

QUART CTtec & DVTap/DVTkp

Automatic CT Image Scoring Software



QUART CTtec

Computed Tomography Quality Assurance and Quality Control Software



The unique CT QA/QC software automatically evaluates and displays all parameters that were acquired using the QUART DVTap test phantom. Only three slice images from the QA data set are required to conduct a complete QA assessment.

Unique in kind, the CTtec software automatically calculates a figure of merit (system indicator) comprising of geometrical machine data, dose and image related parameters. It establishes a direct correlation between the measured dose values, image quality parameters and enables objective quality control assessment of a wide variety of CT equipment. The software is

- DIN 6868-161 compliant for CBCT acceptance tests
- IEC 61223-3-5 compliant for CT acceptance tests
- IEC 62220-1-2 compliant for detective quantum efficiency
- IEC 60601-2-44 compliant for CT equipment safety requirements.

Despite its technical complexity, the software is easy to use. It provides a walk-through function which assists users in carrying out the QC procedure.

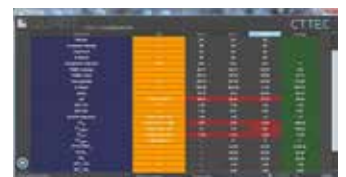
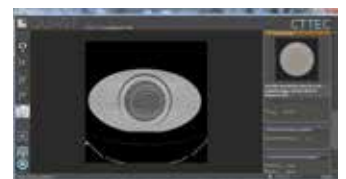
The QUART CTtec stores the result of each single test in an internal data bank. In addition, a protocol print-out function is provided for matters of documentation (obligatory hardcopy) or general reference.

Test Parameters

- _ Nyquist Frequency (NF)
- _ Contrast
- _ Noise
- _ Contrast-to-Noise Ratio (CNR)
- _ Homogeneity / Image Uniformity
- _ Spatial Resolution / Modulation Transfer Function (MTF) at 10% and 50% modulation
- _ Modulation Transfer Function (MTF) as per IEC 62220-1-2
- _ CT Numbers / Hounsfield Units
- _ Z-Axis Resolution / NF and MTF in Axial Direction
- _ Artefacts, Image Flaws, etc.
- _ System Indicator / Acceptance Indicator (Figure of Merit)
- _ Patient / Phantom Positioning Accuracy
- _ Additional QA/QC related tests such as geometry and distance measurements etc. to be conducted in an external DICOM viewer

General Features

- _ One-click fully automated image evaluation
- _ Quick and easy server registration for end-users available 24/7
- _ Developed for ease-of-use



All QUART QA software is provided as local on-premise installation



In today's medical environment all data is gaining in importance – and value. This leads to the point where customers are getting far more concerned about the ownership and safety of their data.

All QUART software is provided as on-premise license, which is installed locally, on your business' computers. Cloud software which would be hosted on the vendor's server and accessed via a web browser is not part of QUART's data security principles. It is our firm belief that the on-premise concept provides our users with considerable advantages:

Uptime

You need not rely on internet connectivity or external factors to access your software. Your complete work history is available at all time – so is your customer and test data.

Permanent Accessibility

No internet connection is required. The test runs and the reporting can be done at any time. Tests can also be repeated without any limitation.

Data Governance

Data integrity, usability, security, and availability of the data is governed in your sphere of influence. You own the data, and you exercise full control over it allowing legal and regulatory compliance. Such data governance lays the ground work for a complete audit trail of all parties who recorded and managed the data, making it simpler for you to comply with ethical data management practices.

Total Cost of Ownership (TCO)

Only pay once for your user licence, which lowers TCO considerably compared to a cloud system.

Low Long-Term Costs

On-premise installation may at first require a bit higher upfront investment, however cloud applications will be more costly over the course of the software's life cycle, increasing TCO considerably.

Complete Control

Data, hardware and software platforms are all yours. You can decide on configuration, upgrades and system changes.

Covered Responsibility for Maintenance

Updates and improvements on usability are generally free of charge with QUART's software. Functional upgrades, when they are necessary, e.g. after a QA standard revision or introduction of new regulations, are fairly priced.

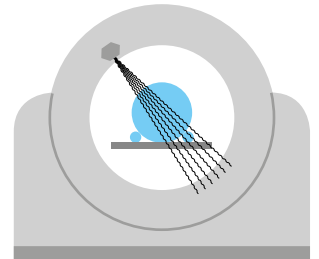
User-friendliness

A guide-through function of the software accompanies the user for the whole test. QUART software is also available in multi languages.

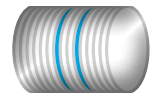
Compatibility with DIN certification

Because of QUART's traditional involvement in DIN and IEC working groups, we are at the forefront of changes to existing QA standards (DIN/IEC) and guidelines. Any updates required after standard revision will be communicated to you as a priority.

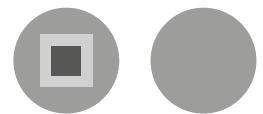
QA Test



3D Data Set



Slice Images



QA Software



Test Report





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