

What's New in XTK 3?



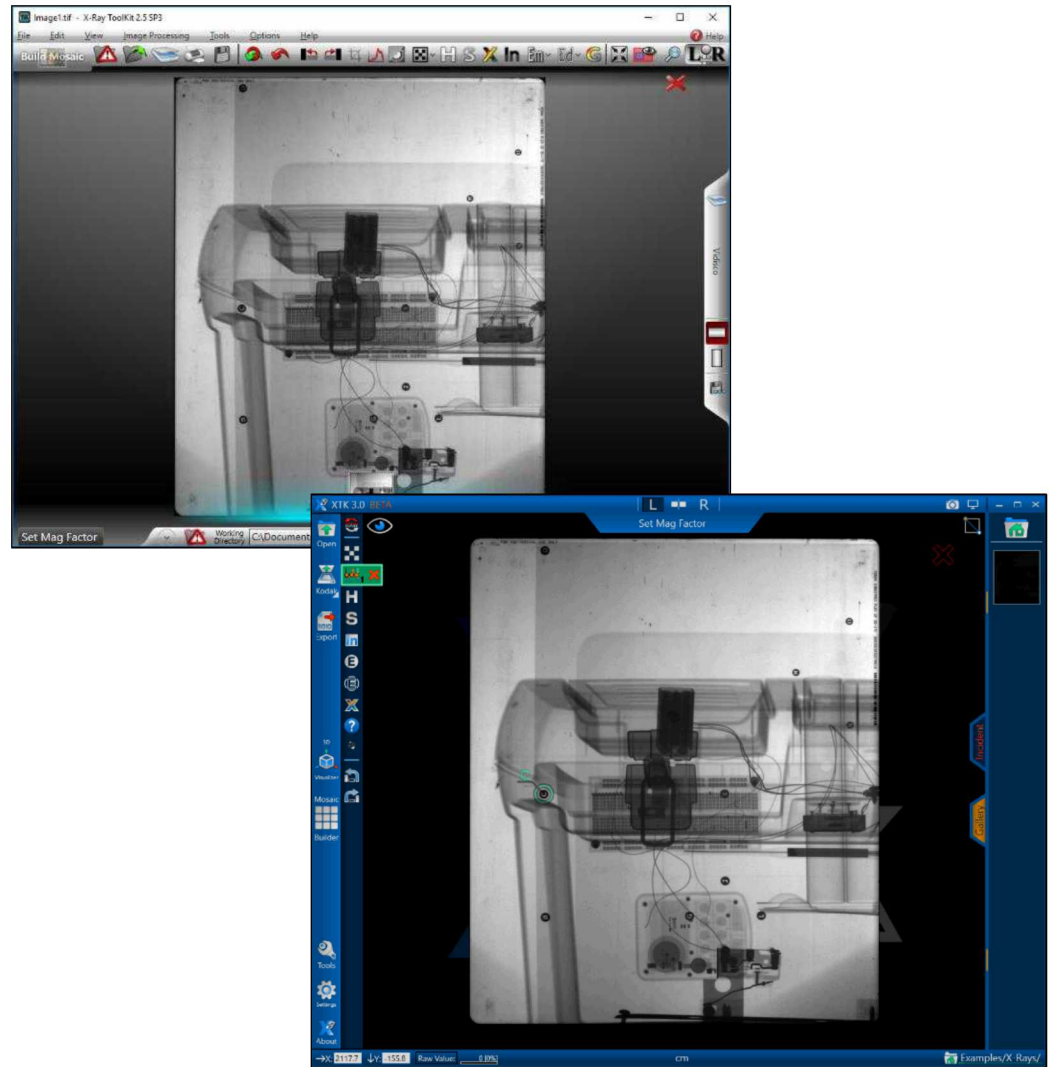
PRESENTED BY

Joshua Cordova, Sandia National Laboratories



Why XTK 3?

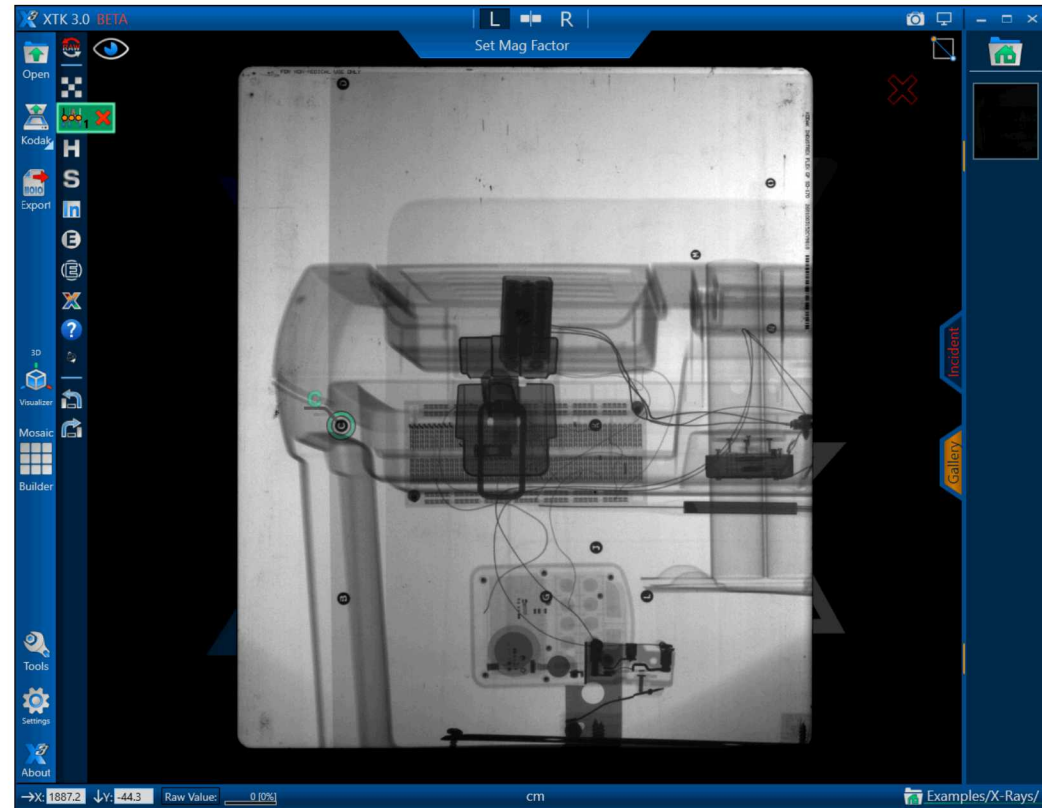
- Touch-friendly user interface
- Updated look and feel
- Support for advanced features
- Full drag-and-drop support
- User requests



New User Interface

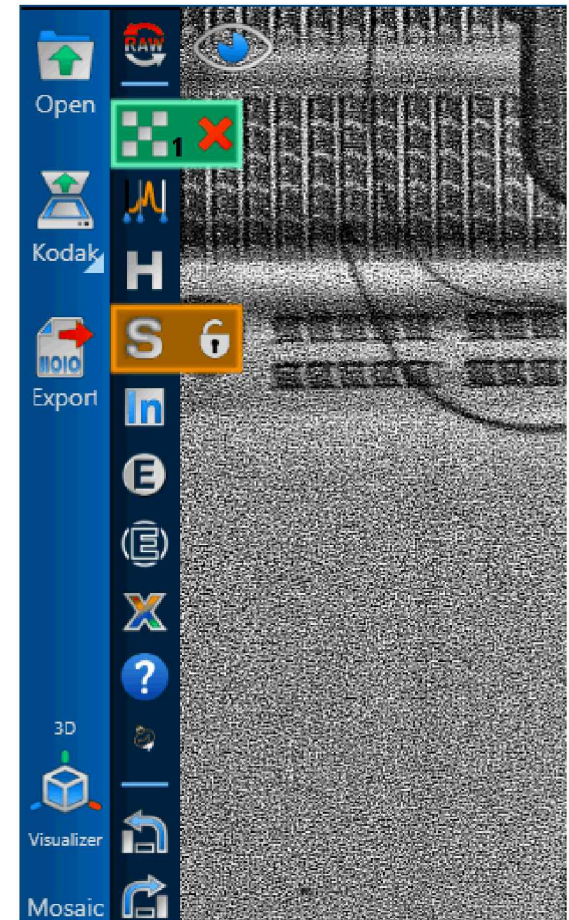
Goals for the new user interface:

- Updated look and feel
 - Updated layout, colors, and animations
 - Simplified options where possible
- Full support for touch screens
 - Fewer right-click menus
 - Fewer popup windows
 - Large button (tablet) mode
- Maximized image-viewing space
 - Toolbars moved to the side



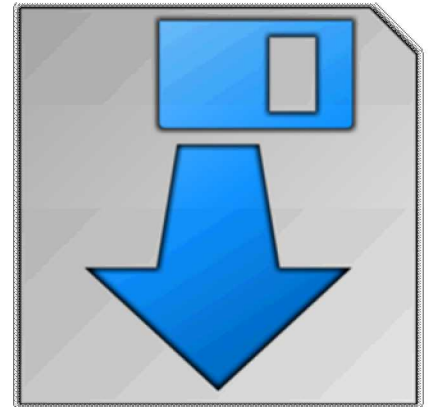
Easier Image Processing

- Image processing operations function like filters
 - On/off capability
 - Undo function removed
 - Capable of being stacked, if desired (e.g., adaptive equalize + sharpen)



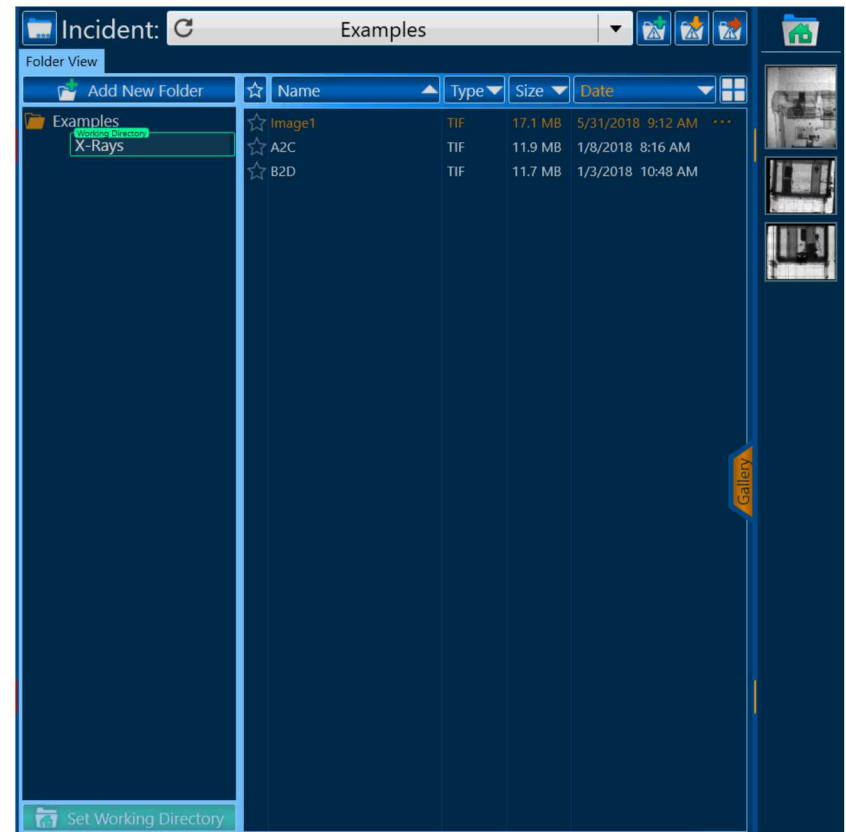
Automatic Image Saving

- Images are automatically saved
 - Annotations, enhancements, and metadata are also saved
 - Raw data is never overwritten (original data is not lost)
 - Crash recovery is simplified



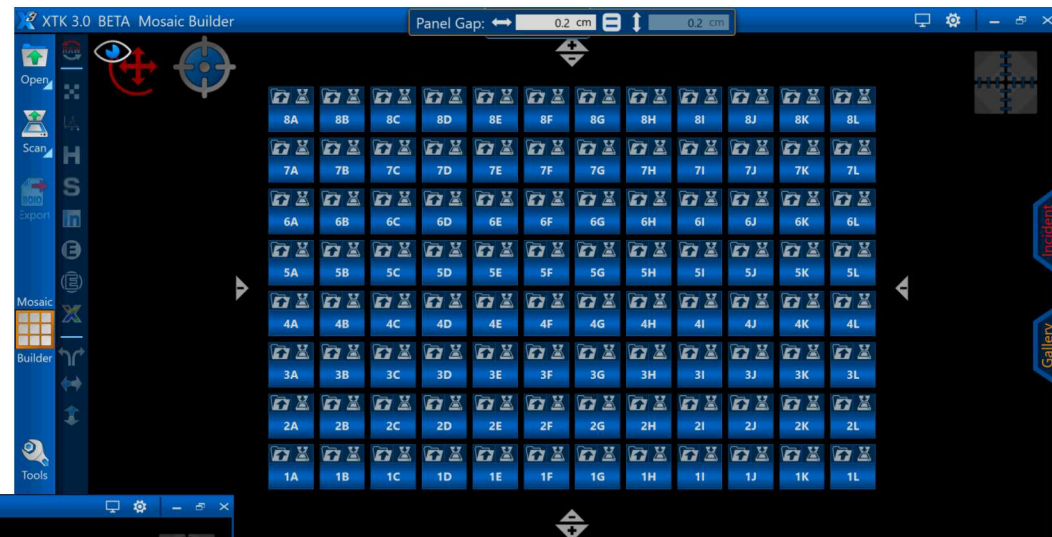
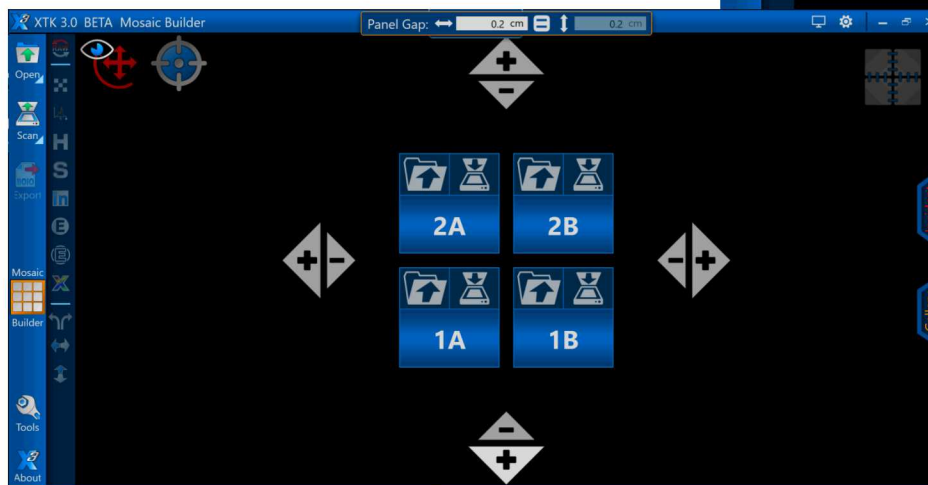
6 Enhanced Incident Manager

- Incident Manager has been moved from a separate window into the UI
- The Gallery Bar on the right side can show:
 - Contents of the working directory
 - “Favorited” images
 - Recent images
- Files can be dragged to/from Windows Explorer (e.g., to/from a USB drive)
- Files can be dragged to/from email attachments
- Multiple levels of folders are allowed in incidents



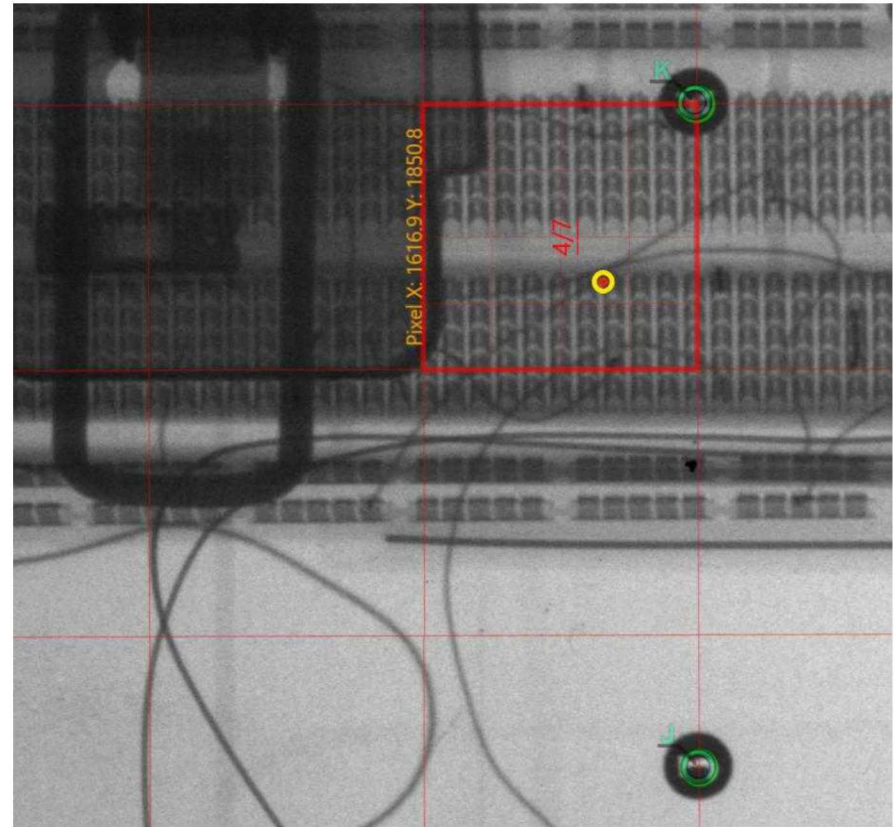
7 Mosaic Builder

- Larger mosaics can be created if desired or needed
- Mosaics can be manipulated to fit the user's physical build
- The scanning process is completed “behind-the-scenes,” allowing for the capability to scan images in and perform other tasks



Grid-Aim Improvements

- Grim-Aim can be accomplished by clicking near the dot
 - System refines dot locations and identifies the letter
- System automatically finds remaining dots after four dots are located
- Grid board overlays directly on the image
- Draggable target marker
- Pixel coordinates on an X/Y axis are provided for target verification
- Benefits:
 - Faster
 - More consistent between operators
 - More accurate solutions



Wire Tracing

- Create annotations specifically for wires
- Obtain correct thickness for wire gauge (if mag factor is set)
- Trace semi-automatic wire with algorithm

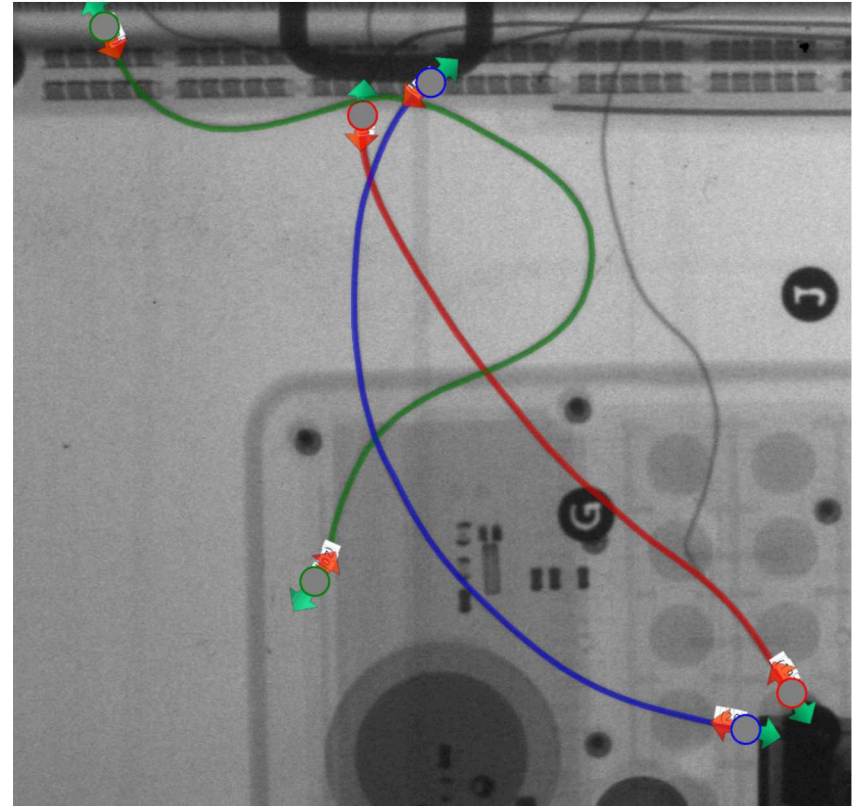


Image Statistics Display

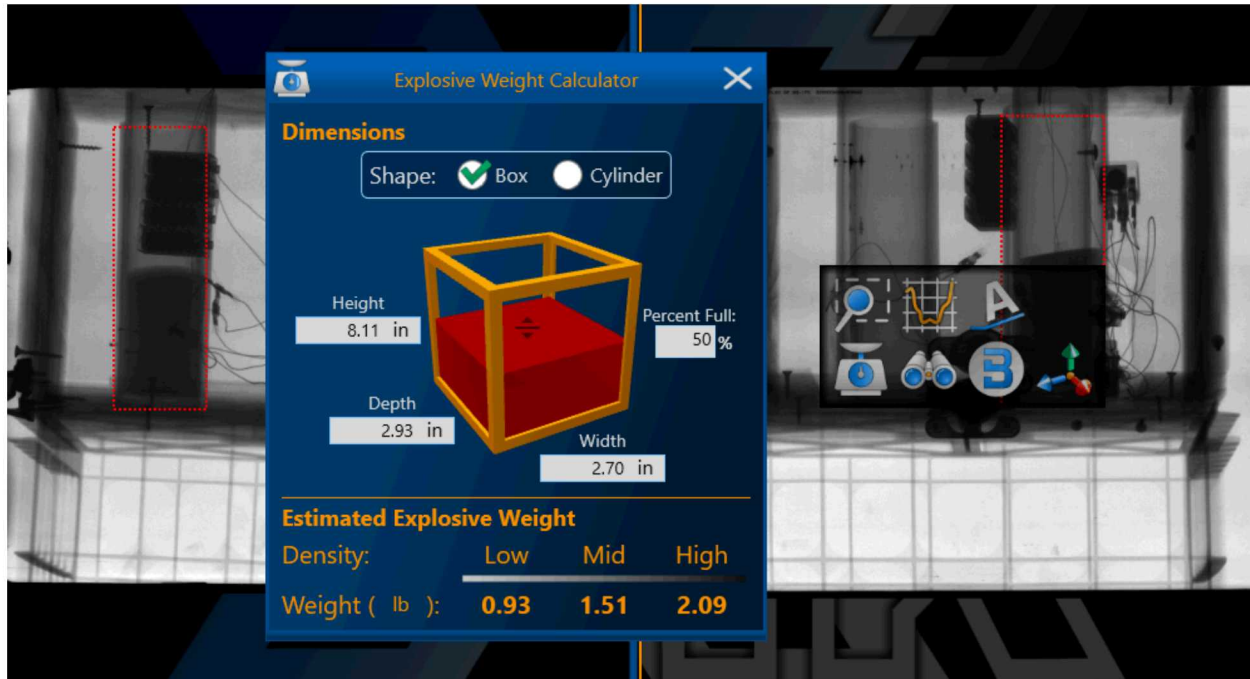
- View basic statistics for raw and enhanced images
- Help guide exposure decisions
- Help measure the effect of enhancements
- Use information to assist with future needs when using digital radiography systems

Image Statistics

Raw	Enhanced
Min: 0	Min: 0
Avg: 1632	Avg: 38127
Std: 529	Std: 13446
Max: 3229	Max: 65535
SNR: 18.9	SNR: 27.8

11 Explosive Weight Estimation

- Provide a rough estimate of possible explosive weight based on orthogonal views (A to C, B to D)



Upcoming Capabilities in Future XTK 3.0 Releases

- 3D modeling modifications
- Incident Manager filtering
- Individual panel magnification factors
- Automatic scanner recognition
- Universal scanner operating tool
- DR panel modifications
- Automatic stitching/unstitching of mosaic panels
- Intuitive help tools
- Dose calculator revamp
- Additional plugins



www.xraytoolkit.com

XTK™ SOFTWARE [LOG IN](#) [REGISTER](#)

[DOWNLOAD](#) [FEATURES](#) [FAQ](#) [GRID-AIM](#) [TRAINING](#) [CONTACT](#)

XTK™ (X-Ray Toolkit) software is a FREE scanner-independent radiography software designed just for Bomb Techs!

<p>FEATURES</p> <ul style="list-style-type: none"> Scanner Integration Image Processing Mosaic Stitching Grid Aim Dose Calculation Incident Management 3D Visualization 	<p>LATEST RELEASE: 2.5 SP2</p> <ul style="list-style-type: none"> Adaptive Histogram Equalization Touch Support for Pan and Zoom Vidisco Interface (req. Xbit API) NOVO-DR Interface (req. NOVOX) 	<p>SCANNER DRIVERS</p> <p>Some scanner drivers are available from this website (ScanX, Nexray, Logos).</p> <p>For the full list of scanners that are supported, see the Features page.</p>
LEARN MORE	GET XTK 2.5 SP2 IMPROVEMENTS	GET DRIVERS

[PRIVACY POLICY AND DISCLAIMER](#)

Registration Form for Account Access

- Must be filled out completely
- Must be vetted by Sandia
- 24 hour approval timeframe
- Must have government affiliation, or additional information will be needed
- Foreign requests require additional processes of approval
- Individual accounts are created (not group accounts)

CREATE A NEW ACCOUNT

*First Name:

*Last Name:

*US Citizen: YES NO

*Email (.gov/.mil/.us if possible):

*Confirm Email:

*Password:

*Confirm Password:

*Government Affiliation:

*Intended Use:

*Number of Internal Users (Redistribution of XTK is NOT allowed):

Scanner Model(s):

- ScanX Scout
- ScanX 12
- ScanX 14
- Scanna CR35
- NexRay Mini
- NexRay MMX/Max
- Logos T-Series
- Logos DCR810
- Kodak ACR
- VMI
- Vidisco
- RTR-4
- NOVO
-

Phone:

City and State:

Comments:

*First Name:

*Last Name:

*US Citizen: YES NO

*Email (.gov/.mil/.us if possible):

*Confirm Email:

*Password:

*Confirm Password:

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City and State:

Comments:

END USER LICENSE AGREEMENT (EULA)

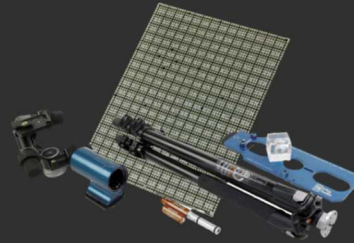
BY DOWNLOADING SOFTWARE AVAILABLE ON THE KRAYTOOLKIT.COM WEBSITE, YOU ARE CONSENTING TO BE BOUND BY AND ARE BECOMING A PARTY TO THIS AGREEMENT. IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS AGREEMENT, YOU MAY NOT DOWNLOAD OR USE THE SOFTWARE.

Sandia-Approved XTK Training Companies



Sandia-Approved Grid-Aim Manufactures

XTK™ GRID-AIM



The XTK™ Grid Aim System works together with the XTK™ Software to provide EOD Operators with the capability to target individual components inside a device with extreme accuracy using standard precision disruptor tools. The XTK™ Grid Aim System can be purchased from any of the licensed commercial vendors listed below.

LICENSED COMMERCIAL VENDORS



Featured XTK-Supported Scanner Companies

- NexRay
- Logos
- All-Pro
- Scanna
- VMI
- Vidisco
- NOVO
- Kodak
- Generic Twain Scanner

FEATURES

XTK™ Software is built on an industry leading fully-featured image processing engine to provide the EOD community with the most desired and useful functions.

- Scan directly into XTK™ Software from many common scanners, including
 - NexRay (MMX/FPX, Mini, HDX)
 - Logos (T-Series, DCR810, Digital panels coming soon)
 - ScanX (Scout, 12, 14)
 - Scanna (CR35, ScanSilc coming soon)
 - VMI (using iScan)
 - Vidisco (requires Xbit SDK)
 - NOVO-DR (requires NOVOX software)
 - Leidos RTR-5 (using NexRay driver)
 - Kodak ACR
 - Generic Twain Scanner
- Support for a variety of image types, including **TIFF, JPEG, JPEG2000, PNG, BMP, RAW, and CMP.**
- Support for **16bit grayscale images.**

FAQ

FREQUENTLY ASKED QUESTIONS

DOWNLOAD & INSTALLATION

HOW DO I DOWNLOAD XTK?

Go to the [Download Page](#). Download either the 32-bit version of XTK or the 64-bit version of XTK and save it onto your computer, and then run the installer.

You will need Administrative Rights to install XTK.

HOW DO I TELL IF I NEED 32-BIT XTK OR 64-BIT XTK?

If you have 32-bit Windows, you will need 32-bit XTK.

If you have 64-bit Windows, you can use either 32-bit or 64-bit XTK.

In general we recommend that you use 64-bit XTK if you have 64-bit Windows, however, some scanners are not supported in 64-bit XTK. Please see the [Download Page](#) for more information.

You will probably need 64-bit XTK if you plan to process large mosaic images (bigger than 2x2).

FAQ

HOW CAN I TELL IF I HAVE 32-BIT OR 64-BIT WINDOWS?

Go to Control Panel -> System and look for "System type". It will either say "64-bit Operating System" or "32-bit Operating System"

WHAT IS THE INSTALLER PASSWORD?

The installer password is used to run the XTK installer. You should have received the password in your welcome email when you registered for access to the website.

If you cannot find the installation password, go to the [Download Page](#) and click on the Re-send Password button

IS THE INSTALLER PASSWORD THE SAME AS MY WEBSITE PASSWORD?

No, the installer password is not the same as your website password. If you have lost your website password, please [Reset your Password](#)

CAN YOU SEND ME A DVD OR CD?

No, unfortunately we are unable to mail installation media.

FAQ

WHAT IF I DON'T HAVE INTERNET ACCESS ON THE COMPUTER WHERE I NEED XTK?

You can download the installer onto a computer that does have internet access, and then copy it to a USB drive or burn a CD to move to the computer you want to install it on.

CAN I REDISTRIBUTE THE XTK INSTALLER?

No, please do not distribute the XTK installer outside of your organization.

DOES XTK COME WITH ANY SCANNER DRIVERS?

No, in order to scan from XTK you must install the drivers for your particular scanner.

Please visit our [Scanner Driver Page](#) to download some common drivers.

If we do not have the driver for your scanner listed, you may need to contact the manufacturer.

FAQ

SCANNING

XTK WON'T CONNECT TO MY SCANNER

Make sure your [scanner drivers](#) have been installed and that you are using good cables.

I GET A BLANK IMAGE OR AN ERROR ABOUT "NO DATA" WHEN ATTEMPTING TO SCAN

Ensure you are getting the exposure you intended.

Check your x-ray generator to make sure it has a good battery and is putting out the dose you expect.

Support Contact Information

STEP 1:

Check out our [Frequently Asked Questions](#).

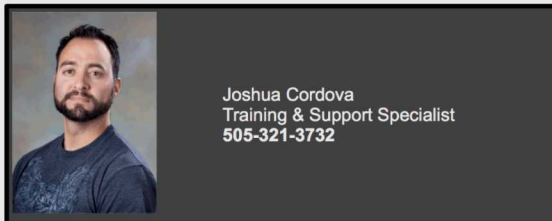
Check out our [Training Resources](#). (Log in to see the XTK Reference Manual and Tutorial Videos)

STEP 2:

Email us at xtk-support@xraytoolkit.com, we will respond as soon as possible.

STEP 3:

If you can't find the answer you need, and you have an **urgent** technical support issue that must be resolved immediately:



Joshua Cordova
Training & Support Specialist
505-321-3732

Questions?

- Official release planned for September 2018