Your 3D X-ray system for today with assurance for tomorrow

ZEISS Xradia Context microCT

ZEISS

Seeing beyond

Your X-ray System for Today with Assurance for Tomorrow

The ZEISS X-ray imaging portfolio is expanding with the introduction of Xradia Context microCT, a large field of view, nondestructive 3D X-ray micro-computed tomography system. ZEISS Xradia Context is your imaging solution for a variety of 3D characterization and inspection needs, spanning from large intact samples to reveal interior details in their full 3D context, as well as small samples at maximum geometric magnification to resolve fine features with high resolution and high contrast. Built on the proven ZEISS Xradia platform, Xradia Context provides you with superb image quality, stability, and usability, along with an efficient workflow environment and high throughput scanning. Enter the ZEISS Xradia ecosystem with a robust X-ray system to address your needs today, and receive assurance for tomorrow through future upgrades or field conversion of your Xradia Context microCT to an Xradia Versa X-ray microscope.

Simpler. More Intelligent. More Integrated.

Full Context 3D Imaging

ZEISS Xradia Context is a large field-of-view, non-destructive 3D X-ray microcomputed tomography system built to address a wide spectrum of imaging needs in research and industrial applications. With a robust stage, flexible software-controlled source/detector positioning, and a large array detector, you can scan entire objects or devices to reveal interior details in their full 3D context. Further extend your field of view with integrated vertical stitching functionality. Maximize geometric magnification with small samples to identify and characterize micron-scale structures with high contrast and clarity. From sample mounting to scan preparation, acquisition, multiGPU reconstruction, and image processing and analysis, experience an efficient high throughput workflow that gets you to results quickly.

Guaranteed Data Quality Based on Proven Xradia Platform

ZEISS Xradia Context provides superb data quality for a range of 3D imaging needs and is built upon the same base platform as the highly-regarded Xradia Versa series of X-ray microscopes. As a result, Xradia Context microCT receives the benefit of years of developments and technological advancements targeted at ensuring unprecedented system stability and continuous improvement in high resolution, high quality data acquisition and reconstruction. Use a selection of filters to tune the X-ray beam specifically for your sample. Experience the same workflow-based efficiency with Scout-and-Scan control software. Advanced reconstruction technologies powered by iterative and artificial intelligence algorithms help further enhance image quality and throughput with optional ZEISS DeepRecon Pro and OptiRecon modules.

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Extendable with Options and Convertible to an X-ray Microscope

ZEISS is committed to protecting its customer's investment in X-ray imaging technology by providing extendibility of systems in the field. Xradia Context now joins this family and provides 3D tomographic imaging that’s ready to grow with your needs. Upgrade your system with Autoloader for the automated handling and scanning of up to 14 samples without intervention. Or add the *In Situ* Interface Kit and load stages to investigate material evolution in 4D. And as your applications move beyond the limits of microCT, Xradia Context can be converted in the field to an Xradia 510 Versa + FPX X-ray microscope, offering unmatched flexibility and performance in spatial resolution and advanced contrast and acquisition methods.

Your Insight into the Technology Behind It

Full Context 3D Imaging for Samples Both Large and Small

Using a large array, 6MP flat panel detector, Xradia Context can image large samples up to 140 mm wide and 93 mm tall in a single scan. Further extend this field of view using automated stitching, providing up to 165 mm vertically. Image large samples and devices nondestructively to evaluate internal structures, ideal for quality control, failure analysis, or inspection tasks. The high pixel density 3k x 2k detector with small pixel sizes ensures resolution even at relatively large fields of view. With short exposure times and multiGPU fast reconstruction, you can collect scans and get to 3D data quickly.

Maximize geometric magnification by working with small samples at short working distances, enabling you to identify and characterize fine features like cracks, voids, or impurities within your samples at sub-micron resolution.

Through nondestructive X-ray imaging, you preserve your samples for future use or experimentation, or further microscopic investigaton using complementary but destructive techniques like cross-sectional optical or electron microscopy.

3D scan of an intact catalytic converter. Virtual cross sections allow investigation of the interior structure.

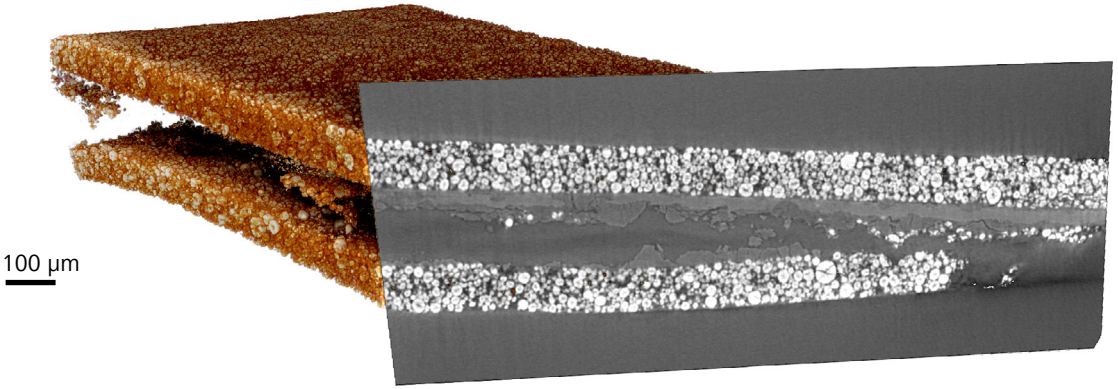
Your Insight into the Technology Behind It

Image Quality Based on the Proven Xradia Platform

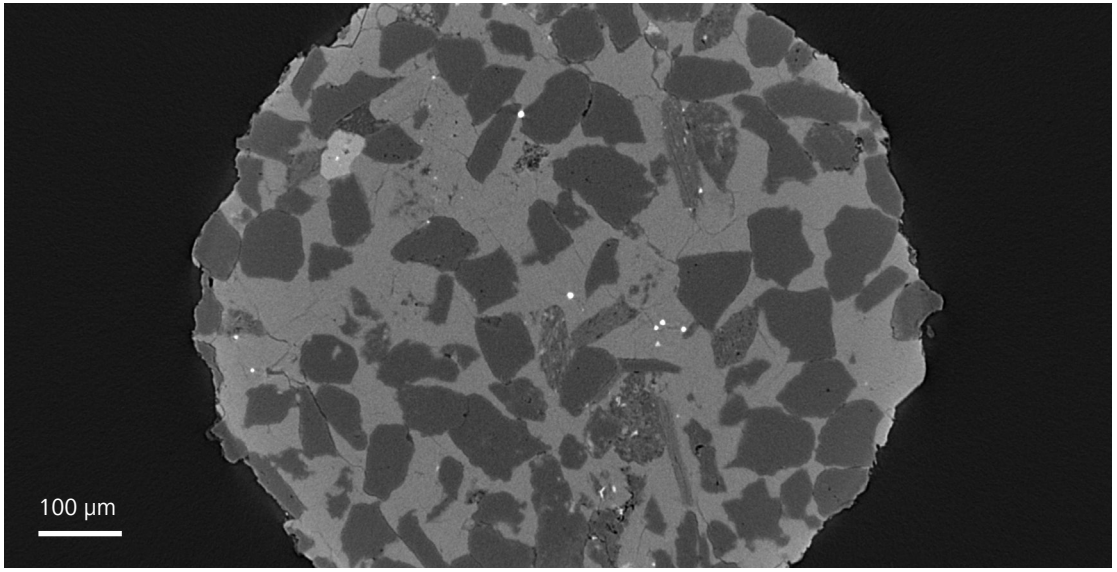
Excellent data quality relies on a number of factors including source characteristics, beam energy tuning, detector geometry and sensitivity, environmental control, motion and vibrational stability, careful system calibration, and reconstruction accuracy. To address these challenges, Xradia Context microCT is built on the same platform as the proven Xradia Versa X-ray microscope series, inheriting the same stabilization mechanisms and data quality advancements that helped Xradia Versa set the standard in high performance 3D X-ray imaging in the laboratory. Experience excellent contrast and image clarity, enabling easy differentiation of different phases and features to support downstream segmentation and quantification of your data.

Advantages

- Superior high purity X-ray filters (three materials, varying thicknesses) to match samples for beam hardening control
- Enhanced automated drift correction modes
- Advanced beam hardening reduction algorithms
- Additional proprietary advanced algorithms to ensure optimal image quality



Achieve high resolution on small samples, such as this 3D reconstruction of an aged lithium ion battery cathode. Sample courtesy of: Prof. D. U. Sauer and Prof. E. Figgemeier, ISEA, RWTH Aachen University



Virtual cross section through a heterogeneous rock sample

Your Insight into the Technology Behind It

A Closer Look at Spatial Resolution

ZEISS microCT and X-ray microscopy systems are specified on true spatial resolution, the most meaningful measurement of your instrument's performance.

Spatial resolution refers to the minimum separation at which your imaging system can resolve a feature pair. You would typically measure it by imaging a standardized resolution target with progressively smaller line-space pairs. Spatial resolution accounts for critical characteristics such as X-ray source spot size, detector resolution, magnification geometry, and vibrational, electrical and thermal stability.

Other terms such as "voxel," "spot size," "detail detectability," and "nominal resolution" do not convey your system's full performance.

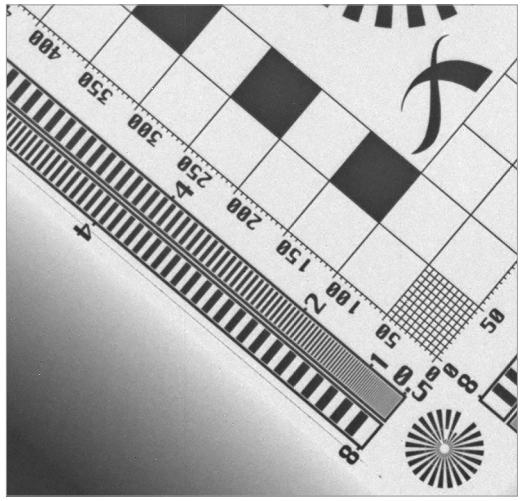
Xradia Context microCT specifies spatial resolution at short source-sample working distance indicative of results for a very small sample, as is practice in the industry. For larger working distances/samples, all CT and microCT systems relying on a projection-based architecture will have magnification that is strongly dependent on the working distance (in contrast to X-ray microscopy, where spatial resolution is not strongly dependent on working distance).

Therefore, to provide an indication of the operating space, Xradia Context also specifies the achievable voxel size at different working distances.

As the leader in X-ray imaging, ZEISS provides this transparency to true system performance.

Imaging Specifications	
Spatial Resolution [a]	0.95 µm
Minimum Achievable Voxel [b]	0.5 µm
Achievable Voxel at Working Distance [b,c]	0.5 µm / 0.5 mm
	0.8 µm / 2.5 mm
	2.5 µm / 12.5 mm
	4.0 µm / 25 mm
	12.1 µm / 100 mm

[a] Spatial resolution measured with ZEISS Xradia 2D resolution target.
[b] Voxel is a geometric term that contributes to but does not determine resolution, and is provided here only for comparison. ZEISS specifies resolution via spatial resolution, the true overall measurement of instrument resolution.
[c] Working distance defined as clearance around axis of rotation. This value can be interpreted as the radius of the sample.

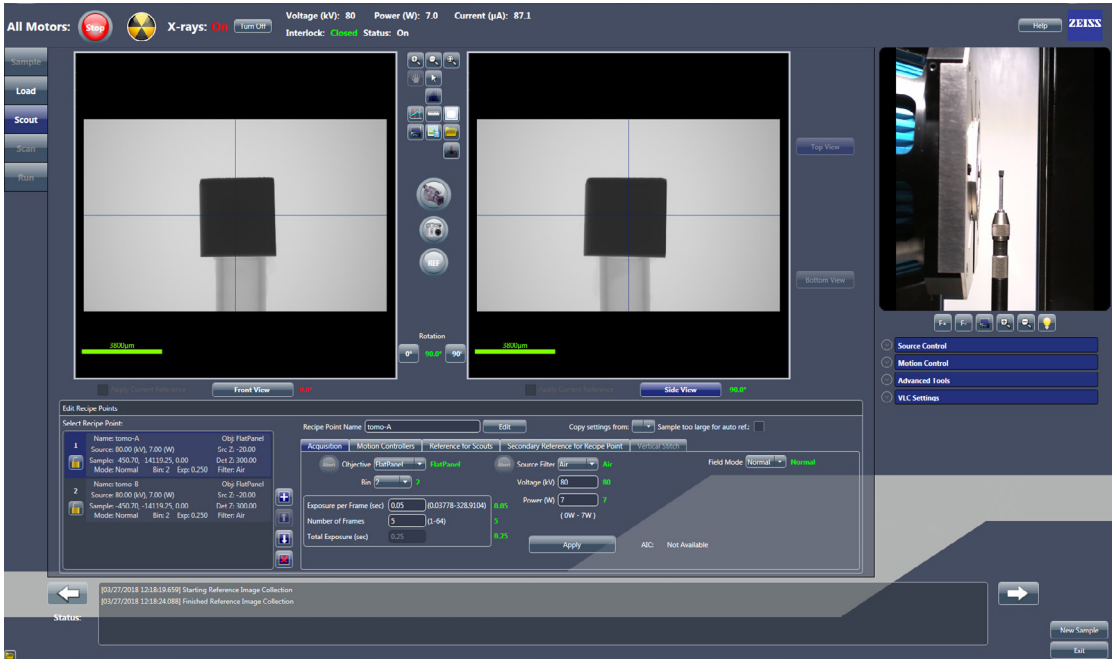


ZEISS Xradia resolution target, used to evaluate sub-micron spatial resolution. Minimum voxel size of 0.5 µm.

Your Insight into the Technology Behind It

Simple Control System to Create Efficient Workflows

All of the features of ZEISS Xradia Context are seamlessly integrated within the Scout-and-Scan Control System, an efficient workflow environment that provides full control over the system hardware and allows you to easily position a region of interest, specify scanning parameters, and begin scans. The easy-to-use interface is ideal for a central lab-type setting where your users may have a wide variety of experience levels, enabling even novice users to begin collecting data quickly. The interface maintains the flexibility for which Xradia systems are known, enabling you to set-up scans with ease and with recipe-based repeatability, especially useful for your *in situ* and 4D research or repetitive sample scanning.



Workflow-based Scout-and-Scan control system

Advantages

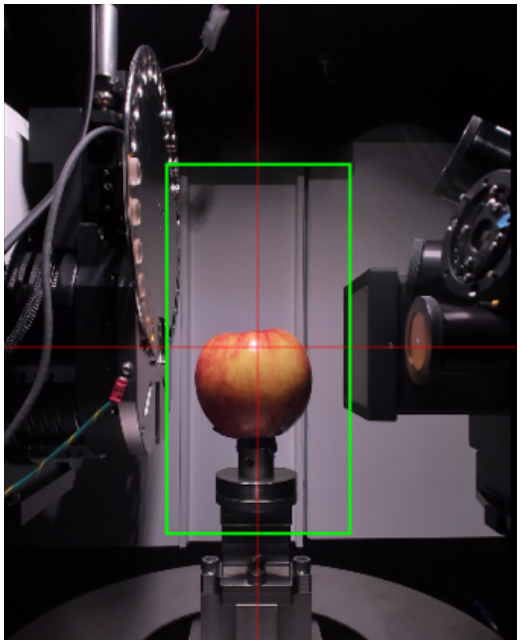
- Internal camera for sample viewing
- Smart positioning sample navigation stage to easily position your region of interest on the tomography rotation axis
- Recipe control (set, save, recall) to enable multiple scans with different parameters allowing batch mode
- Easy set-up to stich multiple scans of large objects with vertical stitching
- Automated reconstruction
- Collision avoidance for system set-up, custom models, and disable feature for highest resolution scans
- Integrated *in situ* recipe control for Deben chambers

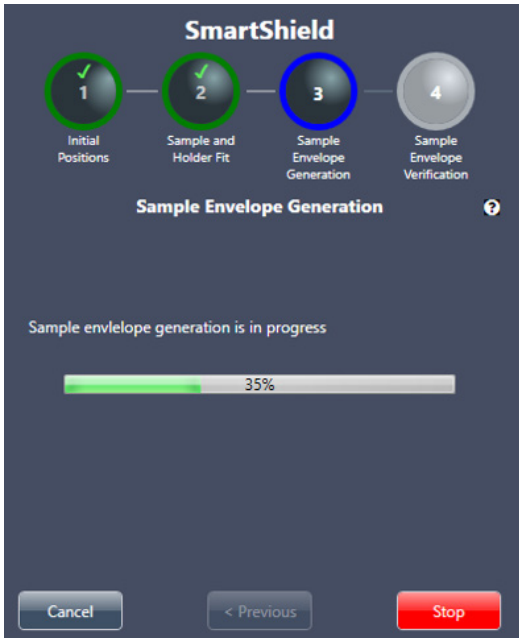
Your Insight into the Technology Behind It

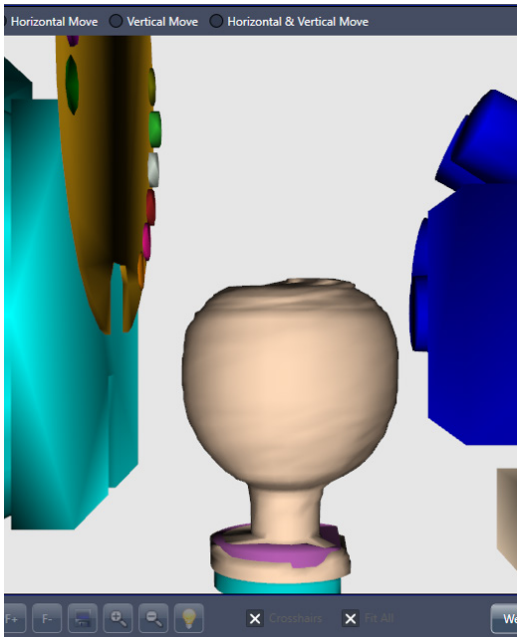
Simplify Your Sample Setup for a Delightful Instrument Experience

Maximize your instrument's capabilities with SmartShield. An automated collision avoidance system that works within Scout and Scan to create a digital envelope to protect the sample and microscope, enabling faster setup and enhanced navigation of your Xradia Context.

SmartShield wizard helps the user create a protective digital shield that helps operators choose the right scan parameters with confidence. SmartShield brings you closer to the optimum scan parameters more quickly to get the best results fast.







Your Insight into the Technology Behind It

Advanced Reconstruction Toolbox

The Advanced Reconstruction Toolbox is an innovative platform on which you can continuously access state-of-the-art reconstruction technologies from ZEISS to enrich your research and increase the return on investment of your ZEISS Xradia 3D XRM.

These unique offerings from ZEISS leverage deep understanding of both X-ray physics and customer applications to solve some of the hardest imaging challenges in new and innovative ways. These optional modules are workstation-based solutions that provide easy access and usability.

	FDK Standard Analytical Reconstruction	**OptiRecon** Iterative Reconstruction	**DeepRecon Pro** AI (Deep-Learning) based Reconstruction
Throughput	1×	up to 4×	up to 10×
Image Quality*	Standard	Better	Best
Ease-of-Use	Minimal	Requires parameter optimization	One-click setup
Applicability	Repetitive and non-repetitive workflows		

* Image quality refers to the contrast-to-noise ratio and the relative performance of reconstruction technologies is shown.

ZEISS DeepRecon

The first commercially available deep learning reconstruction technology enables you to increase throughput by up to 10×. Alternatively, keep the same number of projections and enhance the image quality further. DeepRecon uniquely harvests the hidden opportunities in big data generated by your XRM and provides significant AI-driven speed or image quality improvement.

ZEISS offers DeepRecon technology in 2 forms – 1) DeepRecon Pro, and 2) DeepRecon Custom – both leveraging AI to provide unprecedented image quality with unparalleled speed.

ZEISS DeepRecon Pro is an innovative AI-based technology bringing superior throughput and image quality benefits across a wide range of applications. DeepRecon Pro is applicable to both unique samples as well as semi-repetitive and repetitive workflows. Customers can now self-train new machine learning network models on-site with an extremely easy-to-use interface. The one-click workflow of DeepRecon Pro eliminates the need for a machine learning expert and can be seamlessly operated by even a novice user. ZEISS DeepRecon Custom is targeted specifically for repetitive workflow applications to further boost XRM performance beyond DeepRecon Pro. Customers can closely collaborate with ZEISS to develop custom-created network models that precisely fits their repetitive application needs.

ZEISS OptiRecon

A fast and efficient algorithm-based technology that delivers iterative reconstruction from your desktop, allowing you to achieve up to 4× faster scan times or enhanced image quality with equivalent throughput.

OptiRecon is an economical solution offering superior interior tomography or throughput on a broad class of samples.

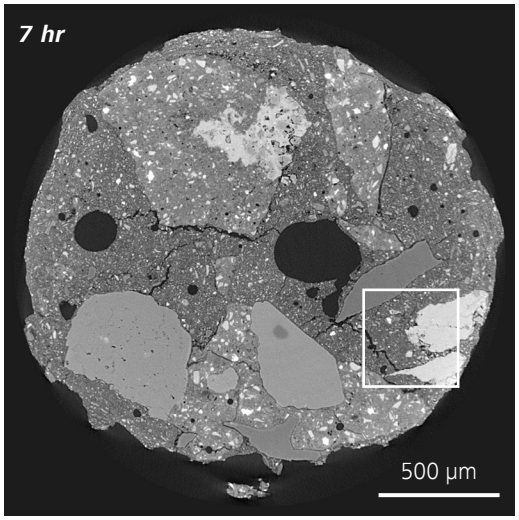
ZEISS PhaseEvolve

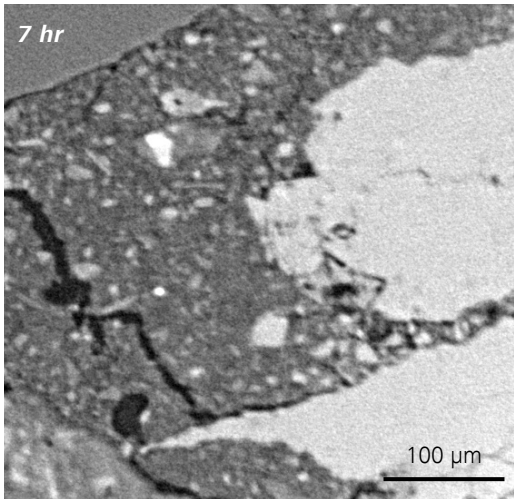
ZEISS PhaseEvolve is a post-processing reconstruction algorithm that enhances the image contrast by revealing material contrast uniquely inherent to X-ray microscopy, which can often be obscured by phase effects in low-medium density samples or high resolution datasets. Perform more accurate quantitative analysis with improved contrast and segmentation of your results.

Your Insight into the Technology Behind It

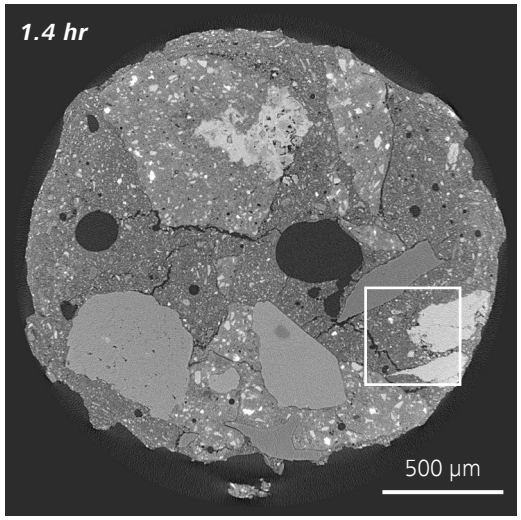
ZEISS DeepRecon Pro – How It Works in Materials Science: Concrete

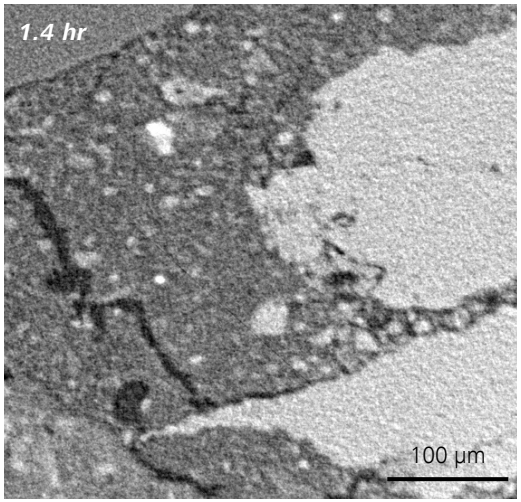
Standard Reconstruction (FDK)



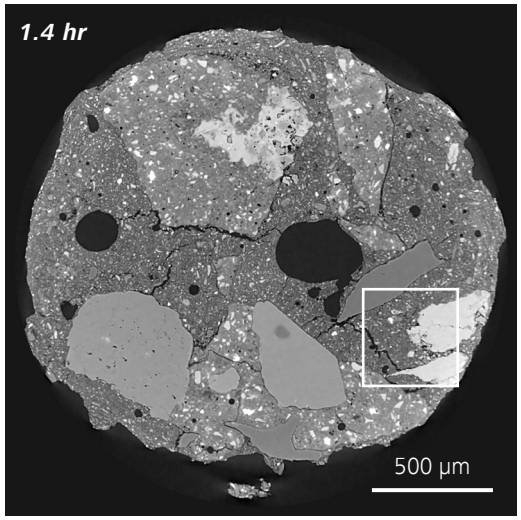


Standard Reconstruction (FDK)





DeepRecon Pro



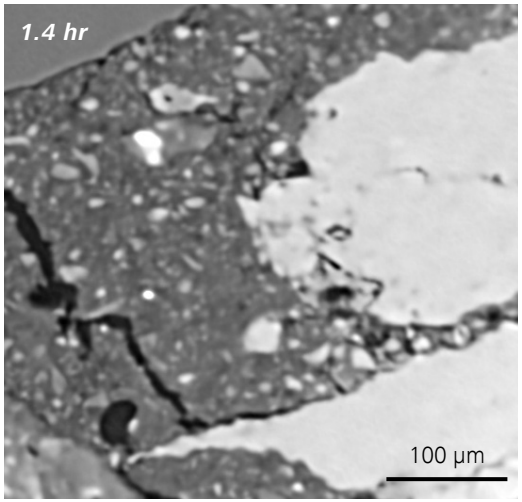
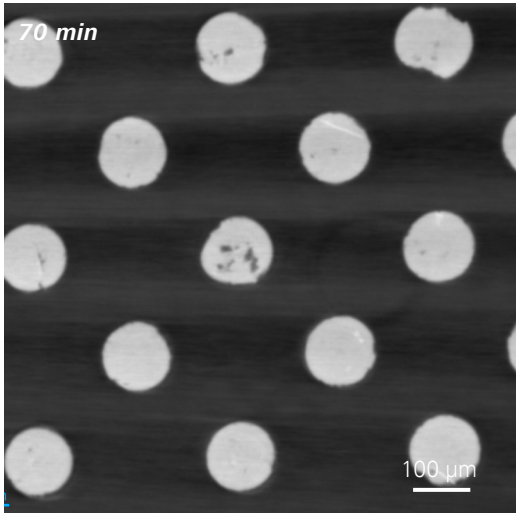


Image concrete samples 5x faster with DeepRecon Pro while retaining the image quality needed to quantify phase distributions and the extent of crack networks.

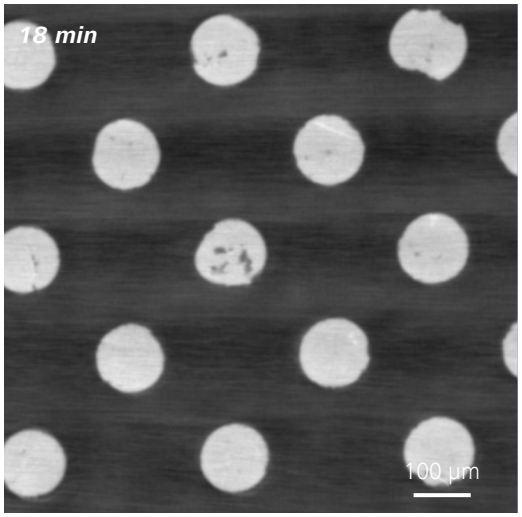
Your Insight into the Technology Behind It

ZEISS DeepRecon Pro – How It Works in Electronics: Printed Circuit Boards (PCB)

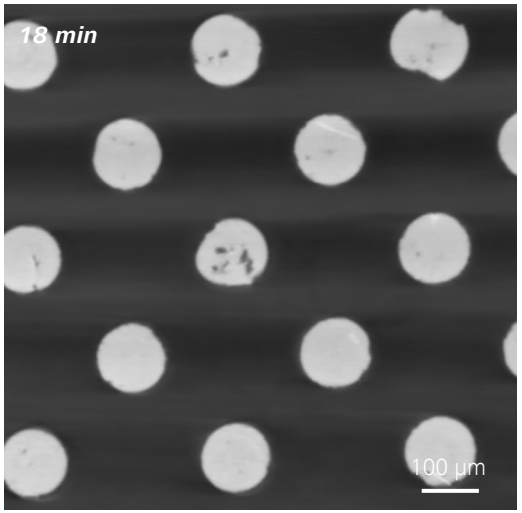
Standard Reconstruction (FDK)



Standard Reconstruction (FDK)



DeepRecon Pro



Perform failure analysis tasks in electronics up to 4x faster with DeepRecon Pro while still retaining the image quality needed to observe fine cracks in detail.

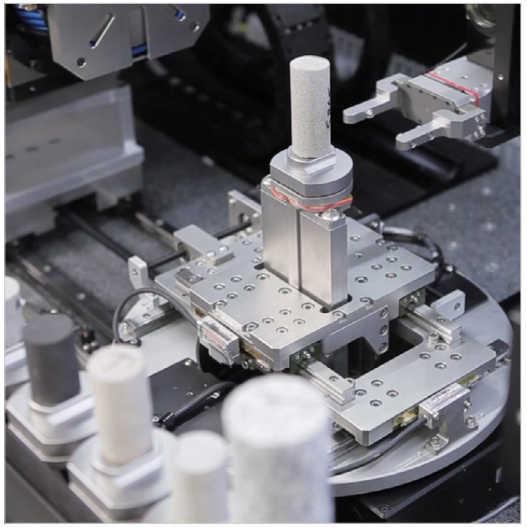
Expand Your Possibilities

In Situ Kit – Advancing Discovery with 4D Imaging

Moving beyond the three dimensions of space, leverage the nondestructive nature of X-ray investigation to extend your studies into the dimension of time with 4D experiments. Xradia Context can accommodate a variety of *in situ* rigs, from high pressure flow cells to tension, compression and thermal stages, to user-customized designs. You can add the optional *In Situ* Interface Kit to ZEISS Xradia Context microCT and ZEISS Xradia Versa XRM instruments, which includes a mechanical integration kit, a robust cabling guide and other facilities (feed-throughs) along with recipe-based software that simplifies your control from within the Scout-and-Scan user interface. When your needs require pushing the resolution limits of your *in situ* experiments, convert your Xradia Context to an Xradia 510 Versa X-ray microscope to leverage Resolution at a Distance (RaaD) technology for the maximum performance tomographic imaging of samples within *in situ* chambers or rigs.

Autoloader – Increase Your Sample Handling Efficiency

Maximize your instrument's utilization by minimizing user intervention with the optional Autoloader, available for ZEISS Xradia Context microCT and ZEISS Xradia Versa X-ray microscopes. Reduce the frequency of user interaction and increase productivity by enabling multiple jobs to run unattended. Load up to 14 samples, queue, and allow to run all day, or off-shift. The software provides you with the flexibility to re-order or stop the queue to insert a high priority sample at any time. An e-mail notification feature in the Scout-and-Scan user interface provides timely updates on queue progress. Autoloader also enables a workflow solution for high volume repetitive scanning of like samples.



Autoloader option enables you to program up to 14 samples at a time to run sequentially

Note: Autoloader and *In Situ* Interface Kit are not simultaneously compatible

Expand Your Possibilities

3D Tomographic Imaging That's Ready to Grow When You Are

ZEISS Xradia Context provides high quality 3D imaging for a wide variety of applications spanning from academic research to industrial inspection and failure analysis. As your needs evolve and higher resolution or advanced imaging modes become a priority, your Xradia Context microCT is ready to grow and meet your demands.

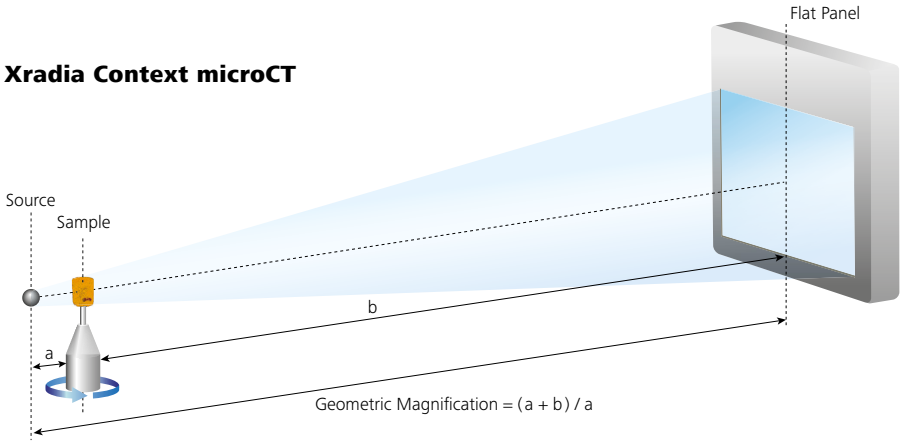
Xradia Context is the world's only microCT system that can be converted in the field to an X-ray microscope. When you convert your Xradia Context to Xradia 510 Versa, you greatly extend your imaging capabilities with all of the award-winning ZEISS X-ray microscope differentiators.

Key XRM Advantages of Converting from Context microCT to Xradia 510 Versa

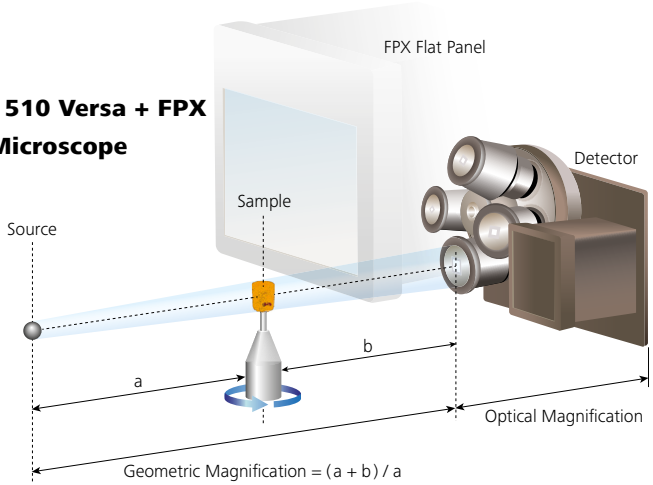
- Resolution at a Distance (RaaD) technology – used to maintain high spatial resolution at large working distances, valuable for imaging the interior of large objects, multiscale scout-and-zoom workflows, or for samples enclosed within in situ chambers
- Additional contrast modalities including propagation phase contrast and optional diffraction contrast tomography (LabDCT)
- Advanced acquisition methods including high aspect ratio tomography (HART), Dual Scan Contrast Visualizer (DSCoVer) for dual energy scanning, wide field mode horizontal stitching, and OptiRecon for image acquisition in one fourth the time for "sparse" geological-type samples

ZEISS Xradia Context is the microCT system that protects your initial investment and provides assurance that you will continue to meet your growing needs well into the future.

Xradia Context microCT



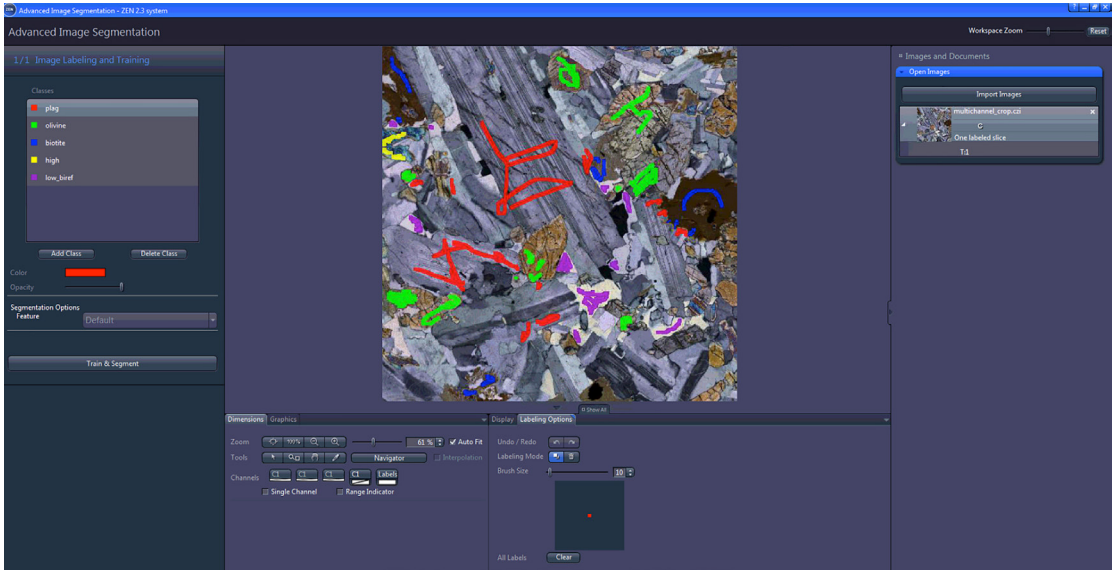
Xradia 510 Versa + FPX X-ray Microscope



Expand Your Possibilities

ZEN Intellesis – Integrated, Easy to Use, Powerful Segmentation

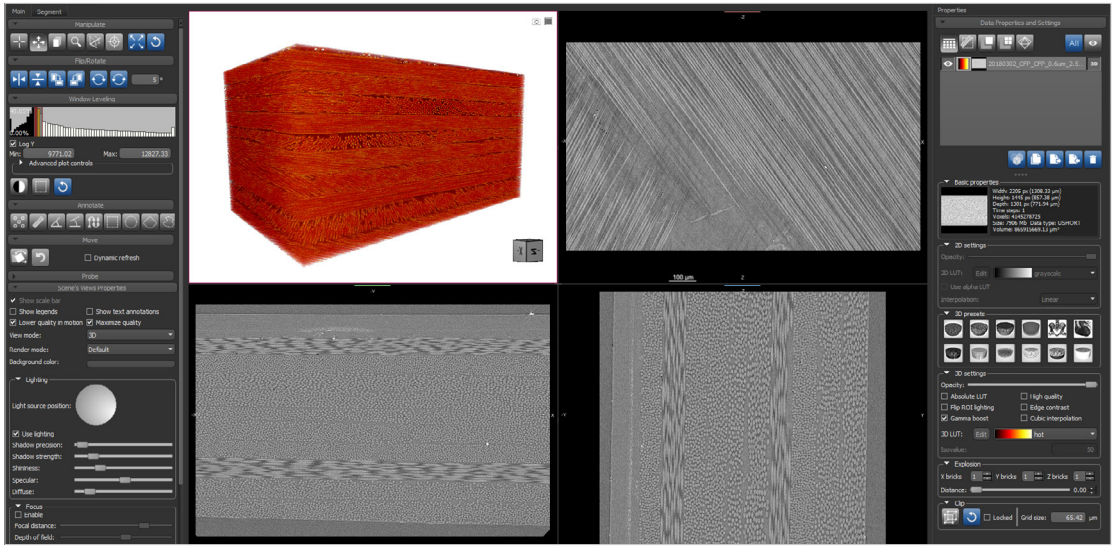
Segmentation is often the most challenging step in extracting quantitative information from image data. ZEISS ZEN Intellesis is a powerful machine learning image segmentation tool for both 2D and 3D data. Simply load your image, define your classes, label objects, train your model and check it, and segment. When you're satisfied, you can use your trained model to segment and analyze full datasets. Let ZEISS ZEN Intellesis do the tedious processing so you can get back to your research.



ZEISS ZEN Intellesis uses machine learning to make it easy to segment even your challenging 2D and 3D image data.

Dragonfly Pro – Your Visual Pathway to Quantitative Answers

Dragonfly Pro is an advanced 3D visualization and analysis software from Object Research Systems (ORS). It is offered exclusively by ZEISS for processing SEM, FIB-SEM, Helium-ion, and XRM data. Using advanced visualization techniques and state-of-the-art volume ren- dering, Dragonfly Pro enables high definition exploration and quantification of the details and properties of your sample. Align multiple datasets within the same workspace, easily manipulate your 2D and 3D data with an extensive image processing feature set, and precisely isolate and analyze specific regions of interest within your data.

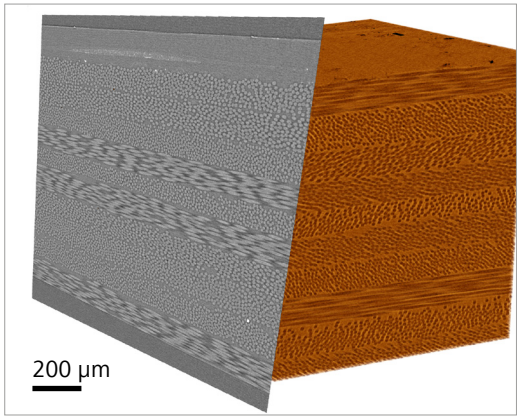


Perform advanced 3D image processing and visualization tasks with ORS Dragonfly Pro.

Precisely Tailored to Your Applications

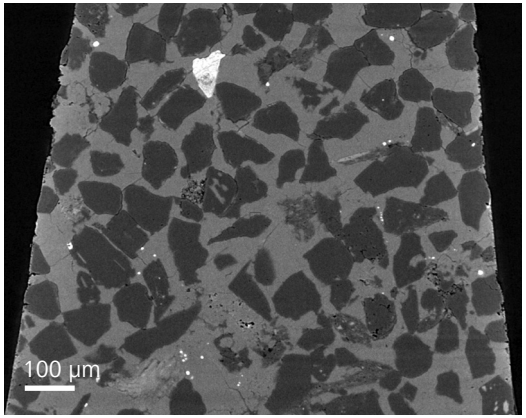
	Task	**ZEISS** Xradia Context offers
Materials Research	Characterize material features including pores, cracks, voids, and other subsurface defects Analyze heterogeneity in composites and other multiphase functional materials Visualize and quantify microstructural change with 4D imaging Use nondestructive 3D datasets to identify regions of interest for further investigation	Nondestructive views into interior microstructures not visible by surface imaging methods such as optical or scanning electron microscopy Segment and analyze data to obtain quantitative, 3D descriptions of structure Perform 4D imaging through ex situ or in situ experiments to see how materials evolve, for example through mechanical load or corrosion
Life Sciences	Perform virtual histology on a range of sample sizes from clusters of cells to whole animals Expand your views in developmental biology with high resolution, high contrast images of cellular structure Image large intact samples such as brains, large bones, and whole animals Explore 3D organization of plants, from root networks in soil to stem and leaf structure Analyze 3D structure of biomaterials and implants	Image either stained or unstained hard and soft tissues and biological microstructure Quick and nondestructive verification of sample staining and location of features for subsequent imaging using 3D electron microscopy
Raw Materials	Research the effect of processing variables to improve materials performance Characterize heterogeneity at core plug scale and quantify pore structures Perform failure analysis – identify the cause of failure and identify defects/inclusions for root cause identification Advance mining processes: analyze tailings to maximize mining efforts; conduct thermodynamic leaching studies; perform QA/QC of mining products such as iron ore pellets	Export real 3D structures for physics simulations: predict materials properties (mechanical, thermal, etc.) or digital rock simulations using non-destructive 3D tomography data Imaging, characterization, and modeling of rock cores (up to 4”) with high throughput High contrast 3D imaging for in situ flow studies or 3D mineralogy
Manufacturing and Assembly	3D imaging of components and devices for inspection or failure analysis Optimize process development for electronics, automotive, and medical device industries Evaluate internal surface roughness of additive manufactured parts	Accommodate a range of sample sizes including large objects in their full 3D context High throughput scanning of intact devices with fast time to results Complement or replace physical cross sectioning and eliminate the need to sacrifice your sample

ZEISS Xradia Context microCT at Work

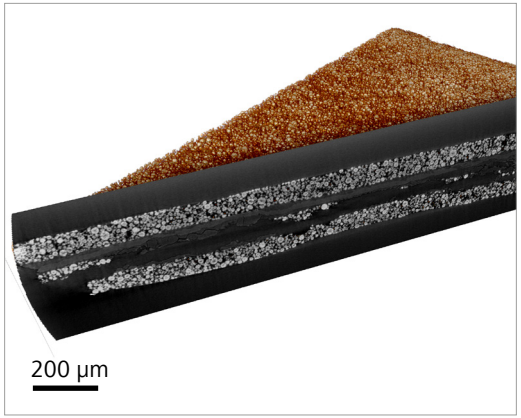


Evaluate orientation and distribution of fibers, defects, and voids in carbon and glass fiber-reinforced polymer composites.

Cutaway view of 3D rendering of a mouse embryo embedded in paraffin. Internal structures are visible with high contrast. Sample courtesy of Massachusetts General Hospital.

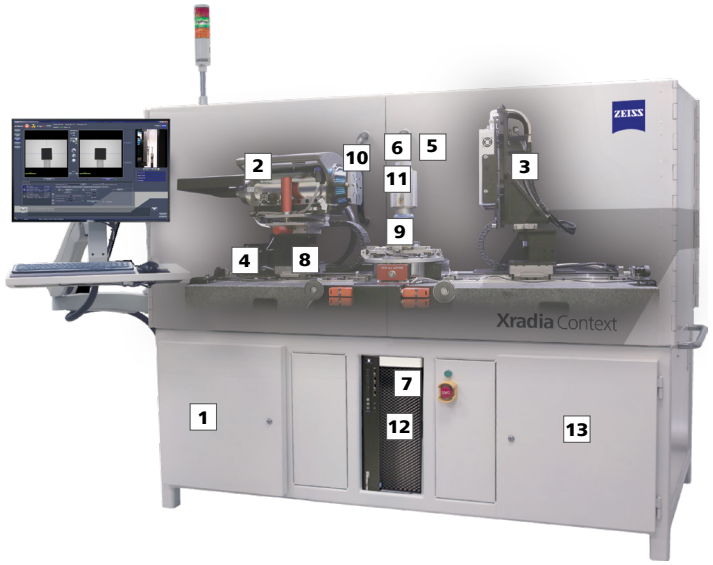


Virtual cross section through a heterogeneous rock sample revealing multiple phases and porosity



3D imaging of the degradation of electrode particles and current collector within a cycled and depackaged lithium ion battery cathode. Sample courtesy of: Prof. D. U. Sauer and Prof. E. Figgemeier, ISEA, RWTH Aachen University

Your microCT Imaging Solution



1 X-ray microCT
- Large field-of-view, non-destructive 3D X-ray microcomputed tomography system

2 X-ray Source
- High performance, spot-stabilized sealed transmission source (30 – 160 kV, maximum 10 W)

3 Detector System
- High speed, large array CMOS flat panel detector (3072 × 1944 pixels) for large field of view and high throughput

4 System Stability for Highest Resolution
- Granite base vibrational isolation
- Thermal environment stabilization
- Low noise detector
- Advanced proprietary stabilization mechanisms

5 System Flexibility for Diverse Range of Sample Sizes
- Variable scanning geometry
- Tunable voxel sizes
- Vertical stitching for joining multiple tomographies vertically

6 Smartshield for Sample Protection and Setup Optimization
- Fully integrated rapid envelope creation within Scout-and-Scan control system
- Sample and instrument safety in 3D
- Enhanced operator efficiency during experiment setup

7 Advanced Reconstruction Toolbox with Options for Enhanced Performance
- ZEISS DeepRecon Pro with AI-based reconstruction technology for up to 10× throughput or superior image quality on Unique, Semi-repetitive, and Repetitive sample workflows
- ZEISS OptiRecon with iterative reconstruction for up to 4× throughput or enhanced image quality
- ZEISS PhaseEvolve for enhanced contrast and segmentation in low-medium density sample or high resolution imaging applications

8 Autoloader Option (not pictured)
- Maximize productivity by reducing user intervention
- Programmable handling of up to 14 samples
- Automated workflows for high volume, repetitive scanning

9 Sample Stage
- Smart positioning sample navigation stage for ROI targeting
- 25 kg sample mass capacity

10 X-ray Filters
- Set of 13 filters to tune beam based on sample size and density

11 *In Situ* and 4D Solutions
- Integrated *in situ* recipe control for Deben stages
- *In Situ* Interface Kit option (not pictured)
- Custom *in situ* flow interface kit by special order

12 Instrument Workstation
- Powerful workstation with fast reconstruction
- Dual NVIDIA CUDA-based GPU
- Multi-core CPU
- 24” display monitor

13 Software
- Acquisition: ZEISS Scout-and-Scan Control System
- Reconstruction: ZEISS Xradia XMReconstructor
- Viewer: XM3DViewer
- Compatible with wide breadth of 3D viewers and analysis software programs
- ZEISS ZEN Intellesis for image segmentation (optional)
- ORS Dragonfly Pro for 3D visualization and analysis (optional)

Technical Specifications

Imaging	
Spatial Resolution [a]	0.95 µm
Minimum Achievable Voxel [b]	0.5 µm
Achievable Voxel at Working Distance [b,c]	0.5 µm / 0.5 mm; 0.8 µm / 2.5 mm; 2.5 µm / 12.5 mm; 4.0 µm / 25 mm; 12.1 µm / 100 mm

[a] Spatial resolution measured with ZEISS Xradia 2D resolution target. [b] Voxel is a geometric term that contributes to but does not determine resolution, and is provided here only for comparison. ZEISS specifies resolution via spatial resolution, the true overall measurement of instrument resolution. [c] Working distance defined as clearance around axis of rotation. This value can be interpreted as the radius of the sample.

X-ray Source	
Type	Spot Stabilized, Sealed Transmission
Tube Voltage Range	30 – 160 kV
Maximum Output	10 W

Detector System	
High Speed, Large Array CMOS Flat Panel	3072 × 1944 pixels
Single Field of View (diameter / height)	140 mm / 93 mm
Maximum Field of View (diameter / height)	140 mm / 165 mm

Stages	
Sample Stage (load capacity)	25 kg
Sample Stage Travel (x, y, z)	50, 100, 50 mm
Stage Travel (rotation)	360°
Source Travel (z)	190 mm
Detector Travel (z)	475 mm
Sample Size Limit	300 mm

Technical Specifications

Additional Features	
Scout-and-Scan Control System	■
Absorption Contrast	■
Vertical Stitching	■
GPU CUDA-based Reconstruction	Dual
ZEISS SmartShield	■
Autoloader*	Optional
In Situ Interface Kit*	Optional
ZEISS OptiRecon	Optional
ZEISS DeepRecon Pro	Optional
ZEISS ZEN Intellesis	Optional
ORS Dragonfly Pro	Optional
ZEISS PhaseEvolve	Optional

* Autoloader and *In Situ* Interface Kit cannot be installed simultaneously on the same system

Product Field Conversion	
Field Conversion to Xradia 510 Versa + FPX X-ray Microscope	Optional

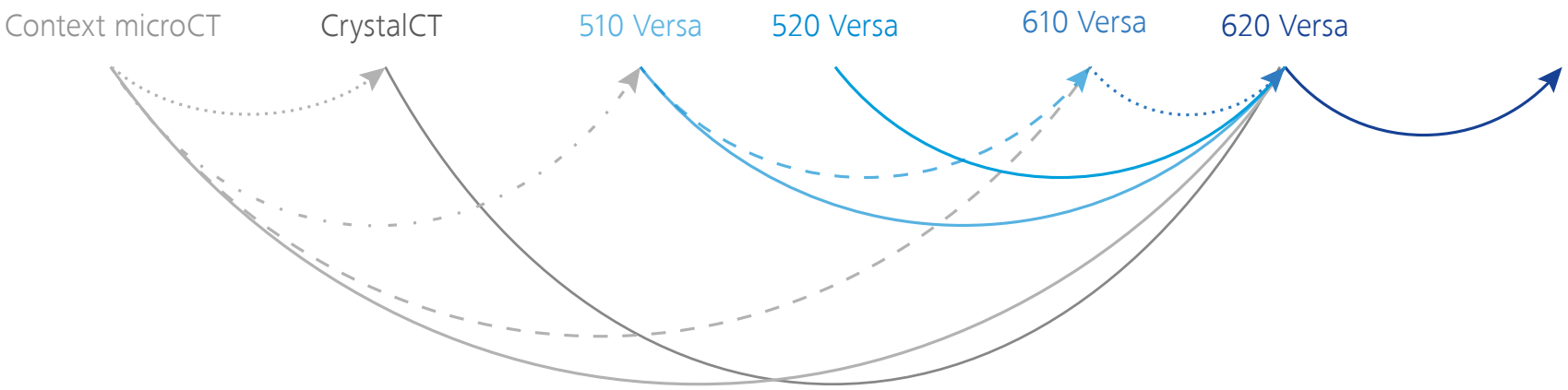
X-ray Safety Standards	
Safety Standards Compliance	UL/CSA 61010-1, SEMI S2-0712, SEMI S8-0712, CE Mark
Radiation Safety (measured 25 mm above surface of enclosure)	< 1 µS/hr (equivalent to 0.10 mRem/hr)

ZEISS Customer Focus: Continuous Improvement and Upgradeability

Protect Your Investment extends to Xradia 600-series Versa – delivering unprecedented extendibility and unrelenting support to ensure you are not left behind.

Most ZEISS X-ray microscopes are designed to be upgradeable and extendible with future innovations and developments so that your initial investment is protected. This ensures your microscope capabilities evolve with the advancements in leading technology. This is one of the key differentiators in the 3D X-ray imaging industry.

From Xradia Context microCT, to Xradia 510/520 Versa, and now with the addition of Xradia 610/620 Versa, you can field-convert your system to the latest X-ray microscope products. In addition to instrument conversions at your facility, new modules are being continuously developed that will enhance your instrument to provide advanced capabilities such as *in situ* sample environments, unique imaging modalities, and productivity-enhancing modules. Also, periodic major software releases include important new features which are made available to existing instruments, thereby enhancing and extending the capabilities of your research.



Carl Zeiss Microscopy GmbH
07745 Jena, Germany
microscopy@zeiss.com
www.zeiss.com/microCT