

**Howdy!**

**When talking with potential users about my low vision EZReader assistive technology, I get a lot of questions about organizations and services which can potentially improve their lives by providing counseling, training, job searching and purchases of low vision technology. I also get questions about other low vision technologies and how a user can use built-in Windows capabilities.**

**I've finally gotten around to creating this document of information I've gathered that I normally pass on verbally to folks. This document covers a lot of Texas information but the technology topics are good for all visually impaired users. Feel free to distribute this information freely. If you have any information you would like to recommend that I include in this summary please let me know. Or, of course, if you see anything incorrect or that needs clarification, please let me know that as well.**

**Table of Contents v2.0 – 12/01/2024:**

- **Texas WorkForce Commission**
- **Veteran's Administration**
- **ARCIL**
- **National Federation of the Blind**
- **Texas Talking Books Program**
- **Envision**
- **Texas Low Vision Doctors**
- **LightHouses for the Blind**
- **Cell Phone Applications and Settings**
- **Social Media**
- **Computers for the Blind**
- **Other Organizations**
- **Low Vision Technologies**
- **Windows Operating System**
- **Use a Large-Screen TV as a Monitor**
- **Preparing a PC for Low Vision Users**

**Gary Beene**

**214-668-9913**

[\*\*gbeene@airmail.net\*\*](mailto:gbeene@airmail.net)

[\*\*https://newvisionconcepts.com\*\*](https://newvisionconcepts.com)



**Support for blind and visually impaired Texans is provided by the Texas State government agency TWC (Texas Workforce Commission)**

**Texas Workforce Commission 800-628-5115**

*Our mission is to promote and support an effective workforce system that offers employers, individuals and communities the opportunity to achieve and sustain economic prosperity.*

101 E 15th Street  
Austin, TX 78778  
United States

**TWC is the parent organization. Its VR and OIB divisions support folks with various disabilities.**

- **VR if you have a physical, or mental impairment, or if you have blindness or a visual impairment, deafness, or a hearing impairment, or a brain injury that affects your ability to find, keep, or advance in meaningful employment.**
- **OIB if you are 55 or older and have a significant visual impairment that substantially limits your ability to function independently in the home, family, and/or community and you are not interested in employment.**

**TWC Vocational Rehabilitation Program 800-628-5115**

<https://www.twc.texas.gov/programs/vocational-rehabilitation>

Focus on individuals over 55 years of age.

Education, Training, Employment Services

- Vocational Rehabilitation – Adults
- Older Individuals Who Are Blind Services
- Vocational Rehabilitation – Youth & Students
- Criss Cole Rehabilitation Center Program
- Vocational Rehabilitation – Business Relations
- Business Enterprises of Texas Program

**OIB (Older Individuals Who are Blind) 844-633-3642**

<https://www.twc.texas.gov/programs/older-individuals-who-are-blind>

Focus on individuals 55 or older. Living skills, disability services and technology purchases.



The Veteran's Administration has sites in several locations throughout Texas which offer a variety of health services, including treatment of visual impairments.

Main VA Web Site <https://va.gov>

A VA Medical center refers to a single facility with a larger VA health care system. Medical centers services may include surgery, dental care, vision care, heart and kidney care, mental health counseling and a variety of other services as might be available in any hospital.

#### VA Medical Centers

- Bonham: [Sam Rayburn Memorial Veterans Center](#)
- Dallas: [Dallas VA Medical Center](#)
- Houston: [Michael E. DeBakey VA Medical Center](#)
- Kerrville: [Kerrville VA Hospital](#)
- Waco: [Doris Miller Department of Veterans Affairs Medical Center](#)

#### VA Health Care Systems

- Amarillo: [Amarillo VA Health Care System](#)
- Big Spring: [West Texas VA Health Care System](#)
- Dallas: [VA North Texas Health Care System](#)
- El Paso: [El Paso VA Health Care System](#)
- Harlingen: [VA Texas Valley Coastal Bend Health Care System](#)
- San Antonio: [South Texas Veterans Health Care System](#)
- Temple: [Central Texas Veterans Health Care System](#)



**ARCIL provides services similar to the TWC VR and OIB groups. But while those organizations focus on folks who are 55+, ARCIL primarily supports folks under 55.**

**ARCIL 512-832-6349**

<http://arcilinc.org>

*A private non-profit corporation dedicated to the advancement and full participation of persons with disabilities in all aspects of life.*

Counseling, Training, Technology

Focus on individuals under 55 years of age.

8200 Cameron Rd. C-154

Austin, Texas 78754

**Multiple sites (Centers for Independent Living):**

ARCIL (Austin) 512-832-6349

ARCIL (Carrollton) 469-381-7198

ARCIL (San Marcos) 512-396-5790

ARCIL (Round Rock) 512-828-4624



**NFB provides a wide range of information to folks who are blind and visually impaired. Of special note is the NewsLine program which offers free access to over 500 newspapers and magazines. Content can be received by email or listened to over the phone.**

**National Federation of the Blind 410-659-9314**

<https://nfb.org/>

*Through our network of blind members, we coordinate many programs, services, and resources to defend the rights of blind Americans, provide information and support to blind children and adults, and build a community that creates a future full of opportunities.*

200 East Wells Street at Jernigan Place

Baltimore, MD 21230

**National Federation of the Blind of Texas 281-968-7733**

<https://nfbtx.org>

Focus on Texas residents.

1600 E. Hwy 6 Suite 215, Alvin, Tx (77511) ... South of Houston

## **NFB-NewsLine**

<https://nfb.org/programs-services/nfb-newsline>

Free audio and electronic news service for anyone who is blind, low-vision, deafblind, or otherwise print-disabled that offers access to more than 500 publications, emergency weather alerts, job listings, and more.



## **Texas State Library and Archives Commission**

1201 Brazos St. Austin, Tx 78701

### **Texas Talking Book Program 800-252-9605**

<https://www.tsl.texas.gov/tbp/index.html>

*The Talking Book Program is available to Texans with visual, physical, or reading disabilities that prevent them from reading standard print. In order to receive our free services, please fill and/or print out the Talking Book Program application, sign the agreement (electronic typed signature accepted), complete the information, and have the form signed by a professional ("certifying authority") who can certify that you meet ... criteria for service:*

The program distributes both an electronic reader and book "cartridges" via USPS.

### **3 Locations:**

Texas State Library and Archives (Austin, Tx) 936-336-8821

Sam Houston Regional Research Center (Liberty, Tx) 512-475-5155

State Records Center / Talking Books Circulation (Austin, Tx) 512-475-5155



## **Envision**

<https://www.envisionus.com/dallas>

*To improve the quality of life and provide inspiration and opportunity for people who are blind or visually impaired through employment, outreach, rehabilitation, education and research.*

**Envision, Inc. 316-440-1500 <https://www.envisionus.com/dallas610> N Main Street  
Wichita, KS 67203**

National headquarters

**Envision Dallas, TX 214-821-2375 <https://www.envisionus.com/dallas>**

**1801 Valley View Lane**

**Farmers Branch, Tx 75234**

Employer of blind or visually impaired (manufacturing). Home of the low vision specialist, Dr. Burcham.



### **Texas Low Vision Doctors**

#### **Dallas Dr. Celico**

Low Vision Clinic Vision Aid

[lowvisiondallas.com/](http://lowvisiondallas.com/)

West Plano Medical Center 4100 W 15th Street Suite 206

Plano, TX 75093

214-265-1111

#### **Dallas Dr. Bailey**

Low Vision Institute of Texas

[lowvisiontx.com/](http://lowvisiontx.com/)

4020 W PLano Parkway

Plano, TX 75093

469-999-2747

#### **Dallas Dr. Burcham**

Envision Dallas

<https://www.envisionus.com/dallas>

1801 Valley View Lane

Farmers Branch, Tx 7234

#### **Dallas Dr. Lyons**

Fairview EyeCare

<https://fairvieweye.com/>

1546 E Stacy Road #100

Allen, Tx 75002

Ph. 214-383-5400

**Ft. Worth Dr. Cummings**

Ft. Worth Optometrist and Low Vision Specialist

<https://weloveyoureyes.com>

4008 West Vickery Boulevard

Ft. Worth, TX 76107

817-294-4834

**Austin Dr. Miller, Dr. Schutte, and Dr. Aguilar**

Northwest Hills Eye Care

<https://nwhillseyecare.com>

3921 Steck Ave #A-121

Austin, Tx 78759

512-328-0555

**Austin Dr. Miller, Dr. Schutte, and Dr. Aguilar**

South Austin (Austin Lighthouse)

4512 Pleasant Valley Rd.

Austin, Tx 78744

512-328-0555

**Round Rock Dr. Miller**

Complete Low Vision Care

<http://completelowvision.com>

1545 Round Rock Ave #100A

Round Rock, TX 78761

512-328-0555

**Georgetown Dr. Wood**

Lumino Vision

<http://luminovision.com>

1500 Rivery Blvd, Suite 2005

Georgetown, TX 78628

512-686-3424



Lighthouse for the Blind organizations are independent, non-profit organizations that provide services to people who are blind or visually impaired.

Austin Lighthouse (Tx) <https://austinlighthouse.org/> 512-442-2329

Lighthouse for the Blind of Ft. Worth (Tx) <https://lighthousefw.org/> 817-332-3341

East Texas Lighthouse (Tyler) <https://www.easttexaslighthouse.org/> 888-565-3852

Envision Dallas (Dallas, Tx) <https://www.envisionus.com/dallas> 214-821-2375

The Lighthouse for the Blind, Inc. (Seattle, WA) <https://lhblind.org/> 206-322-4200



## Cell Phone Applications and Settings

There are quite a few phone apps for the blind and visually impaired but only a few have a wide following. Some apps are available only on an Android phone or an iPhone. Some apps are cross-platform (both Android and iPhone).

### iPhone Applications

**Be My Eyes** – volunteers describe or read what is in front of your camera

**AIRA** – get real-time assistance with any task. Not free.

**Voice Over** – screen reader that interacts with the user through gestures

**SeeingAI** – describes what is around you – people, objects, currency and screens

**Siri** – ask questions, get answers

**TapTapSee** – identify objects



## **Android Cell Phone Applications**

**Be My Eyes** – volunteers describe or read what is in front of your camera

**AIRA** – get real-time assistance with any task. Not free.

**Google LookOut** – read and scan text, recognize and describe objects. Auditory cues.

**TalkBack** – screen reader

**WeZoom** – camera and magnifier

**Google Assistant** – ask questions, get answers

**TapTapSee** – identify objects

The applications listed above provide very useful and very specialized features. Users should not forget, however, that there are phone settings in both the iPhone and Android which can help the visually impaired. In the next version of this document I will add Setup suggestions for both phone types.



## **Social Media**

These suggestions for online information come quickly to mind. I'll add more in the next version of this document.

### **YouTube - The Blind Life**

<https://www.theblindlife.net/>




<https://www.theblindlife.net/youtube>

Sam Seavey, who is legally blind - "Learn how to live your best blind life". He puts out some excellent video reviews of technology for the visually impaired. Highly recommended!

## FaceBook Assistive Technology Groups

I'm not a member of these groups, but you might find them useful.

**Groups**

-  **Assistive Technology**  
Public · 17K members · 6 posts a day · 28 members said they went to Oklahoma State University  
Assistive technology is any device or system that lets a person with a disability do something they couldn't otherwise do, or makes it easier or more safer to do things. W...
-  **Assistive Technology Support Group For Blind And Low Vision**  
Public · 3K members · 2 posts a day · 4 members said they went to Oklahoma State University  
This is a group where you can share anything to do with assistive technology for mainly low vision and blind but any disability and even the mainstream to! I will post tips and...
-  **Assistive Technology Community for the Blind and Visually Impaired**  
Private · 9K members · 4 posts a day  
This group is for anyone who is blind or visually impaired or who works with individuals who are blind or visually impaired who love Assistive Technology and who want to shar...

## FaceBook Macular Degeneration Support Groups

I'm not a member of these groups, but you might find them useful. There are more groups related to macular degeneration – these are just the largest ones that I have found.

-  **Macular Degeneration Support Group**  
Private · 10K members · 10 posts a day [Join](#)
-  **Macular Degeneration Support and Solutions**  
Private · 4.5K members · 2 posts a day [Join](#)
-  **Our Macular Degeneration Journey**  
Private · 8.2K members · 7 posts a day [Join](#)
-  **Nutrition for Age-Related Macular Degeneration**  
Private · 3.2K members [Join](#)
-  **Living with Macular Degeneration**  
Public · 8.5K members · 8 posts a day · 5 members said they went to Oklahoma State University [Join](#)



**CFB offers low cost Windows computers (refurbished) for blind and visually impaired users. A variety of software comes installed on the PCs.**

**Computers for the Blind 214-340-6328**

*Computers For the Blind is determined to bridge the digital divide for the community of the blind and visually impaired in the US by providing affordable, accessible refurbished computers and training. No age or ability restrictions.*

<https://computersfortheblind.org/>

Richardson, Tx

For a view of computers available for purchase

... <https://computersfortheblind.org/application/>



**Other Organizations**

**Texas School for the Blind and Visually Impaired**

**1100 W. 45<sup>th</sup> St., Austin, Tx 512-454-8631**

<https://www.tsbvi.edu/>

10K+ students of all ages. Provides support in the form of online courses, consultations, publications, and in-person training throughout Texas, addressing the needs of students that may never travel to Austin. Family education and engagement are at the heart of what we do.

**American Foundation for the Blind**

<https://www.afb.org/>

*To create equal opportunities and expand possibilities through advocacy, thought leadership, and strategic partnerships. Priorities are Education, Employment and Aging.*

**Hadley 800-323-4238**

<http://hadleyhelps.org>

700 Elm Street, Winnetka, IL 60093

Hadley's free help includes both practical tips and social/emotional help to older adults adjusting to vision loss, empowering them to adapt and thrive. Workshops, Audio Podcasts, Discussion Groups. They provide services across the US. Registration can be by the phone or online. They have no employees in Texas, so support is via phone and email.



### **Low Vision Technologies**

Most means of helping the visually impaired involve some form of magnification. However, there are limits to the amount of magnification from which a user can benefit. Enlarging a small fuzzy print can simply result in a larger fuzzy print. For that reason most advanced solutions involve speech, including speech-to-text and OCR. OCR is typically used to extract text from images, then optionally reading the text out loud.

### **Hand-held Magnifiers**



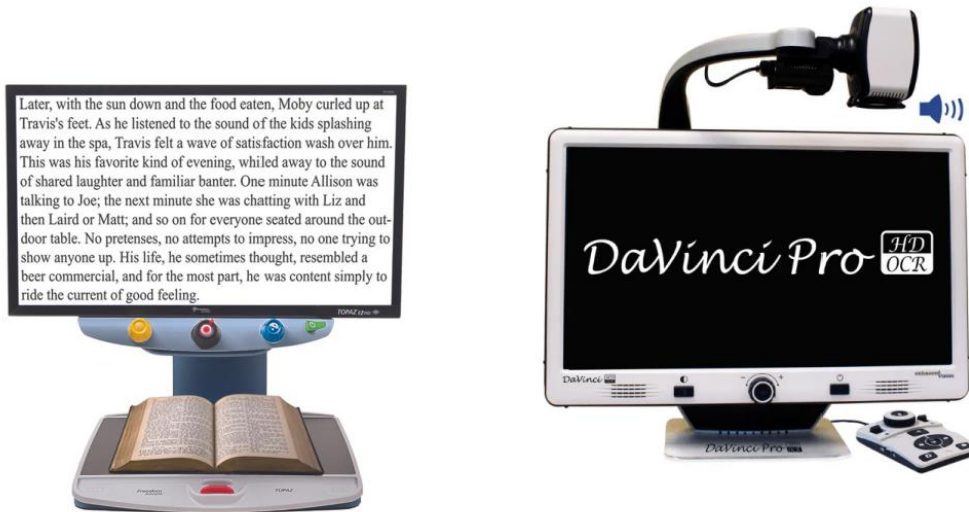
**Wearables - reminiscent of a jeweler's glasses or of a telescope on a glasses frame**



**Document Cameras – for displaying magnified documents on a monitor**



**Video Magnifiers (CCTVs) – for magnifying documents to a monitor. Strong magnification and OCR in high-end versions.**



**Wearables, Electronic – handsfree and portable. Uses speech to notify users of nearby objects or to speak printed materials**

1. OrCam <http://orcam.com>



***OrCam MyEye is an intuitive wearable device with a smart camera that clips onto a regular spectacle frame. It is designed to assist anyone that struggles to read, recognise faces or objects – particularly people who are blind or vision impaired.***

2. eSight <http://esighteyewear.com>



**eSight is worn like a normal pair of glasses. It houses a high-speed, high-definition camera that captures everything you are looking at, and then displays it on two near-to-eye displays. Advanced, medically-validated algorithms optimize and enhance the footage so that your eyes can truly see it, and in real-time. eSight's ability to tilt up and down allows you to always have access to your native peripheral vision. This enables true mobility**

**3. NuEyes <https://nueyes.com>**



**NuEyes Pro removable visual prosthetic featuring ODG smart glasses is the first ever lightweight, wireless, head worn device that is voice activated for the visually impaired. Whether you have macular degeneration, glaucoma, diabetic retinopathy, retinitis pigmentosa, or other visual conditions NuEyes can help! NuEyes Pro is a very simple product to use and can be either operated with our wireless controller included with the product or using simple voice commands.**



## EZReader Computer and Software System

- **Computer**

- HP All-in-One
- Touch Screen
- 512GB SSD
- 16B SRAM
- AMD Ryzen 5
- Built-in Speakers



- **Software**

- Vision Impaired Users
- 100+ Custom Apps
- Low Visual Complexity
- Unlimited Text Sizes
- Text-to-Speech
- Voice Dictation
- OCR Text Extraction



- **Keyboards**

- High Contrast
- Wireless or USB
- Over-sized Letters
- Over-sized Keys

- **Document Camera**

- Ipevo Pro
- 4K Sensor

**EZReader** is an all-in-one touch screen computer, document camera and custom software suite designed specifically for users with vision impairments. EZReader provides over 100+ customized applications that give low vision users unprecedented access to computer capabilities that were once out of reach!

### Software

Software for users with visual impairments often provides magnification features, but also provides audible information, such as reading text, speaking typed keys and mouse actions, speaking what is found under the mouse. Voice dictation and OCR are common features.

**EZReader** – Suite of 100+ low vision applications

**JAWS** – Very popular screen reader software

**ZoomText** – Screen magnification. Reads text out loud

**NVDA** – free reader developed by blind users in Australia

**Dolphin Guide** – Applications for users with visual impairments





## **Windows Operating System – Built-In Features for Low Vision Users!**

Many blind or visually impaired users are not familiar with helpful features that already exist in Windows, both v10 and v11. Most features are accessed through Windows Settings. These free features can sometimes provide a user with just enough capability to see and read the PC, such that other options may not be required, or at least put off until a later time.

Particularly with Speech features, Windows 11 provides more advanced capabilities, so I strongly recommend that you upgrade your PC to Win11.

### **Document Magnification: Control+MouseWheel OR Control+PlusKey**

The content of many Windows applications, especially browsers such as Chrome/Edge, can be magnified by pressing and holding the Ctrl key down, then spinning the wheel on the mouse. One direction for zooming in and the other direction for zooming out. In some apps, holding the Control Down key then pressing the Plus or Minus keys on the number pad will do the same thing. In browsers you can return to no magnification by pressing Control+0.

### **Windows Magnifier**

Windows itself can magnify the screen, including menus and ribbons. The two primary options are to magnify the entire screen or to provide a magnifying lens around the cursor. With the entire screen magnification, some of the desktop will be off-screen and require moving the mouse to get to the hidden screen area. With the lens magnification, the entire desktop remains onscreen but the area under the mouse is magnified via a popup window. The size and magnification of the lens can be adjusted by the user.

The shortcut Win+Plus starts the magnifier. The shortcut Win+ESC turns off the magnifier. The shortcut Ctrl+Alt+M cycles between the Lens and Full Screen magnifiers. Other features and shortcuts are available.

### **Windows Scaling**

Windows has a setting called “Scaling”, which can increase the size of the desktop content up to 225%. This is very helpful but not all applications support scaling. Also, scaling causes the Desktop to “fall off” the right side of the monitor, forcing the user to use their mouse to see the missing content.

## **Narrator Screen Reader**

For users who cannot see the screen Windows provides Narrator. It speaks text found on the screen. It also speak which objects are found under the mouse, such as buttons, images and links.

The shortcut Win+Ctrl+ENTER starts and stops Narrator. Other features and shortcuts are available.

## **High Contrast Mode**

Windows allows the user to chose a “Contrast Theme”, which essentially means the user can override the colors used by applications – selecting high contrast colors which the user can more easily see. Particularly when viewing Text, large font size and high contrast foreground/background colors are two of the most important changes needed to help low vision users better see and user a computer. The 3<sup>rd</sup> most important feature for low vision users – visual simplicity – is simply not supported by virtually all Windows applications, where offering more and more features at greater visual complexity has become the norm.

As was just mentioned, the colors used to display text are very important to low vision users. As an alternative to using a High Contrast Mode, Windows has a built-in “color filter” which can also be used to override the default application colors. Windows Settings offers several pre-defined colors pairs, chosen to match the needs of low vision users. The shortcut Win+Ctrl+C will turn color filters ON and OFF, using a color pair that is selected from with Settings.

## **Windows Settings**

In Windows 10 the section “Ease of Use” and in Windows 11 the section “Accessibility” are where settings for impaired users are found. Both can be accessed with the shortcut Win+U. The two most-used Accessibility settings are changing the desktop icon size to “Large” and the mouse cursor size to about 5X its default size.

## **Speech – Dictation and Voice Commands**

Windows offers Voice Typing, which is activated with the shortcut Win+H. Use it to have your spoken words typed into the currently open document.

Windows also offers Voice Access. It can type in your spoken words but it can also execute a variety of commands such as “Open Word”. You can also create custom commands and actions that Windows will recognize. There is no keyboard shortcut to start/stop Voice Access, but you can open it from within Settings. You can also have it start up with your PC so that it is always available for use. It’s a relative new Windows accessibility feature so we can expect an expanded feature set as time goes on. Microsoft Word has its own built-in voice typing – a button called “Dictation”



## Use a Large-Screen TV as a Monitor

If larger is easier for a low vision user, then a very inexpensive expensive option available it to purchase a larger, inexpensive (\$200) TV and hook that up the PC, allowing the TV to mirror the PC desktop. No extra software is required. Just hook up an HDMI cable from the back of the PC to the TV HDMI port. Pretty much all PCs and TVs offer HDMI ports.



Take note that this does NOT require a high resolution TV – just a standard 1080p will do. A 4K TV is not appropriate for this solution.



## Preparing a PC for a Low Vision User

When I deliver an EZReader system to a user, I go through a 30-step process of modifying the PC/Windows settings to best accommodate low vision users. The steps are intended to provide visual simplification of the user interface and to ensure that the Windows system and applications settings are optimal for a low vision user.

I've kept the step descriptions brief. If you have any questions about the logic behind the settings, feel free to reach out to me for an explanation.

1. **Clear TaskBar: Leave only Settings, File Explorer, Control Panel**
2. **Turn off all Notifications - System\Notifications**
3. **Remove McAfee, 365, OneDrive, DropBox, Express VPN**
4. **Turn on Windows Defender, Perform a quick scan.**

5. **Settings-System-Power: Screen/Disk 1hr Power: Best Perf**
6. **Desktop-Personalize: Win11-Blue Rose**
7. **Large desktop icons**
8. **File Explorer-View-Show: Show Extensions**
9. **File Explorer-See More-Options-View: Display full path**
10. **Remove Start Tiles: Keep Settings - File Explorer-NotePad-Paint-Control Panel**
11. **Create desktop "Download" icon shortcut**
12. **NotePad set to Arial Black 48pt and to "Open in New Window"**
13. **Magnifier Off. Lens, size 40x40. 50% increments, 200% Level**
14. **High Contrast Off. New custom theme (Blk-Wht-Wht-Wht-Blk/Wht-Wht/Blk)**
15. **Cursor Size 50% (8/15)**
16. **Connect to Internet**
17. **Time Zone - Settings\Time\SetTimeZoneAuto and Sync Now**
18. **Activate Windows Defender, quick scan**
21. **Update Win to latest revision: Settings-Windows Update**
22. **Update PC Mfg drivers**
23. **Set Screen Brightness to 70%, Volume to 50%**
24. **Add Chrome browser**
25. **Install the Chrome Browser Dard Reader Ext - [chromewebstore.google.com/](https://chromewebstore.google.com/)**
25. **Settings - System - Display - Scale 100%**
26. **Settings - Accessibility - Mouse Other - Speed: 5/20**
27. **Settings - Accessibility - Audio Turn ON mono Audio**
28. **Settings – Narrator download and apply Jenny Natural**
29. **Settings – Accessibility > Speech. Set Voice Access to start on boot (optional)**
30. **Settings > Privacy > Search Permission Turn all options off**
31. **Settings > Accounts > Your Info > Use Local Account w/no password**
32. **Personalize > Background > ... Change "SpotLight" to "Picture"**
34. **Confirm that Quick Assist is available on the PC**
36. **Clear Start Recommended Applications**



**Feel free to distribute this information freely. If you have any information you would like to recommend that I include in this summary please let me know. Or, or course, if you seen anything incorrect or that needs clarification, please me know that as well.**

**Regards,**  
**Gary Beene**  
**214-668-9913**  
[gbeene@airmail.net](mailto:gbeene@airmail.net)  
<https://newvisionconcepts.com>