

# THE POWERFUL SOLUTION **D-TECT X**

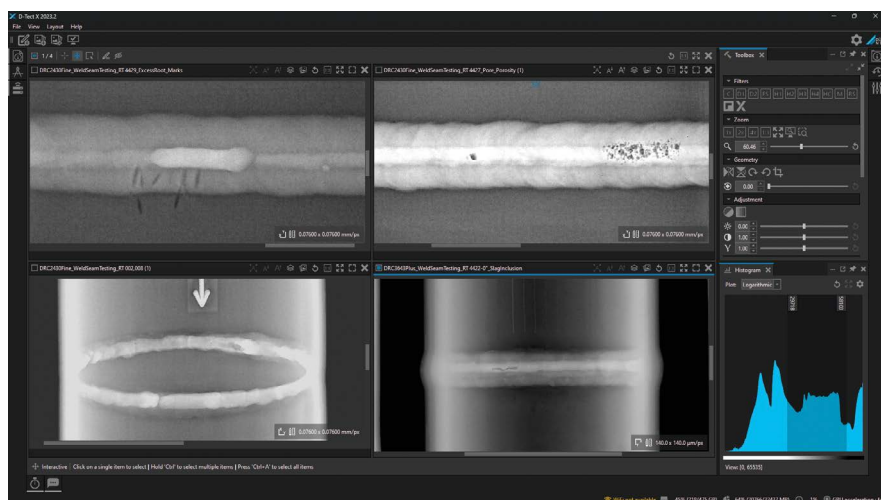
X-RAY INSPECTION SOFTWARE



**DICONDE  
COMPLIANT**

# X-RAY INSPECTION MADE EASY

*DETECT RISKS QUICKLY AND RELIABLY WITH D-TECT X*



*D-Tect X provides an optimal and time-saving NDT inspection workflow: from image acquisition and image evaluation to data import and export, everything you need is included.*

D-Tect X was developed from the ground up specifically for the NDT industry and in close collaboration with Level 3 experts and customers. The result is a software solution perfect for industrial radiography and which sets new standards in terms of both usability and efficiency.

D-Tect X is a state-of-the-art 64-bit application which supports GPU (Graphics Processing Unit) acceleration and takes full advantage of computers with multiple CPU cores. With a GPU card, image filters are up to twice as fast as compared to without. Furthermore, with multi-core processing, the software is always responsive and available for use. This high-performance architecture even allows image evaluations while simultaneously acquiring image data from multiple devices!

Image acquisition from devices is extremely fast and intuitive: preset parameters for CR and DR devices as well as easy-to-use configuration tools (e.g. flat panel calibration) allow you to start using your equipment immediately.

D-Tect X has no restrictions on the file size of images that can be loaded and processed. This means that even the largest CR imaging plates can be scanned at the highest possible resolution.

The flexible and intuitive user interface can be completely customized to each user's preference. A large set of tools assist you in image analysis and evaluation according to standards such as ASME, ASTM and ISO.

Automatic software updates, as well as simple application configuration and data handling increases ease-of-use. Images as well as their metadata are stored in DICOM format by default. The DICOM standard ensures that images can be viewed and processed by any other DICOM-compatible system.

An interface to DRIVE NDT enables seamless NDT workflow integration. DRIVE NDT is a unique management and reporting tool and is fully integrated into D-Tect X.

## Key functions

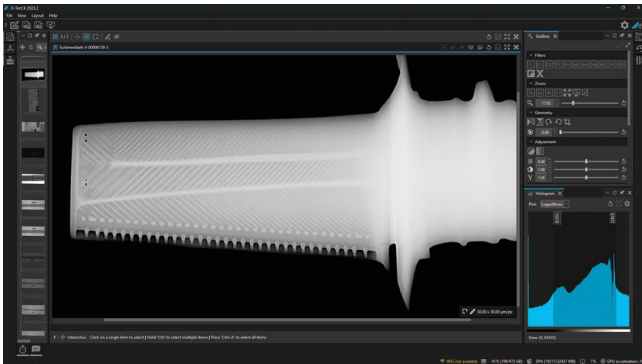
- Native DICOM file format support
- Simultaneous reference image adjustment
- X-Filter: one-click image enhancement
- Image history: track all performed image operations and define presets
- Tools to assist with working with standards (ASME, ASTM, ISO)
- Report generation via DRIVE NDT
- Unlimited image file size support

## Other features

- Advanced histogram tools
- SNR/ $SNR_N$  calculation
- Automatic duplex IQI detection and  $SR_b$  determination
- Advanced wall thickness analysis
- Image filters to assist with evaluation
- Length, area and angle measurement tools
- Image annotations with customizable detail information
- Line profile tool
- Easy image calibration
- Intelligent multi-frame averaging for DDAs
- Multi image editing/processing
- Unrestricted image zoom
- Touch and 4K monitor support
- Extensive language support
- User interface presets
- Image sharing via cloud
- Custom metadata
- Real-time device status reporting

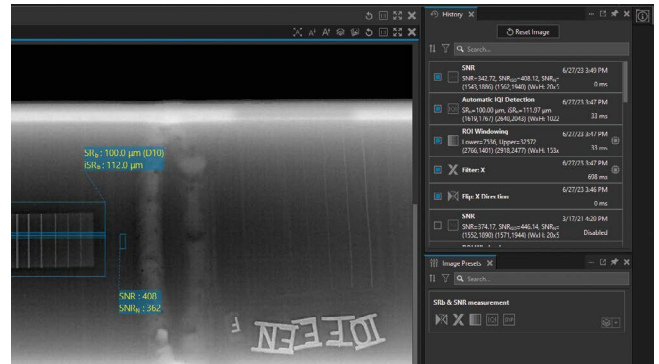
Despite its comprehensive features, D-Tect X is fast, intuitive and easy-to-learn.

# D-Tect X



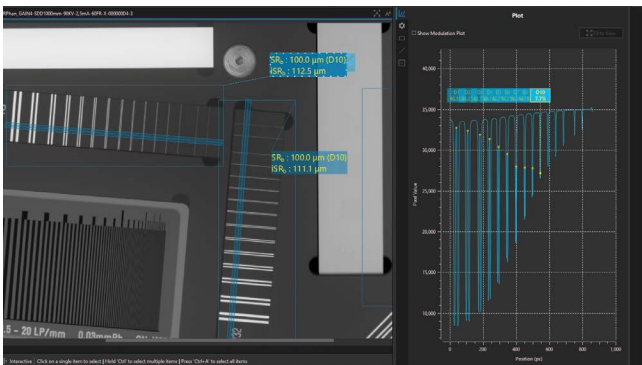
### Easy and reliable evaluation

Consistent quality and detection of the finest details are essential for NDT – specially designed filters and tools make simple and effective evaluation possible. To save time, it is also possible to save optimal evaluation settings for use with subsequent images.



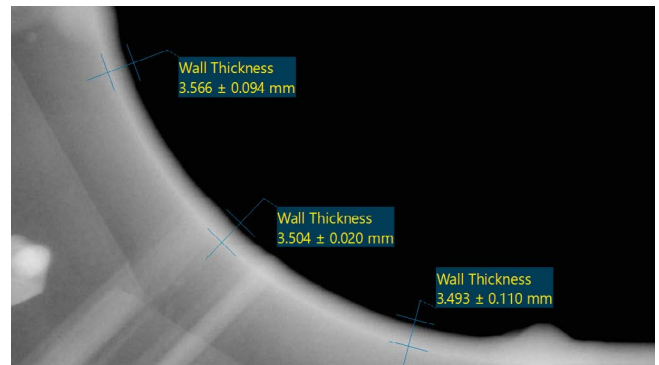
### Image operation history and presets

Every action applied to an image since it was imported or acquired is recorded and each action can be individually activated or deactivated. The selected actions can also be saved as a preset and applied to other images with a single click. Since every step is recorded and stored, this feature ensures complete traceability.



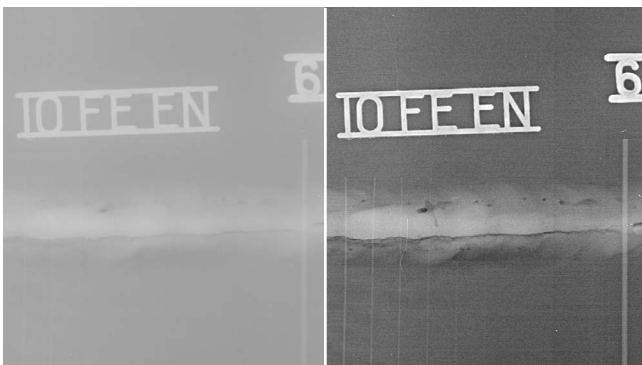
### Intelligent basic spatial resolution (SR<sub>b</sub>) determination

After loading an image, the SR<sub>b</sub> can be automatically determined according to DIN EN ISO 17636-2 and ASTM E 2446 by simply drawing a rectangle over a duplex wire IQI. The tool automatically uses the optimal measurement line.



### Advanced Wall Thickness Tool

This optional tool determines the thickness at one or more points along the walls of a pipe. The measurement is performed with a single click on the point to be measured and can be moved if necessary.



### X-Filter

Intelligent one-click image enhancement filter produces optimized images highlighting crucial details for rapid analysis and evaluation.

| TEST REPORT                      |                    | Radiographic Testing with CR (RT-D) |         | DRIVE NDT |  |
|----------------------------------|--------------------|-------------------------------------|---------|-----------|--|
| Report No.                       | 000058             |                                     |         |           |  |
| Rev.                             | 3                  |                                     |         |           |  |
| General information              |                    |                                     |         |           |  |
| Manufacturer / Customer          | Aerospace Customer | Manufacturing No.                   | 0815    |           |  |
| Order No.                        | 000048             |                                     |         |           |  |
| Test object                      |                    |                                     |         |           |  |
| Object name:                     | Object 1           | Extent of testing:                  | 100%    |           |  |
| Batch size (pcs)                 | 1                  | Material:                           | 1.4541  |           |  |
| Material thickness (mm)          | 1                  | Heat treatment:                     | without |           |  |
| Welding process:                 | WIG 143            |                                     |         |           |  |
| Equipment / Inspection data      |                    |                                     |         |           |  |
| Radiation source:                | CP 1208            |                                     |         |           |  |
| Tube voltage (kV)                | 130                |                                     |         |           |  |
| Tube current (mA)                | 4                  |                                     |         |           |  |
| Focus spot size (mm)             | 1.4                |                                     |         |           |  |
| Exposure time (min)              | 30                 |                                     |         |           |  |
| Tube filter:                     | no filter          |                                     |         |           |  |
| Source-to-detector distance (mm) | 1000               |                                     |         |           |  |
| Source-to-object distance (mm)   | 999                |                                     |         |           |  |
| Magnification factor:            | 1                  |                                     |         |           |  |
| System of marking:               | lead letters       |                                     |         |           |  |
| IQI type:                        | W13 FE 25          |                                     |         |           |  |
| Scanner Type:                    | HD-CR 35 NDT       |                                     |         |           |  |
| Scan speed (sec)                 | 45                 |                                     |         |           |  |
| Laser intensity:                 | 6                  |                                     |         |           |  |
| Evaluation software:             | D-Test             |                                     |         |           |  |
| Imaging Plate:                   | UH                 |                                     |         |           |  |
| Pixel size (µm)                  | 30                 |                                     |         |           |  |
| Laser spot size (µm)             | 25                 |                                     |         |           |  |
| Digital filter:                  | FS                 |                                     |         |           |  |

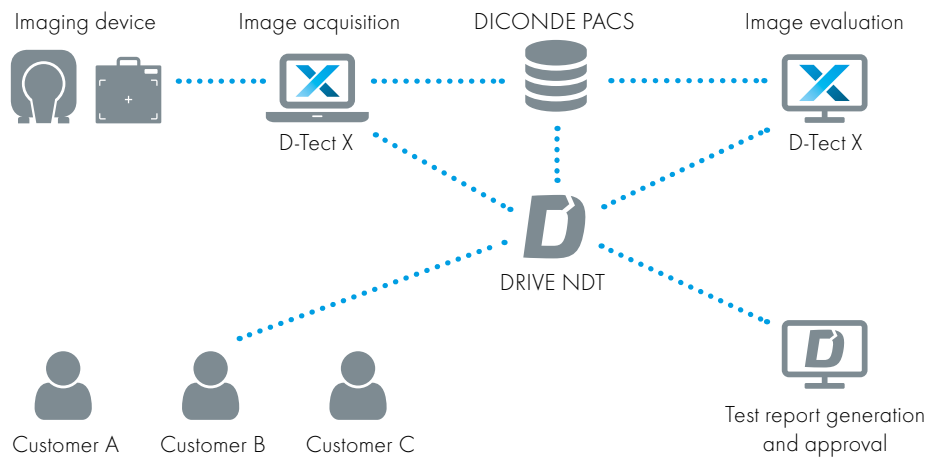
### Report creation and NDT management with DRIVE NDT

In a few easy steps, a comprehensive report can be generated from the order and inspection data. Custom templates can also be created individually according to the requirements of the end-user or customer.

## Network integration

In addition to normal single-workstation use, the software can be effortlessly integrated into a network if a collaborative workflow is required. It is also possible to interface with external cloud solutions.

## Example network



## Device configuration and status

For perfect results, a wide range of device settings can be adjusted with D-Tect X, such as laser power, PMT voltage, pixel size for CR scanners and frame times, binning and sensitivity for flat panel detectors. Important status information such as temperature, battery level, WLAN signal strength and connection type are displayed for all active devices and updated in real-time. Warning alerts and notifications on critical device events as well as automatic firmware version checking ensure your equipment is always running perfectly.

## High performance software

GPU and multi-core CPU support makes D-Tect X extremely fast and efficient - even extremely large image files are no longer a challenge. A GPU allows acceleration of the image processing operations while multi-core CPU processing allows the software to effortlessly perform a multitude of different tasks at the same time. DÜRR NDT offers specially selected hardware to take full advantage of the capabilities of D-Tect X. Of course, any other hardware that meets the requirements can be used. Visit [www.duerr-ndt.com](http://www.duerr-ndt.com) to get the current system requirements.

## 3rd-party device support

D-Tect X not only supports DÜRR NDT equipment but also devices from other vendors, including flat panel detectors, film digitizers and X-ray sources. Please contact us for the latest list of supported devices.



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MADE IN GERMANY

