath=1 or ConfigPath=2, each user will have their own configuration files. If ConfigPath=3, these are in shared among all users in a public location.

Note that the ONSCREEN.INI file in the installation folder determines the location of new users' configuration files, and if an administrator changes this after OnScreen has already been used by other users, their existing individual configuration files will NOT be transferred to the new location. What will happen is the software will be unable to find configuration files for the current user in the current specified path, and a copy of the current configuration files will be used as a starting point for this new location.

This is a breakdown by Operating System of

the specific locations used - [User] indicates
the actual user logged onto the system, and
[ProductDir] indicates the Product's directory
name, e.g. the ONSCREEN folder.

ConfigPath Locations

ConfigPath: 0
Windows 2000/XP: \Program
Files\[ProductDir]
Windows Vista/7: \Program
Files\[ProductDir]

ConfigPath: 1
Windows 2000/XP: C:\Documents and
Settings\[User]\Application Data\Innovation
Management Group\[ProductDir]
Windows Vista/7:
C:\Users\[User]\AppData\Roaming\Innovation
Management Group\[ProductDir]

ConfigPath: 2

Windows 2000/XP: C:\Documents and Settings\[User]\Local Settings\Application Data\Innovation Management Group\[ProductDir]

Windows Vista/7: C:\Users\[User]\AppData\Local\Innovation Management Group\[ProductDir]

ConfigPath: 3

Windows 2000/XP: C:\Documents and Settings\All Users\Application Data\Innovation Management Group\[ProductDir]

Windows Vista/7: C:\ProgramData\Innovation Management Group\[ProductDir]

Contention=1

The Contention setting is the global or overriding setting - This must be set to 1 for the individual application settings to be recognized by OnScreen - if you wish

OnScreen to remain over all applications, set Contention=0 - you will need to be careful in certain applications as noted in the individual application settings below. This is referred to "React to Dialogs..." in OnScreen Setup, additional details can be found in the Help for the Operation Options dialog.

(Obsolete since 1.70)

InterfaceApproach=1

OnScreen has several internal strategies to interface with other windows in the Windows environment. It is believed that the strategy indicated by InterfaceApproach=1 is the best for all windows applications. This is obsolete for all 32-bit versions. This is left for reference purposes & a reminder that the software still has internal options regarding the interface approach.

OpenFirst=1

OpenAbout=0

OpenFirst is set at installation to automatically open with the OnScreen splash screen and go directly into the OnScreen Welcome. This is set to 0 once OnScreen runs the first time. It is not used again. If OpenAbout=1, OnScreen will Open with the OnScreen Splash Screen instead of the quick OnScreen logo. It primarily is a left over from the development stages of the opening logo, but was left in for those user's who don't mind or prefer the longer opening.

OpenCentered=0

If OpenCentered=1, then the OnScreen window will be centered and placed in the lower portion of the screen (based on the current resolution). This overrides the position setting saved in the KBF file. Also, this will set OpenCentered=0, making this a one-time use setting. When set, the internal logic centers horizontally based on the System metrics

(GetSystemMetrics API) for FullScreen X, and lower part of the screen based on FullScreen Y (single monitor). This can be useful for externally controlling opening position by overriding the KBF positioning, for testing, or for first-open / display situations.

NoSplash=0

If NoSplash=0, then the splash (opening introduction) screens are used at Startup of OnScreen. If NoSplash=1, then the intro screens are not used, and OnScreen opens as previously configured. This option can be initiated at run-time / via a shortcut by adding the -NoSplash option to the command line. (e.g. "C:\Program Files\ONSCREEN\ONSCREEN.EXE -NoSplash")

TypeMatic=1

StartDelay=500

KeyDelay=20

The TypeMatic settings are for automatic
typing when you hold down a key on
OnScreen. Set TypeMatic=1 if you wish this
type of action, or set TypeMatic=0 if you wish
to disable automatic typing. The StartDelay
and KeyDelay are only meaningful if
TypeMatic=1. StartDelay is the delay in
milliseconds a key must be held down before
the TypeMatic action begins. The default is 500
milliseconds or 1/2 a second. The KeyDelay is
the delay between successive keystrokes sent.
The KeyDelay setting is also in milliseconds.
Note that the enable/disable key options
override the typematic setting. Note also that
TypeMatic is available in OnScreen Setup |
Configuration | Operation Options.

Cursor=2100

This is the current cursor that OnScreen uses
while over the OnScreen Keyboard display.

Valid settings are as follows:

Small Right Hand is 2000

Small Left Hand is 2020

Small Right Hand with Int'l "Shift" symbol = 2040

Small Left Hand with Int'l "Shift" symbol = 2060

Large Right Hand is 2100

Large Left Hand is 2120

Large Right Hand with Int'l "Shift" symbol = 2140

Large Left Hand with Int'l "Shift" symbol = 2160

Standard Arrow = 2600

CrossHairs = 2620

Dot = 2640

Invisible / clear = 2660

TrapDialAKeyCursor=1

Note - the name is a hold-over from the Dial-A-Key option. In OnScreen, this is the setting that indicates whether the cursor will be displayed over the Magnifier panel. If TrapDialAKeyCursor=1, the cursor will be displayed over the magnified image. If TrapDialAKeyCursor=0, the cursor will not be shown.

Icon=3100

This is the OnScreen Icon to that OnScreen will use when OnScreen minimizes to an icon. Valid Settings are: Fixed Icons, OnScreen logos, Keyboard images, etc. 3000, 3001, 3002, 3003, 3004, 3005, 3006, 3007 OnScreen Text Icons (diff't colors) 3050, 3051, 3052, 3053, 3054, 3055, 3056 Animating icons 3100, 3104, 3108

(Obsolete)

IconAnimate=0

NOTE: This is a holdover from the original Windows 3.0 release. For all Windows versions beyond 1995, this should be 0. The Icon settings are for which Icon OnScreen displays upon minimizing to an icon, and if the icon should animate. NOTE: Some icons are not meant to animate, so if IconAnimate=1 the only animation action will be to flash the border. The IconAnimate setting is used to tell OnScreen to animate the icon if it is an animating icon and IconAnimate=1. Set IconAnimate=0 to disable icon animation.

(Obsolete)

IconOnTop=1

NOTE: This is a holdover from the original Windows 3.0 release. For all Windows versions beyond 1995, this is not used. If IconOnTop=1,

the Icon will remain as a topmost window, so the icon will always be visible. If IconOnTop=0, the OnScreen icon will be a normal window, and will fall behind other windows.

MinimizeToButton=1

If MinimizeToButton=1, OnScreen will minimize to a button (title bar button) instead of an Icon, and ignore other Icon settings. If MinimizeToButton=0, OnScreen will minimize to an Icon (Taskbar button). If MinimizeToButton=2, then the Tray Icon will be used. If MinimizeToButton=3, then OnScreen will minimize to a movable/sizable window.

CaptionWatch=0

ButtonOffsetX=0

ButtonOffsetY=0

These are special settings for the Minimize to Button option. Since there may be other windows that use the top left portion of the caption bar, the following settings may help alleviate any conflicts:

In Windows 95 & greater, the right side of the caption bar is used - negative values may be used to adjust towards the left. If CaptionWatch=1, OnScreen will sense if there is a Window other than the window that owns the caption bar in the area that the OnScreen button will be placed. OnScreen will then move to the right of the Window that is already in the caption bar. If the above does not work for your application, you may add in button offsets to move the top-left position of the button - these will be added to the original position of the button and the OnScreen button will then be placed at the offset.

(Added in 1.76)

ButtonOverrideW=0

ButtonOverrideH=0

By default, the button sizes to the height of the caption bar (title bar) using the GDI call StretchBlt. A customer requested the ability to modify the width of the button for touchscreen users, so these settings have been added to allow full customization of the displayed button (when minimize to the button state is selected). For both ButtonOverrideW (width), and ButtonOverrideH (height), if set to 0, then the default calculations occur (e.g. fixed width, size height to caption bar). If ButtonOverrideW is non-zero, then the entered size (in pixels) is used for the width. If ButtonOverrideH is non-zero, then the entered size (in pixels) is used for the height. DO NOT USE negative values - your button will not appear! (Select an alternative minimize option to get at OnScreen if this occurs). Because the Stretch Bitmap call

is used to fill out the display, the button display may be distorted, especially as you get further from the default size.

> **Minimize to Window Options (Floating button in a Window):** In 1.79, these settings take on a meaning when MinimizeToButton=3 (minimize to a floating button in a movable/sizable window). A customer requested the ability to open in the minimized state, yet separate the default opening position of the floating window and the keyboard. To accommodate this, these settings take on similar meanings for the Window minimize option. If ButtonOverrideW is non-0, then the width for the floating window is specified in the INI setting. Similarly, if ButtonOverrideH is non-0, then the height for the floating window is specified in the INI setting.

(Added in 1.78)

ButtonOverrideX=-20000

ButtonOverrideY=-20000

By default, the button positions itself on the active window's caption bar (title bar). A customer requested the ability to force the minimized button to always position itself in one place on the screen. When these values are present in the INI file (or any value greater than -20000), then the entered ButtonOverrideX and / or ButtonOverrideY values will be used when minimized to a button. For example, if ButtonOverrideX=754 and ButtonOverrideY=0, then the button will always position itself on the upper right (800 x 600) of the screen, ignoring the active window. These settings are independent internally, but in practical usage they need to specificy a fixed screen position.

Minimize to Window Options (Floating button in a Window): In 1.79, these settings take on a meaning when MinimizeToButton=3 (minimize to a floating button in a movable/sizable window). A customer requested the ability to open in the minimized state, yet separate the default opening position of the floating window and the keyboard. To accommodate this, these settings take on similar meanings for the Window minimize option. If ButtonOverrideX is something other than -20000, then the X screen position for the floating window is as set in this INI setting. Similarly, if ButtonOverrideY is something other than -20000, then the Y screen position for the floating window is as set in this INI setting. If command line overrides are used, they will be used (these settings will not override the command line override).

(Added in 1.78)

ButtonIgnoreWindowXY=0,0

If this entry exists in the INI file, then this establishes a lower limit (if both the x,y entries are non-0), then these values will be used as a check against the active window, and if the window's size (X and Y) is less than the entries specified here, then the button will NOT position on this window. This was requested by a customer to prevent the button from moving to small display windows. For example, if ButtonIgnoreWindowXY=100,100 than any window less than 100 x 100 will be ignored when determining the active window. Note that BOTH entries are used, so if a window is 200 x 50, then it would not be ignored, since the X value is not less than 100.

(Added in 1.78)

ButtonSingleMonitorLimit=0

If ButtonSingleMonitorLimit=1, then a call to GetSystemMetrics(SM_CMONITORS) is called and if the system has only 1 monitor, then the button will not be allowed to move off-screen (for example, if the active window has a title bar off screen, or the window is wider than the screen). The ButtonOffsetX/ButtonOffsetY entries are used in the calculation, but the screen will still limit the location of the minimized button. If ButtonSingleMonitorLimit=2, then the single screen limit will be used, regardless of how many monitors in the system.

BackgroundColor=6201

The BackgroundColor setting is the Keyboard Background color that paints the background of the Keyboard & Edit & Magnifier panels. Valid settings are as follows:

6200 - 6215 Solid Colors

6216 - 6230 Various Dithered Grays/White/Black

Note: The dithered colors may paint improperly on some OnScreen sizes.

SlideOption=1

If SlideOption=1 OnScreen panels will slide out & snap in.

If SlideOption=0 OnScreen panels will snap out & snap in.

Size=9

This is the OnScreen display size. Valid sizes are 1-12 if set manually.

Version 1.67 added infinite sizes - values greater than 12 should not be handled here - use the SzUp & SzDn in the software to change sizes larger than 12. The software handles the transition from 1 to 9, 10 to 12, 12 to 13, and 13 and larger differently. The sizing

issues arise from maintaining the aspect ratio, visual aesthetics, and internal coding that should be reworked. At some point, it may be. As it exists, arbitrarily changing the sizes in increments greater than 1 can cause problems, especially if crossing the transition from the original sizes (i.e. 1-12) and larger sizes. It is recommended that all sizing be handled within the normal operation of the software. Refer to the Devevloper's Kit utilities, such as Copy and Configure MTS, that can arbitrarily change the size configuration of OnScreen on-the-fly for sizing flexibility.

SizeMax=12 (example)

SizeMin=8 (example)

When these values are present, they determine boundaries where the user cannot change the size below SizeMin or above SizeMax. When the size is at the SizeMin, the SzDn key and menu options to size down are disabled, and

when the size is at the SizeMax, the SzUp and menu options to size up are disabled. These can be used together, or independently. These settings were requested by a customer to keep a set range of sizes available to the user, but not let the user stray too far from the preferred working sizes.

Center=1

RestorePosition=0

The Center setting is used to automatically center OnScreen on the screen if it is repositioned due to an window conflict. Set Center=1 if you wish to center OnScreen when it is moved, or Set Center=0 if you wish OnScreen stay in the same horizontal position on the screen. If RestorePosition=1, OnScreen will remember the screen position it was at when it was forced to move due to a window conflict, and then restore that position when the conflicting window is no longer the active

window. If RestorePosition=0, OnScreen will
remain at its new position when forced to move
due to a window conflict. Note: Window
conlicts are set below in the Class Settings for
window Classes & Actions. Note: Most users
felt that it was less annoying for OnScreen to
remain at its new position, than to constantly
jump back & forth.

TwoButtonMouse=1

If TwoButtonMouse=1, then OnScreen will
ignore the middle button, regardless of the
MouseButtons settings below, and OnScreen
Setup will not allow the user to change the
middle button setting. If TwoButtonMouse=0
OnScreen & OnScreen Setup will assume there
is a 3 button Mouse, and that the proper drivers
are installed for use within Windows.

IMPORTANT: OnScreen will not work with
the middle button if the proper drivers are not
installed. The default IBM PS/2, Microsoft

drivers do not support the middle button, and even some drivers of 3 button mice do not support the middle button within Windows. Check with your mouse manufacturer to obtain the proper drivers if you have a 3 button mouse and Windows does not recognize the middle button.

Keyboard=1

This is the Keyboard description file OnScreen uses to define the 101 Key panel layout. The 104 layouts start in the 100+ range, so adding 100 to the 2-digit listing refers to the 104 key layouts, e.g. 101 is the US Standard 104 key layout. Over the 20 years & different Windows versions, our support team would be notified that a particular layout was not correct in a certain version of Windows. Since with any particular release, multiple versions of Windows are supported, and it was thought that a keyboard layout would remain

consistent, changes to the layouts were deemed problematic - for example, if it was changed for Windows version X, this change would cause problems in older versions of Windows. So certain layouts are tagged "Old" to reflect that it might be required for an older version of Windows. The values 1-96, and 101-196, and any 200+ entries listed are valid, and are related as follows:

01 = U.S. Standard, 02 = U.S. Dvorak Standard, 03 = U.S. Dvorak Left-Handed, 04 = U.S. Dvorak Right-Handed, 05 = U.S. My-T-Easy (ABC) Alphabetic Keyboard, 06 = Belgian (comma), 07 = British, 08 = Canadian Multi-lingual, 09 = Danish, 10 = Dutch, 11 = Finnish, 12 = French, 13 = French Canadian, 14 = German, 15 = Icelandic, 16 = Italian, 17 = Latin American, 18 = Norwegian, 19 = Portuguese, 20 = Spanish, 21 = Swedish, 22 = Swiss French, 23 = Swiss German, 24 = U.S.

International, 25 = Hungarian (Old), 26 = Belgian (period), 27 = Arabic, 28 = Belarusian, 29 = Bulgarian, 30 = Bulgarian (Latin), 31 = Croatian, 32 = Czech (Old), 33 = Czech (Qwerty), 34 = Estonian, 35 = Greek, 36 = Hebrew, 37 = Hungarian, 38 = Irish, 39 = Latvian, 40 = Latvian (Latin), 41 = Polish (Old), 42 = Romanian, 43 = Russian (old), 44 = Slovak, 45 = Slovak (Qwerty), 46 = Turkish (F type), 47 = Turkish (Q type), 48 = Spanish (Mexico), 49 = U.S. Fazekas, 50 = U.S. Chubon, 51 = Slovenian, 52=Japanese, 53 = Chinese, 54 = Korean, 55 = French (Belgian), 56 = French (Luxembourg), 57 = German (Austrian), 58 = German (Leichtenstein), 59 = German (Luxembourg), 60 = Spanish (Argentina), 61 = Spanish (Bolivia), 62 = Spanish (Chile), 63 = Spanish (Columbia), 64 = Spanish (Costa Rica), 65 = Spanish (Dominican Republic), 66 = Spanish (Ecuador), 67 = Dutch (Belgian), 68 = Dutch

(Netherlands), 69 = Italian (Switzerland), 70 = Norwegian (Bokmal), 71 = Portuguese (Brazilian), 72 = Spanish (Guatemala), 73 = Spanish (El Salvador), 74 = Spanish (Honduras), 75 = Spanish (Modern Sort), 76 = Spanish (Nicaragua), 77 = Spanish (Panama), 78 = Spanish (Paraguay), 79 = Spanish (Peru), 80 = Spanish (Puerto Rico), 81 = Spanish (Uruguay), 82 = Spanish (Venezuela), 83 = English (Australian), 84 = English (New Zealand), 85 = English (Jamaica), 86 = English (United Kingdom), 87 = Chinese (Cangjie), 88 = Canadian Multilingual, 89 = Polish, 90 = Polish Programmer, 91 = Thai, 92 = U.S. Plum, 93 = Russian (Cyrillic), 94 = Danish (ABC), 95 = U.S. (Numpad Enter), 96 = Czech, 97 = Belgian (period), 101-197 are the 104 key layouts matching the above, 200 = 104 British (1st alternate), 201 = 104 British (2nd alternate), 202 = 104 Hebrew (Alt.), 203 = 104 Chinese (Zhuyin) (Alt.), 204 = 104 Arabic

(Alt.)

DriveTypesToCheck=1

DefaultDrive=C

CheckFloppies=0

These values are for the System Information display.

DriveTypesToCheck can take 4 values, which have the following meanings:

0 = Do not check Removable Drive Types, or Network Drives

1 = Do not check Removable Drive Types, Check Network Drives

2 = Check Removable Drive Types, but Do Not Check Network Drives

3 = Check Both Removable & Network Drives

DefaultDrive is the drive letter of the default drive that OnScreen displays in the System

Information Panel.

Valid letters are A through Z.

CheckFloppies=0 means that OnScreen will not look at drive letters A or B. If CheckFloppies=1, OnScreen will look at Floppy Drives A and B.

CheckMinMax=1

If CheckMinMax=1, OnScreen will check for the existence of the Minimize Button & Maximize Button on the Caption Bar of the Window before Minimizing or Maximizing the window when MIN or MAX is used on the Windows Controls Panels. Set CheckMinMax=0 to bypass this check. This is important for custom window displays that do not use the standard windows controls for Minimize and Maximize.

ClassWatch=0

WindowWatch=0

KeyWatch=0

SetActiveWindowWatch=0

SkipTopMostAction=0

These settings can be used for debugging certain aspects of the operation within Windows, or which specific key numbers correspond to key operation on OnScreen

These settings are for individuals experienced with Windows Environment and window classes & names, and Windows programming, or at least its concepts.

The ClassWatch & WindowWatch settings are for watching the Class Name & Window Name of the active Window. These primarily are for finding this information so that the Special Settings & Class Settings can be modified for OnScreen to work with other application

Windows. If ClassWatch=1 OnScreen will
display on the upper portion of the display the
Class Name of the active window. If
WindowWatch=1 OnScreen will display on the
upper portion of the display the Window Name
of the active window. Once this information
has been determined, the ClassWatch &
WindowWatch should be set back to 0.

KeyWatch=1 will display the keys affected by
the enable/disable key option - this will display
the number + 1000. Only the alpha and edit
panel keys are displayed. This is useful if
building a different keyboard mapping, and
need to identify which key number is which.

SetActiveWindowWatch=1 will display which
internal call is being used to call the
SetForegroundWindow API from OnScreen.
This can determine which area of code is
responsible for this API call. For more details
on this, refer to Microsoft's documentation on

the SetForegroundWindow API function, and the changes that occurred in Windows 2000 with regards to changing the keyboard focus and active (i.e. foreground) window programmatically. This entry also serves a double duty, and it displays a code identifying the internal call used to save data to the KEYBOARD.KBF file.

If SkipTopMostAction=1, this bypasses the internal code that tries to bring OnScreen to the topmost position during normal operation. In general, having an on-screen keyboard fall behind other windows is not productive. However, there can be conflicts and issues if multiple windows are trying to maintain the topmost position in the Windows internal window manager list. Also, it has been the general consensus that menus in the system remain above the on-screen keyboard. During operation from a pen, touchscreen, or other

pointing device, selecting menu selections is easier, more intuitive, and more effective directly from the pointing device, rather than indirectly from the on-screen keyboard. You can refer to the MenuClasses entry below for Menu interface options. For debugging purposes, or to see how OnScreen will operate by bypassing this window interface code, you can set SkipTopMostAction=1.

SetupSaveSettings=0

(The next 2 are obsolete)

SetupAutoLoad=0

SetupAutoRun=0

These settings are for OnScreen Setup to track whether OnScreen has been configured for these special settings. They are used as follows:

The SetupSaveSettings is used if OnScreen is running. If SetupSaveSettings=1, OnScreen

will update its configuration file when OnScreen Setup is closed. This will ensure that OnScreen will open with the current configuration. This is default set to 0 so the user can become familiar with all of the OnScreen configuration options before deciding which configuration OnScreen will open with. If the user is confused as to why OnScreen does not open the way they left it, then this setting should be set to 1. NOTE: This will only work for configuration changes made in OnScreen Setup. SetupAutoLoad & SetupAutoRun are used internally to track whether OnScreen has modified the WIN.INI file "load" and "run" options.

The SetupAutoLoad and SetupAutoRun have been disabled since version 1.32 because of user confusion. Most users use the StartUp group, or understand the Load and Run settings in the WIN.INI. They remain because they may

be reworked and included in a future release.

EnableOperator=0

Password=5F626274

(OnScreen Note - The EnableOperator setting is used for the Basic & Advanced modes in OnScreen - the Password and Supervisor/Operator mode are not available in OnScreen)

The Supervisor/Operator mode has been included, but it is default off. If EnableOperator=1, then OnScreen opens in the Operator mode. This disables the OnScreen Tool button, and the OnScreen Menu button, and requires a password to be entered before OnScreen Setup is opened. This effectively limits the Operator to one (saved) configuration, but allows a supervisor to modify or change the OnScreen configuration if necessary.

Note: The password is encrypted - the default entry above corresponds to "PASS". The OnScreen Control Panel should NOT be available for use by the Operator, as this would allow the operator to modify the OnScreen configuration. Note that once the Setup password has been entered, OnScreen operates in the supervisor mode. Close both Setup & OnScreen, then restart OnScreen to re-enable the operator mode.

OperatorNoMin=0

(OnScreen note - this requires the Supervisor/Operator mode and therefore is not available in OnScreen)

The default Operator mode still allows the operator to minimize OnScreen. To Disable this option, set OperatorNoMin=1, and the minimize button will no longer function, disabling all of the buttons on the Tool Bar.

ControlLogo=0

(OnScreen note: This is not supported)

When in operator mode, it is sometimes desirable to remove the visual display of the buttons on the Tool Bar. When ControlLogo=1, an optional Bitmap file will be loaded and displayed over the Tool Bar buttons. This is a developer enhancement, and the following details assume a general understanding of Windows:

Requirements for ControlLogo=1

In the installation or user directory specified by ConfigPath, 12 bitmap files corresponding to the 12 sizes of OnScreen need to be created:

NAME, WIDTH IN PIXELS, HEIGHT IN PIXELS

LOGO01.BMP, 12, 46

LOGO02.BMP, 15, 58

LOGO03.BMP, 18, 70

LOGO04.BMP, 21, 82

LOGO05.BMP, 24, 94

LOGO06.BMP, 27, 106

LOGO07.BMP, 30, 118

LOGO08.BMP, 33, 130

LOGO09.BMP, 36, 142

LOGO10.BMP, 47, 190

LOGO11.BMP, 62, 250

LOGO12.BMP, 83, 322

These files could be created via PaintBrush, or any other tool that creates bitmaps. Only 16-color bitmaps are recommended because of memory & speed issues, but higher resolutions should operate satisfactorily. However, only 16-color bitmaps are guaranteed to work. If no bitmap file is present for the current size, then

no buttons are displayed, and a black background appears. Sample/template bitmaps may be downloaded via IMG's Web site at http://www.imgpresents.com/imgdev.htm

Prior to the 1.78 release, the installation path was the only possible location. In the original 1.78 release, this actually used the location of the user's configuration, e.g. the path based on the ConfigPath entry. In 1.78 Release 2, the following logic is used: The location specified by the ConfigPath entry is used, and if the logo bitmap file does not exist, the installation folder is tried. This allows more flexibility, so that different users can have different custom logos, or a machine level setting can be used by placing the logo bitmaps in the installation folder. This can also allow a specific user to override the default logos.

Editor=NOTEPAD.EXE

ControlPanel=CONTROL.EXE

ControlPanelKeyboard=rundll32.exe shell32.dll,Control_RunDLL main.cpl @1,1

These are the default settings for OnScreen Setup. Editor is the Executable used to modify the ONSCREEN.INI file accessed from OnScreen Setup, Configuration, Special. ControlPanel is the Windows Control Panel accessed by OnScreen Setup, Keyboards. ControlPanelKeyboard is the Windows Keyboard Layout Applet for selecting the current keyboard layout that is in use. These may be changed if relevant for the Windows Configuration in use.

InstallPath=C:\%PROGRAMFILESDIR%\O

This is created at Installation time to signify the chosen InstallPath. If you need to move OnScreen, we suggest you Un-Install, and then re-install OnScreen to the new path.

ShowKeys=1111111111111111111111111111111

This setting indicates which keys are visible for the standard keyboard (Alpha) panel. The Esc key is key 0 and the count increases from left to right, row by row. A 1 indicates that the key is visible, and a 0 indicates that the key will not be painted, and not accessible.

AllowFrameMove=1

This is for controlled applications, or where there may be extraneous movement caused by the touchscreen driver. If AllowFrameMove=1 then any non-key area will trigger the move OnScreen action via click & drag. If AllowFrameMove=0, then it will not be possible to move OnScreen via the selected button click. OnScreen must be moved via a secondary button selection (OnScreen Setup, Mouse Buttons) or by an external application.

VirtualPointer=1

If VirtualPointer=0, then the default action of

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OnScreen for button clicks and moves is in use. This setting is best for standard system hardware such as the mouse, trackball, touchscreen, or pen. Set VirtualPointer=1 if software control for the mouse cursor (pointer), or other devices are in use. If there are any problems experienced while moving the OnScreen window using a click, drag, release, then VirtualPointer=1 may also be tried.

SingleKeyPerClick=0

This setting is used to distinguish the operation of OnScreen for clicks. The default action (SingleKeyPerClick=0) is to act exactly like a physical mechanical spring key, where a down click; drag off motion will generate a keystrokes (i.e. once the finger is dragged off the key, it will bounce up and this will generate a keystroke). If SingleKeyPerClick=1, then only the key that was pointed to during the down click will be generated, even if the cursor

is dragged onto adjacent keys or other parts of
the OnScreen window. If the cursor is dragged
off of the OnScreen window while this setting
is on, then the key-up event will occur, and the
keystroke will be generated. It is recommended
that the Typematic setting be set off if
SingleKeyPerClick is set on to disable multiple
keystrokes of the same "down" key.

BorderNoHit=0

This setting is used to identify pixels around
the edge of the keys (top, left, bottom, right)
that will not be used to identify a key press.
Since the setting is in pixels, the actual values
will differ between the 12 sizes available. A
setting of 6 for OnScreen size 8 will create a
noticeable border. Valid values are from 0 to
100. Note that a pixel value larger than the 1/2
the key size in pixels will result in an unusable
configuration, and values larger than the key
may create software errors in internal

calculations.

ForceUnHook=0

The ForceUnHook option toggles an internal variable that is used to track whether the system journal hooks should be set at all times, or only when the cursor is over a typing panel. The primary reason for this is to test / resolve potential conflicts with other software applications.

Note: Because of internal operation of the variable, it is opposite to the displayed setting in Operation Options, e.g. ForceUnHook=0 results from Track Pointing Device input at all times being set On (checked), and ForceUnHook=1 results from Track Pointing Device input at all times being set Off (cleared)

1.70 notes: This has taken on a stronger meaning with the 1.70 release. We have found that only a few non-mouse drivers truly

emulate the mouse driver functionality. In order to support touchscreen, pen, and non-mouse drivers that do not put sufficient delays (and let other window processes run) between the move and click events, the system hooks Always on (i..e. Track Pointing Device Input at all times) is required to handle focus issues in all pre-Win 2000 versions of Windows. In general, a mouse cannot generate a click until it is moved into position (generating WM_MOUSEMOVE messages over the target window) - OnScreen uses these messages to set System hooks in preparation for the possible WM_?BUTTONDOWN messages, to prevent the focus switching events. When a touchscreen, pen, or other non-mouse driver moves & sends click events without a delay or release to other window processes running (part of the pseudo- multitasking required by properly written windows programs), OnScreen cannot prepare for the focus shifting

events. "Click on release" settings in the driver may alleviate the undesirable results, or leaving these hooks Always on can also make for more desirable operation. A great deal of effort was made to resolve the focus issues without the use of these system hooks, but only through the use of these could seamless operation occur throughout all windows applications & input situations. If problems arise where the system hooks settings causes OnScreen to become unresponsive, setting Track Pointing Device Input at all times off may resolve this situation, and investigating options within the pointing device driver (touchscreen, pen, etc.) may be helpful.

2 additional notes

1) Windows 2000 and above do not require the use of system hooks, so this setting is not relevant (and the situations described above do not apply)

2) Try OnScreen on the system with an actual mouse device - if the problems do not occur, please contact the device driver manufacturer and inform them that their pointing device driver does not emulate a mouse properly.

NoHooksEver=0

This is the setting called Alternate Virtual Interface in OnScreen Setup In Windows 2000/XP, there is no need for the system hooks, and this setting is automatically enabled when running in Windows 2000/XP. In testing with older and assistive technology devices & software, it was found that some of these require this setting (95/98/Me/NT). If you experience any typing difficulties & a general non-responsiveness from OnScreen, you may try NoHooksEver=1 (Alternate Virtual Interface set On).

(This is obsolete)

RunAddFontResource=0

This was added to remove the call to the AddFontResource Windows API for Windows 95 / 98. On certain systems, the delay induced by Windows during this call caused problems in other programs / Windows during startup.

Since it is not required if the software was properly installed, it was removed in version 1.61. It still is called if run in Windows 3.1. Set RunAddFontResource=1 to force this call during startup in Windows 95 / 98. This settings has no effect for Windows 3.1.

KeyboardUpdate=0

This setting is used as a flag when a keyboard layout is modified in Setup to indicate that the character set, AltGr status, and lowercase display setting should be read from the KMF file. It is managed automatically through Setup, but if keyboard layouts are modified manually,

it may be wise to set this to 1 prior to running OnScreen.

KeyboardFontBase=MyTMouse

KeyboardFontMedium=MyTMouse

KeyboardFontLarge=Arial

KeyboardCharSetBase=22

KeyboardCharSetMedium=22

KeyboardCharSetLarge=0

Keyboard1SizeAdjBase=0

Keyboard1SizeAdjMedium=0

Keyboard1SizeAdjLarge=1

Sizes 1-6 are the Base sizes. For almost all uses, the MyTMouse font is the best choice.

Medium Sizes are 7-9.

Large Sizes are 10-12 and sizes greater than 12.

The Character Set for Base / Medium / Large (KeyboardCharSet...) settings allow changing the character set used to reference the keyboard characters.

The following lists documented sets

ANSI_CHARSET = 0

DEFAULT_CHARSET = 1

SYMBOL_CHARSET = 2

MyTMouse = 22

MAC_CHARSET = 77

SHIFTJIS_CHARSET = 128

HANGEUL_CHARSET = 129

HANGUL_CHARSET = 129

JOHAB_CHARSET = 130

GB2312_CHARSET = 134

CHINESEBIG5_CHARSET = 136

GREEK_CHARSET = 161

TURKISH_CHARSET = 162

VIETNAMESE_CHARSET 163

HEBREW_CHARSET = 177

ARABIC_CHARSET = 178

BALTIC_CHARSET = 186

RUSSIAN_CHARSET = 204

THAI_CHARSET = 222

EASTEUROPE_CHARSET = 238

OEM_CHARSET = 255

In general, use 22 for MyTMouse and 0 (ANSI) otherwise.

This affects the Windows GDI selection of fonts, and can be useful if specific characters are not being selected as desired from the current KYBD????.KMF.

The Keyboard1SizeAdj... settings refers to the amount subtracted from the available area of the key (total pixels) used to display the font character. Even though it strongly affects key displays of 1 character (i.e. alphanumeric keys on the Keyboard (Alpha) panel), it does have some effect on all buttons displayed. As the numbers increase the calculated area available for the required display character(s) becomes smaller, forcing a smaller font to display.

LowerCaseDisplay=1

If LowerCaseDisplay=1, then the default keyboard display will contain lower case characters, only changing to upper case when the Shift or Caps Lock is engaged. If LowerCaseDisplay=0, then Upper Case characters will always be used on the keyboard display.

IgnoreSystemCapsLock=0

This setting was asked for by a customer using the TS version with Citrix. Apparently there are some synchronization problems within different client versions of Citrix, and the Caps lock operation can be inconsistent. By default, OnScreen queries the system to establish the Caps Lock state - on a normal PC, this operates as one would expect - the Caps Lock state stays in sync between the physical keyboard and OnScreen. By setting IgnoreSystemCapsLock=1, the portions of code that monitor the system Caps lock state are bypassed. Note that when the Caps Lock key is used on OnScreen, the appropriate keystroke is sent, but the state (key display / Caps lock ligh on Num panel) within OnScreen will not reflect the change, because the system is not being queried, and these updates are bypassed. In order to address all possible system situations based on the Caps Lock state, additional options have been added. The

following lists the 6 different settings available for IgnoreSystemCapsLock:

- IgnoreSystemCapsLock=0 (Default)

- IgnoreSystemCapsLock=1 Does not repaint based on System Caps Lock

- IgnoreSystemCapsLock=2 Paint Capped keys based on Internal Caps Lock state, but do not change key action

- IgnoreSystemCapsLock=3 Paint Capped keys based on Internal Caps Lock state, change key action to shifted state if capped (This emulates Caps Lock action if Caps Lock is NEVER set on system)

- IgnoreSystemCapsLock=4 Paint Capped keys based on Internal Caps Lock state, change key action to shifted state if NOT capped (This emulates Caps Lock action if Caps Lock is ALWAYS set on system)

- IgnoreSystemCapsLock=5 Paint Capped keys based on Internal Caps Lock state, change key action to opposite of capped state (this would be used if the caps lock state is always opposite the Internal Caps lock state - however, this suggests the caps lock works on the system, so you really shouldn't be ignoring it)

CapsLockMode=0

If CapsLockMode=0, then the key will visually latch based on the Caps Lock mode, e.g. the Caps Lock will be shown as a key down for Caps Lock On, key up for Caps Lock Off. If CapsLockMode=1, then the Caps Lock key will be treated as any other key, and not tied to Caps Lock State

UseOrgCutCopyPasteUndo=0

This setting is to accommodate the change from Common User Interface (Consistent User

Interface) (Consistent??) options for Cut Copy Paste & Undo. Most applications support both versions, but for those that do not, or require the original keystrokes, this setting has been provided. Note that OnScreen uses the newer version by default.

UseOrgCutCopyPasteUndo=0 means:

Cut = Ctrl-X

Copy = Ctrl-C

Paste = Ctrl-V

Undo = Ctrl-Z

UseOrgCutCopyPasteUndo=1 means:

Cut = Shift-Del

Copy = Ctrl-Ins

Paste = Shift-Ins

Undo = Alt-Backspace

DragMode=2

The DragMode setting was added to be more consistent with the Windows appearance settings. The following are the settings & what they mean: DragMode=0, drag full window contents, ignore Windows settings; DragMode=1, drag with focus rectangle, ignore Windows settings; DragMode=2, use Windows settings to determine drag mode

HoldShiftCtrl=0

This was added as a test for a customer, and has been left as an option. By default, OnScreen holds the shift & control state until the key is actually sent. For example, with a Shift-T - this results in a Shift-Down at the shift key press, then a T-down, T-up, Shift-up after a T key press. (Same for the Ctrl key). With HoldShiftCtrl=1, the Shift-down is held until the T key press, resulting in a Shift-down, T-down, T-up, Shift-up when the T key is released. The Alt key is the System key in

Windows, and it is not included within this option.

MenuOffset=200

This setting was added in 1.70 to address Windows 98 & its multiple monitor support. This is updated internally as the popup OnScreen menu is is used (offset is the width of menu). Windows 98 incorrectly displays the menu off screen (does not adjust to ensure that the menu is visible on the screen). Therefore, there are some adjustments made prior to using the Windows API TrackPopupMenu when in Windows 98. Issues: The LICENSE.EXE updates the registry at: HKLM\Software\ Innovation Management Group\Windows with a version # - this must be "98" to invoke this action (only a problem in Windows 98). The width itself is adjusted when one of the secondary popup menus is used (Size, Settings, Position).

If the Windows Display Properties | Appearance modifies the displayed width of the popup menu, one of these menus is required to be opened to force an update of the offset value internally.

Transparency=0

This setting is for Windows 2000 and later. When set to 1, various options are enabled with OnScreen to allow modifying the transparency for the displayed window. When enabled, the TransparencyLevel defines how "visible" the window is - a lower-limit of 20 has been set in the SEETHRU.EXE (to prevent the user from making the keyboard completely invisible), and the level of 255 makes the window completely opaque (the disabled state).

TransparencyLevel=75

This is the current level of visibility, where 0 means invisible, and 255 means the window is

opaque (same as if the Transparency were 0 (disabled)). The little control program (SEETHRU.EXE) has a lower limit of 20, and these settings are saved to this INI file when OnScreen gets the message from SEETHRU. You can make the window invisible by setting Transparency=1 and TransparencyLevel=0, and then do not run SEETHRU.EXE. See the Developer's Kit for external control info.

(This is obsolete)

Begin WinLogon settings

The WinLogon settings & following support settings are for 95/98, and handled by IMGLOGON.EXE - OnScreen Logon Utilities The following section runs through AllowDomainEdit.

WinLogon=0

If WinLogon=1, then special code is used to properly type into the windows logon screen

(Network Client, Windows user logon, etc.). This is a patch to work prior to release of fully 32-bit OnScreen. OnScreen should be run via RunServices option in registry: HKLM\SOFTWARE\Microsoft\Windows\Curren

(These are obsolete)

1.70 Notes

The ForcePassword????? Options only affect operation during the use of the Map Network Drive dialog

ForcePasswordLower=0

ForcePasswordUpper=0

These two settings change the way characters are sent to the windows logon / password dialog. Set ForcePasswordLower=1 to force lowercase characters to be sent, or set ForcePasswordUpper=1 to force uppercase characters. ForcePasswordUpper will override

the ForcePasswordLower setting.

ForcePasswordMixed=1

This setting overrides the upper & lower case settings and allows mixed case & punctuation entry. Most networks only allow a limited set of password characters, but this setting was added for additional flexibility, and set as the default. The original specification from a customer for this option was all Upper case, and other customers eventually required these additional options.

Version 1.70 Notes: DisableEnter changes, and UserNameNotPassword and AllowDomainEdit are not used.

DisableEnter=0

Version 1.70 modified this entry, managed by the OnScreen Logon Utilities

This setting is used to resolve logon problems

resulting in a system hang. Typically other software in the system is part of the problem, and using the logon option in as clean a system as possible is recommended. If there are incomplete logons, or the system does not resume normal operation after logon, the DisableEnter setting can be used. In testing, it was found that logon problems were related to the system hooks being set. When DisableEnter=0, the Enter key operates normally. If DisableEnter=1, then the Enter key does not process any reaction, forcing the user to click OK on the logon dialog. The dialogs affected are Enter Windows Password and Enter Network Password. Note the ForceUnHook setting should be set to 1.

(PRE 1.70 ONLY!)

DisableEnter=0

This setting is used to resolve logon problems resulting in a system hang. Typically other

software in the system is part of the problem, and using the logon option in as clean a system as possible is recommended. If there are incomplete logons, or the system does not resume normal operation after logon, the DisableEnter setting can be used. In testing, it was found that logon problems were related to the system hooks being set. When DisableEnter=0, the Enter key operates normally. If DisableEnter=1 or DisableEnter=2, the Enter key is disabled on the OnScreen keyboard, AND during the logon, system hooks are in use only while the cursor is over OnScreen (see VirtualPointer, ForceUnHook settings). This forces the user to click on the OK button on the Password dialog, and forces the system hooks to be disabled during logon. If DisableEnter=1, then normal operation resumes upon typing into any window after logon. If DisableEnter=2, then this forces operation similar to ForceUnHook -

even after logon.

(PRE 1.70 ONLY!)

UserNameNotPassword=0

The default keyboard focus is on the password field. To override this (without requiring the user to use the Tab key), set UserNameNotPassword=1. This will force the default keyboard focus to be on the User Name at logon. The default (if this entry is not present) is ;0.

(PRE 1.70 ONLY!)

AllowDomainEdit=0

By original design (at the request a customer), the domain was not editable (there was no way the user could edit the domain field). To allow this field to be edited by the user, set AllowDomainEdit=1.

End WinLogon settings

(OnScreen only)

WantATVersion=1

This setting should be 1 for OnScreen operation - it is not available in non-AT versions (non Assistive Technology versions). This may be a future option, but as of the 1.73 version, it should be set to 1 for OnScreen, but it is not used otherwise.

(OnScreen only)

SetupMode=0

This indicates whether setup is in the Basic or Advanced mode. If SetupMode=0 then the Basic mode is in use, and only the dialog and options available in Basic mode are displayed. If SetupMode=1 then Advanced mode is in use, and all options and advanced dialogs are displayed.

(OnScreen only)

KeyboardFile=1

This is used in conjunction with the WordComplete & ActionPanel settings. This is an internal setting and should not be modified here. If KeyboardFile=1, then the WordComplete / Action panel is in use. If KeyboardFile=0, then only the Action panel is in use. This setting is used internally, and reflects the WordComplete and ActionPanel settings. This setting indicates which panel will open when the Tool button (Icon /Top button on Tool bar) is used.

(OnScreen only)

WordComplete=1

If WordComplete=1, then the WordComplete Panel is open. If WordComplete=0, then the panel is closed. This is used by setup, and internally by OnScreen to indicate the state of this panel. If WordComplete=1, then

ActionPanel=1.

(OnScreen only)

IntlWordComplete=0

This was added as an option, but the settings in the selected KBF override this setting for International Keyboards that have dead-keys, and Alt-Gr functionality. In 1.70, it has very little impact on operation, and should be left at 0 unless instructed to change by IMG technical support.

(OnScreen only)

Suffixes=1

This indicates whether the Suffix mode is enabled. If Suffixes=1, then the Suffix button on the WordComplete panel is enabled, and suffixes are automatically displayed after a word Completion. If Suffixes=0 then Suffixes are disabled, and no automatic display occurs.

(OnScreen only)

ActionPanel=1

This indicates whether the Action Panel is available. By default, the Action Panel is included with display of the WordComplete Panel, and is automatically set to 1 if this is the case. If WordComplete is not enabled, then the ActionPanel setting indicates whether the ActionPanel is available. In general, the internal setting of KeyboardFile overrides this setting. The ActionPanel and WordComplete settings are used by Setup in User Options, and all configuration should be managed through Setup, rather than directly manipulating these settings.

(OnScreen only)

AutomaticU=1

If AutomaticU=1 then anytime a "Q" is used, a "U" is automatically added to the text. If

AutomaticU=0, then this option is disabled.

(OnScreen only)

AutoSpace=1

This indicates whether the Automatic spaces & Capitals is on. AutoSpace=1 indicates that spaces after word completions and punctuation are automatically added. This also enables the Auto-Caps option that sets after a punctuation character, enabling the first letter of a new sentence to be capitalized. If Auto-Capitals is engaged, any character will automatically turn off the Caps lock. To disengage, use the Caps Lock key.

(OnScreen only)

AutoSpaceDisable=1

This indicates whether the Automatic spaces & Capitals sub-option of "Disable for single line input" is on. AutoSpaceDisable=1 indicates

that when OnScreen senses a single line input, the Automatic spaces & Capitals feature will be disabled. When AutoSpaceDisable=0, this special case for single-line input is not monitored. When enabled, this features requires a Windows event hook that monitors the system text caret (text input cursor). This only monitors for single line system level "EDIT" class input windows.

(OnScreen only)

AutoCapI=1

This is used to enable internal coding that forces a stand-alone character I to be capitalized automatically. This is intended primarily for normal lowercase typing as an aid to users. This action can be disabled by setting AutoCapI=0.

(OnScreen only)

SecondSpace=1

This is used when Automatic spaces & Capitals is on (AutoSpace=1) If SecondSpace=1, then 2 spaces are added after a punctuation character (period, question mark, exclamation point, etc.). If SecondSpace=0, then only a single space is used after a punctuation character.

(OnScreen only)

AutoArrange=1

After different events, OnScreen will automatically arrange the open windows for smoother operation. For experienced or sophisticated users, this may be annoying. By setting AutoArrange=0, this default, automatic operation is disabled. The Arrange button on the OnScreen Action Panel will still arrange the active window, by positioning the window above (or below) OnScreen, and filling the available space on the screen with the application window.

(OnScreen only)

AutoArrangeActive=0

This is only used if AutoArrange=1. When AutoArrangeActive=1, OnScreen will monitor the active window (only when the mouse cursor is over the OnScreen window) and if a new window becomes active, it will automatically be arranged. This also has the effect of automatically arranging the active window when the mouse cursor is positioned over OnScreen (which some users find helpful, and other users find annoying). Because of this, the setting is now separate and default off (AutoArrangeActive=0).

(OnScreen only)

AutoSaveMove=0

In 1.78 Release 2, OnScreen Setup has been modified to change the Operation Options option to match the Save After Move entry in

the Options menu, and use the SaveAfterMove INI entry (see below). The AutoSaveMove option still remains, and is implemented slightly differently than the SaveAfterMove option within the actual run-time software. For practical purposes, this setting is now obsolete. If it is used, then SaveAfterMove=0 should be set in the INI. Internally, the AutoSaveMove saves the configuration and position as separate steps, while the SaveAfterMove saves the entire KEYBOARD.KBF in a single pass.

OnScreen will ALWAYS open at the last saved position. Originally designed to ALWAYS save the current position after moving OnScreen, this has been added to address customers who dislike this default action or where confused by the fact that sometimes OnScreen did not open in their "saved" position. When On, OnScreen will execute a Menu | Position | Save Position command when a move has been completed.

Turn this option Off to prevent these saves after moving OnScreen.

(OnScreen only)

ActionPanelEnabled=31

Each button on the Action Panel may be Enabled or Disabled. This setting uses a decimal value that is using a binary code to indicate each key, where 1 is Enabled and 0 is Disabled.

These are the codes:

Back Key = 1, Size Key = 2, Select Key = 4, Move Key = 8 and Arrange Key = 16. These codes are added together, and then saved as the decimal value here. A value of 31 indicates all buttons are Enabled.

For Example:

To Enable only the Back Key & Move Key you would add 1 and 8 to result in

ActionPanelEnabled=9 When disabled the key will be "grayed" and its action will not be available to the user.

(OnScreen only)

KeyboardEnabled=0

If KeyboardEnabled=1 then the Physical Keyboard is enabled for WordComplete operation. The WordComplete Panel MUST be displayed for proper operation. See Help, and User Options for more details on using the Physical Keyboard. If KeyboardEnabled=0 then the Physical Keyboard is not used.

(OnScreen only)

EnableDwell=0

If EnableDwell=1 then the Dwell Keypress Timer is enabled. This will engage the timer whenever the pointer (mouse cursor) remains at one position (over OnScreen). If the delay

period expires, a click (Left or Right button down/up sequence based on the Mouse Button setting) will be initiated. The pointer must be moved again to reset/restart the timer. To disable the dwell action, set EnableDwell=0.

(OnScreen only)

DwellTime=10

This is the length of the delay period used in EnableDwell=1. Each unit corresponds to a tick of 50 milliseconds. The default is 10, or 0.5 seconds (500 milliseconds). The valid range is from 1 to 100.

(OnScreen implementation only - see below for others)

Sound=0

This can take on 3 settings. If Sound=0 then no sound is generated when buttons are used within OnScreen. If Sound=1, then the

KeyClick wave sound is played every time a button is clicked. If Sound=2, then voices are used to describe each key (for the standard 101 keyboard). See Sounds (Advanced Notes) for a description of how to override the default sounds.

(Added in 1.76 for My-T-Pen, My-T-Soft, My-T-Soft TS, My-T-Touch)

(The implementation is different than in OnScreen (above) because default wave resources are NOT included within the executable - only external wave files will be used)

Sound=0

This can take on 3 settings. If Sound=0 then no sound is generated when buttons are used within OnScreen. If Sound=1, then the KeyClick wave sound is played every time a button is clicked (similar to OnScreen).

However, the Keyclick wave is not included in the resources, so only the override setting will work, using the "KEYCLICK.WAV" file in the Sounds folder. If you wish to use a different sound, copy the wave file over the "KEYCLICK.WAV" file in the Sounds folder. If Sound=2, then key numbered files are used to describe each key pressed, as long as there is a corresponding "numbered" entry in the sounds folder. Refer to Sounds (Advanced Notes) for details on key numbers, and other notes regarding this option. Also note that there is no user interface for this, it must be modified in the INI file. See the NoAnnounce setting below if Text-To-Speech services are enabled on the platform and the announcement triggered when Sound=1.

(Added in 1.78)

NoAnnounce=1

When Sound=1, IMGSOUND.EXE is loaded,

and if Text-To-Speech Services are available,
IMGSOUND will announce this fact by
speaking "Text-To-Speech is available". In the
commercial products, this can be annoying,
since the sound is primarily only uesd for
key-click audible feedback. Set
NoAnnounce=1 to skip this announcement. If
NoAnnounce=0, then this "Text-To-Speech is
available" announcement will be spoken.

(OnScreen only)

TopOffset=2

This is a setting used to help position
OnScreen without affecting the Taskbar. This
allows the Taskbar to be placed on top of the
screen with the Auto-Hide option enabled, and
let the user have enough "space" to trigger the
Taskbar display.

(OnScreen only)

TTSAvailable=0

This is the main option to enable the Text-To-Speech (TTS) functionality. TTSAvailable=1 is required to enable TTS in OnScreen, but also requires that the appropriate classes & supporting TTS software is installed on the system. Forcing this setting on a system without the appropriate TTS software installed & configured properly will not accomplish anything. The supporting process IMGSOUND.EXE is required to handle the TTS requests within OnScreen. When TTSAvailable=1 is set in OnScreen, it enables the internal processing within OnScreen to hand-off the speech request to the IMGSOUND process. The setting handles the Speak Key Text under pointer processing. If IMGSOUND cannot find, establish the interface, and communicate with the TTS speech components, the TTS option will not operate. IMG has repackaged the required Microsoft Speech Components in

MSSPEECH.MSI (which requires the Windows Installer). The file & the support Windows Installer for early versions of Windows 98 and NT 4 can be found in the Speech folder on the distribution media, or on the IMG WebSite. Note that IMGSOUND will play "Text to Speech is Available" when OnScreen starts to indicate this capability. If the all OnScreen TTS options are disabled, this will still occur at startup of OnScreen - to disable this action, remove the Speech Components - Start Menu | Settings | Control Panel | Add/Remove programs, Speech Components. Note that for discrete pointing devices (touchscreens, etc.) that do not hover well, this setting may not operate in a desirable fashion.

(OnScreen only)

TTSRepeat=0

This setting handles the option of repeating the

same key text for constantly when over a key. The TTSRepeat=1 will cause a constant stream of speech requests, based on the TTSDelay (see below). To disable the repeat function, set TTSRepeat=0.

(OnScreen only)

TTSDelay=20

This is the delay time (in 50 ms increments) - the default 20 corresponds to about 2 seconds between speech requests. Increase the setting to stretch out the delay between speech requests, or decrease the number to make the repeats quicker. Note that not all speech events are of the same length, so modifying this may cause incoherent speech events. If you have repeating speech events overlapping, increase this setting - this may occur if you have a slow rate set for the voice. This setting is also affects how long you must be over a specific key before the key will be spoken.

(OnScreen only)

TTSSpeakWord=0

This setting defines whether OnScreen will speak the word upon selection in the WordComplete panel (Speak Word on Click). TTSSpeakWord=1 means the word will be spoken when clicked. TTSSpeakWord=0 means no speech event will occur on selection in the WordComplete panel.

(OnScreen only)

TTSSingleCharKey=0

When TTSAvailable=1 is set, this setting will determine how Text-To-Speech reacts when the key to be spoken has just a single character. TTSSingleCharKey=1 will speak the single character key, and 0 will disable single character key speech. For intermediate & advanced user, there is no need to hear the "normal" keys, and this can be used to disable

speech for the common keys.

(OnScreen only)

TTSWordsKey=0

When TTSAvailable=1 is set, this setting will determine how Text-To-Speech reacts when the key to be spoken has a word. TTSWordsKey=1 will speak the description (or the word) on the key (any key with 2 or more characters). TTSWordsKey=0 will disable speech for keys with 2 or more characters.

(OnScreen only - special meaning when CrossScanner in use)

TTSWordComplete=0

When TTSAvailable=1 is set, this setting will determine how Text-To-Speech reacts when over the WordComplete words. Since these are dynamic, this third subset of keys may be selected independently. Set

TTSWordComplete=1 to speak the WordComplete words, set TTSWordComplete=0 to disable. CrossScanner: When enabled, and CrossScanner is running, CrossScanner will step through the available words and speak them (delay handled in CrossScanner with Menu Speed setting) The CrossScanner user may select the word when it is highlighted. The sequence may be restarted by clicking on the buffer key in the WordComplete panel.

(OnScreen only)

TTSScanWordComplete=0

When TTSAvailable=1 is set, and TTSWordComplete=1, this optional setting will perform what CrossScanner would do if CrossScanner was running - scan the the WordComplete panel, highlighting each word, speaking each word, and if there is a mouse click, type the highlighted word. Use

TTSScanWordComplete=1 to enable the automatic scan of WordComplete candidates each time the list is updated. This feature is driven by the process IMGSOUND.exe and monitors mouse clicks via the WINEVENT.DLL. Added for a user using a non-standard pointing device, and the implementation expects the selection using the left-mouse click, and cancel using the right-mouse click. There are several instances where the hardware events are coded for the device, and a non-standard configuration will not work with this option. This option should be set to TTSScanWordComplete=0 if CrossScanner is in use.

(Originally OnScreen only, supported in slightly different ways in all releases)

ExpandAKey=0

This setting defines whether the "Zoom" window will appear If ExpandAKey=1, then a

separate window will appear to magnify the key under the mouse pointer, if ExpandAKey=0, this option is disabled.

The size of the Windows is defined by the factor (see ExpandAKeyFactor below). Internal logic is used to decide if the window is above or below the pointer. If part of the key is off-screen, the key will not be displayed. Note that for discrete pointing devices (touchscreens, etc.) that do not hover well, this setting may not operate in a desirable fashion. For Touchscreens, and other arbitraty point input devices, the HideZoomWindow option should be enabled.

(OnScreen only)

ExpandAKeyFactor=3

This setting is handled automatically within OnScreen Setup: Large is 3, Larger is 5, and Largest is 7. This setting can be modified

directly, but if you run setup, and select OK on the Enhance dialog, the setting will be overwritten. Valid values are 2-20, but anything over 10 will probably be too large for actual use. Larger windows (settings) will work better on faster systems, faster video sub-systems.

(Originally OnScreen only, supported in slightly different ways in all releases)

HideZoomWindow=0

Added for Touchscreen support for ExpandAKey (Key Zoom), HideZoomWindow=1 will hide the magnified key when a key click occurs. HideZoomWindow=0 results in no reaction to any clicks - the mouse cursor will need to be off OnScreen window to remove the Zoom window. In Windows Vista / 7, when this setting is HideZoomWindow=1, the Zoom window will automatically fade away on its own.

(OnScreen only)

MouseOverHiLite=0

This setting indicates whether the key under the pointer will be highlighted or not. MouseOverHiLite=1 will enable the highlight, MouseOverHiLite=0 will disable any highlight action. This setting can be used separately or in conjunction with the ExpandAKey (Zoom). The internal operation uses the invert option within the BitBlt API call, so different color settings will cause different highlight views. The WordComplete panel is handled separately (it was an add-on to the original design, so there may be artifacts upon resize paints) - these will resolve themselves in normal operation, or slide the pointer off the OnScreen window.

Note that for discrete pointing devices (touchscreens, etc.) that do not hover well, this setting may not operate in a desirable fashion.

(OnScreen only)

ControlPanelToggleButtons=1

This setting indicates whether the control panel (Tool Button Opens & Closes Control panel) will display "latched" keys or not. When ControlPanelToggleButtons=1 the buttons will display as "latched" - visually down. The ToolTextIn and ToolTextOut colors will still be used (see below, [Colors]). For original operation, set ControlPanelToggleButtons=0.

Note: This setting is not available in OnScreen Setup, it is only available here.

(Versions later than 1.75, OnScreen)

EnableMouseScroll=1

When EnableMouseScroll=1, and OnScreen is larger than the screen display, and a portion is not displayed, by holding the mouse pointer at the edge of the screen where OnScreen scrolls

off the display, the OnScreen window will be moved back onto the display, in increments set by the ScrollMovePixels (see below). In operation, it is more intuitive than the description - by moving the mouse toward the portion of OnScreen you wish to access & holding at the display edge, OnScreen will scroll into view. To disable this action, set EnableMouseScroll=0

EnableScreenScroll=0

This setting has been added for CrossScanner & touchscreen users. Since the ability to hold the mouse pointer at a particular location, e.g. the screen edge is difficult with various pointing devices (see EnableMouseScroll above), when EnableScreenScroll=1 (Enable Scroll Window - OnScreen Setup | Appearance | Size) a scroll Window will appear with a slider, and buttons to move the OnScreen window. Because this takes screen real-estate,

and OnScreen may be moved by dragging, and not all users operate OnScreen in a configuration that is larger than the display size, it is default off (EnableScreenScroll=0).

ScrollMovePixels=6

This is the amount of move that will occur for EnableMouseScroll / EnableScreenScroll settings (see above). For quicker movement, increase the number. Because the purpose of this scroll is to access portions of OnScreen not visible, smooth scrolling may not be as high-priority as speed of operation. Note that as the number of pixels get larger, the choppier the scroll onto the display will appear. Note that speed of the system and video sub-system will affect the actual operation.

CenterOversize=1

This setting handles the position of OnScreen when sized, and the resultant size is wider than

the screen width. If CenterOversize=1, OnScreen will be centered, leaving an equal portion off the left side of the screen & off the right side of the screen. If CenterOversize=0, then the left side of OnScreen will be aligned with the left side of the screen display, leaving the right-hand portion of OnScreen off the screen. CrossScanner users may prefer setting CenterOversize=0.

(OnScreen with CrossScanner only)

CrossScanner=1

This is an internal setting set by CrossScanner to handle different interface settings required by CrossScanner (different from the standard interface settings for OnScreen). The communication between OnScreen and CrossScanner is handled automatically, and this setting should not be modified manually. The following section will be created to handle the reset of OnScreen when CrossScanner is

asleep or closed:

[CrossScanner]

MinimizeToButton=0

NoHooksEver=0

ForceUnHook=0

These settings track the original settings of OnScreen and are handled dynamically by CrossScanner and OnScreen. They should not be modified manually. If there are any problems with interface settings when OnScreen is run independent of CrossScanner, use OnScreen Setup to re-configure

(OnScreen only)

LetterAssist=1

This setting controls the look-ahead and letter selection processing when using the WordComplete panel. When LetterAssist=1, based on the currently typed letters and the

lookup word list, only possible next letters will be available to the user. When LetterAssist=0, no additional look-ahead processing will occur, and no modification to the keys available to the user will be done.

(OnScreen only)

ShowAsGrayed=1

This setting is only available when LetterAssist=1. When ShowAsGrayed=1, letters not possible (based on the current letters typed and the current word list) will be shown as grayed out letters. When ShowAsGrayed=0, for any letter that is not possible (based on the current letters typed and the current word list), the entire key will not be shown and will not be available to the user.

(OnScreen only)

AllowGrayedKey=1

This setting is only available when LetterAssist=1 and ShowAsGrayed=1. When AllowedGrayedKey=1, the user will still be able to select and type with grayed out keys (those that will not build words based on the current letters typed and the current word list). When AllowedGrayedKey=0, the grayed keys will not be selectable.

(OnScreen only)

KeysOnlyAssist=0

The setting is referred to as WC-Assist, or WordComplete Assist. When KeysOnlyAssist=1, the top row of number keys on the keyboard panel turns into 2 sets of 1-5 selection buttons when WordComplete candidates are available (colored the same as the WordCompletion candidate buttons). When KeysOnlyAssist=0, no action occurs.

(OnScreen only)

KeysOnlyAssistNumbers=0

This setting is only relevant when KeysOnlyAssist=1, and this is only available in the INI file. When KeysOnly AssistNumbers=1, the function key row is replaced by number keys (to replace the number keys overtaken by the WordComplete candidate selection buttons) when WordComplete candidates are available. In most typing situations, function keys are not used very often, and this provides number keys as an alternative to temporarily disabling the WC-Assist function to access the number keys.

(Added in 1.75a)

NumPadAlways=0

This is an option available only in the INI file, requested by a customer. By default, the Numeric keypad acts exactly like a physical keyboard, and responds to the state of the Num

Lock setting. When NumPadAlways=1, the Numeric keypad (Num Panel), will always act as if the Num Lock is on & type numbers, ignoring the actual state of the Num Lock toggle / light / keyboard state. This was requested to ensure proper operation if the user accidentally toggles the Num lock, or another application modified this keyboard state.

(Added in 1.75d)

Win2000ShutDown=1

During the shut down sequence in Windows 2000, OnScreen is still enabled, and can cause painting problems if moved or configured. Set Win2000ShutDown=1 to disable OnScreen during this ShutDown dialog. If you wish OnScreen to operate during the Shut Down sequence (or any similar dialog in Windows), set Win2000ShutDown=0. This problem is not seen in Windows XP. When Win2000ShutDown enabled, OnScreen

monitors for a Dialog as Topmost, with DS_FIXEDSYS, DS_CENTER styles. If this type of dialog found, then special internal handling occurs - If opened or minimized to button, moving and the window is disabled, for other minimized options

(Added in 1.75F)

DisplayChangeEnabled=1

This setting determines how OnScreen responds to the Display Change Window message when the resolution is changed (e.g. rotation, changing color depths, or screen appearance). When DisplayChangeEnabled=1 OnScreen will reposition in an analogous position on the new display configuration. OnScreen will reposition itself on screen if any portion was positioned off screen. If DisplayChangeEnabled=2, then the attempt to preserve an analogous position will be maintained - if using rotation software (portrait

/ landscape), then this setting is not recommended, as it could result in positioning OnScreen off screen after a rotation.

(Added in 1.78)

SessionChangeEnabled=0

This setting determines how OnScreen responds to the Session Change Window message when the session is changed (e.g. Fast User Switching). When SessionChangeEnabled=1, OnScreen will automatically open from a minimized state (if necessary) and restore settings. With the user specific settings (ConfigPath=1 or ConfigPath=2), this is not relevant, but if ConfigPath=0 or ConfigPath=3, then this option could still be required, especially in Windows XP. When there are shared settings, one user can modify settings, and then a session change event can occur. To prevent synchronization issues between the saved

settings and active configuration, when the session change event occurs (and the Session Change Message is sent), OnScreen will restore settings from the current saved settings.

(Added in 1.76)

ReadOnlyOK=0

This setting was added for the Windows NT based platforms to address some security concerns. If ReadOnlyOK=1, then files will be opened as Read Only, and Saving configurations / options, etc. from with OnScreen will not occur. When ReadOnlyOK=0, the KEYBOARD.KBF file will be opened with Read/ Write access, and Read/Write access will be expected for ONSCREEN.INI. In secure situations where users will be granted Read / Read & Execute permissions, this setting allows operation of OnScreen in a Read Only mode. Note that reconfiguring is possible during operation

(unless the Operator Mode is enabled), but OnScreen will always open with the "original" settings from KEYBOARD.KBF & ONSCREEN.INI. 1.77 Note - to use this option, AllowReadOnlyOperation must be 0 There is a slight distinction between the 2 settings. If AllowReadOnlyOperation=0 and ReadOnlyOK=1, then the configuration files will always be opened in a read-only mode, and the configuration cannot be updated. If AllowReadOnlyOperation=1 (ReadOnlyOK ignored), then files will be opened as read/write UNLESS this fails because of user rights, then they will be opened as read-only. To prevent operation of OnScreen if user has read-only rights, set both ReadOnlyOK=0, and AllowReadOnlyOperation=0

(Added in 1.77)

AllowReadOnlyOperation=1

This setting is an override for the ReadOnlyOK

setting to address limited rights users in Windows NT based platforms. In 1.77 it is default On, bypassing the error message when the KEYBOARD.KBF & ONSCREEN.INI files are Read Only, and running OnScreen as if ReadOnlyOK was set on

(Added in 1.77)

ManualToolControl=0

The tool bar can be turned off in 1.77, and this setting determines if there is any manual interface available to toggle the tool bar. The original design of the software used the tool bar as the anchor & always visible element so the user would be able to manipulate the configuration as desired. Developers requested that this panel be removed so the user has limited options with the software when it is tightly integrated into an application. In earlier versions, the operator mode / custom logo options allowed some control over this panel.

Refer to the Developer's Kit for tools to manipulate this panel programmatically. This setting allows manual control by the user when enabled. When ManualToolControl=1, a 3-click approach can be used to toggle the tool bar. By clicking 3 times (1-2-3) in the same spot (border or non-key areas only), the tool bar panel will close if opened, or open if closed. When ManualToolControl=0, this action is ignored. For touchscreens (& other less accurate pointing devices), you may set ManualToolControl to a larger value. If more than 1, then the number indicates the number pixels of "jitter" that will be allowed to count the click as part of the 1-2-3 sequence. For example, ManualToolControl=5 enables the 3-click tracking, and allows a +/- 5 pixel range from the 1st click to count as the second & third clicks.

(Added in 1.77)

WindowsKeysGraphics=1

This setting controls whether the graphics are displayed on the Windows Key and Applications key on the 104-key layouts. When WindowsKeysGraphics=1, bitmap images are overlaid onto the keys. For smaller sizes, these may be unclear, since a StretchBlt operation is performed. Set WindowsKeysGraphics=0 to disable this option - the text label for the Windows key is "Wnds", and the Application key is "App"

(Added in 1.77)

WindowsKeyWndsLatch=1

This setting affects the operation of the Windows key on the 104 key layouts. When WindowsKeyWndsLatch=1, the key will latch in a down position, allowing it to modify the next key typed. This is for Windows functions such as Win-E or Win-F (Search for Files, etc.)

- this is the default setting. If WindowsKeyWndsLatch=0, the key will not latch, and operate as a simple key, sending a down/up release on down/up press. By default, this will open the start menu. You will not be able to operate the Windows shortcut option with this setting, since the key will not latch down. However, macros can still be used with this setting at 0.

(Added in 1.77)

TabletPCEnabled=1

This setting affects operation within Windows XP, Tablet PC edition. When TabletPCEnabled=1, Pnlwatch.exe will be executed, which monitors if the Tablet PC Input Panel. PanelWatch monitors the request for the Tablet PC Input Panel, and coordinates display of OnScreen. When enabled, Pnlwatch.exe is placed in the All Users Startup Group as OnScreen Tablet PC Interface.

PanelWatch can also be controlled manually. When run normally PanelWatch does not show a window or create any display for the user. When PNLWATCH.EXE is run directly (or the OnScreen Tablet PC Interface is run from the StartUp Menu), PanelWatch will display an icon in the System Tray (notification area next to the clock). So if PanelWatch is already running, running it again will toggle the display of a notification icon. When Enabled from the menu, the TabletPCEnabled=1 is set PanelWatch is run, and the StartUp icon is created in the All Users group (as long as user has sufficient rights to create this shortcut file). When disabled, TabletPCEnabled=0 is set, PanelWatch is closed, and the StartUp group icon is removed.

(Added in 1.77)

MenuForceForeground=0

This is a setting that determines how the

OnScreen menu is handled in Windows 2000/XP. In order to handle input focus issues, by default the opening the menu does not bring OnScreen to the foreground as the input window - this causes some interface issues (menu falls behind other windows, does not clear if click on other windows, etc.). These user interface issues may be undesirable to some users, and this option allows for user preferences If MenuForceForeground=0, menu issues may result, but window with current keyboard input focus will remain - typing on OnScreen will type into current foreground window. If MenuForceForeground=1, menu issues will not occur, but OnScreen will become foreground window - user must reselect typing window before typing on OnScreen.

(Added in 1.78)

SaveAfterMove=0

SaveAfterChange=0

SaveAtClose=0

SaveAtEndSession=0

These settings are used to trigger an automatic save of the current settings and position of the keyboard window, after the appropriate event. SaveAfterMove=1, means that after any keyboard window move, the settings and position will be saved. If SaveAfterChange=1, then the settings and position will be saved after any panel is opened or closed, or sized up or down. If SaveAtClose=1, then the settings and position will be saved when the OnScreen is closed. If SaveAtEndSession=1, and if the user logs off or shuts down the system, then the settings and position will be saved. Note that SaveAtClose and/or SaveAtEndSession effectively override SaveAfterMove and SaveAfterChange, since eventually OnScreen will be closed, or the user will shut down / log

off, and the current settings will be saved. Also, OnScreen can't be restarted (to use the current settings and position without being closed at some point.

(Added in 1.78)

TerminalServerConsoleEnable=0

This setting allows a non-server based product to run in the context of the server console. In general, only My-T-Soft TS should be used on a server where Terminal Services are available. However, there have been times when (for various reasons) customers run a server based operating system as a stand-alone machine. When TerminalServerConsoleEnable=1 for the non-server based products, the normal licensing will enable these products to run on a server, in the context of the server console (i.e. at the display monitor for the server, but NOT as a remote terminal). By default, the non-server products sense this operation, ask if

this desired, and save
TerminalServerConsoleEnable=1
automatically.

(Added in 1.78)

EnableScan=0

When EnableScan=1, keyboard scanning is
enabled, and a transparent overlay is used to
indicate the current scanning area within
OnScreen. The following settings ONLY apply
when EnableScan=1. When EnableScan=0,
keyboard scanning is disabled. Only in
OnScreen does the user have access to this
setting from OnScreen Setup, but keyboard
scanning is available for all 1.78 versions.

(Added in 1.78 R2)

ScanSound=1

This setting controls the sound for each
discrete scanning step. When ScanSound=0,

there is no sound used. When ScanSound=1, a "scan" sound is used. When ScanSound=2, Text-To-Speech is used, announcing panels, rows/columns, and individual keys based on settings for Text-To-Speech announcements for the scan groupings (see below). For ScanSound=1, the wave file is "scan-sound.wav" in the SOUNDS folder.

(Added in 1.78 R2)

ScanEnableDisableSound=1

When ScanEnableDisableSound=1 is set, a special "Enabled" and "Disabled" sound (scan-enable.wav and scan-disable.wav in the SOUNDS folder) is played when scanning is enabled or disabled. This is helpful if Alt-X is used to toggle scanning (e.g. a trainer working with a user).

(Added in 1.78)

ScanColor=0

If ScanColor=0, an inverted color display of the current scan area is used within the scanning overlay If ScanColor=1 a black overlay is used during scanning, and if ScanColor=2, then a white overlay is used. Depending on the transparency setting, OnScreen colors, the display itself, and the user, one color setting may be easier to distinguish over the other.

(Added in 1.78)

ScanTransparencyLevel=255

This setting can take on values between 1 and 255. In the Scanning Settings dialog, this is translated into percentage, where 100% is 255. Technically this is an "opaqueness" setting, as larger numbers make the transparent overlay more opaque. Low values may make the actual overlay impossible to see, and high values will prevent seeing through the overlay, making it ineffective. Suggested values range between 50

and 150, with the default at 70 for black and white, and invert is at the fully opaque 255.

(Added in 1.78)

ScanTime=1200

This is a setting in milliseconds that defines the amount of time spent at each scan step. The default of 1200 relates to a 1.2 second delay between each successive scan step. From the Scanning Settings dialog, values can be set between 50 and 5000. Values below 500 are not recommended. This setting is also used as the Timeout After setting when Step Scan is selected as the right-click mode, but it is used at three times the current setting, so a 1200 setting results in a timeout waiting period of 3600 milliseconds, or 3.6 seconds.

(Added in 1.78)

ScanRightClickMode=2

There are 8 different right-click settings:

- ScanRightClickMode=0 means that the right-click is not used at all. This should be set if the user cannot use, or does not have access to a right-click event (second button). Note that even when set this way, a right-click can still result in a reset of the cursor clipping that is engaged during active scanning. Also note that if this is set to 0, it is critical that the ScanReverseAfterNumScans be set to some value other than 0, otherwise the user will always be forced to fully complete a scan, or be forever stuck at a scan level with no way to revert up a scan level.

- ScanRightClickMode=1 corresponds to a full reset to the top level Panels scan, so a right-click during any scan level will reset and begin at a top level Panels scan.

- ScanRightClickMode=2 is the default, and acts as the reverse of the left-click, meaning the current scan level goes up to the previous level. So a right-click during a Key scan will go to the Panel scan. A right-click during a Panel scan goes to the Panels scan, and a right-click during a Panels scan will Stop scanning (while leaving the scanning overlay at the current panel). At this stopped level, a left-click will re-engage scanning again.

- ScanRightClickMode=3 means that a right-click will stop scanning at the current scan level, leaving the scan overlay untouched. A left-click will re-engage scanning at the same level.

- For ScanRightClickMode=2 & ScanRightClickMode=3, when stopped (paused), an additional right-click will move the scan overlay off of OnScreen and display "Left Click Here to Start Scanning", which

will engage the scanning process. This allows a trainer or assistant to fully access OnScreen and still be able to quickly re-enable scanning.

- ScanRightClickMode=4 results in a right-click advancing the scan (rather than the timer advancing the scan). This step scan allows the right-click to advanced & move forward the scan at the user's speed, rather than a fixed timer rate. This also enables several changes - instead of scan speed setting, this value is used as a timeout after rate (multiplied by 3), which will revert up one level if the timeout period expires. Also, the physical keyboard is monitored, and when both the Control key and Alt keys are held down (e.g. [Ctrl]-[Alt]) on the physical keyboard, this scan mode will stop (right-click on OnScreen to restart the scan process).

- ScanRightClickMode=5 results in a right-click aborting the current scan, and acts as though the scan was fully completed (i.e. all the way to key selection), and then resets based on the Next scan setting. This allows quick resets using the right button while scanning.

- ScanRightClickMode=6 results in a right-click cancelling scanning completely. Only returning to OnScreen Setup & re-enabling scanning again will scanning be made available.

- ScanRightClickMode=7 results in a right-click acting like a left-click. This setting allows either click to trigger a scan step/selection.

(Added in 1.78)

ScanLeftClickMode=0

There are 4 different left-click settings (3

effective) that affect what happens after the left-click action occurs. In general, the left-click steps down to the next scanning level. If stopped, scanning begins at the Panels scan, scanning individual panels. During the Panels scan, a panel is selected by the left-click, and the panel scan commences. While scanning groups of keys (as defined for the panel), a left-click will begin an individual key scan. Finally, during a key scan, a left-click will select the key, and act as a a "type" event for the key (e.g. selecting the key). The ScanLeftClickMode affects what happens after this final key selection (i.e. Post Action) These are the 4 possible settings:

- ScanLeftClickMode=0 is the default setting, and means that the internal handling is not modified in any way, which is to revert up to the current panel scan (e.g. the middle level). So during a keyboard scan, and a subsequent

key selection, the keyboard panel will continue to be scanned.

- ScanLeftClickMode=1 corresponds to the same group of keys being scanned, e.g. the scan remains at the key scan level.

- ScanLeftClickMode=2 means that the current panel will be scanned at the panel scan. Although this is handled slightly differently internally, the effective result is the same as ScanLeftClickMode=0 (or the default setting). Because the internal coding is different, the setting is here to address this different implementation.

- ScanLeftClickMode=3 results in a revert to the top level Panels scan after a key selection.

(Added in 1.78)

ScanReverseAfterNumScans=2

This setting determines how many times a particular level will be scanned, before automatically returning to the next higher level. At the Panels scan level, if the count is reached, the scanning will stop, leaving the current panel highlight by the scan overlay (a left-click will restart the scan). If ScanReverseAfterNumScan=0, there is no maximum, and a scan will continue at the same level until a user selects a scan highlight with a left-click, or performs a right-click action. Because this setting is potentially problematic if there is no right-click available, this setting cannot be set to No Maximum if the Right-Click mode is set as None (or not available). In other words, never set ScanReverseAfterNumsScans=0 and ScanRightClickMode=0. Any positive number for ScanReverseAfterNumScans results in an internal count, that will revert up one level after the count is passed. In Scanning Settings,

values of 1-6 are available, but this value can be any positive number (e.g. 1, 10, 20, etc.)

(Added in 1.78 R2)

ScanShowAllOptions=0

This setting indicates whether all options will be shown for the "Next Scan" and "Right-Click (2nd Button) Mode". As the scanning options became more complex, it was suggested that we default to a limited number of options that address the majority of scanning usage. When ScanShowAllOptions=1, then all possible options are listed and shown in the drop down lists for these 2 settings. When ScanShowAllOption=0, a limited set of options are shown. The order of some of the items will change based on this setting.

(Added in 1.78 R2)

ScanOpenPanels=1

When ScanOpenPanels=1, the customized panel options are not available, and during scanning, all open panels will be scanned, left-to-right. When ScanOpenPanels=0, then the ScanOrder setting determines the panels that are scanned and their order.

(Added in 1.78)

ScanOrder=WordComplete,KeyboardAlpha

The ScanOrder determines the order of the Panels scan level. The order is left to right as listed. Panels should not be duplicated. This list can be easily manipulated and generated from the Scanning Settings.
The complete list of panels available (9 total) is:
ScanOrder=WordComplete,KeyboardAlpha,Keyb
and the naming should be self-describing of the actual panels in OnScreen Note that in the commercial versions, the WordComplete panel corresponds to the Magnifier panel.

Here are various examples & scanning orders
for the panels:

ScanOrder=WordComplete,KeyboardNum,Calcu

ScanOrder=Calculator,ControlPanel,Toolbar,Mac

ScanOrder=Calculator,KeyboardNum,KeyboardA

ScanOrder=WordComplete,KeyboardNum,Calcu

ScanOrder=Calculator,Controlpanel,Toolbar,Keyl

ScanOrder=KeyboardAlpha,KeyboardEdit,Keybo

ScanOrder=ControlPanel,Toolbar,KeyboardNum,

For each panel in ScanOrder, there needs to be
a corresponding Scan[Panel] entry below that
lists key groupings for the corresponding
panel. In all cases, the keys are numbered from
1 to the maximum number of keys on the
panel. Groupings are separated by semi-colons
(;), and individual keys are separated in the
group with a comma (,). It is important that
only valid key numbers are used, otherwise the

bounding scan overlay may be incorrect, and potentially cause other problems because of internal table lookups. It is also important that no spaces be used, or any other characters or punctuation. Also, there is an internal maximum of 25 groupings allowed - if this is exceeded, the additional groupings will not be used. In order to provide additional examples (showing alternative groupings and row vs. column scans) and the correct entries, the following lists various examples for each panel, along with the default settings.

Text-To-Speech announcements can be embedded within these groupings, so each row or column can be named, and announced when Text-To-Speech is enabled within the Sounds section. All that is required is that the word or phrase be included prior to the keys listing, enclosed in square brackets (examples below). This is stripped out prior to processing the key

sequence. It is important that the square brackets be opened and closed correctly, and that there be no punctuation outside the square brackets (spaces, etc. are allowed within the square bracket set, but no other square brackets can be used). The panel descriptions are currently fixed internally.

(Added in 1.78)

ScanWordComplete=1,4,7,10,13;2,5,8,11,14;3,6

There are 15 keys on the WordComplete panel. The default scan settings scans the WordComplete setting as columns, which is more effective for accessing the WordComplete candidate column.

;;This is a row scan of the WordComplete panel

ScanWordComplete=1,2,3;4,5,6;7,8,9;10,11,12;1

;;This is the column scan of the WordComplete panel with Text-To-Speech announcements

ScanWordComplete=[Options]1,4,7,10,13;[Word

(Added in 1.78)

ScanKeyboardAlpha=1,2,3,4,5,6,7,8,9,10,11,12,
14,15,16,17,18,19,20,21,22,23,24,25,26,27;
28,29,30,31,32,33,34,35,36,37,38,39,40,53;
41,42,43,44,45,46,47,48,49,50,51,52,54;
55,56,57,58,59,60,61,62,63,64,65,66,67;68,69,70

There are 72 keys on the Keyboard (Alpha)
panel (101 layouts) and 75 keys for the 104
layouts. The default scanning is in rows.

;;This is for row scan top to bottom with
Text-To-Speech Announcements

ScanKeyboardAlpha=[Function
Keys]1,2,3,4,5,6,7,8,9,10,11,12,13; [Num-
bers]14,15,16,17,18,19,20,21,22,23,24,25,26,27;
[Q
row]28,29,30,31,32,33,34,35,36,37,38,39,40,53;
[Home
row]41,42,43,44,45,46,47,48,49,50,51,52,54;

[Shift
row]55,56,57,58,59,60,61,62,63,64,65,66,67;
[Final row]68,69,70,71,72

;;This for 101 layout

;;This is for row scan top to bottom

ScanKeyboardAlpha=1,2,3,4,5,6,7,8,9,10,11,12,1
14,15,16,17,18,19,20,21,22,23,24,25,26,27;
28,29,30,31,32,33,34,35,36,37,38,39,40,53;
41,42,43,44,45,46,47,48,49,50,51,52,54;
55,56,57,58,59,60,61,62,63,64,65,66,67;
68,69,70,71,72

;;This is for row scan bottom to top

ScanKeyboardAlpha=68,69,70,71,72;
55,56,57,58,59,60,61,62,63,64,65,66,67;
41,42,43,44,45,46,47,48,49,50,51,52,54;
28,29,30,31,32,33,34,35,36,37,38,39,40,53;
14,15,16,17,18,19,20,21,22,23,24,25,26,27;
1,2,3,4,5,6,7,8,9,10,11,12,13

;;This for 104 layout

;;This is for row scan top to bottom

ScanKeyboardAlpha=1,2,3,4,5,6,7,8,9,10,11,12,1
14,15,16,17,18,19,20,21,22,23,24,25,26,27;
28,29,30,31,32,33,34,35,36,37,38,39,40,53;
41,42,43,44,45,46,47,48,49,50,51,52,54;
55,56,57,58,59,60,61,62,63,64,65,66,67;
68,73,69,70,71,74,72

;;This is for row scan bottom to top

ScanKeyboardAlpha=68,73,69,70,71,74,72;
55,56,57,58,59,60,61,62,63,64,65,66,67;
41,42,43,44,45,46,47,48,49,50,51,52,54;
28,29,30,31,32,33,34,35,36,37,38,39,40,53;
14,15,16,17,18,19,20,21,22,23,24,25,26,27;
1,2,3,4,5,6,7,8,9,10,11,12,13;

(Added in 1.78)

ScanKeyboardEdit=1,2,3;4,5,6;7,8,9;10,11,12,1

There are 13 keys on the Keyboard (Edit)

panel. The default scan settings scans in rows, with the cursor arrow keys as one block.

;;This is row scan top to bottom

ScanKeyboardEdit=1,2,3;4,5,6;7,8,9;10,11,12,13

;;This is row scan bottom to top

ScanKeyboardEdit=10,11,12,13;7,8,9;4,5,6;1,2,3

;;This is column scan left

ScanKeyboardEdit=1,4,7,11;2,5,8,10,12;3,6,9,13

;;This is column scan right

ScanKeyboardEdit=3,6,9,13;2,5,8,10,12;1,4,7,11

(Added in 1.78)

ScanKeyboardNum=1,2,3,4;5,6,7;9,10,11;12,13

There are 17 keys on the Keyboard (Numpad/numeric) panel. The default scan settings scans in rows, with special handling for the elongated buttons on the right.

;;This is for row scan top to bottom

ScanKeyboardNum=1,2,3,4;5,6,7;9,10,11;12,13,1

;;This is for row scan bottom to top

ScanKeyboardNum=8,15;16,17;12,13,14;9,10,11

(Added in 1.78)

ScanToolBar=1;

There are 3 keys on the Toolbar panel. The default scan settings only highlights the top tool button. Note that this means the panel scan and the key scan are the same, meaning 2 left-clicks are required to select the key.

;;This scans all three buttons (but not recommended for the scanning user)

ScanToolBar=1;2;3;

;;This scans all three buttons in an overlapping group

ScanToolBar=1,2;2,3;

(Added in 1.78)

ScanControlPanel=1,2;3,4;5,6;7,8;9,10;11,12;

There are 12 keys on the control panel. The default scan settings highlights the 6 rows of 2 buttons.

;;This is for row scan top to bottom

ScanControlPanel=1,2;3,4;5,6;7,8;9,10;11,12;

;;This is for row scan bottom to top

ScanControlPanel=11,12;9,10;7,8;5,6;3,4;1,2;

;;This is for column scan left to right

ScanControlPanel=1,3,5,7,9,11;2,4,6,8,10,12;

;;This is for column scan right to left

ScanControlPanel=2,4,6,8,10,12;1,3,5,7,9,11;

(Added in 1.78)

ScanMacro=1;2,3,4;5,6,7;8,9,10;11,12,13;14,15

There are 16 keys on the Macro panel. The default scan settings highlights the top button and the 5 rows of 3 buttons.

;;This is for row scan top to bottom

ScanMacro=1;2,3,4;5,6,7;8,9,10;11,12,13;14,15,1

;;This is for row scan bottom to top

ScanMacro=14,15,16;11,12,13;8,9,10;5,6,7;2,3,4

;;This is for column scan left to right

ScanMacro=1;2,5,8,11,14;3,6,9,12,15;4,7,10,13,1

;;This is for column scan right to left

ScanMacro=1;4,7,10,13,16;3,6,9,12,15;2,5,8,11,1

(Added in 1.78)

ScanWindowsControls=1,2,3;4,5,6;7,8,9;10,11,

There are 18 keys on the Windows Controls panel. The default scan settings highlights the 6 rows of 3 buttons.

;;This is for row scan top to bottom

ScanWindowsControls=1,2,3;4,5,6;7,8,9;10,11,12

;;This is for row scan bottom to top

ScanWindowsControls=16,17,18;13,14,15;10,11,

;;This is for column scan left to right

ScanWindowsControls=1,4,7,10,13,16;2,5,8,11,1

;;This is for column scan right to left

ScanWindowsControls=3,6,9,12,15,18;2,5,8,11,1

(Added in 1.78)

ScanCalculator=1,2,3;4,5,6,7,8;10,11,12,13,14;

There are 25 keys on the Calculator panel. The default scan settings highlights the rows, and handles the elongated buttons on the right separately.

;;This is for row scan top to bottom

ScanCalculator=1,2,3;4,5,6,7,8;10,11,12,13,14;1

;;This is for row scan bottom to top

ScanCalculator=9,20;21,22,23,24,25;15,16,17,18

;;This is for column scan left to right

ScanCalculator=1;2;3;4,10,15,21;5,11,16,22;6,12

;;This is for column scan right to left

ScanCalculator=3;2;1;9,20;8,14,19,25;7,13,24,18

(Added in 1.79)

ShiftLock=0

When ShiftLock=1, the role of the Shift key changes - when the Shift key is pressed, it will stay in the Shift state until the Shift key is pressed again. ShiftLock=0 means the Shift state will clear when another key is pressed - this is the default operation. Note when Multi-Touch is enabled, the Shift key can be held down by a constant pressed down input.

(Added in 1.79)

ControlLock=0

When ControlLock=1, the role of the Control key changes - when the Control key is pressed, it will stay in the Control state until the Control key is pressed again. ControlLock=0 means the Control state will clear when another key is pressed - this is the default operation. Note when Multi-Touch is enabled, the Control key can be held down by a constant pressed down input.

(Added in 1.79)

AltLock=0

When AltLock=1, the role of the Alt key changes - when the Alt key is pressed, it will stay in the Alt state until the Alt key is pressed again. AltLock=0 means the Alt state will clear when another key is pressed - this is the default operation. Note when Multi-Touch is enabled, the Alt key can be held down by a constant

pressed down input.

(Added in 1.79)

AltGrLock=0

When AltGrLock=1, the role of the AltGr key changes - when the AltGr key is pressed, it will stay in the AltGr state until the AltGr key is pressed again. AltGrLock=0 means the AltGr state will clear when another key is pressed - this is the default operation. Note when Multi-Touch is enabled, the AltGr key can be held down by a constant pressed down input. The selected keyboard layout must present/support the AltGr key for this setting to have any affect.

[Settings]

(Added in 1.79)

The Settings section contains shared settings between the 1.x and 2.x software in preparation

for a future comprehensive KBF (KeyBoard File) data structure that contains all settings associated with a specific user's configuration.

XParallax=0

YParallax=0

The XParallax and YParallax settings allow for situations and touchscreen hardware where the X/Y appearance is not in sync with system display - i.e. not a calibration issue, but a physical configuration or device setup situation where the perceived touch location is somewhat offset from the hardware/driver established touch location. For example, when there is a noticeable physical separation between the display surface and the touch sensitive glass surface. To accommodate these situations, X or Y (or both) parallax settings may be entered (positive or negative), and these values are used as an offset to calculate a modified location within the software to

balance the difference between the user's viewpoint and its corresponding X/Y touch point. Note these settings are used only for location values within the area of the OnScreen window. These settings should only be used in situations where the user and device are consistently located, as these settings will make the software appear to operate incorrectly if the user's approach to the device is varied. Use XParallax=0 and YParallax=0 to bypass these settings.

KeyBlockTime=0

The KeyBlockTime is a per key blockout time in milliseconds where any additional key press via click event is ignored (blocked). The setting is implemented per key, but is global in nature. For each processed key, the particular key is is "blocked" during the blockout time specified. However, another key press will clear the current blockout, and start a new blockout time

for the new key. Use KeyBlockTime=0 to bypass this setting. KeyBlockTime=100 means 100 milliseconds key block time out. KeyBlockTime=500 means 500 milliseconds (1/2 second) key block time out.

AllowThemeChange=1

The AllowThemeChange setting provides an enable/disable setting for theme changes either via the Touch Panel, the OnScreen menu, or the 2-touch Rotate gesture. If AllowThemeChange=1, then these Theme Change events are processed, otherwise if AllowThemeChange=0, then user triggered theme changes are not allowed.

Theme=ROUNDED_SLATE

The Theme entry is the current theme in use. This entry must correspond to a folder in the ThemesFolder specified folder, and the folder must have appropriate Theme settings and

files. The Change Theme event (AllowThemeChange) will rotate the theme based on the ThemeList, and update this entry, then reload the current theme.

ThemeList=ROUNDED_SLATE,ROUNDED_

This must be a comma delimited list of folders that exist as sub-folders in the the specified ThemesFolder location. When the Change Theme event occurs (AllowThemeChange), the next item in the list will be used as the new current theme, or the list will start over from the first entry.

ThemesFolder=%PRODDIR%\THEMES

The ThemesFolder setting must correspond to a valid folder that has at least 1 theme sub-folder. The default is %PRODDIR%\THEMES, which expands to the current installed folder, with a sub-folder of THEMES. A valid Theme folder (in the

THEMES folder) will have a THEME.INI, which contains replacement entries for specific items the current ONSCREEN.INI file. When the Theme is applied (at OnScreen start or due to Change Theme event), the THEME.INI is read and applied to the current ONSCREEN.INI file. For example themes, the PaintDLL overrides are used to change the painting of the keys, background, etc. Refer to the Example Themes and the IMG Developer's Kit for more details.

InitTouchPanel=1

This setting is used at the first run-time to determine if multi-touch hardware capabilities are present, and if they are, the WantTouchPanel setting will be set to 1 to show the Touch Panel. The logic used requires that the RegisterTouchWindow API call is successful (Multi-touch capable hardware), and the WantMultiTouch or WantGestures is

set to 1, and InitTouchPanel=1. This allows the WantTouchPanel setting to sync up with available hardware and initial default settings, so the Touch Panel is shown if the system can support it, while preserving the meaning of WantTouchPanel based on user preferences. The setting is always set to InitTouchPanel=0 after starting OnScreen.

WantTouchPanel=0

If WantTouchPanel=1, then the Touch Panel will be displayed (Windows Vista / 7). The external MultiTouchDLL.DLL must be present for support (see IMG Developers' Kit), and either WantMultiTouch or WantGestures must be set to 1. If WantTouchPanel=0, the Touch Panel will not be shown. If the Touch Panel is shown on a system without Multi-Touch capabilities, the Theme & Dismiss buttons will still operate, but gestures and multi-touch buttons will not be enabled.

WantMultiTouch=0

To select the multi-touch interface, use WantMultiTouch=1. If this value is set, the WantGestures setting will not be used.

WantGestures=1

To select the gesture interfaces, use WantGestures=1. To use gestures, WantMultiTouch=0 must be used.

FlicksMode=2

During run-time, if both multi-touch and the gesture interface are off, then normal operation will occur, and flicks will be processed. The MultiTouchDLL.DLL must be present, and the Touch Panel must be available. FlicksMode=0 will disable flick processing. FlicksMode=1 means the keyboard window will be sent to the screen location relative to the flick, i.e. up (north) means top center, down-left (south-east) means bottom left, etc.

FlicksMode=2 means the keyboard window will move in the horizontal/vertical directions, and minimize on a diagonal direction.

ReturnOnScreen=0

The ReturnOnScreen setting controls how the keyboard window is positioned when recalled from its off-screen position (when dismissed by the Touch Panel's Clear/Dismiss/Recall button). If ReturnOnScreen=0, then the left position of the keyboard window is recorded when dismissed, and returned to that original position when recalled. (Note: If using gestures, and the keyboard window is panned off-screen to the left, then it will return at the left edge, and if panned off-screen to the right, then it will return at the right edge). If ReturnOnScreen=1, then the keyboard window is returned to the center of the screen (or primary monitor in a multi-monitor system). If ReturnOnScreen=2, then the keyboard window

is returned to the center of the entire virtual space (in a multi-monitor system). If there is only 1 monitor, then ReturnOnScreen=2 will operate the same as ReturnOnScreen=1.

TouchFadeAway=1

The TouchFadeAway setting indicates how the "on-screen" Touch Panel portion will react when the keyboard window if "off-screen". If TouchFadeAway=1, then after a preset amount of time (a few seconds), the visible portion of the Touch Panel (green section when keyboard window off-screen) will fade away. A click/touch/mouse event is required to reset and make the window visible. If TouchFadeAway=0, then the fade away action is disabled, and the Touch Panel will always be visible.

(Added in 1.79)

[Region]

The [Region] section is used to create a region mask that can change the shape of the visible window. For some versions, this section replaces the external REGION.INI file.

RoundedCorner=0

When RoundedCorner=0, region masks are not applied to round the corners of the keyboard window. When RoundedCorner=1, 4 ellipses (circles), and 2 rectangles are summed to create a rounded corner effect for the keyboard window. The circle size (affecting the rounded corner) is calculated based on the current Size setting. If the Region setting UseFixedArea is set, it will override the RoundedCorner setting. Be sure to set UseFixedArea=0 when RoundedCorner=1.

UseFixedArea=0

Set UseFixedArea=1 to enable the use or specified areas to create a region mask that

affects the visible portion of the keyboard window. To disable these appearance options, set UseFixedArea=0. Also reference RoundedCorner for a special case of these appearance settings.

Area1=

Area2=

Area3=

Area4=

Area5=

Area6=

Area7=

Area8=

Up to 8 different Areas can be specified when UseFixedArea=1. For validly specified areas, the different regions will be summed (logically OR'ed) to create more complex regions. These

regions must be set in sequential order, and each must be valid to properly create a complex region. The Area entries must be of the form "[Type],left,top,right,bottom" where [Type] can be "Rect" or "Ellipse", and left, top, right, bottom are 0,0 based entries from the top/left of the keyboard window. The Rect type region is defined by the rectangle area specified, where the Ellipse type results in the ellipse that will fit within the rectangle area specified. (Example: Area1=Rect,3,5,271,109) The areas are not required to be contiguous. The entries are coordinates using the top/left of the window as 0,0, and for practical use, the right value must be larger than the left value, and the bottom value must be larger than the top value. Note these entries are not width/height, but absolute coordinates.

> # **Warning**
> Be careful when using these settings, since the software can be made unusable or inaccessible if the region area specified does not map in a functional/usable way to the current keyboard window configuration. Also, these are pixel settings based on a current size/configuration - changing the size and/or configuration of OnScreen may result in an unacceptable display.

[MouseButtons]

LeftButton=0

RightButton=2

MiddleButton=3

ShiftDisplay=1

The MouseButtons settings are used to track which actions are triggered by the Mouse Button. LeftButton or RightButton must be set to 0 indicating the button that will press a OnScreen button. The valid settings are 1-63, referenced as follows:

1=Ignore Button Press, 2=Move OnScreen 3=Look-Through OnScreen, 4=Open OnScreen Menu, 5=Minimize OnScreen, 6=Enter Key, 7=Escape Key, 8=Tab Key, 9=Space Bar, 10=BackSpace Key, 11=Up-Arrow, 12=Down-Arrow, 13=Left-Arrow, 14=Right-Arrow, 15=Insert, 16=Delete, 17=Home, 18=End, 19=Page Up, 20=Page Down, 21=F1 (Help), 22=F2, 23=F3,

24=F4, 25=F5, 26=F6, 27=F7, 28=F8, 29=F9, 30=F10 (Menu), 31=F11, 32=F12, 33=Shift Key, 34=Ctrl Key, 35=Alt Key, 36=Ctrl-Ins (Copy), 37=Shift-Ins (Paste), 38=Shift-Del (Cut), 39=Ctrl-Del (Clear), 40=Alt-Backspace (Undo), 41=Alt-F4 (Close Window), 42=Alt-Tab (Next App), 43=Alt-Esc (Find App), 44=Alt-Space (System Menu), 45=Alt-Y (Yes), 46=Alt-N (No), 47=Shift-Tab, 48=Shift-F4 (Tile), 49=Shift-F5 (Cascade), 50=Ctrl-F4 (Close Child), 51=Ctrl-Tab (Select Child), 52=Ctrl-Esc (Task List), 53=Ctrl-Space, 54=Ctrl-Backspace, 55=Ctrl-Enter, 56=Ctrl-Home, 57=Ctrl-End, 58=Ctrl-Page Up, 59=Ctrl-Page Down, 60=Ctrl-Up, 61=Ctrl-Down, 62=Ctrl-Left, 63=Ctrl-Right

The ShiftDisplay is included for those users who use the Shift key as one of their buttons - OnScreen repaints the shifted keys when the

Shift state is on (Shift-Key Down), and there is a slight delay on slower systems. To alleviate this delay, you may set ShiftDisplay=0.

[StartUp]

QuickHelp=1

Magnifier=1

Calc=0

Alpha=1

Edit=1

Numeric=1

Window=1

Info=1

MacroBrd=0

MytCtl=1

(Added in 1.77)

MyTMPanel=1

The StartUp settings are used to indicate which OnScreen Panels will open at OnScreen startup. If these are changed, OnScreen configuration will change and then open in the new configuration from then on.

These settings can be manipulated thru the CONFGMTS utility (ConfigureMTS), the following indicates the relationship to the available panels in OnScreen:

Alpha - Keyboard panel (letters, function keys)

Edit - Edit Panel (arrow keys, edit keys)

Numeric - Numeric Keypad panel

Window - Windows Controls panel

MacroBrd - Macro panel

Magnifier - Magnifier panel

Calc - Calculator panel

QuickHelp - QuickHelp panel

Info - System Information panel

MytCtl - Control panel

MyTMPanel - Tool bar panel

[SysInfo]

Time=1

Date=1

CurPos=1

FreeDsk=1

FreeMem=1

FreeRes=1

Order=TDMSRC

The settings Time, Date, CurPos, FreeDsk, FreeMem, FreeRes indicate if the display is shown.

The Order indicates which order the information is displayed.

The relationships are as follows:

Time, Order T, Current System Time.

Date, Order D, Current System Date.

CurPos, Order C, Current Cursos Position.

FreeDsk, Order S, Free Disk Space.

FreeMem, Order M, Free System Memory.

FreeRes, Order R, Free System Resources.

(Added in 1.77)

TimeDisplayNoSeconds=0

This setting was requested by a OnScreen TS user to reduce network traffic when using the time display on the System Information panel. When TimeDisplayNoSeconds=1, instead of hours, minutes & seconds (HH:MM:SS), the display is hours & minutes (HH:MM), and the update occurs only once 1 minute, instead of once a second.

[CalculatorTape]

CalcTapeActive=1

OpenTapeWithCalc=0

CalcSendWithCR=0

CalcSendWithEXE=0

Program=

DecimalDigits=6

CalcTapeActive=1 indicates that the Calculator Tape can be activated from the Calculator Panel. When the Calculator Panel opens, the Back Space is changed to indicate "Tape." If clicked, the Calculator Tape will open. At any time, by clicking on the Display, the Calculator Tape will open, or if already open, will close. When the Calculator Panel is closed, the Calculator Tape will automatically close. If CalcTapeActive=0, these features will not be available. As an alternative, if

OpenTapeWithCalc=1, the Calculator Tape will open when the Calculator Panel is open. If CalcSendWithCR=1, the [Enter] Key will be appended to the keystrokes sent when the SD (Send) button is clicked on the Calculator Panel. If CalcSendWithEXE=1, the application specified with the Program= setting will be launched when the SD (Send) button is clicked on the Calculator Panel. Program= is used to specify the path & file name of the executable program to launch when CalcSendWithEXE=1. Only short file names is recommended for maximum compatibility. DecimalDigits sets the number of digits that the OnScreen calculator will display to the right of the decimal place. Valid settings are 1 through 6.

[Colors]

Display3DKeys=1

If Display3DKeys=1, then the shaded bitmap is

used as a background for the keys - this is recommended for 16-bit color or higher (256 colors is not sufficient) Set Display3DKeys=0 to disable the high-resolution display.

Note for sizes smaller than 8, the high-res is not supported because there are not enough pixels to create an acceptable look.

SystemColors=0

If SystemColors=0, then the following section defines the colors available for the different panels. If SystemColors=1, then the colors are retreived from the Windows System, as setup in Display Properties, Appearance.

Colors are RGB values, listed RRR,GGG,BBB. If your monitor displays more than 16 colors, you may adjust these values here & avoid the Colors Options in OnScreen Setup.

ToolTextIn=0,0,0

Color of the Control Panel text if the Panel indicated is not displayed

ToolTextOut=0,0,255

Color of the Control Panel text if the Panel indicated is displayed

Text1=0,0,0

Face1=192,192,192

High1=255,255,255

Shadow1=128,128,128

Button Text, Button Face, Button Highlight, Button Shadow of the Magnifier Panel.

Text2=0,0,0

Face2=192,192,192

High2=255,255,255

Shadow2=128,128,128

Button Text, Button Face, Button Highlight, Button Shadow of the Keyboard Panel.

Text3=0,0,0

Face3=192,192,192

High3=255,255,255

Shadow3=128,128,128

Button Text, Button Face, Button Highlight, Button Shadow of the Edit Panel.

Text4=0,0,0

Face4=192,192,192

High4=255,255,255

Shadow4=128,128,128

Button Text, Button Face, Button Highlight, Button Shadow of the Numeric Panel.

Text5=0,0,128

Face5=192,192,192

High5=255,255,255

Shadow5=128,128,128

Button Text, Button Face, Button Highlight,
Button Shadow of the Windows Controls
Panel.

Text6=128,0,0

Face6=192,192,192

High6=255,255,255

Shadow6=128,128,128

Button Text, Button Face, Button Highlight,
Button Shadow of the Macro Panel.

Text7=0,0,0

Face7=192,192,192

High7=255,255,255

Shadow7=128,128,128

Button Text, Button Face, Button Highlight, Button Shadow of the Calculator Panel.

SysT=255,255,255

System Information: Time

SysD=0,255,255

System Information: Date

SysC=255,255,0

System Information: Cursor Position

SysS=255,0,0

System Information: Disk Space

SysM=255,0,255

System Information: System Memory Available

SysR=0,255,0

System Information: System Resources

SysQ=0,255,0

Quick Help Display

Sys#=0,255,0

Calculator Display

CalcMem=255,255,0

Calculator Memory indicator

[Help]

This is a lookup section to map internal help topics to various external help manifestations. During the 20 years of releases, various help formats have been introduced and then made obsolete. Currently HTML and PDF are in use, as the most flexible and platform independent, in hopes that they might last a bit longer than Windows only help formats. This is used by the HelpInterface function in IMGVERS.DLL, and should not be modified by the user. Note that the INI file in the same folder as IMGVERS.DLL is used for this lookup. If help

reports a problem with the help file, verifying the INI in the installation folder and this section may be helpful.

THE FOLLOWING ARE SPECIFIC APPLICATIONS IN WHICH OnScreen REQUIRES SPECIAL SETTINGS

Certain Windows Applications may be affected by OnScreen because of the way they were written. You may set OnScreen to act normally for any application by setting the Configuration in OnScreen Setup or editing the ONSCREEN.INI file.

[Special]

MyTSpcl0000=Command Prompt

MyTSpcl0001=CMD.EXE

IMPORTANT: Because of the revised interface approach, and the general improvement in quality of all windows software, many of these

capabilities & settings are no longer necessary. In fact, the settings included are for example purposes only and they are not required for proper operation of the windowed command prompt. Because these advanced special handling capabilities add a great deal of flexibility to the software, all documentation and notes remain.

The Special area designates which applications require special consideration by OnScreen. These are used internally and should not be modified by the user here. Refer to OnScreen Setup to add, remove, or modify these settings.

The following MyTSpcl????= lists the application name that OnScreen will check in the application section below for any special settings. This application name is the Window Text (Caption Heading) for the Window. To add an application to this list, it must be assigned the next sequential number for

MyTSpcl????.

ADVANCED NOTES:

The Special settings are used internally by
OnScreen to handle the vagaries of different
Windows applications - they are documented
here in case of similar problems with other
Windows applications.

SPECIAL SETTINGS

Special=1 - is used to track internal window
child controls for Edit, Buttons, List boxes,
Scroll bars, etc. - No application should set
Special=1.

Special=2 - this is for Paintbrush and the fact
that it loses the input focus and DOES NOT
regain it if another application is activated
while text is being entered. This may not be
useful in any other application because of the
specific internal windows messages handled
with this setting - if, however, an application is

written in the same way, and OnScreen is unable to send keystrokes to that application, the user may wish to try this setting for that application. NOTE: This only applies if InterfaceApproach=0

Special=3 is used internally to handle the differences between Help in version 3.0 and 3.1.

Special=4 was used to handle the edit areas in the PIF editor for the main window. This setting is specific to the PIF editor, and will not work in any other cases. The InterfaceApproach=1 setting has eliminated the need for this special action. PIF editor will not act properly if InterfaceApproach=0.

Special=5 is used to bring the Task Window over OnScreen in version 3.0 and handle special screen repaint issues - this is specific to the Task List.

Action Settings:

Action=0 - ignore

Action=1 - minimize to button

Action=2 - minimize to icon

Action=3 - hide OnScreen behind Window as an icon

Action=4 - move OnScreen off of Window

Action=5 - resize Window, move OnScreen off

Action=6 - Dialog Type Window - Move OnScreen to bottom

Action=7 - Popup Type Window (Help) - Move Window off of OnScreen

Flags=1 - Window receives Focus

Flags=2 - Window does not get Input Focus

Action=8 - Screen Saver - OnScreen floats

Action=9 - Screen Saver - OnScreen bounces

Action=10 - OnScreen hides

Action=11 - 29 (RESERVED)

Action=30 - Use Secondary Strategy Win 3.0 Only

Action=31 - Use Secondary Strategy Win 3.1 Only

Action=32 - Use Secondary Strategy Always

The Flags entry is also checked for allowing a Button Move to a particular class of windows. For example, if Action=0 and Flags=1 for a particular class, this class will be ignored, AND the button will not move to this class of window. Essentially the Flags setting should only be used for Action=7 as outlined above, or set Flags=1 to prevent the button from moving to this class of window.

[Command Prompt]

Contention=1

Action=4

[CMD.EXE]

Contention=1

Action=4

[Classes]

MyTClass0000=#32770

MyTClass0001=bordlg

MyTClass0002=Dialog

MyTClass0003=MS_WINNOTE

MyTClass0004=tutor

MyTClass0005=tutprogman

MyTClass0006=tutwrite

MyTClass0007=ListBox

MyTClass0008=ComboBox

MyTClass0009=ComboLBox

MyTClass0010=WFS_Drives

MyTClass0011=WFS_Drive

MyTClass0012=WindowsScreenSaverClass

MyTClass0013=Sleep

MyTClass0014=FXPopup

MyTClass0015=C_TurboType

MyTClass0016=bosa_sdm_Microsoft Word 6.0

MyTClass0017=bosa_sdm_XL

MyTClass0018=LOGON

MyTClass0019=Blank Screen Saver

MyTClass0020=My-T-Soft Ctrl-Alt-Del

MyTClass0021=tooltips_class32

MyTClass0022=Button

[#32770]

Action=6

[bordlg]

Action=6

[Dialog]

Action=6

[MS_WINNOTE]

Action=7

Flags=1

[tutor]

Action=10

[tutprogman]

Action=10

[tutwrite]

Action=10

[ListBox]

Action=31

[ComboBox]

Action=32

[ComboLBox]

Action=31

[WFS_Drives]

Action=30

[WFS_Drive]

Action=30

[WindowsScreenSaverClass]

Action=10

[Sleep]

Action=10

[FXPopup]

Action=10

[C_TurboType]

Action=7

Flags=2

[bosa_sdm_Microsoft Word 6.0]

Action=6

[bosa_sdm_XL]

Action=6

[LOGON]

Action=10

[Blank Screen Saver]

Action=10

[My-T-Soft Ctrl-Alt-Del]

Action=6

[tooltips_class32]

Action=0

Flags=1

[Button]

Action=0

Flags=1

ADVANCED NOTES:

The Classes listed here are the classes that OnScreen must act in special ways. Primarily this list is referenced internally during OnScreen operation against the active window. If a match is found, the action OnScreen will take is given by the action.

IMPORTANT: Each Class on this list will affect the system memory that OnScreen requires, and will affect the system operation speed within Windows since this list must be checked against the active window. There is no reason to remove any of the entries on this list, and if you do, proper operation of OnScreen

cannot be ensured.

If OnScreen does not act the way you want it to act, cross check the OnScreen actions listed above, and if applicable, add the class and action to the list, as documented below in the example for screen savers.

NOTE: Screen Savers.

The main reason to add to this list would be to add a screen saver that you use which is not currently on the list. To add an entry: Add the Next sequential entry to the [Classes] section.

e.g.

MyTClass0028=MyScreenSaver

and then add an entry below it as:

[MyScreenSaver]

Action=10

This will result in OnScreen hiding behind the

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screen saver when the screen saver becomes active.

NOTE: Reference the actions above for alternate screen saver actions.

Reference the ClassWatch setting in the [Configuration] \section to find out the class of the active window.

[MenuClasses]

MyTClass0000=#32768

MyTClass0001=BaseBar

MyTClass0002=MsoCommandBarPopup

MyTClass0003=DV2ControlHost

These settings have been added to allow additions of application defined menus. Windows 98 added to the original Popupmenu class with the BaseBar, and Office 97 added the MsoCommandBarPopup. Since these menus work better when displayed above

OnScreen, internal settings & action allow the classes of windows in this list to appear above OnScreen. There is a maximum of 10 classes that can be entered in this list.

[StayBehindClasses]

MyTClass0000=The Magnifier

MyTClass0001=CrossScanner FingerScan

MyTClass0002=CrossScanner Desktop

MyTClass0003=Defer:WordComplete

These settings have been added to provide more flexibility for handling other windows in the system. Because the MenuClasses setting are used for Menus and can affect focus issues, an additional setting for other interface windows that affect the windows display order has been added. OnScreen will not position above (visibly on top) of these windows. The "Defer:" prefix indicates a modified logic

approach internally, so that when the mouse is positioned in the overlap between the keyboard window and the indicated deferred window, an override state occurs. When the mouse slides onto the keyboard window in this state, the keyboard will then stay above the indicated window class. This lasts until the mouse pointer goes off the keyboard window. This allows a flexible approach, designed specifically for the WordComplete window, which stays topmost, unless the user wants to type a letter, which can be accomplished by sliding off the deferred window onto the keyboard, bringing the keyboard on top of the (otherwise) topmost window. There can be only 1 Defer entry in this list.

> **Important Note:** The StayBehindClasses area ONLY refers to other windows that have the Topmost attribute in the system. This cannot be used for normal type

windows. The Window manager sorts
multiple Topmost windows, which in all
cases will be above other non-topmost
windows. The StayBehindClasses is used
to help sort these topmost windows. In
order to position the topmost OnScreen
window below some application window,
the application window must also have the
Topmost attribute. For application level
control of the keyboard window, refer to
IMG's Build-A-Board.

(OnScreen only)

[DoNotArrangeClasses]

maximum 32 characters

MyTClass0000=CrossScanner

MyTClass0001=MyTSetup

MyTClass0002=Shell_TrayWnd

MyTClass0003=Calculator Tape

MyTClass0004=The Magnifier

MyTClass0005=The Right Touch

MyTClass0006=TouchRight Utilities

MyTClass0007=ScrlCtrl

MyTClass0008=DV2ControlHost

MyTClass0009=SmartClick

MyTClass0010=WorkerW

MyTClass0011=SysListView32

MyTClass0012=ImlWinCls

MyTClass0013=CrossScanner Cursor Park

These settings have been added to allow additions of applications that the user does not want to be Auto-arranged when AutoArrange=1 - (see above for this setting). Because certain OnScreen & CrossScanner windows should not be affected by

Auto-Arrange when enabled, this list provides the list of window classes that will not be arranged.

[MacroPanelsToOpen]

The default setting is to have no panels automatically open. The list that would appear here is appended to the Window Names in the special MyTSpcl????= list above.

NOTE: If MacroPanelsToOpen includes one of the Special settings windows names, only the Special Settings will work & the Macro Panel will not open.

IMPORTANT: Each Panel on this list will affect the system memory that OnScreen requires, and will affect the system operation speed within Windows since this list must be checked against the active window.

The list is built from OpenPanel????=MAC?????.KMF entries.

Example:

OpenPanel0000=MAC00032.KMF

OpenPanel0001=MAC00002.KMF

OpenPanel0002=MAC00008.KMF

where OpenPanel???? entries must be in sequential order starting at 0000. The numbers must be sequential. The Macro File name with ID embedded in the name must be the entry.

Since there is no easy way to view the Macro Panel at the file level, these settings should be handled within OnScreen Setup.

[Keys]

MyTKeys0000=78,16384

The [Keys] section lists a sequential list of key IDs and enhanced settings code. The first number in the list is the key ID for each MyTKeys???? entry, and the second number (after the comma) lists the enhanced settings

ID. See BUILD-A-MACRO notes above for the Key IDs list.

The MyTKeys???? must be sequential starting at MyTKeys0000. e.g. Additional entries to the above would be

MyTKeys0001=1,1

MyTKeys0002=12,64

The Enhanced setting is a binary code (decimally displayed) that is set as follows:

Enable/Disable is 1-128

Launch is 256-32768

For any particular key, the bits are "or"-ed, or summed as follows

0 - Key enabled

+1 Disable Keystroke

+2 Disable Shift + Keystroke

+4 Disable Ctrl + Keystroke

+8 Disable Alt + Keystroke

+16 Disable Alt-Shift + Keystroke

+32 Disable Ctrl-Shift + Keystroke

+64 Disable Alt-Ctrl + Keystroke

+128 Disable Alt-Ctrl-Shift + Keystroke

+256 Launch with Keystroke

+512 Launch with Shift + Keystroke

+1024 Launch with Ctrl + Keystroke

+2048 Launch with Alt + Keystroke

+4096 Launch with Alt-Shift + Keystroke

+8192 Launch with Ctrl-Shift + Keystroke

+16384 Launch with Alt-Ctrl + Keystroke

+32768 Launch with Alt-Ctrl-Shift + Keystroke

The above setting for MyTKeys0000 is for the Delete Key (with Ctrl and the Alt key pressed)

to launch the Key EXE below (for Key0078). The utility will force Windows to restart, so Ctrl-Alt-Delete on the keyboard will result in a warm reboot. When the Logon Utilities are enabled in Windows 2000 / XP, a Ctrl-Alt-Del will perform the same result as if done on a physical keyboard, e.g. show a dialog in the secure WinLogon desktop. In Windows Vista/7, a separate set of buttons will be displayed on the user desktop, allowing similar functionality to the WinLogon options shown if a Ctrl-Alt-Del is performed by a physical keyboard (the GINA interface has been dropped by Microsoft in Windows Vista/7, so transferring to the secure WinLogon desktop does not occur). Options include: Lock Workstation/Switch User, Log Off, Restart, Shutdown, and the Task Manager.

[Key0078]

Program=%PRODDIR%\CTALTDEL.EXE

NOTE: This assumes the default install on a normal windows setup - it is included primarily for example. Each Key ID can have 1 Key EXE associated with it, and 1 or more key combinations can launch this EXE based on the MyTKeys???? setting above in [Keys].

Note that the Enable/Disable portion of a keystroke is independent of its Launch setting. The Keystroke should be initiated prior to the launch of the EXE, but system & Windows issues may affect this timing. The path & file name conform to "short" file names for backwards compatibility. Make sure you do not use Long file names in the path.

> **Developer's Kit Notes:** The following sections are NOT in the default INI as shipped with the product, but since they are valid & available entries, they are briefly listed here for reference. For complete coverage, entry information, and

further details on these sections, please refer to the Developer's Kit documentation.

AddOnDLL sections

There are 3 possible sections available - [AddOnDLL1], [AddOnDLL2], [AddOnDLL3]. Only a single section is listed here. The Developer's Kit covers a sample AddOnDLL, along with a Logging Log DLL using these capabilities.

[AddOnDLL1]

DLLName=%PRODDIR%ADDONDLL\ADDO

InitializeFunctionName=InitFuncType7

InitializeFunctionType=7

TimerFunctionName=TimerFuncType9

TimerFunctionType=9

TimerDelay=1000

CleanupFunctionName=CleanupFuncType8

CleanupFunctionType=8

Value1=1

Value2=201

Value3=3302

PaintDLL section

The Paint DLL allows an external DLL to handle certain painting tasks within OnScreen, allowing customization to the panel background, and the keys (both key background image and key label) Refer to the Developer's Kit for details and a sample DLL that shows some custom painted images.

[PaintDLL]

DLLName=%PRODDIR%\PaintDLL\Release\Pa

PaintFrame=1

PaintFrameFunc=PaintDLLPaintFrame

PaintKey=0

PaintKeyFunc=PaintDLLPaintKey

PaintKeyBackground=1

PaintKeyBackgroundFunc=PaintDLLPaintKeyBa

PaintKeyModBackground=0

PaintKeyModBackgroundFunc=PaintDLLPaintK

PaintKeyLabel=1

PaintKeyLabelFunc=PaintDLLPaintKeyLabel

WordsDLL section

The Words DLL allows an external DLL to handle Word List functionality when the WordComplete panel is available. Refer to the Developer's Kit for details and a sample DLL that shows the integration.

[WordsDLL]

DLLName=%PRODDIR%\WordsDLL\Release\\

WordsGetWordListFunc=GetWordList

WordsTypedWordFunc=TypedWord

Chapter 11. Error Messages and Numbers

OnScreen Errors & Notes are listed is this section describing details and possible resolutions.

OnScreen Error Messages

OnScreen Errors & Notes are listed below alphabetically with the following information:

Internal Error Codes

Explanations

Possible Solutions to resolve the problem

If you are unable to resolve the problem and require technical support please write down the

error code and refer to the Customer Support section of this manual.

OnScreen is Already Open! Cannot Open Another...

Internal Code: 1

Explanation: OnScreen is already running.

Solutions: OnScreen should be visible somewhere on your screen display - it may be minimized to a button or icon.

If using the Developer's Kit, if is possible that OnScreen is open, but off-screen, and not accessible - you can try going to a higher resolution (Control Panel | Display | Settings, and raise the resolution (e.g. 800x600 to 1024x768)). You can also use the CLOSEMTS.EXE from the Developer's Kit to force OnScreen to close. If you have configured OnScreen to open off-screen, you may run OnScreen Setup | Configuration |

Special Options | Return to Installation
Defaults. You may also try MOVEWMTS.EXE
to move back on the visible screen, then Save
Settings & Save Position. Refer to Developer's
Kit notes for further details.

**OnScreen Initialization Error! Cannot
access OnScreen Initialization File:
ONSCREEN.INI**

Internal Code: 39

Explanation: OnScreen could not access the
ONSCREEN.INI file.

Solutions: The OnScreen Initialization file is
not in the Installation directory. You can run
OnScreen Setup from the Program Manager
OnScreen group, select
Configuration-Special-Return To Installation
Defaults, and select Yes, then retry OnScreen.

**OnScreen Initialization Error! Cannot
access OnScreen Keyboard File:**

KEYBOARD.KBF

Internal Codes: 4, 82, 83, 85, 86, 87, 88, 90, 91, 92, 93, 94, 95, 97

Explanation: OnScreen could not access the KEYBOARD.KBF file.

Solutions: If OnScreen cannot access the KEYBOARD.KBF file located in the OnScreen Installation Directory, OnScreen cannot be run. You may wish to exit Windows, restart, and retry. If this does not work, you will have to re-install OnScreen from diskette.

Internal Codes: 84, 89, 96

Explanation: The KEYBOARD.KBF file is corrupt.

Solutions: You can try to restore the original files by going into OnScreen Setup | Configuration (Appearance [Advanced]) | Special Options and select Return to

Installation defaults, or you will need to re-install OnScreen.

OnScreen File Error! Cannot access OnScreen Macro File: MAC?????.KMF or Keyboard Macro file KYBD????.KMF

Internal Code: 98, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118

Explanation: OnScreen could not access the file listed in the Error message.

Solutions: You may have deleted the Macro File listed, and the Macro Panel is not available. Check all Macro Key assignments to verify that none are attempting to open a non-existent Macro Panel. There may be some system or permissions issue that is preventing access to the file - you can try as an Administrator to see if results are different. You should verify the installation (or re-install).

There is not enough System Memory Available for OnScreen to run in this Configuration. Consult Your Manual.

Internal Code: 103

Explanation: There is not enough Windows Global Memory available to operate OnScreen in the current configuration.

Solutions: You may try to increase System Memory available to all applications within Windows, or operate OnScreen in a smaller configuration and/or size. OnScreen requires more System Memory as the screen display area increases. As you open Panels or go to a larger size, the demand increases. You may try to increase the system memory by increasing the Windows Swap File (see Virtual Memory under 386 Enhanced in the Windows Control Panel), or physically adding more memory to your system.

This is a Single User Version of OnScreen. Please Contact Innovation Management Group, Inc. for Multi-User Licensing.

Internal Code: 101

Explanation: This is a Single User Version.

Solutions: Contact Innovation Management Group, Inc. regarding Multi-User and Site Licensing of OnScreen.

Too many clocks or timers! Close Some Windows or Stop Animations, then Retry.

Internal Code: 3

Explanation: There is not a System Timer available

Solutions: You can close some windows, or stop any animations, or try exiting Windows and restart.

Window Creation Error! Cannot continue! Check System and Try again.

Internal Code: 1

Explanation: Windows could not create a Window for OnScreen

Solutions: You may have too many windows open, and there are not enough resources, or the Windows Environment may have been corrupted, or some other system error. Either Close other windows and try again, or exit Windows, and restart.

Window Tracking Error. Close OnScreen and Restart.

Internal Code: 1001, 1002, 1003, 1004, 1005

Explanation: InterfaceApproach is set to 0 in ONSCREEN.INI and there has been an internal error in OnScreen.

Solutions: Close OnScreen, and reset the InterfaceApproach in the ONSCREEN.INI to 1, then restart OnScreen.

Windows Internal Controls Are Active in Active Window! Cannot Remove OnScreen! Close Active Window or Switch to Another Window, then Retry.

Internal Code 1000:

Explanation: InterfaceApproach is set to 0 in ONSCREEN.INI, and Windows Internal Controls have been subclassed

Solution: Close Active Window, or Switch to Another Window and retry.

Windows Global Memory Allocation Error! Close OnScreen and Restart.

Internal Codes: 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 99. 100, DLL

Explanation: OnScreen attempted to Lock or Allocate Global Memory, and received an error

code from Windows.

Solutions: See Solutions under "There is not enough System Memory..." above.

Windows Local Memory Allocation Error! Close OnScreen and Restart.

Internal Codes: 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 102, 104, 105, 106, 107, 118, 119, 120, 121, 122, 123

Explanation: OnScreen is unable to access Local Memory to OnScreen. You should never see this error.

Solutions: Close OnScreen and Restart. If that is not successful, Exit Windows and Restart.

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