

MUSICA Image Processing

# The diagnosis is in the details

Next generation "gold-standard" image processing that gives you greater diagnostic confidence













### Next generation technology

Fractional Multiscale Reconstruction (FMR): This new technology takes multi-scaled image processing to a new level of excellence. FMR is the new mathematical substructure of Agfa HealthCare's image processing software, which further decomposes image components in microscopic fractions for separate processing. Detail is enhanced with pixellevel precision achieved by splitting the multi-scale filter kernels into smaller fractions and by involving all pair-wise pixel differences within the filter kernels. FMR results in a more accurate multi-scale enhancement model, a balanced participation of all filter kernel pixels in the enhancement process, and better preservation of low contrast details next to high contrast steps.









# Better viewing of difficult areas

- Balanced presentation of both soft tissue and overlapping bone structures
- Visualization of subtle details in the abdomen
- True representation of orthopaedic implants with clear bone interfaces
- High level of detail in the mediastinum
- Sharp trabecular patterns and excellent detail in the bony cortex



For decades, Agfa HealthCare's MUSICA software has been taking image processing to the next level, delivering digital radiography image processing software that automatically produces optimized images. A truly intelligent solution, MUSICA consistently provides the high quality images needed to support the diagnosis, while saving both time and effort. That's why we call it the "gold-standard."

As imaging technology and acquisition systems have advanced, so has MUSICA. This new generation offers features and benefits to match your evolving needs. With MUSICA, you can get excellent image quality!

#### **ALWAYS STATE-OF-THE-ART**

From its beginning, MUSICA has been state-of-the-art, offering the image quality our customers love and our competitors envy. While nearly all CR and DR systems now include image processing software, the methodology and quality of this software plays a big role in determining the quality of the diagnostic image you see.

MUSICA uses a multi-scale, layered representation of an image to enable precise control over many aspects of your image's "look," improving the overall visibility of clinically relevant structures. It isn't affected by the presence of collimation or direct X-ray backgrounds in the image, so you get consistent, high-quality results. What's more, it is focused on the enhancement of subtle detail (contrast frequency), so that all clinically relevant structures with this subtle contrast, regardless of frequency content, are made more visible, revealing details that might otherwise be hidden.

## INTELLIGENCE, INDEPENDENCE AND EVOLUTION

But MUSICA doesn't just give you excellent image quality. It does it in a way that offers maximum ease of use and optimum output of images every time, regardless of collimation, body part or patient position. MUSICA gets all of the parameters it needs directly from the input image itself, automatically analyzes the characteristics of each image, and then optimizes the processing parameters — so you don't need to do a thing.

Thanks to MUSICA, your imaging workflow is smoother, your departmental productivity is enhanced, and your diagnostic confidence is improved. Furthermore, automatically optimized images can help you see greater detail even when using a lower dose.

#### **EXCELLENT IMAGE QUALITY**

Our CR and DR solutions have evolved, to offer our customers a complete range of options from entry-level to top-of-the-line solutions. Regardless of which CR or DR solution is right for you, you don't have to accept compromises in image quality! With MUSICA, you can achieve high image quality images and a high degree of consistency on every one of our solutions, despite patient size, tube quality and exposure settings. This makes MUSICA ideal for a broad range of specialty applications, from pediatrics to mammography.

Special packages can enhance this flexibility, such as Neonatal Processing, which is optimized for examining premature and full-term new babies, and Catheter Processing, which enables the verification of catheter positioning.

To make it even easier and faster to use, this next generation of MUSICA image processing software will no longer require any window level adjustments. MUSICA will optimally and automatically renders all data in the image, adapted to the sensitivity of the eye, so you can see everything available in the image without adjusting the window level setting. This makes MUSICA immediately more productive for both technologists and physicians.

## IMPROVED PERFORMANCE FOR DIFFICULT IMAGE AREAS

The next generation MUSICA is all about excellent image quality, even in the areas of the images that are normally challenging. MUSICA image processing provides greater lung detail, and improved contrast for difficult areas of the chest that are difficult to see. For extremities, including overlapping bone structures, greater bony detail throughout is visible. MUSICA presents a more homogenous, balanced rendering of tissues, including a natural presentation of soft tissue. With all these enhancements, you will be able to not only see more, but also read with greater comfort and enjoy higher diagnostic confidence.

#### Insight. Delivered.

Agfa HealthCare is a global leader in the fast growing market of integrated IT and imaging systems, offering healthcare facilities a seamless flow of information and a 360° view of patient care. The company has a unique, holistic approach, enabling it to provide in-depth clinical know-how and fully integrated hospital-wide solutions. These specialized solutions integrate IT and imaging systems for Radiology, Cardiology, Mammography and Orthopaedics. Agfa HealthCare's Services offers additional services to maintain the reliability and functionality of Agfa HealthCare's Direct Radiography solutions — providing peace of mind for radiologists, their staff and their patients.

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