

NEW

**MEDICREAD NOW MAKES CAD ACCESSIBLE
AND DOWNLOADABLE TO EVERYONE**

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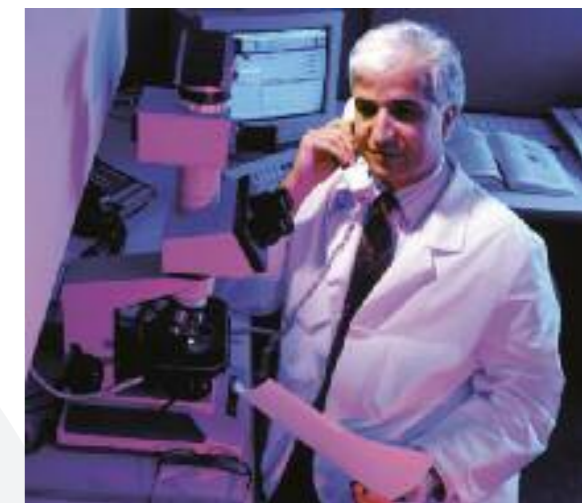
CTC - IMPROVING DIAGNOSIS THROUGH ADVANCED VISUALISATION TECHNOLOGY

In recent years the radiology community has embraced the potential offered by the fast developing world of CT Colonography (CTC), since it offers an accurate, rapid and minimally invasive means of imaging the large bowel. The CTC option is also embraced by patients. In a survey of over 2,000 patients who had received both CTC and optical colonoscopy, 46% expressed a preference for CTC vs 24.9% who preferred optical colonoscopy.¹ This addition to the diagnostic toolkit has been shown to be cost effective and to improve colorectal cancer prevention rates.²

This improvement is not without its issues. The consequent increase in visual data has resulted in radiologists reading and analysing an increasingly large number of images (up to 2,000 slices per patient). This is not only time-consuming and exhausting, but can lead to abnormalities being missed. This is further complicated by reader variability and experience.



To address this, Medicsight® has developed the industry-leading ColonCAD™. This advanced Computer-Aided Detection (CAD) algorithm analyses CT scan data and automatically highlights potential lesions for the radiologist to review. Medicsight ColonCAD helps radiologists to detect and analyse potential abnormalities in the colon, quickly and efficiently; abnormalities which may be the early precursors of potential life-threatening disease.



The newest version of ColonCAD, version 4.0, marks a significant increase in performance with a 50% reduction in false positives without any significant loss in sensitivity.³

INTRODUCING MEDICREAD 3.0 COLON

Previously, access to ColonCAD has only been available through a partner visualisation platform. Now, as part of their ongoing commitment to radiologists and to improving the early detection of colorectal cancers, Medicsight have developed MedicRead™ 3.0 Colon. A competitively priced, stand-alone, CTC, visualisation workstation that incorporates the latest version of ColonCAD.

To aid access to this latest software, Medicsight have made MedicRead™ 3.0 Colon available online. Additionally, a 30-day free trial version of the software can be downloaded from the Medicsight website so that radiologists can experience the benefits of ColonCAD first hand.

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MEDICREAD™ 3.0 COLON - AN INNOVATIVE NEW CTC IMAGING PLATFORM

MedicRead™ 3.0 Colon is a user-friendly, downloadable CTC workstation which seamlessly incorporates Medicsight's proven ColonCAD™ technology into an intuitive and flexible workflow.

Not only this, MedicRead 3.0 Colon runs as a standalone Windows® application which can be easily integrated within an existing DICOM conformant IT infrastructure.

CAD marks are shown in MedicRead 3.0 Colon's distinctive display format. This not only highlights each region of interest (in 2D and 3D series) but also displays its dimensions beside the region of interest.

Import/Export:

The user may import or export studies from various sources e.g. PACS. Data can be reviewed from anywhere on the PACS network not just at one CTC workstation.

Patient Study List:

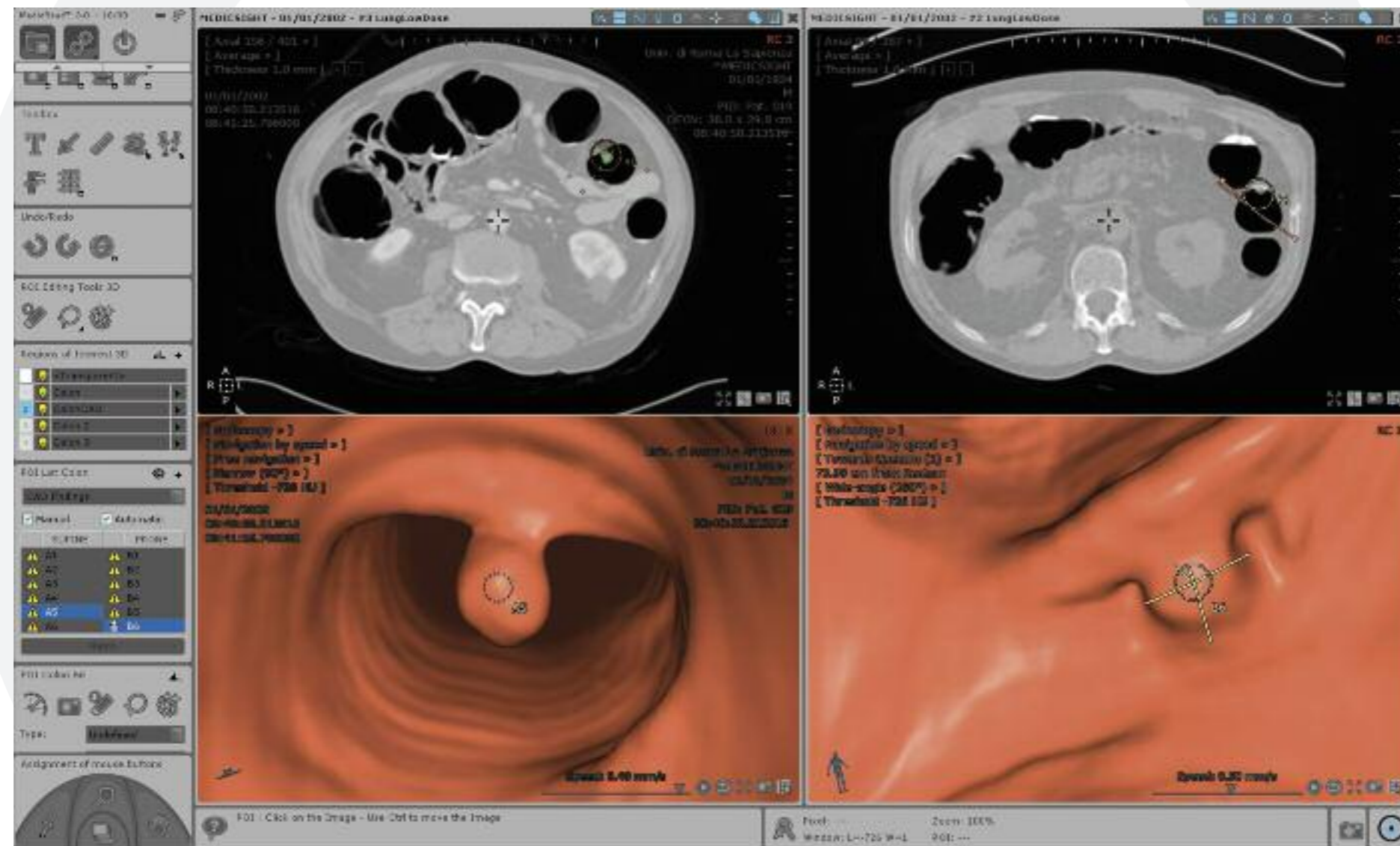
A fully searchable list of patient demographics, radiologist and institution information enabling quick retrieval of patient information.

3D VR Cube:

A volume rendered cube that centres on the region of interest chosen by the user from any MPR image enabling a more detailed assessment of the region of interest at the click of a mouse.

Segment Editor:

Allows the user to evaluate and confirm the segmentation of the colon and flight path for the 3D flythrough feature.



Display of ColonCAD findings:

All CAD findings are displayed in 2D and 3D views making all regions of interest readily accessible at the click of a mouse.

Point Of Interest (POI) Manager:

The POI manager lists both user and CAD findings, conveniently displaying information in one place.

Semi-automatic segmentation of lesions:

Provides an automatic measurement of a lesion and can be used both for CAD or user findings.

Snapshots:

Allows the user to capture images which are then automatically added to the CTC examination report.

Report Generator:

A report detailing findings and snapshots is automatically generated when a study is opened, which speeds up the reporting process.

"DCBE" or transparent view:

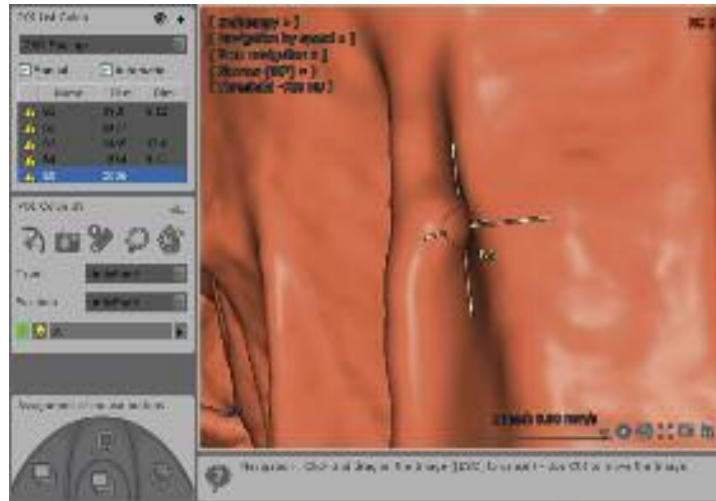
Enables the user to visualise the segmented colon in a 3D semi-transparent view, aiding evaluation of regions of interest.

3D Flythrough:

A rendered endoluminal 'flythrough' view with user adjustable camera position, direction and viewing angle settings to give all encompassing views of any area of the colon.

*Windows is a registered trademark of Microsoft Corp Inc.

MEDICREAD™ 3.0 COLON - IMPROVING THE SENSITIVITY OF CTC



MedicRead™ 3.0 Colon incorporates the unique Medicsight ColonCAD™. Using an advanced Computer-Aided Detection (CAD) algorithm to analyse CT scan data, it automatically highlights potential lesions. Medicsight ColonCAD helps radiologists to detect and analyse potential lesions and abnormalities in the colon.

COLONCAD™ - VALIDATED ON ONE OF THE WORLD'S LARGEST AND MOST POPULATION DIVERSE DATABASES

Unbelievably, some computer-aided detection (CAD) systems have only been tested against data from a small number of patients. This means you can't really rely on them to give you the solid support you need.

Medicsight ColonCAD is validated against one of the world's largest and most population-diverse verified CT Colonography scan databases. This helps you better detect and analyse potential abnormalities within the colon. The efficacy of ColonCAD has been proven in multiple clinical trials and has demonstrated:

- >90% sensitivity in detecting polyps \geq 10mm (considered clinically significant).⁴
- 80-85% sensitivity in detecting polyps \geq 6mm.⁴
- ColonCAD has been shown to improve the sensitivity (more TPs) of non-expert readers without a significant decrease in reader specificity.⁵
- ColonCAD has also been shown to improve the performance of expert readers.⁶

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COLONCAD™ 4.0 - NOW WITH A 50% REDUCTION IN FALSE POSITIVES³

Medicsight® are committed to the continuous improvement of CAD and CTC image management. The latest upgrade to be released is ColonCAD 4.0. This latest CAD version marks a significant increase in performance showing a 50% reduction in false positives without any significant loss in sensitivity.³

CAD VERSION	Sensitivity 6-9mm Polyps (29 Polyps)	Sensitivity \geq 10mm Polyps (27 Polyps)	Mean False positive CAD marks per case
COLONCAD 4.0	89.66% 26/29 polyps	92.59% 25/27 polyps	6.5

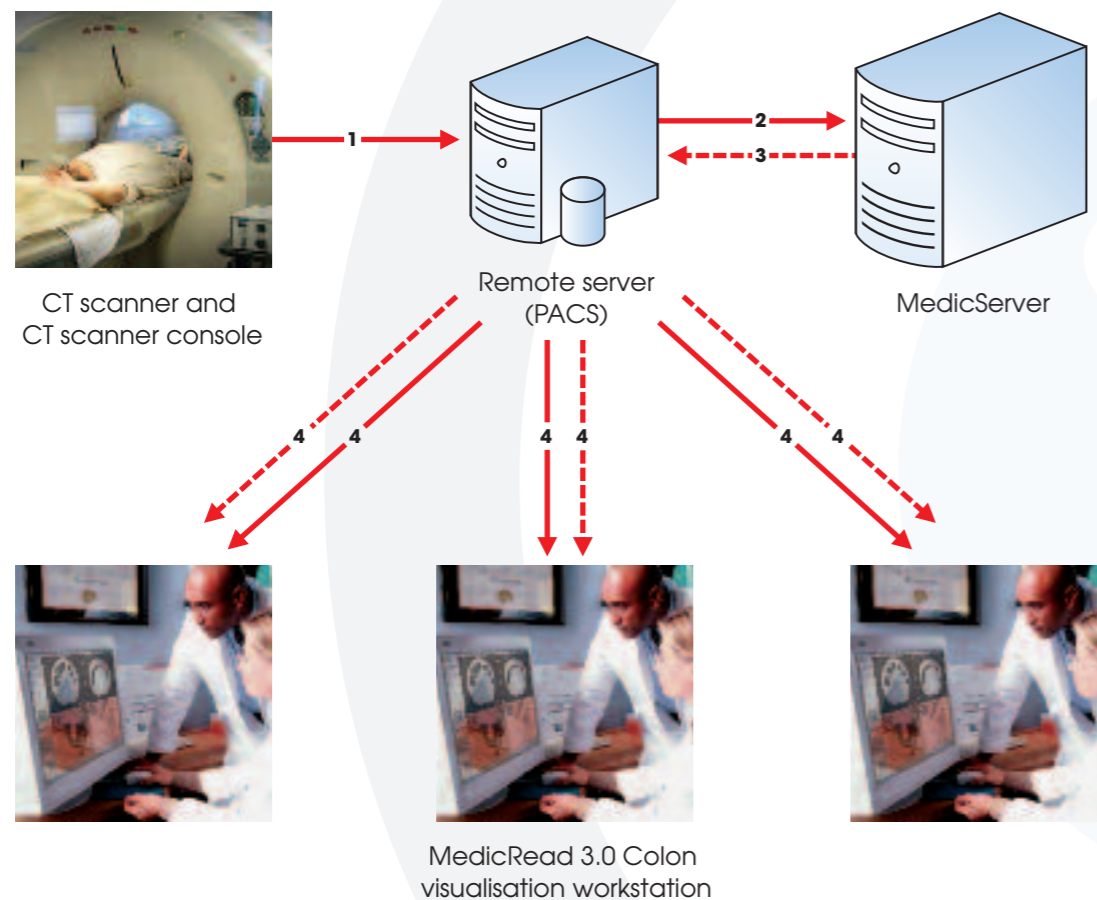
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MEDICREAD™ 3.0 COLON - FAST, EFFICIENT DISTRIBUTION OF DATA ACROSS PACS NETWORKS

MedicRead™ 3.0 Colon incorporates Medicsight's MedicServer™ technology which offers a valuable centralised pre-processing platform that accepts DICOM CT image data from either the CT console or PACS system. Once processed, the results can be quickly and efficiently distributed for interpretation at any number of workstations across the same PACS network as shown below.*



*Workstations must have MedicRead 3.0 Colon installed to show the pre-processed results.

MEDICREAD™ 3.0 COLON - MAKING COLONCAD™ EASILY ACCESSIBLE

MedicRead™ 3.0 Colon is the first visualisation workstation that can be accessed online making the benefits of ColonCAD truly accessible to all radiologists for the first time. This enables the international radiological community to experience and utilise the clinical benefits of ColonCAD.

A 30-day free trial version of the software can be downloaded from the Medicsight PLC website so that radiologists can experience the benefits of ColonCAD first hand. To download MedicRead 3.0 Colon, go to www.medicsight.com and follow the instructions given.

Alternatively, please contact your Medicsight representative or call Medicsight on **0044 207 605 7950** to arrange an appointment.



MEDICSERVER™ - OPTIMISING THE WORKFLOW OF CTC

MedicRead™ 3.0 Colon incorporates Medicsight's MedicServer™ technology, which pre-processes then quickly and efficiently distributes DICOM CT image data to any number of workstations across the same PACS network.

MedicServer™ streamlines the process of CTC by:

- Automatically receiving and processing DICOM CTC data.
- Automatically post-processing CTC data.
- Providing an interface for License Management and Status Queries.
- Enabling full DICOM communication (query/retrieve, push/pull).
- Delivering CAD results to PACS or workstations.

MedicServer can be installed quickly and simply.

- MedicServer can be deployed as an independent server.
- No change to CT hardware architecture or configuration is required.

System Requirements.

MedicRead 3.0 Colon must be run on a computer that meets the following minimum hardware requirements:

HARDWARE REQUIREMENTS	SOFTWARE REQUIREMENTS
Pentium®# 4-class 2 GHz processor.	Windows®* XP/Windows Vista (with Service Pack 2).
50 GB of free hard drive space.	Microsoft Internet Information Services (IIS).
2 GB RAM.	Microsoft®* Internet Explorer®* (IE) 7.
DVD-ROM drive.	Microsoft®* .NET Framework 2.0.

To find out more about MedicRead 3.0 Colon, visit www.medicsight.com

* Windows XP, Windows Vista, Internet Explorer and .NET Framework are registered trademarks of Microsoft Corp Inc.

Pentium is a registered trademark of Intel Corp.

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MEDICREAD™ 3.0 COLON - AN INNOVATIVE DOWNLOADABLE NEW CTC IMAGING PLATFORM

- MedicRead™ 3.0 Colon incorporates Medicsight's ColonCAD™ providing:
 - >90% sensitivity in detecting polyps \geq 10mm (considered clinically significant).⁴
 - 80-85% sensitivity in detecting polyps \geq 6mm.⁴
 - Improvements in the sensitivity (more TPs) of non-expert readers without a significant decrease in specificity.⁵
- Delivers a centralised preprocessing platform that quickly and efficiently distributes image data to any 3D advanced visualisation workstations across the same PACS network.
- Now available online for 30-day free trial and purchase or ordering.



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2. Regge D et al. Impact of computer-aided detection on the cost-effectiveness of CT colonography. Radiology. 2009 Feb; 250(2): 488-97.
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4. Taylor S, Halligan et al. Computer-Assisted Reader Software versus Expert Reviewers for Polyp Detection on CT Colonography. AJR 2006; 186: 696-702.
5. Halligan S et al. Computed Tomographic Colonography: Assessment of Radiologist Performance with and without Computer Aided Detection. Gastroenterology 2006; 131: 1690-1699.
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Not available for
sale in the USA.

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