

# *ASTM DICONDE Interoperability*

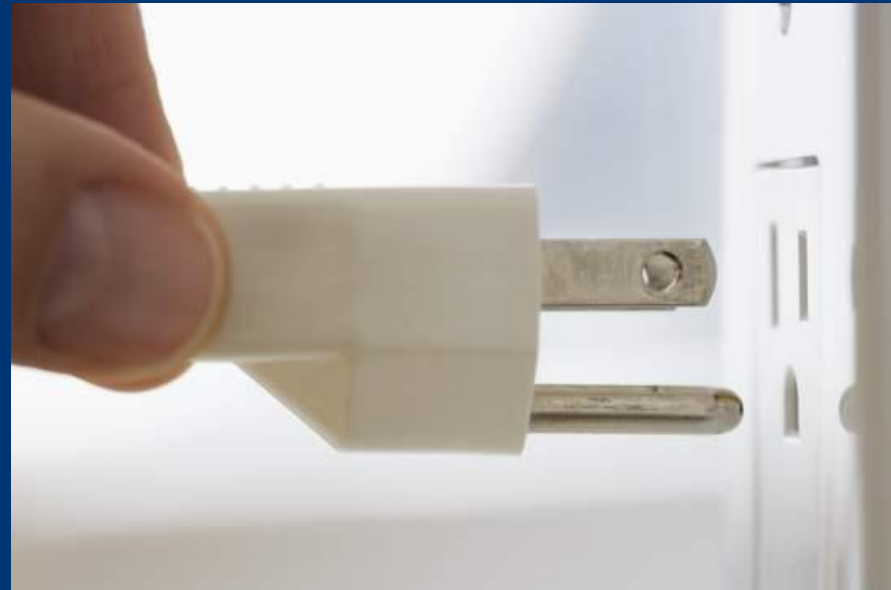
## *Overview*

*March 21, 2014*

# What is Interoperability

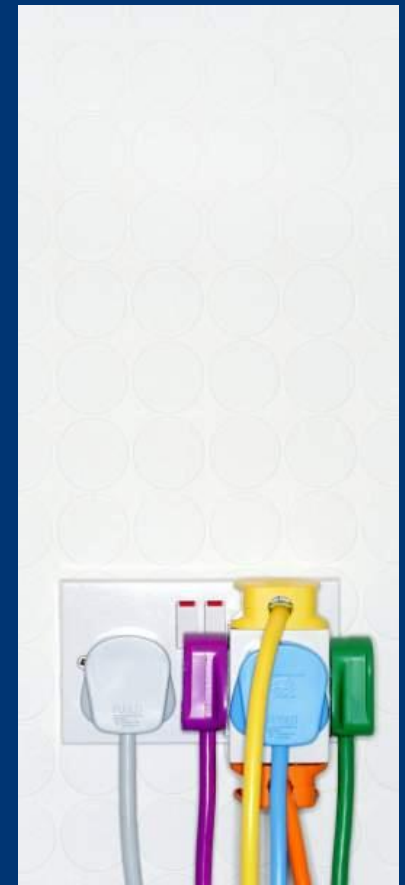
## Interoperability

*def:* The ability of a system or a product to work with other systems or products without special effort.



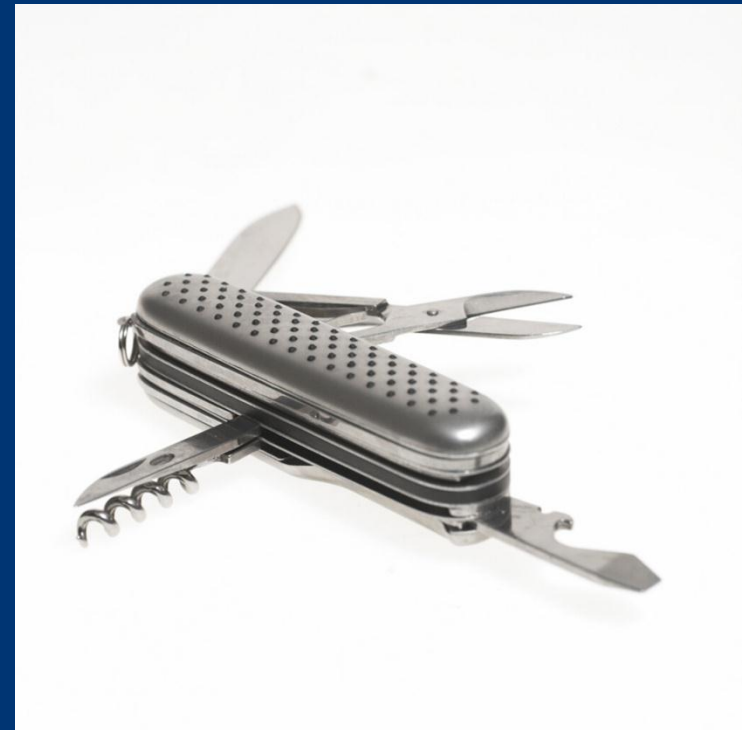
# DICOM Interoperability

- Conformance Statements
- Testing Guidelines
- Validation Tools
- IHE Connectathon



# DICONDE Interoperability

- Conformance Statements
- Validation Tools
- Example Files
- Industry Demonstrations



# DICONDE Conformance

## DICONDE Utilizes DICOM Standard Extended SOP Classes

A SOP Class defined in the DICOM Standard extended in an implementation with additional Type 3 Attributes. The additional Attributes may either be drawn from the Data Dictionary in PS 3.6, or may be Private Attributes. Therefore, the Standard Extended SOP Class utilizes the same UID as the related Standard SOP Class. Ref. - DICOM 3.4 Section B.4

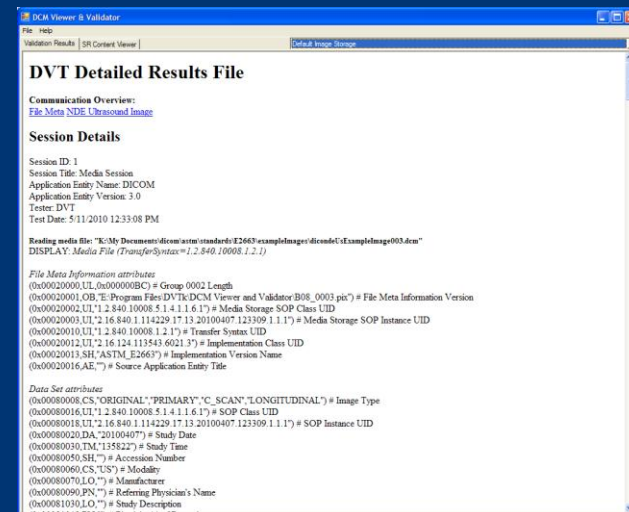
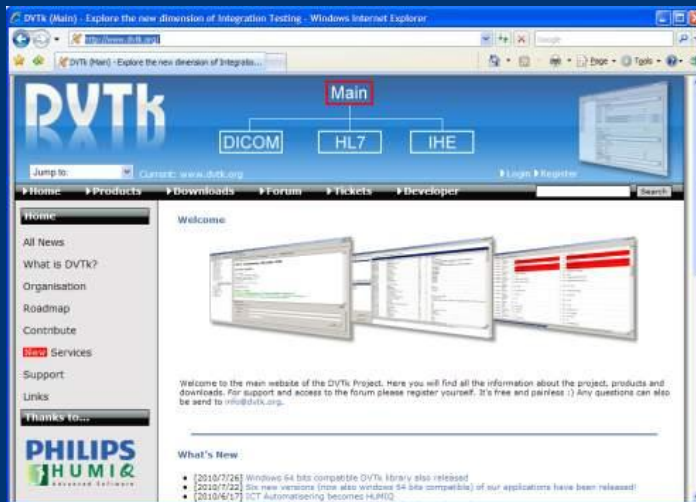
## DICONDE Service Class Providers Require Level 2 (Full) DICOM Conformance

Level 2 conformance indicates that all Type 1, Type 2, and Type 3 Attributes defined in the Information Object Definition associated with the SOP Class, as well as any **Standard Extended attributes** (including Private Attributes) included in the SOP Instance, will be stored and may be accessed. The SCP may, but is not required to validate that the Attributes of the SOP Instance meet the requirements of the IOD. Ref. - DICOM 3.4 Section B.4

**DICONDE Compliant Systems must be Level 2 DICOM Conformance for at least one of the following SOP Classes: DX, CR, CT, UT**

# Validation Tools

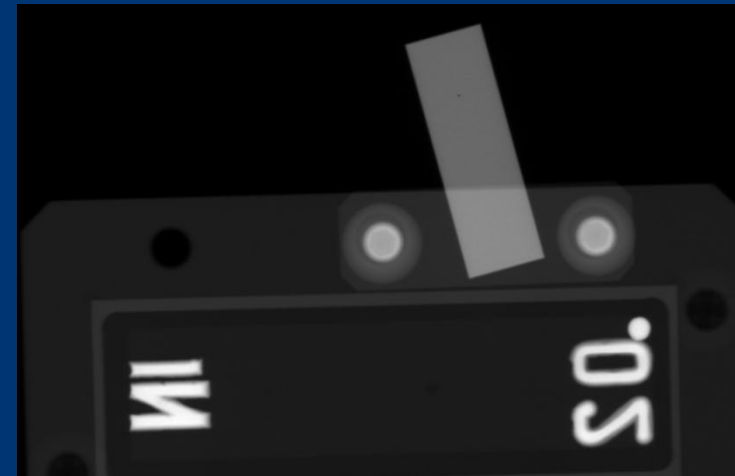
## Automated DICONDE Validation Reports using the DICOM Validation Toolkit (DVTk)



DVTk is an open source project for testing, validating and diagnosing communication protocols and scenario's in medical environments. It supports DICOM, HL7 and IHE integration profiles.  
[www.dvtk.org](http://www.dvtk.org)

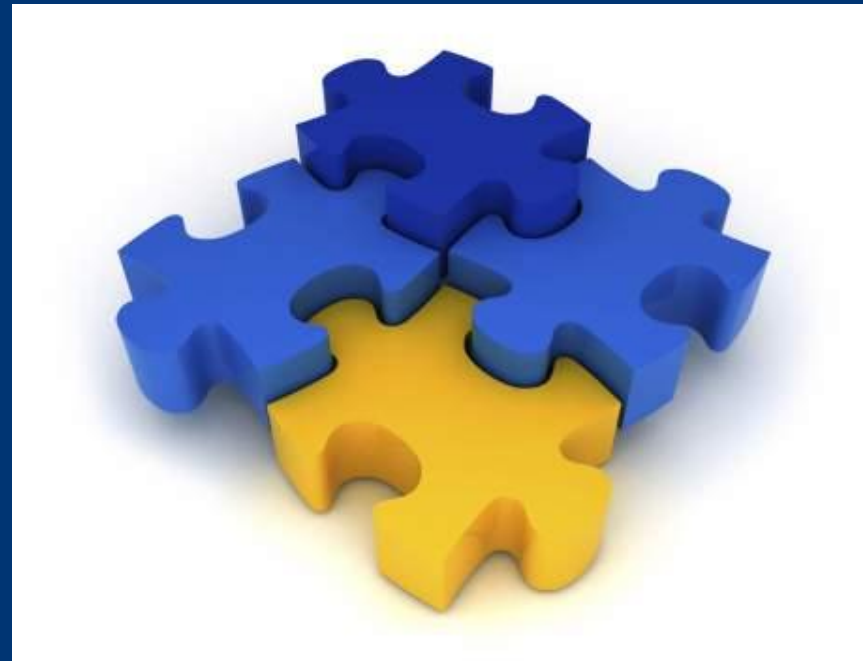
# DICONDE Example Files

- Example DICONDE Compliant Files
  - CR, DX, CT, US and US-MF
  - Minimum required attributes
  - “Typical” attributes
- DVTk Validation Reports
- DVTk Validator .def files
  - CR, DX, CT and US
- Available on ASTM web site



# Interoperability Demonstration

- Multiple Vendors
- Multiple Modalities
- Part 10 File Exchange
- Held Semi-Annually





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