



IHE[®] | **SHARAZONE**
New Dimension in Interoperability Testing

SHARAZONE

Technical presentation

V 1.04 - BL

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- Test Management Tools: Gazelle & Rocket Chat
- Users and products registration process
- Test input creation and sharing
- Testing of shared DICOM datasets
- Review of consumers' Test Report

TEST MANAGEMENT TOOLS

- Dedicated instance of **Gazelle Test Management**
 - Available at <https://sharazone.ihe-europe.net>
- **Rocket.chat** for direct messages and announcements from the Sharazone moderator
 - Available at <https://chat.sharazone.ihe-europe.net>



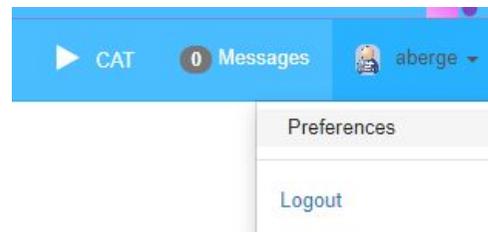
- Not bound to the IHE NA or IHE EU Connectathon user data base
 - Your regular Gazelle account will not work

Gazelle Test Management specific Features

- Creator participants can use the verified, partially verified and failed statuses
- Notifications are sent by email for the following events:
 - Creation of a new test instance
 - Status change
 - New comment posted in the chat window



Turn on the « notification by email » in your preferences



Send notification by email



Results per page

20

Spoken languages



USERS AND PRODUCTS REGISTRATION PROCESS

For both Creator and Consumer organisations

- Once the contract is signed, the SHARAZONE moderator creates:

In Gazelle:

- A new organization
- The account of the main point of contact

In Rocket.chat:

- The Rocket.chat account (same username)
- The organization's Rocket.chat channel (#org_keyword)

- Your tasks

In Gazelle

- Activate your account and set up a password (link received by email)
- Create Gazelle accounts for your colleagues

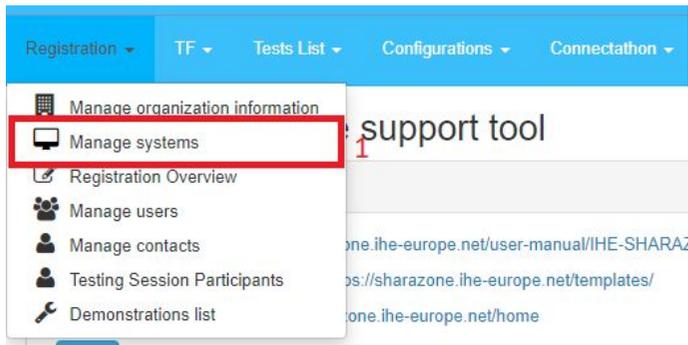
In Rocket.chat

- Reset the default password from rocket.chat
- Request account creation for your colleagues to the SHARAZONE moderator

Register your product

- One version of a real-world product = one system in Gazelle

3 Add a system



2

Add a system

Register a new system for your organization

Please use this form in order to edit information of this system.

Organization Keyword
IHE-Europe

System/Product name *
Commercial name of your product

System type *
PACS PACS / MOD / WS

System keyword
PACS_IHE-EU CAPITALISED_PRODUCT_NAME-VERSION

Version
Version of the product +
(« Commercially released » / « Not released yet »)

Owner *
aberge Main point of contact for questions about this product

* required fields

4

Save Cancel

Tell whether it consumes or creates objects... or both

System summary

Profiles/Actors

DICOM

Demonstrations

Admin section

Notes

This product implements all transactions required in the IHE Technical Framework to support the IHE Integration Profiles, Actors and Options listed below.

Click on this link to add IHE implementations (Actors / Integration Profiles / Integration Profile Options) to this system.

There are no missing dependencies for this system.

Click on this link to add IHE implementations (Actors / Integration Profiles / Integration Profile Options) to this system.

Search Criteria

Domain	Show all	x	Actor	Show all	x
Integration profile	Show all	x	Int Prof. option	Show all	x

Integration profile	Actor	Integration Profile Option	Add this IHE implementation to this system
DICOM	Consumer	None	Add this IHE implementation to this system
DICOM	Creator	None	Add this IHE implementation to this system

Close

Your system consumes
DICOM objects

Your system creates
DICOM objects



Your system might be consumer AND creator **select both**

Onboarding your product

- Once your product is registered, ask the SHARAZONE moderator in **Rocket.chat** to review and accept your system



Unaccepted systems cannot be selected as test partner

TEST INPUT CREATION AND SHARING

Prepare your **Shared test input**:

- ZIP file including the **Test Suite** and the DICOM **data set** (Test items)
- The test suite as a standalone document (MS Word)

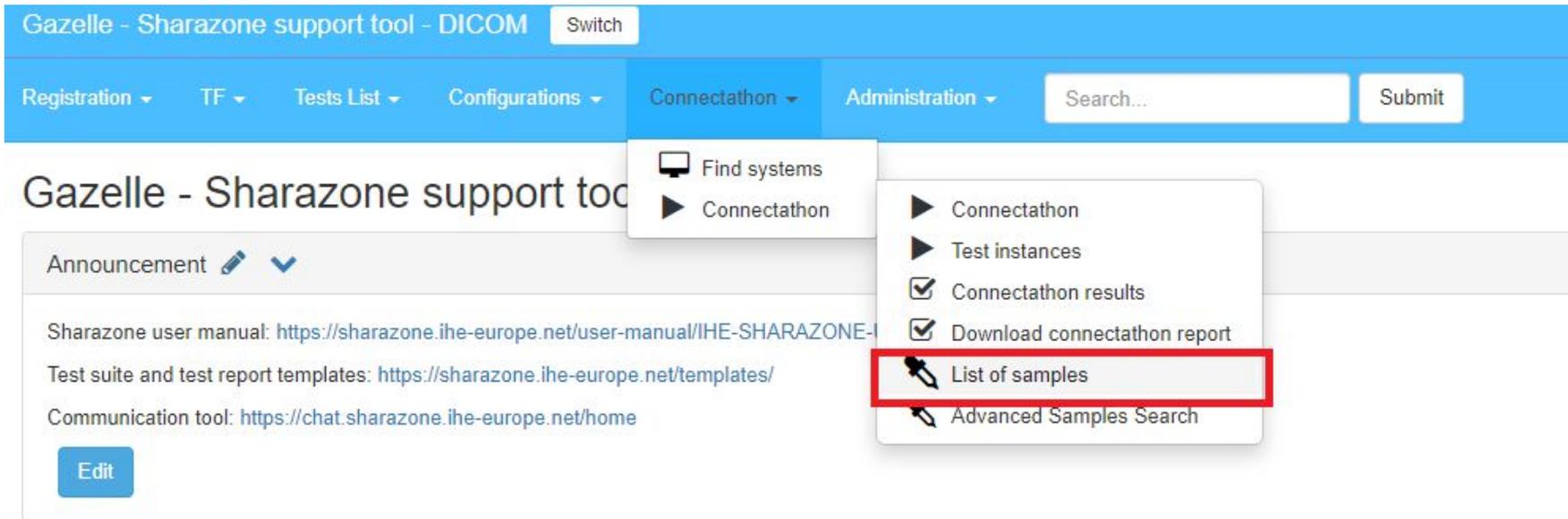
To build your Test suite, a template is available for your convenience:

[IHE-SHARAZONETEST_SUITE_TEMPLATE.docx](#)

Note: When the consumer participant will fill the test suite with test results, it will become the test report.

Register your Shared test input (1)

- Use the « Samples » feature of Gazelle



The screenshot displays the 'Gazelle - Sharazone support tool - DICOM' interface. The top navigation bar includes 'Registration', 'TF', 'Tests List', 'Configurations', 'Connectathon', and 'Administration', along with a search box and a 'Submit' button. The 'Connectathon' menu is open, showing options: 'Find systems', 'Connectathon', 'Connectathon', 'Test instances', 'Connectathon results', 'Download connectathon report', 'List of samples', and 'Advanced Samples Search'. The 'List of samples' option is highlighted with a red box. Below the navigation bar, there is an 'Announcement' section with an 'Edit' button and several links: 'Sharazone user manual: <https://sharazone.ihe-europe.net/user-manual/IHE-SHARAZONE-1>', 'Test suite and test report templates: <https://sharazone.ihe-europe.net/templates/>', and 'Communication tool: <https://chat.sharazone.ihe-europe.net/home>'.

Register your Shared test input (2)

List of samples

Sample sharing at the system level

This page is of interest for the systems that can share or render 'samples'. This is usually the cases for the actors Report Creator/Reader, Evidence Document Cr might shared.

Organization Keyword: Siemens - Siemens Healthcare GmbH

systems: MOD_Siemens_Xceed  Select your creator product

Samples to share | Samples available for rendering

You have to create the following type of samples for your peers to render. Note that you may share more than sample one per type of sample.

-   Shared Test Input - DICOM   Click here to create a new entry
 -  CT-ABDOMEN-IMAGE / First Supplement 188 Images
 -  CT-N.A.-SR / Radiation Dose Structured Report containing SSDE

Sample Name

Name *

MODALITY-BODY_PART-OBJ_TYPE / Free text 

Enter the **Test input name** using the convention:

- MODALITY: modality type(s) (CT, MR, ...)
- BODY_PART: the body part(s)
- OBJ_TYPE: image, video, GSPS, Dose, etc...
- Free text (optional)

Register your Shared test input (3)

Edit an attribute associated to : Shared Test Input - DICOM

summary file(s)

Name
CT-ABDOMEN-IMAGE / First Supplement 188 Images

Description

Summary of the content of the Shared Test Input: One series of MultiEnergy images, created based on the new Supplement 188. As an initial (simple) test you are asked to load the images into your application and check if the MultiEnergy specific parameters are interpreted and visualized correctly.

List of files:

- IHE-SHARAZONE-TEST_SUITE_SUPP188_1.docx
- Supp188-1.zip: MultiEnergy series

This is just an initial rough test. Further data will follow with more specific/extensive test suites.

Select the SOP Classes used in your shared test input

Attributes

- 1.2.840.10008.5.1.4.1.1.1
- 1.2.840.10008.5.1.4.1.1.1.1
- 1.2.840.10008.5.1.4.1.1.1.1.1
- 1.2.840.10008.5.1.4.1.1.1.2
- 1.2.840.10008.5.1.4.1.1.1.2.1
- 1.2.840.10008.5.1.4.1.1.1.2

Usage
connectathon

Sample is ready to be used by others systems **← When ready, tick this checkbox**

Give details about the content of your shared test input

Select the SOP Classes used in your shared test input

Upload the files (4)

Edit an attribute associated to : Shared Test Input - DICOM

summary **file(s)** ← Move to the file(s) tab

Id	File Type Keyword	File Type description	Sample File description	Minimum Files	Maximum Files	Action
1	ZIP	Zip File	Archive of the Shared Test Input. This ZIP archive shall contain the images as well as the Test Suite as a writable document.	1	1	+
2	DOC	Word Document	The test suite. Extract the test suite from the Shared Test Input to give the opportunity to consumers to read it without downloading the whole package.	1	1	+

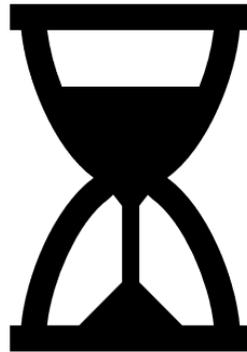
Click to access the upload widget



Size limit per file: 1850 MB

You are almost done !

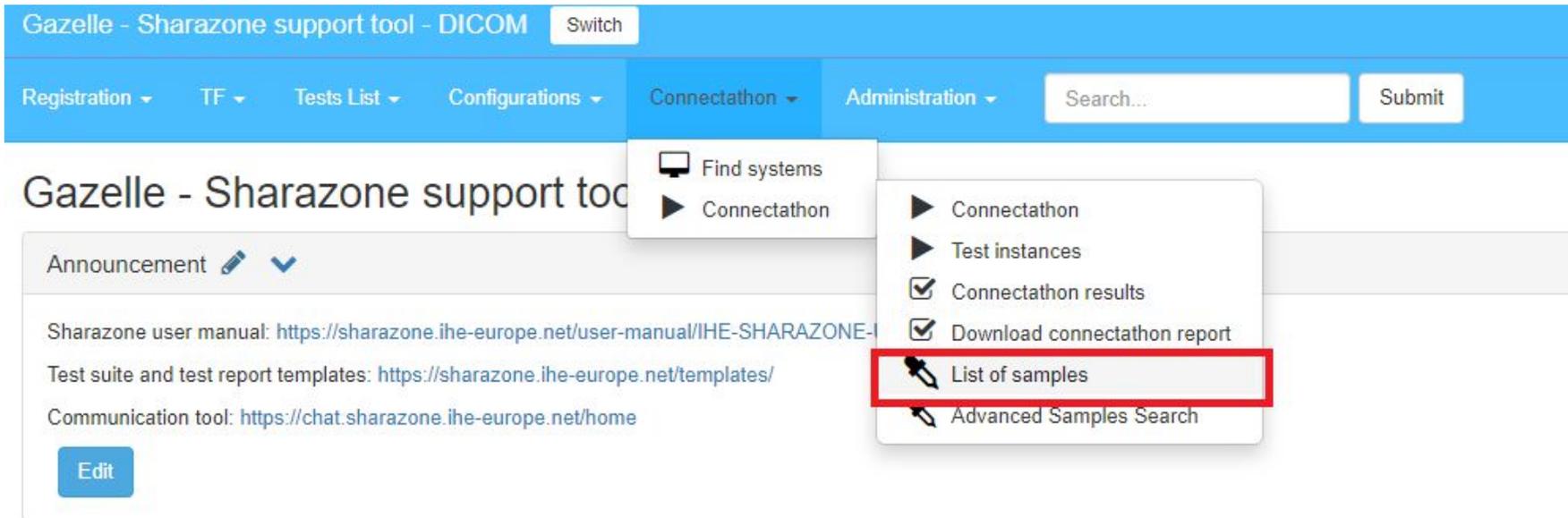
- Inform the SHARAZONE moderator that a new Shared Test Input is available
- The SHARAZONE moderator notifies the consumer participants
- Wait for the consumers to start a test instance against your product



TESTING OF SHARED DICOM DATA SETS

Access the list of Shared test inputs

- Use the « Samples » feature of Gazelle



The screenshot displays the 'Gazelle - Sharazone support tool - DICOM' interface. The top navigation bar includes 'Registration', 'TF', 'Tests List', 'Configurations', 'Connectathon', and 'Administration', along with a search bar and a 'Submit' button. The 'Connectathon' menu is open, showing options: 'Find systems', 'Connectathon', 'Connectathon', 'Test instances', 'Connectathon results', 'Download connectathon report', 'List of samples', and 'Advanced Samples Search'. The 'List of samples' option is highlighted with a red box. Below the navigation bar, there is an 'Announcement' section with an 'Edit' button and several links: 'Sharazone user manual: https://sharazone.ihe-europe.net/user-manual/IHE-SHARAZONE-', 'Test suite and test report templates: https://sharazone.ihe-europe.net/templates/', and 'Communication tool: https://chat.sharazone.ihe-europe.net/home'.

Review the list of shared test inputs

List of samples

Sample sharing at the system level

This page is of interest for the systems that can share or render 'samples'. This is usually the cases for the actors Report Creator/Reader, Evidence Doc you might shared.

Organization Keyword:

systems: **Select your Consumer product**

Samples to share: **Move to the list of available items**

[Export to excel](#)

You have to render/consume some of the following objects that your peers have created. You can also add a comment on these samples.

- [-] Shared Test Input - DICOM
 - [-] CONTENT_CREATOR_IHE-EU_GE_GSPS_labeling
 - [-] CONTENT_CREATOR_IHE-EU_testCT
 - [-] MOD_GE_IF
 - [-] IF gsps shared test input
 - [-] MOD_IHE-EU_kickoff
 - [-] MOD_OLYMPUS_nCare_10.2.3
 - [-] nCare DICOM Image Baseline
 - [-] nCare DICOM Image Lossless
 - [-] nCare DICOM Video MP4
 - [-] MOD_Siemens_Xceed
 - [-] CT-ABDOMEN-IMAGE / First Supplement 188 Images
 - [-] CT-N.A.-SR / Radiation Dose Structured Report containing SSDE
 - [-] PACS_CZM_ZeissConnectApp-5.0
 - [-] GM-NOBODYPART-IMAGS_VIDEO
 - [-] PACS_GE_UV
 - [-] PACS_MedicalC
 - [-] Anterior chamber of the eye - ophthalmic images (OP/OPT)
 - [-] Ophthalmic Key Measurement Report
 - [-] PACS_synedra_AIM_Niobe_22.0
 - [-] synedra DICOM Video MP4

Click on the Test Input name to see details

Shared Test Input - DICOM - DICOM Shared Test Input | CT-ABDOMEN-IMAGE / First Supplement 188 Images

Id: 7
Sample Name: CT-ABDOMEN-IMAGE / First Supplement 188 Images
Sample Type: Shared Test Input - DICOM
System Creator: MOD_Siemens_Xceed
Organization: Siemens Healthcare GmbH
Date of creation: 10/15/21 9:38:04 AM
Usage: connectathon
Permanent link: <https://sharazone.ihe-europe.net/gazelle/objects/sample.seam?id=7>

Description

Summary of the content of the Shared Test Input: One series of MultiEnergy images, created based on the new Supplement 188. As an initial (simple) test you are asked to load the images into your application and check if the MultiEnergy specific parameters are interpreted and visualized correctly.

List of files:

- IHE-SHARAZONE-TEST_SUITE_SUPP188_1.docx
- Supp188-1.zip: MultiEnergy series

This is just an initial rough test. Further data will follow with more specific/extensive test suites.

File(s) uploaded by the creator of the sample			
Type	File name	Last validation status	Actions
ZIP	Supp188-1.zip	NOT PERFORMED	
EVS Client results (click to open)			
DOC	IHE-SHARAZONE-TEST_SUITE_SUPP188_1.docx	NOT PERFORMED	
EVS Client results (click to open)			

Snapshot(s) uploaded by the creator of the sample

You've made your choice !

- Download the ZIP Test Input
- Start a test instance in Gazelle



Main Connectathon Page

Search Criteria

Testing session	DICOM	Last update :	7/20/21 3:23:46 PM
Organization	(2) GE - GE Healthcare	System	(2) PACS_GE_UV (7)
Domain	Show all	Actor	Show all
Integration profile	Show all	Int Prof. option	Show all
Transaction	Show all	Test Type	Show all
Results	Show all		

All test types Peer To Peer Unassigned Group No Peer

Save search criteria

You can add up to 4 filters presets for this page :

Check the box if you want to make it your default page

None

Select your product

Profile	Actor	Profile Option	Type	R/O	Partners	V	W	P	F	Vendor comments
DICOM	CONTENT_CONSUMER	NONE	T	1/0		0%	0%	0%	0%	Please Select...
Test		Meta test								
SHARAZONE_TEST_PROCESS			+							
One test										
DICOM	CONTENT_CREATOR	NONE	T	1/0		0%	0%	0%	0%	Please Select...
Test		Meta test								
SHARAZONE_TEST_PROCESS			+	R / 1	0/7					
One test										

Create a new Test instance

Select your partner and initiate the test instance

Start test instance

SHARAZONE_TEST_PROCESS Configuration

Role	Systems	System keyword	Integration profile	Actor
✓ DICOM-CONSUMER [1,1] ?	GE	PACS_GE_UV	DICOM	CONTENT_CONSUMER

1 Participants

✗ DICOM-CREATOR [1,1] ?

0 Participants

Click here

Select partner system(s) for the role : DICOM-CREATOR

Card min: 1

Card max: 1

Systems :

- MOD_GE_IF
- MOD_OLYMPUS_nCare_10.2.3
- MOD_Siemens_Xceed
- PACS_CZM_ZeissConnectApp-5.0
- PACS_GE_UV
- PACS_MedicalC

⇒ Add all

→ Add

← Remove

⇐ Remove all

Select the creator product

Confirm

Add selected partner(s)



And click on the play icon
to initiate the test instance



The creator participant
is notified by email

Fill out the reference of the Shared Test Input

Step	Trans:	Trans. - Message Type	Opt.	Sending Actor	Receiving Actor	Status
		- Sample	R	PACS_GE_ZFP - CONTENT_CONSUMER	PACS GE ZFP - CONTENT CONSUMER	✓ ✓
Desc: Pick a shared test input from the Samples section of the tool and copy there its permanent link. Enter the permanent link of the shared test input						
Logs: No comment file or URL						
+ Upload a file (click or drop)						
Add URL						
<input type="text" value="https://sharazone.ihe-europe.net/gazelle/objects/sample.seam?id=6"/>						
Add ? ✕						

Sample Description



Description of a sample

Id: 6

Sample Name: CT-N.A.-SR / Radiation Dose Structured Report containing SSDE

Sample Type: Shared Test Input - DICOM

System Creator: MOD_Siemens_Xceed

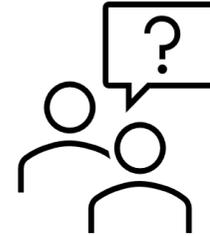
Organization: Siemens Healthcare GmbH

Date of creation: 10/15/21 9:40:01 AM

Usage: connectathon

Permanent link: <https://sharazone.ihe-europe.net/gazelle/objects/sample.seam?id=6>

Need assistance from the Creator ?



- You can get in touch:
 - Through the chat window of the test instance
 - An email is sent to the creator to notify him of new messages (asynchronous)
 - Through rocket.chat
 - Initiate a one-to-one discussion (usernames are the same in Gazelle and in rocket.chat)
 - Use the #org.XXX channel to get in touch with all the users from a given organization

Complete your work

- Execute the test suite 
- **Upload** the Test report to the test instance

- Upload Test report R CONTENT_CREATOR_IHE-EU_testCT - CONTENT_CONSUMER CONTENT_CREATOR_IHE-EU_testCT - CONTENT_CONSUMER

Desc: Attached the test report to this test suite and mark the test as "to be verified"

30 Logs: No comment, file or URL

Upload a file (click or drop) **← Upload your test report**

- Review R CONTENT_CREATOR_IHE-EU_GE_GSPS_labeling - CONTENT_CREATOR CONTENT_CREATOR_IHE-EU_GE_GSPS_labeling - CONTENT_CREATOR

Desc: Review the test report. Do not hesitate to contact the consumer through the chat window below. When you are done with the report, mark this test as "Verified"

40 Logs: No comment, file or URL

Upload a file (click or drop)

Step	Trans.	Opt.	Sending Actor	Receiving Actor	Status	Validation Status
					✓	

Test current status : **Aborted** ▼

- Running
- Paused
- To be verified**
- Aborted
- Verified
- Partially verified
- Failed
- Verified
- Partially verified
- Failed

Change the status to « to be verified » →

Files

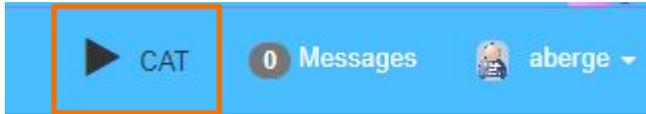
Upload a file (click or drop)



The creator participant is notified by email

REVIEW OF CONSUMERS' TEST REPORT

Review the inputs from the consumers



Main Connectathon Page

Search Criteria

Testing session: DICOM

Organization: (2) Siemens - Siemens Healthcare GmbH

Domain: Show all

Integration profile: Show all

Transaction: Show all

Results: Show all

Last update: 7/20/21 3:23:46 PM

System: (2) MOD_Siemens_Xceed (VA40A (Not yet release...))

Actor: Show all

Int Prof. option: Show all

Test Type: Show all

All test types Peer To Peer Unassigned Group No Peer

Save search criteria

You can add up to 4 filters presets for this page :

Save

Check the box if you want to make it your default page

None

Profile	Actor	Profile Option	Type	R/O	Partners	V	W	P	F	Vendor comments
DICOM	CONTENT_CONSUMER	NONE	T	1/0		0%	0%	0%	0%	Please Select...
Test										
		Meta test								
SHARAZONE_TEST_PROCESS										
One test										
DICOM	CONTENT_CREATOR	NONE	T	1/0		100%	?	?	0%	Please Select...
Test										
		Meta test								
SHARAZONE_TEST_PROCESS										
Reviewed test reports										
		Meta test								
Tests in Progress										
		Meta test								
SHARAZONE_TEST_PROCESS										

Select your creator product

Ready for your review

Reviewed test reports

Tests in Progress

Download the test report

Test Instance Steps

Step	Trans.	Trans. - Message Type	Opt.	Sending Actor	Receiving Actor	Status	Validation Status										
10	- Sample		R	PACS_GE_ZFP - CONTENT_CONSUMER	PACS_GE_ZFP - CONTENT_CONSUMER	✓	✓										
<p>Desc: Pick a shared test input from the Samples section of the tool and copy there its permanent link.</p> <p>Logs: Upload a file (click or drop)</p> <table border="1"> <thead> <tr> <th>Date</th> <th>User</th> <th>Type</th> <th>Data</th> <th>Actions</th> </tr> </thead> <tbody> <tr> <td>10/20/21 10:48:34 AM</td> <td>aberge</td> <td>Sample</td> <td>CT-N.A.-SR / Radiation Dose Structured Report containing SSDE</td> <td></td> </tr> </tbody> </table>								Date	User	Type	Data	Actions	10/20/21 10:48:34 AM	aberge	Sample	CT-N.A.-SR / Radiation Dose Structured Report containing SSDE	
Date	User	Type	Data	Actions													
10/20/21 10:48:34 AM	aberge	Sample	CT-N.A.-SR / Radiation Dose Structured Report containing SSDE														
20	- Execute Test Suite		R	PACS_GE_ZFP - CONTENT_CONSUMER	PACS_GE_ZFP - CONTENT_CONSUMER	✓	✓										
<p>Desc: Execute the Test Suite by your own. Do not hesitate to contact the creator through the chat window below.</p> <p>Logs: No comment, file or URL</p> <p>Upload a file (click or drop)</p>																	
30	- Upload Test report		R	PACS_GE_ZFP - CONTENT_CONSUMER	PACS_GE_ZFP - CONTENT_CONSUMER	✓	✓										
<p>Desc: Attached the test report to this test suite and mark the test as "to be verified"</p> <p>Logs: No comment, file or URL</p> <p>Upload a file (click or drop)</p>																	
40	- Review		R	MOD_Siemens_Xceed - CONTENT_CREATOR	MOD_Siemens_Xceed - CONTENT_CREATOR	✓	✓										
<p>Desc: Review the test report. Do not hesitate to contact the consumer through the chat window below. When you are done with the report, mark this test as "Verified"</p> <p>Logs: No comment, file or URL</p> <p>Upload a file (click or drop)</p>																	
						Status	✓										
						Validation Status	✓										
						Test current status:	Partially verified										

Files

Date	User	Data	Actions
7/12/21 9:47:12 PM	snichols	IHE-SHARAZONE-TEST_SUITE_RDSR_SSDE.docx	

Name of the shared test input

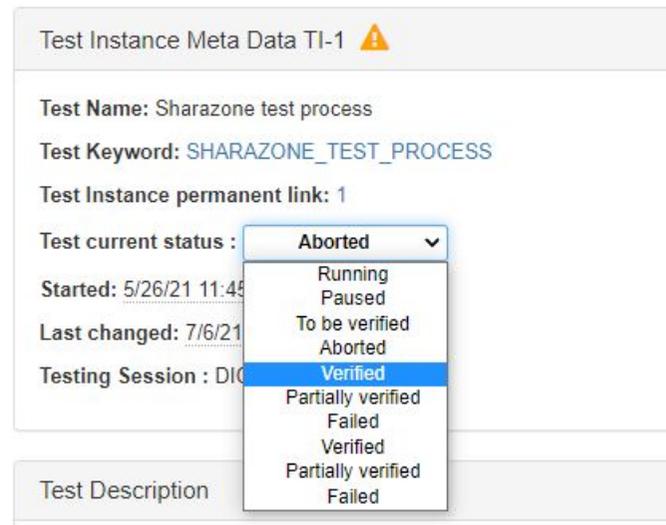
Access details from here

Download the report

Download and read the test report and close the test

- You are happy with the test report ? 

- Mark the test



Test Instance Meta Data TI-1 

Test Name: Sharazone test process

Test Keyword: SHARAZONE_TEST_PROCESS

Test Instance permanent link: 1

Test current status : **Aborted** ▼

Started: 5/26/21 11:45

Last changed: 7/6/21

Testing Session : DIC

Test Description

- Aborted
- Running
- Paused
- To be verified
- Aborted
- Verified**
- Partially verified
- Failed
- Verified
- Partially verified
- Failed

- You need further insights from the consumer participant ? 
 - Mark the test instance « **Partially Verified** »
 - Use the Test instance chat or **rocket.chat** to ask questions

A banner for IHE SHARAZONE with a background of blue and red lines and circles. The text "IHE SHARAZONE" is in large blue letters, and "New Dimension in Interoperability Testing" is in smaller blue italicized letters below it.

IHE[®] SHARAZONE
New Dimension in Interoperability Testing

Q&A session