



# Release Notes - Cyclone 6.0

August 15, 2008

These release notes provide important information about the contents of the *Cyclone*™ 6.0 product release.

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## **WHAT'S NEW?**

### **GENERAL ENHANCEMENTS**

THE MOST IMPORTANT NEW FEATURES OF CYCLONE 6.0 ARE:

- New TruSpace ScanWorld viewer
- New KeyPlan capability
- Improvements to Cyclone PUBLISHER to take advantage of the new KeyPlans as TruView sitemaps
- Improved Cloud to Cloud registration
- New B&W target extraction methods in ScanControl and TruSpace
- New view mode "Panoramic" in the ModelSpace
- New tools for assisting Forensic investigations and visualization in the ModelSpace

### **NEW TRUSPACE SCANWORLD VIEWER**

*Cyclone* 6.0 introduces an important new viewer called the TruSpace viewer. The TruSpace viewer is a ScanWorld viewer that works in a panoramic mode for easy view manipulation, like TruView. It allows users to include imagery (the Multi-Image) in the background of the point data and provides an easy method of driving or synchronizing ModelSpace views and quickly creating limit boxes.

### **NEW KEYPLAN CAPABILITY**

In addition to the TruSpace viewer, is a new element called a KeyPlan, which can be created and added to the navigation tree. This new element provides a picture or screen-shot graphic background and lets users organize the scanner locations of registered ScanWorlds on the image. This provides a plan type interface for finding a desired ScanWorld and for launching a TruSpace viewer. This results in an easier to use ability for access to the complex data structure of the Cyclone Navigator.

### **IMPROVEMENTS TO CYCLONE PUBLISHER**

In addition to this new viewing a KeyPlan capability is enhancements to the TruView publishing capabilities of Cyclone Publisher to take advantage of the new KeyPlan and other enhanced options. Users can have the same background image inside Cyclone and published for TruView users.

### **IMPROVED CLOUD TO CLOUD REGISTRATION**

Cloud to Cloud registration now requires only 2 matching points when using leveled ScanWorlds and the cloud constraint optimization algorithms can work 2 to 10 times faster on most data sets.

### **NEW B&W TARGET EXTRACTION**

There is a new method of finding black and white targets in the Scan Control Viewer and TruSpace. After the user picks a point near the center of each target in the scene, it then walks the user through the acquisition and naming and acceptance of each target. If used in the Scan Control Viewer and using HDS6000 data that has been only partially imported, the method also automatically imports the data at 100% resolution in the area of the target to ensure it uses all the available data for the best target fit.

### **NEW VIEW MODE "PANORAMIC"**

The ModelSpace Viewer now has a capability for Panoramic viewing mode. Unlike TruSpace views, which are panoramic views always located at the scanner position, in the ModelSpace panoramic mode, users can be at any position in the ModelSpace and lock the viewer into a panoramic viewing mode from that location.

#### NEW TOOLS FOR ASSISTING FORENSIC INVESTIGATIONS

Some new tools assist in basic forensic analysis. The first is a new simplified trajectory analysis method. It uses the concept of scanned trajectory rods, small rods placed in bullet holes and scanned to provide the direction of entry for a bullet. A new fitting tool finds a vector along the trajectory rod and a new geometric entity, a “pointed cone”, can then be placed in alignment with the new fit line and can show the probable trajectory within a defined angular cone along the axis of that line. The default value is a 5 degree cone, which is generally accepted as a simple probable angular deviation of bullet trajectory. This method does not account for windage or gravity over distance or other more sophisticated trajectory analysis methods but can be very useful in identifying probable firing locations.

A second feature useful for forensics and other analysis is the ability to place cameras (viewpoint locations) at a given distance above any selected point. A typical use of this is to place the camera at the eyesight height above a point on the ground and to be able to quickly determine what is visible to a person standing at that point. This is useful in determining witness, perpetrator and office viewpoints into a scanned scene. The cameras default viewpoint can be easily set and saved and users simply click from one camera position to another to see the various viewpoints.

#### BUG FIXES

- In previous versions of Cyclone the unify command could fail with databases over 2 billion points. This limitation has been resolved and databases of any size should properly unify if enough system resources are available.
- In previous versions of Cyclone unifying databases on a 64-bit Windows operating system would fail. This limitation has been resolved.
- In previous versions of Cyclone the Circular Fence command would not work properly in some instances. This limitation has been resolved.

#### GENERAL CHANGES

- Due to an update to Cyclone PUBLISHER and the TruView Client, all TruView data published from Cyclone 6.0 PUBLISHER will require users to update their TruView client viewer to the new 2.0 version. This new viewer will also be able to correctly display and measure any previously published TruView data.

#### CYCLONE DATABASE MANAGEMENT RECOMMENDATION

- To avoid possible database inconsistencies or corruption, we recommend the following:
  - Locate each .IMP file in its own folder.
  - When copying, moving or backing up databases, we recommend backing up the *complete database folder*, including the **eventlog** and **recovery** folders and files.
  - The **eventlog** records administrative events and critical errors.
  - The **recovery** file keeps databases consistent, avoiding data corruption that may happen in rare situations.
  - A warning dialog is displayed if a database's recovery folder cannot be found when it is added to the server. Push the **More Info** button for more information.

#### AUTOCAD 2002 SUPPORT DISCONTINUED

**CloudWorx and COE Data Transfer for AutoCAD no longer support the AutoCAD 2002.** Autodesk has discontinued services and support for AutoCAD 2002-based products, effective January 15, 2006. If you are currently using AutoCAD 2002, consider upgrading to AutoCAD version 2004 or higher.

## **AUTOCAD 2004 SUPPORT ALERT**

***Future CloudWorx and COE Data Transfer for AutoCAD will no longer support the AutoCAD 2002-based family of products.*** Autodesk has discontinued services and support for AutoCAD 2002-based products, effective January 15, 2007. If you are currently using AutoCAD 2004, consider upgrading to AutoCAD version 2005 or higher.

## **INSTALLING CYCLONE 6.0**

### **UPGRADING TO CYCLONE 6.0 FROM CYCLONE 5.8.1 OR EARLIER**

You must have Administrator-level privileges on your workstation to correctly install *Cyclone* software. On Vista, you may need to run the installer using the "Run as Administrator" launch option.

Because the Leica Geosystems Cyclone 6.0 installer no longer includes the CloudWorx or COE products, it is recommended that earlier Cyclone installations first be uninstalled before installing Cyclone 6.0. Then, install CloudWorx and COE products using the latest installers, as necessary.

Run the *Cyclone* 6.0 InstallShield and follow the directions in the InstallShield Wizard to proceed with the installation. Please heed warning message about compatibility of earlier versions' databases.

**NOTE:** If you are upgrading to *Cyclone* 6.0 from *Cyclone* 5.6 or earlier, your hotkey and toolbar customizations will be reset during the upgrade. Before upgrading to *Cyclone* 6.0, first export your customizations. Then, after upgrading to *Cyclone* 6.0, import your customizations.

**NOTE:** If you are upgrading to *Cyclone* 6.0 from *Cyclone* 5.6 or earlier, your configured databases, scanners, shortcuts, and preferences will be reset during the upgrade. You will need to manually re-configure these items after upgrading to *Cyclone* 6.0.

### **COMPATIBILITY WITH CYCLONE 5.8 AND EARLIER VERSIONS**

*Cyclone* 6.0 databases are *NOT* backwards compatible with *Cyclone* 5.8 or previous versions. Therefore, databases that are updated using *Cyclone* 6.0 cannot be used with earlier versions. If you will need to work with your data in older versions of *Cyclone*, you should make an archive copy of your database(s) prior to upgrading.

### **UPDATING AND OPTIMIZING CYCLONE 5.4 OR PREVIOUS DATABASES TO CYCLONE 6.0**

*Cyclone* 5.4 and previous databases can be opened by *Cyclone* 6.0 only after being updated and optimized to be compatible with *Cyclone* 6.0. Since it can take some time to update and optimize *Cyclone* databases, we recommend that you optimize your databases overnight, particularly when multiple databases are involved.

### **UPDATING CYCLONE 5.5 THROUGH 5.8.1 DATABASES TO CYCLONE 6.0**

*Cyclone* 5.5 through 5.8.1 databases can be opened by *Cyclone* 6.0 only after being updated to be compatible with *Cyclone* 6.0. Database optimization is not required.