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**FOR IMMEDIATE RELEASE**

**LEAD Technologies Announces the Release of LEADTOOLS Version 14**  
**Powerful new Document Features including OMR, ICR and Annotations, new DICOM support for Medical Imaging, Advanced Image Processing, and much more!**

**Charlotte, NC (December 17, 2003)** - - LEAD Technologies, Inc., the leading provider of imaging developer toolkits, today announced the release of LEADTOOLS version 14. LEADTOOLS is a collection of SDKs (software development kits) designed to help programmers integrate digital images into their applications. LEAD showcases numerous advanced features in this new version including a new Document Imaging engine, which is a core portion of the LEADTOOLS Document Imaging products, a significant update to the Medical Imaging product line, new functionality in the Multimedia toolkits, as well as hundreds of new features for the Raster Imaging Pro toolkit.

**Document Imaging** - The version 14 LEADTOOLS Document Imaging toolkits receive a key update with the addition of a several new engines, OCR (Optical Character Recognitions), OMR (Optical Mark Recognition) and ICR (Intelligent Character Recognition) to recognize typed faced as well as hand written text with MAT, DOT, MTX and MOR support. The new engines include new document file formats (Word 2000 and XP, PDF, WPG, etc) and support over 100 different languages. Additionally, LEADTOOLS MRC (Mixed Raster Content) compression is now available in the LEADTOOLS Document Imaging Suite. New auto-form alignment and image registration functions also add to the feature-rich tool set that LEAD provides to the document imaging programmer. Already considered to have the most advanced annotation capabilities in the market, the LEADTOOLS Document Imaging's annotation engine gets even better with new annotation objects, more control over existing annotation objects, and the ability to create user defined, or custom, annotation objects.

**New Annotation Objects include:**

- RTF
- Text Pointer
- PolyRuler
- Encrypt/Decrypt
- Video
- and more..

**New Image Registration Functions include:**

- Apply Transformation Parameters - Corrects a deformed image according to the transformation parameters.
- Get Marks Center Mass - Finds center of mass points for the registration marks.
- Get Transformation Parameters - Computes the rotation angle, XY scaling, and XY translation of the transformed bitmap with comparison to the reference bitmap.
- Is Registration Mark - Check whether the object inside the bitmap is a registration mark or not.
- Search Registration Marks - Searches the bitmap for registration marks.

**Medical Imaging** - The version 14 LEADTOOLS Medical Imaging line significantly extends its position as the market leader by providing support for the latest version of the DICOM specification. Additionally, LEAD is introducing JPEG2000 compression in DICOM, high level display features to easily implement softcopy presentation state including modality LUT, VOI LUT, annotations and overlays, in addition to high-level DICOM printing, and advanced medical image processing functions. The Medical Imaging toolkits also contain DirectShow read and write filters that support JPEG, JPEG2000 and uncompressed DICOM files. The Medical Imaging toolkits now incorporate native DICOM annotation support, and the Suite version includes DICOM Security and DICOM Communications with many already pre-written applications for modality work list, DICOM DIR, DICOM storage server, and more. These pre-written sample applications are shipped with source code and prove to be a major time saver to the medical imaging application developer.

**Raster Imaging** - Version 14 boasts significant enhancements to its general imaging feature set. Adding to an already impressive list of 130 image processing filters, v14 includes over 100 new advanced image processing functions, increasing the number to over 200. New Image file formats including DjVu® (read only), MrSID® (read only), CIN, KDC, CRW, DCR, DCS, PSP, TIFF-FX, RTF, SFF, ECW, and WMZ are now supported. New and improved imaging common dialogs (more than 60 new dialogs) are now separated and grouped into several "modules" to reduce runtime real-estate requirements as well as to speed up the development process. New color conversion options are among a lengthy list of additions. LEADTOOLS Raster Imaging Pro now includes the LEADTOOLS Digital Paint technology to help developers create their own Paint applications.

**New Image Processing Functions include:**

- Registration marks detection
- Edge detection
- De-interlace: Remove interlacing lines from an image taken from a video source.
- Fast Fourier Transform
- Correlation
- Color leveling

- Message Embedding (either a file or text)
- Many more...

**Multimedia** - In version 14 of the LEADTOOLS Multimedia toolkits, LEAD has enhanced its multimedia support with new Audio and Video DirectShow filters. The additions to v14 bring the total filters available in the Multimedia toolkit to over 30. The audio and video filters provide developers many options for implementing specialized effects while capturing, displaying, or converting multimedia data. Also new to v14 is a DirectShow callback function that allows any of the 200+ image processing filters available in LEADTOOLS to be applied to a video stream. Additionally, the callback function allows a customer the ability to apply their own DirectShow filter to video. LEADTOOLS Multimedia toolkits include two sample applications, complete with source code, showing customers how to use the callback function. The v.14 LEADTOOLS Multimedia Suite not only bundles the Raster Imaging Pro and Multimedia SDK technology, but now adds the LEADTOOLS Multimedia Filter Pack, LEAD MJPEG/MCMP, LEAD JPEG2000, and LEAD MCMW codecs.

**New Audio and Video Filters include:**

- Motion detection
- Audio callback
- DirectShow callback filter
- Direct support for new hardware based Web CAM and TV tuners

*For a more detailed feature list, [please see v. 14 Fact Sheet](#)*

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Full Imaging evaluation toolkits are available free of charge from LEAD's website <http://www.leadtools.com>

**About LEAD Technologies**

Since 1990, LEAD Technologies, Inc. has been a global leader in the imaging developer toolkit market, providing programmers with feature-rich tools to "image-enable" their software applications. LEAD Technologies pioneered the fastest software-only image compression and continues to lead the field in advancing new imaging technologies and offering those technologies to programmers worldwide.