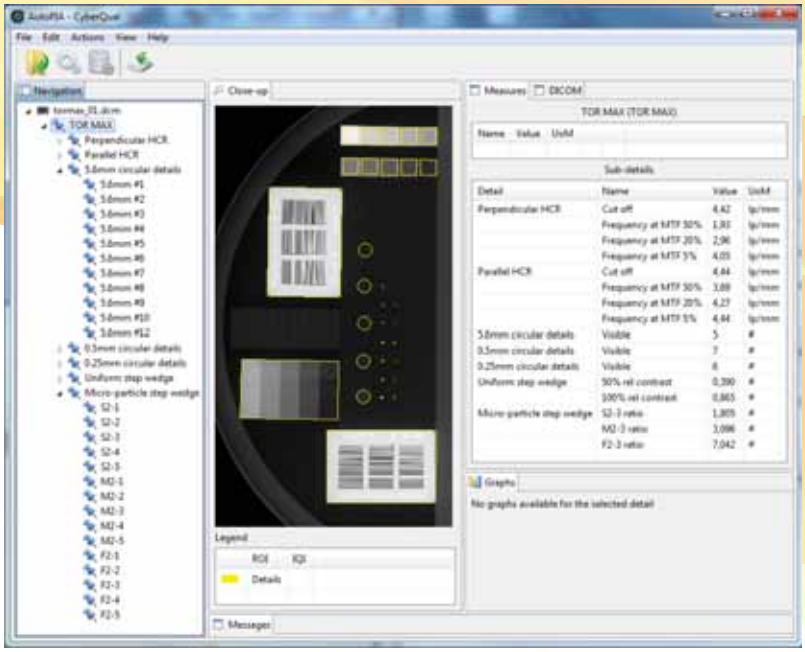
CyberQual

Leeds Test Objects™
medical imaging phantoms

AutoPIA

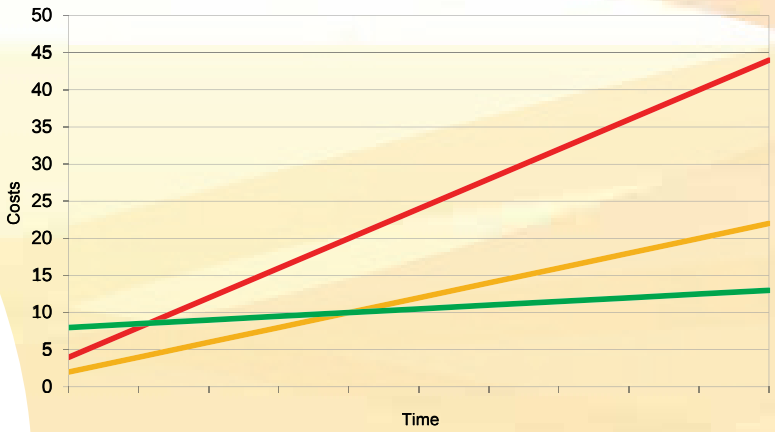
AutoPIA (**A**utomatic **P**hantom **I**mage **A**nalysis) is a software for automatic analysis of Leeds Test Objects images used to evaluate image quality.



AutoPIA quickly provides objective, reliable and reproducible indices of image quality for routine quality control processes aimed at assessing the performance of X-ray systems.

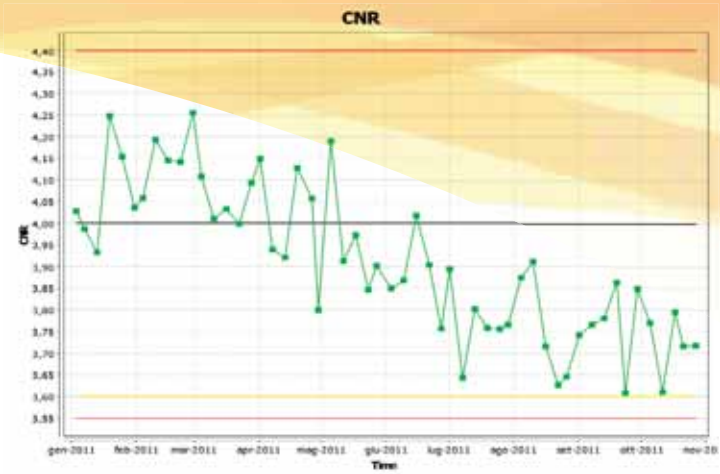
AutoPIA stores analysis results and provides control charts with baseline and threshold values to keep track of quality trends and abnormal conditions.

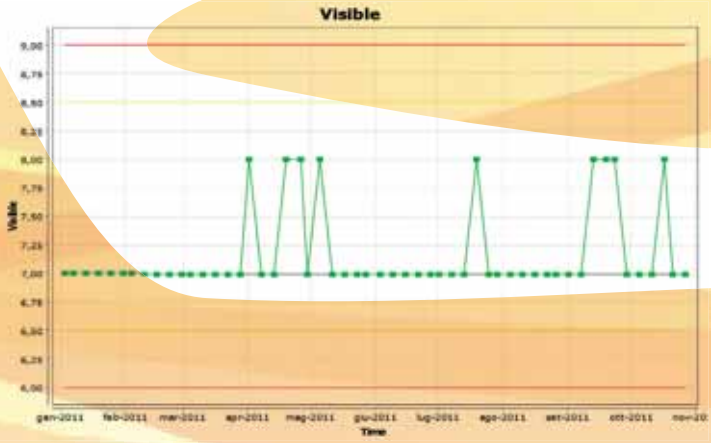
AutoPIA is cost-effective because the initial investment is soon rewarded by great savings in analysis time.



Cost comparison between manual scoring with a simple phantom (yellow) or a complex one (red) and automatic scoring (green). Low running costs immediately make automatic analysis the cheapest solution.

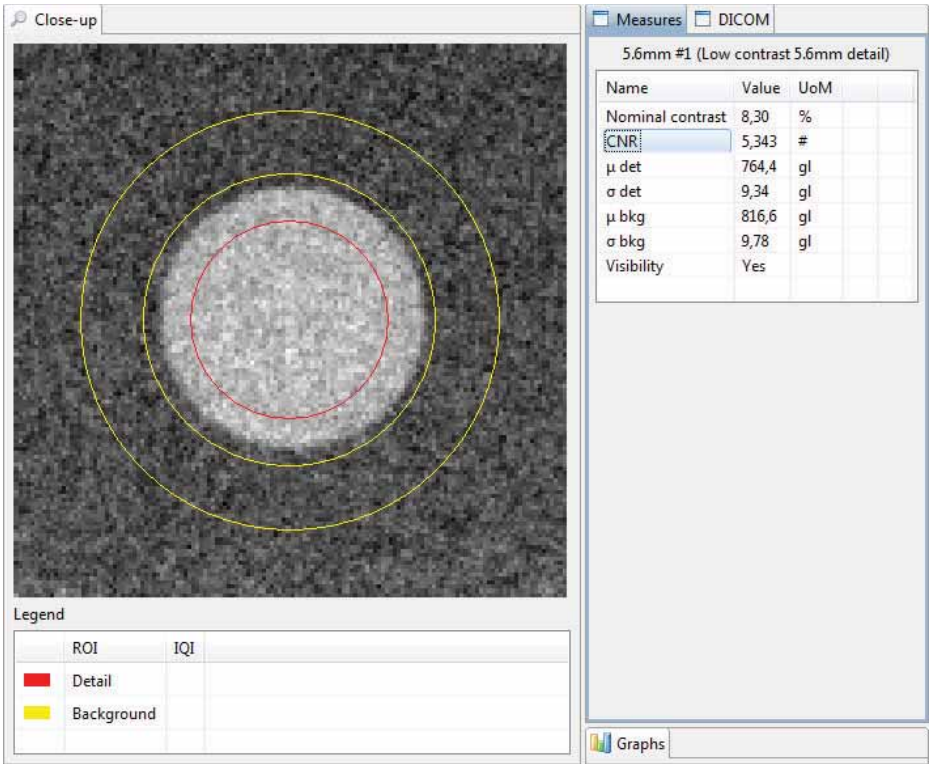
AutoPIA uses all image data, generating information-rich indices that better describe the state of an imaging system compared with the poor and subjective information of manual scoring.





Comparison between manual scoring (upper graph: count of visible details) and automatic analysis (left graph: CNR contrast to noise ratio) on the same set of images. The latter shows a trend the former is unable to highlight.

AutoPIA describes the algorithms used to calculate the quality indices and enables the user to verify how the quality index was calculated, for every image and every detail. The user always has control over all indices.



AutoPIA currently analyzes the following Leeds Test Objects:

TOR MAX/MAS	TOR CDR
TOR MAM	PIX 13
DMAM2	TOR 18FG
DMAM2 Gold	TO 20/16
PIX MAM 300x240	TO 12/10
PIX MAM 250D	CBCT 161

Minimal hardware requirements
RAM: 2 GByte
Processor: Intel® Core® or equivalent
HD: 5 GByte free space
OS: Windows® XP or later

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