Image Processing

Name	DICOM 3D Viewer		
Category (IP/ Reusable)	IP	**Component type (HW/SW/product etc)**	Software
HW Platform	Intel	**SW Platform /OS**	Windows XP/VISTA /WINDOWS7
Applications / applicable products	Medical diagnostic imaging equipment / PACS		
Market/ industries applicable	Healthcare		
Product Description	3D Medical Image viewer with Image processing tools. Volume Visualization and processing including 1D, 2D and 3D Transfer functions. Supports Interactive Volume rendering, Multi planar display, Easy Cropping, Flexible cut-line, Scalpel Cutting, Maximum Intensity Projection, Shading, depth cueing.		
Technical specifications	C#/.NET , GPGPU (NVIDIA/ATI) , OPENGL		
Features /benefits			
Other relevant details	Developed for integrating with Diagnostic Equipments		
Readiness	Available		
Name	**Medical Image Processing Library**		
Category (IP/ Reusable)	IP/ Knowledge	**Component type (HW/SW/product etc)**	Software
HW Platform	Intel	**SW Platform /OS**	Windows XP/VISTA /WINDOWS7
Applications / applicable products	Medical Image processing tools , PACS , Modality Equipments		
Market/ industries applicable	Healthcare		
Product Description	Filters , Windowing , Transfer functions , Noise reduction		
Technical specifications	C++ , GPU , C#		
Features /benefits	• DICOM data support • Supports 1-16,24,32 bit color and 1-16 bit grayscale Images • Window leveling of 12 and 16-bit grayscale images • Display images through the LUT without changing the data. • Supports Jpeg Compression. • Supports spatial filter, Contour filter, Edge detection filter, Anti aliasing, Gaussian blurring, Histogram and Intensity stretching. • Change Balance, Hue and saturation of Images. • Color inversion and Swap channels.		

	• Supports RGBToYCbCr conversion and vice versa • Supports basic morphological operation such as dilation and erosion. • Supports transfer function. • Supports Spatial domain, Diffusion based and Wavelet based Image de-noising.
Other relevant details	Developed for integrating with Diagnostic Equipments
Readiness	Available

Name	**Nuclear Medicine - Image processing tool**		
Category (IP/ Reusable)	Knowledge	**Component type (HW/SW/product etc)**	Software
HW Platform	Intel	**SW Platform /OS**	Windows XP
Applications / applicable products	Medical diagnostic imaging review station		
Market/ industries applicable	Healthcare		
Product Description	Develop an image processing tool supporting various standard image processing techniques using the Interactive Data Language (IDL)		
Technical specifications	IDL		

Features /benefits	• Display DICOM format images of NM Modality
	• Apply a set of image processing operations on the input image/ images
	  • Arithmetic operations between separate images
	  • Arithmetic operations for an image with a constant
	  • Sum of images – Sum of image, Average, Merging
	  • Operations on images – Power of an image, Root of an image
	  • Filtering – Spatial filtering, Time smoothing
	  • Image conversion – Rotation, Flip, Magnification, Reduction
	• Save the output image as standard Image formats like JPEG and BMP as well as in DICOM format		

Other relevant details	This is useful for manipulation of images in offline mode for diagnostic purposes		
Readiness	Available		