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| Department: | Research & Development |

# Approval

| **Role** |  |
| --- | --- |
| R&D Department Manager VE |  |
| GEN: Project Manager |  |
| Q&R: Dev QA Officer | (approval via electronic signature in document management tool) |

# Revision History

| **Revision Date** | **Author** | **Source** | **Changes/Comments** |
| --- | --- | --- | --- |
| 2019 Oct 07 | A.J. van den Berg  W. Mos | D-371822 | Initial version of this document, reworked with review comments. |
| 2020 July 22 | A.J. van den Berg  Jaswinder Kaur | D-417511 | Migrated to XCT-0308515 rev.17, and updated content with regards to the current content of the PUMA project. |
| 2021 Mar 15 | Jaswinder Kaur | A | Closed Open Issues OI\_006, OI\_007, OI\_008 and OI\_009. Migrated to latest template XCN-2000789 rev.01.  Updated Chapter 4.1.3,7 and 8 for Maximizer and FCO scope.  Clerical update in Chapter 5 to mention use of acceptance tests.  Reworked on review comments. |
| 2022 Mar 11 | Jaswinder Kaur | B | * Migrated to the latest template. * Closed Open Issues. * Removed Table APC predefined position from test scope because the change is delivered by previous product release. * Updated below sections to reflect Phased SIT strategy and test approach for NPI, FCO, HDD to SSD (CVPRJ00415651) and maximizer:   + 4.1.2, 4.1.3, 4.1.5   + Updated Entry Criteria   + Updated Appendix A   + Added Appendix C to capture CRs and field feedback items * Clerical updates throughout the document. * Reworked on review comments. |
| 2022 Nov 10 | Jaswinder Kaur | C | * Update to clarify the strategy of Test Design usage in Chapter 5. * Verification and Release strategy for FCO and Maximizer is updated under Chapter 2.3, 4.1.3 and 4.1.5. * Updated Chapter 2.3 and 4.1.3. * Below UID tags are removed from Appendix A because these tags are covered are removed from [REF-25] and covered at unit level. * UID.2DQA.FR.Calibration * UID.2DQA.FR.Calibration.Auto * UID.2DQA.FR.Calibration.Distance * UID.2DQA.FR.Calibration.Catheter * UID.2DQA.FR.Calibration.Sphere * UID.2DQA.FR.Calibration.AcceptByUser * UID.2DQXA.FR.Analysis.Navigation * UID.2DQXA.FR.Analysis.DetectContourAutomatically * UID.2DQXA.FR.Analysis.CorrectContour * UID.2DQXA.FR.Analysis.EstimateObstruction * UID.2DQXA.FR.Analysis.ShowResults * UID.2DQXA.FR.Analysis.EditAnalysis * UID.2DQXA.FR.ResultPage * UID.2DXVA.FR.Analysis.Navigation * UID.2DXVA.FR.Analysis.CreateContour.Manual * UID.2DLVA.FR.Analysis.CreateContour.Automatic * UID.2DXVA.FR.Analysis.EditContour * UID.2DXVA.FR.Analysis.Biplane * UID.2DXVA.FR.Analysis.ShowResultSummary * UID.2DXVA.FR.ResultPage.Volumetric * UID.2DXVA.FR.ResultPage.WallMotions   UID.2DXVA.FR.ResultPage.Save  Below SDS tags are removed because these are not affected by product change  SDS.NCDAT.1370.Part.XII.25.4.SAFETY TEST  SDS.NCDAT.IEC 60601-2-54.203.7.1.101.FUNCTIONAL TEST   * Below listed tags are added under Appendix A :   + rcm.umb.limit-force.ef.mot-float.dm   + SRS.Allura.Serv.FSInstructions   + SRS.Allura.SLS.VA   + SRS.Allura.Conf.Table-RelatedItems.ptf-5 * Updated PVP to remove Surg Nav as product change. * Updated list of enhancements in Appendix C. |
| 2022 Nov 28 | Bas van de Water | D | Following tags are removed from Appendix A because they are not affected by Azurion R3.0 product changes:   * SRS.Allura.Func.VesselAnalysis * SRS.Allura.Func.VentricularAnalysis   Following RCM tag is added in Appendix A:   * RCM.Sec.NoAutoLogoffLockout   Following duplicate tags are removed from Appendix A:   * RCM.Sec.AuthorizedRoomAccess * RCM.Sec.PhysicalHardening * RCM.Sec.PatientDataArchiving * RCM.Sec.ResponsibilityAgreement * RCM.Sec.LimitedEmergencyAccess * RCM.Sec.PasswordComplexityControl * RCM.Sec.UserAuthentication |
| 2023 Jan 09 | Jaswinder Kaur | E | Updated section 4.1.3 to capture exploratory test charter execution for service workflow domain during Verify Designs phase. |
| 2023 Jan 25 | Jaswinder Kaur | F | Added definition for MultiView under section 1.5  Added below tags under Appendix A as a result of update to SDS Azurion R3.0 [REF-03]  - rcm.xifdft.fault-tolerant-x-ray-imaging.sm.always-connect-wired-footswitch.sm  - rcm.xifdft.training.us.ifu.fsw-wireless-always-have-wired-connected.ifu  - rcm.xifdft.training.us.ifu.fsw-wireless-connection-faillure-due-to-interference.ifu |
| 2023 Apr 05 | Jaswinder Kaur | G | Removed ‘Entry criteria Release for delivery phase’ from section 7 because there are no activities and deliveries defined in this phase.   * Moved content from section 4.1.5 to section 4.1.4 and removed section 4.1.5. because no activities and deliverables are planned. * Updated table ‘Documentation’ under section 4.1.4. |

# Open Issues

None.

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# Document Introduction

## Purpose

The purpose of this document is to give an overview of the activities to be performed in order to fulfill the assignment as defined in the Project Management Plan PUMA [REF-01].

## Scope

This document:

* Determines the test impact with respect to new/changed functionality.
* Describes test strategy.
* Describes the test decomposition at unit development, integration, verification activities for System as well as Software testing.

The validation approach is described in the Master Design Validation Plan PUMA [REF-02].

## Intended Audience

The target audience of this document is the GEN: Project Manager and his or her team.

## References

| **Reference** | **Identification** | **Title of Document** |
| --- | --- | --- |
| REF-01 | DHF335536 | Project Management Plan PUMA |
| REF-02 | D001253745 | Product Validation Plan PUMA |
| REF-03 | DHF340704 | SDS Azurion R3.0 |
| REF-04 | DHF334523 | SRS Azurion R3.0 |
| REF-05 | DHF348145 | IPA Acadia PUMA |
| REF-06 | DHF340180 | IPA Arches Puma |
| REF-07 | DHF351630 | IPA PUMA Grand Canyon |
| REF-08 | DHF333478 | IPA VOIP PUMA |
| REF-09 | DHF339372 | System MID Azurion R3.0 |
| REF-12 | DHF348160 | SDS Norm Compliance Azurion R3.0 |
| REF-15 | DHF304765 | CiA Azurion R3.0 |
| REF-17 | DHF341845 | UID Flexible Viewing |
| REF-18 | DHF341844 | UID UI Overall |
| REF-19 | DHF341847 | UID UI X-ray applications |
| REF-20 | DHF341846 | UID Service and Manufacturing |
| REF-21 | DHF346888 | UID P&B Positioning Azurion (Blue) |
| REF-25 | DHF318626 | UID 2D Quantitative Analysis |
| REF-27 | DHF339475 | UID iControl Interface |
| REF-28 | DHF341849 | UID Image Acquisition & Processing |
| REF-29 | DHF342960 | UID Acquisition Scenarios |
| REF-30 | DHF348165 | UID P&B Positioning Azurion (Red) |
| REF-31 | DHF348864 | UID Control Room Workflow |
| REF-33 | DHF356832 | IPA Puma - Pinnacles |
| REF-34 | DHF347967 | Software Development Plan PUMA |
| REF-35 | DEP160801 | Strategy for Sample Size definition for design verification |
| REF-36 | DHF354490 | Usability Plan Azurion R3.0 |
| REF-37 | DHF337357 | Operations Project Plan Puma |
| REF-38 | DHF351888 | Customer Service Plan PUMA |
| REF-39 | D000707331 | IPA Cheetah - PUMA |
| REF-41 | DEP169064 | Software Development Handbook IGT |
| REF-43 | DHF349652 | UID Service and Manufacturing PBPos |
| REF-45 | DHF371209 | Test Design Acceptance Test |
| REF-46 | DHF377679 | IPA China Azurion R3.0 |
| REF-47 | DEP169064 | Software Development Handbook |
| REF-48 | DHF224192 | Interface Design Specification 3rd Party Monitor Mounting onto MCS Frame |
| REF-49 | DHF220622 | Interface Design Specification Video Infrastructure |
| REF-50 | DHF228390 | Interface Design Specification Miscellaneous Interfaces |
| REF-51 | DHF352686 | (d)RMM Azurion R3.0 |
| REF-52 | DHF349228 | PSR Azurion R3.0 |

## Terminology & Abbreviations

| **Term** | **Description** |
| --- | --- |
| AGILE | AGILE software development is a set of principles and practices used by self-organizing teams to rapidly and frequently deliver customer-valued software. It follows an incremental lifecycle, emphasizing close collaboration between the software development team, the customer, and other stakeholders. It is adaptable, emphasizing the need to adjust the principles and practices to fit the context and environment in which the software is being created. |
| APC | Automatic Position Control |
| ART | Agile Release Train |
| BCR | Bolus Chase Reconstruction |
| CCB | Change Control Board |
| CiA | Compatibility impact Analysis |
| CI/CD | Continuous Integration and Continuous Deployment |
| COCIR | European Trade Association representing the medical imaging, radiotherapy, health ICT and electro-medical industries. It promotes harmonization of regulatory frameworks, supported by state-of-the-art international standards. |
| CT | Computed Tomography |
| CWIS | Cathlab Workstation Integration Service |
| DAR | Dual Axis Rotation |
| Product Issue | A product issue is a Development Problem.  A product issue is submitted as an Engineering Issue record type during the Engineering and Integrate product phase.  A product issue is submitted as a Product Defect record type during the Design Verification, Design Validation and Release phase. |
| Development team | Multidisciplinary team of software developers and test engineers |
| DHR | Device History Record |
| DICOM | Digital Imaging and Communications in Medicine |
| DMR | Device Master Record |
| DPC | Deliver Platform Component |
| DRA | Dynamic Rotational Angiogram |
| dRMM | detailed Risk Management Matrix |
| DVI | Digital Visual Interface |
| ECG | Electro Cardio Gram |
| EM | Electro Magnetic |
| EoD | End of Development |
| EP | Electro Physio |
| ET | Exploratory Tests |
| FAST | Framework for Automated System Testing |
| HDD | Hard Disk Drive |
| HW | Hardware |
| IDS | Interface Definition Specification |
| iEngine | iEngine is the name that is used for the software unit that handles functionality like patient administration, printing, archiving, image storage, and graphical user interface. |
| IPA | Internal Project Agreement |
| IPX2 | Ingress Protection level 2 |
| IVR | Integration, Verification and Release |
| MID | Master Integration Diagram |
| MM-TSM | Multi-Modality Touch Screen Module |
| MTBF | Mean Time Between Failure |
| MultiView | Technical name of MultiSwitch switching solution in combination with IP based video infrastructure |
| PDC | Product Design Committed |
| PI | Project Initiated |
| PLC | Product Launch Committed |
| PSC | Philips Support Connect |
| PSR | Privacy Security Requirements |
| PUMA | Name of the project that releases Azurion 3.0 |
| QA | Quantitative Analysis |
| RCM | Risk Control Measure |
| RFD | Released for Delivery |
| SIT | System Integration Test carried out during Integrate Product phase |
| SRS | System Requirements Specification |
| SSD | Solid State Disk |
| SVAL | Start of Validation / System Validation |
| SVER | Start of Verification / System Verification tests carried out during Verify Designs phase |
| SW | Software |
| TE | Test Environment |
| TSM | Touch Screen Module |
| TTM | Test Traceability Matrix |
| UD | Unit Design |
| UEFI | Unified Extensible Firmware Interface |
| UI | User Interface |
| UID | User Interaction Design |
| UNS | User Needs Specification |
| UPS | Uninterrupted Power Supply |
| US | Unit Specification |
| USB | Universal Serial Bus |
| UTR | Unit Test Report |
| UTS | Unit Test Specification |
| VideoOverIP | VoIP = Video over Internet Protocol;  Method for transmitting video over IP (Internet Protocol) network |

# Verification Span

## Product Description

The System is an angiographic X-ray system. The common tasks of an angiographic X-ray system include:

* Real-time image visualization of patient anatomy during procedures.
* Provide imaging techniques and tools to assist interventional procedures.
* Offer post processing functions after interventional procedures.
* Store reference and control images for patient records.
* Import images from and export images to other modalities via DICOM.
* Interfacing with external equipment

This array of functions offers the physician the imaging information needed to perform minimally invasive interventional procedures.

The System consists of hardware and software units. The system’s hardware is typically distributed in three rooms (see Figure 1 Overview of the System).

* The Exam Room where the patient is diagnosed and/or treated.
* The Control Room where the patient administration, preparation work and reporting is performed.
* The Technical Room where the system cabinets with system control PCs, power supplies and necessary cooling units are placed.



Figure 1 Overview of the System

## Test Scope

The Azurion R3.0 system is an evolutionary update on the Azurion R2.2. The System Design Specification Azurion R3.0 [REF-03] describes the design of the whole system and is used as basis to describe the major and minor product changes with respect to Azurion R2.2. Allocation of major and minor product changes is taken from [REF-04]. The test scope of this document is limited to the following items:

**Major product changes:**

There are no major changes compared to the previous product release Azurion R2.2.

**Minor product changes:**

* Introduction of network IP based video distribution system
* GPO/LUC L-Arc FD20/15LN AD7 (Redesign of L-Arc tube cover IPX2, removable spacer)
* Introduction of new PC type with new Win10 (1809) UEFI and secure boot
* Butterfly Rotation XperCT Compatibility and Dual Phase Neuro
* Compatibility with Servicehub
* Compatibility with CollabLive (requires FlexVision Pro)
* Interventional network
* Prepare conditions that enable the remanufacturing of Allura R8.2 to Azurion R3.0

Following table indicates Azurion configurations that can be remanufactured of the Allura R8.2 systems. These remanufactured Azurion system configurations are characterized by detector, stand type and patient support type.

| **FD Config** | **Table** | **Stand** | **Location** |
| --- | --- | --- | --- |
| FD12 | AD7X(N)T | Poly-G2 | Ceiling |
| FD20 | AD7X(N)T | Clea2 | Ceiling |

**Other**

* Maximizer[[1]](#footnote-2) content
* FCO Upgrades (from Azurion R1.2, Azurion R2.x to Azurion R3.0)
* CRs and Field Problems assigned to Azurion R3.0 are listed in the Appendix C.
* Image Quality improvements

The main system configurations to be supported or released are characterized by detector, stand type and patient support type listed below.

| **Config** | **Hybrid** | **Table** | **Stand** | **Location** | **Type** | **L-Arc** |
| --- | --- | --- | --- | --- | --- | --- |
| FD12/12 | ORT | Maquet | Poly-G2 | Floor | - | Larc1-C |
| FD12/12 | - | AD7X(N)T | Poly-G2 | Floor | - | Larc1-C |
| FD20/12 | - | AD7X(N)T | Clea1 | Floor | - | Larc1-C |
| FD20/12 | ORT | Maquet | Clea1 | Floor | - | Larc1-C |
| FD20/15 | - | AD7X(N)T | Clea1 | Floor | - | Larc1-C |
| FD20/15 | - | AD7X(N)T | Clea3 | Floor | - | Larc3-N |
| FD20/15 | ORT | Maquet | Clea1 | Floor | - | Larc1-C |
| FD20/15 | ORT | Maquet | Clea1 | Floor | - | Larc1-N |
| FD12 | - | AD7X(N)T | Poly-G3 | Ceiling | - | - |
| FD12 | - | AD7X(N)T | Poly-G2 | Floor | - | - |
| FD15 | - | AD7X(N)T | Clea2 | Floor | - | - |
| FD20 | - | AD7X(N)T | Clea2 | Ceiling | - | - |
| FD20 | - | AD7X(N)T | Clea3 | Ceiling | FlexArm | - |
| FD20 | ORT | Maquet | Clea2 | Ceiling | - | - |
| FD20 | ORT | Maquet | Clea3 | Ceiling | FlexArm | - |
| FD20 | ORT | Trumpf | Clea3 | Ceiling | FlexArm | - |
| FD20 | ORT | Trumpf | Clea2 | Ceiling | FlexMove | - |
| FD20 | ORT | Maquet | Clea2 | Ceiling | FlexMove | - |
| FD20 | - | AD7XT | Clea2 | Ceiling | FlexMove | - |
| FD20 | - | AD7X(N)T | Clea2 | Floor | - | - |

## Out of Test Scope

Remanufacturing process validation will be out of test scope for the PUMA project. Chinese witness test strategy is out of test scope of PUMA. Release of FCO and maximizer is out of scope.

## Supplier deliverables and external agreements

Internal project agreements are created between:

* IPA Acadia PUMA [REF-05]
* IPA Arches Puma [REF-06]
* IPA Cheetah PUMA [REF-39]
* IPA Puma Pinnacles [REF-33]
* IPA PUMA Grand Canyon [REF-07]
* IPA VOIP PUMA [REF-08]
* IPA China Azurion R3.0 [REF-46]

# Impact Assessment

The section “Impact of product changes” describes the product changes and its impact with respect to the Azurion R2.2.x. The impact of assigned CRs, field feedback items and field problems are assessed in Appendix C. The system requirements, norm compliance requirements, dRMM tags and User Interaction Design tags that belong to the product changes are tested, either by new/changed or regression tests. The collected test evidence is recorded and the test traceability matrices are used to link each tag to its test evidence.

Clinical user impact will be determined in the Master Design Validation Plan PUMA [REF-02] made by the R&D:Validation Designer. Usability impact will be covered by the usability plan [REF-36] created by R&D:Usability Engineer.

Service Impact will be determined in the Customer Service Plan PUMA [REF-38] made by the CS: Project Manager.

Manufacturing Impact will be determined in the Operations Project Plan Puma [REF-37] made by the OPS:Engineer.

## Impact of Product Changes

An impact analysis is performed by the team defined below:

| **Name** | **BMS role** | **Viewpoint** |
| --- | --- | --- |
| J. Dieters | CS: Engineer | Service Innovation |
| S. Simsek | OPS: Engineer | Manufacturing |
| W. Thijssen | R&D:Norm Compliance Officer | Compliance with the standards |
| W. Reekers | R&D:PSP Officer | Security |
| J. Helwegen | R&D:System Designer | All |
| A. Gevers | R&D:System Designer | Product Manager ART Pos |
| L. Berek | R&D:System Designer | All |
| H. Lely | R&D:System Designer | Image Quality |
| A. van Beurden | R&D:System Designer | Product Manager ART ICC |
| A.J. van den Berg | R&D:System Test Designer | All |
| J. Kaur | R&D:System Test Designer | SIT, SVER, Test Systems |
| A. van Oorschot | R&D:Validation Designer | Validation |
| F. Versteegh | R&D:Usability Engineer | Usability |
| A. John | R&D:System Designer | Service Workflow |
| A. Gopalakrishnan | R&D:System Designer | Hospital Workflow |
| J. Cesar | Mkt:Clinical Marketing Specialist | Clinical |

The table below gives a summarized overview for each product change worked out in the following items:

* Product change: Description of the product change
* Impact Analysis: short description of the impact
* Quality Characteristic: Select one or more areas impacted by the product change (Technical, Clinical, Serviceability, Performance, Image Quality, Compatibility, Usability, Safety and Norm Compliance, Regulatory, Manufacturability, Security)
* Protocol type: new, changed or regression test protocol
* Phase: In which phase the tests shall be executed; SIT, SVER, SREL
* Test Automation: Indicated whether new automated tests are required (Yes/No)

There are no major product changes, see paragraph 2.2.

The impact of the minor product changes is described below

| **Product change** | **Impact Analysis** | **Quality characteristic** | **Test Protocol Type** | **Phase** | **Test Automation** |
| --- | --- | --- | --- | --- | --- |
| Introduction of network IP based video distribution system | Workspots & Video Distribution is decoupled from the X-ray system and introduced as a separate subsystem with managed interfaces. In Azurion R3.0 the DVI and USB distribution system is replaced by a network IP based system (DVI and USB are still supported for upgrades). This change does not impact system functional use and essential performance. It does enable more extensive video configurations:  🡪More input / output video sources, including support for 4K video input/output support in combination with 3rd party 4K slaving output.  🡪 Increased workspot flexibility in terms of workspot configurations, Multiview/Additional Multiview and 3rd and 4th Multiview Workspot and increased number of video inputs/outputs.  🡪Full functional 2nd FlexSpot workspot  🡪Reduction of the required floor space in the Technical Room by eliminating one cabinet (in labs with Flexvision and/or Flexspot).  🡪Improved service diagnostics applicable to all devices of the IP based video distribution system.  In order to cover the impact of the requirement that system shall support connecting up to 20 FHD auxiliary systems, the impact analysis team agrees that it is sufficient to test that in the software up to 20 external applications can be configured. | Functionality  Serviceability  Manufacturability  Image Quality Performance Safety and Norm Compliance  Usability | New  Regression | SIT SVER SREL | Yes |
| GPO/LUC L-Arc FD20/15LN AD7 (Redesign of L-Arc tube cover IPX2, removable spacer) | The product change resolves the LUC obsolescence in the Geometry Portfolio into EtherCAT Technology and phases out the Grosschop motor drives by introducing Kollmorgen on the FD20/15N with AD7.  The hardware and software in the positioning system shall be updated to resolve obsolescence and compliances (IPX2, spacer) and to improve the value. This leads to the following high level functional changes:  🡪The movement speed capability of the L-arc will be increased.  🡪Increased flexibility of Biplane positioning by adding Image Beam Rotate (IBR) and patient oriented movements on frontal stand.  🡪Bring the current biplane safety concept in line with modern, recently released systems such as FlexArm = Azurion R2.0.  🡪In the new Biplane setup the CleaFloor stand is prepared for positioning between -90° and +135° Rz  🡪New IPX2 compliant L-Arc tube covers to replace the outdated designs with the nowadays Design Language System (DLS) which includes a user removable spacer. | Compatibility Functionality  Serviceability  Manufacturability Performance Safety and Norm Compliance Usability | New Regression Changed | SIT SVER SREL | Yes |
| Introduction of new PC type with new Win10 (1809) UEFI and secure boot | The current Gen-3 PCs which is based on Haswell/Broadwell CPU architecture (Generation 3)will be changed into Gen-4a PCs which is based on CascadeLake/CofeeLake CPU architecture (Generation 4a).  The Computing Platform(s) need to replace the functionality of the following PCs:  🡪Suite, X-ray monoplane, X-ray biplane, FlexVision 2FG and FlexVision 4FG PCs of Azurion release 1.1, 1.2.x, 2.0, 2.1, 2.2.   Additionally the Workspot PC, will be delivered for initial production of Azurion R3.0.  🡪 Suite PC, X-ray monoplane, X-ray biplane and Workspot PC   Extra: The Azurion R3.0 Software shall support Azurion R1.x and Azurion R2.x hardware configurations. | Compatibility Functionality  Serviceability  Manufacturability Performance Safety and Norm Compliance  Reliability  Security | Regression | SIT SVER SREL | No |
| Butterfly Rotation XperCT Compatibility and Dual Phase Neuro | The butterfly functionality will improve image quality of 3D reconstructed X-ray scans in order to better distinguish between a hemorrhagic stroke or an ischemic stroke.  This means that the entire brain is imaged with low artifacts and high contrast visibility. The improved image quality enables the use of the cathlab directly without going for a diagnostic CT scan, thereby saving time for the patient.  Making the workflow for DAR/DRA uniform means:  System behavior between circular and butterfly scans will be aligned as follows:  – Set correct detector orientation (portrait / landscape)  – Automatic rewind after butterfly scan  – FA/FM x=0 stand and table base  – Select default application after butterfly XperCT scan when pedal is released  – Test round preparation: collision with the table since currently roll is set first and then prop.  Azurion R3.0 will only release the interface to IW1.6.6 / IW 1.8 (i.e. Deliver evidence that the Azurion and IW1.6.6 / IW1.8 work together). This enables the compatibility with the new Butterfly Application that will be running on the IW1.6.6 / IW 1.8 Product. | Functionality  Serviceability  Image Quality Usability | New Regression | SIT SVER SREL | Yes |
| Compatibility with Servicehub | Servicehub offers seamless integration of service functionality for all devices, including 3rd party, in the lab from one single local and remote work spot, both for initial deliveries and for the Azurion Installed Base.  Servicehub will be part of the initial sale and will be offered to the Azurion Installed Base if a service contract is in place.  In scope of PUMA only the interfacing with the Servicehub will be verified and released. Verification of interfacing ensures that Azurion R3.0 and Servicehub work together. This enables the compatibility with the Servicehub. | Compatibility Functionality  Serviceability Manufacturability  Regression | New  Regression | SIT SVER SREL | Yes |
| Compatibility with CollabLive (requires FlexVision Pro) | Collaboration Live 1.0 enables NAM Azurion customers with FlexVision PRO license to remotely connect to the Clinical Education team. This allows for Philips to transfer physical clinical support to remote clinical events, resulting in a substantial cost saving in both travel cost, travel time & on-site waiting time.  There is no impact to interface with Azurion R3.0 due to this product change. | Compatibility Functionality | Regression | SIT SVER | No |
| Interventional network | Internal optimized Interventional Network to enable Service Hub to increase security and serviceability. | Functionality  Security  Serviceability | Regression  Security | SIT  SVER | No |
| Enabling future remanufacturing of Allura R8.2 to Azurion R3.0 | To allow Allura systems to be refurbished/remanufactured into Azurion systems, the Azurion systems need to be released based on refurbished/remanufactured Allura and new Azurion parts.  Since not a real Remanufactured system is available the Azurion R3.0 software will be tested on the Azurion R1.2 rebuild to VoIP system. This configuration is considered as best representative for a remanufactured system.  The actual remanufacturing process is not part of the PUMA project deliverables. | Compatibility Functionality  Serviceability  Manufacturability  Regulatory  Safety  Norm Compliance | Regression | SIT SVER SREL | Yes |
| Maximizer Content | Commercial package offering of the following:  🡪 PC Platform refresh including supplier selection  🡪Azurion R3.0 software, including Butterfly Rotation XperCT. | Functionality  Performance  Reliability  Serviceability | Regression | SVER | No |
| Upgrade (from Azurion R1.2, Azurion R2.x) or FCO | Azurion R3.0 software is planned to be rolled out to the Azurion R1.2, Azurion R2.x systems to get the installed base to Windows 10.  The Azurion R3.0 software continues to support old (red) and new (blue) Geo software. Also old and new PC’s including mix of old and new PC’s on DVI based systems shall be supported. | Functionality  Serviceability  Performance  Reliability | Regression | SVER | Yes |
| Improved recursive filter algorithm | Changed algorithm to adapt MCTEMP noise reduction factor and out of steam and Geo moving. | Image quality | Regression | SIT | No |
| Reimplementation of noise reduction algorithms | Felix MCTEMP and cosmix latency improvement via new instruction set. | Image quality | Regression | SIT  SVER | No |
| Variable Framespeed programmable @ FD & Xgen (Pediatrics - Xres4) | This change is to program a variable framespeed @ FD & Xgen. Especially for pediatrics in combination with the performance limitations of Xres4 it is possible to select a 20fps instead of 25fps. | Image quality  Functionality | Regression | SIT  SVER | No |
| EPX merge | Defines and implements improvements for EPX merging. Main improvement for this feature is the current limitation on merging field-service EPX content (currently, FS EPX content is always taken from the preset database). | Image quality | Regression | SIT  SVER | No |
| New taste via EPX | Enables adding new tastes via the EPX editor to an installed system and using these tastes in procedures or applications. | Image quality | New  Regression | SIT  SVER | No |

For the product changes that impact image quality, several exploratory test charters/test protocols shall be executed by the Image Quality team during SIT/SVER.

## Test Risk Analysis

The method used for determination of the test strategy for product changes is the test risk analysis.

The test risk analysis identifies:

1. The technical and business risks related to the product changes (including the changed ‘quality characteristics’)
2. The risk level per identified risk

The following people were involved with identifying the test risk quadrants:

| **Name** | **Function** | **Viewpoint** |
| --- | --- | --- |
| Jeroen Helwegen | R&D: System Designer  project PUMA | Overall Technical Risk |
| Andre Gevers | R&D: System Designer  Project Arches | Technical perspective (Positioning component) |
| Casper van Buel | R&D: Test Designer  project PUMA | Technical Risk / Complexity |
| Arjan Tekelenburg | R&D: SW Designer  Project Arches | Technical / Business perspective (POS SW) |
| Wilbert Mos | R&D: System Test Designer  Project Arches | Technical Risk / Complexity |
| Philip Brouwers | R&D: System Test Designer  Project VOIP | Technical Risk / Complexity |
| Rens de Jongh | Mkt:Clinical Marketing Specialist  project PUMA | Business perspective |
| Alwyn van den Berg | R&D: System Test Designer  project PUMA | Technical / Business perspective / Complexity |

For each product change defined in section 2.2; test risk analysis is performed to assess the business and technical risk. Depending on the assigned risk the product change is located in one of the four quadrants of the risk matrix.

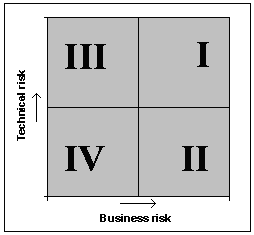


Figure 2 PUMA risk matrix product changes

The PUMA product test risk matrix and the justification of the test risk indication is given in the table below.

| **Product change** | **Test**  **Risk**  **Quadrant** | **Justification** |
| --- | --- | --- |
| Introduction of network IP based video distribution system | I | New software design and new hardware design |
| GPO/LUC L-Arc FD20/15LN AD7 | II | Introduction of the already implemented new positioning software for the biplane FD20/15 L-Arc Neuro, the old software and hardware design are changed |
| Introduction of new PC type with new Win10 (1809) UEFI and secure boot | I | New hardware design for the PC with corresponding MS Windows 10 operating systems, which were already introduced by Azurion R2.1 |
| Butterfly Rotation XperCT Compatibility and Dual Phase Neuro | I | Changed software design for the existing XperCT functionality. |
| Interventional network | III | New software and hardware design to introduce the interventional network |
| Servicehub compatibility Azurion | III | New software design to introduce the Servicehub compatibility Azurion. |
| Enabling future remanufacturing of Allura R8.2 to Azurion | II | For remanufacturing, testing is done using Azurion R3.0 software on a remanufactured Allura R8.2 hardware to release the system as Azurion R3.0 systems. |
| Maximizer Content | II | Testing is done using Azurion R3.0 software and old Azurion hardware (Azurion R1.2.x and Azurion R2.x systems) with new Gen-4A PCs. |
| Field Feedback | II | For Field Feedback item the software design are changed, no change in hardware designs. |
| Upgrade / FCO | II | Testing is done using Azurion R3.0 software with old hardware (Azurion R1.2.x and Azurion R2.x systems) and old PCs (Gen-3). |
| Image Quality improvements | III | Minor improvements in image quality. |

The focus of the test approach is based on the above test risk analysis and the mapping on quality characteristics in table of section 3.1 and shall be realized as follows:

* Purpose of test protocols: To provide test evidence for the tags to be covered.
* Planning of test protocols. To detect so-called “showstoppers” as soon as possible, the tests for high-risk items should be planned early in the each test phase.

As a result of this, the planning of the test execution is based first on the risk level. Of course the dependency of the availability of the hardware and software is taken into account following the initial Master Integration Diagram [REF-09].

* For high business risk, early stakeholder involvement with the focus to reduce the risk. This will be covered by one or more demo’s which are planned during and at the end of the implementation of the Features and Capabilities.
* For high technical risk more focus will be put on unit testing, integration testing and reliability testing

Test techniques are used to get the desired requirement coverage. The test techniques shall be customized according the risk level. For lower levels less heavy test techniques can be used, this will be worked out in the test designs.

## Requirement mapping

This section contains an overview or refers to an overview of the impacted requirement tags (SRS, UID, IDS, dRMM), that require new test evidence.

The mapping of product changes to the System Requirement Specification is defined in TTM SRS .

The mapping of product changes to the dRMM is defined in TTM Safety and Security RMM.

The mapping of product changes to the UIDs is defined in TTM UID.

The mapping of product changes to the external interfaces is defined in TTM External Interface .

The tags that are involved by the product changes, see Appendix A, shall be tested, either by new and changed test protocols or regression testing. This will be explained in more detail in the appropriate test designs.

Requirement tags not explicitly mentioned are covered by re-using test evidence of a previous release (Azurion R2.2).

## Configuration mapping

The following table gives an overview of the product changes with respect to the main product configurations. The mentioned product changes are the delta with respect to the previous release. The direct related configuration(s) are impacted by the product change or contain hardware which is part of the product change. The result of this analysis is an overview of the needed test environment.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Main Configuration** | | | | | | | | | | | | | | |
|  |  |  | **Stand & Detector** | | | | | | | | | | | | | | |
|  | X = product change mapped to configuration item | **Azurion FD12** | **Azurion FD15** | **Azurion FD20** | **Azurion FD20 FlexArm** | **Azurion FD20 FlexArm OR-Table** | **Azurion FD20 FlexMove** | **Azurion FD20 FlexMove OR-Table** | **Azurion FD12/12** | **Azurion FD20/12** | **Azurion FD20/15** | **Azurion FD20 OR-table** | **Azurion FD12/12 OR-table** | **Azurion FD20/12 OR-table** | **Azurion FD20/15 OR-table** | **Azurion 1.2 FD20 ceiling** | **Azurion 1.2 FD12 ceiling** |
| - = no relation of product change to configuration item |
| **O** = optional configuration |
| **Product Change** | Introduction of network IP based video distribution system | X | X | X | X | X | X | X | X | X | X | X | X | - | o | - | - |
| GPO/LUC L-Arc FD20/15LN (Redesign of L-Arc tube cover IPX2, removable spacer) | - | - | - | - | - | - | - | - | - | X | - | - | - | - | - | - |
| Introduction of new PC type with new Win10 (1809) UEFI and secure boot | X | X | X | X | X | X | X | X | o | X | X | X | o | X | - | - |
| Butterfly Rotation XperCT Compatibility and Dual Phase Neuro | - | - | X | X | O\* | X | O\* | - | X | X | X\* | - | O\* | O\* | - | - |
| Compatibility with Servicehub | X | X | X | X | - | X | - | X | X | X | X | o | o | o | - | - |
| Compatibility with CollabLive (requires FlexVision Pro) | - | - | X | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Interventional Network | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Enabling future remanufacturing of Allura R8.2 to Azurion R3.0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | X | X |
| Maximizer Content | X | X | X | X | - | X | - | X | X | X | X | X | X | X | - | - |
| Field Feedback | X | X | X | X | - | X | - | X | X | X | X | X | X | X | - | - |
| Upgrade (from Azurion R1.2, Azurion R2.x) or FCO | X | X | X | X | - | X | - | X | X | X | X | X | X | X | - | - |
| Image Quality Improvements | X | X | X | X | X | X | X | X | X | X | X | X | o | o | - | - |
| Needed in Test Environment | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

\*Dual Phase is supported but not helical scan on OR table (Butterfly is not supported)

# Strategy and Approach

This chapter defines the test activities in the different test phases (engineering, system integration, verification, validation and release), reflecting the optimal balance between costs of testing, test coverage and the elimination of risks. The test strategy and approach is based on the impact assessment (see Chapter 3).

A representation of the project phases is given below:

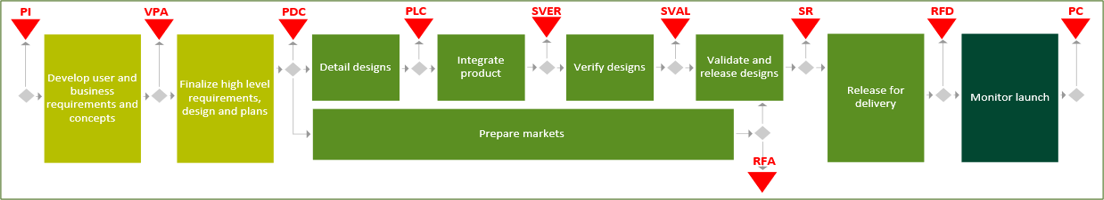


Figure 6: Schematic view of the Hybrid SAFe model. The various project phase can be found on the top.

Test related phases:

|  |  |
| --- | --- |
| **Phase** | **Objective** |
| Detail Designs | Phase where Epics and its features or solutions for enhancements of field problems are developed and tested towards one or more Integration moments as defined in the EPIC integration scheme or MID [REF-<x>], if applicable. The phase can contain one or more integration steps in order to detect as soon as possible integration issues and to build up test confidence.  Continuous Integration / Continuously Deployment method is used to implement and deploy software modifications. |
| Integrate Product | Phase to provide objective evidence on UID tags and safety tags of the system as well as building up confidence on the maturity of the deliverables on system level. It concerns in-depth manual and automatic testing. |
| Verify Designs | Phase to provide objective evidence on Product Requirements tags to verify that the system meets the system requirements. |
| Validate and Release Designs | Phase to provide objective evidence for usability and validation on the user need tags. |
| Release for Delivery | Phase to transfer the product to O2C process and to verify that the produced software carrier is correct |

The use of different test phases result in a mixture of methods and techniques in order to provide a thorough and rigorous examination of the product changes and reassurance of the existing functionality. The test strategy and approach for these phases is described in the next sections.

## Phases

In the next paragraphs the strategy and approach per phase is described in more detail.

### Detail Designs phase

The engineering test strategy (between PLC and EoD) is based on continuous assessment of quality through CI/CD (see Figure 4) of the deliverables as part of the assigned Epic(s) described in the initial Master Integration Diagram [REF-09].

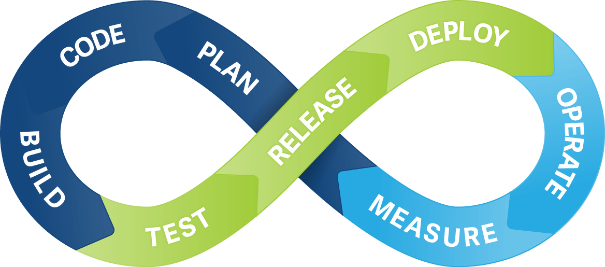


Figure 3 **C**ontinuous **I**ntegration & **C**ontinuous **D**eployment

Within this model continuous testing is demanding that system test engineers need to support and assist development testing, therefore they need to make a shift to left with regards to the phase the project is in (see Figure 3) and development engineers need to test their deliverables on other targets than their own development environment which need for them a shift to right. This this graphically depicted in Figure 5.

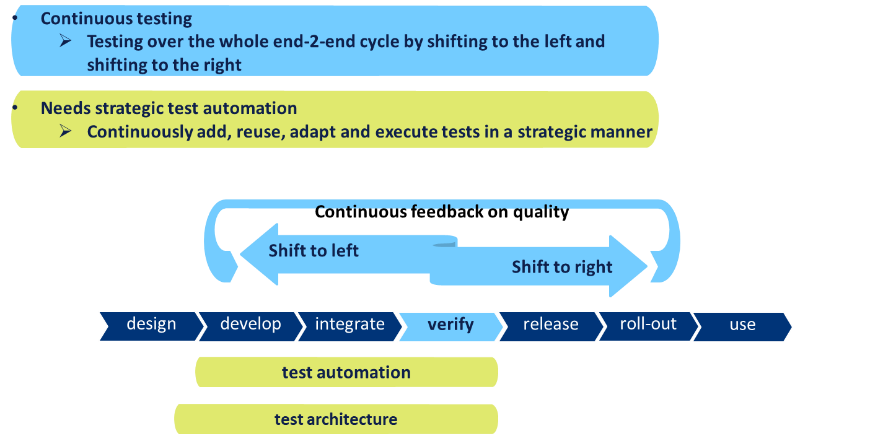


Figure 4 Manual and Automatic testing within CI/CD

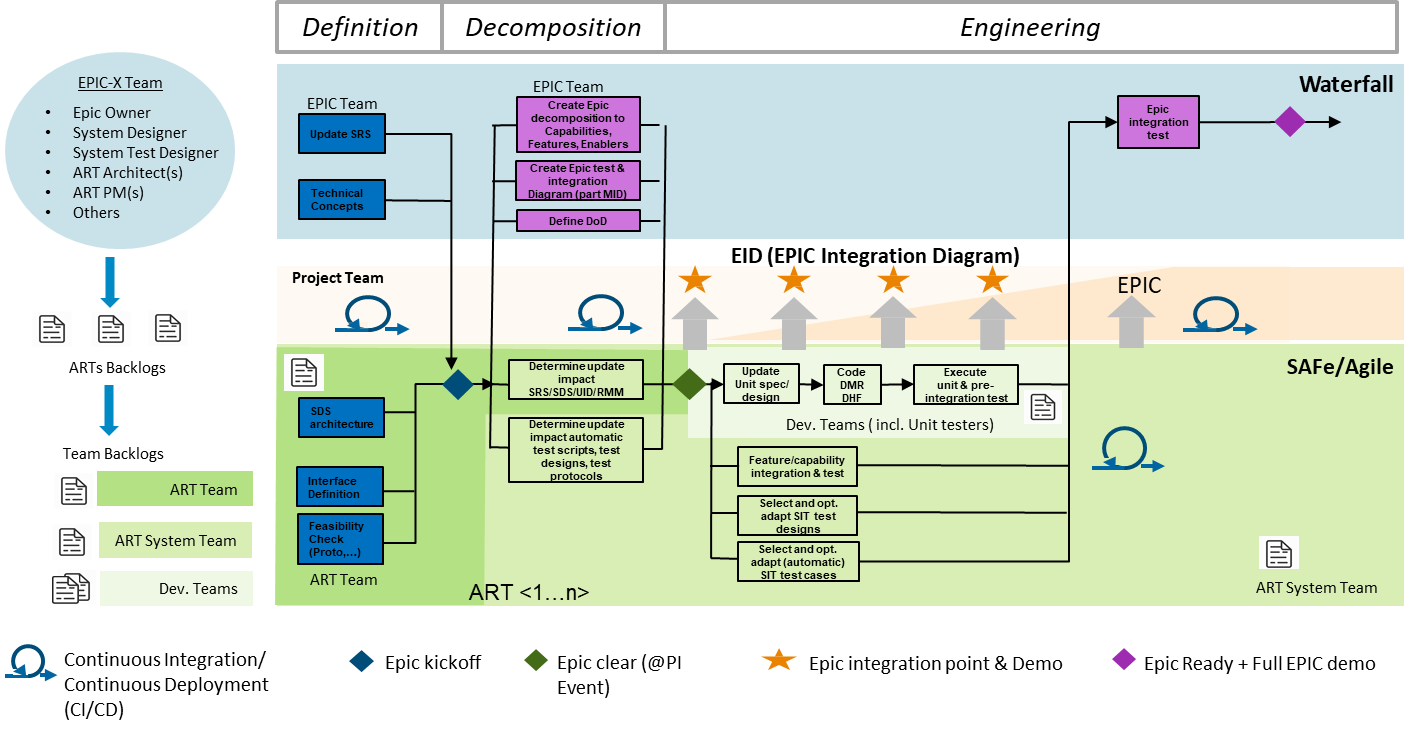


Figure 5 Epic Engineering and test strategy

In Figure 5 there is a graphical representation of the used developed method by the ART(s) to create the deliveries for the defined product changes. The product changes are described in one or more Epic(s) assigned to the ART(s). Each Epic is decomposed into Capabilities, Features and User Stories and the integration of the various Epic Capabilities and Features is specified in the Master Integration Diagram [MID] to ensure a smooth integration and to control and manage the progress. Each Epic is accepted for Epic integration testing when the Definition of Done is fulfilled for all its Capabilities.

The following quality gates are defined during the Epic development:

* Epic kickoff

Epic definition and planning are defined. The assigned R&D:System Test Designer is responsible for the test approach, test items, level of test automation, and evidence as part of the Epic Definition of Done (functionality, safety, norm compliance, test automation etc.).

* Epic clear

R&D: System Designer is responsible that the appropriate system documentation (UID, dRMM, IDS) describes the Capabilities of the Epic, which should be implemented. The system documentation is used by ART team(s). The Capabilities are decomposed into Features and implemented in US/UD and code/DMR/DHF using User Stories.

* Epic integration point & Demo

The system test team creates and/or adapts the appropriate test designs, test protocols and test automation scripts for confidence testing. The test scripts will be used as part of Continuous Integration / Continuously Deployment executed in the ART. See also the Software Development Handbook [REF-47] for CI/CD. During the Epic implementation DEMOs are used to demonstrate and verify in an early stage the implementation and to get feedback of stakeholders.

* Epic Ready

The Epic is implemented, tested, integrated and demonstrated.

The detailed way of working of the engineering phase is part of the Software Development Plan PUMA [REF-34] and IGT-S SW Development Handbook [REF-41].

The PUMA project consists of the following ART’s and DPC’s that together will build the complete Azurion R3.0 release:

* ART Positioning (will deliver into DPC Arches or directly to PUMA)
* ART ICC (Acquisition and Viewing)
* ART Workflow (hospital workflow)
* ART ServiceFlow (service workflow)
* DPC Acadia (PC Platform refresh including supplier selection and MS Windows 10 Operating System)
* DPC VOIP (Video over IP system)
* DPC Arches (Positioning Software and Mechatronics)
* ART Infra

Referring to Figure 5, the DPC’s can be regarded as ART in this context. Assigned field problems are solved and may be verified during detail designs phase. The CRs, field problems and other field feedback items assigned to Azurion R3.0 are covered by overall integration and verification activities, therefore evidence shall be provided in appropriate records (no dedicated test protocols will be created).

**Documentation**

Documents delivered in this phase are:

| **Deliverables** |
| --- |
| Unit Test Specification(s) |
| Unit Test Record(s) |
| Test Protocols to be executed in Integrate product phase |
| Integrate product Entry Criteria Report |

**Acceptance criteria**

Acceptance criteria for this phase are:

* Code quality and coverage targets are met according to the Software Development Plan [REF-34]
* Software baseline is available and CI/CD indicates no development problems
* Unit tests have result Passed.
* Product changes according SDS Introduction see [REF-03] are implemented, epic and capabilities have been delivered according definition of done.

### Integrate Product Phase

The scope of this phase is to cover all related UID tags, see Appendix A. This section describes the Integrate product phase test strategy before verify designs phase. Essential is to verify that the integrated software and hardware only contain the elements as described in the test scope and to clearly define the production equivalent status of the system. Therefore, integrate product phase is started when the entry criteria for Integrate Product phase as defined in Chapter 7 are met. The following activities are performed:

#### UID covering test

During integrate product phase formal test evidence will be gathered for the impacted UID requirements. UID test cases will be automated as much as possible, when applicable based on section 3.1. The test case(s) will be traced to the UID requirements through Test Traceability Matrix UID. Appendix A contains a list of the User Interaction Design tags which shall be tested.

#### IDS covering test

During integrate product phase formal test evidence will be gathered for the impacted tags, see Appendix A. Evidence per Interface Design Specification tag is collected in TTM external interfaces. For all existing 3rd party interfaces the approach is to perform a regression test on the involved external interfaces see CiA [REF-15]. These interfaces shall be tested as part of the integrate product phase. Evidence that can be used is, for example: (unit) test reports, interface certificates and integrate product phase test evidence. As the nature of these Interface Design Specification tags can be different, ranging from mechanical or electrical interfaces to software (interface protocol) interfaces, verification can also differ for the external interfaces.

With respect to Compatibility the following test approach will be followed:

The external interfaces of the Azurion R3.0 system are defined in the SRS [REF-04] and described in more detail in Interface Design Specifications. Because the product changes have a minor impact on the external interfaces, the approach will be to re-use the evidence generated by testing the affected external interfaces during Integrate Product phase.

As the nature of these Interface Design Specification tags can be different, ranging from mechanical or electrical interfaces to software (interface protocol) interfaces, verification can also differ for the external interfaces. Evidence that can be used is for example (unit) test reports, certificates and integrate product test evidence. The interfaces that are affected for this release are:

* DICOM interface, which will lead to an update of the DICOM Conformance Statement
* EP interface
* CWIS interface

Evidence per Interface Design Specification towards external interfaces is collected in TTM external interfaces. Internal interfaces are tested implicitly through unit or functional testing.

Appendix A contains a list of the Interface Design Specification tags which shall be tested.

#### RCM covering test

The impacted Risk Control Measures (RCM) shall be verified as a result of the change impact analysis. In addition, the test evidence with an age older than 5 years should be retested. Appendix A contains a list of the RCM tags that shall be tested. Evidence will also be delivered from details design phase where applicable.

#### NC functional tests covering

The impacted Norm Compliance (NC) shall be verified as a result of the change impact analysis. In addition, the test evidence with an age older than 5 years should be retested. Appendix A contains a list of the NC tags that shall be tested.

#### System Regression test

In order to safeguard the complete system functioning in presence of the new or changed functions, regression testing will take place on existing functionality.

**Approach**

This section describes the test documentation, test decomposition, test scope, test deliverables and entry/exit criteria of the integrate product phase.

Product Integration will be performed on Test Models (complete test systems) which are equivalent to DMR, see Chapter 6.5. The hardware configuration of the STM’s is determined either by the impact analysis team or by the test design; Administration of the test systems will be kept in Test Environment Traceability Matrix.

The overall scope of the integrate product phase is to cover the Azurion R3.0 UID/RCM/IDS/NC requirements. The approach is to cover all new/modified requirements either by new test case or by regression testing according to the Test strategy and Test Risk analysis as described in Chapter 4. The CRs and other field problems assigned to Azurion R3.0 are covered by overall integration and verification activities, therefore no separate evidence shall be provided. For the rcm tags concerning security, test evidence from previous release shall be used where applicable.

Product integration activities for Azurion R3.0 shall be performed using phased approach.

Product changes delivered by all ART’s and DPC’s except DPC Arches shall be tested to cover the impacted requirements.

Results are reported in the product integration report.

Since there are no software changes to Azurion R3.0, therefore, both DVI and VoIP based systems shall be used during this phase to cover the scope of NPI, Upgrade (FCO), maximizer and remanufacturing.

The scope of the project is only to bring Azurion R3.0 as NPI release to the field. For Upgrade (FCO) and maximizer Azurion R3.0 verification shall be finalized by executing planned tests.

In case of design defects resulting from execution of upgrade and maximizer scope, analysis shall be conducted to check the impact on NPI release.

When the outcome results in no impact to NPI release, the design defects shall be parked.

* **Maximizer Content**

Verification shall be done by using Azurion R3.0 software and install base Azurion hardware (Azurion R1.2.x, Azurion R2.1.x and R2.2.x systems) with new Gen-4a PCs. The scope of the tests is identified in discussion with R&D: System Designer and using outcome of impact analysis. It is concluded that focus area during this phase are installation tests and general functional regression. Additionally, performance and reliability tests shall be executed.

* **Upgrade (from Azurion R1.2.x, Azurion R2.1.x and Azurion R2.2.x) or FCO**

The Azurion R3.0 software supports old (red) and the new(blue) Geo software, with old and new PCs.

To verify upgrade scenarios several tests shall be executed using Azurion R3.0 software with install base hardware (Azurion R1.2.x, Azurion R2.2.x systems) and old PCs (Gen-3).

The scope of the tests is identified in discussion with R&D: System Designer using the impact analysis outcome.

Focus shall be on installation and upgrade tests covering the happy and exceptional flows. General functional regression, reliability, performance and dose control tests shall be executed.

* **CVPRJ00415651: Puma CR: Add upgrade from R1.2 and R2.x Azurion systems with SSD to R3.x**

SSDs on the existing Haswell PCs and on newly delivered Haswell PCs (with built in SSDs), shall be tested during integrate product phase on DVI based systems.

There is no impact to the system functionality due to the new Haswell PCs with build in SSDs.

No dedicated test protocols shall be created.

At EoD Arches, an impact analysis with SME’s and stakeholders shall be conducted to check impact on the evidence generated so far and to identify the regression areas.

When EoD of DPC Arches is passed, product integration activity shall be continued based on outcome of impact analysis and entry criteria check for Integrate Product phase as defined in Chapter 7.

In general, the following product integration activities are executed related to the test scope as defined in Chapter 2.2:

* Functionality, Performance, Reliability, Image quality, Compatibility, Safety and Norm Compliance, Risk Management, Serviceability, and Security.
* Manufacturability is part of process validation activities.
* Usability is part of validation activities([REF-36], [REF-2]) but pre validation test protocols will be run during product integration to prevent late product issues during validation phase.

At the end of the integrate product phase regression testing can be executed to prove that previous development deliverables are still working correctly and are not impacted by recent software and/or hardware deliveries.

Product integration is started when the entry criteria check for Integrate Product phase (except DPC Arches) are fulfilled, see Chapter 7.

Product integration is finished when the exit criteria check for Integrate Product phase are fulfilled, see Chapter 8.

**Documentation**

Documents delivered in this phase are:

| **Deliverables** |
| --- |
| Test protocol for Integrate Product phase |
| Test protocols for Verify Designs phase |
| TTM SRS (containing all requirements and related test protocols to be performed in Verify Designs phase) |
| TTM Safety and Security RMM (containing all risk control measures and related test protocols/records) |
| TTM UID (containing all UID tags and related test protocols/records) |
| TTM external interfaces (containing test protocols/records) |
| Test Environment TM |
| TM NC System-Cluster (containing test protocols/records) |
| Product Integration Report |
| Design Verification Entry Criteria Report |

**Acceptance criteria**

Acceptance criteria for this phase are:

* All changed User Interactions (as defined in TTM UID) are covered and passed
* All product issues (Development Problems) have been processed.

### Verify Designs phase

This phase focusses on activities required for New Product Introduction release, upgrade, maximizer and remanufacturing and verifying the resolution of the field problems.

The verify designs phase test strategy is based on the impact on

* SRS [REF-04]
* PSR [REF-52]

content which is indicated in the

* TTM SRS

and is started when the entry criteria Verify Designs phase (see Chapter 7) are met.

Typical verification activities are characterized by the following tests:

* Functionality (related to the minor product changes, Field feedback items and product enhancements)
* Performance (related to the minor product changes)
* Reliability (related to the minor product changes, Field feedback items and product enhancements)
* Image quality (related to the minor product changes and product enhancements)
* Compatibility (related to the minor product changes and product enhancements)
* Safety as well as regulatory impact (related to the minor product changes, Field feedback items and product enhancements)
* Risk Management & Norm Compliance (related to the minor product changes, Field feedback items and product enhancements)
* Serviceability (related to the minor product changes, Field feedback items and product enhancements)
* Manufacturing (related to the minor product changes, Field feedback items and product enhancements)
* Security & Vulnerability (related to the minor product changes, Field feedback items and product enhancements)

**Approach**

Verify design testing will be performed on Test Models (complete test systems) which are DMR equivalent, see Chapter 6.5. The hardware configuration of the STM’s is determined either by the impact analysis team or by the test design execution document; Administration of the test systems will be kept in Test Environment Traceability Matrix.

Specific Norm Compliance clauses shall be verified as a result of the change impact analysis. The other Norm Compliance clauses evidence shall be re-used. Specific evidence shall be created for compliance with the COCIR requirement defined in SRS [REF-04] for standard on energy measurement for all released products (6NC level).

Appendix A contains a list of the Norm Compliance related clauses which shall be tested.

Delivery of Norm Compliance and/or service evidence can be postponed to the Validate and Release Designs phase when it has no impact on the evidence gathered during Verify Designs phase.

To cover the impact of ‘CVPRJ00415651: Puma CR: Add upgrade from R1.2 and R2.x Azurion systems with SSD to R3.x’, performance tests shall be executed during verify designs phase.

The outcome of the evaluation of Integrate Product phase performed by Systems Engineering (System Designer) Jeroen Helwegen, Systems Test Engineering (System Test Designer) Jaswinder Kaur and Systems Test Engineering (Test Designer) Deepak Kumar is that additional regression tests for the service workflow area shall be added to the Verify Designs phase. Exploratory test method will be used for these regression tests.

**Documentation**

Documents delivered in this phase are:

| **Test documentation** |
| --- |
| TTM SRS (with test results of Verification) |
| Test Environment TM or define whether it is integrated in report |
| Design Verification Report |
| Master Design Validation Plan |
| Test Records of test cases executed during Design Verification |
| PSSR |
| Design Validation Entry Criteria Report |

**Acceptance criteria**

Acceptance criteria for this phase are:

* All affected system requirements (as defined in TTM SRS) are covered and passed.
* All risk control measures (as defined in TTM Safety and Security RMM) are covered by test records and have result passed.
* All product issues (Development Problems, Field Problems & Enhancements) have been processed.

Product verification is finished when the Exit criteria of the Verify Designs phase are fulfilled, see Chapter 8.

**Documentation**

Documents delivered in this phase are:

| **Test documentation** |
| --- |
| TTM SRS (with test results of Verification) |
| TTM Safety and Security RMM (with verification of effectiveness) |
| Test Environment TM or define whether it is integrated in report |
| Design Verification Report |
| Test Records of test cases executed during Design Verification |

### Validate and Release Designs phase

Validate Designs

Design validation is not part of this PVP, it is part of the Product Validation Plan PUMA [REF-02] made by the Validation Lead (Application Specialist). During the Validate and Release Designs phase also Usability Testing will be performed see [REF-36].

Release Designs

In this phase the final check on the software to be released will be executed. The strategy is to perform a full installation of the ‘to be released’ DMR, and verification that software is correct on software media.

After successful execution (verdict Passed) of the release test protocol, a wrap-up of the product status to transfer the product from development to production, service and marketing is performed.

**Approach**

For release design phase the approach is to test the install ability of the final software. A Release checklist (exploratory test charter) shall be used for a check on calibrations, configuration of the system and the functionality.

Use the Software Product Baseline (release candidate) of the product software, which is delivered to the manufacturer responsible to create the software media.

* Perform full software installation to verify the produced software deliverable.
* Perform installation of e-IFU special package.
* Perform functional system check to ensure a correct software baseline and software media creation:
  + - * Add/Create Study
      * Perform Fluoroscopy / Exposure (Cine and Vascular)
      * Perform 3D scan (transfer to Interventional Workspot)
      * Shutters and Wedges
      * Stand positioning / Table positioning
      * (Re-)Viewing of Images
      * Export to archive
      * Close Study
      * e-IFU
      * System Power Off/Power On
      * Release version identification
      * Fixed DAP dose display

The wrap-up consists of:

* Create Product Release Report (use the PRR as a checklist to make sure that all required evidence is available and is ready to be released for production and the field).
* Create Release Notes
* Create Anomalies Report

**Documentation**

Documents delivered in the release design phase are:

| **Test documentation** |
| --- |
| Test Protocol of test cases executed in Release Test and related Test Record proving that software on media is correct |
| TTM SRS final with IFU and norm compliance evidence |
| TTM Safety and Security RMM updated with the outstanding norm-compliance test evidence and effectiveness evidence |
| Test Environment TM or define whether it is integrated in report |
| Test Records of test cases executed in Release Test |
| Release notes |
| Anomalies Report |
| Product Release Report |

## Statistical Considerations

Azurion R3.0 is an evolutionary update of Azurion R2.2. Identical system configurations shall be used as during the development of Azurion R2.2, except for the introduction of the new biplane FD20/15 L-Arc3 Neuro and the NPI phase out of the FD20/12 L-Arc Neuro, although new hardware the functionality will be the same as already introduced with Azurion R2.2.

As per the impact analysis team to cover the test impact mentioned in Chapter 2.2; requirements mentioned in below documents require full regression during integrate product phase as well as verify designs level:

* UID Flexible Viewing [REF-17]
* UID UI Overall [REF-18]
* UID UI X-ray applications [REF-19]
* UID Service and Manufacturing [REF-20]
* UID P&B Positioning Azurion (Blue) [REF-21]
* UID P&B Positioning Azurion (Red) [REF-30]
* UID Service and Manufacturing PBPos [REF-43]
* UID Image Acquisition & Processing [REF-28]
* UID Acquisition Scenarios [REF-29]
* UID Control Room Workflow  [REF-31]
* SRS Azurion R3.0 [REF-04]

A sample size of 1 system test configuration is sufficient, this means a test case is executed on one system test configuration of PUMA unless stated otherwise. Please refer for more detailed information DEP160801 Strategy for Sample Size definition for design verification [REF-35].

# Test Design

Based on the test impact analysis and product changes, it is determined that for the following functional areas (see below) test designs shall be used when applicable. Existing test designs of Azurion R2.2 are re-used and adapted with respect to the product changes.

* Acquisition
* Patient and Beam Positioning
* Viewing
* Dose Control
* Flexible Viewing
* User Interface
* Hospital Workflow
* Service Workflow
* Infrastructure, with areas like
  + Startup/Shutdown
  + Performance
  + Privacy & Security
  + Licenses

As part of CI/CD, a basic acceptance test set will be used for the daily PDCs and extended acceptance test set will be used for weekly roll out PDCs. See [REF-45].

Test designs describe either the test approach, strategy and techniques or the test execution plan (e.g. selected system configurations) used for the test execution.

The typical system configurations that need to be tested are determined by the R&D: Test Designers and listed in the Test Designs.

# Resources

## Test Organization

| Role/Team | Name | Tasks |
| --- | --- | --- |
| R&D: System Test Designer | Jaswinder Kaur & Philip Brouwers | * Drive Master Integration Diagram |
| * Define Product Verification Plan |
| * Report to R&D core team on Product Quality |
| * Ensure that all required evidence for release to system project is created |
| * Create Product Integration Test Report |
| * Create Verification Test Report |
| * Create product Release Report |
| * Create Test Traceability Matrices |
| * Manage prototype materials |
| * Manage integration of test systems |
| * Control status, planning etc. of test configurations during the project |
| R&D: Test Designer or |  | Test: |
| R&D: Test Engineer |  | Define test designs and test protocols (including |
|  |  | execution) related to: |
|  | Nancy Voogd-van Gils |  |
|  |  | * Performance |
|  | Liam Coetzee |  |
|  | Arthur de Vries  Thijs van Driel  Shajana Balakrishnan  Rene Kuijpers  Arthur Udo  Julian Scheffers  Saliha Kavaz  Francois van Daal | Test:  Define test designs and test protocols (including execution) related to:   * Geometry |
|  | Nicole van Gestel  Marcel van Veggel | Integration: |
|  |  | * Inspect, Installs and integrates test systems (both software and hardware) |
|  | Michel de Vries | * Executes acceptance & smoke testing |
|  |  |  |
|  | Martijn Vos  Tudor Vakaretu | * Maintain System DMR and labeling of proto materials |
|  |  | Create and maintain |
|  | Henk Meulendijks | * Quality check (acceptance, regression and smoke test) |
|  | John de Bot | * Reliability test |
|  | Lisa van Kessel | * Support domain specific test automation |
|  | Rieneke Smits |  |
|  | Patrick Spanjaards |  |
|  | Wil van de Berk | Test: Define test designs and test protocols (including execution) related to   * 3rd party |
|  | Andrea Maris | Test: |
|  |  | Define test designs and test protocols (including |
|  | Danny Verhoeven | execution) related to: |
|  | Johan Schepers  Nagaraj Rao  Bahadir Baycelebi  Bastiaan Ippel | * Acquisition * Dose Control |
|  |  | Test: |
|  | Lena Filatova | Define test designs and test protocols (including |
|  | Nimitha Patil | execution) related to: |
|  | Stefan Sanders | * Flexible Viewing (VoIP and DVI) |
|  | Arjen Kaiser | Test: |
|  | Nimitha Patil | Define test designs and test protocols (including |
|  |  | execution) related to: |
|  |  | * Flexible Viewing (VoIP and DVI) |
|  | Jan van de Sande | Test: |
|  | Bhavesh Singh | Define test designs and test protocols (including |
|  |  | execution) related to: |
|  |  | * System Confidence Testing * Privacy and Security * Licenses * Power measurements |
| R&D: Department Manager VE | Mahantesh Maganur | * Manage integration and verification testing performed in Bangalore |
| R&D:Designer |  | * Define test designs related to Image Quality |
| Peter Thijs | * Define test cases related to Image Quality |
| Ben Gevers | * Execute test cases related to Image Quality |
| Bruno Keijzers |  |
| Jan Jans |  |

## Communication and Reporting

### Project Test Meeting (PTM)

One integral test team meeting will be held weekly chaired by the R&D: System Test Designer. Focus of this meeting will be communication to the team about project progress and scope. Furthermore, the progress of the test team will be checked.

### Integration Meeting and MID meeting

The R&D: System Test Designer participates in the Integration meeting and MID meeting and will make sure that the software and hardware deliveries are done according to assigned product changes to the project.

### Defect Management Board

The R&D: System Test Designer chairs the Defect Management Board and will make sure that product issues are investigated by and assigned to the appropriate persons in the project.

During the engineering, design verification and design validation phase, the meeting will be organized ad-hoc based on the number of product issues.

### Project Progress teams

The R&D: System Test Designer will report in the Project Core Team meeting

The R&D: System Test Designer will participate in the R&D project progress team.

### Test environment meeting

The R&D: System Test Designer will participate in the test environment meeting to monitor the allocation and availability of the test systems.

### Entry criteria meeting

Entry criteria meetings to start Integrate Product phase and Verify Designs phase will be organized by the R&D: System Test Designer

### Other communication agreements

For alignment with the Bangalore test team a weekly meeting will be held with R&D: Department Manager VE Mahantesh Maganur to align on the test strategy.

## Organization Structure

Please refer to PUMA Project Management Plan [REF-01].

## Effort and Planning

In this chapter the estimated effort and the overall test planning are given.

|  |  |
| --- | --- |
|  | hours. |
| DVI based IT execution | 1385.0 |
| DVI based IT preparation | 0.0 |
| DVI based Integrate Product phase preparation | 2290.5 |
| DVI based Integrate Product phase execution | 8717.2 |
| DVI based Verify Designs preparation | 1521.5 |
| DVI based Verify Designs execution | 1790.4 |
| DVI based SREL preparation | 0.0 |
| DVI Based SREL execution | 0.0 |
| VOIP based IT execution | 2777.4 |
| VOIP based IT preparation | 0.0 |
| VOIP based Integrate Product preparation | 13671.5 |
| VOIP based Integrate Product execution | 7328.4 |
| VOIP based SVER preparation | 3654.5 |
| VOIP based SVER execution | 1296.4 |
| VOIP based SREL preparation | 20 0.0 |
| VOIP Based SREL execution | 32 0.0 |
| **OVERALL** 44484.8 | |
|  |  |

**Planning**

The planning for the test related activities is part of the Clarity schedule for PUMA.

This planning will be aligned with the project scope. Every time a scope change occurs, the planning will be updated accordingly.

## Test Environment

The quality of the test environment is defined by the hardware and software status. From hardware point of view, prototype materials and first production series are used to keep the test environment at production equivalent status.

From software point of view, new software builds are installed and used for test execution. The test environment is managed by means of software build and installation, test system operational and product performance qualifications. The following sections explain in more detail the approach of the mentioned qualifications.

Different kinds of test environments are used during the product development phases. The table below lists the test environments that are used per product development phase.

| **Product development phase** | **Test environments** |
| --- | --- |
| Detail Designs Phase  unit testing | Unit test environment (PC with stubs and drivers)  Virtual test system (test environment that virtually operates as a Test Model using HW modeling)  Test Model (complete test system) |
| Integrate product | Test Model (complete test system, containing equivalent or final DMR |
| Verify Designs | Test Model (complete test system, containing equivalent or final DMR |

Unit test environments and Test Models are referenced used in test records.

Virtual test systems are used to limit the amount of Test Models during the details design phase.

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### Software build and installation qualification

The software installation process is described in the software installation manual. The final software installation manual is derived from the development installation manual, describing and securing a repeatable software installation process during product development. For each new software build, the development installation manual is updated and the new software build is released by means of release notes. The final software installation manual is validated during the system release test and describes the procedures for the installation of the Azurion R3.0 software. The installed software version is visible in PSC, indicated as a software version number. The software version number is used to identify the tested software in the test records.

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### Test environment operational qualification

Each individual Test Model has a unique identifier which is registered in the test records. Test environment configuration changes or prototype material installations are controlled by means of change requests. A change request is submitted in the Test\_Environment project bin of the Rational ClearQuest defect database CVDEV. The initial test system configuration and the change requests are registered in the test environment configuration file. A Test Environment Traceability Matrix is made to map the DMR changes to the test environment configurations.

## Test Tools

* Auxiliary systems and peripheral devices1
* Test Robot
* FAST
* Test Objects & Phantoms 1
* Simulation tools1
* Dose Control Tool
* Windchill RV&S
* Rational ClearQuest defect database CVPRJ for handling product issues

1 to be defined in test designs

All software tools used to gather product integration and design verification evidence for the PUMA project are validated and tool validation evidence is reported in the test records and reports.

## Metrics

Progress with respect to

* test execution
* test documentation
* test system status
* SW baseline status
* Product issue status

will be provided during the Integrate product phase and Verify designs phase.

# Entry Criteria

Entry criteria Integrate Product phase (excluding DPC Arches product changes):

| **Item** | **Requirement** | **Status** |
| --- | --- | --- |
| Development ready | All assigned PUMA Epic(s)/capability are completed. | - |
| Unit Test Records | Unit test records approved. | - |
| Test Ware | Integration Test Designs and Test Protocols available and approved for integrate product | - |
| Test environment | Test environment allocated, available and fit for testing | - |
| Test Tools | SW Test Tools are validated. Test equipment is calibrated | - |
| Resources | Human resources available | - |
| TTM deliverables | TTM Safety and Security RMM (for the units part) , TTM UID, TTM Ext interface and TE TM approved | - |
| Development Problems | No open development problems | - |
| Field Feedback items/Enhancements | The assigned field problems are at least resolved  and enhancements are closed. | - |

Entry criteria Integrate Product phase including DPC Arches product changes:

| **Item** | **Requirement** | **Status** |
| --- | --- | --- |
| Development ready | Assigned Epic(s)/features from DPC Arches are completed. | - |
| DPC Arches Impact Analysis on Integrate product | Impact analysis is conducted and the outcome is captured in entry criteria report | - |
| Unit Test Records | Unit test records approved. | - |
| Test Ware | Integration Test Designs and Test Protocols available and approved for integrate product | - |
| Test environment | Test environment allocated, available and fit for testing | - |
| Test Tools | SW Test Tools are validated. Test equipment is calibrated | - |
| Resources | Human resources available | - |
| TTM deliverables | TTM Safety and Security RMM (for the units part) and TTM UID approved | - |
| DPC Arches Development Problems | No DPC Arches open development problems | - |

Entry criteria Verify Designs Phase:

| **Item** | **Requirement** | **Status** |
| --- | --- | --- |
| Exit criteria previous phase | Exit criteria Integrate product phase are met | - |
| Test Traceability Matrices | TTM SRS, TTM Safety and Security RMM, TTM ext. interfaces and TM TE, TTM UID, TM NC System Cluster are available | - |
| Product Integration Report | Product Integration Report available | - |
| Open Development Problems | Open justified development problems inherited from Integrate product Test are converted into product defect record type. | - |
| Test Ware | Test Designs and Test Protocols are authorized. | - |
| Test environment | Test environment is allocated, available and fit for testing | - |
| Test Tools | SW Test Tools are validated. Test equipment is calibrated. | - |
| Design output review | Design output review held and approved | - |
| Resources | Human resources available. | - |
| Scope check | Other hardware and software changes then defined in the test scope and risk analysis are defined and resolved | - |

# Exit Criteria

Exit criteria Integrate Product phase:

|  |  |  |
| --- | --- | --- |
| **Item** | **Requirement** | **Status** |
| Test Ware | Integration Test Protocols executed and have result passed | - |
| Test Traceability Matrices | TTM Safety and Security RMM, TTM UID and TE TM updated and approved | - |
| Development Problems | No open development problems | - |
| Field Problems / Enhancements | The assigned Field Problems are at least verified and Enhancements are closed | - |

Exit criteria Verify Designs phase:

|  |  |  |
| --- | --- | --- |
| **Item** | **Requirement** | **Status** |
| Test Ware | Test protocols are executed and have result passed | - |
| Test Traceability Matrices | TTM SRS, TTM Safety and Security RMM, TTM external interface and TM TE updated and approved | - |
| Product issues | Product issues are closed or set as candidate to park with rationale. | - |
| SDS NC testing (system level) | Safety and functional test w.r.t. SDS Norm Compliance on system level is completed.  Delivery of Norm Compliance and/or service evidence can be postponed to the Validation and Release Designs phase when it has no impact on the evidence gathered during Verify Designs phase. | - |

Exit criteria Validate and Release Designs phase: see [REF-02].

# Suspension and Resumption Criteria

The test suspension criteria are:

* Assigned enhancement(s), field problem(s) or scope change(s) that has impact on the defined test strategy and approach whereby the planned and performed test activities has become obsolete, incomplete or inaccurate.
* Inflow of development problems found during the test activities that has impact on the defined test strategy and approach, which cannot be followed anymore or needs adjustment.
* Operational problems e.g. with infrastructure, test environment or resources, that blocks the execution of planned test activities.

The test resumption criteria are:

* The enhancement(s), field problem(s) or scope change(s) has been processed; test strategy and approach including testing activities have been revised and rescheduled.
* The development problems or operational problems that caused test suspension have been resolved.

The impact of the suspension reason needs to be reviewed on the executed test cases before resumption. In case the outcome of the executed test protocols is not valid anymore, they need to be re-executed.

Resumption requires a new entry criteria check.

Deviations from this plan will be reported in the related test report.

Based on the outcome of impact assessment at EoD DPC Arches, integrate product phase may be suspended when the outcome leads to major impact on results of already executed test cases (see chapter 4.1.2)

## Test Case Pass / Fail Criteria

The result of test protocol execution will get the result “passed” when it is executed according acceptance criteria / expected results and no development problem is found. In case a development problem is found during the test protocol execution, the result shall be “failed”.

The pass/fail criteria are based on the following information regarding the found development problem:

* The expected result of the test protocol is not met then the test protocol record will have the result “failed”.
* The observed behavior can’t be traced back to for instance a user/business need, requirement, specification. The Subject Matter Expert (SME) shall be consulted for judgement. Based on Subject Matter Expert judgement, the test protocol record will have the result “passed” or “failed”.
* A workaround exists for the development problem, which is judged and accepted by the Subject Matter Expert(s) than the test protocol record will have the result “passed” otherwise “failed”.

If the development problem is only caused by the fact that the test protocol itself is incorrect, then the pass / fail criteria are based on the following:

* If the test protocol change does not affect the outcome of the test and the test protocol does not need to be re-executed, the result of the test protocol record is set to “passed”.
* If the test protocol change implies that the test protocol needs to be re-executed than the result of the test protocol record is set to “failed”.

# Defect Management

See XCV-2000666: Product Issue Management Procedure.

# Appendix A: Affected or new requirements Azurion R3.0

|  |  |
| --- | --- |
|  | **SRS Tags** |
| [REF-04] | SRS.Allura.Conf.Control-RoomDisplays |
| SRS.Allura.Conf.MCS-RelatedItems |
| SRS.Allura.Conf.Stand-RelatedItems |
| SRS.Allura.Conf.SupportedConfigurations |
| SRS.Allura.Conf.UI-RelatedItems |
| SRS.Allura.Conf.XperFDSeriesConfigurations |
| SRS.Allura.Func.APC3DReference |
| SRS.Allura.Func.APCPredefined |
| SRS.Allura.Func.APCReference |
| SRS.Allura.Func.APCTable |
| SRS.Allura.Func.BolusChaseReconstruction |
| SRS.Allura.Func.ClassicDRA |
| SRS.Allura.Func.CO2Tracing |
| SRS.Allura.Func.Dual-AxisAcquisition |
| SRS.Allura.Func.DualFluoro |
| SRS.Allura.Func.DualPhaseXperCT |
| SRS.Allura.Func.DVDRecordControl |
| SRS.Allura.Func.EPTriggering |
| SRS.Allura.Func.ExposureSubtract |
| SRS.Allura.Func.FluoroFlavours |
| SRS.Allura.Func.ExposureFramespeed |
| SRS.Allura.Func.FreeInteractiveFDPA |
| SRS.Allura.Func.ImageBeamRotation |
| SRS.Allura.Func.Marker |
| SRS.Allura.Func.Measurement |
| SRS.Allura.Func.MovementDisable/Enable |
| SRS.Allura.Func.NormalSubtraction |
| SRS.Allura.Func.PatientOrientedMovement |
| SRS.Allura.Func.PhysioAcquisition |
| SRS.Allura.Func.PositioningIndicationWithoutRadiation |
| SRS.Allura.Func.PrintJobControl |
| SRS.Allura.Func.PrintSheetCreation |
| SRS.Allura.Func.Roadmap |
| SRS.Allura.Func.Roadmap.SmartMask |
| SRS.Allura.Func.RotateFDXDDetector |
| SRS.Allura.Func.RunSubtract |
| SRS.Allura.Func.SetInjectorCoupling |
| SRS.Allura.Func.StoreReferenceRun/Image |
| SRS.Allura.Func.SystemCustomization |
| SRS.Allura.Func.TableTilting |
| SRS.Allura.Func.Tracing |
| SRS.Allura.Func.XperCT |
| SRS.Allura.Func.X-rayImageProcessing |
| SRS.Allura.Intgr.3rdAnd4thMultiView |
| SRS.Allura.Intgr.4KVideoInputOutput |
| SRS.Allura.Intgr.AdditionalMultiView |
| SRS.Allura.Intgr.AuxiliarySystems |
| SRS.Allura.Intgr.FHDVideoSources |
| SRS.Allura.Intgr.Flexspot |
| SRS.Allura.Intgr.Flexspot.AdditionalWorkspot |
| SRS.Allura.Intgr.Flexspot.SecondFlexspot |
| SRS.Allura.Intgr.Flexvision |
| SRS.Allura.Intgr.Flexvision.KeyboardMouse |
| SRS.Allura.Intgr.Interfaces.ControlAuxiliarySystems |
| SRS.Allura.Intgr.Interfaces.RealTimeImageLink |
| SRS.Allura.Intgr.Interfaces.RemoteConnectionSettings |
| SRS.Allura.Intgr.MultiView |
| SRS.Allura.Intgr.Multivision |
| SRS.Allura.Intgr.OpenVideoInterface.LargeScreen |
| SRS.Allura.Intgr.OpenVideoInterface.LargeScreenDownscaled |
| SRS.Allura.Intgr.SwitchableMonitors |
| SRS.Allura.Intgr.VideoSlave |
| SRS.Allura.Intgr.WLMSystems |
| SRS.Allura.Qual.ClinicalResponseTimes.Acquisition |
| SRS.Allura.Qual.ClinicalResponseTimes.Admin |
| SRS.Allura.Qual.ClinicalResponseTimes.Movement |
| SRS.Allura.Qual.ClinicalResponseTimes.System |
| SRS.Allura.Serv.Backup/Restore |
| SRS.Allura.Serv.SingleLabConnection |
| SRS.Allura.Serv.Upgrading  SRS.Allura.Serv.FSInstructions |
| SRS.Allura.SLS.ECO.ProductLabeling |
| SRS.Allura.SLS.fse-safety |
| SRS.Allura.UI.Clinical-UILanguage |
| SRS.Allura.UI.ComfortThemes |
| SRS.Allura.UI.Help.Customize |
| SRS.Allura.UI.Image.Pointer |
| SRS.Allura.UI.TSM.Image  SRS.Security.MD.RemoteAccessPoint  SRS.Security.MD.HospitalNetwork  SRS.Security.MD.MalwareOnRemovable media  SRS.Security.MD.PhysicalAccess  SRS.Security.MD.AttackViaPhysical DeviceModification  SRS.Security.MD.UnavailabilityOfMedicalDevice  SRS.Security.MD.ReputationDamage  SRS.Security.MD.DataBreach  SRS.Security.PHD.RemoteAccessPoint  SRS.Security.PHD.HospitalNetwork  SRS.Security.PHD.MedicalDevice  SRS.Security.PHD.PhysicalAccess  SRS.Security.PHD.PhysicalDismounting  SRS.Security.PHD.PatientDataCorrupted  SRS.Security.PHD.DataBreach  SRS.Security.PHD.PatientDataLoss  SRS.Security.HN.AttackViaMedicalDevice  SRS.Security.HN.HospitalNetworkBreached  SRS.Security.RM.AttackViaMedicalDevice  SRS.Security.HN.RemovableMediaBreached  SRS.Allura.SLS.VA  SRS.Allura.Conf.Table-RelatedItems.ptf-5 |
|  | **NC tags** |
| [REF-12] | SDS.NCDAT.IEC 60601-1.4.7.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1.4.11.SAFETY TEST  SDS.NCDAT.IEC 60601-2-43.201.4.101.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.4.102.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1.7.1.2.SAFETY TEST  SDS.NCDAT.IEC 60601-1.7.1.3.SAFETY TEST  SDS.NCDAT.IEC 60601-2-43.201.7.9.2.103.SAFETY TEST  SDS.NCDAT.IEC 60601-1.8.6.4.SAFETY TEST  SDS.NCDAT.CAN/CSA C22.2 No 60601-1.8.6.4.SAFETY TEST  SDS.NCDAT.IEC 60601-2-54.201.8.7.3.SAFETY TEST  SDS.NCDAT.IEC 60601-1.8.7.4.SAFETY TEST  SDS.NCDAT.IEC 60601-1.9.2.2.2.SAFETY TEST  SDS.NCDAT.IEC 60601-2-54.201.9.2.2.5.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1.9.2.2.6.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.201.9.2.2.6.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.201.9.2.3.1.RM  SDS.NCDAT.IEC 60601-1.9.2.4.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.9.2.4.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.201.9.2.4.101.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1.9.2.5.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1.9.6.2.1.SAFETY TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.101.1.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.102.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.104.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.106.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.107.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1.16.8.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.203.6.4.5.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.6.4.5.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1-3.8.5.2.SAFETY TEST  SDS.NCDAT.IEC 60601-2-54.203.8.5.3.SAFETY TEST  SDS.NCDAT.IEC 60601-2-43.203.8.5.3.SAFETY TEST  SDS.NCDAT.IEC 60601-2-54.203.9.101.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.9.102.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.203.13.4.SAFETY TEST  SDS.NCDAT.IEC 60601-2-54.203.13.6.SAFETY TEST  SDS.NCDAT.21CFR1020.30.k.SAFETY TEST  SDS.NCDAT.21CFR1020.30.m.1.SAFETY TEST  SDS.NCDAT.21CFR1020.30.n.SAFETY TEST  SDS.NCDAT.21CFR1020.32.a.SAFETY TEST  SDS.NCDAT.21CFR1020.32.b.SAFETY TEST  SDS.NCDAT.21CFR1020.32.b.5.i.SAFETY TEST  SDS.NCDAT.21CFR1020.32.b.5.ii.SAFETY TEST  SDS.NCDAT.21CFR1020.32.d.2.i.SAFETY TEST  SDS.NCDAT.21CFR1020.32.d.2.ii.SAFETY TEST  SDS.NCDAT.21CFR1020.32.d.2.iii.C.SAFETY TEST  SDS.NCDAT.21CFR1020.32.g.1.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.k.6.SAFETY TEST  SDS.NCDAT.1370.Part.XII.4.b.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.6.SAFETY TEST  SDS.NCDAT.1370.Part.XII.8.SAFETY TEST  SDS.NCDAT.1370.Part.XII.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.18.g.SAFETY TEST  SDS.NCDAT.1370.Part.XII.18.h.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.18.i.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.22.2.SAFETY TEST  SDS.NCDAT.1370.Part.XII.25.1.SAFETY TEST  SDS.NCDAT.1370.Part.XII.28.SAFETY TEST  SDS.NCDAT.1370.Part.XII.29.SAFETY TEST  SDS.NCDAT.1370.Part.XII.32.SAFETY TEST  SDS.NCDAT.IEC 60601-1-3.6.2.2.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.6.7.101.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.203.6.7.101.FUNCTIONAL TEST  JIS Z4751-2-54 203.6.3.102 (SDS.NCDAT.JIS Z4751-2-54.203.6.3.2.102.SAFETY TEST)  SDS.NCDAT.IEC 60601-2-43.201.12.4.101.2.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.101.3.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.103.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.201.12.4.105.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.6.2.1.102.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1-3.6.2.2.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1-3.6.3.1.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.6.3.1.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.203.6.4.2.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-1-3.6.4.3.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.6.4.3.105.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.6.4.4.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.203.6.4.5.SAFETY TEST  SDS.NCDAT.IEC 60601-2-43.203.6.101.SAFETY TEST  SDS.NCDAT.IEC 60601-2-43.203.6.103.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-43.203.6.104.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.8.102.1.FUNCTIONAL TEST  SDS.NCDAT.IEC 60601-2-54.203.8.102.4.SAFETY TEST  SDS.NCDAT.21CFR1020.30.m.2.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.a.1.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.b.2.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.b.6.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.c.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.d.2.iii.B.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.d.2.iii.C.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.h.2.i.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.h.2.i.A.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.h.2.i.B.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.h.2.i.C.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.h.2.ii.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.j.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.j.1.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.j.3.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.k.1.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.k.2.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.k.3.FUNCTIONAL TEST  SDS.NCDAT.21CFR1020.32.k.5.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.7.1.a.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.7.1.b.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.7.2.a.FUNCTIONAL TEST  SDS.NCDAT.1370.Part.XII.7.2.b.FUNCTIONAL 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|  | **UID Tags** |
| [REF-17] | UID.Allura.FlexScreen.CombinedWithFixedSlaveOrSwitchableMonitors  UID.Allura.FlexScreen.ComfortThemes.Control.Deactivation  UID.Allura.FlexScreen.KeyboardMouse.SetControl  UID.Allura.FlexScreen.Layout  UID.Allura.FlexScreen.Preset  UID.Allura.FlexScreen.Preset.Application  UID.Allura.FlexScreen.Preset.Application.Mandatory  UID.Allura.FlexScreen.Preset.Delete  UID.Allura.FlexScreen.Preset.Modify.1:1  UID.Allura.FlexScreen.Preset.Modify.Resize  UID.Allura.FlexScreen.Preset.Select.Automation  UID.Allura.FlexScreen.Viewport.Snapshot.All  UID.Allura.FlexScreen.WorkSpot  UID.Allura.FlexScreen.WorkSpot.Control  UID.Allura.FlexScreen.WorkSpot.Control.DuringXrayAcquisition  UID.Allura.GracefulDegradation.DVI  UID.Allura.GracefulDegradation.FlexScreens  UID.Allura.GracefulDegradation.UserNotification  UID.Allura.GracefulDegradation.WorkspotVideoSetUp  UID.Allura.MultiView.Application  UID.Allura.MultiView.ScreenSaver  UID.Allura.MultiView.WorkSpot  UID.Allura.MultiView.WorkSpot.Automation  UID.Allura.MultiVision.Control  UID.Allura.SwitchableMonitors.Application  UID.Allura.SwitchableMonitors.FlexibleNumberOfSwitchableMonitors  UID.Allura.SwitchableMonitors.ScreenSaver  UID.Allura.FlexScreen.ComfortThemes.Content  UID.Allura.FlexScreen.ComfortThemes.Control.Activation  UID.Allura.FlexScreen.ComfortThemes.Display  UID.Allura.FlexScreen.KeyboardMouse  UID.Allura.FlexScreen.KeyboardMouse.ReleaseControl  UID.Allura.FlexScreen.Preset.Copy  UID.Allura.FlexScreen.Preset.Create  UID.Allura.FlexScreen.Preset.Default.Restore  UID.Allura.FlexScreen.Preset.Groups  UID.Allura.FlexScreen.Preset.Modify.Add  UID.Allura.FlexScreen.Preset.Modify.Layout  UID.Allura.FlexScreen.Preset.Modify.Maximize  UID.Allura.FlexScreen.Preset.Modify.Move  UID.Allura.FlexScreen.Preset.Modify.Remove  UID.Allura.FlexScreen.Preset.Modify.Rename  UID.Allura.FlexScreen.Preset.Modify.Swap  UID.Allura.FlexScreen.Preset.Modify.ToggleVisibility  UID.Allura.FlexScreen.Preset.Move  UID.Allura.FlexScreen.Preset.Order  UID.Allura.FlexScreen.Preset.Select  UID.Allura.FlexScreen.ScreenSaver  UID.Allura.FlexScreen.Viewport  UID.Allura.FlexScreen.ViewPort.Snapshot  UID.Allura.FlexScreen.ViewportSizeSharing  UID.Allura.FlexScreen.WorkSpot.Control.SnapshotRestrictions  UID.Allura.FlexScreen.WorkSpot.StatusArea  UID.Allura.GracefulDegradation.WorkspotVideoStartup  UID.Allura.MultiVision.Application.Assignment.Default  UID.Allura.SwitchableMonitors.Application.Assignment  UID.Allura.SwitchableMonitors.Application.Assignment.Default  UID.Allura.SwitchableMonitors.Application.Mandatory  UID.Allura.SwitchableMonitors.MonitorIdentification  UID.Allura.FlexScreen.ComfortThemes.Content  UID.Allura.FlexScreen.ComfortThemes.Display  UID.Allura.FlexScreen.KeyboardMouse  UID.Allura.FlexScreen.KeyboardMouse.ReleaseControl  UID.Allura.FlexScreen.Preset.Copy  UID.Allura.FlexScreen.Preset.Create  UID.Allura.FlexScreen.Preset.Default.Restore  UID.Allura.FlexScreen.Preset.Groups  UID.Allura.FlexScreen.Preset.Modify.Add  UID.Allura.FlexScreen.Preset.Modify.Layout  UID.Allura.FlexScreen.Preset.Modify.Maximize  UID.Allura.FlexScreen.Preset.Modify.Move  UID.Allura.FlexScreen.Preset.Modify.Remove  UID.Allura.FlexScreen.Preset.Modify.Rename  UID.Allura.FlexScreen.Preset.Modify.Swap  UID.Allura.FlexScreen.Preset.Modify.ToggleVisibility  UID.Allura.FlexScreen.Preset.Move  UID.Allura.FlexScreen.Preset.Order  UID.Allura.FlexScreen.Preset.Select  UID.Allura.FlexScreen.ScreenSaver  UID.Allura.FlexScreen.Viewport  UID.Allura.FlexScreen.ViewPort.Snapshot  UID.Allura.FlexScreen.WorkSpot.Control.SnapshotRestrictions  UID.Allura.FlexScreen.WorkSpot.StatusArea  UID.Allura.SwitchableMonitors.Application.Assignment  UID.Allura.SwitchableMonitors.Application.Assignment.Default  UID.Allura.SwitchableMonitors.Application.Mandatory  UID.Allura.SwitchableMonitors.MonitorIdentification |
| [REF-18] | UID.Allura.UI.AuxiliaryApplications  UID.Allura.UI.BrandingScreens.AboutScreen  UID.Allura.UI.BrandingScreens.ScreenSaver  UID.Allura.UI.BrandingScreens.ShutdownScreen  UID.Allura.UI.BrandingScreens.StartUpScreen  UID.Allura.UI.BrandingScreens.VideoOnlyMode  UID.Allura.UI.CBCTCalibration  UID.Allura.UI.ControlRoom.AcquisitionMonitor.EndProcedurePopup  UID.Allura.UI.ControlRoom.AcquisitionMonitor.X-rayStatusArea  UID.Allura.UI.ControlRoom.SuiteMonitor.Menubar  UID.Allura.UI.ControlRoom.SuiteMonitor.MultiView  UID.Allura.UI.ControlRoom.SuiteMonitor.StatusArea  UID.Allura.UI.DataHandler.AddPatientSubPanel  UID.Allura.UI.DataHandler.ExportData.SaveToDialog  UID.Allura.UI.DataHandler.ImportData.General  UID.Allura.UI.DataHandler.ImportData.LocalMedia  UID.Allura.UI.DataHandler.ImportData.LocalMedia.MergeDataDialog  UID.Allura.UI.DataHandler.PatientDetails  UID.Allura.UI.DataHandler.PatientDetails.SeriesDetailedView  UID.Allura.UI.DataHandler.PatientDetails.SeriesTab  UID.Allura.UI.DataHandler.PatientDetails.SeriesTab.DoseInfoArea  UID.Allura.UI.DataHandler.PatientDetails.SeriesTab.DoseReportSeries  UID.Allura.UI.DataHandler.StudyList  UID.Allura.UI.ExamRoomWorkspot.HDBiplaneStatusArea  UID.Allura.UI.ExamRoomWorkspot.HDMonoplaneStatusArea  UID.Allura.UI.ExamRoomWorkspot.MultiVisionSwitch  UID.Allura.UI.ExamRoomWorkspot.MultiVisionSwitch.TSMUI  UID.Allura.UI.ExamRoomWorkspot.SwitchableMonitors  UID.Allura.UI.ExamRoomWorkspot.SwitchableMonitors.TSMUI  UID.Allura.UI.FlexSpotWorkspot.Application  UID.Allura.UI.FlexSpotWorkspot.ApplicationThumbnail  UID.Allura.UI.FlexSpotWorkspot.BodyArea  UID.Allura.UI.FlexSpotWorkspot.BodyArea.ViewportDesign  UID.Allura.UI.FlexSpotWorkspot.PresetThumbnail  UID.Allura.UI.FlexSpotWorkspot.TopBar  UID.Allura.UI.FlexSpotWorkspot.TopBar.ExamRoomPanel  UID.Allura.UI.FlexSpotWorkspot.TopBar.MenuBar  UID.Allura.UI.FlexSpotWorkspot.X-rayStatusArea  UID.Allura.UI.FlexVisionWorkspot.Application  UID.Allura.UI.FlexVisionWorkspot.General  UID.Allura.UI.FlexVisionWorkspot.StatusArea  UID.Allura.UI.FlexVisionWorkspot.TopBar  UID.Allura.UI.FlexVisionWorkspot.TSMUI.Customize  UID.Allura.UI.FootSwitch  UID.Allura.UI.GeoModule  UID.Allura.UI.GeoModule.FlexMove-ORT  UID.Allura.UI.GeoModule.Tilt-FlexMove  UID.Allura.UI.ImagingModule  UID.Allura.UI.KeyboardShortcuts  UID.Allura.UI.ProcedureCardsManager.CardDetails.SecondFlexSpotSettings  UID.Allura.UI.RemoteSoftwareDistribution  UID.Allura.UI.StatusAreaParameters  UID.Allura.UI.StatusAreaParameters.VisualCollisionIndication  UID.Allura.UI.TSMFramework.MouseIntegration  UID.Allura.UI.TSMFramework.TSMApplications  UID.Allura.UI.UIMessages.TextMessagesOverview  UID.Allura.UI.X-raySystemCustomization.APCPathway  UID.Allura.UI.X-raySystemCustomization.APCPathwayConfirmation  UID.Allura.UI.X-raySystemCustomization.APCPositions  UID.Allura.UI.X-raySystemCustomization.APCPredefinedConfirmation  UID.Allura.UI.X-raySystemCustomization.APCX-rayProtocols  UID.Allura.UI.X-raySystemCustomization.AutomaticDataTransfer  UID.Allura.UI.X-raySystemCustomization.DateTimeSettings  UID.Allura.UI.X-raySystemCustomization.DICOMConfiguration  UID.Allura.UI.X-raySystemCustomization.ExportProcedureCards  UID.Allura.UI.X-raySystemCustomization.ExportProtocols  UID.Allura.UI.X-raySystemCustomization.General  UID.Allura.UI.X-raySystemCustomization.ImportProcedureCardsSettings  UID.Allura.UI.X-raySystemCustomization.ImportSettings  UID.Allura.UI.X-raySystemCustomization.PatientsAdministration  UID.Allura.UI.X-raySystemCustomization.PhysicianList  UID.Allura.UI.X-raySystemCustomization.RegionalSettings  UID.Allura.UI.X-raySystemCustomization.RemoteSupport  UID.Allura.UI.X-raySystemCustomization.SystemAndLicenseInformation  UID.Allura.UI.X-raySystemCustomization.UserAdministration  UID.Allura.UI.DataHandler.ExportData.General  UID.Allura.UI.FlexSpot.ConfirmDeletePreset  UID.Allura.UI.FlexSpot.ConfirmDeletePresetGroup  UID.Allura.UI.FlexSpot.ConfirmRestoreFactoryDefaultPresets  UID.Allura.UI.FlexSpot.ConfirmSnapshotStore  UID.Allura.UI.FlexSpot.ConfirmUSBSwitch  UID.Allura.UI.FlexSpot.ConfirmUSBSwitchSecondFlexSpot  UID.Allura.UI.FlexSpotWorkspot  UID.Allura.UI.FlexSpotWorkspot.ApplicationThumbnail  UID.Allura.UI.FlexSpotWorkspot.BodyArea  UID.Allura.UI.FlexSpotWorkspot.BodyArea.ViewportDesign  UID.Allura.UI.FlexSpotWorkspot.KeyboardLockIndication  UID.Allura.UI.FlexSpotWorkspot.PresetManager  UID.Allura.UI.FlexSpotWorkspot.PresetThumbnail  UID.Allura.UI.FlexSpotWorkspot.X-rayAcquisitionApplication  UID.Allura.UI.FlexSpotWorkspot.X-rayStatusArea  UID.Allura.UI.FlexVisionWorkspot.Application  UID.Allura.UI.FlexVisionWorkspot.General  UID.Allura.UI.FlexVisionWorkspot.StatusArea  UID.Allura.UI.FlexVisionWorkspot.TopBar  UID.Allura.UI.FlexVisionWorkspot.TSMUI  UID.Allura.UI.FlexVisionWorkspot.TSMUI.Ambient  UID.Allura.UI.LayoutSets.FlexSpot  UID.Allura.UI.LayoutSets.FlexVision  UID.Allura.UI.ProcedureCardHelp  UID.Allura.UI.ProcedureCardsManager.CardDetails  UID.Allura.UI.ProcedureCardsManager.CardDetails.FlexSpotSettings  UID.Allura.UI.ProcedureCardsManager.CardDetails.FlexVisionSettings  UID.Allura.UI.UIMessages.General  UID.Allura.UI.Viewpad |
| [REF-19] | UID.Allura.UI.ImageViewModes  UID.Allura.UI.ImageViewport.ImageOverlays  UID.Allura.UI.ImageViewport.ImageOverlays.ServiceLabel  UID.Allura.UI.ImageViewport.MovieControl  UID.Allura.UI.ImageViewport.TextAndGraphicsAnnotation  UID.Allura.UI.ImageViewport.ToolbarGeneralRules  UID.Allura.UI.MosaicRunOverview.UIControlsInRunOverviewMode  UID.Allura.UI.PictorialIndex.PictorialContextMenu  UID.Allura.UI.X-rayAcqApp.FlexVision  UID.Allura.UI.X-rayAcqApp.ImageArea.Toolbar  UID.Allura.UI.X-rayAcqApp.SideBar.AcquisitionTask  UID.Allura.UI.X-rayAcqApp.SideBar.AcquisitionTask.InjectorSettings  UID.Allura.UI.X-rayAcqApp.SideBar.ProcessingTask.AnnotationsPanel  UID.Allura.UI.X-rayAcqApp.SideBar.ProcessingTask.MeasurementsPanel  UID.Allura.UI.X-rayAcqApp.SideBar.ProcessingTask.MeasurementsPanel.CalibrationDialog  UID.Allura.UI.X-rayAcqApp.SideBar.ProcessingTask.MeasurementsPanel.ConfirmationDialogs  UID.Allura.UI.X-rayAcqApp.SidePanelGeneral  UID.Allura.UI.X-rayAcqApp.TSM.BiplaneImageViewport  UID.Allura.UI.X-rayAcqApp.TSM.ImageViewport  UID.Allura.UI.X-rayAcqApp.TSM.Markers  UID.Allura.UI.X-rayAcqApp.TSM.Measurement.ConfirmationDialogs  UID.Allura.UI.X-rayAcqApp.TSM.Measurements  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.AcquisitionTask.RoadMapPanel  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.AcquisitionTask.RotationalScanWizard  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.CollimationTask.WedgesPanel  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.GeometryTask  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.GeometryTask.APCPathway  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.GeometryTask.APCPredefined  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.GeometryTask.APCStore  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.GeometryTask.GuidanceImage  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.GeometryTask.ImageAPC  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.Licenses  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.ProcessingTask  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.ProcessingTask.SubtractionPanels  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.SeriesTask  UID.Allura.UI.X-rayAcqApp.TSMLiveTab.TableTask  UID.Allura.UI.X-rayAcqApp.TSMRefTab |
| [REF-20] | UID.Allura.EPX.Management.RemoteAccess  UID.Allura.EPX.Management.TastesContent  UID.Allura.Installation.DataRetention  UID.Allura.Installation.LocalUpgrade  UID.Allura.Installation.RemoteUpgrade  UID.Allura.Installation.RemoteUpgrade.Capacity  UID.Allura.RemoteSupport.Connection  UID.Allura.RemoteSupport.Connection.Configuration  UID.Allura.RemoteSupport.Connection.Diagnose  UID.Allura.RemoteSupport.RemoteDesktop.Session.Type  UID.Allura.RemoteSupport.RemoteDesktop.SingleLabConnection  UID.Allura.RemoteSupport.RemoteProactiveSupport.Rules  UID.Allura.Service.Calibration.TubeAdaptation  UID.Allura.Service.Configuration.FlexScreen.Application.Availability  UID.Allura.Service.Configuration.FlexScreen.Application.Mains  UID.Allura.Service.Configuration.FlexScreen.ApplicationsOrder  UID.Allura.Service.Configuration.SingleLabConnection  UID.Allura.Service.Configuration.WVD.Application.Availability  UID.Allura.Service.Configuration.WVD.ConfigurationTransfer  UID.Allura.Service.Configuration.WVD.MultiViewWorkspots.Shortcut  UID.Allura.Service.Configuration.WVD.MultiViewWorkspots.TimeOut  UID.Allura.Service.Configuration.WVD.OutputsConfiguration  UID.Allura.Service.Diagnostics.ExportData.Daily  UID.Allura.Service.Diagnostics.ExportData.LogfileOnDemand  UID.Allura.Service.Diagnostics.ExportData.Periodic  UID.Allura.Service.Diagnostics.Logging.IDs  UID.Allura.Service.Misc.AuxiliarySystems  UID.Allura.Service.Misc.BackupRestore  UID.Allura.Service.Misc.OpenProfile  UID.Allura.Service.Misc.SystemServiceIdentifier  UID.Allura.Service.Survey.Overview  UID.Allura.Service.Test.PCNetwork  UID.Allura.EPX.Management.BackupRestore  UID.Allura.Service.Diagnostics.ExportData.Daily  UID.Allura.Installation.IndependentPackages  UID.Allura.Installation.ProgressVisibility  UID.Allura.Service.Configuration.FlexScreen  UID.Allura.Service.Configuration.FlexScreen.Application.1:1  UID.Allura.Service.Configuration.FlexScreen.Application.KeyboardMouse  UID.Allura.Service.Configuration.FlexScreen.Application.LinkedApplications  UID.Allura.Service.Configuration.FlexScreen.Application.Mandatory  UID.Allura.Service.Configuration.FlexScreen.Application.NameIcon  UID.Allura.Service.Configuration.FlexScreen.Application.Source  UID.Allura.Service.Configuration.FlexScreen.Application.SourceConfig  UID.Allura.Service.Configuration.FlexScreen.ApplicationList  UID.Allura.Service.Configuration.FlexScreen.ApplicationTemplates  UID.Allura.Service.Configuration.WVD.Application.4K  UID.Allura.Service.Configuration.WVD.Application.EnhancedDownscaling  UID.Allura.Service.Configuration.WVD.ComponentsIdentification  UID.Allura.Service.Configuration.WVD.SwitchCredentials  UID.Allura.Service.Diagnostics.ExportData.DiagnosticData  UID.Allura.Service.Diagnostics.Logging.Generate  UID.Allura.Service.Manufacturing.Configuration.Import  UID.Allura.Service.Manufacturing.SoftwareLoading  UID.Allura.Service.Manufacturing.Unmount  UID.Allura.Service.Misc.UnknownSoftware  UID.Allura.Service.Misc.Whitelisting  UID.Allura.Service.SystemConfiguration  UID.Allura.Service.Test.Flexvision  UID.Allura.Service.Test.HardwareTest  UID.Allura.Service.Test.IQ.MonitorPerformance  UID.Allura.Service.Test.IQ.MonitorSMPTE  UID.Allura.Service.Test.WVDDiagnostics  UID.Allura.Service.Test.XrayImageChain  UID.Allura.Service.UI  UID.Allura.Service.UI.documentation  UID.Allura.Service.UI.Layout  UID.Allura.Installation.IndependentPackages  UID.Allura.Installation.ProgressVisibility  UID.Allura.Service.Configuration.FlexScreen  UID.Allura.Service.Configuration.FlexScreen.Application.1:1  UID.Allura.Service.Configuration.FlexScreen.Application.KeyboardMouse  UID.Allura.Service.Configuration.FlexScreen.Application.LinkedApplications  UID.Allura.Service.Configuration.FlexScreen.Application.Mandatory  UID.Allura.Service.Configuration.FlexScreen.Application.NameIcon  UID.Allura.Service.Configuration.FlexScreen.Application.Source  UID.Allura.Service.Configuration.FlexScreen.Application.SourceConfig  UID.Allura.Service.Configuration.FlexScreen.ApplicationList  UID.Allura.Service.Configuration.FlexScreen.ApplicationTemplates  UID.Allura.Service.Diagnostics.ExportData.DiagnosticData  UID.Allura.Service.Diagnostics.Logging.Generate  UID.Allura.Service.Manufacturing.Configuration.Import  UID.Allura.Service.Manufacturing.SoftwareLoading  UID.Allura.Service.Manufacturing.Unmount  UID.Allura.Service.Misc.UnknownSoftware  UID.Allura.Service.Misc.Whitelisting  UID.Allura.Service.SystemConfiguration  UID.Allura.Service.Test.Flexvision  UID.Allura.Service.Test.HardwareTest  UID.Allura.Service.Test.IQ.MonitorPerformance  UID.Allura.Service.Test.IQ.MonitorSMPTE  UID.Allura.Service.UI  UID.Allura.Service.UI.documentation  UID.Allura.Service.UI.Layout  UID.Allura.Service.Configuration.MultiVisionSwitch  UID.Allura.Service.FieldConfiguration  UID.Allura.Service.Test.FlexImageChannel  UID.Allura.Service.Test.KMD |
| [REF-21] | UID.PBPos.acqusecase.Exceptions  UID.PBPos.acqusecase.HighSpeed  UID.PBPos.acqusecase.SafePath  UID.PBPos.Areas.FrontalStand  UID.PBPos.Areas.LateralStand  UID.PBPos.collision\_harm\_reduction.current\_sensing  UID.PBPos.collision\_harm\_reduction.detector\_current\_sensing.detector\_blocked  UID.PBPos.collision\_harm\_reduction.detector\_leeway  UID.PBPos.collision\_harm\_reduction.Larc\_detector\_retraction  UID.PBPos.collision\_harm\_reduction.Larc\_detector\_triggered\_retraction.detector\_blocked  UID.PBPos.collision\_harm\_reduction.Not\_resolved  UID.PBPos.collision\_harm\_reduction.stand\_force\_sensing  UID.PBPos.collision\_harm\_reduction.stand\_retraction  UID.PBPos.collision\_prevention.3Dmodel  UID.PBPos.collision\_prevention.3Dmodel.equipment  UID.PBPos.collision\_prevention.3Dmodel.in\_not\_allowed\_zone  UID.PBPos.collision\_prevention.3Dmodel.zones  UID.PBPos.collision\_prevention.automaticoverride  UID.PBPos.collision\_prevention.Bodyguard  UID.PBPos.collision\_prevention.Bodyguard.bobt  UID.PBPos.collision\_prevention.detection  UID.PBPos.collision\_prevention.Magnus\_exceptions  UID.PBPos.collision\_prevention.override  UID.PBPos.collision\_prevention.override\_end  UID.PBPos.collision\_prevention.TruSystem\_exceptions  UID.PBPos.FrontalStandUseMapping  UID.PBPos.Licenses  UID.PBPos.ReducedPerformance  UID.PBPos.SystemConfigs  UID.PBPos.TableUseMapping  UID.PBPos.UI.continuous\_activation  UID.PBPos.UI.continuous\_activation.exceptions  UID.PBPos.UI.controls  UID.PBPos.UI.movement\_speed  UID.PBPos.UI.SelectTableSide  UID.PBPos.UI.SelectTableSide.mid\_movement  UID.PBPos.UI.SetTRP  UID.PBPos.UI.SetTRP.defaultTRP  UID.PBPos.UI.system\_responsiveness  UID.PBPos.UI.UI\_interaction  UID.PBPos.UI.UI\_interaction.circular\_profiles  UID.PBPos.UI.UI\_interaction.priority  UID.PBPos.UI.UI\_interaction.variables\_update  UID.PBPos.ReducedPerformance  UID.PBPos.ReducedPerformance.UIModuleDisabled  UID.PBPos.usecase.AngulateBeamFrontal.Geo  UID.PBPos.usecase.AngulateBeamFrontal.POM  UID.PBPos.usecase.AngulateBeamFrontal.POM.movement\_restrictions  UID.PBPos.usecase.APC.KeepMaxSID  UID.PBPos.usecase.APC.movement\_sequence.general  UID.PBPos.usecase.APC.movement\_sequence.table  UID.PBPos.usecase.APC.recall\_position  UID.PBPos.usecase.APC.recall\_position.limitations  UID.PBPos.usecase.APC.recall\_position.movements\_and\_dependencies  UID.PBPos.usecase.APC.start\_conditions  UID.PBPos.usecase.APCGeometryOriented  UID.PBPos.usecase.APCPathway  UID.PBPos.usecase.APCPatientOriented  UID.PBPos.usecase.APCReference  UID.PBPos.usecase.APCStoreRecall  UID.PBPos.usecase.APCPredefined  UID.PBPos.usecase.APCTable  UID.PBPos.usecase.APCWorkstation  UID.PBPos.usecase.CradleTable.special\_position  UID.PBPos.usecase.DetectorShift.Maximum\_SID  UID.PBPos.usecase.EmergencyStop.available\_manual\_movements  UID.PBPos.usecase.External\_table\_power  UID.PBPos.usecase.Ext\_Table  UID.PBPos.usecase.Ext\_Table.movement\_request  UID.PBPos.usecase.Ext\_Table.Philips\_UI  UID.PBPos.usecase.Ext\_Table.Transporter  UID.PBPos.usecase.Ext\_Table.SW\_problem  UID.PBPos.usecase.FloatTableTop  UID.PBPos.usecase.FloatTableTop.Longitudinal.Manual.manual\_force  UID.PBPos.usecase.FloatTableTop.Longitudinal.Manual.motor\_assisted  UID.PBPos.usecase.FloatTableTop.Motorized  UID.PBPos.usecase.FloatTableTop.Transversal.Manual.manual\_force  UID.PBPos.usecase.FloatTableTop.Transversal.Manual.motor\_assisted  UID.PBPos.usecase.Lock  UID.PBPos.usecase.Lock.StandTable  UID.PBPos.usecase.Lock.Table  UID.PBPos.usecase.Lock.TableLateral  UID.PBPos.usecase.Magnus\_power  UID.PBPos.usecase.MoveBeamRoom.LongitudinalFrontal.Manual.manual\_force  UID.PBPos.usecase.MoveBeamRoom.LongitudinalFrontal.park.straighten  UID.PBPos.usecase.MoveBeamRoom.LongitudinalLarc  UID.PBPos.usecase.MoveBeamRoom.LongitudinalLarc.Manual  UID.PBPos.usecase.MoveBeamRoom.LongitudinalLarc.park.straighten  UID.PBPos.usecase.MoveBeamRoom.LongitudinalLarc.SIDtoMax  UID.PBPos.usecase.MoveBeamRoom.subtle\_control  UID.PBPos.usecase.PatientAlignment.alignment\_lost  UID.PBPos.usecase.PatientAlignment.ui\_interaction  UID.PBPos.usecase.PivotTable  UID.PBPos.usecase.PivotTable.special\_positions  UID.PBPos.usecase.PowerOn.active\_request  UID.PBPos.usecase.PowerOn.patient\_orientation  UID.PBPos.usecase.ResetGeo  UID.PBPos.usecase.RotateBeamFrontal.Geo  UID.PBPos.usecase.RotateBeamFrontal.POM  UID.PBPos.usecase.RotateBeamFrontal.POM.movement\_restrictions  UID.PBPos.usecase.SetPatientOrientation  UID.PBPos.usecase.SetPatientOrientation.restrictions  UID.PBPos.usecase.Shutdown  UID.PBPos.usecase.SwivelTable  UID.PBPos.usecase.TiltTable  UID.PBPos.usecase.TiltTable.movement\_restrictions  UID.PBPos.usecase.TiltTable.patient\_alignment  UID.PBPos.usecase.TiltTable.special\_position  UID.PBPos.usecase.WarmRestart  UID.PBPos.usecase.ZrotationFrontal.Larm  UID.PBPos.usecase.ZrotationFrontal.POM.Switching.without\_movement\_request  UID.PBPos.usecase.ZrotationFrontal.WorkAreaSections  UID.PBPos.acqusecase.HighSpeed.recall\_first\_position.IW  APCsequence |
| [REF-27] | UID.Azurion.iControl.AcquisitionSettings  UID.Azurion.iControl.Connect  UID.Azurion.iControl.Geometry.GetInfo  UID.Azurion.iControl.Orchestration.3DTestRound  UID.Azurion.iControl.SystemCapabilities |
| [REF-28] | UID.Allura.Acquisition.AcquireRoadmapVesselMask  UID.Allura.Acquisition.Biplane.FrontalStandIn/OutWorkingPosition.LegacyStands  UID.Allura.Acquisition.Biplane.FrontalStandIn/OutWorkingPosition.NewStands  UID.Allura.Acquisition.Biplane.LArcIn/OutWorkingPosition  UID.Allura.Acquisition.CommunicationWithExternalWorkstations  UID.Allura.Acquisition.Conditions.Exposure.PlaneSpecificExpConditions  UID.Allura.Acquisition.DVDRecording  UID.Allura.Acquisition.DoPhysioAcquisition  UID.Allura.Acquisition.DualFluoro  UID.Allura.Acquisition.EPTriggering  UID.Allura.Acquisition.Exposure.State7:ExpExecute  UID.Allura.Acquisition.GracefulDegradation.Acquisition  UID.Allura.Acquisition.ImageGen.CineExposures  UID.Allura.Acquisition.ImageGen.DRA,DAROrXperCTExposures  UID.Allura.Acquisition.ImageGen.Fluoroscopy  UID.Allura.Acquisition.ImageGen.VascularMultiPhase/IntegratedBurstSeriesExposures  UID.Allura.Acquisition.PatientToViewportOrientation  UID.Allura.Acquisition.PerformRoadmapLiveFluo  UID.Allura.Acquisition.Qual.IQControlStability  UID.Allura.Acquisition.Qual.IQControlTransient  UID.Allura.Acquisition.Qual.IQCTDI  UID.Allura.Acquisition.Roadmap.IP.VesselSubtractLiveSubtractWithVesselMask  UID.Allura.Acquisition.SelectRoadmap  UID.Allura.Acquisition.SelectSmartMask  UID.Allura.Acquisition.StartupAndShutdown  UID.Allura.Acquisition.UI.DisplayOfExposureParameters  UID.Allura.Acquisition.XperHDDisplay  UID.Allura.BeamLimitation.DetectorShuttersToReceptorFieldSizeInvariant  UID.Allura.BeamLimitation.GracefulDegradation.GeometryErrors  UID.Allura.BeamLimitation.PositioningIndicationWithoutRadiation  UID.Allura.BeamLimitation.ResetWedge  UID.Allura.BeamLimitation.ShutterAndWedgeIndicationWithoutRadiation  UID.Allura.Processing.CBEI  UID.Allura.Processing.Landmarking  UID.Allura.Processing.Marker  UID.Allura.Processing.Measurement  UID.Allura.Processing.Physio  UID.Allura.Processing.PixelShift  UID.Allura.Processing.RunSubtraction  UID.Allura.Processing.ViewTrace  UID.Allura.Processing.ZoomPan  UID.Allura.Viewing.Navigation.Image |
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| [REF-31] | UID.Allura.Customization.APC.Pathway  UID.Allura.Customization.APC.Sequence.PhysicianSpecific  UID.Allura.Customization.DataTransfer.Automatic.NonXAData  UID.Allura.Customisation.DataTransfer.DICOMModalityTypeSC  UID.Allura.Customization.DataTransfer.ExportProtocol  UID.Allura.Customization.ExportImport  UID.Allura.Customization.ProcedureCard  UID.Allura.Customization.Regional  UID.Allura.Customization.Restore  UID.Allura.Customization.UserInterface  UID.Allura.DataTransfer.GroupedPhotoImagesSC  UID.Allura.DataTransfer.GroupedPhotoImagesSC.Order  UID.Allura.DataTransfer.GroupedPhotoImagesSC.OverlayInformation  UID.Allura.DataTransfer.GroupedPhotoImagesSC.ImageExportSize  UID.Allura.DataTransfer.GroupedPhotoImagesSC.SeriesNumber  UID.Allura.DataTransfer.ImageProcessingFormat  UID.Allura.DataTransfer.PresentationState  UID.Allura.JobHandling.DeIdentify  UID.Allura.Reporting.Study.Dose |
| [REF-48] | [IDS.MCS\_MCC.InFrameMounting.Mechanical]  [IDS.MCS\_MCC.InFrameMounting.Electrical]  [IDS.MCS\_MCC.3rdParty\_MountingArm.Mechanical]  [IDS.MCS\_MCC.RearMounting.Mechanical]  [IDS.MCS\_MCC.RearMounting.Electrical]  [IDS.MCS\_MMC.InFrameMounting\_Springarm.18-27\_Mechanical]  [IDS.MCS\_MMC.InFrameMounting\_Springarm.19\_Mechanical]  [IDS.3rdPartyMonitor.SpringArm.Electrical]  [IDS.MCS\_MCC.RearMounting.Mechanical]  [IDS.MCS\_MCC.RearMounting.Electrical]  IDS.MCS\_MCC.BoomMounting.Mechanical  [IDS.MCS\_MCC.BoomMounting.Mechanical]  IDS.MCS\_MMC.InFrameMounting\_Springarm.Electrical  [IDS.MCS\_MCC.Philips\_MountingArm.Mechanical]  IDS.MCS\_MCC.Philips\_MountingArm.Electrical]  [IDS.MCS\_MCC.3rdParty\_MountingArm.Electrical]  IDS.MCS\_MMC.InFrameMounting.Mechanical  IDS.MCS\_MMC.InFrameMounting.Electrical  IDS.MCS\_MMC.InFrameMounting\_Springarm.19\_Mechanical  [IDS.VideoInputConnectivity.Digital.To\_Dedicated\_X-Ray System\_Monitor]  [IDS.VideoInputConnectivity.Digital.X-Ray System\_Large\_Screen]  [IDS.VideoInputConnectivity.Digital.SwitchableDisplays.Multivision]  [IDS.VideoInputConnectivity.Digital.FlexSpot.ControlRoomMonitors]  [IDS.VideoInputConnectivity.AnalogVideoConversion]  [IDS.8mCableKit.Connectivity.]  [IDS.VideoOutputConnectivity.Digital]  [IDS.VideoOutputConnectivity.Display]  [IDS.VideoOutputConnectivity.QuantityVideofeeds]  [IDS.VideoOutputConnectivity.VideoLayout]  [IDS.VideoOutputConnectivity.VideoApplications]  [IDS.MISC.CWIS.Application]  [IDS.MISC.RemoteUSBControl]  [IDS.MISC.DICOM.Conformance]  [IDS.MISC.DICOM.PrivateAtrributes]  [IDS.MISC.EM.DoseAware]  [IDS.MISC.EM.SignalQuality]  [IDS.MISC.EM.ClutchCurrentSensor]  [IDS.Misc.Haemo.ECG.Mechanical]  [IDS.Misc.Haemo.ECG.Electrical]  [IDS.Misc.Haemo.ECG.Mechanical]  [IDS.Misc.Haemo.ECG.Electrical]  IDS.Misc.Imaging.Materials.Visual.StraightLineDeviation  IDS.Misc.Imaging.Materials.Visual.Scratches  IDS.Misc Imaging.Materials.Visual.Clean  IDS.Misc.Imaging.Materials.Visual.Airbubbles  IDS.Misc.Imaging.Materials.Visual.SharpEdges  IDS.Misc.Imaging.Materials.Visual.Homogenity  IDS.Misc.Imaging.Accessories.AluminumEquivalence  [IDS.MISC.EP.EM\_Field\_Affected\_by\_X-Ray\_System] |
| [REF-48] |
| [REF-50] |
| [REF-51] | |  | | --- | | rcm.iiq.algorithm-quality.us.imaging.algorithm-quality.dm | | rcm.iiq.display-layout.us.fvsw.scaling-protect.dm | | rcm.il.latency-requirements.us.fvsw.latency.dm | | rcm.il.latency-requirements.us.vid-infra.latency.dm | | rcm.pllm.basic-safety.us.fvsw.display-location.dm | | rcm.pllm.basic-safety.us.vid-infra.display-location.dm | | rcm.pllm.basic-safety.us.vid-infra.video-priority.dm | | rcm.pllm.black-screen.us.imaging.blank-screen.dm | | rcm.pllm.black-screen.us.fvsw.blank-screen.dm | | rcm.pllm.black-screen.us.vid-infra.blank-screen.dm | | rcm.espsp.basic-em-safety.us.vid-infra.wcb.dm | | rcm.rpd.actual-dose-information.us.imaging.dose-display.dm | | rcm.mi.start-sysint.us.ngui.post.dm | | rcm.umb.limit-force.ef.mot-float.us.ngui.float-assist.dm  rcm.umb.limit-force.ef.mot-float.dm | | rcm.pca.no-airflow-patient.us.vid-infra.airflow-design.dm   |  | | --- | | rcm.mfkp.pos-monitoring.us.possw.movement-limitation.dm | | rcm.mfkp.reduced-perf.us.possw.movement-limitation.dm | | rcm.pim.no-auto-calibration.us.possw.no-auto-calibration.dm | | rcm.co.remove-overlay.us.possw.overlay-alignment.dm | | rcm.cio.independency.us.possw.image-orientation.dm | | rcm.rpd.basic-xray-safety.us.possw.settings.dm | | rcm.rpd.spatial-skin-dose-info.us.possw.geo-info.dm | | rcm.rud.basic-xray-safety.us.possw.beam-limitation.dm | | rcm.rud.basic-xray-safety.us.possw.unknown-sid.dm | | rcm.rud.basic-xray-safety.us.possw.pos-error.dm | | rcm.cuui.mot-cont-act.us.possw.autostop.dm | | rcm.gen.prev-un-act.us.igc.unlock-movement.dm | | rcm.gen.prev-un-act.us.possw.locking-movements.dm | | rcm.gen.prev-un-act.us.possw.local-control.dm | | rcm.gen.e-stop.us.possw.stop-knob.dm | | rcm.mi.bms-emc-sfs.us.possw.single-fault-safe.dm | | rcm.mi.start-sysint.us.possw.post-control.dm | | rcm.mi.start-sysint.us.possw.post-check.dm | | rcm.mi.guard-sysint.us.possw.motion-control-guarding.dm | | rcm.mi.guard-sysint.us.possw.position-sensing.dm | | rcm.mi.guard-sysint.us.possw.position-consistency.dm | | rcm.mi.guard-sysint.us.possw.axis-restriction.dm | | rcm.mi.guard-sysint.us.possw.tilt-guarding.dm | | rcm.rpf.safe-path.us.possw.programmed-run.dm | | rcm.rpf.mov-restrict.us.possw.disable-movements.dm | | rcm.ca.safe-zones.us.possw.3d-model.dm | | rcm.ca.bodyguard.us.possw.import-bodyguard.dm | | rcm.ca.bodyguard.us.possw.bodyguard-active.dm | | rcm.chr.op-col-det.us.possw.collision-sensing.dm | | rcm.chr.op-col-det.us.possw.extra-collision-sensing.dm | | rcm.chr.pat-col-det.us.possw.collision-switch.dm | | rcm.chr.pat-col-det.us.possw.collision-override.dm | | rcm.chr.pat-col-det.us.possw.sid-monitoring.dm | | rcm.chr.pat-col-det.us.possw.fd-force-sensing.dm | | rcm.chr.pat-col-det.us.possw.table-force-sensing.dm | | rcm.ca.gen.ef.reduce-speed.us.possw.speed-restriction.dm | | rcm.ca.gen.ef.reduce-speed.us.possw.visual-warning.dm | | rcm.ca.gen.ef.reduced-perf.us.possw.reduced-performance.dm | | rcm.ca.gen.ef.reduced-perf.us.possw.calibration-error.um | | rcm.umb.limit-force.ef.mot-float.us.possw.float-assist.dm | | rcm.umb.man-cont-act.us.possw.release-brakes-comand.dm | | rcm.umb.man-cont-act.ef.lock-pivot.us.possw.auto-lock.dm  rcm.xifdft.maintain-xray-imaging.ef.restrict-remote-service.us.swf.lots-user-involved.dm  rcm.xifdft.maintain-xray-imaging.ef.restrict-remote-service.us.swf.lots-accept-by-user.dm  rcm.xifdft.maintain-xray-imaging.ef.restrict-remote-service.us.swf.remote-service-maintain-performance.dm  rcm.xifdft.maintain-xray-imaging.ef.restrict-remote-service.us.swf.remote-download-maintain-system-functionality.dm  rcm.xifdft.maintain-xray-imaging.ef.restrict-remote-service.us.swf.lots-network-error-detection.dm   |  | | --- | | rcm.iiq.algorithm-quality.us.workflow.algorithm-quality.dm | | rcm.co.warning.us.workflow.cwis-table-lock.dm | | rcm.cio.usability.us.workflow.procedure-default-orientation.dm | | rcm.cio.usability.us.workflow.surgical-view-indication.dm | | rcm.cpid.secured-patient-data.us.workflow.explicit-confirmation.dm | | rcm.rpd.actual-dose-information.us.workflow.dose-display.dm | | rcm.rpd.spatial-skin-dose-info.us.workflow.skindose-display.dm |   rcm.mfkp.pos-monitoring.dm  rcm.mfkp.reduced-perf.dm  rcm.xifdft.maintain-xray-imaging.dm  rcm.xifdft.maintain-xray-imaging.ef.restrict-remote-service.dm  rcm.xifdft.training.us.ifu.defect-warning.ifu  rcm.xifdft.training.us.ifu.fsw-wireless-battery.ifu  rcm.xifdft.training.us.ifu.rva-mono-plane-limitation.ifu  rcm.xifdft.training.us.ifu.2dqa-exposures-only.ifu  rcm.iiq.user-instructions.us.ifu.image-quality.ifu  rcm.iiq.epx-and-aec.dm  rcm.iiq.algorithm-quality.ef.non-diagnostic-iq.us.ifu.instructions.ifu  rcm.iiq.epx-quality.dm  rcm.pim.warning.us.ifu.measurement-accuracy-warning.ifu  rcm.pim.warning.us.ifu.user-warning-foreshortening.dm  rcm.pim.warning.us.ifu.user-warning-iso-centering.ifu  rcm.pim.warning.us.ifu.user-warning-regression-formula.ifu  rcm.pim.warning.us.ifu.user-info-input-quality.ifu  rcm.pim.warning.us.ifu.uesr-warning-input-quality.ifu  rcm.il.latency-requirements.dm  rcm.pllm.basic-safety.dm  rcm.pllm.lih-live-indication.dm  rcm.pllm.lih-live-indication.us.ifu.still-image-warning.ifu  rcm.co.warning.us.ifu.misalignment-warning.ifu  rcm.cio.warning.us.ifu.image-orientation-warning.ifu  rcm.espsp.covers.dm  rcm.rpd.basic-xray-safety.dm  rcm.rpd.training.us.ifu.radiation-safety.ifu  rcm.rpd.training.ef.optimized-presets.dm  rcm.rpd.actual-dose-information.dm  rcm.rpd.actual-dose-information.ef.periodical-verification.us.sm.dose-indication-check.sm  rcm.rud.basic-xray-safety.us.ifu.collision-warning.ifu  rcm.rud.xray-protection.us.ifu.shielding.ifu  rcm.rud.continuous-activation.us.ifu.warning-unintended-activation.ifu  rcm.rud.disable-xray-generation.dm  rcm.rud.active-xray-indication.ef.check-xray-on-indication.us.ifu.check-xray-on-indication.ifu  rcm.ts.thermal-safety.dm  rcm.gen.prev-un-act.dm  rcm.mi.start-sysint.dm  rcm.mi.guard-sysint.us.ext-if.position-sensing.dm  rcm.rpf.safe-path.dm  rcm.gen.strap-pat.us.ifu.patient-straps.ifu  rcm.ca.bodyguard.dm  rcm.ca.bodyguard.us.ifu.bodyguard-active.dm  rcm.ca.system-use.us.ifu.motorized-collisions.ifu  rcm.ca.system-use.us.ifu.motorized-movements-FoV.ifu  rcm.ca.gen.ef.prev-maint.us.sm.calibration.sm  rcm.umb.limit-force.ef.table-use.us.ifu.table-use.ifu  rcm.te.bms-balance.us.ifu.pedestal-stability.ifu  rcm.pe.loadlimit.us.ifu.maximum-load.ifu  rcm.si.bms-integrity.ef.inst-proc.us.sm.foolproof-smi.sm  rcm.si.bms-integrity.ef.wear-maint.us.sm.check-wear.sm  rcm.copf.pat-transfer.us.ifu.patient-transfer.ifu  rcm.pc.cleaning-instr.us.ifu.cleaning-instr.ifu  rcm.pc.sterile-covers.us.ifu.use-disposable-covers.ifu  rcm.pca.cleaning-instructions.ifu  rcm.ss.biocompatible-surfaces.us.ifu.peripheral-filter-cover.ifu  rcm.injsf.contrast-medium-injection-user-controlled.us.ifu.compatible-injectors.ifu  rcm.xifdft.fault-tolerant-x-ray-imaging.us.imaging.SW-failure.dm  rcm.pllm.basic-safety.us.vid-infra.video-input-bandwidth.dm  rcm.pllm.black-screen.us.imaging.blank-screen.dm  rcm.espsp.basic-em-safety.us.ifu.video-adapter-single-device.ifu  rcm.espsp.basic-em-safety.us.install-req.video-adapter-single-device.sm  rcm.espsp.basic-em-safety.us.fvsw.video-adapter-single-device.dm  rcm.xifdft.fault-tolerant-x-ray-imaging.sm.always-connect-wired-footswitch.sm  rcm.xifdft.training.us.ifu.fsw-wireless-always-have-wired-connected.ifu  rcm.xifdft.training.us.ifu.fsw-wireless-connection-faillure-due-to-interference.ifu  RCM.Sec.SecureRemoteServiceTunnel  RCM.Sec.ApplicationHardening  RCM.Sec.SecureCoding  RCM.Sec.SecurityPatchManagement  RCM.Sec.InformUser.SharedResponsibility  RCM.Sec.OSHardening  RCM.Sec.AuditTrail  RCM.Sec.ActiveAuditTrailMonitoringByCustomer  RCM.Sec.Whitelisting  RCM.Sec.NetworkFirewall  RCM.Sec.HostFirewall  RCM.Sec.ProtocolAuthentication  RCM.Sec.AutoPlayDisabled  RCM.Sec.AuthorizedRoomAccess  RCM.Sec.PhysicalHardening  RCM.Sec.ReinstallSystem  RCM.Sec.PatientDataArchiving  RCM.Sec.ResponsibilityAgreement  RCM.Sec.DataTransferEncryption  RCM.Sec. ActiveAuditTrailMonitoringByCustomer  RCM.Sec.DiskEncryption  RCM.Sec.SecureBoot  RCM.Sec.SecureDICOM  RCM.Sec.UserAuthentication  RCM.Sec.PasswordComplexityControl  RCM.Sec.LimitedEmergencyAccess  RCM.Sec.ScreenBlanking  RCM.Sec.DataSanitization  RCM.Sec.MinimizePatientData  RCM.Sec.DicomIntegrityProtection  RCM.Sec.MediaEncryption  RCM.Sec.DisableExportToMedia  RCM.Sec.DeidentificationOfData  RCM.Sec.InformUser  RCM.Sec.NoAutoLogoffLockout | | |

# Appendix B: COMPATIBILITY

For compatibility impact analysis see [REF-15].

# Appendix C: Enhancements and Field problems

Enhancements assigned to Azurion R3.0 are listed below:

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **ID** | **Headline** | **Quality Characteristics** |
| 1 | CVPRJ00386990 | CR: Puma: CSIP Remediation | Serviceability |
| 2 | CVPRJ00390692 | Phase out Biplane FD20/12LN | - |
| 3 | CVPRJ00391354 | Extend Field Extension Catalogue | - |
| 4 | CVPRJ00392289 | Puma CR: Remove FDCSIB Windriver Linux from project content | - |
| 5 | CVPRJ00397522 | Puma CR: Comply with IEC60601-2-43 amendment 2 by means of rationale | Compliance (Dose Control) |
| 6 | CVPRJ00397764 | Puma CR: Customer triggered LOD | Serviceability |
| 7 | CVPRJ00397765 | Puma CR: Increase Field extensions with Switchable monitors & Table material routing | - |
| 8 | CVPRJ00397766 | Puma CR: Unlock existing system data for remote | Serviceability |
| 9 | CVPRJ00397767 | Puma CR: One step HVR HVC calibration by end user | Serviceability |
| 10 | CVPRJ00397768 | Puma CR: Puma/Arches: DualPhase Neuro | Functionality |
| 11 | CVPRJ00418375 | Puma CR: Release MM-TSM with Win10 1809 OS to IGT-D | Functionality |
| 12 | CVPRJ00416625 | Puma CR: Integration of Gen4C 3DWS in Azurion | - |
| 13 | CVPRJ00402112 | Puma CR: RnD-2020-015 CAPA Install Tooling P2 | Compliance |
| 14 | CVPRJ00402777 | Puma CR: Harmonize SafeSpeed for blue archive | Functionality |
| 15 | CVPRJ00404946 | Puma CR: Descope APC for angioCT FlexMove | - |
| 16 | CVPRJ00407167 | Puma CR: Add Floor z-rotation up to 135 degrees | Functionality |
| 17 | CVPRJ00409675 | Puma CR: Add Quality Norm reporting to project | - |
| 18 | CVPRJ00420233 | Puma CR: Replace the 3rd Party Application "External 7" by "AngioPlusCore" on TSM and PSC configuration | - |
| 19 | CVPRJ00420721 | Puma CR: IGTS EQMS (12.4) Design Control Updates | - |
| 20 | CVPRJ00412908 | Puma CR: Include Beacon requirements in Puma system (packaging) labels | - |
| 21 | CVPRJ00414003 | Puma CR: Release FlexArm in China as separate configuration | - |
| 22 | CVPRJ00415651 | Puma CR: Add upgrade from R1.2 and R2.x Azurion systems with SSD to R3.x | Performance |
| 23 | CVPRJ00415874 | Puma CR: Extend Real Time Output (RTO) ports back to 5 | - |

Field problems assigned to Azurion R3.0 are listed below:

| **S. No.** | **ID** | **Headline** | **Quality Characteristics** |
| --- | --- | --- | --- |
| 1 | CVPRJ00402232 | Dose info of lateral channel disappears on taskbar when lateral c-arm is parked | Functionality |
| 2 | CVPRJ00402236 | Photofile stacking | Functionality |
| 3 | CVPRJ00402231 | Need to customize service: DAP  units for display and Secondary Capture Dose report and DH | Functionality |
| 4 | CVPRJ00402238 | Control module SID function up-down direction should be customizable (service level) for Lateral channel | Functionality |
| 5 | CVPRJ00329981 | Zero dose positioning visible on clinical image TSM pro. | Functionality |
| 6 | CVPRJ00402237 | Search function IFU must be improved | Functionality |
| 7 | CVPRJ00402233 | Extend functionality of third footswitch, with table brake control, fluorograb/store/copy to photofile | Functionality |
| 8 | CVPRJ00304477  CVPRJ00402748 | Injector coupling in acquisition window must have a higher priority(only live viewer,TSM OK) | Functionality |
| 9 | CVPRJ00385663 | Extend export protocol with maximum filled unsubtracted image | Functionality |
| 10 | CVPRJ00414826 | FieldFeedback: Physician specific APC sequences | Functionality |
| 11 | CVPRJ00410022 | Azu.R3.x : 743007 - Duplicate images in Philips PACS when images are sent twice. | Functionality |
| 12 | CVPRJ00409565 | Azu.R3.x : Incorrect Table position(Longitudinal/ Lateral) in RDSR | Functionality |
| 13 | CVPRJ00406079 | Azu.R3.x : Resubmit job is not functioning while exporting large series | Functionality |
| 14 | CVPRJ00409559 | Azu.R3.x : Resubmit job is not functioning while exporting large series | Functionality |
| 15 | CVPRJ00409567 | Azu.R3.x : Shutter Positions in CWIS incorrect | Functionality |
| 16 | CVPRJ00409558 | Azu.R3.x : TW10029860 - Error seen when the procedure is ended during ongoing manual transfer of photo images | Functionality |
| 17 | CVPRJ00411640 | Azu.R3.x : TW831835 - Incorrect font size printed when the image was panned and zoomed | Functionality |
| 18 | CVPRJ00409425 | Azu.R3.x : TW8610937 - Azurion MPPS data is not send to server. | Functionality |
| 19 | CVPRJ00409063 | Azu.R3.x : TW9378800 - Customers want to transfer in 8 bits without problems | Functionality |
| 20 | CVPRJ00409557 | Azu.R3.x : TW9790575 – Patient data is not archived, Requested Procedure ID > 16 characters | Functionality |
| 21 | CVPRJ00409556 | Azu.R3.x : TW9980669 - Viewing time differs between frontal and lateral movies | Functionality |
| 22 | CVPRJ00409953 | Azu.R3.x : Unable to query from older RIS which doesn't support IR 100 character set | Functionality |
| 23 | CVPRJ00405493 | Azu.R3.x :TW10732601 Export of subtracted runs followed by unsubtracted runs results in all the runs not being stored at PACS | Functionality |
| 24 | CVPRJ00409424 | Azu.R3.x: (R2.1 R2.0) Rot/Ang cannot be moved, no user guidance given. | Functionality |
| 25 | CVPRJ00413537 | Azu.R3.x: Acquisition duration logging not correct | Serviceability |
| 26 | CVPRJ00409380 | Azu.R3.x: Additional FlexSpot monitor not as sharp as the primary monitor | Functionality |
| 27 | CVPRJ00412939 | Azu.R3.x: Adjustability of verification- and performance- tests | Serviceability |
| 28 | CVPRJ00409448 | Azu.R3.x: Allow a graphic overlay for shutters and wedges without the need of an initial X-ray image. | Functionality |
| 29 | CVPRJ00409420 | Azu.R3.x: Azu2.0\_FlexArm\_Unexpected GeoReset (incl table float) when recalling APC live | Functionality |
| 30 | CVPRJ00409355 | Azu.R3.x: Azurion logging has no info to invest software crashes. | Serviceability |
| 31 | CVPRJ00412948 | Azu.R3.x: CBCT dual phase procedure not completed when selected from procedure card | Functionality |
| 32 | CVPRJ00414674 | Azu.R3.x: Collision stand with table during ResetGeo | Functionality |
| 33 | CVPRJ00409395 | Azu.R3.x: Fluo/Exp not possible after warm restart(The high speed image link is not available for Fluo and Exposure) | Functionality |
| 34 | CVPRJ00412999 | Azu.R3.x: Fluoro lock lost after pedal tap | Functionality |
| 35 | CVPRJ00409369 | Azu.R3.x: Free DRA: Impossible to confirm start position after coupling the injector. | Functionality |
| 36 | CVPRJ00409439 | Azu.R3.x: Geometry restart followed by procedure switch results into a not usable state | Functionality |
| 37 | CVPRJ00413424 | Azu.R3.x: Geometry restarts when the bodyguard is activated during a swivel movement close to the end position | Functionality |
| 38 | CVPRJ00409440 | Azu.R3.x: If shutters not open at start of XPerCT, then opening shutters can be seen during first images of XPerCT | Functionality |
| 39 | CVPRJ00409394 | Azu.R3.x: Implementation Largest Receptorfieldsize selection at acquisition examination selection not correct | Functionality |
| 40 | CVPRJ00413423 | Azu.R3.x: Inconsistency:Same image for APC (position reached) and Smartmask but misregistration at RoadmapLive(1360700) | Functionality |
| 41 | CVPRJ00409435 | Azu.R3.x: Interventional Workspot requests to start in Windows Safe mode when powered on | Functionality |
| 42 | CVPRJ00409428 | Azu.R3.x: Keyboard/mouse not available | Functionality |
| 43 | CVPRJ00413426 | Azu.R3.x: Live Image Jitter, because AGC not locked | Functionality |
| 44 | CVPRJ00409391 | Azu.R3.x: Manual transfer of DA and DSA runs result in duplicate SOPIntanceUID(TW10367789) | Functionality |
| 45 | CVPRJ00409390 | Azu.R3.x: No Exposure or Fluoro after pressing pedal. | Functionality |
| 46 | CVPRJ00409367 | Azu.R3.x: No fluoro and exposures possible after a cold restart (auroralink error, powercycle detector needed) | Functionality |
| 47 | CVPRJ00409422 | Azu.R3.x: Path of Bolus chase function; table start position | Functionality |
| 48 | CVPRJ00413440 | Azu.R3.x: Pause/Break button toggles NumLock on FlexSpot | Functionality |
| 49 | CVPRJ00409433 | Azu.R3.x: Please make the DAP units and related measurements customizable. | Compliance |
| 50 | CVPRJ00409453 | Azu.R3.x: Problems during EPX Upgrade in FCO 72200430 | Serviceability |
| 51 | CVPRJ00409352 | Azu.R3.x: R2.0\_Azu\_FlexArm\_system crashes at Rheina hospital | Functionality |
| 52 | CVPRJ00405924 | Azu.R3.x: Recall Stored APC position results in user guidance 'Position not reached' when already in position | Functionality |
| 53 | CVPRJ00409444 | Azu.R3.x: Remote Desktop connection is interuppted when reviewing clincial images | Serviceability |
| 54 | CVPRJ00409421 | Azu.R3.x: Remote Desktop gets disconnected abruptly when system is in clinical mode | Serviceability |
| 55 | CVPRJ00409446 | Azu.R3.x: Request to switch directly to SWonLIH without waiting for ZeroDose Overlay | Functionality |
| 56 | CVPRJ00409392 | Azu.R3.x: Roadmap vessel phase takes exposure start delay into account. | Functionality |
| 57 | CVPRJ00414596 | Azu.R3.x: Setting of monitor LUTs fails | Serviceability |
| 58 | CVPRJ00410574 | Azu.R3.x: System hangup after pressing APC and doing TablePanning at the same time. | Functionality |
| 59 | CVPRJ00409429 | Azu.R3.x: TSM Flexvision appl.: update missing for available presets on TSM (e.g. when switching dual fluo off) | Functionality |
| 60 | CVPRJ00414378 | Azu.R3.x: TW 10054436 - Static touch limit is reduced to 8 sec. |  |
| 61 | CVPRJ00409393 | Azu.R3.x: TW 10680141 Smartmask was not possible to take image ( roadmapflavor not (re)set to default within appl?) | Functionality |
| 62 | CVPRJ00411569 | Azu.R3.x: TW 832515 - During Smart Mask, the dark images are caused by ‘pedale tapping’ after a single shot. | Functionality |
| 63 | CVPRJ00409454 | Azu.R3.x: TW 9800865 - In bolus chase: Mask Run not possible (2nd run) | Functionality |
| 64 | CVPRJ00413427 | Azu.R3.x: TW1125242 The screen disappears when the mouse is moved to the edge of the review screen. | Functionality |
| 65 | CVPRJ00409389 | Azu.R3.x: TW889847 spontanuous restart on 4 December 2020 | Functionality |
| 66 | CVPRJ00405931 | Azu.R3.x: TW9619381 - In the Dicom SR Detector size fields are filled with 0 in FLuoro | Functionality |
| 67 | CVPRJ00409434 | Azu.R3.x: Trailing Mouse Movement Lag | Functionality |
| 68 | CVPRJ00409358 | Azu.R3.x: XperCT slit limits calculation not correct | Functionality |
| 69 | CVPRJ00409443 | Azu.R3.x:: Bolus chase reconstruction icon does not disappear after reconstruction is finished when selecting another BCR run | Functionality |
| 70 | CVPRJ00410510 | Azu.R3.x:LEDs blink with a random pattern instead of 3 times during system startup | Functionality |
| 71 | CVPRJ00410484 | Azu.R3.x:PSC exits unexpectedly if IW is disconnected (HospitalNetwork) during Procedure Card Export or Import | Serviceability |
| 72 | CVPRJ00410506 | Azu.R3.x:Reliability - PDC 22.0.70 IO signal RAA did not change to match EN\_MV. Disconnecting Table. | Reliability |

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| --- | --- | --- | --- |
| **S. no.** | **id** | **Headline** | **Quality Characteristics** |
| 1 | CVPRJ00410022 | Azu.R3.x : 743007 - Duplicate images in Philips PACS when images are sent twice. | Functionality |
| 2 | CVPRJ00409565 | Azu.R3.x : Incorrect Table position(Longitudinal/ Lateral) in RDSR | Functionality |
| 3 | CVPRJ00406079 | Azu.R3.x : Resubmit job is not functioning while exporting large series | Functionality |
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| 5 | CVPRJ00409567 | Azu.R3.x : Shutter Positions in CWIS incorrect | Functionality |
| 6 | CVPRJ00409558 | Azu.R3.x : TW10029860 - Error seen when the procedure is ended during ongoing manual transfer of photo images | Functionality |
| 7 | CVPRJ00411640 | Azu.R3.x : TW831835 - Incorrect font size printed when the image was panned and zoomed | Functionality |
| 8 | CVPRJ00409425 | Azu.R3.x : TW8610937 - Azurion MPPS data is not send to server. | Functionality |
| 9 | CVPRJ00409063 | Azu.R3.x : TW9378800 - Customers want to transfer in 8 bits without problems | Functionality |
| 10 | CVPRJ00409557 | Azu.R3.x : TW9790575 – Patient data is not archived, Requested Procedure ID > 16 characters | Functionality |
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| 12 | CVPRJ00409953 | Azu.R3.x : Unable to query from older RIS which doesn't support IR 100 character set | Functionality |
| 13 | CVPRJ00405493 | Azu.R3.x :TW10732601 Export of subtracted runs followed by unsubtracted runs results in all the runs not being stored at PACS | Functionality |
| 14 | CVPRJ00409424 | Azu.R3.x: (R2.1 R2.0) Rot/Ang cannot be moved, no user guidance given. | Functionality |
| 15 | CVPRJ00413537 | Azu.R3.x: Acquisition duration logging not correct | Serviceability |
| 16 | CVPRJ00409380 | Azu.R3.x: Additional FlexSpot monitor not as sharp as the primary monitor | Functionality |
| 17 | CVPRJ00412939 | Azu.R3.x: Adjustability of verification- and performance- tests | Serviceability |
| 18 | CVPRJ00409448 | Azu.R3.x: Allow a graphic overlay for shutters and wedges without the need of an initial X-ray image. | Functionality |
| 19 | CVPRJ00409420 | Azu.R3.x: Azu2.0\_FlexArm\_Unexpected GeoReset (incl table float) when recalling APC live | Functionality |
| 20 | CVPRJ00409355 | Azu.R3.x: Azurion logging has no info to invest software crashes. | Serviceability |
| 21 | CVPRJ00412948 | Azu.R3.x: CBCT dual phase procedure not completed when selected from procedure card | Functionality |
| 22 | CVPRJ00414674 | Azu.R3.x: Collision stand with table during ResetGeo | Functionality |
| 23 | CVPRJ00409395 | Azu.R3.x: Fluo/Exp not possible after warm restart(The high speed image link is not available for Fluo and Exposure) | Functionality |
| 24 | CVPRJ00412999 | Azu.R3.x: Fluoro lock lost after pedal tap | Functionality |
| 25 | CVPRJ00409369 | Azu.R3.x: Free DRA: Impossible to confirm start position after coupling the injector. | Functionality |
| 26 | CVPRJ00409439 | Azu.R3.x: Geometry restart followed by procedure switch results into a not usable state | Functionality |
| 27 | CVPRJ00413424 | Azu.R3.x: Geometry restarts when the bodyguard is activated during a swivel movement close to the end position | Functionality |
| 28 | CVPRJ00409440 | Azu.R3.x: If shutters not open at start of XPerCT, then opening shutters can be seen during first images of XPerCT | Functionality |
| 29 | CVPRJ00409394 | Azu.R3.x: Implementation Largest Receptorfieldsize selection at acquisition examination selection not correct | Functionality |
| 30 | CVPRJ00413423 | Azu.R3.x: Inconsistency:Same image for APC (position reached) and Smartmask but misregistration at RoadmapLive(1360700) | Functionality |
| 31 | CVPRJ00409435 | Azu.R3.x: Interventional Workspot requests to start in Windows Safe mode when powered on | Functionality |
| 32 | CVPRJ00409428 | Azu.R3.x: Keyboard/mouse not available | Functionality |
| 33 | CVPRJ00413426 | Azu.R3.x: Live Image Jitter, because AGC not locked | Functionality |
| 34 | CVPRJ00409391 | Azu.R3.x: Manual transfer of DA and DSA runs result in duplicate SOPIntanceUID(TW10367789) | Functionality |
| 35 | CVPRJ00409390 | Azu.R3.x: No Exposure or Fluoro after pressing pedal. | Functionality |
| 36 | CVPRJ00409367 | Azu.R3.x: No fluoro and exposures possible after a cold restart (auroralink error, powercycle detector needed) | Functionality |
| 37 | CVPRJ00409422 | Azu.R3.x: Path of Bolus chase function; table start position | Functionality |
| 38 | CVPRJ00413440 | Azu.R3.x: Pause/Break button toggles NumLock on FlexSpot | Functionality |
| 39 | CVPRJ00409433 | Azu.R3.x: Please make the DAP units and related measurements customizable. | Compliance |
| 40 | CVPRJ00409453 | Azu.R3.x: Problems during EPX Upgrade in FCO 72200430 | Serviceability |
| 41 | CVPRJ00409352 | Azu.R3.x: R2.0\_Azu\_FlexArm\_system crashes at Rheina hospital | Functionality |
| 42 | CVPRJ00405924 | Azu.R3.x: Recall Stored APC position results in user guidance 'Position not reached' when already in position | Functionality |
| 43 | CVPRJ00409444 | Azu.R3.x: Remote Desktop connection is interuppted when reviewing clincial images | Serviceability |
| 44 | CVPRJ00409421 | Azu.R3.x: Remote Desktop gets disconnected abruptly when system is in clinical mode | Serviceability |
| 45 | CVPRJ00409446 | Azu.R3.x: Request to switch directly to SWonLIH without waiting for ZeroDose Overlay | Functionality |
| 46 | CVPRJ00409392 | Azu.R3.x: Roadmap vessel phase takes exposure start delay into account. | Functionality |
| 47 | CVPRJ00414596 | Azu.R3.x: Setting of monitor LUTs fails | Serviceability |
| 48 | CVPRJ00410574 | Azu.R3.x: System hangup after pressing APC and doing TablePanning at the same time. | Functionality |
| 49 | CVPRJ00409429 | Azu.R3.x: TSM Flexvision appl.: update missing for available presets on TSM (e.g. when switching dual fluo off) | Functionality |
| 50 | CVPRJ00414378 | Azu.R3.x: TW 10054436 - Static touch limit is reduced to 8 sec. |  |
| 51 | CVPRJ00409393 | Azu.R3.x: TW 10680141 Smartmask was not possible to take image ( roadmapflavor not (re)set to default within appl?) | Functionality |
| 52 | CVPRJ00411569 | Azu.R3.x: TW 832515 - During Smart Mask, the dark images are caused by ‘pedale tapping’ after a single shot. | Functionality |
| 53 | CVPRJ00409454 | Azu.R3.x: TW 9800865 - In bolus chase: Mask Run not possible (2nd run) | Functionality |
| 54 | CVPRJ00413427 | Azu.R3.x: TW1125242 The screen disappears when the mouse is moved to the edge of the review screen. | Functionality |
| 55 | CVPRJ00409389 | Azu.R3.x: TW889847 spontanuous restart on 4 December 2020 | Functionality |
| 56 | CVPRJ00405931 | Azu.R3.x: TW9619381 - In the Dicom SR Detector size fields are filled with 0 in FLuoro | Functionality |
| 57 | CVPRJ00409434 | Azu.R3.x: Trailing Mouse Movement Lag | Functionality |
| 58 | CVPRJ00409358 | Azu.R3.x: XperCT slit limits calculation not correct | Functionality |
| 59 | CVPRJ00409443 | Azu.R3.x:: Bolus chase reconstruction icon does not disappear after reconstruction is finished when selecting another BCR run | Functionality |
| 60 | CVPRJ00410510 | Azu.R3.x:LEDs blink with a random pattern instead of 3 times during system startup | Functionality |
| 61 | CVPRJ00410484 | Azu.R3.x:PSC exits unexpectedly if IW is disconnected (HospitalNetwork) during Procedure Card Export or Import | Serviceability |
| 62 | CVPRJ00410506 | Azu.R3.x:Reliability - PDC 22.0.70 IO signal RAA did not change to match EN\_MV. Disconnecting Table. | Reliability |

Note : ‘-‘ indicates that there is no impact for system level tests.

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| Description: Description: Description: Description: Shield_RGB_2013 |
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1. Maximizer is a special content for existing customers providing them optional new Gen4a PC’s and Azurion R3.0 software on either their Azurion R1.2 or Azurion R2.x platforms. [↑](#footnote-ref-2)