

PHILIPS



Subject: User-Defined DICOM SR available on:

- EPIQ Evolution 2.0 (software version 1.5)
- Affiniti AOS 1.5 (software version 1.5)

Philips has added the ability for users to create their own measurements and calculations that contain the required SR parameters so they can be read and mapped by most 3rd party PACS and reporting systems.

Below is the EPIQ configuration screen used to create a user-defined measurement.

User created a fictitious measurement called “MR Jet Diam” and assigned it the following DICOM attributes. (Could have added more or fewer attributes, it’s up to the user)

- Concept = “99PMSBLUS, T-ABC123, MR Jet Diam”
- Mode = “2D Mode”
- View = “Parasternal short axis at the Mitral Valve level”
- Direction = “Regurgitant Flow”
- Phase = “Peak Systolic”

The screenshot shows the Philips EPIQ configuration screen. The top navigation bar includes tabs for Abdominal, AdultEcho, OB, General, GYN, SmallParts, Vascular, Fetal Echo, Pediatric Echo, and TCD. The main menu on the left includes System Settings, Analysis, Annotations, Acquisition/Capture, Data Security, Report Templates, and Setups Wizard. The main content area is titled "DICOM Properties" and contains the following fields:

- Label: MR Jet Diam
- Echo Section: Mitral Valve
- Concept/Result: Dist CSD: 99PMSBLUS CV: T-ABC123 CM: MR Jet Diam
- Mode: 2D mode
- View: Parasternal short axis at
- Method: None
- Direction: Regurgitant Flow
- Phase: Peak Systolic
- Target: None
- Stage: None
- Respiratory Cycle Point: None
- Topographical: None

The DICOM Tags field contains the following text:

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app[DCM1125200]Adult: Echocardiography Procedure Report[site[SR1T-35300]Mitral Valve]concept[99PMSBLUSIT-ABC123]MR Jet Diam]mode[SR1G-03A2]2D mode]view[SR1G-039A]Parasternal short axis at the Mitral Valve level]direction[SR1G-0367]Regurgitant Flow]phase[SR1F-32021]Peak Systolic]
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At the bottom of the screen, there are four buttons: Edit, Save, Reset, and Delete Mapping.

Once encoded and saved, the example shows the user then starts a new exam and performs 2 of these MR Jet DIAM measurements and the system averages the values.

Below is SR Export Dump which reflects the exact measurement attributes entered above and is exported in the DICOM standard Adult Echo Template. The actual SR file can be downloaded from the EPIQ page of the [Philips Ultrasound Data Portal](#). See EPIQ 7C_v1.5_AdultEcho_UserDefined_SR.zip

Adult Echocardiography Procedure Report (125200, DCM) ←Standard Adult Echo Template ID

Patient Characteristics (121118, DCM)

Body Surface Area (8277-6, LN):

2.13 m2 (UCUM [1.4], "m2")

Subject Name (121029, DCM):

AdultEcho User defined SR^Fname4^^^

Subject ID (121030, DCM):23423526

Subject Sex (121032, DCM):M

Subject Birth Date (121031, DCM):1955-12-12

Comment (121106, DCM):Test comments

Patient Height (8302-2, LN):1.8288 m (UCUM [1.4], "m")

Patient Weight (29463-7, LN):90.72 kg (UCUM [1.4], "kg")

Accession Number (121022, DCM):5723876

Sonographer (121093, DCM):A^^^

Study Description (T9910-07, 99PMSBLUS):Test description

Referring Physician (T9910-08, 99PMSBLUS):B^^^

Exam date (T9910-09, 99PMSBLUS):2015-09-02

Study date (T9910-105, 99PMSBLUS):2015-09-02

Findings (121070, DCM)

Concept Modifier: Finding Site (G-C0E3, SRT) = Mitral Valve (T-35300, SRT)

Measurement Group (125007, DCM)

MR Jet Diam (T-ABC123, 99PMSBLUS):

28.4 mm (UCUM [1.4], "mm") ←Measurement 1

Concept Modifier: Flow Direction (G-C048, SRT) = Regurgitant Flow (G-0367, SRT)

Concept Modifier: Cardiac Cycle Point (R-4089A, SRT) = Peak Systolic (F-32021, SRT)

Concept Modifier: Image Mode (G-0373, SRT) = 2D mode (G-03A2, SRT)

Concept Modifier: Image View (111031, DCM) = Parasternal short axis at the Mitral Valve level (G-039A, SRT)

MR Jet Diam (T-ABC123, 99PMSBLUS):

27.2 mm (UCUM [1.4], "mm") ←Measurement 2

Concept Modifier: Flow Direction (G-C048, SRT) = Regurgitant Flow (G-0367, SRT)

Concept Modifier: Cardiac Cycle Point (R-4089A, SRT) = Peak Systolic (F-32021, SRT)

Concept Modifier: Image Mode (G-0373, SRT) = 2D mode (G-03A2, SRT)

Concept Modifier: Image View (111031, DCM) = Parasternal short axis at the Mitral Valve level (G-039A, SRT)

MR Jet Diam (T-ABC123, 99PMSBLUS):

27.8 mm (UCUM [1.4], "mm") ←Average Value

Concept Modifier: Derivation (121401, DCM) = Mean (R-00317, SRT)

Properties: Selection Status (121404, DCM) = Mean value chosen (121412, DCM)

Concept Modifier: Flow Direction (G-C048, SRT) = Regurgitant Flow (G-0367, SRT)

Concept Modifier: Cardiac Cycle Point (R-4089A, SRT) = Peak Systolic (F-32021, SRT)

Concept Modifier: Image Mode (G-0373, SRT) = 2D mode (G-03A2, SRT)

Concept Modifier: Image View (111031, DCM) = Parasternal short axis at the Mitral Valve level (G-039A, SRT)