

# Balance Advantage® Software Version 2.0

Improvements Across All Clinical Products



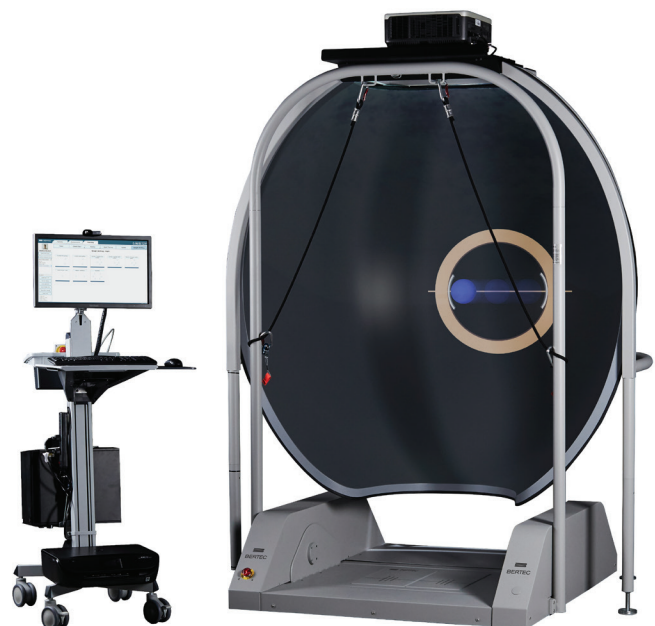
Prime IVR™ with Castle Scene Training

## New Training Scenes

- Available for CDP/IVR™ and Prime IVR™
- Castle Scene Vision Training
- Infinite Tunnel scene option in Quick Training

## Now Available for Purchase

- Head Shake SOT protocol for CDP/IVR™
- Prime IVR™ system



CDP/IVR™ with Head Shake SOT

Dear Balance Advantage Customer,

This communication is designed to outline the main updates available in Bertec's new Version 2.0 Balance Advantage software. The software spans across all Bertec clinical products, so this list includes changes made to static and dynamic systems. Please consider which system you are using as it relates to each change. Note: This reflects changes from version 1.0.0 build1044.

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## **SOFTWARE CHANGES: GENERAL**

Bertec wants to simplify and optimize daily workflow for our customers. For most feature updates, our driving force was customer requests.

- Any database corruption (for example: due to unintended power loss or software shut down) can now be repaired with our newly implemented repair feature by simply restarting your Balance Advantage software
- Merge & Sync feature to integrate patient data between separate systems has been optimized to work quickly and quietly in the background and incrementally add new patient data to each connected device to reduce interference
- Merge & Sync update indicator visible in the bottom left corner of screen when active
- Database backups are automatically implemented
- Projector light flashing when switching between protocols no longer occurs
- When hardware is undetected, program no longer displays a red border on-screen. Instead we implemented a red USB icon in the top right corner which becomes white when hardware is detected. Selecting this USB icon gives status updates on devices.
- Training scene occasional glitching no longer occurs
- Program startup delay reduced. Faster program loading.
- End of test report now represents only data from the current test series
- Header information on each report has been simplified to include relevant information
- Manuals have been updated to include new protocols, new training and new branding
- Software Logo has been updated to new Bertec brand

## SOFTWARE CHANGES: NEWLY RELEASED PROTOCOLS

- **Head Shake SOT is now an optional protocol for purchase on the CDP/IVR system.** This protocol compares data from your patient's SOT and gives additional challenge by including eyes-closed headshake conditions. Your patient's head speed is monitored with an inertial measurement unit (head tracker).
- **Castle Visual Training is now available for all CDP/IVR and Prime IVR users.** This training protocol allows the patient to go through a castle at incremental speeds and avoid/hit monsters with their Center-of-Gravity sword at varying difficulty levels. A multi-tasking challenge can be added to this training, using mismatched colors and color names, similar to the Stroop test.
- **Infinite Tunnel scene has been added as an option** to all Quick Trainings in the CDP/IVR and Prime IVR systems

## SOFTWARE CHANGES: CDP/IVR AND PRIME IVR SCENE IMPROVEMENTS

As Immersive Virtual Reality is one of our most impressive features, we have taken extra care to optimize the scenes offered in each of our protocols and trainings. Changes are outlined below.

- Rock Wall: clearer image quality
- Simple Room: brighter room, cleaner lines, more visual stimulation
- Visual Training Grocery: clearer image quality
- Optokinetics: clearer image quality
- Rhythmic Weight Shift: Larger patient screen visuals to indicate directional movement
- Limits of Stability: Larger patient screen visuals to indicate directional movement

## SOFTWARE CHANGES: BERTEC VISION ADVANTAGE IMPROVEMENTS

Bertec Vision Advantage protocols are designed to measure visual performance dependent on the vestibulo-ocular reflex (VOR). Many improvements have been made in the software for customer experience with this product.

- Faster recognition of when optotype should display - shorter overall testing time.
- Minimum Gaze Stabilization Test target velocity is now 60 deg/sec
- More consistent connection and communication between head tracker and receiver
- When patient head velocity is out of range, pop-up window no longer occurs. Instead, red text displays the actual head velocity that was out of the acceptable range. In this case, submitting the patient response will automatically discard the trial and start the next.
- Test report includes selected 'Starting Side' option (under Parameters) for reference

**PROTOCOL CHANGES: ADAPTATION TEST**

- Stop button has more intuitive implementation
- Trials stop if patient steps off plate at any time during any trial (auto advance included)

**PROTOCOL CHANGES: COBALT**

- Concussion date selection limited to dates prior to date of test.
- Default start condition is based on baseline or post-injury testing: condition 1 for post-injury testing and condition 3 for baseline testing. Improves usability and work flow.

**PROTOCOL CHANGES: LIMITS OF STABILITY**

- Patient screen has larger and more visible scene
- Clinician screen has enhanced patient performance feedback for when fall/step/pull occurs or if a patient starts outside the starting zone
- Fall is marked on clinician screen with a red 'X' and the word "fall" for that condition
- Trials increment until all conditions are complete regardless of which condition is first
- Software now indicates on the clinician screen if a patient has performed a "step" or a "pull" during an active trial. Indication will be marked with a red 'x' and the words "step" or "pull". This trial can be redone if the clinician chooses to do so.
- Traces are marked in red on reports when data is kept for a "pull" or "step" condition

**PROTOCOL CHANGES: MOTOR CONTROL TEST**

- Stop button is implemented more intuitively
- Trials stop if patient steps off plate at any time during any trial (auto advance included)

**PROTOCOL CHANGES: MCTSIB**

- Text on patient screen is clearer, visuals optimized
- Default scene for this protocol is now the OVAL scene which is used in SOT, MCT, and ADT. Other scene options are available for the clinician, including rock wall and neutral.
- Selected scene included on reports

**PROTOCOL CHANGES: OPTOKINETIC VISUAL TRAINING**

- Scene does not begin moving until 'Start' is pressed
- Line density options now from 1-10 to simplify and optimize visuals
- Speed range options now from 0-25 to simplify and optimize visuals
- Keyboard command optimization now lets users use the keys to bring speed to zero
- Changing settings using the keyboard now matches the visible clinician screen settings

**PROTOCOL CHANGES: RHYTHMIC WEIGHT SHIFT**

- Traces consistent between patient screen and report and aligning properly on graphs
- Software will now indicate on clinician screen if a patient has performed a "step" or a "pull" during an active trial. Indication will be marked with a red word "step" or "pull". Trial can be redone if the clinician chooses to do so.
- Traces are marked in red on reports when data is kept for a "pull" or "step" condition

**PROTOCOL CHANGES: SENSORY ORGANIZATION TEST**

- Scene options are no longer included for this protocol to stay consistent with other protocols and with normative data. Scenes have been moved to Quick Training.

**PROTOCOL CHANGES: TANDEM WALK**

- Sway score has been enhanced for more accuracy

**PROTOCOL CHANGES: UNILATERAL STANCE**

- Software will now indicate on the clinician screen if a patient has performed a "step" or a "pull" during an active trial. Indication will be marked with a red word "step" or "pull". This trial can be redone if the clinician chooses to do so.
- Traces are marked in red on reports when data is kept for a "pull" or "step" condition

**PROTOCOL CHANGES: WALK ACROSS**

- Data now graphed in blue instead of green since there are no norms to compare against
- Trial starts automatically when patient steps on the plate

**TRAINING CHANGES: CLOSED CHAIN**

- All images on patient screen showing patient stance have been optimized
- Grid and Target visuals optimized for dual plate options

**TRAINING CHANGES: FLIGHT VISUAL TRAINING**

- Hotkeys are now consistent with the clinician screen visible settings.

**TRAINING CHANGES: GROCERY VISUAL TRAINING**

- Safety feature: Stopping a trial with the point light feature ON will stop the point light
- When a difficulty setting of NONE is selected, no boxes will appear

**TRAINING CHANGES: QUICK TRAINING**

- “Beep on Advance” setting works as intended

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We greatly appreciate the feedback and feature requests we receive from our customers as we continually improve our products. These updates will make your Bertec system an even more indispensable tool as you assess and treat your patients.

A sincere thank you for choosing Bertec Balance Advantage products for your clinical needs!

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