SIEMENS

siemens.com/*syngo*via-mr

MRI Visualization

Turn image quality into diagnostic value. With *syngo*.via.

Turn image quality into diagnostic value.

Every day, your MRI systems provide rich diagnostic information. However, we know that time for transforming it into high-quality diagnoses is short.

Your goal? Faster and easier ways to process, read, and share images. Our answer? *syngo*.via[1]. Your datasets are where you need them. Your images are sorted. Your cases are prepared. Your tools are at your fingertips – for both routine and advanced MR interpretation.

So you can focus on what really matters: images, cases, and patients.

The *syngo*.via 3D routine and advanced reading solution helps to accelerate workflows across all modalities, and is suitable for both day-to-day and more challenging cases.

Efficient.

syngo.via drives efficiency. It helps to accelerate radiological workflows and save valuable time. You can access and read cases quickly and easily with features such as automated updates and pre-fetching of prior examinations.
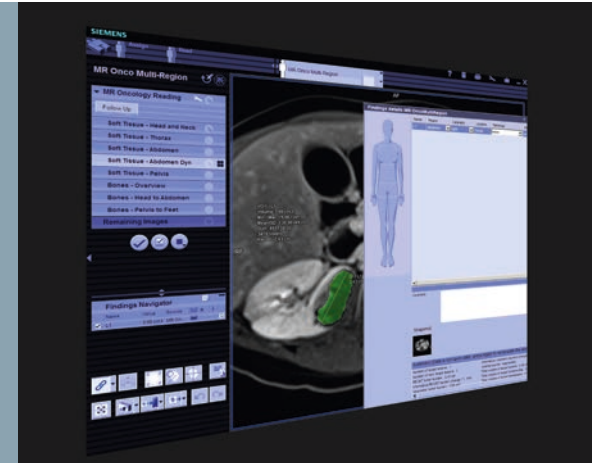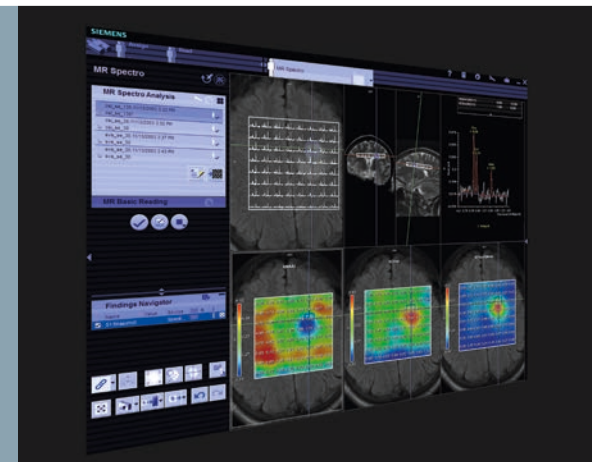

Flexible.

syngo.via is flexible. You can customize its applications and layouts in line with your needs. Thanks to the modular licensing model, there's a *syngo*.via product to suit every medical facility: from specialized practices to major research hospitals.
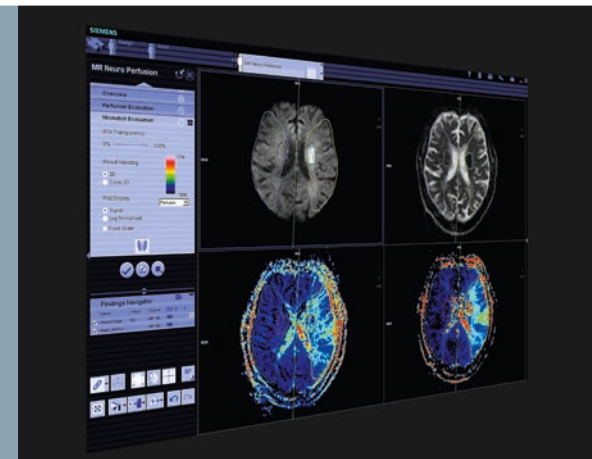
Intelligent.

syngo.via is intelligent. The software guides you through the entire workflow – it automatically pre-processes images, collects findings and delivers powerful quantitative reading functionality.

syngo.via.

Get the full picture.

Efficient, flexible, intelligent.

Whatever you need to read – from routine to challenging cases – find the right tools, right at hand.

syngo.MR General

syngo.via automatically prepares your cases for reading and guides you step-by-step – tailored to the individual disease.

The right workflow for any case

syngo.via offers you a wide range of optimized workflows for everyday use. The pre-defined steps and layouts enable you to process and read images efficiently. The Case Navigator guides you through every step of your MR cases. You can customize workflows and layouts, or create new ones – making it easy to follow your standards of care.

Data at hand – ready to read

syngo.via automatically loads and sorts your images – pre-processed according to disease-specific requirements. You can immediately start processing and reading. We have based our step by step guidance on the relevant clinical aspects of the case. Use these workflows "out of the box" or as basis for customizing your own.

Images – the way you want them

syngo.via offers the 2D and 3D capabilities you want. You can switch to 3D views of any contrast with just one click – without changing the software or task card. Easily drag and drop images from other modalities or add images from previous MR scans.

The tool you need

Find frequently used functions like synchronized scrolling and zooming displayed next to the image – for easy navigation. And explore new tools like 3D Reference Point for fast localization of the same point in all different series – regardless of orientation and contrast.

Finding, not searching

Calculate a distance, a Region of interest (ROI), or mark a suspicious lesion with a single click. *syngo*.via automatically tracks all findings and lists them in the Findings Navigator. One click is all you need to navigate to a finding – from anywhere in the case.
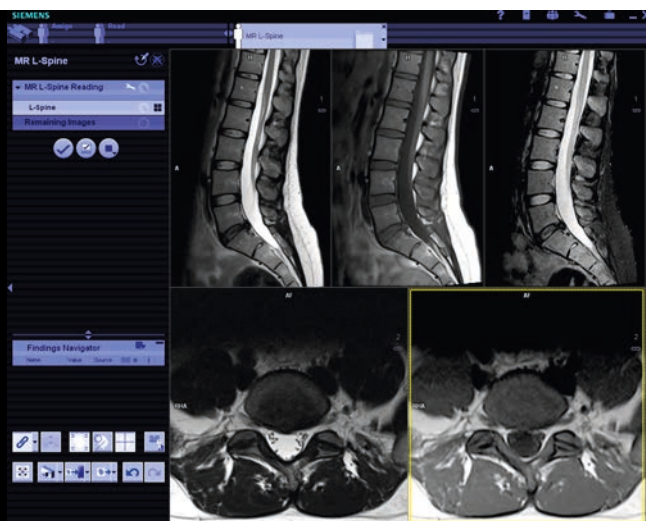
MR Spine. Easily synchronize all series.

syngo Image Fusion. Enables you to view and fuse information from multiple modalities. In this example, PET data is subtly fused into a T2 Flair axial MR image (lower right)[3].
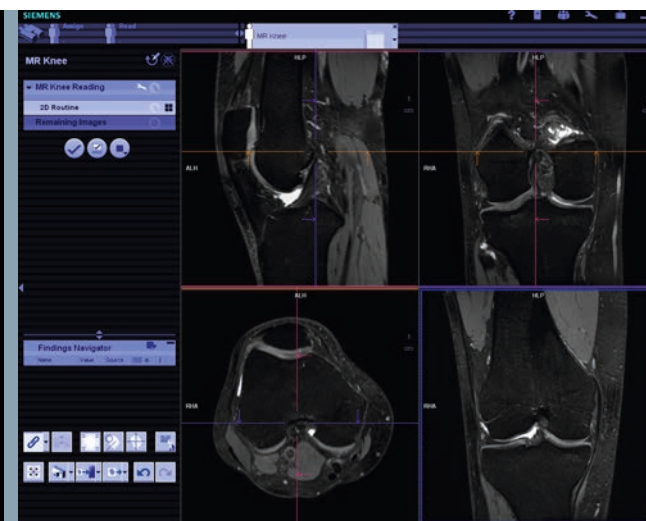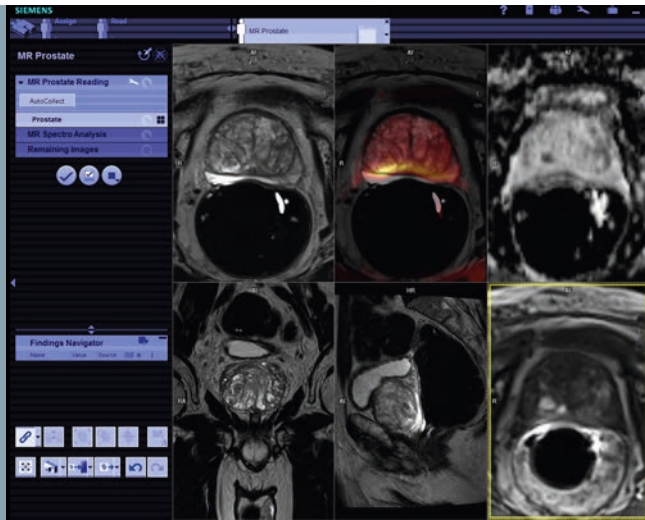

MR Knee. Integrated 3D MPR reading, no limitations to 2D only.

MR Head. All images including pre-/post-contrast are arranged automatically.

MR Spine. Pre-configured, standardized, easy to read – yet easily adjusted to your needs.

MR Prostate. Reading and processing of functional and morphological images at the same time. Unique handling of findings.

MR Spectroscopy. Dedicated workflows and layouts for oncological questions.
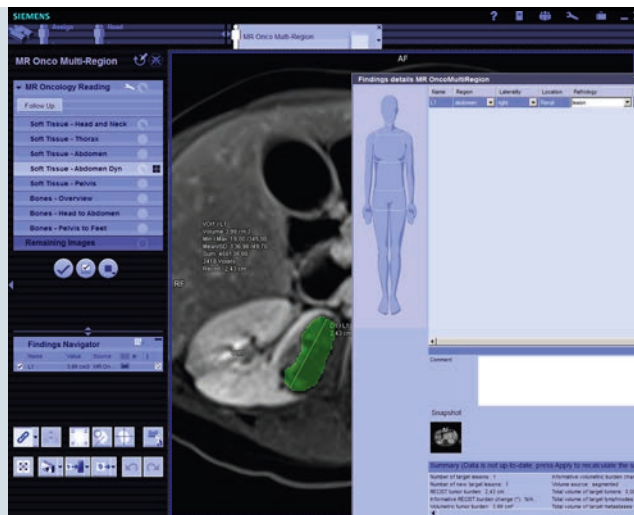
MR Onco Multi-Region. Automatically sorted from head to toe, from soft tissues to bones.
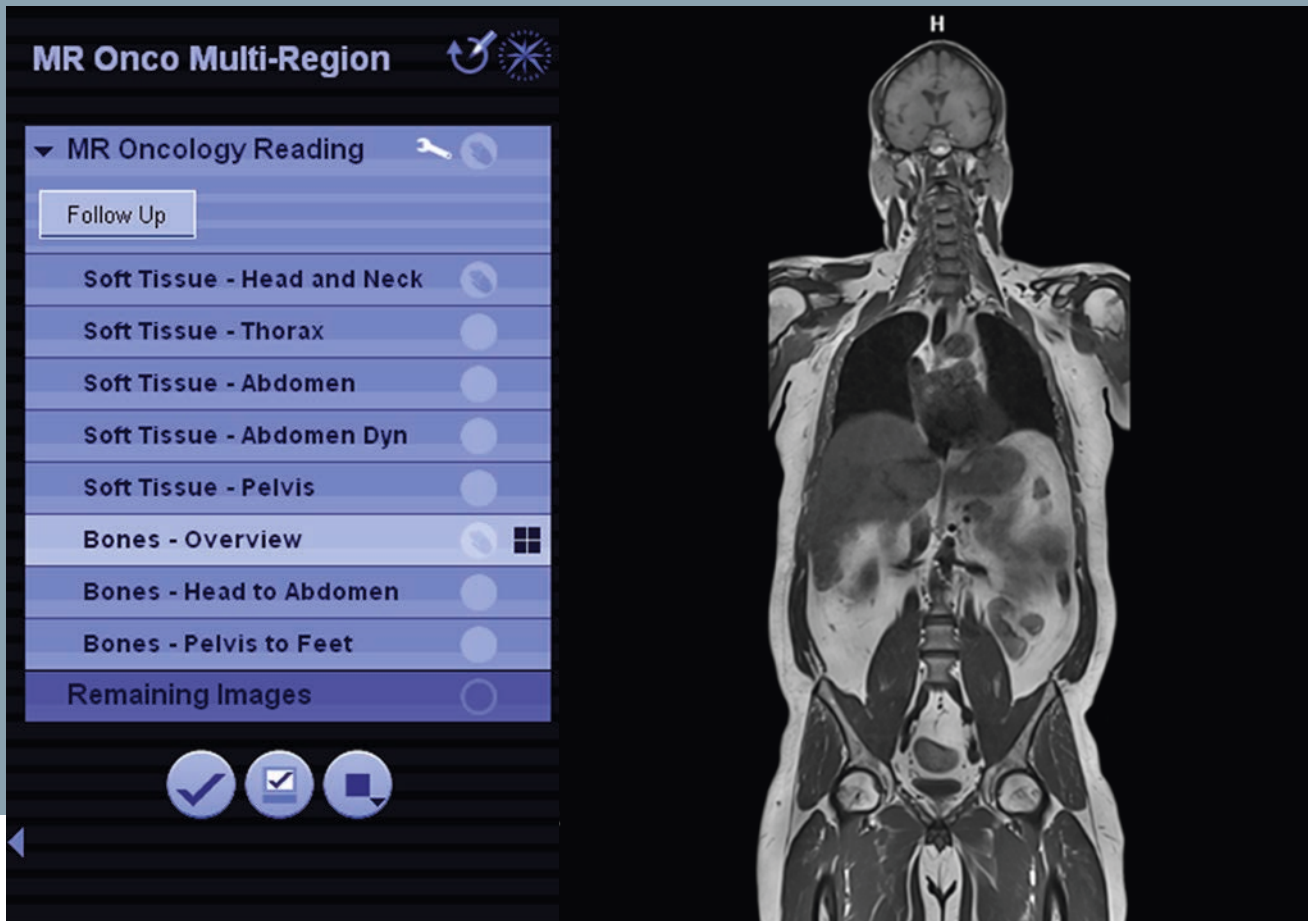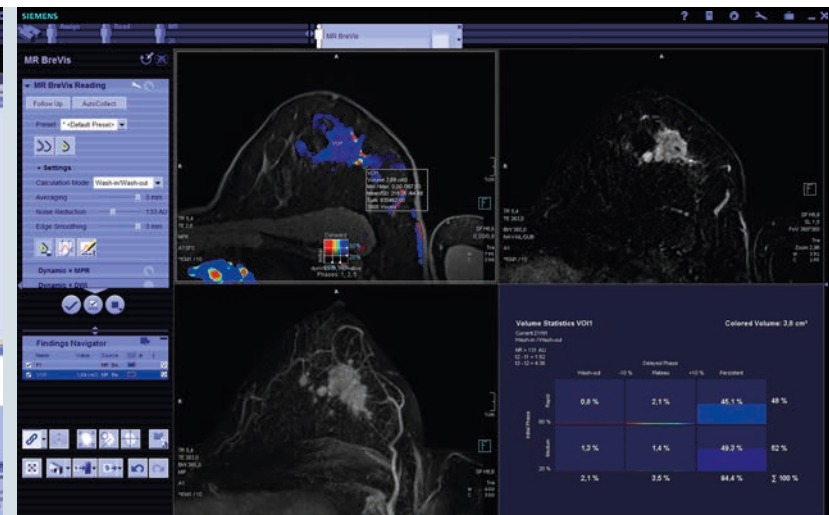
MR Onco Multi-Region. Unique guidance along the complete workflow.

MR Onco Multi-Region. Dedicated Onco Reports allow a clear representation of your diagnosis.

syngo.MR Oncology

syngo.via helps to make oncology diagnosis fast, intuitive, and more robust – even when handling large amounts of images from different modalities. Its high degree of automation and advanced ergonomics help simplify the process and allow you to focus on the essentials.

Master even complex cases effortlessly

syngo.via automatically loads and sorts all images – pre-processed according to disease-specific requirements. Structured from head to toe, from soft tissue to bone contrast. This unique ability helps you save time and maintain high diagnostic quality even when reading complex MR cases.

Workflow guidance – simplifies case navigation

Multi-region cancer exams provide thousands of images. With *syngo*.via, you only take a few intuitive steps to read the case, even when comparing follow-up exams. *syngo*.via offers dedicated layouts for oncology so you can concentrate on the task at hand.

Lesion segmentation – you mark the lesion, *syngo*.via the boundaries

All you need to do is to identify the lesions. *syngo*.via suggests boundaries and computes volumes – no need to spend time on 3D manual segmentations.

## Oncology reports that match referrers' needs

With *syngo*.via, you can provide tailored service for your referrers. Integrate findings from imaging and biopsies with just one click. Add therapy recommendations at any time. Creating a dedicated prostate report[2] is as simple as that – helping urologists see all relevant facts at a glance.

See the whole picture – with all the images you need

syngo.via allows you to combine images from multiple modalities – whenever needed. Easily create side-by-side displays of MR and ultrasound images for prostate cases, or fuse MR and CT images to read brain and other cases.

syngo.MR BreVis[3]

If breast imaging is part of your daily routine, you need a fast, reliable, and *easy-to-use* processing and workflow solution for reading and reporting. Our dedicated reading and reporting software, *syngo*.MR BreVis, is also available for *syngo*.via. With that you benefit from breast specific windowing layouts, automatically preprocessed elastic registration for patient motion correction, on-the-fly time course evaluation and color overlay maps. A statistic on lesion enhancement provides information that may help to judge therapy effectiveness. For lesion characterization within clinical studies the workflow allows ad-hoc integration of spectroscopy.
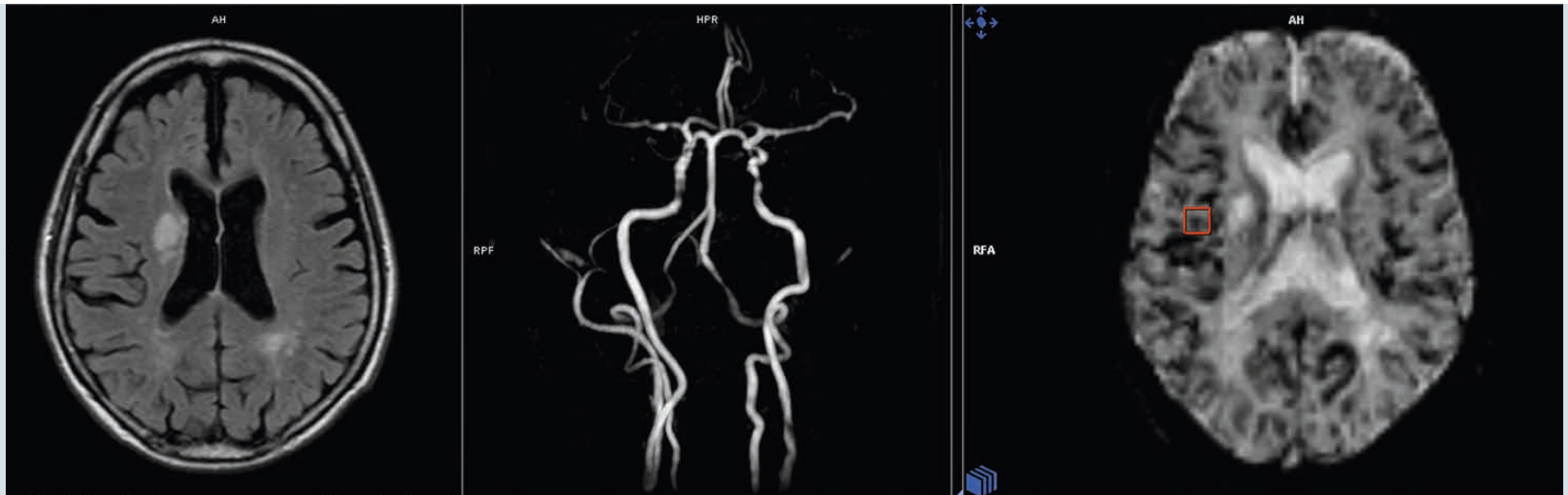
syngo.MR Neurology

syngo.via supports fast, network-wide access to patient data for immediate viewing and interactive evaluation. From any[4] PC in the network, you can use the applications you need when you need them – establishing a whole new level of speed and flexibility in acute neurology.

Fast evaluation – appropriate action

syngo.via supports a new level of speed in neurology. With features such as automated sorting of data, fast calculation of color maps, and 3D processing support, you can quickly navigate through complex neurological cases. These features, along with fast workflow, empower you with the tools necessary to make quick decisions and initiate action – regardless of where you are.

High-end applications – anywhere[4]

Now, implement the power of advanced MR applications in more places. *syngo*.via offers client server based evaluation tools such as perfusion evaluation (*syngo*.MR Neuro Perfusion Engine).

See the future – today

Be prepared for the future of MR – with advanced capabilities such as *syngo*.MR Neuro fMRI. Whether it is in the research center, in the operating theater or at your desktop, access your neuro fMRI data where you need them.

syngo.MR Neuro fMRI. A full set of tools for the evaluation of clinical fMRI, as well as advanced features for research oriented applications.

syngo.MR Neuro Perfusion. Immediate access to time-critical cases (e.g. stroke) for fast evaluation or processing from anywhere in the hospital.
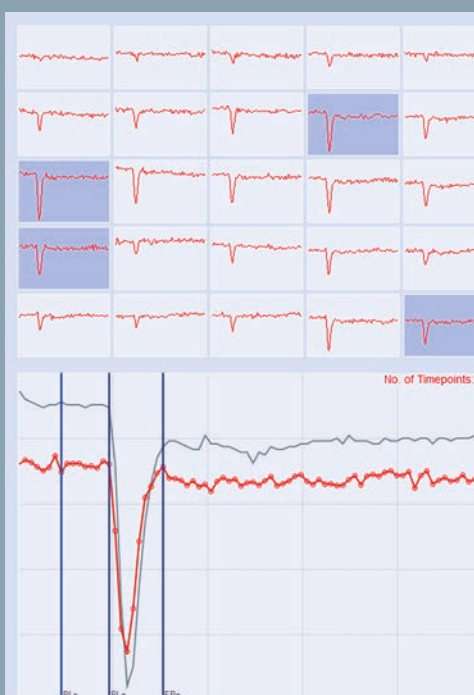
syngo.MR Neuro Perfusion in action. Fast access to the tools that enable confident evaluations anywhere[4].
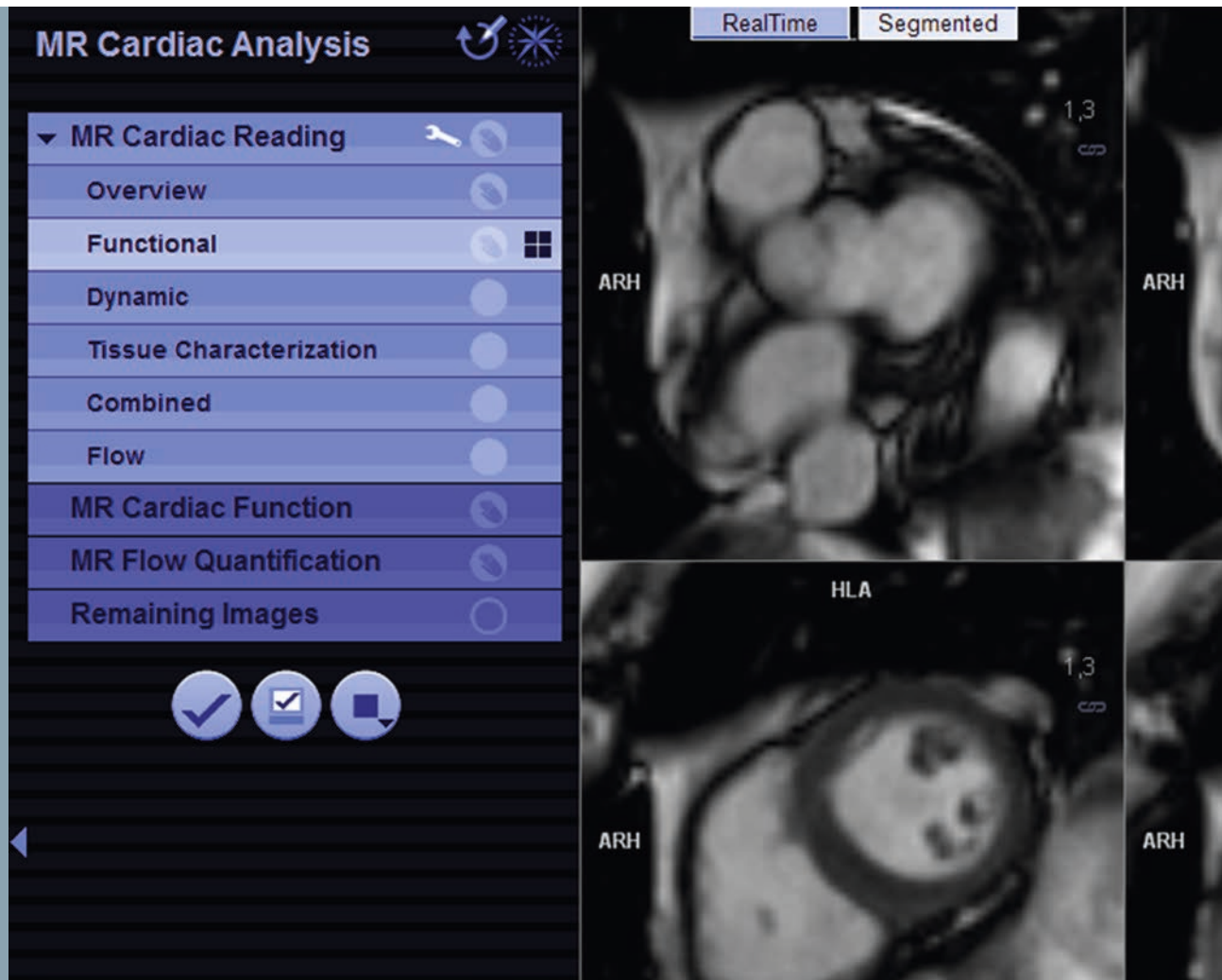
Functional layout of the general cardiac reading workflow.
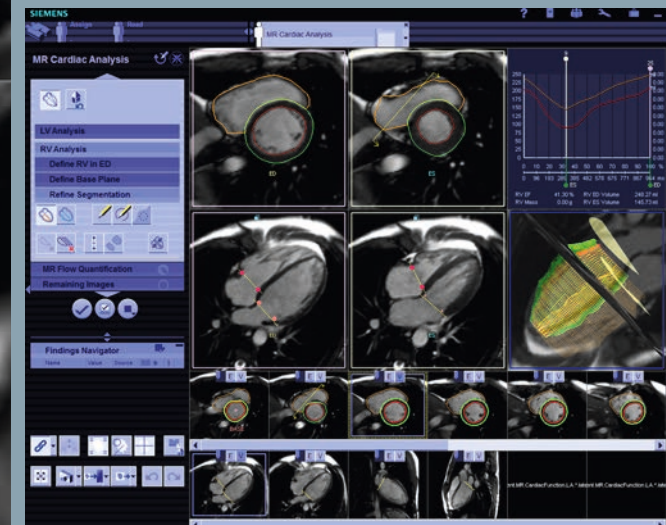
syngo.MR Cardiac 4D Ventricular Function.
The software calculates relevant parameters
and automatically segments the left ventricle.

syngo.MR Cardiology

Segmenting, calculating, sorting – *syngo*.via does it for you on a first pass. Adjust the results intuitively as needed. When managing 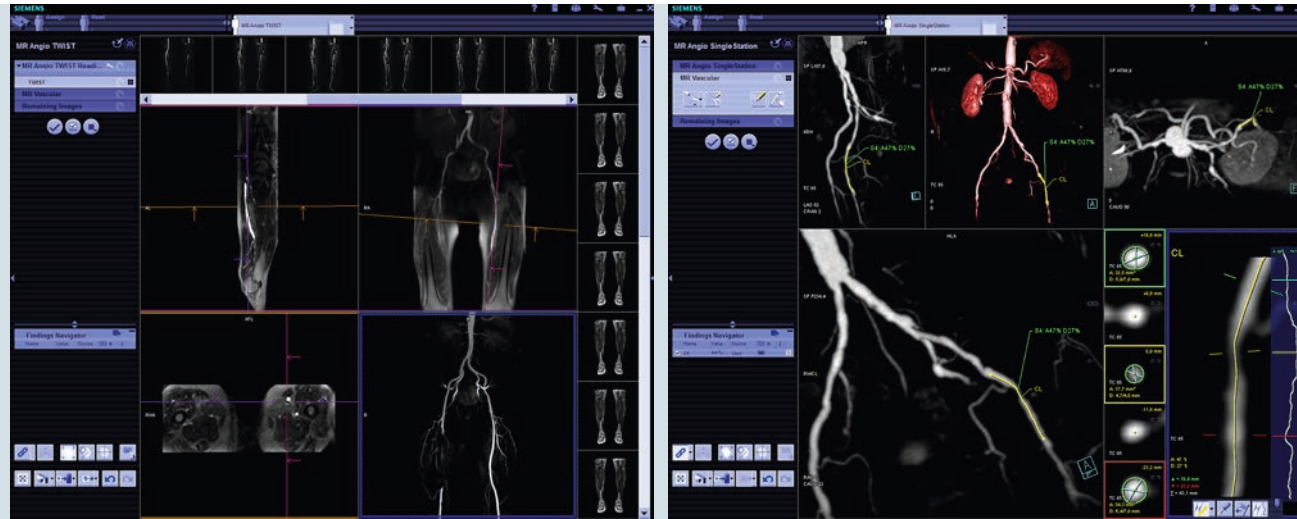images of different cardiac views or phases and searching for useful information from other acquisitions, you will find everything you need, already linked to the series you are currently viewing.

All information in one place – every detail in the combined view

You can see everything – functional imaging, dynamic imaging, and tissue characterization – combined in the same view, specially developed for cardiac viewing. When scrolling up and down within a segment, you will see linked data from the other acquisitions displayed at the same anatomical position – making it easy to compare all available data and detect even minor abnormalities.

Layouts prepared according to image type and view

See images presented by type or anatomical view. *syngo*.via automatically recognizes and sorts them into predefined layouts, preventing mix-up of images by order or location. Get a quick overview of even the tough cases. And read them just like routine ones.

Comprehensive analysis of functional parameters and flow

Easily review automatically created segmentation of the left ventricle with *syngo*.via's guided approach. The software calculates relevant parameters for cardiac functional analysis and displays them in standardized graphs and tables – from ejection fraction (EF) to regional wall thickening, among others. One click vessel segmentation and automatic propagation are just two of the key features that make the evaluation of blood flow dynamics faster and more user friendly.

Managing angio images – from large field of view, down to the smallest detail

Large field of view angiograms are being used more than ever. *syngo*.via eases the management of these complex exams, including whole-body scans. It automatically recognizes the acquisition method for *syngo* TimCT, multi-station, or *syngo* TWIST and matches the layout. MPR and 3D MIP views are displayed next to each other. To get a large zoomed-in view of any diagnostic area or point in time, just point to it in the gallery segments. *syngo*.MR Vascular Analysis allows 2-click vessel tracing and intuitive lumen segmentation for efficient analysis as vascular lesions. Sharing the same user interface and functionality as *syngo*.CT Vascular Analysis, the software allows users to work easily between modalities.

One workflow solution.

syngo.via is your agent for productivity throughout your radiology workflow. No other solution supports and integrates all MR tasks in a comparable way – from scanning to result sharing.

syngo.via speeds the way you connect and share information with your clinical partners and patients – even on the go[5].

**Tailored Engine Concept:
syngo.via Engines and Dot Engines
go hand-in-hand**

The Engine concept integrates the scanning and reading processes into one holistic workflow and enables you to maximize your scanner and application investment. Combining Siemens innovative imaging technologies with *syngo*.via software applications creates even greater clinical and workflow benefits.

Engines offer a comprehensive set of processing and reading tools, especially optimized for the Dot Engines of your MAGNETOM scanner.

The Dot Engines help to improve the performance of your MAGNETOM scanners and similar to *syngo*.via offer patient personalization, user unique guidance, and exam automation. They allow you to increase throughput, minimize rescans, and enhance quality of care.

The Dot Engines together with *syngo*.via enable you to get the most out of your investment – by transforming your day and increasing your productivity significantly.

Dot
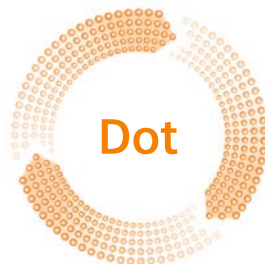
Learn more about the Dot Engines on
siemens.com/dot

syngo.via infrastructure

PACS Server

syngo.via Server

WLAN

Firewall
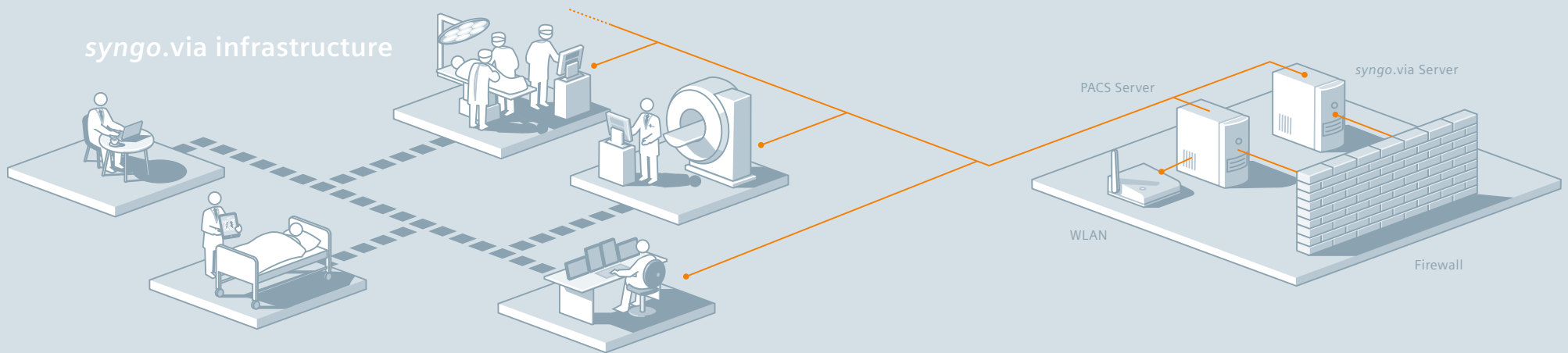
Client Scanner

Advancing the scanner workspace

With a *syngo*.via Client Scanner, Dot Engines and *syngo*.via can transform the technologist workplace. Both offer unique guidance for scanning and processing. With one device you manage the scanner and the *syngo*.via user interface – both based on the proven *syngo* UI. With *syngo*.via next to the scanner UI, technologists can handle two patients side-by-side without screen overlays. The outcome? Higher throughput, more reliable results, and reduced costs.

Direct Image Transfer

With *syngo*.via, images are available throughout the institution in "real time" as the scanner produces them. This enables fast feedback right after a series has been completed – without any extra tool or log-in.

Seamless workstation integration

Although *syngo*.via is optimized for working with our MAGNETOM systems, it can handle DICOM images from any MR[6]. *syngo*.via also integrates smoothly with your existing *syngo* MultiModality Workplace (MMWP). You can remotely open the MMWP out of *syngo*.via with just a single click and use its full functionality – without even being there. The results are then seamlessly integrated into *syngo*.via.

Get the full service.

syngo.via service provides you with peace of mind. You can be confident that you are on the leading edge of technology, and that your systems and workflow are running smoothly.

The *syngo*.via service offering helps me keep up with innovations, get integrated services and rely on predictable costs now and in the future.

Continued innovations keep you on the leading edge

With our dedicated *syngo*.via service agreement, your core functionality and clinical applications are always state-of-the-art. We continuously provide you with managed remote updates for software enhancements. These will be delivered automatically, via our secure remote infrastructure, without unplanned workflow interruptions. This means that you are able to expand your clinical spectrum with the latest applications, when needed.

Integrated services for comprehensive support

With our service agreement, you receive support for your workflow, not just for a single step. Our remote maintenance and repair services ensure quick response and repair times for better staff planning and patient scheduling. Our service team is available for you up to 24/7. During the Principal Coverage Period, native language support is available for most major languages. Furthermore, you will have a primary contact person who has in-depth knowledge of your facility. In addition, our application support and modular training offering mirror your needs, schedule, and workflow.

Confident financial and department planning with predictable life-cycle costs

Our comprehensive service agreement and the flexible licensing model are key to planning security. Software maintenance and support services are an integral part of the *syngo*.via service agreement, which makes service costs predictable. In addition, you can adapt your service agreement to meet your unique needs by adding optional services.

Our concurrent user model for *syngo*.via is highly flexible. Simply choose the number of licenses that meet your needs, not the number of workstations. Should your requirements change, you can always expand the number of licenses or add new clinical applications.

Foreseeable Total Cost of Ownership

Another big plus on the business perspective: foreseeable Total-Cost-of-Ownership. Because software maintenance and support services are an integral part of your *syngo*.via service agreement, service costs are predictable and clearly calculable. In combination with the flexible licensing model, this makes precise budget planning easier for you.

Start your engines!

syngo.via helps to change the way
of reading MR images – from routine cases
to the most challenging ones.

Routine Cases

- Automated Case Preparation
- 2D and 3D integrated
- Fast and easy findings navigation
- Easy customization of workflows "ad hoc" combination of different workflows per drag and drop.

Oncology Cases

- Synchronized dedicated layouts for oncological questions
- Automatically sorted from soft tissue to bone contrast
- Semi-automated 3D lesion segmentation
- Dedicated oncology findings and reports Chemical Shift Imaging (CSI) and SingleVoxel Spectroscopy (SVS)
- Automatic selection of poor quality voxels in Spectroscopy

Neurology Cases

- Fast calculation of color maps and 3D processing support
- Local AIF and perfusion-diffusion-mismatch evaluation seamlessly integrated
- Structured and standardized stroke report Neuro fMRI
- BOLD Datasets are selected automatically and registered across sessions in fMRI

Cardiovascular cases

- All relevant information in one combined, anatomically linked view
- Automatic segmentation and editing with MR Cardiac 4D Ventricular Function
- Navigation through time and space with MR TimCT Angio and MR Angio TWIST
- One click Vessel Segmentation in Flow Evaluation

More clinical imaging solutions on
siemens.com/*syngo*via-mr
siemens.com/redefine

More clinical information on
siemens.com/magnetom-world Case reports, protocols, application tips and talks from international experts.

Your benefits

- Unique workflow support from planning to result sharing
- Tailored Engine Concept to support high quality clinical outcomes
- Seamless integration of MAGNETOM scanners, *syngo*.via and *syngo* MultiModality Workplace.
- Continually updated platform and clinical applications
- Support for entire workflow, not just for a single step
- Predictable life-cycle costs
- Flexible licensing model

syngo.via.
Get the full picture.

	Engines	Applications	Cardiovascular	Oncology	Neurology	Routine
MR Cardiology	*syngo*.MR Cardio Engine	*syngo*.MR Cardiac 4D Ventricular Function	✓			
		syngo.MR Cardiac Flow	✓			
		syngo.MR Vascular Analysis[3]	✓			
MR Oncology	*syngo*.MR Spectro Engine	*syngo*.MR Spectro CSI		✓	✓	
		syngo.MR Spectro SVS		✓	✓	
		syngo.MR Spectro Extension		✓	✓	
		syngo.MR Spectro Research		✓	✓	
	syngo.MR Onco Engine	*syngo*.MR Onco		✓		
		syngo.MR 3D Lesion Segmentation		✓		
		syngo.MR Brevis		✓		
		syngo.MR Tissue4D[3]		✓		
MR General	*syngo*.MR General Engine		✓	✓	✓	✓
		syngo.MR Composing	✓	✓	✓	✓
MR Neurology	*syngo*.MR Neuro Perfusion Engine	*syngo*.MR Neuro Perfusion			✓	
		syngo.MR Neuro Perfusion Mismatch			✓	
	syngo.MR Neuro 3D Engine	*syngo*.MR Neuro fMRI			✓	
		syngo.MR Tractography[3]			✓	

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All devices listed herein may not be licensed according to Canadian Medical Devices Regulations. The information in this document contains general technical descriptions of specifications and options as well as standard and optional features which do not always have to be present in individual cases.

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Charité, Berlin, Germany

St. Marien Hospital, Bonn, Germany

GP Radiologie, Bad Nauheim, Germany

Klinikum St. Marien, Amberg, Germany

Imagerie Paris Centre, Paris, France

[1] *syngo*.via can be used as a standalone device or together with a variety of *syngo*.via-based software options which are medical devices in their own rights.

[2] The disease-specific report created in *syngo*.via is not the final diagnostic report. The final diagnostic report is generated and signed off within the RIS. Archiving of diagnostic reports is the responsibility of the RIS.

[3] The product is not yet commercially available in the USA and China. Its future availability for these countries cannot be ensured.

[4] Prerequisite include: Internet connection to clinical network, DICOM compliance, meeting of minimum hardware requirements and adherence to local data security regulations.

[5] Prerequisites include: Internet connection to clinical network, DICOM compliance, meeting of minimum hardware requirements and adherence to local data security regulations. Diagnostic reading requires a medical grade screen. For usage of mobile devices, including iPhone and iPad, country-specific laws may apply. Please refer to these laws before using for diagnostic reading and/or viewing.

[6] Advanced DICOM configurations vary between manufacturer. Please check with your manufacturer to ensure compatibility with *syngo*.via

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