

Welcome to VERA<sup>TM</sup> vision screening. This condensed manual is divided into two parts - how to run the screenings and how to use the program features. Please review the full User Guide and the VERA Teacher and Occupational Therapist Guide found on your desktop.

## HOW TO RUN THE SCREENINGS

If you've already opened the program, you've been asked to calibrate the test character size for your monitor with a millimeter ruler. This is important for the program to operate properly; if you haven't done it access the calibration screen from the VERA menu on the home screen. **There are two shortcut keys you can use to quickly move around the program:** The F8 key skips the current screening test and proceeds to the next and the F10 key stops the current screening test and returns to the Main Menu (If a report displays, just close it).

All proctor entry is either numerical or via the ENTER key or SPACE BAR. Be sure the keyboard "NUM LOCK" is on when entering subject responses from the numerical keypad.

**The Test Lens Flippers** referred to are included with the purchased program. If you will run only the general screening, you'll need test lens sets #1 and #2. The visual efficiency screening will require test lens sets #2, #3 and #4.

You may temporarily use a pair of +2.00 OTC readers to substitute for lens set #1 and colored filters that enable color cancellation to substitute for test lens set #2.

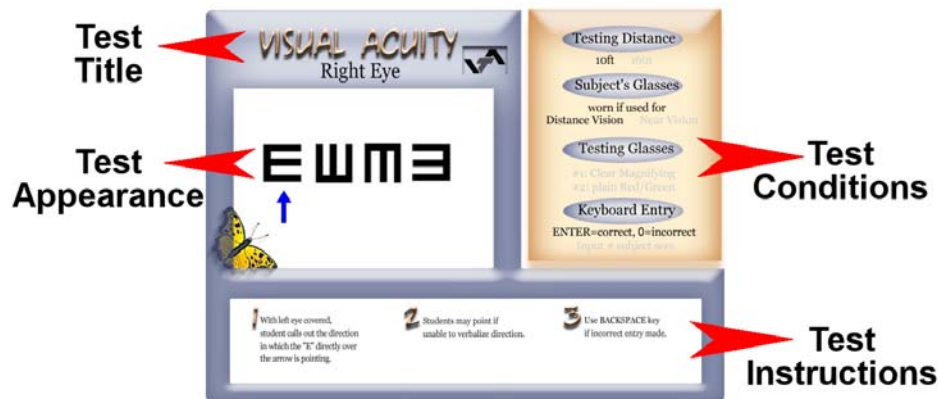


The VERA flippers are held such that the RED lens is in front of the RIGHT eye. In the focus flexibility tests, the test set number on the flipper faces the subject.



## The Test Introduction Screens

Each test first displays an introduction screen. Test procedures on the bottom and test conditions on the right. Test conditions include the testing distance (10 feet or 16 inches), which of the subject's own glasses (if any) should be worn, which VERA test lenses are used (#1, #2, #3, #4) and how you make your keyboard entry.



**NOTE:** The VERA general screening tests are prioritized; valid testing requires certain of the preceding tests to be passed. **SmartScreen®** is a VERA feature which, when turned on, terminates the screening at the first valid point of referral to shorten screening time and prevent invalid testing. For example, if a subject fails either right or left eye distance visual acuity, it is unnecessary and potentially misleading to test both eyes, hyperopia, near vision or binocular vision (unless your screening regulations demand it). **SmartScreen®** is disabled now so that all of the tests will run.

Click on **START SCREENING** to go to the subject information screen. Enter at least the subject's name and date of birth. The "grade" will be useful if you want to print reports by grade later on. It's also helpful to know if the subject was wearing glasses to take the screening (always remind subjects to bring their glasses with them).

**Note:** If you are outside the U.S. you may need to change your computer's date settings to the MM/DD/YYYY format to enter subjects into the program.

The proctor name (that might be you....) and the test site (your school or facility) is entered in the PREFERENCES section of the program. We'll be there in just a few minutes. Once you fill in the subject information, select the screening you'd like to go to. Since routine vision issues can effect visual efficiency, the general screening is recommended first.

**Subject information screen**

## THE GENERAL (ROUTINE) VISION SCREENING TESTS

### 1. Distance Visual Acuity:

This is a test of clarity of sight, scaled to standard eye charts and given at a 10 ft. testing distance. There are tests for right eye, left eye and both eyes. Right and left eye tests start at the 20/20 line and the test for both eyes starts at the smallest line which the better of the two eyes was able to see. **SmartScreen®** will terminate the screening after each eye is tested or after both eyes are tested if failure presents.

### 2. Plus Lens (Hyperopia):

This is a test for uncorrected hyperopia (farsightedness). **Test lens set # 1** contains lenses which correct for farsightedness, so the subject won't be able to see the test characters clearly unless they are farsighted. A single row of "E"s equal in size to the smallest line seen by either eye in the visual acuity tests is presented. **SmartScreen®** will terminate the screening if the hyperopia screening is failed.

### 3. Near Visual Acuity:

This is a test of clarity of sight at 16", scaled to standard Snellen test characters. If using the VERA near vision test card, the direction of the "E"s on the desired test line is reported, otherwise any Snellen equivalent test card can be used. Enter the visual acuity noted for each and/or both eyes into the near vision test results screen and click OK. **SmartScreen®** will terminate the screening if near visual acuity is failed.

**Skipping this test:** This test has been included to satisfy certain state vision screening regulations. If you run all of the other general screening tests or use **SmartScreen®**, your referral rate will be identical with or without this test. You can omit this test in PREFERENCES.

**Test alert:** If **SmartScreen®** is disabled and a subject's visual acuity or farsightedness might effect the validity of the binocular vision tests, a prompt is displayed.

#### 4. Binocular Vision

Three tests determine whether the subject can momentarily use both eyes together. Each test emphasizes a different aspect of binocular vision and passing 2 tests constitutes a "pass".

4. **Fusion** (suppression) tests combining the image from each eye into a single, stable image
5. **Stereopsis** (binocular integration) tests binocular depth appreciation **SmartScreen®** terminates the screening if Fusion and Stereopsis are passed.
6. **Phoria** (fixation disparity) tests eye alignment.

**To learn how each test works, refer to the VERA User Guide.**

#### ABOUT VISUAL EFFICIENCY SCREENING

Visual efficiency deficits often have behavioral manifestations. Most subjects should first have the Behavioral Checklist (page 16 in the VERA User Guide) filled out unless stress or injury-induced behaviors have already been documented. Subjects are scored into one of four groups: PASS, QUESTIONABLE, FAIL /QUESTIONABLE or FAIL.

Observe compensatory adjustments in posture, twisting or turning of the torso, leaning forward, squinting, rubbing of eyes, turning of the head or fidgeting as subjects take the screening. The extent to which these behaviors manifest may help clarify "questionable" screening results.

**Side Note:** The "Screening Results" and "Visual Efficiency" reports both display visual efficiency test results. The "Screening Results" omits the rating key, the pass/fail indicator and the interpretation comments which are displayed in the "Visual Efficiency" report. Clinicians and practitioners may wish to utilize the "Screening Results" report if they are presenting their own conclusions regarding screening and treatment.

#### SCREENING FOR VISUAL EFFICIENCY

There are two ways to start the visual efficiency screening. *When screening a new subject for visual efficiency:* Go to START SCREENING, fill in the subject information screen and select the visual efficiency screening.

*When screening a subject who has previously taken the general screening, you can either* (1) Go to START SCREENING if to create a new record for your subject or (2) Go to VISUAL EFFICIENCY, select your subject and run the screening. This route will place the subject's routine screening results into the visual efficiency or screening results reports. Override any prompts about routine vision issues if they no longer apply or delay the screening if they do apply.

**Note:** People over 35 may have difficulty with these tests as they are calibrated to the greater speed and flexibility of younger eyes.

#### THE VISUAL EFFICIENCY TESTS

##### 1. Reading Pattern Eye Movement

This is a test of eye tracking in a simulated reading pattern. A number from 1 to 9 appears in the upper left-hand box and moves through the boxes in a simulated reading motion; from left to right in each row and stopping at a random point. A practice screen is presented and there is no keyboard entry during practice. Reasonable guessing is allowed; press 0 (zero) if the subject is unsure. There are 10 trials.

##### 2. Focus Flexibility (Accommodflex) Part One and 3. Focus Flexibility Part Two

These two nearly identical tests of bi-ocular accommodative (focusing) flexibility are one minute long. Both parts are conducted in the same way; the only difference is the test lenses used for each part. In the first part, the subject looks through **glasses #3**, the set with the green magnifying lens (over their own glasses if necessary). The test set number on the flipper faces the subject.

In the second part, the subject looks through **glasses # 4**, the set with the red magnifying lens (over their own glasses if necessary). The test lenses allow test screens to be seen with only one eye at a time and requires subjects to alternately exert and relax their focus to identify the test characters.

#### Why are there two focus flexibility tests?

The two parts create an appropriate test demand and allow for interpretation of test results:

1. Many subjects do better on part 2 than part 1 as they adjust to the demand. A low percentile on part one is less significant if the percentile for part two is average or above, indicating adequate focus control to be present.
2. A much lower percentile on part two than part one may indicate premature fatigue or inattention
3. A below average percentile on both parts indicates a more certain focusing difficulty.

#### 4. Binocular Integration (Fusionflex)

This is a test of integrating the dissociated vision from each eye. A practice exercise is presented and the outline of a number **1, 2, 3** or **4** should be visible floating in the center of the field when looking through **glasses #2**. **Glasses #2** present an offset image to each eye which creates a depth effect making a number appear to float behind or in front of the plane of the screen.

While a faint outline of the number may be visible to the naked eye, both eyes must be used in order to see the number through the test glasses. The scored test numbers are harder to see than those during practice.

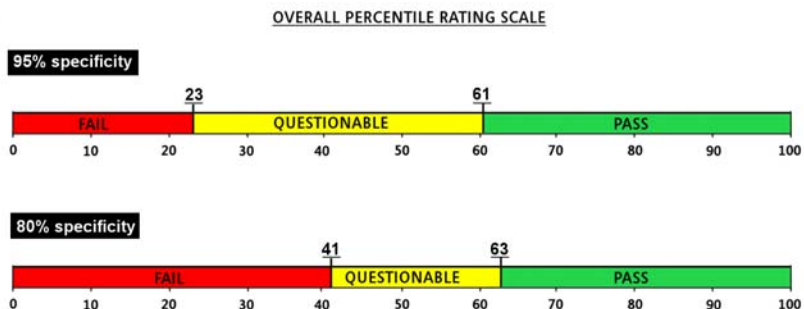
### INTERPRETING THE VISUAL EFFICIENCY SCREENING REPORT

The *overall PERCENTILE* represents the subject's performance on the battery of tests and is the average of the individual test percentiles. The STATUS is expressed as "pass", "fail/questionable", "questionable", or "fail" and characterizes the subject's visual performance.

**Note:** The *individual test percentiles* may not accurately identify areas of vision difficulty (i.e., a focusing problem, a tracking problem, etc.) as each test is too brief to be diagnostic.

The STATUS indicator correspond to a 95% confidence level or specificity as indicated in the upper of the two rating scales below. The lower rating scale shows percentiles corresponding to 80% specificity. The "fail/questionable" rating corresponds to the fail point difference between 80% and 95% specificity.

If a subject falls in the "fail questionable" or "questionable" range, look to the number of behavioral indicators or other clinical or observational findings to determine whether support for visual abilities is indicated. As with any performance test, results can vary with the subject's emotional and physical state at the time.



### HOW TO USE THE PROGRAM FEATURES

Let's go through the home screen menu:

**START SCREENING** does just that.

**REPORTS** takes you to your choice(s) of:

1. A Parent, Doctor letter and follow-up Second Notice which any school can use
2. A Screening Results report, Visual Efficiency report and custom Lists which any clinic or professional practice can use
3. A Custom Report which you can create

All of these can be printed individually (from the "individual" tab) or in groups (from the "group" tab) by test date, birth date or by individual test results. **Note:** A few sample subjects have been placed in the database so you can create a report without running a screening. Click on a subject and follow the step-wise directions to view or print a report.



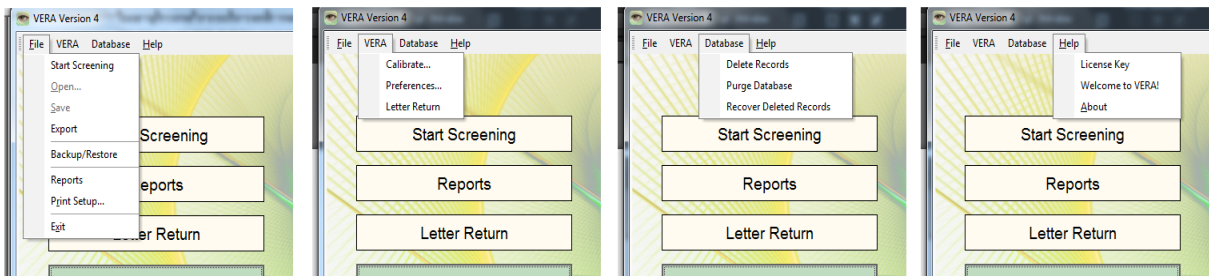
**Reports screen**

**LETTER RETURN** is an option for schools to log completed and returned eye examination reports. Check out the lower right corner of a doctor's letter; there's a confirmation code to enter in the "letter return" screen. If you do this step you can easily do follow up on subjects with unfulfilled vision referrals and make lists for teachers of students (by grade...) who aren't seeing well in class.

**VISUAL EFFICIENCY** is for subjects who have already taken the general (routine screening). Any vision deficits noted during the general screening will be displayed to avoid false positives.



Now let's look at the home screen drop-down menus. You won't need to make any changes here if you're just exploring the program.



File Menu

VERA Menu

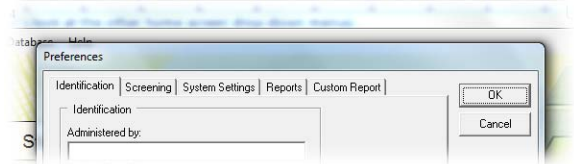
Database Menu

Help Menu

**The “FILE” menu:** The important options in the “FILE” menu are “Export”, which sends VERA’s screening data to other health records software and “Backup/Restore”, to periodically back up your screening data for safekeeping. You can also import the VERA screening data file when reinstalling VERA on a new computer. You won’t need either of these right now.

**The “VERA” menu:** If you haven’t calibrated the program, you can do so from “Calibrate” in the VERA menu.

The most important option in the “VERA” menu is “Preferences”, where you configure most of the program. Take a quick look at “Preferences” now, but you can leave the default settings as you explore the [program. There are five tabs:



1. IDENTIFICATION: Here you enter your personal information which will be displayed in reports.
2. SCREENING: Here you choose which routine screening tests to run or to use Smartscreen©, which will automatically end the screening at the first point of referral.
3. SYSTEMS SETTINGS: Here you select visual acuity fail points and whether the visual efficiency screening is enabled.
4. REPORTS: Here you choose which report(s) are generated after each routine screening.
5. CUSTOM REPORT: Here you can create a report with screening results using your own text.

**The “DATABASE” menu:** Here you delete records (like sending computer files to the recycle bin), recover deleted records or purge records (like emptying the recycle bin). You won’t need this often; records take up little space.

**The “HELP” menu:** The important option is “License Key”, where you enter the activation code when you purchase the program.

**Enjoy exploring the program!**

**We welcome your questions and comments and look forward to  
having you use this unique and effective screening!**