CARL ZEISS MEDITEC

DICOM Conformance Statement

EQ Workplace® Version 1.7

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1 Conformance Statement Overview

EQ Workplace is a plugin to FORUM and also provides some functionality through a web service. The main focus of the product is to support the preparation of a cataract surgery.

One of the main functions of the software is to prepare IOL calculations based on biometric measurements (e.g. from IOLMaster). For the actual calculation, a number of calculation formulas are available to calculate toric and non-toric IOLs. The IOL calculation results can be used to prepare a surgery outside of the operating room, e.g. for CALLISTO eye. The software also supports the ordering of IOLs selected for a surgery. Furthermore it allows upload of post-surgery data to the EQ Workplace Web Service. In the EQ Workplace Web Service IOLs can be managed and IOL constants can be personalized.

This document is structured as suggested in the DICOM Standard (PS 3.2: Conformance).

As EQ Workplace acts as a pure add on software to FORUM, the overall DICOM communication is managed by FORUM only. To understand the FORUM supported network services and the FORUM Implementation Model please refer to the FORUM DICOM Conformance Statement.

The current document only describes the specifics for EQ Workplace, these are mainly configuration parameters and Storage IODs.

2 Table of Contents

3 Introduction

3.1 Revision History

Document Version	Date	Author	Changes
I	2021-02-16		Update for EQ Workplace 1.7

3.2 Audience

This document is intended for hospital staff, health system integrators, software designers or implementers. The reader should have a basic understanding of DICOM.

3.3 Remarks

If another device matches this conformance statement based on the comparison with its own conformance statement, there is a chance, but no guarantee, that they interoperate. DICOM deals only with communication; it does not specify what is needed for certain applications to run on a device.

3.4 Definitions and Terms

Informal definitions are provided for the following terms used in this Conformance Statement.

The DICOM Standard is the authoritative source for formal definitions of these terms.

Abstract Syntax

the information agreed to be exchanged between applications, generally equivalent to a Service/Object Pair (SOP) Class.

Examples: Verification SOP Class, Modality Worklist Information Model Find SOP Class, Computed Radiography Image Storage SOP Class.

Application Entity (AE)

an end point of a DICOM information exchange, including the DICOM network or media interface software; i.e., the software that sends or receives DICOM information objects or messages. A single device may have multiple Application Entities.

Application Entity Title

the externally known name of an Application Entity, used to identify a DICOM application to other DICOM applications on the network.

Application Context

the specification of the type of communication used between Application Entities.

Example: DICOM network protocol.

Association

a network communication channel set up between Application Entities.

Attribute

a unit of information in an object definition; a data element identified by a tag. The information may be a complex data structure (Sequence), itself composed of lower level data elements.

Examples: Patient ID (0010,0020), Accession Number (0008,0050), Photometric Interpretation (0028,0004), Procedure Code Sequence (0008,1032).

Information Object Definition (IOD)

the specified set of Attributes that comprise a type of data object; does not represent a specific instance of the data object, but rather a class of similar data objects that have the same properties. The Attributes may be specified as Mandatory (Type 1), Required but possibly unknown (Type 2), or Optional (Type 3), and there may be conditions associated with the use of an Attribute (Types 1C and 2C).

Examples: MR Image IOD, CT Image IOD, Print Job IOD.

Joint Photographic Experts Group (JPEG)
a set of standardized image compression techniques, available for use by DICOM applications.

Media Application Profile
the specification of DICOM information objects and encoding exchanged on removable media (e.g., CDs)

Module
a set of Attributes within an Information Object Definition that are logically related to each other.

Example: Patient Module includes Patient Name, Patient ID, Patient Birth Date, and Patient Sex.

Negotiation
first phase of Association establishment that allows Application Entities to agree on the types of data to be exchanged and how that data will be encoded.

Presentation Context
the set of DICOM network services used over an Association, as negotiated between Application Entities; includes Abstract Syntaxes and Transfer Syntaxes.

Protocol Data Unit (PDU)
a packet (piece) of a DICOM message sent across the network. Devices must specify the maximum size packet they can receive for DICOM messages.

Query Key
an input value for a query process. Query Keys denote the set of DICOM tags that are sent from the SCU to SCP and thus control the query result.

Security Profile
a set of mechanisms, such as encryption, user authentication, or digital signatures, used by an Application Entity to ensure confidentiality, integrity, and/or availability of exchanged DICOM data

Service Class Provider (SCP)
role of an Application Entity that provides a DICOM network service; typically, a server that performs operations requested by another Application Entity (Service Class User).

Examples: Picture Archiving and Communication System (image storage SCP, and image query/retrieve SCP), Radiology Information System (modality worklist SCP).

Service Class User (SCU)
role of an Application Entity that uses a DICOM network service; typically, a client.

Examples: imaging modality (image storage SCU, and modality worklist SCU), imaging workstation (image query/retrieve SCU)

Service/Object Pair (SOP) Class
the specification of the network or media transfer (service) of a particular type of data (object); the fundamental unit of DICOM interoperability specification.

Examples: Ultrasound Image Storage Service, Basic Grayscale Print Management.

Service/Object Pair (SOP) Instance
an information object; a specific occurrence of information exchanged in a SOP Class.

Examples: a specific x-ray image.

Tag
a 32-bit identifier for a data element, represented as a pair of four digit hexadecimal numbers, the “group” and the “element”. If the “group” number is odd, the tag is for a private (manufacturer-specific) data element.

Examples: (0010,0020) [Patient ID], (07FE,0010) [Pixel Data], (0019,0210) [private data element]

Transfer Syntax
the encoding used for exchange of DICOM information objects and messages.

Examples: JPEG compressed (images), little endian explicit value representation.

Unique Identifier (UID)

a globally unique “dotted decimal” string that identifies a specific object or a class of objects; an ISO-8824 Object Identifier.

Examples: Study Instance UID, SOP Class UID, SOP Instance UID.

Value Representation (VR)

the format type of an individual DICOM data element, such as text, an integer, a person’s name, or a code. DICOM information objects can be transmitted with either explicit identification of the type of each data element (Explicit VR), or without explicit identification (Implicit VR); with Implicit VR, the receiving application must use a DICOM data dictionary to look up the format of each data element.

3.5 Abbreviations

Table 3-1 Abbreviations used in this document

Abbreviation	Definition
AE	Application Entity
DICOM	Digital Imaging and Communications in Medicine
EPDF	Encapsulated Portable Document Format
FCW	FORUM Cataract Workplace
IOD	Information Object Definition
MWL	Modality Worklist
SCP	Service Class Provider
SCU	Service Class User
SOP	Service Object Pair, union of a specific DICOM service and related IOD.
UI	User Interface
UID	Unique Identifier

3.6 References

NEMA PS3 / ISO 12052, Digital Imaging and Communications in Medicine (DICOM) Standard, National Electrical Manufacturers Association, Rosslyn, VA, USA (available free at http://medical.nema.org/)

Integrating the Healthcare Enterprise (IHE) EYECARE Technical Framework, rev 3.7, 2010 (available free at http://www.ihe.net/Technical_Framework/index.cfm

FORUM DICOM Conformance Statements (available at http://www.zeiss.com/dicom).

4 Networking

4.1 Implementation Model

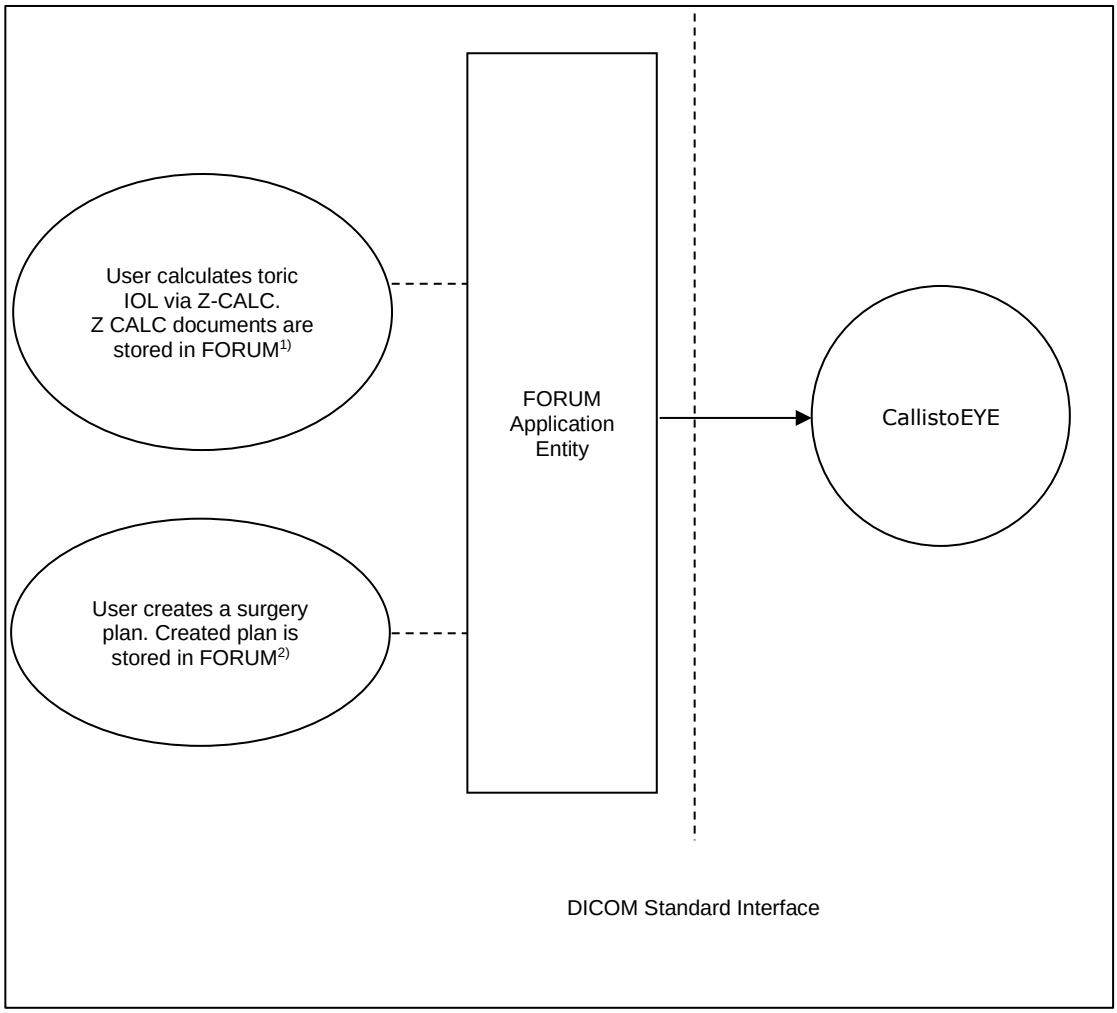
4.1.1 Application Data Flow

Figure 4-1 FORUM Archive - Functional Overview

See FORUM DICOM Conformance Statement.

Figure 4-2 EQ Workplace - Functional Overview

The local activities described in Figure 4-2 below are additional activities to the functional range of FORUM Archive described in Figure 4-1 FORUM Archive - Functional Overview. These additional activities are added with the installation of the EQ Workplace as software plugin to FORUM. All DICOM related local and real world activities of FORUM Archive as described in Figure 4-1 remain valid.



1) An Encapsulated PDF IOD instance is created.
2) A Surgery Planning Object IOD instance is created.

4.1.2 Functional Definition of AEs

4.1.2.1 **Functional Definition of FORUM Application Entity**

- See related FORUM DICOM Conformance Statement

4.1.2.2 Functional Definition of EQ Workplace

EQ Workplace is a plugin to FORUM and also provides some functionality through a web service. The main focus of the product is to support the preparation of a cataract surgery.

One of the main functions of the software is to prepare IOL calculations based on biometric measurements (e.g. from IOLMaster). For the actual calculation, a number of calculation formulas are available to calculate toric and non-toric IOLs. The IOL calculation results can be used to prepare a surgery outside of the operating room, e.g. for CALLISTO eye. The software also supports the ordering of IOLs selected for a surgery. Furthermore it allows upload of post-surgery data to the EQ Workplace Web Service. In the EQ Workplace Web Service IOLs can be managed and IOL constants can be personalized.

4.1.3 Sequencing of Real-World Activities

See related FORUM DICOM Conformance Statement.

4.2 AE Specifications

See related FORUM DICOM Conformance Statement

4.3 Network Interfaces

See related FORUM DICOM Conformance Statement

4.4 Configuration

4.4.1 AE Title/Presentation Address Mapping

See related FORUM DICOM Conformance Statement for AE Title settings (local/remote) settings.

4.4.2 Parameters

4.4.2.1 General Parameters

See related FORUM DICOM Conformance Statement.

4.4.2.2 EQ Workplace Configuration

All DICOM related configuration of EQ Workplace is performed automatically via the FORUM plugin interfaces.

Table 4-1 Configuration parameters used by EQ Workplace

Parameter	**Configurable (Yes/No)** **Description**	**Default Value**
Institution Name	Yes. Used for the institution name in the DICOM Instances created by EQ Workplace.	Empty
Institution Address	Yes. Used for the institution address in the DICOM Instances created by EQ Workplace.	Empty

5 Media Interchange

See related FORUM DICOM Conformance Statement.

6 Support of Character Sets

6.1 Accepted Character Sets

See FORUM DICOM Conformance Statement.

6.2 Returned Character Sets

See FORUM DICOM Conformance Statement.

7 Security

See FORUM DICOM Conformance Statement.

8 Annexes

8.1 IOD Contents

8.1.1 Created SOP Instance(s)

See FORUM DICOM Conformance Statement for new instances created by FORUM (manually imported images or PDF files and new instances created as “Combined Reports”).

Abbreviations used for presence of values:

VNAP
Value Not Always Present (attribute sent zero length if no value is present) – Applicable for Type 2, 2C.

ANAP
Attribute is not always present – Applicable for Type 3

ALWAYS
Attribute is always present with a value – Applicable for Type 1

EMPTY
Attribute is sent without a value – Applicable for Type 2

Abbreviations used for sources of data:

USER
The attribute value source is from User input

AUTO
The attribute value is generated automatically

MWL, MPPS, etc.
The attribute value is the same as the value received using a DICOM service such as Modality Worklist, Modality Performed Procedure Step, etc.

CONFIG
The attribute value source is a configurable parameter

ACQUISITION
The sources of data come from data acquisition process. Include Image and data relate to Image

USER
The data come from data generate by actions triggered by the user (e.g. direct input, lens calculation, or user selection).

SRC
The attribute value is the same as the value in the selected patient or source dataset

For EQ Workplace generated IODs the following is valid:
The attribute value is the same as in the DICOM IOD which contains the source raw data set of the report.

SRC/AUTO
The attribute value is the same as in the DICOM IOD which contains the raw data source of the report.

Abbreviations used for Type:

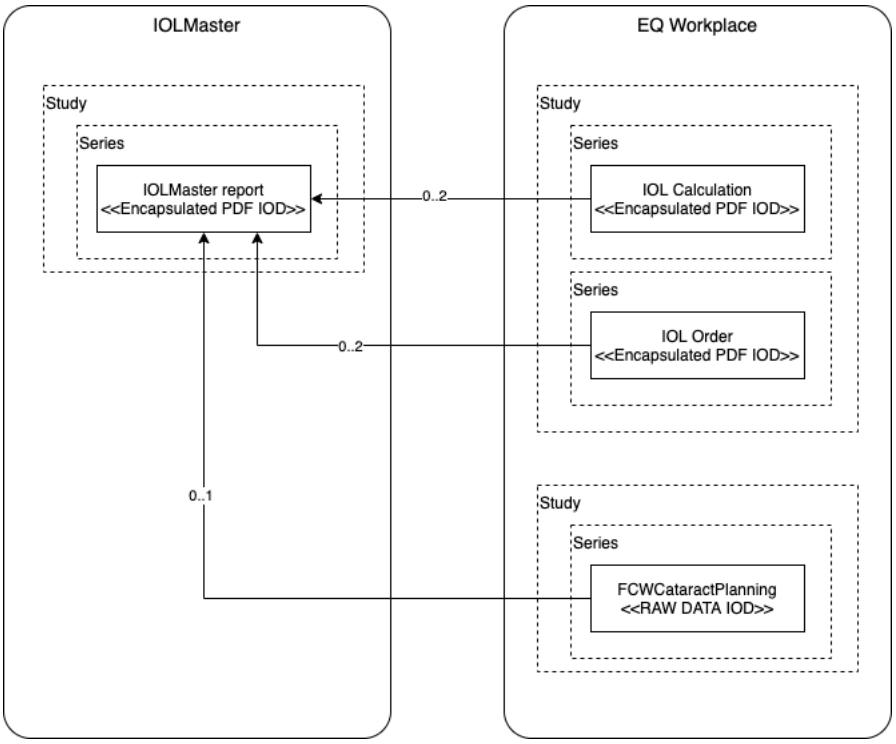
PE
Private Extension

8.1.1.1 SOP Instances Created by EQ Workplace

EQ Workplace can generate:

- Lens calculation information (ePDF IOD)
- Lens order information (ePDF IOD)
- Planning objects (RAW DATA IOD).

In case new UIDs are created, they contain a constant prefix as follows:
Study Instance UID: 1.2.276.0.75.2.5.110.25.1
Series Instance UID: 1.2.276.0.75.2.5.110.25.2
SOP Instance UID: 1.2.276.0.75.2.5.110.25.3



8.1.1.1.1 Encapsulated PDF Information Object Definition

IE	Module	Presence of Module
Patient		
	Patient	ALWAYS
	ClinicalTrialSubject	NEVER
Study		
	GeneralStudy	ALWAYS
	PatientStudy	NEVER
	ClinicalTrialStudy	NEVER
Series		
	EncapsulatedDocumentSeries	ALWAYS
	ClinicalTrialSeries	NEVER
	CzmEncapsulatedPdfSeriesExtension	ALWAYS
Equipment		
	GeneralEquipment	ALWAYS
	ScEquipment	ALWAYS
EncapsulatedDocument		
	CzmNimInternal	ALWAYS
	EncapsulatedDocument	ALWAYS
	SopCommon	ALWAYS

Table 8-1 Encapsulated PDF IOD – FGW – File Meta Information

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0002,0001)	1	OB	File Meta Information Version	00\01	ALWAYS	AUTO
(0002,0002)	1	UI	Media Storage SOP Class UID	1.2.840.10008.5.1.4.1.1.104.1 (Encapsulated PDF Storage)	ALWAYS	AUTO
(0002,0003)	1	UI	Media Storage SOP Instance UID	The SOP instance UID has a prefix of 1.2.276.0.75.2.5.110.25.3.	ALWAYS	AUTO
(0002,0010)	1	UI	Transfer Syntax UID	1.2.840.10008.1.2.1 (Explicit VR Little Endian)	ALWAYS	AUTO
(0002,0012)	1	UI	Implementation Class UID	1.2.276.0.75.2.5.30	ALWAYS	AUTO
(0002,0013)	3	SH	Implementation Version Name	FORUM Version, e.g. “FORUM 4.2.x.y”	ALWAYS	AUTO
(0002,0016)	3	AE	Source Application Entity Title	Generated dynamically	ALWAYS	AUTO

Table 8-2 Encapsulated PDF IOD – FGW – Module "Patient"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0010,0010)	2	PN	Patient's Name	Patient's full name from selected patient.	ALWAYS	SRC
(0010,0020)	2	LO	Patient ID	Patient ID from selected patient.	VNAP	SRC
(0010,0021)	3	LO	Issuer of Patient ID	Issuer of Patient ID from selected patient.	ANAP	SRC
(0010,0030)	2	DA	Patient's Birth Date	Birth date of the patient from selected patient.	VNAP	SRC
(0010,0040)	2	CS	Patient's Sex	Sex of the named patient from selected patient. Enumerated Values: M = male F = female O = other Can be empty if empty in selected patient.	VNAP	SRC

Table 8-3 Encapsulated PDF IOD – FGW – Module "General Study"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0020,000D)	1	UI	Study Instance UID	A new UID is generated with a UID prefix of 1.2.276.0.75.2.5.110.25.1	ALWAYS	AUTO
(0008,0020)	2	DA	Study Date	Date of object creation.	ALWAYS	AUTO
(0008,0030)	2	TM	Study Time	Time of object creation.	ALWAYS	AUTO
(0008,0090)	2	PN	Referring Physician's Name	Always empty.	EMPTY	AUTO
(0020,0010)	2	SH	Study ID	Study ID	ALWAYS	AUTO
(0008,0050)	2	SH	Accession Number	Always empty.	EMPTY	AUTO

Table 8-4 Encapsulated PDF IOD – FGW – Module "Encapsulated Document Series"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0008,0060)	1	CS	Modality	“DOC”.	ALWAYS	AUTO
(0020,000E)	1	UI	Series Instance UID	Newly created series instance UID with root: 1.2.276.0.75.2.5.110.25.2	ALWAYS	AUTO
(0020,0011)	1	IS	Series Number	Newly created and set to “1”.	ALWAYS	AUTO

Table 8-5 Encapsulated PDF IOD – FGW – Module "CZM Encapsulated PDF Series Extension"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0020,0060)	3	CS	Laterality	Laterality the document contains data for. Enumerated Values: R = right, L = left, B = both	ALWAYS	SRC/AUTO

Table 8-6 Encapsulated PDF IOD – FGW – Module "General Equipment"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0008,0070)	2	LO	Manufacturer	Set to “Carl Zeiss Meditec”	ALWAYS	AUTO
(0008,1090)	3	LO	Manufacturer's Model Name	Set to “FORUM Cataract Workplace”	ALWAYS	AUTO
(0018,1020)	3	LO	Software Version(s)	Set to “1.7.0.y” and higher versions “1.7.x.y”	ALWAYS	AUTO

Table 8-7 Encapsulated PDF IOD – FGW – Module "SC Equipment"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0008,0064)	1	CS	Conversion Type	Set to “SYN”	ALWAYS	AUTO

Table 8-8 Encapsulated PDF IOD – FGW – Module "CZM NIM Internal"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(2201,1000)	1	LT	IOD name meta info	Name of the Information Object Definition as specified by CZM-XML.	ALWAYS	AUTO
(2201,1001)	1	LT	CZM-XML Version	Version of the CZM-XML used to create this IOD.	ALWAYS	AUTO

Table 8-9 Encapsulated PDF IOD – FGW – Module "Encapsulated Document"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0020,0013)	1	IS	Instance Number	Set to the number of the document created in the creation batch. (1…n)	ALWAYS	AUTO
(0008,0023)	2	DA	Content Date	Date of object creation.	ALWAYS	AUTO
(0008,0033)	2	TM	Content Time	Date of object creation.	ALWAYS	AUTO
(0008,002A)	2	DT	Acquisition Datetime	Date/Time of object creation	ALWAYS	AUTO
(0020,0062)	3	CS	Image Laterality	Laterality from source raw data exam. Enumerated Values: R = right, L = left, B = both.	ALWAYS	SRC/AUTO
(0028,0301)	1	CS	Burned In Annotation	Set to “YES”	ALWAYS	AUTO
(0042,0010)	2	ST	Document Title	Type of the report: “STACY”, “EQ WP IOL Plan”, or “EQ WP IOL Order Form” (All values localized)	ALWAYS	AUTO
(0040,A043)	2	SQ	Concept Name Code Sequence	This sequence is always empty.	EMPTY	AUTO
(0042,0012)	1	LO	MIME Type of Encapsulated Document	Set to “application/pdf”	ALWAYS	AUTO
(0042,0011)	1	OB	Encapsulated Document	Encapsulated Document stream, containing the pdf report.	ALWAYS	ANALYSIS

Table 8-10 Encapsulated PDF IOD – FGW – Module "SOP Common"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0008,0016)	1	UI	SOP Class UID	Set to: “1.2.840.10008.5.1.4.1.1.104.1”	ALWAYS	AUTO
(0008,0018)	~~1~~	UI	SOP Instance UID	Newly created with root: 1.2.276.0.75.2.5.110.25.3.	ALWAYS	AUTO
(0008,0005)	1C	CS	Specific Character Set	Set to: “ISO_IR 192” (Unicode encoding)	ALWAYS	AUTO
(0008,0012)	3	DA	Instance Creation Date	Date of object creation.	ALWAYS	AUTO

(0008,0013)	3	TM	Instance Creation Time	Time of object creation	ALWAYS	AUTO

8.1.1.1.2 EQ Workplace Surgery Planning Object Definition

IE	Module	Presence of Module
Patient		
	Patient	ALWAYS
	ClinicalTrialSubject	NEVER
Study		
	GeneralStudy	ALWAYS
	PatientStudy	NEVER
	ClinicalTrialStudy	NEVER
Series		
	GeneralSeries	ALWAYS
	ClinicalTrialSeries	NEVER
FrameOfReference		
	FrameOfReference	NEVER
	Synchronization	NEVER
Equipment		
	GeneralEquipment	ALWAYS
RawData		
	AcquisitionContext	ALWAYS
	Specimen	NEVER
	RawData	ALWAYS
	SopCommon	ALWAYS
	CzmRawDataInstanceExtension	NEVER
	OphthalmicTomographyAcquisitionParameters	NEVER
FCWSchedulingObject		
	CzmNimInternal	ALWAYS
	DatasetDescription	ALWAYS
	EyeDescription	ALWAYS
	AttachedObjects	ALWAYS

Table 8-11 Surgery Planning Object IOD – FGW – File Meta Information

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0002,0001)	1	OB	File Meta Information Version	00\01	ALWAYS	AUTO
(0002,0002)	1	UI	Media Storage SOP Class UID	1.2.840.10008.5.1.4.1.1.66 (Raw Data)	ALWAYS	AUTO
(0002,0003)	1	UI	Media Storage SOP Instance UID	The SOP instance UID has a prefix of 1.2.276.0.75.2.5.110.25.3.	ALWAYS	AUTO

(0002,0010)	1	UI	Transfer Syntax UID	1.2.840.10008.1.2.1 (Explicit VR Little Endian)	ALWAYS	AUTO
(0002,0012)	1	UI	Implementation Class UID	1.2.276.0.75.2.5.30	ALWAYS	AUTO
(0002,0013)	3	SH	Implementation Version Name	FORUM version, e.g. “FORUM 4.2.0.358”	ALWAYS	AUTO
(0002,0016)	3	AE	Source Application Entity Title	Generated dynamically	ALWAYS	AUTO

Table 8-12 Surgery Planning Object IOD – FGW – Module "Patient"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0010,0010)	2	PN	Patient's Name	Patient's full name from selected IOLMaster report.	ALWAYS	SRC
(0010,0020)	2	LO	Patient ID	Primary hospital identification number from selected IOLMaster report.	ALWAYS	SRC
(0010,0021)	3	LO	Issuer of Patient ID	Identifier of the Assigning Authority (system, organization, agency, or department) that issued the Patient ID from selected IOLMaster report.	ANAP	SRC
(0010,0030)	2	DA	Patient's Birth Date	Birth date of the patient from selected IOLMaster report.	VNAP	SRC
(0010,0040)	2	CS	Patient's Sex	Sex of the named patient from selected IOLMaster report. dataEnumerated Values: M = male F = female O = other Can be empty.	VNAP	SRC
(0010,1000)	3	LO	Other Patient IDs	Other identification numbers or codes used to identify the patient from selected IOLMaster report.	ANAP	SRC
(0010,2160)	3	SH	Ethnic Group	Ethnic group or race of the patient from selected IOLMaster report.	ANAP	SRC
(0010,4000)	3	LT	Patient Comments	User-defined additional information about the patient from selected IOLMaster report.	ANAP	SRC

Table 8-13 Surgery Planning Object IOD – FGW – Module "General Study"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0020,000D)	1	UI	Study Instance UID	A new UID is generated with a UID prefix of 1.2.276.0.75.2.5.110.25.1.	ALWAYS	AUTO
(0008,0020)	2	DA	Study Date	Date of object creation.	ALWAYS	AUTO
(0008,0030)	2	TM	Study Time	Time of object creation.	ALWAYS	AUTO
(0008,0090)	2	PN	Referring Physician's Name		EMPTY	AUTO
(0020,0010)	2	SH	Study ID	A newly created study ID. (Not globally unique)	ALWAYS	AUTO
(0008,0050)	2	SH	Accession Number		EMPTY	AUTO

Table 8-14 Surgery Planning Object IOD – FGW – Module "General Series"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0008,0060)	1	CS	Modality	Set to “OT”	ALWAYS	AUTO
(0020,000E)	1	UI	Series Instance UID	Unique identifier of the Series. Newly created with root: 1.2.276.0.75.2.5.110.25.2	ALWAYS	AUTO
(0020,0011)	2	IS	Series Number	Set to: “1”	ALWAYS	AUTO
(0008,0021)	3	DA	Series Date	Date of object creation.	ALWAYS	AUTO
(0008,0031)	3	TM	Series Time	Time of object creation.	ALWAYS	AUTO
(0020,0060)	2C	CS	Laterality	Laterality the planning is done for.	ALWAYS	AUTO
(0018,1030)	3	LO	Protocol Name	Set to “FCW Planning Object”.	ALWAYS	AUTO
(0040,0254)	3	LO	Performed Procedure Step Description	Set to “FCW Planning Object”.	ALWAYS	AUTO
(0040,0253)	3	SH	Performed Procedure Step Id	Set to same value as “Study ID”.	ALWAYS	AUTO
(0040,0244)	3	DA	Performed Procedure Step Start Date	Date of object creation.	ALWAYS	AUTO
(0040,0245)	3	TM	Performed Procedure Step Start Time	Time of object creation.	ALWAYS	AUTO

Table 8-15 Surgery Planning Object IOD – FGW – Module "General Equipment"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0008,0070)	2	LO	Manufacturer	Set to “Carl Zeiss Meditec”	ALWAYS	AUTO
(0008,1090)	3	LO	Manufacturer's Model Name	Set to “FORUM Cataract Workplace”	ALWAYS	AUTO
(0018,1020)	3	LO	Software Version(s)	Set to “1.6.0.511” and higher versions “1.6.x.y”	ALWAYS	AUTO

Table 8-16 Surgery Planning Object IOD – FGW – Module "Acquisition Context"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0040,0555)	2	SQ	Acquisition Context Sequence	Never used.	EMPTY	AUTO

Table 8-17 Surgery Planning Object IOD – FGW – Module "Raw Data"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0020,0013)	2	IS	Instance Number	Set to: “1”	ALWAYS	AUTO
(0008,0023)	1	DA	Content Date	Set to date of object creation	ALWAYS	AUTO
(0008,0033)	1	TM	Content Time	Set to time of object creation	ALWAYS	AUTO
(0008,9123)	1	UI	Creator Version UID	Set to “1.2.276.0.75.2.5.110.23.6.1.6.0” This value was also used in EQ Workplace® Version 1.6.	ALWAYS	AUTO

(0008,002A)	3	DT	Acquisition Datetime	Set to date/time of object creation	ALWAYS	AUTO
(0008,114A)	3	SQ	Referenced Instance Sequence	Contains references to the DICOM objects attached in the Module “Attached Objects”	ALWAYS	AUTO
				Referenced instance sequence item for biometer report. See Table 8-18	ALWAYS	SRC/AUTO
				Referenced instance sequence item for left reference image. See Table 8-19	ANAP	SRC/AUTO
				Referenced instance sequence item for right reference image. See Table 8-19	ANAP	SRC/AUTO

Table 8-18 Surgery Planning Object IOD – FGW – Module "Raw Data" – Referenced instance sequence item for biometry report

Tag	Type	VR	Name	Content (Description)	PoV	Source
>(0008,1150)	1	UI	Referenced SOP Class UID	Set to SOP class UID of biometer report	ALWAYS	SRC/AUTO
>(0008,1155)	1	UI	Referenced SOP Instance UID	Set to SOP instance UID of biometer report	ALWAYS	SRC/AUTO
>(0040,A170)	1	SQ	Purpose of Reference Code Sequence	Describes the purpose for which the reference is made. Only a single Item shall be included in this sequence	ALWAYS	AUTO
>>(0008,0100)	1	SH	Code Value	Set to: “FCWIOLMREP”	ALWAYS	AUTO
>>(0008,0102)	1	SH	Coding Scheme Designator	Set to: “99CZM”	ALWAYS	AUTO
>>(0008,0103)	1C	SH	Coding Scheme Version	Set to: “20140908”	ALWAYS	AUTO
>>(0008,0104)	1	LO	Code Meaning	Set to: “IOLMaster report used as base for this scheduling object”	ALWAYS	AUTO

Table 8-19 Surgery Planning Object IOD – FGW – Module "Raw Data" – Referenced instance sequence item for left/right reference image

Tag	Type	VR	Name	Content (Description)	PoV	Source
>(0008,1150)	1	UI	Referenced SOP Class UID	Set to SOP class UID of reference image	ALWAYS	SRC/AUTO
>(0008,1155)	1	UI	Referenced SOP Instance UID	Set to SOP instance UID of reference image	ALWAYS	SRC/AUTO
>(0040,A170)	1	SQ	Purpose of Reference Code Sequence	Describes the purpose for which the reference is made. Only a single Item shall be included in this sequence	ALWAYS	AUTO

>>(0008,0100)	1	SH	Code Value	Set to code value used in referenced instance sequence item for this reference image in the IOLMaster report. One of: “SCLERAL_IMG_L”/ “SCLERAL_IMG_R”	ALWAYS	SRC/AUTO
>>(0008,0102)	1	SH	Coding Scheme Designator	Set to code value used in referenced instance sequence item for this reference image in the IOLMaster report. Always: “99CZM”	ALWAYS	SRC/AUTO
>>(0008,0103)	1C	SH	Coding Scheme Version	Set to coding scheme version used in referenced instance sequence item for this reference image in the IOLMaster report.	ALWAYS	SRC/AUTO
>>(0008,0104)	1	LO	Code Meaning	Set to code meaning used in referenced instance sequence item for this reference image in the IOLMaster report.	ALWAYS	SRC/AUTO

Table 8-20 Surgery Planning Object IOD – FGW – Module "SOP Common"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(0008,0016)	1	UI	SOP Class UID	Set to: “1.2.840.10008.5.1.4.1.1.66”	ALWAYS	AUTO
(0008,0018)	1	UI	SOP Instance UID	Newly created with UID prefix of: 1.2.276.0.75.2.5.110.25.3	ALWAYS	AUTO
(0008,0005)	1C	CS	Specific Character Set	Set to: “ISO_IR 192” (Unicode encoding)	ALWAYS	AUTO
(0008,0012)	3	DA	Instance Creation Date	Date of object creation.	ALWAYS	AUTO
(0008,0013)	3	TM	Instance Creation Time	Time of object creation	ALWAYS	AUTO
(0008,0201)	3	SH	Timezone Offset From UTC	Set to the local timezone offset	ALWAYS	AUTO
(0018,A001)	3	SQ	Contributing Equipment Sequence	Sequence of Items containing descriptive attributes of related equipment which has contributed to the acquisition, creation or modification of the composite instance.	ALWAYS	AUTO
>				Description of the IOLMaster used to create the underlying biometer report. See Table 8-21	ALWAYS	SRC/AUTO
>				Description of the Z CALC used to calculate the lens. See Table 8-22	ANAP	AUTO
>				Description of the ZCWS used to calculate the lens. See Table 8-23	ANAP	AUTO

Table 8-21 Surgery Planning Object IOD – FGW – Module "Dataset Description" – IOLMaster contributing equipment sequence item

Tag	Type	VR	Name	Content (Description)	PoV	Source
>(0040,A170)	1	SQ	Purpose of Reference Code Sequence	Describes the purpose for which the related equipment is being reference.	ALWAYS	AUTO
>>(0008,0100)	1	SH	Code Value	Set to: “109101”	ALWAYS	AUTO

>>(0008,0102)	1	SH	Coding Scheme Designator	Set to: “DCM”	ALWAYS	AUTO
>>(0008,0104)	1	LO	Code Meaning	Set to: “Acquisition Equipment”	ALWAYS	AUTO
>(0008,0070)	1	LO	Manufacturer	Copied from referenced biometer report.	ALWAYS	SRC/AUTO
>(0008,0080)	3	LO	Institution Name	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0008,0081)	3	ST	Institution Address	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0008,1010)	3	SH	Station Name	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0008,1040)	3	LO	Institutional Department Name	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0008,1090)	3	LO	Manufacturer’s Model Name	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0018,1010)	3	LO	Device Serial Number	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0018,1020)	3	LO	Software Version(s)	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0018,1050)	3	DS	Spatial Resolution	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0018,1200)	3	DA	Date of Last Calibration	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0018,1201)	3	TM	Time of Last Calibration	Copied from referenced biometer report.	ANAP	SRC/AUTO
>(0018,A002)	3	DT	Contribution Date Time	Date/Time of object creation.	ANAP	AUTO
>(0018,A003)	3	ST	Contribution Description	Set to: “Biometry report and scleral image”	ALWAYS	AUTO

Table 8-22 Surgery Planning Object IOD – FGW – Module "Dataset Description" – Z CALC contributing equipment sequence item

Tag	Type	VR	Name	Content (Description)	PoV	Source
>(0040,A170)	1	SQ	Purpose of Reference Code Sequence	Describes the purpose for which the related equipment is being reference.	ALWAYS	AUTO
>>(0008,0100)	1	SH	Code Value	Set to: “109102”	ALWAYS	AUTO
>>(0008,0102)	1	SH	Coding Scheme Designator	Set to: “DCM”	ALWAYS	AUTO
>>(0008,0104)	1	LO	Code Meaning	Set to: “Procession Equipment”	ALWAYS	AUTO
>(0008,0070)	1	LO	Manufacturer	Set to: “Carl Zeiss Meditec”	ALWAYS	AUTO
>(0008,1090)	3	LO	Manufacturer’s Model Name	Set to: “Z CALC”	ALWAYS	AUTO
>(0018,1020)	3	LO	Software Version(s)	Set to: “v1”	ALWAYS	AUTO

>(0018,A002)	3	DT	Contribution Date Time	Set to date/time of object creation.	ALWAYS	AUTO
>(0018,A003)	3	ST	Contribution Description	Set to: “Lens calculation”	ALWAYS	AUTO

Table 8-23 Surgery Planning Object IOD – FGW – Module "Dataset Description" – ZCWS contributing equipment sequence item

Tag	Type	VR	Name	Content (Description)	PoV	Source
>(0040,A170)	1	SQ	Purpose of Reference Code Sequence	Describes the purpose for which the related equipment is being reference.	ALWAYS	AUTO
>>(0008,0100)	1	SH	Code Value	Set to: “109102”	ALWAYS	AUTO
>>(0008,0102)	1	SH	Coding Scheme Designator	Set to: “DCM”	ALWAYS	AUTO
>>(0008,0104)	1	LO	Code Meaning	Set to: “Procession Equipment”	ALWAYS	AUTO
>(0008,0070)	1	LO	Manufacturer	Set to: “Carl Zeiss Meditec”	ALWAYS	AUTO
>(0008,1090)	3	LO	Manufacturer’s Model Name	Set to: “ZCWS”	ALWAYS	AUTO
>(0018,1020)	3	LO	Software Version(s)	Set to: “v1”	ALWAYS	AUTO
>(0018,A002)	3	DT	Contribution Date Time	Set to date/time of object creation.	ALWAYS	AUTO
>(0018,A003)	3	ST	Contribution Description	Set to: “Lens calculation”	ALWAYS	AUTO

Table 8-24 Surgery Planning Object IOD – FGW – Module "CZM NIM Internal"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(2201,1000)	1	LT	IOD name meta info	Name of the Information Object Definition as specified by CZM-XML.	ALWAYS	AUTO
(2201,1001)	1	LT	CZM-XML Version	Version of the CZM-XML used to create this IOD.	ALWAYS	AUTO
(2201,1002)	3	LT	Private module names and versions	Names and versions of the private modules used in this IOD.	ALWAYS	AUTO

Table 8-25 Surgery Planning Object IOD – FGW – Module "Dataset Description"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(2A01,xx01)	1	LO	Cataract Scheduling Version	Version number of the Surgery Planning Object definition. Set to: “1.1”	ALWAYS	AUTO

Table 8-26 Surgery Planning Object IOD – FGW – Module "Eye Description"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(2A01,xx10)	3	FD	Cataract Scheduling Optical Offset	Optical offset x, y as measured for the eye in left-right direction (neg. -> pos. is patient's right ear -> left ear) and feet -> head direction in mm. Note: Deprecated since v1.1, replaced by cataract_scheduled_center_point_sequence	ANAP	USER
(2A01,xx11)	3	CS	Cataract Scheduling Treatment Position	Position of the surgeon during treatment. Note: Starting with Cataract Scheduling Version 1.1: L is not be used if laterality is OD, R is not to be used if laterality is OS. Enumeration: L|R|H	ANAP	USER
(2A01,xx12)	3	FD	Cataract Scheduling White To White	Horizontal diameter of the iris in mm.	ANAP	USER
(2A01,xx13)	3	FD	Cataract Scheduling Anterior Chamber Depth	Anterior chamber depth in mm.	ANAP	USER
(2A01,xx14)	3	FD	Cataract Scheduling Corneal Radius	Corneal radius in mm.	ANAP	USER
(2A01,xx15)	3	SQ	Cataract Scheduling Center Point Offsets Sequence	The center point offsets.	ANAP	USER
>(2A01,xx16)	1	FD	Cataract Scheduling Center Point Offset	The offset to limbal center defines the position of the center point relative to the limbus center in mm. The center point is defined as the center of rhexis circle and the rotation point of the target axis. (Multi-Value, X in mm, Y in mm)	ALWAYS	USER

>(2A01,xx17)	1	CS	Cataract Scheduling Center Point Type	What kind of point is used as source of the center point? Currently defined values are: **USER**: The user defined an arbitrary point. **LIMBUS**: The limbus center is used as coordinate center (offset is always 0/0 in this case). **OPTICAL_AXIS:** The optical axis of the eye is used as coordinate center. Not used. **PUPIL_CENTER:** The center of the pupil is used as coordinate center. Not used	ALWAYS	USER
(2A01,xx18)	3	DT	Cataract Scheduling Surgery Date/Time	The scheduled surgery date and time.	ANAP	USER
(2A01,xx20)	3	SQ	Cataract Scheduling Lens Description Sequence	Sequence that holds the data of the lens to implant. Only a single Item is permitted in this sequence.	ANAP	USER
>(2A01,xx21)	1	LO	Cataract Scheduling Lens Model Name	The model name of the lens as human readable string.	ALWAYS	USER
>(2A01,xx22)	1	CS	Cataract Scheduling Lens Type	The kind of lens (spherical, torical). Enumeration: SPHERICAL|TORICAL	ALWAYS	USER
>(2A01,xx23)	1C	FD	Cataract Scheduling Spherical Power	The lenses spherical power in diopters. Condition: Must be present if cataract_scheduled_lens_type is SPHERICAL or TORICAL.	ANAP	USER
>(2A01,xx24)	1C	FD	Cataract Scheduling Cylindrical Power	The lenses cylindrical power in diopters. Condition: Must be present if cataract_scheduled_lens_type is TORICAL.	ANAP	USER
>(2A01,xx25)	1C	FD	Cataract Scheduling Target Axis	The main torical axis of the lens (Z ALIGN target axis) in degrees, 0° at 3 o'clock, counter clockwise. Condition: Must be present if cataract_scheduled_lens_type is TORICAL.	ANAP	USER
>(2A01,xx26)	3	ST	Cataract Scheduling Lens Serial Number	The serial number of the lens planned to implant.	ANAP	USER

(2A01,xx30)	3	SQ	Cataract Scheduling LRI Description Sequence	Sequence that holds the data of the limbal relaxating incision (LRI). Only a single Item is permitted in this sequence. Note: Deprecated since v1.1, replaced by cataract_scheduled_lri_sequence	ANAP	USER
>(2A01,xx31)	1	FD	Cataract Scheduling LRI1 Angle	The angle of the first LRI in degrees, 0° at 3 o'clock, counter clockwise.	ALWAYS	USER
>(2A01,xx32)	1	FD	Cataract Scheduling LRI1 Width	The width of the first LRI in degrees.	ALWAYS	USER
>(2A01,xx33)	1	FD	Cataract Scheduling LRI2 Angle	The angle of the second LRI in degrees, 0° at 3 o'clock, counter clockwise.	ALWAYS	USER
>(2A01,xx34)	1	FD	Cataract Scheduling LRI2 Width	The width of the second LRI in degrees.	ALWAYS	USER
(2A01,xx36)	3	SQ	Cataract Scheduled LRI Sequence	Sequence that holds the data of the limbal relaxating incision (LRI). Only a single Item is permitted in this sequence.	ANAP	USER
>(2A01,xx31)	1	FD	Cataract Scheduling LRI1 Angle	The angle of the first LRI in degrees, 0° at 3 o'clock, counter clockwise.	ALWAYS	USER
>(2A01,xx32)	3	FD	Cataract Scheduling LRI1 Width	The width of the first LRI in degrees.	ANAP	USER
>(2A01,xx33)	1	FD	Cataract Scheduling LRI2 Angle	The angle of the second LRI in degrees, 0° at 3 o'clock, counter clockwise.	ALWAYS	USER
>(2A01,xx34)	3	FD	Cataract Scheduling LRI2 Width	The width of the second LRI in degrees.	ANAP	USER
>(2A01,xx35)	3	FD	Cataract Scheduling LRI distance	The distance the LRIs should be inside the limbus circle.	ANAP	USER
(2A01,xx40)	3	SQ	Cataract Scheduling Incision Description Sequence	Sequence that holds the data of the main incision. Only a single Item is permitted in this sequence. Note: Deprecated since v1.1, replaced by cataract_scheduled_incision_sequence	ANAP	USER
>(2A01,xx41)	1	FD	Cataract Scheduling Incision Angle	The angle of the incision in degrees, 0° at 3 o'clock, counter clockwise.	ALWAYS	USER
>(2A01,xx42)	1	FD	Cataract Scheduling Incision Width	The width of the incision in mm.	ALWAYS	USER
(2A01,xx47)	3	SQ	Cataract Scheduled Incision Sequence	Sequence that holds the data of the main incision. Only a single Item is permitted in this sequence.	ANAP	USER

>(2A01,xx41)	1	FD	Cataract Scheduling Incision Angle	The angle of the incision in degrees, 0° at 3 o'clock, counter clockwise.	ALWAYS	USER
>(2A01,xx42)	3	FD	Cataract Scheduling Incision Width	The width of the incision in mm.	ANAP	USER
>(2A01,xx43)	3	FD	Cataract Scheduling Paracentesis Position 1	Position of paracenthesis 1 relative to the incision in degrees, 0° at 3 o'clock, counter clockwise.	ANAP	USER
>(2A01,xx44)	3	FD	Cataract Scheduling Paracentesis Position 2	Position of paracenthesis 2 relative to the incision in degrees, 0° at 3 o'clock, counter clockwise.	ANAP	USER
>(2A01,xx45)	1	CS	Cataract Scheduling Opposite clear cornea incision (OCCI)	Should there be a secondary incision on the opposite side of the main incision (OCCI)? Possible values: YES, NO	ALWAYS	USER
>(2A01,xx46)	1	CS	Cataract Scheduling Main Incision on steep axis	Flag whether the main incision position should be equal to the steep axis angle. Possible values: YES, NO Note: IOL Master steep axis must be present.	ALWAYS	USER
(2A01,xx50)	3	FD	Cataract Scheduling Rhexis Diameter 1	The diameter of the first rhexis in mm.	ANAP	USER
(2A01,xx51)	3	FD	Cataract Scheduling Rhexis Diameter 2	The diameter of the second rhexis in mm.	ANAP	USER

Table 8-27 Surgery Planning Object IOD – FGW – Module "Attached Objects"

Tag	Type	VR	Name	Content (Description)	PoV	Source
(2A01,xx60)	3	OB	Cataract Scheduling Biometer Report	The DICOM object that holds the biometer's report.	ANAP	USER
(2A01,xx61)	3	OB	Cataract Scheduling Left Eye's Reference Image	The DICOM object that holds the left eye's reference image.	ANAP	USER
(2A01,xx62)	3	OB	Cataract Scheduling Right Eye's Reference Image	The DICOM object that holds the right eye's reference image.	ANAP	USER

8.1.2 Usage of Attributes from Received IOD's

See FORUM DICOM Conformance Statement.

8.1.3 Attribute Mapping

See FORUM DICOM Conformance Statement for FORUM generated DICOM objects.

Table 8-28 Attribute Mapping from Source ePDF IOD into EQ Workplace generated ePDF IOD

Source Raw Data IOD	ePDF IOD	Editable
Study ID	Study ID	No
Patient's Name	Patient's Name	No
Patient ID	Patient ID	No
Issuer of Patient ID	Issuer of Patient ID	No
Patient's Birth Date	Patient's Birth Date	No
Patient's Sex	Patient's Sex	No

Table 8-29 Attribute Mapping from Source ePDF IOD into EQ Workplace generated RawData IOD

Source Raw Data IOD	RawData IOD	Editable
Patient's Name	Patient's Name	No
Patient ID	Patient ID	No
Issuer of Patient ID	Issuer of Patient ID	No
Other Patient IDs	Other Patient IDs	No
Patient's Birth Date	Patient's Birth Date	No
Patient's Sex	Patient's Sex	No
Patient Comments	Patient Comments	No
Ethnic Group	Ethnic Group	No
SOP Class UID	Referenced SOP Class UID	No
SOP Instance UID	Referenced SOP Instance UID	No
Referenced Instance Sequence > Purpose of Reference Code Sequence >> Code Value	Referenced Instance Sequence > Purpose of Reference Code Sequence >> Code Value	No
Referenced Instance Sequence > Purpose of Reference Code Sequence >> Coding Scheme Version	Referenced Instance Sequence > Purpose of Reference Code Sequence >> Coding Scheme Version	No
Referenced Instance Sequence > Purpose of Reference Code Sequence >> Code Meaning	Referenced Instance Sequence > Purpose of Reference Code Sequence >> Code Meaning	No
Manufacturer	Contributing Equipment Sequence > Manufacturer	No
Institution Name	Contributing Equipment Sequence > Institution Name	No

Institution Address	Contributing Equipment Sequence > Institution Address	No
Station Name	Contributing Equipment Sequence > Station Name	No
Institutional Department Name	Contributing Equipment Sequence > Institutional Department Name	No
Manufacturer's Model Name	Contributing Equipment Sequence > Manufacturer's Model Name	No
Device Serial Number	Contributing Equipment Sequence > Device Serial Number	No
Software Versions	Contributing Equipment Sequence > Software Versions	No
Spatial Resolution	Contributing Equipment Sequence > Spatial Resolution	No
Date of Last Calibration	Contributing Equipment Sequence > Date of Last Calibration	No
Time of Last Calibration	Contributing Equipment Sequence > Time of Last Calibration	No

8.1.4 Coerced/Modified Files

See FORUM DICOM Conformance Statement.

8.2 Data Dictionary of Private Attributes

The Private Attributes added to create SOP Instances are listed in the Tables below. EQ Workplace reserves blocks of private attributes in groups 2201, 2A01.

Occurs in: RawData SOP Instance generated by EQ Workplace

Table 8-30 Private Dictionary Group (2A01,00xx) = "99CZM_Cataract_Scheduling"

Tag	Attribute Name	VR	VM
(2A01,xx01)	cataract_scheduling_version	LO	1
(2A01,xx10)	cataract_scheduled_optical_offset	FD	2
(2A01,xx11)	cataract_scheduled_treatment_position	CS	1
(2A01,xx12)	cataract_scheduled_white_to_white	FD	1
(2A01,xx13)	cataract_scheduled_anterior_chamber_depth	FD	1
(2A01,xx14)	cataract_scheduled_corneal_radius	FD	1
(2A01,xx15)	cataract_scheduled_center_point_sequence	SQ	1
(2A01,xx16)	cataract_scheduled_center_point_type	CS	1
(2A01,xx17)	cataract_scheduled_center_point_offsets	FD	2
(2A01,xx18)	cataract_scheduled_surgery_datetime	DT	1
(2A01,xx20)	cataract_scheduled_lens_description_sequence	SQ	1
(2A01,xx21)	cataract_scheduled_lens_model_name	LO	1
(2A01,xx22)	cataract_scheduled_lens_type	CS	1
(2A01,xx23)	cataract_scheduled_spherical_power	FD	1

(2A01,xx24)	cataract_scheduled_cylindrical_power	FD	1
(2A01,xx25)	cataract_scheduled_target_axis	FD	1
(2A01,xx26)	cataract_scheduled_lens_serial_number	ST	1
(2A01,xx30)	cataract_scheduled_lri_description_sequence	SQ	1
(2A01,xx31)	cataract_scheduled_lri_1_angle	FD	1
(2A01,xx32)	cataract_scheduled_lri_1_width	FD	1
(2A01,xx33)	cataract_scheduled_lri_2_angle	FD	1
(2A01,xx34)	cataract_scheduled_lri_2_width	FD	1
(2A01,xx35)	cataract_scheduled_lri_limbus_inset	FD	1
(2A01,xx36)	cataract_scheduled_lri_sequence	SQ	1
(2A01,xx40)	cataract_scheduled_incision_description_sequence	SQ	1
(2A01,xx41)	cataract_scheduled_incision_angle	FD	1
(2A01,xx42)	cataract_scheduled_incision_width	FD	1
(2A01,xx43)	cataract_scheduled_incision_paracenteses_1_angle	FD	1
(2A01,xx44)	cataract_scheduled_incision_paracenteses_2_angle	FD	1
(2A01,xx45)	cataract_scheduled_incision_use_occi	CS	1
(2A01,xx46)	cataract_scheduled_incision_on_steep_axis	CS	1
(2A01,xx47)	cataract_scheduled_incision_sequence	SQ	1
(2A01,xx50)	cataract_scheduled_rhexis_diameter1	FD	1
(2A01,xx51)	cataract_scheduled_rhexis_diameter2	FD	1
(2A01,xx60)	cataract_scheduling_biometer_report	OB	1
(2A01,xx61)	cataract_scheduling_left_reference_image	OB	1
(2A01,xx62)	cataract_scheduling_right_reference_image	OB	1

Table 8-31 Private Dictionary Group (2201,00xx) = "99CZM_NIM_INTERNAL_01"

Occurs in: ALL IODs

Tag	Attribute Name	VR	VM
(2201,00xx)	Private Creator	LO	1
(2201,xx00)	Iod_name_meta_info	LT	1
(2201,xx01)	Czm_xml_version	LT	1
(2201,xx02)	private_module_names_and_versions	LT	1

8.3 Coded Terminology and Templates

EQ Workplace uses (0040,A170) Purpose of Reference Code Sequence with the following codes to specify used IOLMaster report and reference images.

Occurs in: Surgery Planning Object IOD

Table 8-32 Private Purpose of Reference Codes used by EQ Workplace

Code Value	Coding Scheme Designator	Code Meaning	Coding Scheme Version
FCWIOLMREP	99CZM	IOLMaster report used as base for this Surgery Planning Object.	20140908
SCLERAL_IMG_L	99CZM	As found in IOLMaster report used to find the reference.	see Code Meaning
SCLERAL_IMG_R	99CZM	As found in IOLMaster report used to find the reference.	see Code Meaning

8.4 Greyscale Image Consistency

This chapter is not applicable.

8.5 Standard Extended / Specialized/ Private SOP Classes

The following standard extensions are used in the IODs described in chapter 8.1.1 Created SOP Instance(s).

Table 8-5 Encapsulated PDF IOD – FGW – Module "CZM Encapsulated PDF Series Extension"

8.6 Private Transfer Syntaxes

No Private Transfer Syntax is supported.

Carl Zeiss Meditec AG
Goeschwitzer Strasse 51-52
07745 Jena
Germany
www.zeiss.com/med
www.zeiss.com/dicom