

IMAGING DEVICE VENDORS

Devices and Their

COMMUNICATION STANDARD. In today's practice, electronic health record (EHR) systems and image management software must be able to quickly and easily receive data from digital imaging devices, such as OCT, corneal topographers, and fundus cameras. In the past, many device vendors used proprietary formats for the exchange of images and related information. But the need for a single, common standard is becoming increasingly important with the proliferation of imaging devices and the necessity of transferring imaging data to EHRs—not to mention to the correct patient record. A technology standard called Digital Imaging and Communications in Medicine (DICOM) allows for this exchange.

Any practice that uses an EHR or image management system will want to be sure that future purchases of digital imaging equipment conform to the DICOM standard. (For more about EHRs, see "Shop for an EHR in the Exhibit Hall," in the *Friday Academy News*. For more about image management systems, see "Image Management Systems: What You Need to Know," in June's *EyeNet Magazine*.)

The table. The Academy Medical Information Technology (MIT) Committee has been working with several imaging equipment vendors (those that are involved in the Working Group 9 for

Eye Care or that completed their Virtual Exhibition company information by early July [as described below]) in order to launch a survey of DICOM compliance for imaging devices. The results of this initial survey are reported below and are intended to help ophthalmologists as they shop for products in the exhibit hall. Also, check DICOM conformance statements at www.aao.org/mit.

Image management systems (PACS). The MIT Committee also identified and surveyed several vendors with picture archiving and communication systems (PACS) to determine their DICOM com-

COMPANY NAME	CANON					CARL ZEISS MEDITEC							
Booth number	3028					1919							
PRODUCT NAME	HS-100 OCT	PTS-1000 Perimeter	RICS NM V4.0.2.0	RK-F2	TX-20 and TX-20P	Cirrus HD-OCT models 4000 and 400, 5000 and 500	Cirrus Photo	FF450plus with Visupac*	GDxPro	HFA II-i Family	IOL-Master 500	Matrix 800	
Conform to DICOM standards and IHE profiles for ordering ophthalmic imaging and measurement studies (i.e., DICOM Modality Worklist as defined by IHE Basic Eye Care Workflow)	Y (but no measurement data)	N	Y (but no measurement data)	N	N	Y	Y	Y	Y	Y	Y	Y	
Document completion and interpretation of ophthalmic imaging and measurement studies (i.e., DICOM Modality Performed Procedure Step—MPPS and Storage Commitment as defined by IHE Eye Care Advanced Workflow)	Y (but no measurement data)	N	Y (but no measurement data)	N	N	N	N	N	N	N	N	N	
Transmits or receives data as DICOM secondary capture	Y	N	Y	N	N	N	N	N/A	Y	N/A	Y	N/A	
Transmits or receives data as DICOM encapsulated PDF	N	N	N/A	N	N	Y	Y	N/A	Y	Y	Y	Y	
IMPLEMENTS DICOM SUPPLEMENT:													
5: Ultrasound Application Profile	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
91: Ophthalmic Photography	N/A	N/A	Y	N/A	N/A	Y	P	N	N/A	N/A	Y	N/A	
110: Ophthalmic Coherence Tomography	Y	N/A	N/A	N/A	N/A	Y	P	N/A	N/A	N/A	N/A	N/A	
130: Ophthalmic Refractive Measurements	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
143: Structured Report Template for Reporting of Macular Grid Thickness and Volume	N	N/A	N/A	N/A	N/A	N	N	N/A	N	N/A	N/A	N/A	
144: Ophthalmic Axial Measurements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N/A	
146: Ophthalmic Visual Field—Static Perimetry Measurements	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P	N/A	N	
152: Ophthalmic Thickness Map	N	N/A	N/A	N/A	N	N	N	N/A	N	N/A	N/A	N/A	

Y = Yes, currently includes this feature; P = Plan to include this feature (and date of expected inclusion, if available); N = No, does not include this feature and there are

no immediate plans to include it; N/A = Not applicable; NR = No response.



DICOM Compliance

WHAT YOU NEED TO KNOW

pliance. To see the results of that survey, go to www.aao.org/mit.
Visit the Virtual Exhibition. Go online for the most up-to-date list of exhibi-

FURTHER INFORMATION

- “EHRs: Strategies for Integrating Diagnostic Devices,” *EyeNet*, April 2013. www.eyenet.org/archives.
- The Academy Medical Information Technology site at www.aao.org/mit.
- The DICOM website: <http://medical.nema.org>.

tors who have self-identified as offering “Digital Imaging,” “Imaging,” or “Imaging Systems” products. Go to www.aao.org/2013, select “Exhibition” and then “Virtual Exhibition,” and then search by category.
Learn more. For further education about DICOM, attend Using a Fully Integrated DICOM Imaging and EHR System (Tech12) presented by Jeffrey Marx, MD.
When: Monday, Nov. 18, 11 a.m.-noon.
Where: Technology Pavilion (Hall I1, Booth 5145). **Access:** Free.
See how it works. Visit The Electronic Office (Hall G, Booth 3851). Get a

10-minute demo and experience the value of integrating your EHR system.
Vendors: Participate in future surveys. The survey results below, and those of the PACS survey, will be updated at www.aao.org/mit approximately every three months; if you would like your product to appear in the next update, please contact Flora Lum, MD, at flum@aa.org.
The Annual Meeting survey. To be included in the 2014 survey that is published in *Academy News*, imaging device exhibitors should complete their Virtual Exhibition company information by Dec. 30, 2013 (or at the latest by early July

after the Virtual Exhibition reopens next summer), specifying “Digital Imaging,” “Imaging,” or “Imaging Systems” under the categories tab. Image management system exhibitors must complete Virtual Exhibition company info that specifies “Image Management System (PACS)” under the categories tab. ■

DISCLAIMER: All information and claims are those of the vendors and have not been verified, nor does the appearance of the product constitute an endorsement of the company or product by the American Academy of Ophthalmology, EyeNet Magazine, or Academy News.

				CSO	HEIDELBERG ENGINEERING	KOWA OPTIMED	NIDEK			OCULUS	OPTOVUE		TOPCON MEDICAL SYSTEMS		
				2828	445	3739	1045			1628	3221		1644		
	Stratus OCT	Visante OCT	Visucam Family*	Phoenix 2.6†	Spectralis OCT v 5.4 and higher†	VK-2e v5.4	US 500, US 4000, and US-4000 AB Echo Scan	AFC-330 Non-Myd Camera	F-10 Scanning Laser Ophthalmoscope	OCULUS Pentacam v 1.17	iVUE SD-OCT	RTVue SD-OCT	3DOCT 2000 Fastmap	Topcon EZ-LITE 2	SP-1P
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	P	P, March 2014	Y	Y
	N	N	N	Y	P, 2014	Y	Y	Y	Y	Y	P	P	P, Dec. 2013 (Storage commitment) N (MPPS)	P, March 2014	N
	N/A	Y	N/A	Y	N	Y	Y	Y	Y	Y	Y	Y	N/A	Y	Y
	Y	Y	N/A	Y	Y	N/A	Y	Y	Y	Y	Y	Y	P, Dec. 2013	N	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A
	N	N	Y	Y	Y	Y	N/A	Y	Y	N	Y	Y	P, Dec. 2013	Y	N
	N	N	N/A	N/A	Y	N/A	N/A	N/A	N/A	N	P	P	P, Dec. 2013	N/A	N/A
	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A
	N	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N	P	P	N	N	N/A
	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	N	N/A	N/A
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A
	N	N/A	N/A	N/A	N	N/A	N/A	N/A	N/A	N	P	P	N	N/A	N/A

* Implements DICOM Supplement 15: Visible Light Photography.
†Plan to implement DICOM Supplement 168: Corneal Topography Map (date not specified).