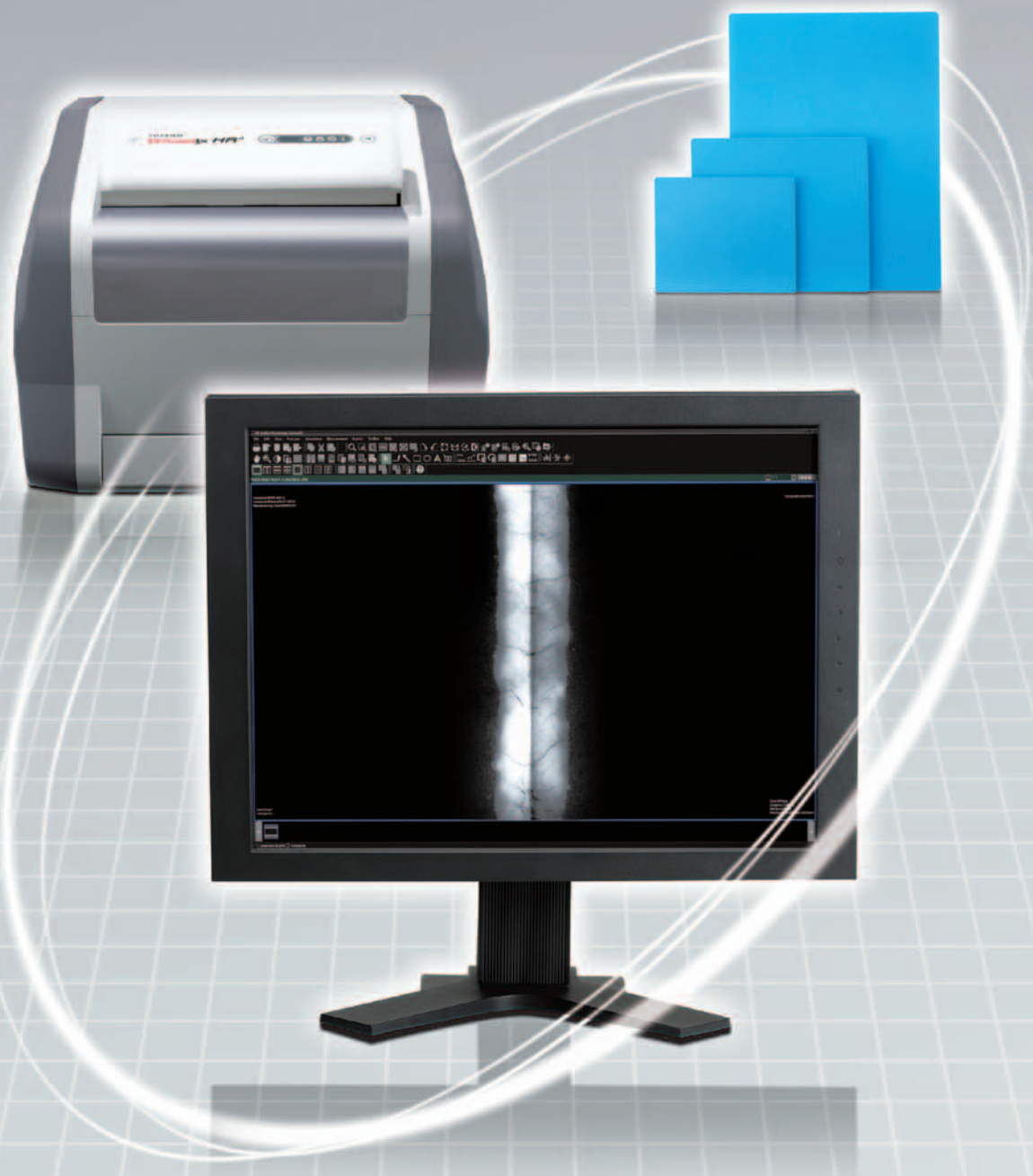
DYNAMIX™

Promising keys for outstanding image quality — world's top class* high spatial and density resolution and Excellent signal to noise ratio (SNR)

Integrated Fujifilm's advanced technologies used in the image reader, software and IP offer superb quality images

High resolution reading at a 25 µm pitch, unique image processing and highly capable IP — fusion of the best of Fujifilm's technologies realizes images of the finest quality possible expected in digital imaging. *Researched by Fujifilm in November 2012

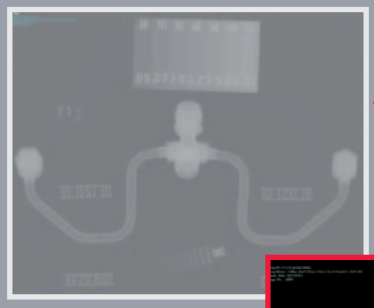


Unique image processing and wide dynamic range bringing high accuracy to every inspection

Automatic optimization of image quality according to the object and free presetting of parameters available

Since the introduction of the world's first digital diagnostic X-ray imaging system FCR in 1983, Fujifilm has developed imaging processing technologies suitable for objects which have undergone NDT. For DynamIx VU, we have adopted Exposure Data Recognizer (EDR) to automatically adjust the density and our proprietary image processing technology Fuji Image Processing (FIP). With these technologies, it is possible to provide optimized images of any test object. Moreover, users can customize parameter presets for image processing.
Anyone can easily perform image adjustment suitable for the test object.

Original (EDR OFF)



EDR ON

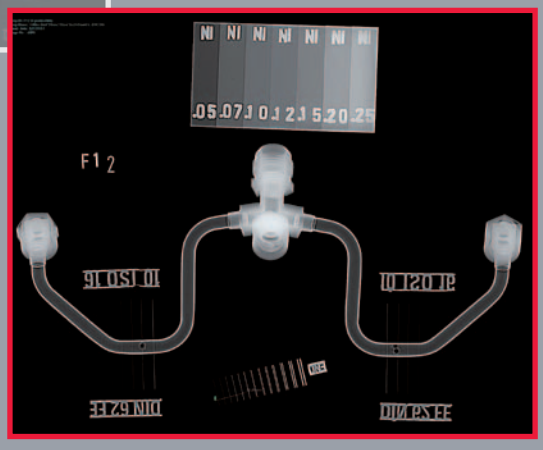
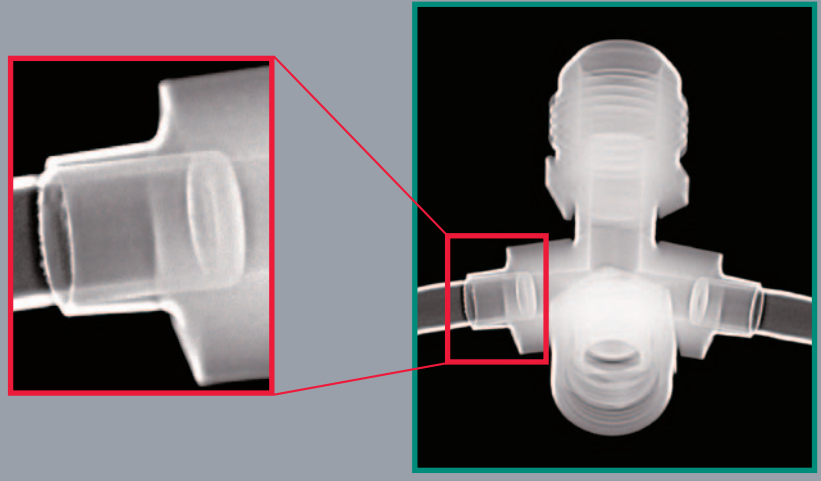


Image Processing Parameters Setting

The wide dynamic range, ensuring clear depiction of an object of varying thickness

DynamIx inherits the FCR technology of Fujifilm which has been on the frontier of film and digital image resolution technologies. With the wide dynamic range of four or more orders of magnitude, every part of an object—either thick part or thin part—is clearly expressed, free from blown out highlights, blocked up shadows or unevenness.



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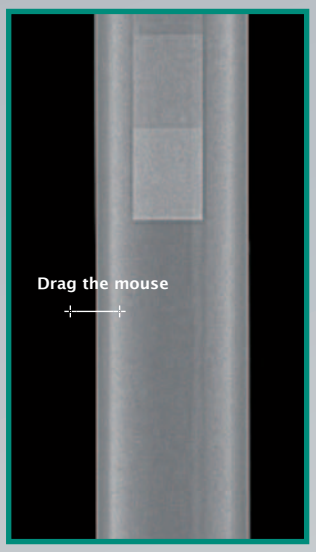
DynamIx VU Thickness*1 measurement — the automatic measurement tool makes corrosion tests easier

Focusing on the region of interest and automatically measuring the pipe wall thickness, DynamIx VU Thickness realizes more efficient and stable inspection

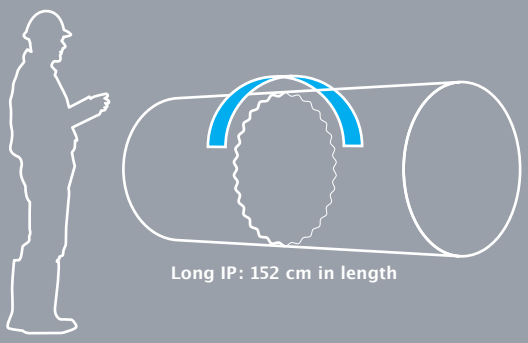
Different from conventional measurement based on the human eye, Fujifilm's precise image analysis technology automatically detects the inner and outer edges of pipe wall and measures the wall thickness.*2 Easy but accurate corrosion tests are performed reducing the need for difficult manual measurements. *1 Available as an option. *2 The measurement method conforms to HOIS (09) RP1.



Drag the mouse across the pipe wall in the image.

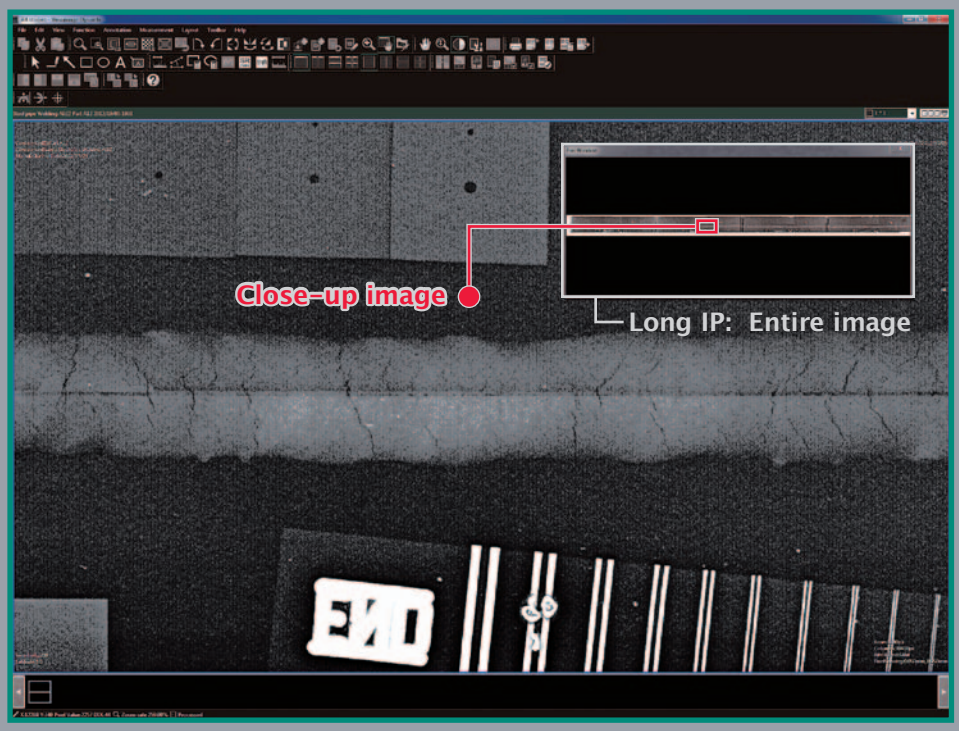
The pipe wall thickness is measured automatically.

Long IPs enabling efficient exposure of welded pipe joints



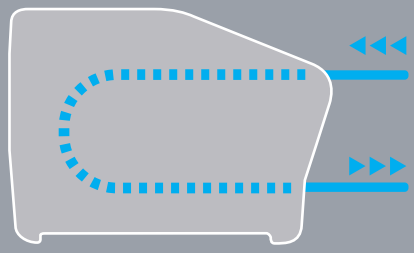
Special inspection screen for images read from long IPs

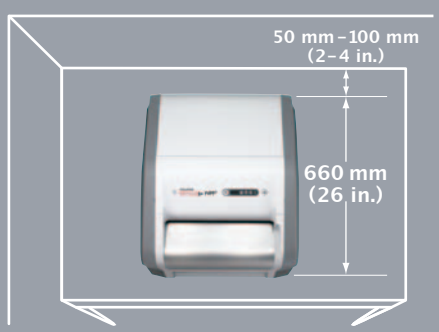
Efficient examination of welded pipe joints can be conducted in a small number of exposures. Reading of images on IPs of up to 152 cm long reduces the number of exposures needed for large jobs.



DynamIx HR^2 allows a small workspace by keeping the IP insertion/ejection in the front of the image reader

The image reader receives an IP and ejects it from the front. This unique design makes it possible to read IPs of up to 152 cm long in a narrow space. A sequence of operations can be carried out in the same place with just a few actions.





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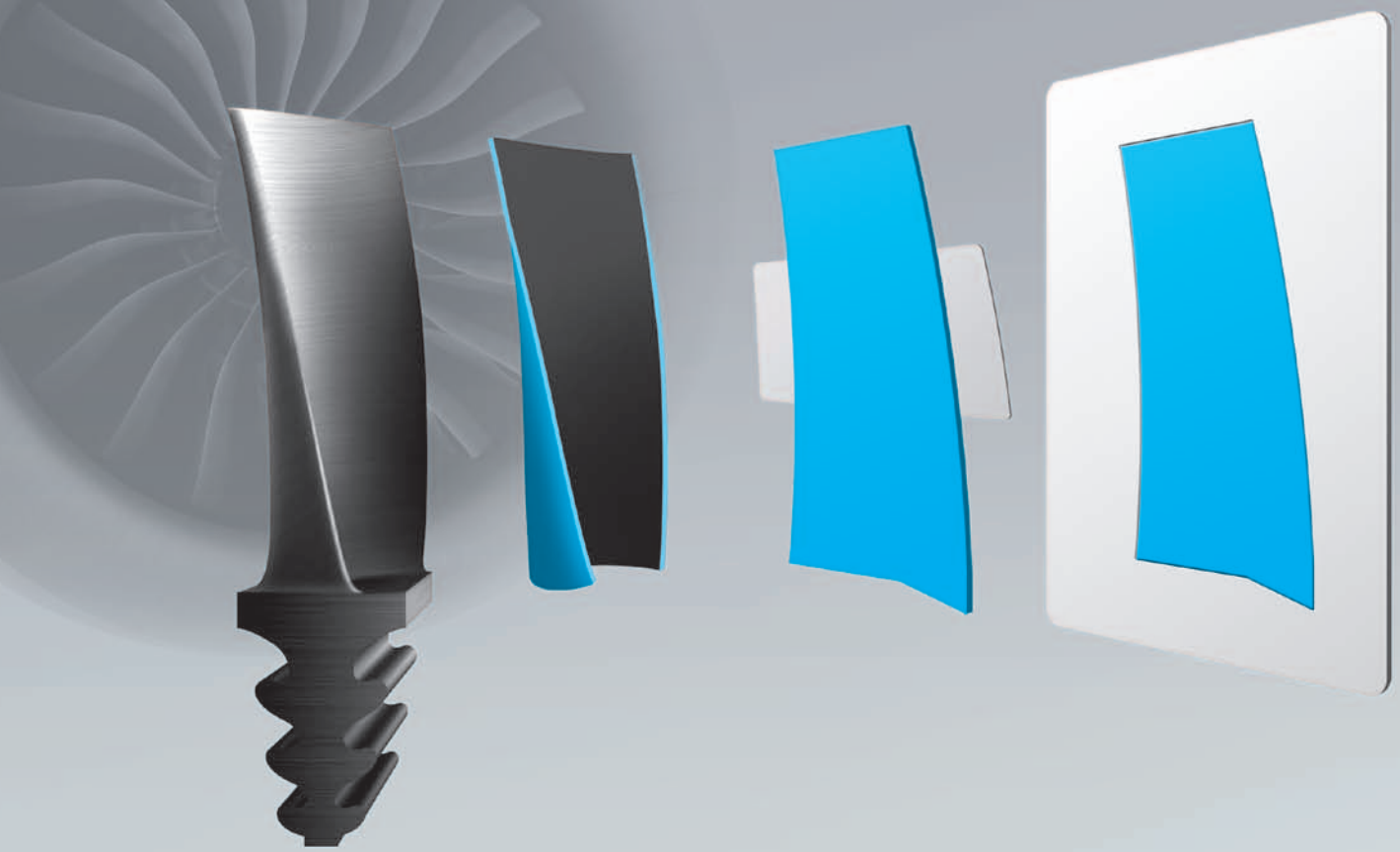
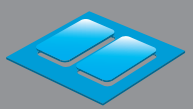
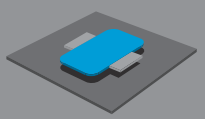
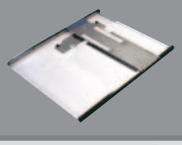
The Special Cut IP System* offering IPs tailored to test objects



New special tools for using IPs of various shapes, available in three types

DynamIx Special Cut IP System provides an IP optimally shaped for an inspection object.
To utilize IPs of various shapes, special tools have been developed dramatically reducing limitations*.
Now a variety of objects can be inspected at high accuracy.

*Available upon request. Contact us for custom sizes and shapes.

IP Type	Tool	How to Use the Tool	Available Model
S type		Insert strip-form IPs into the slits.	DynamIx HR^2 DynamIx HR
F type		Fit a fin-attached IP into the molded portion.	DynamIx HR^2 DynamIx HR
Hand-held type		Set an IP on the holder and insert it by hand into the image reader.	DynamIx HR^2

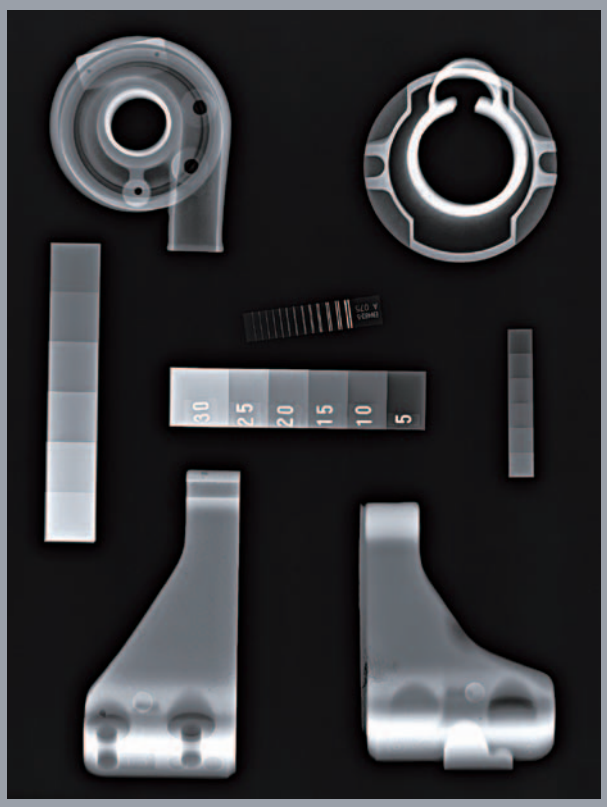
Computerized contrast normalization according to the ASTM[*1] standard

Easily standardize inspection using ASTM digital reference radographs and DynamIx VU software

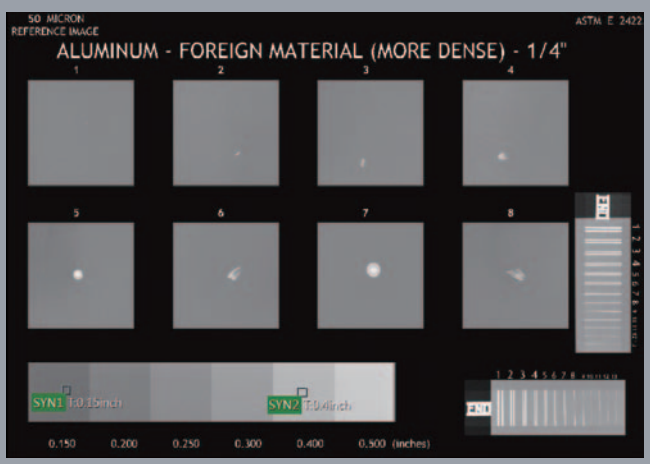
DynamIx VU Contrast Normalization[*2] automatically adjusts the contrast of the reference image[*3] specified by ASTM to conform to the one of the target image.

*1 American Society for Testing and Materials International, a standardization organization. *2 Available as an option. *3 Steel, aluminum and titanium, as of August 2012

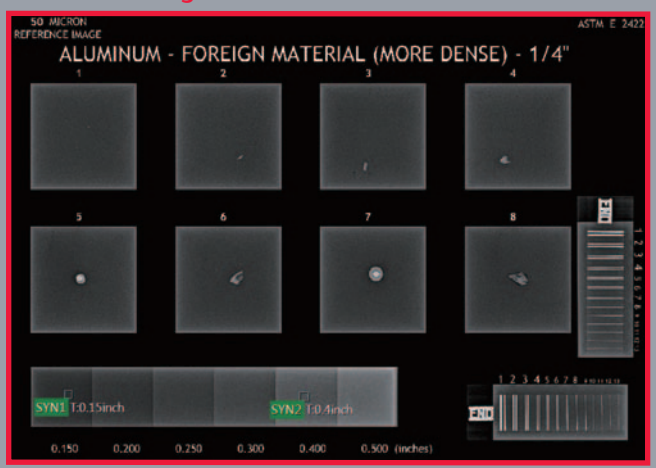
Production image



Reference image Before



Reference image After



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One click between modes

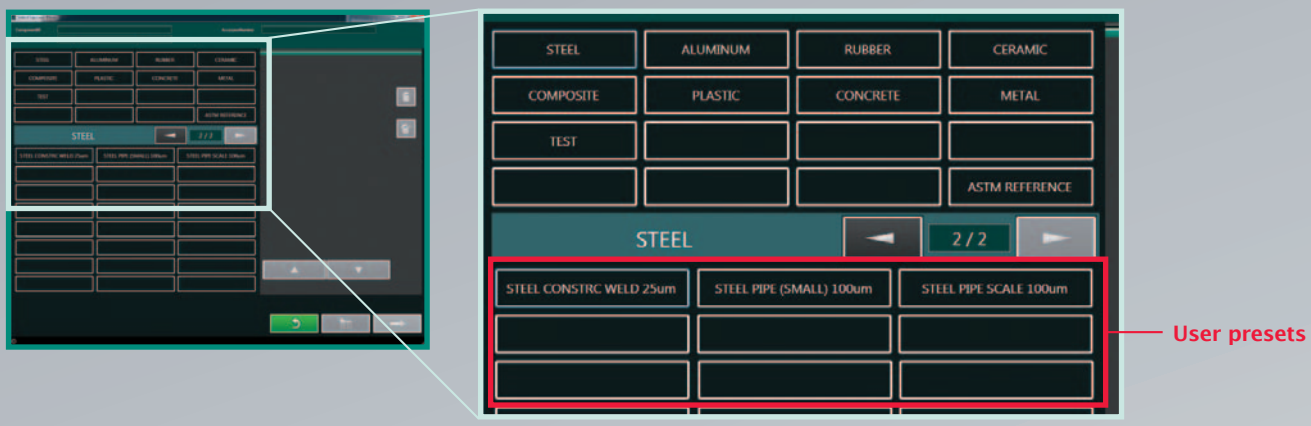
Reading and inspection possible on one computer

The software enables reading and inspection to be conducted on a computer, with quick switching between the screens. Access to the image database is also smooth, so that an image appears on the inspection screen instantly after it is read. This feature enhances the work efficiency in each process.

The density parameter presets for more efficient image adjustment

The user can customize and preset the automatic density adjustment parameter (Exposure Data Recognizer: EDR) suitable for the test object. Easy density adjustment is possible with just one-click.

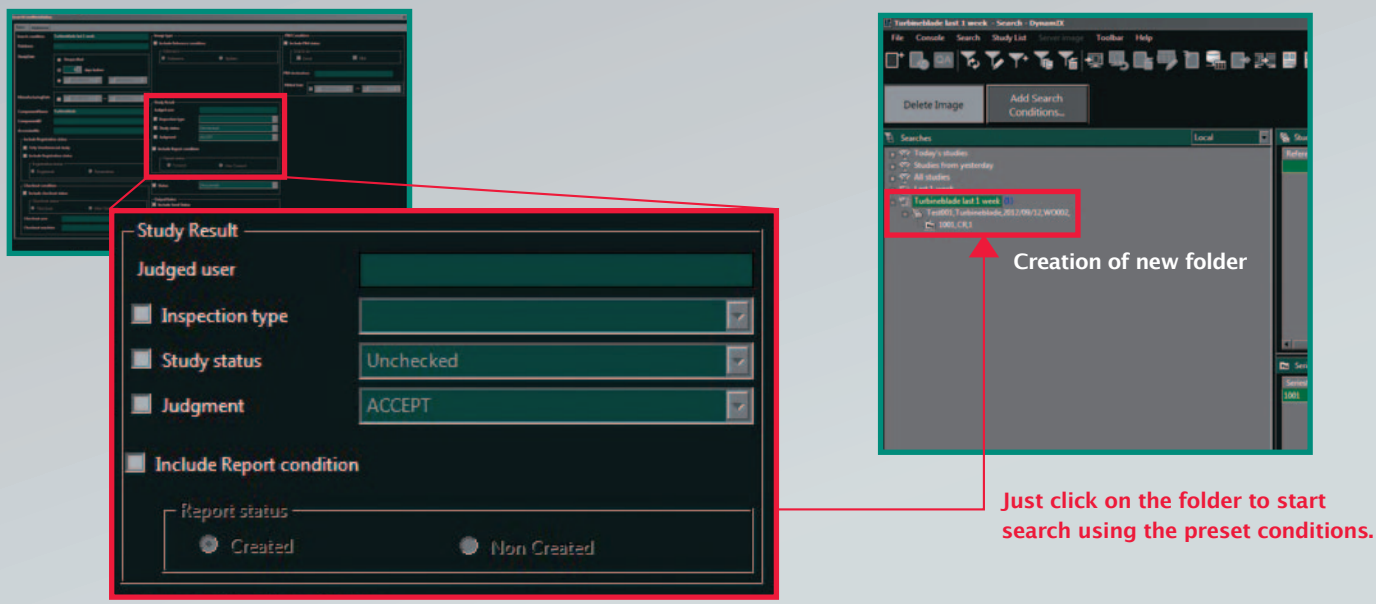
EDR Menu



Quick data search preset conditions

Frequently-used search conditions can be preset, enabling one-click data retrieval with no need to input search conditions every time.

Search Condition Presets

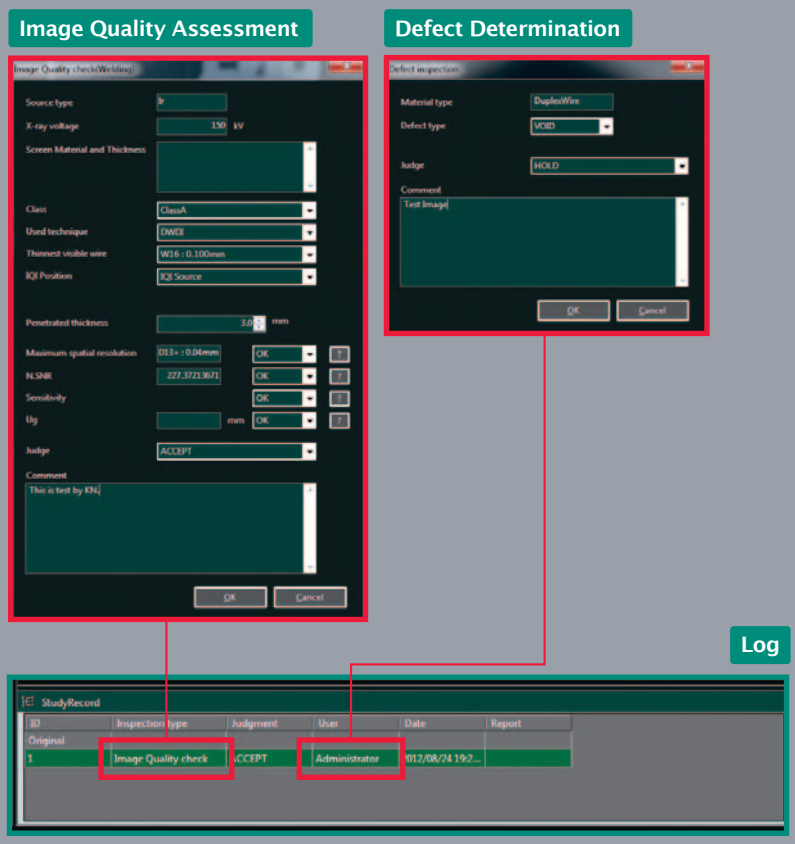


More reliable assessment and greater traceability

Minimized human labor for image quality assessment. Easy input of defect determination results on the special screen

DynamIx VU newly offers DynamIx VU Judge* the automatic image quality assessment. This program calculates the image quality index based on the measured normalized signal-to-noise ratio (NSNR) of an image, and assesses if the index conforms to a standard image quality assessment index. This saves the need of measurement and calculation by humans. In addition to ISO standards, industry-specific standards are supported as the assessment criteria. The screen to input defect determination results is offered. The results can be recorded on the system.

* Available as an option.



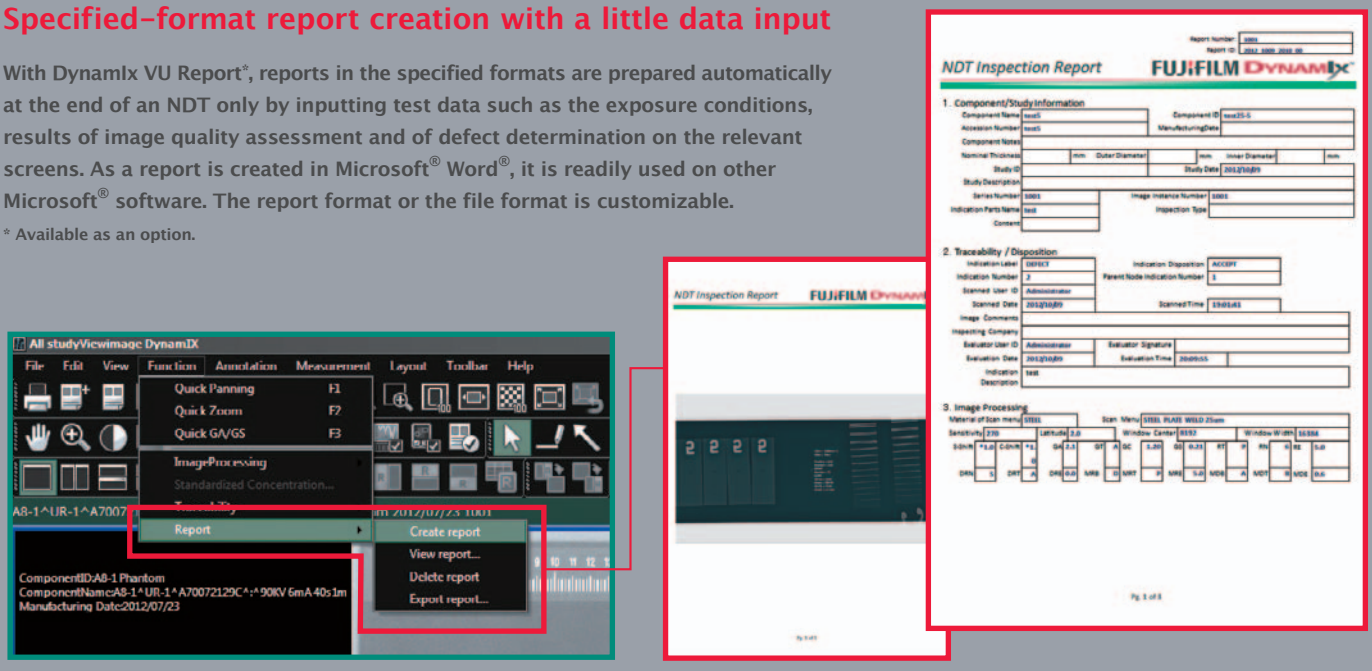
Automatic recording of all assessments for greater reliability

Each assessment is recorded according to who, when and what, contributing to the enhanced traceability.

Specified-format report creation with a little data input

With DynamIx VU Report*, reports in the specified formats are prepared automatically at the end of an NDT only by inputting test data such as the exposure conditions, results of image quality assessment and of defect determination on the relevant screens. As a report is created in Microsoft® Word®, it is readily used on other Microsoft® software. The report format or the file format is customizable.

* Available as an option.



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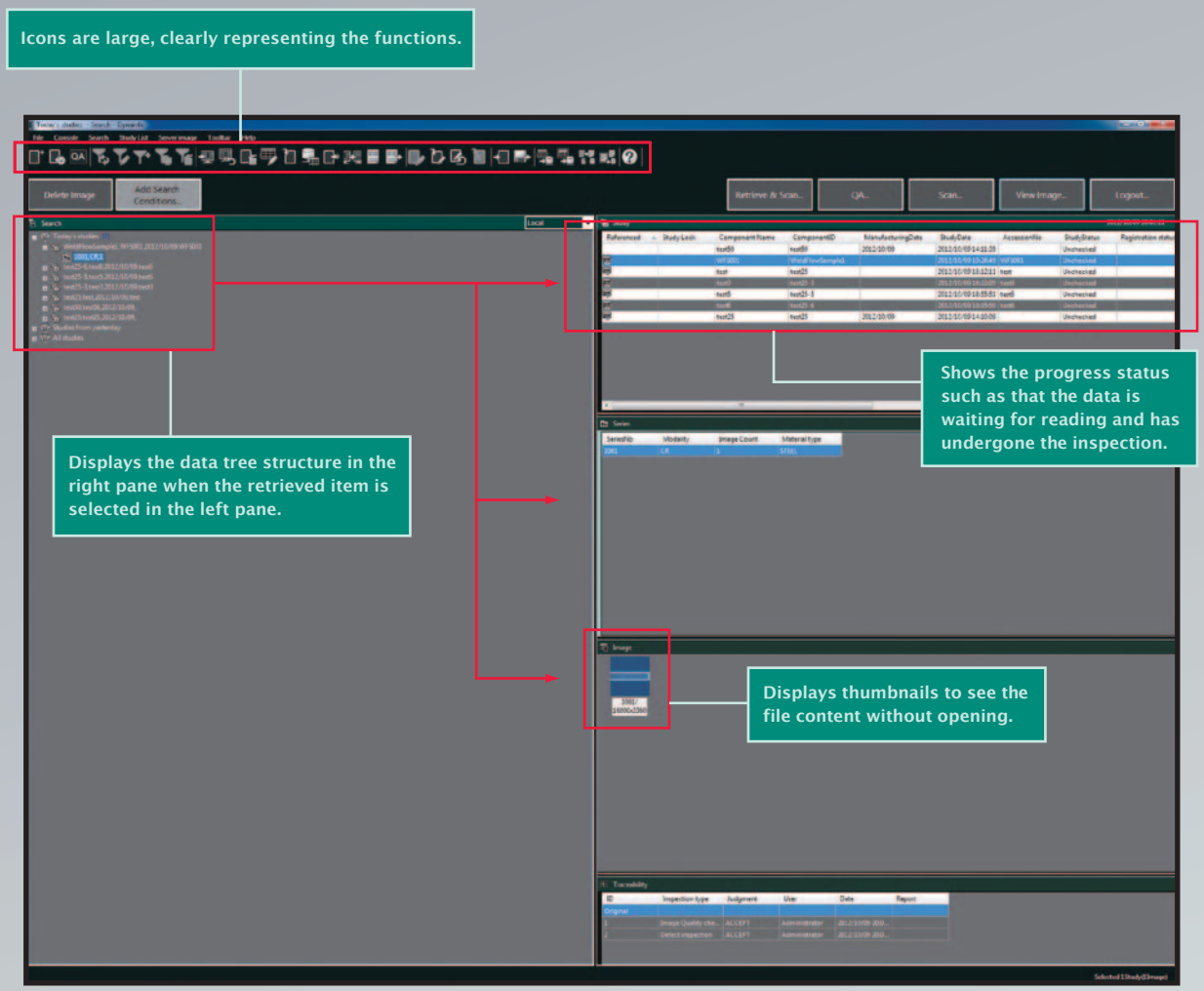
Simple work status management and data search with the entire test procedure visualized

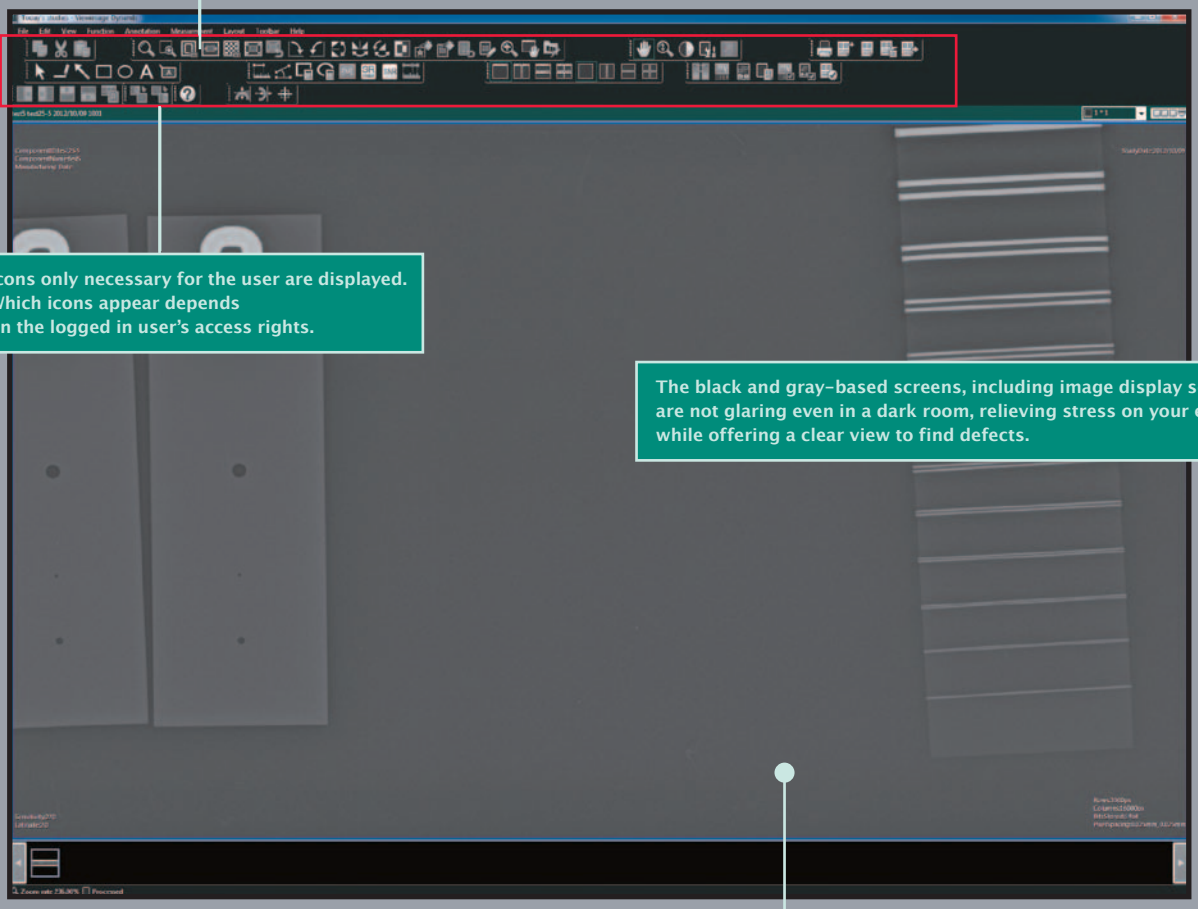
The data structure, data content and progress of each process at a glance



Easy to view images displayed on the ergonomic monitor

Interfaces focusing on easy viewing and user convenience

Grouped by the function, and can be moved, shown or hidden per group.



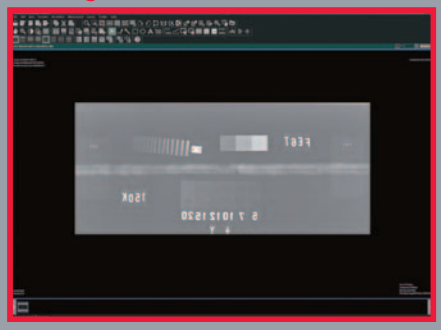
Icons only necessary for the user are displayed. Which icons appear depends on the logged in user's access rights.

The black and gray-based screens, including image display screen, are not glaring even in a dark room, relieving stress on your eyes while offering a clear view to find defects.

The masking function that blackens unnecessary areas for inspection is available.
It helps focus on certain areas around minute defects or areas of low contrast and hard to see.

Masking OFF

Masking ON



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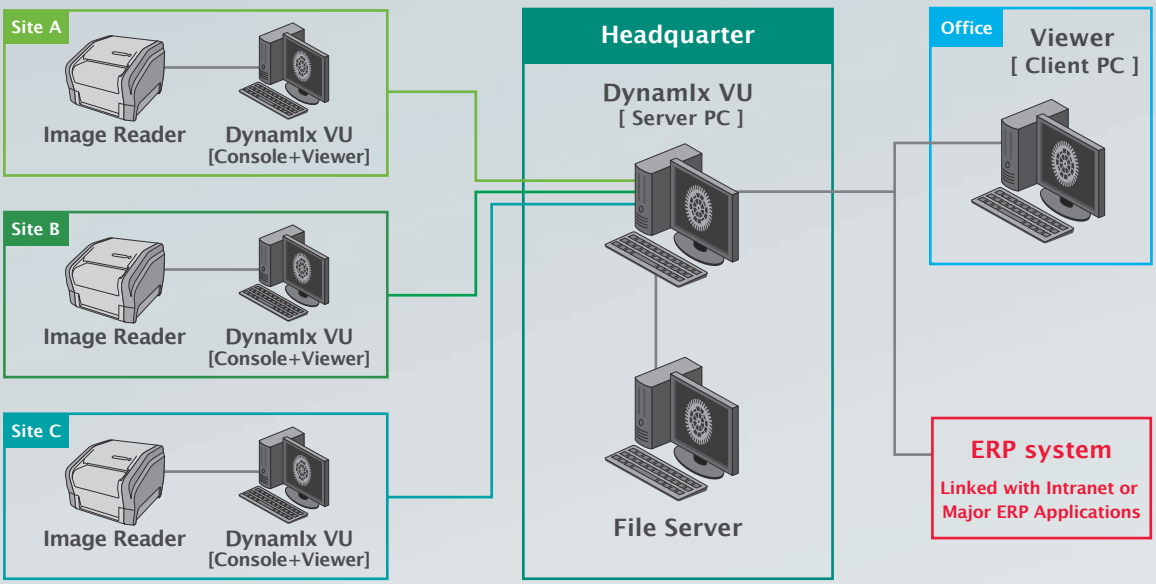
Flexible network configuration and communication to create an optimum workflow environment

Flexible network configuration and link with other systems to build the optimum workflow in a user environment

The DynamIx system is customizable according to the existing network environment. By managing the inspection image data at multiple sites on a central server, an inspector can access the data anywhere via the network to assess the image. Linked with Intranet or Major ERP Applications, it is possible to send a test request made on an ERP package to each test site, or receive a test report vice versa. Thus, an efficient workflow improving the NDT process is established.

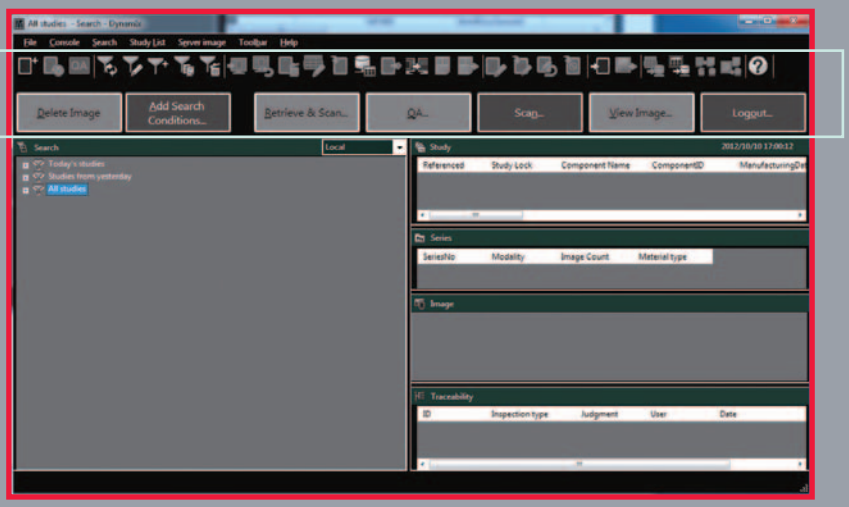


Strengthened security with user authority control

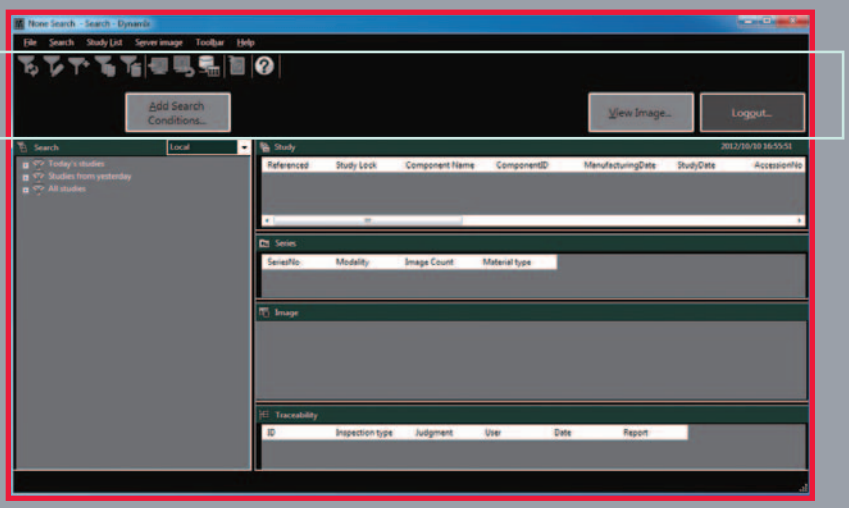
Controlled user access to functions by the administrator

A user's access right to each function can be assigned by the administrator to limit viewing or editing of data to the minimum necessary and strengthen the security. With this function enabled, the system shows only the functions pertinent to the user, offering simple and easy-to-use screen interface.

Only accessible functions for the user appear on the screen.



Example: Supervisor



Example: Inspector

Ref. No. FXX-IB-DY1007E (SK·12·12·F1079·F9711) Printed in Japan