

Oracle Health Multimedia Storage DICOM Data Structure and Definitions

Data Structure

This is a sample of the person .XML that can be generated:

```
<?xml version="1.0"?>

<person:person xmlns:person="com.cerner.mmf.cps.person.biz">

    <person:uid>urn:cerner:mid:cps.dicom.person:cps_dicom-ro:123</person:uid>
    <person:sexCode>FEMALE</person:sexCode>
    <person:ethnicGroup>Black</person:ethnicGroup>
    <person:identifiers>
        <person:personIdentifier>
            <person:uid>urn:cerner:mid:cps.dicom.person.identifier:cps_dicom-
ro:124</person:uid>
            <person:identifier>abc123</person:identifier>
            <person:assigningAuthority>cerner</person:assigningAuthority>
            <person:localAssigningAuthority/>
        </person:personIdentifier>
    </person:identifiers>
    <person:names>
        <person:personName>
            <dicom_common:uid
                xmlns:dicom_common="com.cerner.mmf.cps.dicom.biz.common">urn:cerner:mid:cps.dicom.person.name.group
                :cps_dicom-ro:125</dicom_common:uid>
            <dicom_common:alphabetic
                xmlns:dicom_common="com.cerner.mmf.cps.dicom.biz.common">
                <dicom_common:last>LNANE</dicom_common:last>
                <dicom_common:first>FNAME</dicom_common:first>
                <dicom_common:middle>MNAME</dicom_common:middle>
                <dicom_common:prefix>MR</dicom_common:prefix>
                <dicom_common:suffix>JR</dicom_common:suffix>
            </dicom_common:alphabetic>
            <dicom_common:phonetic
                xmlns:dicom_common="com.cerner.mmf.cps.dicom.biz.common"
                xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
```

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<dicom_common:ideographic
xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

    </person:personName>

</person:names>

<person:tenantIdentifier>tenant_ident</person:tenantIdentifier>

<person:beginEffectiveDate>2022-12-01T08:18:02.962Z</person:beginEffectiveDate>

<person:revisionNumber>1683040815862538</person:revisionNumber>

<person:socialBirthdate>19700101</person:socialBirthdate>

<person:birthdate>

    <dicom_common:dateTime
xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common">1970-01-
01T06:00:00Z</dicom_common:dateTime>

        <dicom_common:precisionFlag
xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common">DAY</dicom_common:precisionFlag>

            <dicom_common:timezone
xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common">America/Chicago</dicom_common:timezone
>

        </person:birthdate>

        <cps-common:context xmlns:cps-common="com.cerner.mmf(cps.common">

            <cps-common:application>DICOM_SERVICE</cps-common:application>

            <cps-common:authenticatedConsumer>authenticated_consumer</cps-
common:authenticatedConsumer>

            <cps-common:principalName>0000.0000.00D9.0ADC@tenant_ident</cps-
common:principalName>

            <cps-common:remoteHost>111.111.111.111</cps-common:remoteHost>

            <cps-common:systemHost>hostname.domain.net</cps-common:systemHost>

        </cps-common:context>

        <person:systemTimestamp>2023-05-02T10:20:15.861Z</person:systemTimestamp>

    </person:person>

```

This is a sample of the study data that can be generated:

```

<?xml version="1.0"?>

<dicom:study xmlns:dicom="com.cerner.mmf(cps.dicom.biz">

    <dicom:uid>urn:cerner:mid:cps.dicom.study:cps_dicom-ro:7169730606773907334</dicom:uid>

    <dicom:patientIdentifier>

        <dicom:personUID>urn:cerner:mid:cps.dicom.person:cps_dicom-
ro:684547143360365040</dicom:personUID>

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<dicom:personIdentifierUID/>

<dicom:personNameUID>urn:cerner:mid:cps.dicom.person.name.group:cps_dicom-
ro:684547143360365041</dicom:personNameUID>

</dicom:patientIdentifier>

<dicom:tenantIdentifier>2e3bfff6-5b5b-4474-9058-caff792dbefa</dicom:tenantIdentifier>

<dicom:studyInstanceUID>1.2.840.113970.1.2.840.10008.2052574.20230119.1041257</dicom:studyI-
nstanceUID>

<dicom:studyIdentifier>20150925161744</dicom:studyIdentifier>

<dicom:studyDate>

    <dicom_common:dateTime
xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common">2023-01-
19T21:39:53.081Z</dicom_common:dateTime>

    <dicom_common:precisionFlag
xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

</dicom:studyDate>

<dicom:accessionNumber>

    <dicom_common:identifier
xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common">CV-23-
0000001</dicom_common:identifier>

    <dicom_common:issuer xmlns:dicom_common="com.cerner.mmf(cps.dicom.biz.common">

        <dicom_common:localNamespaceEntityId>HNA_ACCN</dicom_common:localNamespaceEntityId>

        <dicom_common:universalEntityId xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"/>

        <dicom_common:universalEntityIdType
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

    </dicom_common:issuer>

</dicom:accessionNumber>

<dicom:description>TOUCH ECG-12 LEAD</dicom:description>

<dicom:statusCode xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

<dicom:scheduledStartDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

<dicom:arrivalDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

<dicom:completionDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

<dicom:verifiedDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

<dicom:readDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>

<dicom:studyTimeZone>America/Chicago</dicom:studyTimeZone>

<dicom:placerOrderNumber>pon</dicom:placerOrderNumber>

<dicom:fillerOrderNumber>fon</dicom:fillerOrderNumber>

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<dicom:requestedProcedureIdentifier>TOUCH ECG-12 LEAD</dicom:requestedProcedureIdentifier>
<dicom:requestedProcedureDescription>TOUCH ECG-12
LEAD</dicom:requestedProcedureDescription>
<dicom:procedurePlacerOrderNumber>ppon</dicom:procedurePlacerOrderNumber>
<dicom:procedureFillerOrderNumber>pfon</dicom:procedureFillerOrderNumber>
<dicom:scheduledProcedureStepIdentifier/>
<dicom:scheduledProcedureStepDescription/>
<dicom:validationStatusCode>VALIDATED</dicom:validationStatusCode>
<dicom:customStatus/>
<dicom:locked>false</dicom:locked>
<dicom:lockConsumerIdentifier/>
<dicom:lockDate xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
<dicom:revisionNumber>1674145330313416</dicom:revisionNumber>
<dicom:idleIndicator>true</dicom:idleIndicator>
<dicom:origin>host.net</dicom:origin>
<dicom:beginEffectiveDate>2023-01-19T10:21:03.693Z</dicom:beginEffectiveDate>
<dicom:systemTimestamp>2023-01-19T10:22:10.308Z</dicom:systemTimestamp>
<cps-common:context xmlns:cps-common="com.cerner.mmf.cps.common">
    <cps-common:application>ASYNC_ENGIN</cps-common:application>
    <cps-common:authenticatedConsumer/>
    <cps-common:principalName/>
    <cps-common:remoteHost/>
    <cps-common:systemHost>internal-CAMM7-Integration-DICOM-480730653.us-east-
2.elb.amazonaws.com</cps-common:systemHost>
</cps-common:context>
<dicom:admittingDiagnoses>
    <dicom:admittingDiagnosis>diagnosis1</dicom:admittingDiagnosis>
</dicom:admittingDiagnoses>
<dicom:referringPhysicianName xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
<dicom:physicianOfRecordNames/>
<dicom:requestingPhysicianName xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"/>
<dicom:readingPhysicianNames/>
<dicom:modalitiesInStudy>
    <dicom:modalityCode>ECG</dicom:modalityCode>
</dicom:modalitiesInStudy>
<dicom:numberOfSeries>1</dicom:numberOfSeries>
```

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<dicom:numberOfInstances>1</dicom:numberOfInstances>
<dicom:seriesList>
    <dicom:series>
        <dicom:uid>urn:cerner:mid:cps.dicom.series:cps_dicom-
ro:7169730606774050900</dicom:uid>
        <dicom:studyUID>urn:cerner:mid:cps.dicom.study:cps_dicom-
ro:7169730606773907334</dicom:studyUID>

        <dicom:seriesInstanceUID>2.16.840.1.113669.632.2.6529916508793187069.1924951626599294367
</dicom:seriesInstanceUID>
        <dicom:instances>
            <dicom:instance>
                <dicom:instanceType>WAVEFORM</dicom:instanceType>
                <dicom:uid>urn:cerner:mid:cps.dicom.instance:cps_dicom-
ro:7169730606803254951</dicom:uid>
                <dicom:objectIdentifier>d2b3137b-2dd7-441a-9aa9-
e47a360caae2</dicom:objectIdentifier>
                <dicom:tenantIdentifier>2e3bfff6-5b5b-4474-9058-
caff792dbefa</dicom:tenantIdentifier>
                <dicom:seriesUID>urn:cerner:mid:cps.dicom.series:cps_dicom-
ro:7169730606774050900</dicom:seriesUID>

                <dicom:sopClassUID>1.2.840.10008.5.1.4.1.1.9.1.1</dicom:sopClassUID>

                <dicom:sopInstanceUID>2.16.840.1.113669.632.2.7489303512934581522.7395507619612034518</
dicom:sopInstanceUID>
            </dicom:instance>
        </dicom:instances>
    </dicom:series>
</dicom:seriesList>
</dicom:study>

```

Data Definitions

Field	Module	DICOM Tag	Notes
UID	Person		System generated unique identifier for the person
sexCode	Person	(0010,0040)	
ethnicGroup	Person	(0010,2160)	
identifier	Person Identifier	(0010,0020)	Identifier of the person

assigningAuthority	Person Identifier	(0010,0021) or (0010,0021)	Assigning authority for the identifier
localAssigningAuthority	Person Identifier	(0010,0021) or (0010,0021)	Assigning authority for the identifier
last	Person Name	(0010,0010)	
first	Person Name	(0010,0010)	
middle	Person Name	(0010,0010)	
prefix	Person Name	(0010,0010)	
suffix	Person Name	(0010,0010)	
tenantIdentifier	Person		Unique identifier for the tenant
beginEffectiveDate	Person		System timestamp when study was last significantly changed
revisionNumber	Person		The current revision number of the person. Is changed every time the row is modified.
socialBirthdate	Person	(0010,0030) and (0010,0032)	This is the person birthdate as a social construct
dateTime	birthdate	(0010,0030) and (0010,0032)	This is the person birthdate as a UTC point in time
precisionFlag	birthdate		This indicates the precision of the date
timezone	birthdate		The time zone that the birthdate was interpreted in
application	context		The last application to modify the person record
authenticatedConsumer	context		the consumer key used to make the last modification
principalName	context		The user principal that made the last update
remoteHost	context		The remote host where the last update came from
systemHost	context		The host where the last modification was received
systemTimestamp	Person		System timestamp when person was last changed at all
	Person		
uid	Study		System generated unique identifier for the study
personUID	patientIdentifier		System generated unique identifier for the person
personIdentifierUID	patientIdentifier		System generated unique identifier for the person identifier
personNameUID	patientIdentifier		System generated unique identifier for the person name
tenantIdentifier	Study		Unique identifier for the tenant
studyInstanceUID	Study	(0020,000D)	
studyIdentifier	Study	(0020,0010)	

dateTime	studyDate	(0008,0020) and (0008,0030)	Date of the study in UTC
precisionFlag	studyDate		This indicates the precision of the date
identifier	accessionNumber	(0008,0050)	
localNamespaceEntityId	issuer	(0040,0031)	
universalEntityId	issuer	(0040,0032)	
universalEntityIdType	issuer	(0040,0033)	
description	Study	(0008,1030)	
statusCode	Study	(0032,000A)	
scheduledStartDate	Study	(0032,1000) and (0032,1001)	
arrivalDate	Study	(0032,1040) and (0032,1041)	
completionDate	Study	(0032,1050) and (0032,1051)	
verifiedDate	Study	(0032,0032) and (0032,0033)	
readDate	Study	(0032,0034) and (0032,0035)	
studyTimeZone	Study		Time zone that the study dates were interpreted in.
placerOrderNumber	Study	(0040,2016)	
fillerOrderNumber	Study	(0040,2017)	
requestedProcedureIdentifier	Study	(0040,1001)	
requestedProcedureDescription	Study	(0032,1060)	
procedurePlacerOrderNumber	Study	(0040,1006)	
procedureFillerOrderNumber	Study	(0040,1007)	
scheduledProcedureStepIdentifier	Study	(0040,0009)	
scheduledProcedureStepDescription	Study	(0040,0007)	
validationStatusCode	Study		Validation status of the study. If a study is validated, this means that it was updated with current demographic data from Millennium. Anything else means that it has not been validated.
customStatus	Study		Not used
locked	Study		Not used
lockConsumerIdentifier	Study		Not used
lockDate	Study		Not used
revisionNumber	Study		The current revision number of the study. Is changed every time the row is modified.
idleIndicator	Study		Study idle means that there has been no activity for the study

			for the past 30 seconds. Busy means that the study was being altered.
origin	Study		Host where the study was announced to
beginEffectiveDate	Study		System timestamp when study was last significantly changed
systemTimestamp	Study		System timestamp when study was last changed at all
admittingDiagnosis	admittingDiagnoses	(0008,1080)	
referringPhysicianName	Study	(0008, 0090)	
physicianOfRecordNames	Study	(0008,1048)	
requestingPhysicianName	Study	(0032,1032)	
readingPhysicianNames	Study	(0008,1060)	
modalitiesInStudy	Study	(0008,0061)	
numberOfSeries	Study	(0020,1206)	
numberOfInstances	Study	(0020,1208)	
uid	Series		System generated unique identifier for the series
studyUID	Series		System generated unique identifier for the study
seriesInstanceUID	Series	(0020, 000E)	
instanceType	Instance		
uid	Instance		System generated unique identifier for the instance
objectIdentifier	Instance		Identifier for the content stored within the storage system
tenantIdentifier	Instance		Unique identifier for the tenant
seriesUID	Instance		System generated unique identifier for the series
sopClassUID	Instance	(0008,0016)	
sopInstanceUID	Instance	(0008,0018)	