## Philips Radiation Oncology Systems Clinical Research and Advanced Development



# Scripting

#### Abstract

The Python scripting plugins embed Python in the research version of LaunchPad and Pinnacle. Python libraries are provided to edit and test Python scripts interacting with either LaunchPad or Pinnacle outside of these applications. These libraries exist for unix, linux and windows and can be used in for instance a Python script editor with debugging and or autocomplete capabilities.

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## 1 Installation

The Python scripting plugins are part of the research Pinnacle distribution. Contact us at pros.crad@philips.com to obtain the latest distribution.

#### 1.1 LaunchPad

To have the scripting tools in LaunchPad you will need to either get the ScriptTree running:

- → Start LaunchPad in research mode by adding a -research to the call to LaunchPad in the StartPinnacle shell script (last line).
- $\rightarrow$  Push the scripting button in the configure window (last item) in Launchpad

#### 1.2 Windows or linux

Download and install Python version 2.7.2 from their website python.org. The Python modules of Pinnacle can be placed in a folder (for instance scripting) in the subdirectory Lib\site-packages\scripting. Within Python, the module(s) need to be loaded with either from scripting import \*

from scripting import pinnacle or from scripting import launchpad.

A list of available editors for Python can be found on: wiki.python.org/moin/PythonEditors. The PyScripter editor is what I use on Windows.

## 2 Utilization

The Python scripting tools consist of and can be used with:

- → A Python scripting interface window in Pinnacle, see Fig 1. To open the Python scripting window in either LaunchPad or Pinnacle, run as Pinnacle script command: WindowList.PythonScripting.Create = "";
- $\rightarrow$  The script tree script manager. The script tree script manager can execute both Pinnacle and python scripts. The correct interpreter is selected based on the file extension.
- $\rightarrow$  Standalone modules that allow to edit and verify the scripts.

One can run a Python command via a Pinnacle script command if needed: PluginManager.ScriptingPlugin.DoPythonCommand = "print('Hello world')"; The scripttree (Hotscript replacement) plugin and window allow to arrange scripts in a tree structure. The scripttree also automatically recognizes by file extention Pinnacle and Python scripts. It can execute both. The result of a Python script will be shown in the Python scripting window. Examples of python scripts interacting with Launchpad and Pinnacle can be found in: PinnacleStatic/Python/lib/python2.7/site-packages/scripting/looptestLaunchPad.py and PinnacleStatic/Python/lib/python2.7/site-packages/scripting/looptestPinnacle.py The following folders are by default added to the search path of the Python interpreter in Launch-Pad and Pinnacle:

- $\rightarrow \ \texttt{PinnacleStatic/Python}$
- ightarrow \$HOME/Scripts

#### 2.1 Pinnacle messages

Although most of the Pinnacle objects and messages are included, not all function call messages are available though. Therefore all Pinnacle objects in Python have functions to use Pinnacle messaging:

**bool queryBool(Script)** Query a boolean value using the message *Script*.

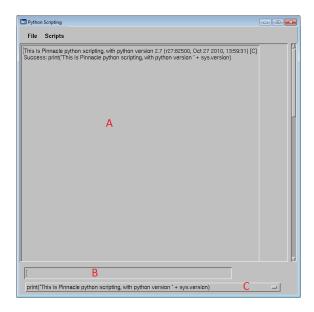


Figure 1: Window with Python interface. Top part (A) shows the output of the Python interpreter. The text widget (B) allows to enter commands to the interpreter. The drop down (C) contains a history of the previously entered commands.

int queryInt(Script) Query an integer value using the message Script.

float queryFloat(Script) Query a float value using the message Script.

**double queryDouble(Script)** Query a double value using the message *Script*.

string queryString(Script) Query a string value using the message Script.

string[] queryVectorString(Script) Query an array of strings using the message Script.

bool setBool(Script, Value) Set a boolean value Value using the message Script.

bool setInt(Script, Value) Set an integer value Value using the message Script.

bool setFloat(Script, Value) Set a float value Value using the message Script.

bool setDouble(Script, Value) Set a double value Value using the message Script.

bool setString(Script, Value) Set a string value Value using the message Script.

bool setVectorString(Script, Value) Set an array of strings Value using the message Script.

## 2.2 Observers

Observers or dependencies use the mechanism of Pinnacle to get signalled when a property of an object in Pinnacle changes. These observers are specific to a type of object and message combination. The Python modules of Launchpad and Pinnacle allow to:

addObserver(Name, Message, Module, Function) Create an observer named *Name* that is triggered whenever message *Message* is used in Launchpad or Pinnacle. The Python function named *Function* is called in the module *Module*. Argument *Module* may be an empty string, in which case the function is expected to be already defined - in the main module.

**removeObserver(Name)** Remove an observer named *Name* from the object.

getObservers() Get a list of names of existing (Python scripting) observers of that object.

getMessages() Get a list of messages of the object that can be used to attach an observer to. The callback function used in Python will get one parameter. That parameter contains the complete Pinnacle message referring to that message.

## 2.3 Automatic handling of prompts

To allow to run scripts autonomously, a new mechanism is provided by the python plugin to capture prompts in LaunchPad and Pinnacle.

The automatic capturing can be switched on by the following Pinnacle command:

PluginManager.ScriptingPlugin.AutoHandleMessages = 1;

The default module used to handle the prompts is *autoHandleMessages*. The module name used can be changed with the Pinnacle command:

PluginManager.ScriptingPlugin.AutoHandlePythonModule = ...;

The default module that handles the messages can be found in PinnacleStatic/Python folder and contains something like:

```
if 'pinnacle' not in globals():
    print("Loading pinnacle from scripting module")
    from scripting import pinnacle

def askYesNo(message, default):
    print('askYesNo in Python: ' + message)
    result = default

    if message == "End planning session. Are you sure?":
        result = 1

    return result

def askGeneralQuestion(message):
    print('askGeneralQuestion in Python: ' + message)
    return 1

def handleMessage(message):
    print('handleMessage in Python: ' + message)
    return 1
```

## 3 Development

### 3.1 Compilation Python packages

The Python binaries and libraries are in PinnacleStatic\Python. Some additional Python modules are already compiled and included:

- 1. Python Imaging Library
- 2. NumPy and SciPy
- 3. Reportlab pdf generation
- 4. PyDICOM dicom read, modify and write
- 5. Sphinx documentation generator
- 6. Django web server

#### 7. PyQt4 - user interfaces with Qt

To compile Python modules, the following environment variables are needed:

```
CC=/opt/SUNWspro/bin/cc
CXX=/opt/SUNWspro/bin/CC
LDFLAGS="-xarch=amd64 -KPIC -L/usr/lib/amd64 -L/opt/sfw/ncurses-5.7/lib
-L/opt/sfw/lib/amd64 -L/opt/sfw/lib"
CFLAGS="-xarch=amd64 -KPIC -I/opt/sfw/ncurses-5.7/include/ncurses
-I/opt/sfw/ncurses-5.7/include -I/opt/sfw/include"
CPPFLAGS="-xarch=amd64 -KPIC -I/opt/sfw/ncurses-5.7/include/ncurses
-I/opt/sfw/ncurses-5.7/include -I/opt/sfw/include"
```

Please note that the SunStudio compiler limits the (Python) modules that can be compiled.

### 3.2 User interfacing with Qt

Qt, qt.nokia.com/, is a cross platform application and UI framework. All the libraries necessary to run Qt applications are part of the research distribution of Pinnacle. The files needed to develop Qt applications are available. Qt applications can be used either in Python scripts using the PyQt4 library or in plugins.

The message handler of LaunchPad and Pinnacle need to get message requests from the same thread. An example of how to combine the Pinnacle message handler with a Qt application is the adapted PyQt4 demo script:

PinnacleStatic/Python/application.py

## 4 Objects

## 4.1 Objects in launchpad

#### Document

- $\rightarrow~\mathbf{Actual Paper Size}$  query and set of type Enumerated List with labels
- → AddDocGraphic set of type action
- ightarrow AddDocString set of type action
- $\rightarrow$  AddEncapsulatedPS set of type action
- $\rightarrow$   ${\bf ColorNotClinical}$  query and set of type bool
- → CorrectionXScaleFactor query of type action
- → CorrectionYScaleFactor query of type action
- $\rightarrow$  **DebugInfo** set of type action
- $\rightarrow$   $\mathbf{ExpectedPaperSize}$  query and set of type EnumeratedList with labels
- → LoadPaperSizesFromFile set of type action
- $\rightarrow$  Margin query of type action
- → MarginInInches set of type action
- $\rightarrow \ \mathbf{OutputPostscriptToFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → **PSCreationDate** query and set of type ObjString
- $\rightarrow$  **PSCreator** query and set of type ObjString
- $\rightarrow$  **PSFor** query and set of type ObjString
- $\rightarrow$  **PSTitle** query and set of type ObjString
- → PageHeight query of type action
- → PageMargin query of type action
- → PageOrientation query and set of type EnumeratedList with labels
- → PageWidth query of type action
- $\rightarrow$  PageXScaleFactor query and set of type float
- $\rightarrow$  PageYScaleFactor query and set of type float
- $\rightarrow$  **PaperSizeList** list of type PaperSize
- $\rightarrow$  **PixelsFromInches** query of type action
- $\rightarrow$  PlanNotClinical query and set of type bool
- $\rightarrow$  Rotation query and set of type int
- $\rightarrow$  Stream set of type action

#### Float

- $\rightarrow~\mathbf{Absolute}$  query and set of type action
- $\rightarrow \ \mathbf{Add} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Divide}$  set of type action
- $\rightarrow~\mathbf{Invert}$  set of type action
- $\rightarrow~\mathbf{Multiply}$  set of type action
- $\rightarrow$  **Negate** set of type action
- $\rightarrow$  **Nint** query and set of type action
- $\rightarrow~\mathbf{Round}$  query and set of type action
- $\rightarrow~{\bf Square}$  set of type action
- $\rightarrow \ \mathbf{SquareRoot} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Subtract} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~$  Value query and set of type float

#### ImageSet

- → AtlasFileList query of type action
- $\rightarrow~ {\bf BeginMessageBatch}$  query and set of type bool
- ightarrow **DBName** query of type ObjString set of type action
- → DBNameHasChanged query and set of type bool
- $\rightarrow$  **Description** query of type action
- $\rightarrow$  EndMessageBatch query and set of type bool
- → ExamID query and set of type ObjString
- → FileName query and set of type ObjString
- → FormattedDescription query of type action
- → FormattedDescriptionWithFileName query of type action
- → ImageIsLocked query of type action
- → ImageName query and set of type ObjString
- $\rightarrow$  ImageSetID query and set of type int
- → ImageSetPatientPosition query of type action
- $\rightarrow$  ImageSetZStart query of type action
- → Import query and set of type bool
- $\rightarrow \ \mathbf{IndexedFormattedDescription} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  IsCTImageSet query and set of type bool
- → **IsSegmented** query of type action
- $\rightarrow$  LoadImageSet set of type action
- $\rightarrow$  MRN query and set of type ObjString
- $\rightarrow$  Modality query and set of type ObjString
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  NameFromScanner query and set of type ObjString
- ightarrow NumberOfImages query and set of type int
- $\rightarrow$  **OriginalIndex** query of type action
- $\rightarrow~\mathbf{ParentObject}$  query and set of type pointer
- $\rightarrow$  PatientID query and set of type int
- → PatientObject query and set of type pointer
- $\rightarrow$  SaveImageSet set of type action
- $\rightarrow$  **ScanTime** subobject of type Time
- → ScanTimeFromScanner query and set of type ObjString
- $\rightarrow~\mathbf{SeriesDescription}$  query and set of type <code>ObjString</code>
- → ShortDescription query of type action
- $\rightarrow$  **StudyID** query and set of type ObjString

#### Institution

- → AddMountPoint set of type action
- → AtlasFile query and set of type ObjString
- → BackupDescription query and set of type ObjString
- ightarrow BackupDeviceType query and set of type EnumeratedList with labels
- → BackupDeviceTypeList query and set of type StringList
- → BackupFileName query and set of type ObjString
- → BackupID query and set of type int
- → BackupIndexFileName query and set of type ObjString
- → BackupIsotopeList list of type BackupMachine
- $\rightarrow \ \mathbf{BackupIsotopeListNonCommissioned} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{BackupMachine}$
- → BackupMachineList list of type BackupMachine
- → BackupMachineListNonCommissioned list of type BackupMachine
- → BackupTimeStamp query and set of type ObjString
- → BackupVolume query and set of type ObjString
- $\rightarrow$  **BeginMessageBatch** query and set of type bool
- $\rightarrow$  ChangedThisSession query and set of type bool
- → City query and set of type ObjString
- → Country query and set of type ObjString
- → **DefaultMountPoint** guery and set of type ObjString
- → **DeleteMountPoint** set of type action
- $\rightarrow$  **Description** query of type action
- $\rightarrow~\mathbf{DeviceSpaceRequiredAtlas}$  query and set of type float
- → DeviceSpaceRequiredOrganModels query and set of type float
- $\rightarrow~\mathbf{DeviceSpaceRequiredPatients}$  query and set of type float
- → DeviceSpaceRequiredPhysics query and set of type float
- → DeviceSpaceRequiredScripts query and set of type float
- → **DisplayLockMessage** set of type action
- $\rightarrow~\mathbf{DynamicRebuild}$  query and set of type bool
- → EndMessageBatch set of type action
- → FullFileNameIncluded query and set of type bool
- → GetBackupIndexFileName query of type action
- → IncludeAllPatients query and set of type bool
- → IncludePhysicsData query and set of type bool
- → InstitutionID query and set of type int
- → InstitutionPath query and set of type ObjString
- → InstitutionTimeStamp query and set of type ObjString
- → InstitutionUnlocked query of type action
- → IntegrityCheck query and set of type bool
- → IsAtlasBackup query of type action
- $\rightarrow$  IsOrganModelsBackup query of type action
- $\rightarrow$  IsPatientBackup query and set of type bool

- → IsPhysicsMachinesBackup query and set of type bool
- → IsScriptsBackup query of type action
- $\rightarrow$  IsSolarisFormat query and set of type bool
- → LastModifiedTimeStamp query of type action
- $\rightarrow$  ListType query and set of type EnumeratedList with labels
- $\rightarrow$  ListTypeList query and set of type StringList
- → LoadCurrentPatient set of type action
- → LoadCurrentPatientFromDB set of type action
- → LoadCurrentPatientWithoutWarning set of type action
- → LoadInstitution set of type action
- → LoadPatientForReview set of type action
- → LockInstitution set of type action
- → MachineDBModified query and set of type bool
- $\rightarrow$  MachinesInV7Format query and set of type bool
- → MaxPatientID query of type action
- → MaxPatientTimeStamp query and set of type ObjString
- → MountPointIsEmpty query of type action
- $\rightarrow \ \mathbf{MountPointList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{SimpleString}$
- → Name query and set of type ObjString
- → **ObjectVersion** subobject of type ObjectVersion
- → OrganModelsDir query and set of type ObjString
- → PatientListWithSize query of type action
- $\rightarrow$  PatientLiteList list of type PatientLite
- → PatientReviewDescription query and set of type ObjString
- → PinnInstitutionPath query and set of type ObjString
- → RemoveAllPatientsAndMachines set of type action
- → RestoreDescription query of type action
- → SaveInstitution set of type action
- $\rightarrow~\mathbf{ScriptsDir}$  query and set of type ObjString
- $\rightarrow$  **SelectedMachineDirList** list of type SimpleString
- → **Session** query and set of type ObjString
- → SetBackupIsotopeList set of type action
- $\rightarrow \ \mathbf{SetBackupIsotopeListNonCommissioned} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- ightarrow SetBackupMachineList set of type action
- → SetBackupMachineListNonCommissioned set of type action
- ightarrow **SetPatientDirectorySize** set of type action
- → SortFields query and set of type EnumeratedList with labels
- $\rightarrow$  SortFieldsList query and set of type StringList
- → SortPatientList set of type action
- → **State** query and set of type ObjString
- → StreetAddress query and set of type ObjString
- → StreetAddress2 query and set of type ObjString

- $\rightarrow~\mathbf{UnlockInstitution}$  set of type action
- $\rightarrow \ \mathbf{UpdateAtlasSpaceRequired} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdateOrganModelsSpaceRequired} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{UpdatePatientSpaceRequired} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdatePhysicsSpaceRequired} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdateScriptsSpaceRequired} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~{\bf ZipCode}$  query and set of type ObjString

### ObjectList

- $\rightarrow$  \* query and set of type action
- $\rightarrow$  **Add** set of type action
- → AddByStringList set of type action
- ightarrow AddChildren set of type action
- → CaseSensitiveNames query and set of type bool
- → ChildClassName query and set of type action
- → ChildClassNameAlias query and set of type ObjString
- → ChildNameFormat query of type ObjString
- → Children query and set of type action
- → ChildrenEachCurrent set of type action
- → ChildrenReverseOrder set of type action
- → Class query and set of type action
- → ContainerObject query and set of type pointer
- → ContainsObject query of type action
- $\rightarrow$  **Copy** set of type action
- → Count query of type action
- $\rightarrow$  CreateChild set of type action
- → CreateChildIfEmpty set of type action
- → CreateChildMakeCurrent set of type action
- $\rightarrow$  CreateChildren set of type action
- → Current query and set of type action
- ightarrow CurrentByAttribute set of type action
- $\rightarrow$  CurrentIndex query and set of type action
- ightarrow CurrentIndexPlusOne query of type action
- → CurrentObjectPointer query of type action
- $\rightarrow$  **DestroyAllChildren** set of type action
- → First query and set of type action
- $\rightarrow$  **GrabNextObject** query of type action
- $\rightarrow$  HasElements query of type action
- → HasMatchingObjects query of type action
- → HasMultipleElements query of type action
- → HasNoElements query of type action
- → Last query and set of type action
- → LastObjectPointer query of type action
- $\rightarrow$  MakeNextCurrent set of type action
- → MakePreviousCurrent set of type action
- → ModificationDependency query and set of type
- → Name query and set of type ObjString
- → NextChildName query of type action
- $\rightarrow$  **NextCurrent** set of type action
- → NumColumns query and set of type action

- $\rightarrow$  **NumRows** query and set of type action
- $\rightarrow~\mathbf{NumberOfPoints}$  query and set of type action
- $\rightarrow~\mathbf{PersistenceList}$  query and set of type action
- $\rightarrow$  **Remove** set of type action
- ightarrow RemoveAllObjects set of type action
- $\rightarrow \ \mathbf{RemoveByStringList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RemoveDuplicateObjects} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RenumberChildren} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{SortBy}$  set of type action
- $\rightarrow~$  Value query and set of type action
- $\rightarrow$  X query and set of type action
- $\rightarrow~\mathbf{Y}$  query and set of type action

## **ObjectVersion**

- $\rightarrow~ {\bf BeginMessageBatch}$  query and set of type bool
- $\rightarrow~\mathbf{CreateTimeStamp}$  query and set of type ObjString
- $\rightarrow$  CreateVersion query and set of type ObjString
- $\rightarrow$  IsCreateVersionUnknown query of type action
- ightarrow IsWriteVersionUnknown query of type action
- $\rightarrow~\mathbf{LastModifiedTimeStamp}$  query and set of type ObjString
- $\rightarrow$  **LoginName** query and set of type ObjString
- $\rightarrow \ \mathbf{SetVersionsToUnknown} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{TimeStamp}$  query and set of type ObjString
- $\rightarrow \ \mathbf{UpdateAndReturnWriteVersion} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  WasIFiledIn query and set of type bool
- → WriteTimeStamp query and set of type ObjString
- $\rightarrow$  WriteVersion query and set of type ObjString

## PaperSize

- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{XSize}$  query and set of type int
- $\rightarrow~\mathbf{YSize}$  query and set of type int

#### Patient

- → AddImageSet set of type action
- → AddImageSetToConcatList set of type action
- → AddImageSetWithHeader set of type action
- → AddPlan set of type action
- $\rightarrow$  AllTrials query and set of type bool
- → Anatomy query and set of type action
- → AnatomyList query of type action
- → AtlasProcessInfoList list of type AtlasProcessInfo
- → AttendingPhysician query of type ObjString set of type action
- $\rightarrow$  **BeginMessageBatch** query and set of type bool
- → ChangedThisSession query and set of type bool
- → Comment query and set of type ObjString
- → CopyPlan set of type action
- → CopyPlanDescription query and set of type ObjString
- $\rightarrow$  CopyPlanImageIsNone query and set of type bool
- $\rightarrow$  CopyPlanImageList query and set of type
- → CopyPlanToNewImage set of type action
- → CopyWithoutDose set of type action
- $\rightarrow \ \mathbf{CreateImageSetConcatOrderTempFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{DOB}$  subobject of type DOB
- $\rightarrow$  **DateOfBirth** query and set of type ObjString
- $\rightarrow$  **DeformROIs** query and set of type bool
- $\rightarrow$  **DeleteImageSet** set of type action
- $\rightarrow$  **DeletePlan** set of type action
- $\rightarrow$  **Description** query of type action
- ightarrow **DescriptionChanged** query and set of type bool
- → **Diagnosis** query and set of type ObjString
- $\rightarrow$  **DirSize** query and set of type float
- → **Disease** query and set of type ObjString
- → **DisplayLockMessage** set of type action
- → EditPatient query and set of type bool
- $\rightarrow$  **EditPlan** query and set of type bool
- → EncounterNumber query of type ObjString set of type action
- → EndMessageBatch query of type bool set of type action
- → FirstName query of type ObjString set of type action
- → FullName query of type action
- → Gender query and set of type EnumeratedList with labels
- → GenderList query and set of type StringList
- → HasImageSetsWithSameDescription query of type action
- $\rightarrow$  HasLockedPlans query of type action
- → ImageSetConcatList list of type ImageSet

- $\rightarrow$  ImageSetList list of type ImageSet
- $\rightarrow$  InstitutionID query and set of type int
- → InstitutionObject query and set of type pointer
- $\rightarrow$  IntegrityCheck query and set of type bool
- $\rightarrow~\mathbf{IsAlgorithmTypeSFBR}$  query and set of type bool
- $\rightarrow$   $\mathbf{IsIntensityDIRTypeBSpline}$  query and set of type bool
- → IsLocked query of type action
- → LastModifiedTimeStamp query and set of type ObjString
- → LastName query of type ObjString set of type action
- $\rightarrow$  LockPatient set of type action
- → LockPatientExtended set of type action
- → MaxPlanTimeStamp query and set of type ObjString
- $\rightarrow$   $\bf MedicalRecordNumber$  query of type ObjString set of type action
- → MiddleName query of type ObjString set of type action
- → Name query of type ObjString set of type action
- → NextUniqueImageSetID query and set of type int
- → NextUniquePlanID query and set of type int
- ightarrow **ObjectVersion** subobject of type ObjectVersion
- → Oncologist query of type ObjString set of type action
- → ParseDOB set of type action
- → PatientID query and set of type int
- → PatientPath query and set of type ObjString
- $\rightarrow$  PatientPlanTreeList query of type action
- $\rightarrow$  **PatientUnlocked** query of type action
- $\rightarrow$  **PlanList** list of type Plan
- $\rightarrow$  PlanSelectionUpdate set of type action
- $\rightarrow~\mathbf{Prescription}$  query and set of type ObjString
- $\rightarrow$  **PrimaryIsNone** query and set of type bool
- ightarrow **PrimaryPhysician** query of type ObjString set of type action
- $\rightarrow~\mathbf{RadiationOncologist}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{Radiologist}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{ReferringPhysician}$  query of type ObjString set of type action
- $\rightarrow$  RefreshPlanListTree set of type action
- $\rightarrow \ \mathbf{RemoveImageWithSelectedIndexFromConcatList} \ \operatorname{set} \ \operatorname{of} \ \operatorname{type} \ \operatorname{action}$
- $\rightarrow$  SavePatient set of type action
- $\rightarrow \ \mathbf{SetCopyPlanImageIsNone} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{SetCopyPlanImageList} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{SetPrimaryIsNone} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → SimpleLockFile subobject of type SimpleLockFile
- → SynchPatient set of type action
- → UnlockPatient set of type action
- → UnlockedAndNoImageSetsWithSameDescription query of type action

- $\rightarrow \ \mathbf{UpdateDOB} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdatePatientSpaceRequired} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

#### **PatientDB**

- → AddAllFusionImageSets set of type action
- → AddHeaderInfoToIndex query and set of type bool
- → AddInstitution set of type action
- $\rightarrow$  AddPatient set of type action
- $\rightarrow$  AddPatientNoLock set of type action
- → AddTempPrimaryImageList set of type action
- $\rightarrow~\mathbf{AppVersion}$  query and set of type ObjString
- $\rightarrow$  **AppVersionAndRevision** query and set of type ObjString
- → AskYesNo query of type action
- $\rightarrow$  **AskYesNoDefault** query and set of type int
- → **AskYesNoPrompt** query and set of type ObjString
- → AtJobHost query and set of type ObjString
- → AtJobId query and set of type ObjString
- → AtlasHostKey subobject of type LicenseKey
- → AtlasPreferences subobject of type AtlasPreferences
- $\rightarrow \ \mathbf{AtlasSegmentationManager} \ \mathrm{subobject} \ \mathrm{of} \ \mathrm{type} \ \mathrm{AtlasSegMgr}$
- $\rightarrow$   $\,$  Atlases query and set of type action
- → BackupCompressed query and set of type bool
- $\rightarrow$  BackupCurrentState set of type action
- → BackupDay query and set of type action
- $\rightarrow~\mathbf{BackupDebugOutputEnabled}$  query and set of type bool
- $\rightarrow~\mathbf{BackupFileList}$  subobject of type FileList
- ightarrow BackupIODeviceList list of type IODevice
- $\rightarrow~\mathbf{BackupIndexList}$  query of type action
- $\rightarrow~\mathbf{BackupIndexPath}$  query and set of type ObjString
- $\rightarrow$   ${\bf BackupIndexSortType}$  query and set of type EnumeratedList with labels
- $\rightarrow$   ${\bf BackupIndexSortTypeList}$  query and set of type StringList
- $\rightarrow$  **BackupInit** set of type action
- → BackupInstitutionList list of type Institution
- → BackupMonth query and set of type action
- → BackupRestoreDest query and set of type EnumeratedList with labels
- $\rightarrow$  BackupRestoreDestList query and set of type StringList
- → BackupSelected set of type action
- $\rightarrow$  BackupSpaceThreshold query and set of type float
- → BackupTime query and set of type action
- → BackupTimeForPrint query and set of type ObjString
- → BackupTimeList query of type action
- → BackupVolumeNameList list of type SimpleString
- → BeginMessageBatch query and set of type bool
- $\rightarrow$  **BinArchitectureDirectory** query and set of type ObjString
- → CancelUnattendedBackup set of type action

- $\rightarrow$  ChangedThisSession query and set of type bool
- → CheckAdaptiveLicense set of type action
- → CheckIfUnattendedBackupExists set of type action
- → CheckPassword set of type action
- → ClearBackupIndex set of type action
- ightarrow ClearSelectedBackupInstitutionList set of type action
- ightarrow ClearSelectedRestoreInstitutionList set of type action
- → ColorList list of type SimpleString
- → ColorPrinterControl subobject of type PrinterControl
- → CombineSplitImages set of type action
- → CopyHotScriptsToBackupDir set of type action
- → CopyToPhantom set of type action
- → CreateBackupInstitutionList set of type action
- $\rightarrow$  CreateNewInstitution query and set of type bool
- → CreateSelectedBackupInstitutionList set of type action
- $\rightarrow$  CreateSelectedRestoreInstitutionList set of type action
- → **DBCheckList** query and set of type ObjString
- → **DebugEnabled** query and set of type bool
- → **DefaultBackupIODevice** query and set of type ObjString
- → **DefaultBackupVolume** set of type action
- → **DefaultInstitution** query and set of type ObjString
- → **DefaultPinnacleVersion** query of type action
- $\rightarrow$  **DefaultReport** subobject of type PinnReport
- $\rightarrow$  **DefaultUnattendedBackupDate** set of type action
- $\rightarrow$  **Delete4DImageSets** set of type action
- ightarrow **DeleteBackupVolumeNameDB** set of type action
- → **DeleteDICOMImageSet** set of type action
- → DeleteEmptyImageSet set of type action
- $\rightarrow$  **DeleteFilesFromIndex** query and set of type bool
- $\rightarrow \ \mathbf{DeleteFromSelectedBackupInstitutionList} \ \operatorname{set} \ \operatorname{of} \ \operatorname{type} \ \operatorname{action}$
- $\rightarrow \ \mathbf{DeleteFromSelectedRestoreInstitutionList} \ \operatorname{set} \ \operatorname{of} \ \operatorname{type} \ \operatorname{action}$
- → DeleteImageSet set of type action
- ightarrow **DeleteInstitution** set of type action
- $\rightarrow \ \mathbf{DeleteInstitutionNoWarning} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **DeletePatient** set of type action
- $\rightarrow$  **DeletePhantomImageSet** set of type action
- ightarrow **DeviceSpaceRequiredAtlas** query and set of type float
- $\rightarrow~\mathbf{DeviceSpaceRequiredOrganModels}$  query and set of type float
- $\rightarrow~\mathbf{DeviceSpaceRequiredScripts}$  query and set of type float
- $\rightarrow~\mathbf{DeviceSpaceRequiredTotal}$  query and set of type float
- → **DiskHighWaterMark** query and set of type int
- → DisplayLockMessage set of type action

- $\rightarrow$  **DyeKom** subobject of type DyeKom
- $\rightarrow$  **EjectCD** set of type action
- $\rightarrow$  EndMessageBatch query and set of type bool
- $\rightarrow$  **EraseCD** set of type action
- $\rightarrow$  **ExcludeAutoSavedBinary** query and set of type bool
- $\rightarrow$  **Exit** set of type action
- → ExportImages set of type action
- $\rightarrow$  **FileList** subobject of type FileList
- $\rightarrow$  ForceDBSync query and set of type bool
- → FreeDiskSpace query of type action
- $\rightarrow$  GenerateAllHTMLInstitutionFiles set of type action
- $\rightarrow$  GenerateHTMLIndex query and set of type bool
- $\rightarrow$  **GenerateIndex** set of type action
- → GeneratePatientHTMLFile set of type action
- → GeoScannerErrorList list of type SimpleString
- $\rightarrow$  GeoScannerList list of type Scanner
- → GetBackupIndexFileName query of type action
- $\rightarrow$  **GetBestMountPoint** query of type action
- $\rightarrow$  **GetHeaderInfo** set of type action
- → GetPhantomHeaderInfo set of type action
- → ImageFileList subobject of type FileList
- → ImportDemog query and set of type bool
- $\rightarrow$  ImportImages set of type action
- $\rightarrow$  ImportImagesAndAddPlan query and set of type bool
- $\rightarrow$  InfoMessage set of type action
- $\rightarrow$  InitScript query and set of type ObjString
- $\rightarrow$  InitScriptPinn query and set of type ObjString
- $\rightarrow$   $\bf InstMaxTimeStamp$  query and set of type ObjString
- $\rightarrow$  Institution query and set of type ObjString
- $\rightarrow \ \mathbf{InstitutionBackup}$  subobject of type Institution
- $\rightarrow~\mathbf{InstitutionFileList}$  subobject of type FileList
- $\rightarrow$  InstitutionList list of type Institution
- $\rightarrow \ \mathbf{InstitutionOrPatientUnlocked} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{InstitutionUnlockedinRestore}$  query of type action
- $\rightarrow~\mathbf{IntegrityCheck}$  query and set of type bool
- $\rightarrow~\mathbf{IsArchiveDir}$  query of type action
- $\rightarrow~\mathbf{IsCDWriter}$  query of type action
- ightarrow IsDICOMImport query of type action
- → IsOkForAdaptive query of type bool
- → IsOkForAtlas query of type bool
- $\rightarrow$  IsResearchMode query and set of type bool
- → IsRestrictedMode query and set of type bool

- → **IsTape** query of type action
- $\rightarrow$  KeepDiskOpen query and set of type bool
- → LPPassword subobject of type Password
- → LPPasswordFileName query and set of type ObjString
- → LPSitePath query and set of type ObjString
- $\rightarrow$  **LPStaticPath** query and set of type ObjString
- $\rightarrow$   $\mathbf{LastModifiedTimeStamp}$  query and set of type ObjString
- → LaunchPrinterSelection set of type action
- → LicenseControl subobject of type LicenseControl
- → List4DImageSets set of type action
- → ListPETImageSets set of type action
- → LoadAtlasPreferences set of type action
- $\rightarrow \ \mathbf{LoadFusionImageList} \ \operatorname{set} \ \operatorname{of} \ \operatorname{type} \ \operatorname{action}$
- $\rightarrow$  LoadGeoScannerDB set of type action
- → LoadIODeviceDB set of type action
- → LoadInstitutionList set of type action
- → LoadPatientDB set of type action
- ightarrow LoadRestoreInstitutionList set of type action
- → LoadScannerDB set of type action
- → LoadVersionDB set of type action
- → LocatePatient set of type action
- → LockPatientDB set of type action
- $\rightarrow$  MaxAgeOfBackupInstitutionFiles query and set of type int
- → ModifiedScriptsList query and set of type ObjString
- ightarrow NeedFilmScannerParameters query and set of type bool
- $\rightarrow$  **NextUniqueBackupID** query and set of type int
- $\rightarrow~\mathbf{NextUniqueInstitutionID}$  query and set of type int
- $\rightarrow$  **NextUniquePatientID** query and set of type int
- $\rightarrow$  NoPlanningTool query and set of type bool
- ightarrow NumBackupInstitutionFiles query and set of type int
- → NumPlans query of type action
- ightarrow OkToScheduleUnattended set of type action
- $\rightarrow~\mathbf{OrganModels}$  query and set of type action
- $\rightarrow~\mathbf{PasswordEntered}$  query and set of type bool
- $\rightarrow$  **PatientDBList** query of type action
- $\rightarrow$  PatientDBSyncTimeout query of type float set of type action
- $\rightarrow$  PatientDBUnlocked query of type action
- → PatientName query and set of type ObjString
- → PatientReviewMode query and set of type bool
- ightarrow PhantomFileList subobject of type FileList
- → PhantomFilename query and set of type action
- → PhantomFilenameExists query of type action

- → PhysicsLockFile subobject of type SimpleLockFile
- → PinnInstEnvVar query and set of type ObjString
- → PinnSitePath query and set of type ObjString
- $\rightarrow$  **PinnStaticPath** query and set of type ObjString
- → PinnacleVersionList list of type PinnacleVersion
- $\rightarrow$  **PluginDirectory** query and set of type ObjString
- → PluginManager subobject of type PluginManager
- → PluginManagerIsInitialized query and set of type bool
- → **PrintBackupReport** set of type action
- → PrintLicenseReport set of type action
- $\rightarrow$  **PrintReport** query and set of type bool
- → **PrinterControl** subobject of type PrinterControl
- $\rightarrow~\mathbf{ProgLongName}$  query and set of type ObjString
- → **ProgShortName** query and set of type ObjString
- → **ProgVersion** query and set of type ObjString
- → PublicScriptDirectory query of type ObjString
- → ReadHeaderInfo set of type action
- $\rightarrow$  ReadImageSet set of type action
- → ReadMultipleHeaders query and set of type bool
- $\rightarrow$  ReadOnly query and set of type bool
- → RebuildDatabase set of type action
- $\rightarrow$  RebuildPatientDB set of type action
- $\rightarrow$  RecordAndVerify query and set of type bool
- $\rightarrow$  RecordNumber query and set of type ObjString
- $\rightarrow$  RefreshInstitution set of type action
- $\rightarrow$  RemoveAllFusionImageSets set of type action
- $\rightarrow$  RemoveBlockDBSync set of type action
- $\rightarrow \ \mathbf{RestoreIndexSearch} \ \mathrm{subobject} \ \mathrm{of} \ \mathrm{type} \ \mathrm{Search}$
- $\rightarrow$  **RestoreInit** set of type action
- ightarrow RestoreInstitution set of type action
- ightarrow RestoreInstitutionList list of type Institution
- $\rightarrow$   ${\bf Restore Layout}$  query and set of type Enumerated List with labels
- $\rightarrow$   $\mathbf{RestoreLayoutList}$  query and set of type StringList
- $\rightarrow~\mathbf{RestoreListHasElements}$  query and set of type bool
- $\rightarrow~\mathbf{RestorePhysicsData}$  query and set of type bool
- $\rightarrow \ \mathbf{RestorePreviousState} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RestoreScannerName} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RestoreSelectedBackup} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **RestoreSolarisData** query and set of type bool
- $\rightarrow~\mathbf{RestoreSpaceThreshold}$  query and set of type float
- $\rightarrow~\mathbf{ReviewUponImport}$  query and set of type bool
- → RewindCurrentDevice set of type action

- → SaveIODeviceDB set of type action
- → SaveImageAsPhantom set of type action
- $\rightarrow$  SavePatientDB set of type action
- $\rightarrow$  SaveScannerDB set of type action
- $\rightarrow$  SaveVersionDB set of type action
- → ScanDate query and set of type ObjString
- → ScannerList list of type Scanner
- $\rightarrow$  Script query and set of type action
- $\rightarrow \ \mathbf{Select4DImageSetsForImport} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → SelectPinnacleFile query and set of type bool
- $\rightarrow$  **SelectedBackupInstitutionList** list of type Institution
- $\rightarrow$  **SelectedPatientDBList** query of type action
- $\rightarrow$  **SelectedRestoreInstitutionList** list of type Institution
- $\rightarrow$  **SelectedRestoreList** query of type action
- → SetBackupFileList set of type action
- $\rightarrow$  **SetBlockDBSync** set of type action
- → SetImageToPhantom set of type action
- $\rightarrow$  **SetResetForcedDBSync** set of type action
- → ShowToolTips query and set of type bool
- → SimpleLockFile subobject of type SimpleLockFile
- → SiteName query and set of type ObjString
- $\rightarrow$  SortImageFields query and set of type EnumeratedList with labels
- $\rightarrow$  SortImageFieldsList query and set of type StringList
- → SortPatientImageList set of type action
- $\rightarrow$  **StartAcQSim** set of type action
- → StartCTSim set of type action
- → StartCopyPlan set of type action
- $\rightarrow$  **StartImageEditor** set of type action
- $\rightarrow$  **StartOnLineBackupIndex** set of type action
- $\rightarrow$  StartOnLineManual set of type action
- $\rightarrow$  **StartPhysicianReview** set of type action
- → StartPhysicsTool set of type action
- $\rightarrow$  StartPinnacle set of type action
- $\rightarrow$  StartPreferencesOnly set of type action
- $\rightarrow$  **StartSyntegra** set of type action
- $\rightarrow$  **StartVolumeEditor** set of type action
- → StartVolumeEditorOnImageSetConcatMode set of type action
- $\rightarrow \ \mathbf{StartVolumeEditorOnImportedImage} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → StatusFile query and set of type ObjString
- ightarrow **Store** subobject of type StringKeyDict
- → SynchPatientDB set of type action
- → **SystemScriptDirectory** query of type ObjString

- $\rightarrow~\mathbf{TempPrimaryImageList}$  query and set of type
- $\rightarrow~\mathbf{TempRestoreDir}$  query and set of type action
- $\rightarrow~\mathbf{TempRestoreDirList}$  subobject of type FileList
- $\rightarrow \ \mathbf{TestTarIntegrity} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{TimeOutCallback} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{TotalRestoreSpaceRequired}$  query and set of type float
- $\rightarrow$  **TransferPatient** set of type action
- $\rightarrow~\mathbf{TypeOfBackup}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{TypeOfBackupList}$  query and set of type StringList
- $\rightarrow~\mathbf{UnattendedBackupSet}$  query and set of type bool
- $\rightarrow \ \mathbf{UpdateAvailableDeviceSpace} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdateRequiredRestoreSpace} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  UpdateTotalSpaceRequired set of type action
- $\rightarrow~\mathbf{UseBestMountPoint}$  query and set of type bool
- $\rightarrow~\mathbf{UseImageEditor}$  query and set of type bool
- $\rightarrow$  WarningMessage set of type action
- $\rightarrow$  **WindowList** list of type GeoForm

#### **PatientLite**

- $\rightarrow~\mathbf{DerivedPatientPath}$  query of type action
- $\rightarrow$  **Diagnosis** query of type action
- $\rightarrow$  **DirSize** query and set of type action
- → FirstName query of type action
- $\rightarrow$   ${\bf Formatted Description}$  query of type action set of type ObjString
- $\rightarrow~\mathbf{LastModifiedTimeStamp}$  query of type action
- $\rightarrow$  LastName query of type action
- ightarrow ListTreeFormattedDescription query of type action
- $\rightarrow$  MedicalRecordNumber query of type action
- $\rightarrow$  MiddleName query of type action
- $\rightarrow$   $\mathbf{MountPoint}$  query and set of type ObjString
- $\rightarrow$  Name query of type action
- $\rightarrow$  **Patient** subobject of type Patient
- $\rightarrow$  PatientID query and set of type int
- $\rightarrow~\mathbf{PatientPath}$  query and set of type ObjString
- ightarrow RadiationOncologist query of type action
- $\rightarrow$  **SetPatientAttributes** set of type action

## PinnReport

- ightarrow AddPinnacleFooter set of type action
- $\rightarrow \ \mathbf{AddPinnacleFootersToAllPages} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{AddPinnacleHeader} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{AddPlanFooter} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{AddPlanFootersToAllPages} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  AddPlanHeader set of type action
- $\rightarrow~\mathbf{PrintWaterMark}$  query and set of type bool
- $\rightarrow~\mathbf{ProgramName}$  query and set of type ObjString
- $\rightarrow~\mathbf{Report}$  subobject of type Report
- $\rightarrow~\mathbf{ReportTag}$  query and set of type ObjString

#### **PinnacleVersion**

- $\rightarrow~\mathbf{BackgroundColor}$  subobject of type Color
- $\rightarrow~\mathbf{Description}$  query of type action
- $\rightarrow~\mathbf{ForegroundColor}$  subobject of type Color
- $\rightarrow~\mathbf{IsDefault}$  query and set of type bool
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{PinnacleCommand}$  query and set of type ObjString
- $\rightarrow~\mathbf{PinnacleStatic}$  query and set of type ObjString
- $\rightarrow~\mathbf{PinnacleTool}$  query and set of type ObjString
- $\rightarrow~\mathbf{PinnacleVersion}$  query and set of type ObjString
- $\rightarrow~\mathbf{RAndVCommand}$  query and set of type ObjString
- $\rightarrow$  RAndVEnabled query and set of type bool
- $\rightarrow$  **SaveColors** set of type action

#### Plan

- $\rightarrow$  AddFusionImageSet set of type action
- $\rightarrow$  BeginMessageBatch query and set of type bool
- → CP2IAccessCheck query of type action
- → Comment query and set of type ObjString
- → **Description** query of type action
- → **Dosimetrist** query of type ObjString set of type action
- → EndMessageBatch set of type action
- → FusionIDArray list of type Float
- → FusionImageSetList list of type ImageSet
- $\rightarrow$  IsEditable query of type action
- $\rightarrow$  IsLocked query of type action
- → IsNewPlanPrefix query and set of type bool
- $\rightarrow$  LastModifiedTimeStamp query and set of type ObjString
- → LastSavedTimeString query of type action
- → LockPlan set of type action
- → LockStatus query of type action
- → Name query and set of type ObjString
- → OKForSyntegraInLaunchpad query and set of type bool
- → **ObjectVersion** subobject of type ObjectVersion
- → OverridePrimaryCTImageSetPath set of type action
- $\rightarrow$  **PatientObject** query and set of type pointer
- $\rightarrow~\mathbf{Physicist}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{PinnacleVersionDescription}$  query and set of type ObjString
- $\rightarrow$  PlanHasBeenSaved query of type action
- $\rightarrow$  **PlanID** query and set of type int
- → PlanIsLocked query and set of type bool
- → PlanName query of type ObjString set of type action
- $\rightarrow$  PlanPath query and set of type ObjString
- → PrimaryCTImageSet query and set of type pointer
- → PrimaryCTImageSetID query and set of type action
- → PrimaryCTImageSetPath query and set of type ObjString
- → PrimaryImageType query and set of type action
- → PrimaryImageTypeIndex query and set of type int
- → PrimaryImageTypeList query of type action
- → RemoveFusionImageSet set of type action
- → SavePlan set of type action
- → SecondaryImageSort query and set of type int
- → **SimpleLockFile** subobject of type SimpleLockFile
- → SortBySeries set of type action
- $\rightarrow$  **ToolType** query and set of type action
- → ToolTypeList query and set of type StringList

- $\rightarrow$  **TurnEditable** set of type action
- $\rightarrow \ \mathbf{UpdateDefaultsFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

#### Printer

- $\rightarrow$  **AETitle** query and set of type action
- $\rightarrow$  BorderDensity query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{CanCollate}$  query and set of type bool
- $\rightarrow$  ColorCapable query and set of type EnumeratedList with labels
- → Command query and set of type ObjString
- → ConfigurationString query and set of type ObjString
- $\rightarrow$   $\,$  Destination query and set of type action
- $\rightarrow$   $\mathbf{EmptyDensity}$  query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{FilmSize}$  query and set of type action
- → IsValidPrintMargin query of type action
- $\rightarrow$   $\,$  Magnification query and set of type action
- $\rightarrow~\mathbf{MaxDensity}$  query and set of type int
- $\rightarrow~$  Medium query and set of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{OutputFormat}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{PaperSize}$  query and set of type ObjString
- $\rightarrow~\mathbf{Polarity}$  query and set of type Enumerated List with labels
- $\rightarrow$  **Print** set of type action
- $\rightarrow~\mathbf{PrintMargin}$  query and set of type float
- $\rightarrow~\mathbf{PrintMarginWarning}$  set of type action
- → **PrintMemory** set of type action
- → **Priority** subobject of type SimpleString
- $\rightarrow~\mathbf{SmoothingType}$  query and set of type ObjString
- $\rightarrow$  **TimeOut** query and set of type int
- $\rightarrow$  **Trim** query and set of type bool
- $\rightarrow$  **XFeatureSize** query and set of type
- $\rightarrow$  **YFeatureSize** query and set of type

#### **PrinterControl**

- → CompanionClassPtr query and set of type pointer
- → CompanionObjectPtr query and set of type pointer
- → LoadPrinterList set of type action
- $\rightarrow$  MaxScale query and set of type float
- → PrintConfirmationMessage query and set of type ObjString
- → PrintToFile query and set of type bool
- $\rightarrow$  **PrintToFileFileList** subobject of type FileList
- → **PrintToFilePaperSize** query and set of type ObjString
- $\rightarrow$  **PrinterCommandFileName** query and set of type ObjString
- → **PrinterList** list of type Printer
- → PrinterListFileName query and set of type ObjString
- $\rightarrow~\mathbf{PrinterName}$  query and set of type ObjString
- $\rightarrow$  SavePrinterList set of type action
- → SendToSelectedPrinter set of type action
- → UpdateScaleMethod set of type action
- → ValidateSelectedPrinter set of type action
- $\rightarrow$  WindowDumpFieldWidth query and set of type float
- → WindowDumpHeight query and set of type int
- $\rightarrow~\mathbf{WindowDumpScaleFactor}$  query of type float set of type action
- → WindowDumpScaleMethod query and set of type EnumeratedList with labels
- → WindowDumpSelectionMethod query and set of type EnumeratedList with labels
- → WindowDumpWidth query and set of type int
- → WindowDumpWindowId query and set of type int
- → WindowDumpWindowName query of type action
- → WindowDumpXOffset query and set of type int
- → WindowDumpYOffset query and set of type int
- $\rightarrow$  WriteSelectedPrinterCommandToFile set of type action

### Report

- $\rightarrow~\mathbf{CurrentXPosition}$  query and set of type int
- $\rightarrow$  CurrentYPosition query and set of type int
- $\rightarrow$  **Document** subobject of type Document
- $\rightarrow~\mathbf{HighPageNumber}$  query and set of type int
- $\rightarrow \ \mathbf{NextPage} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  PageNumber query and set of type int
- $\rightarrow~\mathbf{QueryObject}$  query and set of type pointer
- $\rightarrow \ \mathbf{ScaleNextQueryWithMsg} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{TextJustification}$  query and set of type Enumerated List with labels
- $\rightarrow$  **TextPointSize** query and set of type int
- $\rightarrow~\mathbf{TextSizeLimit}$  query and set of type int
- $\rightarrow$  **TextStyle** query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{TextUnderline}$  query and set of type bool
- $\rightarrow~\mathbf{TextXBlockOffset}$  query of type int set of type action
- $\rightarrow~\mathbf{TextYBlockOffset}$  query of type int set of type action

#### Scanner

- $\rightarrow$   $\bf Alternate Scanner Command$  query and set of type ObjString
- $\rightarrow$  **Description** query of type action
- $\rightarrow~\mathbf{ExamList}$ list of type ImageSet
- $\rightarrow$  **IODevice** subobject of type IODevice
- $\rightarrow$   ${\bf Media}$  query and set of type Enumerated List with labels
- $\rightarrow$  MediaList query and set of type StringList
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$   $\bf ScannerCommand$  query and set of type ObjString
- $\rightarrow$   $\mathbf{ScannerCommandArguments}$  query and set of type <code>ObjString</code>
- $\rightarrow$  **ScannerStatic** query and set of type ObjString

## Search

- $\rightarrow~\mathbf{MatchCase}$  query and set of type bool
- $\rightarrow~\mathbf{MatchWholeWord}$  query and set of type bool
- $\rightarrow~\mathbf{SearchListTree}$  set of type action
- $\rightarrow$   $\bf SearchString$  query and set of type ObjString
- $\rightarrow~\mathbf{WidgetToSearch}$  query and set of type <code>ObjString</code>

## SimpleLockFile

- $\rightarrow~\mathbf{BinArchitectureDirectory}$  query and set of type ObjString
- $\rightarrow$  **BinCommonDirectory** query and set of type ObjString
- $\rightarrow$  **FileName** query and set of type ObjString
- $\rightarrow~\mathbf{Host}$  query and set of type ObjString
- $\rightarrow~\mathbf{IsLocked}$  query of type action
- $\rightarrow~\mathbf{IsLockedNoWarning}$  query of type action
- ightarrow IsLockedWithTimeout query of type action
- $\rightarrow$  IsStaleLock query of type action
- $\rightarrow~\mathbf{Lock}$  set of type action
- $\rightarrow~\mathbf{LockMessage}$  query of type action
- $\rightarrow \ \mathbf{NotStaleWithTimeout} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PID}$  query and set of type int
- $\rightarrow$  **Unlock** set of type action
- $\rightarrow~\mathbf{User}$  query and set of type ObjString

# ${\bf Simple String}$

- $\rightarrow \ \mathbf{AppendString} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Contains}$  query of type action
- $\rightarrow \ \mathbf{Execute} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Is}$  query of type action
- $\rightarrow \ \mathbf{IsNull} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  Matches query of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{String}$  query and set of type ObjString
- $\rightarrow~$  Value query and set of type ObjString

# ${\bf String Key Dict}$

- $\rightarrow~\mathbf{At}$  query and set of type action
- $\rightarrow \ \mathbf{DestroyObjectsOnFree} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{FloatAt}$  query and set of type action
- $\rightarrow~\mathbf{FreeAt}$  query and set of type action
- ightarrow ModificationDependency query of type action
- $\rightarrow$  **NumRows** query of type action
- $\rightarrow$  **PersistenceList** query and set of type action
- $\rightarrow~\mathbf{RemoveAt}$  query and set of type action
- $\rightarrow$  RowHeader query of type action
- $\rightarrow~\mathbf{StringAt}$  query and set of type action
- $\rightarrow$  Value query and set of type action

### Time

- $\rightarrow$  **CTime** query of type action
- $\rightarrow~\mathbf{DayLightSavingsTimeInEffect}$  query and set of type action
- $\rightarrow~\mathbf{DayOfMonth}$  query and set of type int
- $\rightarrow~\mathbf{DayOfWeek}$  query and set of type int
- $\rightarrow~\mathbf{DayOfYear}$  query and set of type int
- $\rightarrow~\mathbf{Hours}$  query and set of type int
- $\rightarrow~\mathbf{ISODate}$  query and set of type action
- $\rightarrow~\mathbf{ISODateAndTime}$  query and set of type action
- $\rightarrow~\mathbf{ISODateAndTimeString}$  query and set of type action
- $\rightarrow$   $\,$  Minutes query and set of type int
- $\rightarrow~\mathbf{Month}$  query and set of type action
- $\rightarrow~\mathbf{Seconds}$  query and set of type int
- $\rightarrow~\mathbf{UTC\_ISODateAndTimeString}$  query and set of type action
- $\rightarrow~\mathbf{Year}$  query and set of type action

# 4.2 Objects in pinnacle

# ${f ARRoiExtension}$

- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  **IsFiling** query of type bool

## ARTrialExtension

- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{SelectedToCopy}$  query and set of type bool

# AngioFilm

- $\rightarrow~\mathbf{FiducialPoints}$ list of type Poi
- $\rightarrow$   ${\bf Modification Dependency}$  query of type action

## AngioFrame

- $\rightarrow~\mathbf{AngioFrameValid}$  query and set of type bool
- $\rightarrow$  FrameFiducialHeight query and set of type double
- $\rightarrow~\mathbf{FrameFiducialOriginXCoord}$  query and set of type float
- $\rightarrow$   $\mathbf{FrameFiducialOriginYCoord}$  query and set of type float
- $\rightarrow~\mathbf{FrameFiducialOriginZCoord}$  query and set of type float
- $\rightarrow$  FrameFiducialWidth query and set of type double
- $\rightarrow~\mathbf{FrameOuterAPDistance}$  query and set of type double
- $\rightarrow$  **FrameOuterRLDistance** query and set of type double
- $\rightarrow$   $\mathbf{FrameSideThickness}$  query and set of type double
- $\rightarrow~\mathbf{Units}$  query and set of type Enumerated List with labels

#### AngioLocalizer

- $\rightarrow~\mathbf{APFilm}$  subobject of type AngioFilm
- → **APMagnification** query and set of type double
- $\rightarrow~\mathbf{APSourceToFilm}$  query and set of type double
- $\rightarrow$  **AngioFrame** query and set of type
- $\rightarrow$  **AngioFrameObject** query and set of type pointer
- → CurrentFilm subobject of type AngioFilm
- ightarrow CurrentFilmAndOrientation query of type action
- $\rightarrow \ \mathbf{DigitizerValidAndCurrent} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~$  Distance query and set of type double
- $\rightarrow~\mathbf{Film}$  query and set of type action
- $\rightarrow~\mathbf{FilmAP}$  query and set of type bool
- $\rightarrow$  **FilmList** query of type action
- $\rightarrow~\mathbf{FilmRL}$  query and set of type bool
- $\rightarrow$  **FinishDigitization** set of type action
- $\rightarrow~\mathbf{LRFilm}$ subobject of type Angio Film
- $\rightarrow~\mathbf{LateralMagnification}$  query and set of type double
- $\rightarrow~\mathbf{LateralSourceToFilm}$  query and set of type double
- $\rightarrow~$  Orientation query and set of type action
- $\rightarrow$  **OrientationList** query of type action
- → Reconstruct set of type action
- $\rightarrow~\mathbf{ReconstructedBRWTargetPoints}$  subobject of type Poi
- → ReconstructedTargetPoints subobject of type Poi
- $\rightarrow$  ReconstructionValid query of type action
- $\rightarrow$  **StartDigitization** set of type action

#### AnnotatedCurve

- $\rightarrow$  AddEditPoint set of type action
- → AddPointMakeCurrent set of type action
- → BeginMessageBatch set of type action
- → CloseCurve set of type action
- → ClosedCurveEditing query and set of type bool
- → ColumnFormat query and set of type action
- → ColumnHeader query and set of type action
- → ColumnHeaderNoBroadcast query and set of type action
- → CurrentDimension query and set of type int
- → CurrentPoint query and set of type int
- $\rightarrow$  CurrentPointDependency query of type action
- → CurrentValue query and set of type action
- → Curve subobject of type CurveNd
- → CurveCloseCutoffDistance query and set of type float
- → CurveClosedDependency query of type action
- $\rightarrow$  CurveIsClosed query and set of type bool
- → **DeleteCurrentPoint** set of type action
- → DistanceToReference2d query of type action
- → EditMode query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{EditModeList}$  query and set of type StringList
- $\rightarrow$  **EditingAllowed** query and set of type bool
- ightarrow EditingDependency query of type action
- $\rightarrow$  **Empty** query of type action
- → EndMessageBatch set of type action
- → FinishClosedCurve set of type action
- → IndexClosestToRefWithinCutoff query of type action
- → IndexClosestToReference2d query of type action
- $\rightarrow$  IndexPlusOne query of type action
- → InsertEditPoint set of type action
- → **IsCurrent** query of type action
- → Label query and set of type action
- $\rightarrow$  LabelFormat query and set of type action
- → LabelFormatList list of type SimpleString
- → LabelList list of type SimpleString
- → LabelNoBroadcast query and set of type action
- → MakeNextCurrent set of type action
- → MakePointCurrent set of type action
- → MakePreviousCurrent set of type action
- $\rightarrow$  ModificationDependency query of type action
- $\rightarrow$  NumberOfPoints query and set of type action
- → PointSelectionCutoffDistance query and set of type float

- $\rightarrow~\mathbf{RawData}$  subobject of type CurveNd
- $\rightarrow \ \mathbf{ReferencePoint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RemoveEditPoint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RowHeader query and set of type action
- $\rightarrow~\mathbf{RowHeaderNoBroadcast}$  query and set of type action
- $\rightarrow$  RowLabel query and set of type action
- $\rightarrow$  RowLabelList list of type SimpleString
- $\rightarrow~\mathbf{RowLabelNoBroadcast}$  query and set of type action
- $\rightarrow \ \mathbf{SegmentClosestToRefWithinCutoff} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  **StartClosedCurve** set of type action
- $\rightarrow$  **StartEdit** set of type action
- → StartMoveAllPoints set of type action
- $\rightarrow$  **StartStretch** set of type action
- $\rightarrow$  **TrackEdit** set of type action
- → TrackMoveAllPoints set of type action
- $\rightarrow$  **TrackStretch** set of type action
- → Value query and set of type action
- $\rightarrow~{\bf Value No Broadcast}$  query and set of type action

### AutoReplan

- $\rightarrow~\mathbf{ARRoiExtensionList}$ list of type ARRoiExtension
- → **ARTrialExtensionList** list of type ARTrialExtension
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  Cancel set of type action
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{ConfirmRegistrationState}$  query and set of type bool
- $\rightarrow$  CopyPlan set of type action
- $\rightarrow~\mathbf{DestinationImage}$  query and set of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow \ \mathbf{LoadPersistentData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **PluginName** query of type string
- $\rightarrow$  **PropagateSelectedROIs** set of type action
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow~\mathbf{SavePersistentData}$  query of type int
- $\rightarrow \ \mathbf{SetupPlanCopyOptions} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### Beam

- → ActualLocalizer query and set of type
- → ActualLocalizerName query and set of type action
- → AddBevWindowId set of type action
- → AddBrvWindowId set of type action
- $\rightarrow$  **AddModifier** set of type action
- → AddModifierIfNone set of type action
- → AddRevWindowId set of type action
- → AllowDynamicArcParametersExist query of type action
- → AllowJawMotionExist query of type action
- ightarrow AllowPushLeavesToJawPositions query of type action
- → AllowSplitBeamExist query of type action
- → AnyCPHasBlockContours query of type action
- $\rightarrow$  AnyRelyOnBolusModificationCallback set of type action
- → ApertureDesc query of type action
- → ApertureType query of type action
- $\rightarrow$  **ArcAngle** query of type action
- $\rightarrow~\mathbf{ArcValid}$  query and set of type
- $\rightarrow$  **AreBeamMUsAvailable** query of type action
- $\rightarrow~\mathbf{AutoSurround}$  query and set of type action
- → AutoSurroundBlocks set of type action
- ightarrow **AutoSurroundMargin** query and set of type action
- $\rightarrow$  **AvgSSD** query of type action
- $\rightarrow$  **AvgTar** query and set of type float
- $\rightarrow$  BeamDose query and set of type float
- → **BeamID** query of type int
- $\rightarrow$  **BeamIsDeliverable** query of type action
- $\rightarrow$  **BeamIsDynamic** query of type action
- $\rightarrow$  **BeamToWorld** query of type action
- → BeamTrialDescription query of type action
- → BeamType query and set of type EnumeratedList with labels
- → BeamTypeList query of type action
- → BeamWasSplit query and set of type int
- → BeamWindowList list of type BeamWindow
- → BeginMessageBatch set of type action
- → BeingOpposed query and set of type bool
- → BevFieldWidth query and set of type float
- → BevIsParallel query and set of type bool
- $\rightarrow$  BevParallelDistance query and set of type float
- → BevRotationAngle query and set of type action
- $\rightarrow$  **BevWindowName** set of type action
- → BlockAndTrayFactor query and set of type action

- → BlockAndTrayFactorIfValid query of type action set of type float
- → BlockAndTrayLabel query of type action
- → BlockContourList list of type CurveNd
- ightarrow BlockCutterFormat query and set of type EnumeratedList with labels
- $\rightarrow$  BlockCutterOutput set of type action
- $\rightarrow$  **BlockExportName** query and set of type ObjString
- → BlockFactorHasMeaning query of type action
- → BlockInfo query and set of type action
- → BlockJawOverlap query and set of type float
- → BlockTrayNumberHasMeaning query of type action
- → BlockingMask subobject of type BinaryVolume
- $\rightarrow$  BlockingMaskCutoffArea query and set of type float
- → BlockingMaskPixelSize query and set of type float
- $\rightarrow$  **BlocksAreLocked** query and set of type bool
- → Bolus set of type action
- → BottomAutoSurroundMargin query and set of type float
- → BottomJawMax query of type action
- → BottomJawMin query of type action
- → BottomJawPosition query and set of type
- $\rightarrow$  CArmAngle query and set of type
- → CArmString query of type action
- → **CPManager** subobject of type CPManager
- $\rightarrow$  **CPManagerObject** query and set of type
- $\rightarrow$  CanBeComputedBySDE query of type action
- $\rightarrow$  CenterInField set of type action
- $\rightarrow$  CenterPatient set of type action
- $\rightarrow$  ChangeShiftDirectionOn query of type action
- ightarrow CheckAndSetWedge set of type action
- $\rightarrow$  CheckArcValid query and set of type bool
- $\rightarrow$  **CheckDose** query of type action
- ightarrow CheckDoseAndCurrentCP query of type action
- $\rightarrow \ \mathbf{CheckDoseAndRemoveAllCPs} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → CheckDoseAndRemoveAllCPsWhenSetMachine query of type action
- $\rightarrow~\mathbf{CheckDoseIfBolus}$  query of type action
- → CheckDoseIfCompensator query of type action
- $\rightarrow \ \mathbf{CheckDoseIfWedge} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{CheckJawsWithMLC} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → CheckMLC query of type action
- → CheckValidForDoseComp query of type action
- → CircularCollimator set of type action
- $\rightarrow$  CircularFieldDiameter query and set of type action
- $\rightarrow~\mathbf{ClipMLCDisplay}$  query and set of type bool

- → Collimator query and set of type
- → CollimatorCanBeArc query of type action
- → CollimatorLabel query of type action
- → CollimatorStop query and set of type
- $\rightarrow$  CollimatorType query of type action
- $\rightarrow$  Color query and set of type action
- → ColorPixel query of type action
- → Compensator subobject of type Compensator
- → CompensatorAttenuationCoef query of type action
- → CompensatorInfo query and set of type action
- $\rightarrow$  CompensatorScaleFactor query and set of type float
- → CompuCutterEnabled query and set of type bool
- → ComputationVersion query of type ObjString set of type action
- → ComputeButtonLabel query of type action
- → ConfirmUnlockWeights query of type action
- → ConfirmUnlockWeightsAndCheckDose query of type action
- ightarrow ConfirmUnlockWeightsAndCheckDoseForFiltering query of type action
- → ContainerObject query of type pointer set of type action
- → CopyAndOppose set of type action
- → CopyBeam set of type action
- → CopySource query and set of type pointer
- $\rightarrow$  Couch query and set of type
- → CouchCanBeArc query of type action
- → CouchStop query and set of type
- → CreateModifierOutput set of type action
- → CutoutFactor query and set of type
- $\rightarrow~\mathbf{CutoutMaterialTransmissionFactor}$  query and set of type float
- → DRRVolumeName query of type action
- $\rightarrow~\mathbf{DegreesBetweenSubbeamsForDoseCalc}$  query and set of type float
- $\rightarrow$  **DesiredLocalizer** query and set of type
- ightarrow **DesiredLocalizerName** query and set of type action
- $\rightarrow$  **Display2d** query and set of type bool
- $\rightarrow$  **Display3d** query and set of type bool
- ightarrow **DisplayControlPointWeights** query of type action
- $\rightarrow~$  DisplayLaserMotion query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{DisplayList}$ list of type Beam Display
- ightarrow **DisplayMAXLeafMotion** query and set of type bool
- $\rightarrow~\mathbf{DisplayOnly}$  query and set of type bool
- $\rightarrow$  **DoAutoSurround** query and set of type
- ightarrow **DoAutoSurroundMLC** query and set of type
- → **DoNotRecreateBEV** query and set of type bool
- → **DoseEngine** subobject of type DoseEngine

- → **DoseInvalidWhileFiling** query and set of type bool
- $\rightarrow$  **DosePerMuAtPrescriptionPoint** query and set of type float
- → **DoseRate** query of type float set of type action
- $\rightarrow$  **DoseStatus** query and set of type action
- $\rightarrow$  **DoseStatusMessage** query and set of type action
- → **DoseVarVolume** query and set of type action
- $\rightarrow$  **DoseVolume** query and set of type action
- $\rightarrow$  **DynamicArcCurrCPSSD** query of type action
- $\rightarrow$  **DynamicBlocks** query and set of type bool
- → **DynamicWedgeData** query of type action
- → ElectronApplicator set of type action
- → ElectronApplicatorName query and set of type action
- ightarrow **ElectronDoseNormalization** query of type action
- → EndMessageBatch set of type action
- → EnergyList query of type action
- → EquivalentSquare query of type action
- → ExtendArcPastTarget query and set of type float
- $\rightarrow~\mathbf{ExtendBlockPlanePastTarget}$  query and set of type float
- → ExtendPastTarget query and set of type float
- $\rightarrow$  **FieldID** query and set of type action
- → FilmImageList list of type FilmImage
- → FluenceFilterArray query of type action
- → ForceRedisplay set of type action
- $\rightarrow$  Gantry query and set of type
- → GantryCanBeArc query of type action
- $\rightarrow$  GantryIsArc query of type action
- $\rightarrow$  GantryIsCCW query and set of type
- $\rightarrow \ \mathbf{GantryLockedCheckDose} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  GantryRange query of type action
- $\rightarrow \ \, \mathbf{GantryRateIsDeliverable} \ \, \mathbf{query} \ \, \mathbf{of} \ \, \mathbf{type} \ \, \mathbf{bool}$
- $\rightarrow$  GantryStop query and set of type
- $\rightarrow$  **GeometryDependency** query of type action
- $\rightarrow~\mathbf{HEKEnabled}$  query and set of type bool
- $\rightarrow~\mathbf{HasLockedWeights}$  query of type action
- $\rightarrow$  HasModifiers query of type action
- $\rightarrow \ \mathbf{HasRelyOnObject} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{IECCoords}$  subobject of type IECCoords
- $\rightarrow$   ${\bf IMRTDirection}$  query and set of type Enumerated List with labels
- → **IMRTFilter** query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{IMRTParameterList}$  query of type action
- $\rightarrow$  IMRTParameterType query and set of type action
- $\rightarrow$  **IMRTWedge** query and set of type EnumeratedList with labels

- → IncDRRVolume set of type action
- → IncDRRVolumeNoUpdate set of type action
- $\rightarrow$  IncrementCArm set of type action
- → IncrementCollimator set of type action
- → IncrementCouch set of type action
- → IncrementGantry set of type action
- → IncrementGantryStop set of type action
- → IndJawsCheckDose query of type action
- $\rightarrow~\mathbf{InitializeTPBForTool}$  set of type action
- → InstallMachineVersion set of type action
- → InternalCollimator query and set of type
- → InternalCollimatorStop query and set of type
- → InternalCouch query and set of type
- $\rightarrow$  InternalCouchStop query and set of type
- → InternalGantry query and set of type
- → InternalGantryStop query and set of type
- $\rightarrow$  InvalidateAverageMonitorUnitDepthParameters set of type action
- $\rightarrow \ \mathbf{InvalidateCPManagerDose} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → InvalidateDose set of type action
- → InvalidateElectronDose set of type action
- → InvalidatePhotonDose set of type action
- → InvalidateStereoDose set of type action
- → IrregMonitorUnitColor query of type action
- → IrregMonitorUnitWithinLimits query of type action
- ightarrow IrregPointActualMonitorUnits query and set of type float
- → IrregPointChange set of type action
- $\rightarrow \ \mathbf{IrregPointList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{IrregPoint}$
- ightarrow IrregPointMonitorUnits query and set of type float
- $\rightarrow \ \mathbf{IrregPointNumberOfFractions}$  query and set of type float
- ightarrow IrregPointPrescribeOverall query and set of type bool
- $\rightarrow \ \mathbf{IrregPointPrescriptionDose}$  query and set of type float
- ightarrow IrregPrescriptionDescription query of type action
- ightarrow IrregPrescriptionPointName query and set of type ObjString
- $\rightarrow$  IrregSimulatorSAD set of type action
- → IrregSpecifyMonitorUnits query and set of type bool
- $\rightarrow~\mathbf{IsBolussed}$  query of type action
- → IsCollimatorStartStopLocked query and set of type
- $\rightarrow \ \mathbf{IsCompensatorValidForProton} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- ightarrow IsComputedWithPoi query of type action
- → IsConformalArc query of type action
- $\rightarrow$   $\mathbf{IsCouchStartStopLocked}$  query and set of type
- → IsDosePending query of type action

- $\rightarrow$  IsDoseValid query of type action
- → IsDynamicArc query of type action
- $\rightarrow$  IsElectronDoseValid query of type action
- → IsGantryStartStopLocked set of type action
- $\rightarrow$   $\mathbf{IsLeftRightIndependent}$  query and set of type
- $\rightarrow$  IsMachineProtonOrPhoton query of type action
- → IsOkForClinicalUse query of type action
- $\rightarrow \ \mathbf{IsOptimizedDynamicArc}$  query of type action
- → IsPhotonDoseValid query of type action
- → IsProtonBeam query of type action
- $\rightarrow$  IsQABeam query and set of type bool
- → IsRVXIndependent query of type action
- → IsRVYIndependent query of type action
- → IsStereoDoseValid query of type action
- → IsTopBottomIndependent query and set of type
- → IsWedgeValid query of type action
- $\rightarrow$  IsWeightLocked query and set of type bool
- $\rightarrow$   ${\bf IsoInLocalizerCoords}$  subobject of type Poi
- → **Isocenter** subobject of type Poi
- → IsocenterName query and set of type action
- → JawsConformance query and set of type
- → LaserCoord query and set of type action
- $\rightarrow$  LaserDescr query of type action
- $\rightarrow$  LaserLabel query of type action
- $\rightarrow$  LaserMotionDirection set of type action
- ightarrow LaserXDirectionList query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{LaserYDirectionList}$  query and set of type EnumeratedList with labels
- $\rightarrow$   ${\bf LaserZDirectionList}$  query and set of type EnumeratedList with labels
- $\rightarrow$  **LeafSpeedIsDeliverable** query of type bool
- $\rightarrow~\mathbf{LeftAutoSurroundMargin}$  query and set of type float
- $\rightarrow$  **LeftJawMax** query of type action
- → **LeftJawMin** query of type action
- $\rightarrow$  LeftJawPosition query and set of type
- → LeftRightJawWidth query and set of type
- $\rightarrow$  LoadNewTrayFactor query and set of type bool
- $\rightarrow \ \, \textbf{LocalizationValid} \,\, \textbf{query of type bool}$
- $\rightarrow~\mathbf{LocalizationValidColor}$  query of type action
- ightarrow LocalizerList set of type action
- → MCDoseCallback set of type action
- → MLCDisplayBlockContourList list of type CurveNd
- $\rightarrow$  MLCError query and set of type
- $\rightarrow$  MLCInfo query and set of type

- → MLCLeafModified set of type action
- → MLCLeafPositions query and set of type
- $\rightarrow \ \mathbf{MLCLeavesCannotBeEditedWhenExtraLeafPairsOpen} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → MLCPushMethod query and set of type
- $\rightarrow$  MLCSegmentIndex query and set of type int
- → MLCSegmentList query and set of type
- $\rightarrow$  MLCTransForDisplay query and set of type
- ightarrow MLCTransmissionHasMeaning query of type action
- → MLCTransmissionIfValid query and set of type
- → Machine subobject of type Machine
- → MachineAddress query of type action
- → MachineBroker subobject of type MachineBroker
- → MachineEnergy subobject of type MachineEnergy
- → MachineEnergyName query and set of type action
- → MachineName guery and set of type action
- → MachineNameAndVersion query and set of type action
- $\rightarrow$  MakeAllModifiersManual set of type action
- ightarrow MakeIsocenterCurrent set of type action
- $\rightarrow$  MaxMLCLeafPosition query of type action
- → MeanCentralAxisDepth query and set of type float
- → MeanRadCentralAxisDepth query and set of type float
- $\rightarrow \ \mathbf{MeanRadRefPointDepth}$  query and set of type float
- $\rightarrow~\mathbf{MeanRefPointDepth}$  query and set of type float
- → MessageBatch query and set of type bool
- $\rightarrow$  MinMLCLeafPosition query of type action
- → Modality query and set of type action
- $\rightarrow$  ModifierChange set of type action
- → ModifierDisplayChange set of type action
- $\rightarrow$  ModifierList query and set of type
- $\rightarrow$  ModifierOutput query and set of type
- $\rightarrow$  MonitorUnitColor query of type action
- → MonitorUnitInfo subobject of type BeamMonitorUnitInfo
- ightarrow MonitorUnitWithinLimits query of type action
- ightarrow MonitorUnits query of type action set of type float
- → MonitorUnitsApproximate query of type action set of type bool
- $\rightarrow \ \mathbf{MonitorUnitsInvalid} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → MonitorUnitsPerDegree query of type action
- → MonitorUnitsValid query and set of type bool
- → Name query and set of type ObjString
- → NewVersionMachine query and set of type bool
- → NormalizeToODM set of type action
- → NormalizedDoseScalar query of type action

- $\rightarrow$  **ODM** subobject of type ODM
- → ODMInfo query and set of type action
- → **ODMOutput** set of type action
- → **ObjectVersion** subobject of type ObjectVersion
- $\rightarrow$  **OkToEditControlPoints** query of type action
- $\rightarrow$  **OkToEditMLCPositions** query of type action
- ightarrow OnlyNewMachineExists query and set of type bool
- $\rightarrow$  **OpenExtraLeafPairs** query and set of type
- → OpenLeafPairsForSiemens set of type action
- → OpenMLCLeaves set of type action
- $\rightarrow$  **Oppose** query and set of type
- → OpposeTable query and set of type
- → **OppositeSSD** query of type action
- → OppositeSSDLabel query of type action
- → OutputDynamicArcTestData query of type float set of type action
- $\rightarrow$  ParScientificEnabled query and set of type bool
- → PhilipsMLCBeamNumber query and set of type EnumeratedList with labels
- ightarrow PhilipsMLCTreatment query and set of type EnumeratedList with labels
- → PhotonDoseNormalization query of type action
- → PhotonModelDescription query and set of type ObjString
- → PhysicsMode query and set of type bool
- → **Prescription** set of type action
- $\rightarrow$  **PrescriptionList** query and set of type
- ightarrow **PrescriptionListObject** query of type pointer set of type action
- → PrescriptionName query and set of type action
- $\rightarrow$  **PrescriptionPoint** set of type action
- $\rightarrow~\mathbf{PrescriptionPointDepth}$  query and set of type float
- ightarrow **PrescriptionPointName** query and set of type action
- ightarrow PrescriptionPointWorldCoords query of type action
- $\rightarrow \ \mathbf{PrescriptionPointXOffset}$  query and set of type float
- $\rightarrow~\mathbf{PrescriptionPointYOffset}$  query and set of type float
- $\rightarrow \ \mathbf{PrevAllowJawMotionExist} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{PrevAllowSplitBeamExist} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PrevBeamType}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{PrevIMRTParameterType}$  query and set of type action
- $\rightarrow~\mathbf{PreventRedundantMUErrorMessages}$  query and set of type bool
- $\rightarrow~\mathbf{ProfileList}$  query and set of type
- $\rightarrow~\mathbf{ProtonBeam}$  subobject of type NullObject
- → ProtonManager query and set of type
- → PushMLCLeavesToBlock query and set of type
- → PushMLCLeavesToJaws query and set of type
- → PushMLCLeavesToJawsCenter query and set of type

- → RVX1JawPosition query of type action
- → RVX2JawPosition query of type action
- $\rightarrow$  RVY1JawPosition query of type action
- → RVY2JawPosition query of type action
- → RecomputeSSD set of type action
- → RecomputeSSDIfInvalid set of type action
- → RedisplayBevIfNecessary set of type action
- → RelyOnBolusList query and set of type
- → RelyOnBolusNames query and set of type action
- → RelyOnList query and set of type
- → RemoveCurrentModifier set of type action
- → RemoveWindowId set of type action
- $\rightarrow$  RenderImage set of type action
- $\rightarrow~\mathbf{RightAutoSurroundMargin}$  query and set of type float
- → RightJawMax query of type action
- → RightJawMin query of type action
- → RightJawPosition query and set of type
- $\rightarrow$  RotationIndicatorOffset query and set of type float
- $\rightarrow$  **SSD** query of type action
- → SSDLabel query of type action
- → SSDValid query and set of type bool
- → SSDWithBolus query of type action
- → SaveIMRTParameters set of type action
- → **SetBeamType** set of type action
- → SetJawsBehaviorWithNewVersionMachine set of type action
- $\rightarrow$  **SetSSD** set of type action
- $\rightarrow$  **SetSharedModifierList** set of type action
- ightarrow **SetupDependencies** set of type action
- $\rightarrow$  ShowStoreCPDoseButton query of type action
- $\rightarrow$  SolidMLCDisplay query and set of type bool
- $\rightarrow$  SortedDisplayList list of type BeamDisplay
- $\rightarrow~\mathbf{SpecifyDosePerMuAtPrescriptionPoint}$  query and set of type bool
- $\rightarrow$  **SpeedUpCollimator** query and set of type bool
- $\rightarrow$  **SpeedUpVirtFlouro** query and set of type bool
- → **StandardOrientation** query of type ObjString set of type action
- ightarrow StandardOrientationList query of type action
- $\rightarrow$  **StereoDoseAtIso** query of type action
- $\rightarrow~{\bf StereoDoseDiValue}$  query and set of type float
- → StereoDosePerMULookup query and set of type float
- → **TPBDoseCalculator** subobject of type TPBDoseCalculator
- → TPBDoseNormalization query of type action
- → TableOrLaserMotion query of type action

- $\rightarrow$  **TarTable** subobject of type AnnotatedCurve
- $\rightarrow$  TestMLCLimit query and set of type
- → ToggleWedgeOrientation query and set of type
- → TopAutoSurroundMargin query and set of type float
- $\rightarrow$  TopBottomJawHeight query and set of type
- $\rightarrow$  **TopJawMax** query of type action
- $\rightarrow$  **TopJawMin** query of type action
- $\rightarrow$  **TopJawPosition** query and set of type
- → ToshibaMLCBeamNumberString query and set of type ObjString
- → ToshibaMLCPlanNumber query and set of type EnumeratedList with labels
- $\rightarrow$  TraverseCurrentBolus query and set of type action
- → TrayFactor query and set of type action
- → TrayFactorHasMeaning query of type action
- → TrayFactorIfValid query of type action set of type float
- → TrayNumber query and set of type ObjString
- → TrayNumberIfValid query of type action set of type string
- → UndergoingIMRT query and set of type bool
- ightarrow UndergoingMC query and set of type bool
- → UniqueName set of type action
- → UnitTest query and set of type bool
- → UpdateLockJaws set of type action
- → UpdateRevForNewBeam set of type action
- $\rightarrow~\mathbf{UseDensityGridForSSD}$  query and set of type
- $\rightarrow$  UseMLC query of type bool set of type action
- ightarrow UsePoiForPrescriptionPoint query and set of type bool
- $\rightarrow$  UseVerticalMLC query of type action
- $\rightarrow~{\bf VisOnlyHeteroDoseOK}$  query and set of type bool
- $\rightarrow$   $\,$  Wedge query and set of type
- $\rightarrow$  **WedgeAngle** query and set of type
- → **WedgeChange** set of type action
- $\rightarrow$  WedgeContext query and set of type
- ightarrow WedgeDisplayChange set of type action
- $\rightarrow$  **WedgeName** query and set of type
- $\rightarrow$   $\mathbf{WedgeOffsetDistance}$  query and set of type
- $\rightarrow$  **WedgeOffsetList** query and set of type
- $\rightarrow~\mathbf{WedgeOffsetOrigin}$  query and set of type
- → WedgeOrientation query and set of type
- → WedgeOrientationLabel query and set of type
- → WedgeRotation query and set of type
- → Weight query and set of type action
- $\rightarrow$   $\mathbf{WeightLocked}$  query and set of type bool
- → WriteDoseCliffBinary query and set of type bool

#### BeamMonitorUnitInfo

- $\rightarrow$  BlockedEquivSquareLocation query and set of type
- $\rightarrow~\mathbf{BlockedFieldAreaAtSAD}$  query and set of type float
- $\rightarrow$  BlockedFieldPerimeterAtSAD query and set of type
- $\rightarrow$  CollimatorOutputFactor query and set of type float
- → DepthToActualPoint query of type action set of type float
- → EquivalentBlockedSquare query of type action
- → EquivalentUnblockedSquare query of type action
- → IntersectEquivalentSquare query of type action
- $\rightarrow$  IntersectFieldAreaAtSAD query and set of type float
- → Invalidate set of type action
- → NormalizedDose query and set of type float
- → **OFMeasurementDepth** query and set of type float
- $\rightarrow$  OffAxisRatio query and set of type float
- → OutputFactorInfo query and set of type ObjString
- → OutputFactorValid query and set of type
- $\rightarrow$  **PercentBlocked** query of type action
- $\rightarrow$  **PercentIntersect** query of type action
- → PhantomOutputFactor query and set of type float
- ightarrow PrescriptionDose query of type action set of type float
- $\rightarrow~\mathbf{PrescriptionPointDepth}$  query and set of type float
- ightarrow PrescriptionPointOffAxisDistance query and set of type float
- $\rightarrow~\mathbf{PrescriptionPointRadDepth}$  query of type action set of type float
- $\rightarrow \ \mathbf{PrescriptionPointRadDepthValid} \ \mathbf{query} \ \mathbf{and} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool}$
- $\rightarrow~\mathbf{RadDepthToActualPoint}$  query of type action set of type float
- → RelativeOutputFactor query and set of type float
- → SSDToActualPoint query and set of type float
- → SourceToPrescriptionPointDistance query and set of type float
- → TissuePhantomRatio query and set of type
- → TotalTransmissionFraction query and set of type float
- $\rightarrow$  **TransmissionDescription** query and set of type ObjString
- → UnblockedEquivSquareLocation query and set of type
- $\rightarrow$  UnblockedFieldAreaAtSAD query and set of type float
- → UnblockedFieldPerimeterAtSAD query and set of type float

# ${\bf Beam PoiWeight Optimizer}$

- $\rightarrow\,$  Grouping query and set of type Enumerated List with labels
- $\rightarrow$   $\bf ModifyPrescription$  query and set of type bool
- $\rightarrow~\mathbf{Negative MUPenalty}$  query and set of type float
- $\rightarrow~\mathbf{NumberOfBeamsPenalty}$  query and set of type float
- $\rightarrow~\mathbf{Optimize}$  set of type action
- $\rightarrow~\mathbf{PointList}$ list of type Poi Prescription
- $\rightarrow~\mathbf{SimplexOptimizer}$  subobject of type SimplexOptimizer
- $\rightarrow~$  Trial subobject of type Trial

### BeamSpectrum

- $\rightarrow$  AddPoint set of type action
- → ColumnFormat query of type action
- $\rightarrow$  ColumnHeader query of type action
- $\rightarrow$  CopyPublished set of type action
- $\rightarrow$  **DeleteRow** set of type action
- $\rightarrow$  **HVL** query and set of type
- → InsertRowAfter set of type action
- → InsertRowBefore set of type action
- $\rightarrow \ \mathbf{MapParametricCurveToSpectrumData} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → MeanEnergy query of type action
- $\rightarrow$  MeanEnergyData query of type action
- → MeanEnergyDataPlotStyle subobject of type PlotStyle
- → MeanEnergyParam query of type action
- ightarrow ModificationDependency query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  **NominalEnergy** query and set of type
- $\rightarrow$  **NumColumns** query and set of type
- → NumRows query and set of type
- $\rightarrow$  **NumberOfPoints** query and set of type
- ightarrow ParameterizeTheSpectrum set of type action
- $\rightarrow~\mathbf{ParameterizedData}$  subobject of type CurveNd
- $\rightarrow~\mathbf{PlotStyle}$  subobject of type PlotStyle
- → SofteningControlParam1 query and set of type float
- ightarrow SofteningControlParam2 query and set of type float
- → **SpectrumData** subobject of type CurveNd
- → ValidForComputation query of type action
- $\rightarrow$  Value set of type action
- $\rightarrow$  **X** query and set of type
- $\rightarrow~\mathbf{Y}$  query and set of type

## BeamSplitter

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{CurrentOverlapMethod}$  query and set of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  InstanceName query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{LeafEdgeOverlap}$  query and set of type float
- $\rightarrow~\mathbf{MaximumOverlap}$  query and set of type float
- $\rightarrow~\mathbf{MinimumOverlap}$  query and set of type float
- $\rightarrow \ \mathbf{OverlapMethodList} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{StringList}$
- $\rightarrow~\mathbf{SplitAllBeams}$  set of type action
- $\rightarrow$  **SplitBeam** set of type int
- $\rightarrow \ \mathbf{SplitCurrentBeam} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

#### BeamWindow

- → AllowViewManipulation query of type action
- → BEVPercentOfArc query of type action
- → BEVSegmentIndex query of type action
- → BRVBottomTopLabel query of type action
- → BRVCenter query and set of type
- → BRVFrontBackLabel query of type action
- → BRVIncrementSlice set of type action
- → BRVIndex query and set of type int
- → BRVIsFrontBack query of type action
- → BRVLeftRightLabel query of type action
- $\rightarrow$  BRVOffset query and set of type action
- $\rightarrow$  BRVOffsetAsFraction query and set of type action
- $\rightarrow$  BRVOrientation query and set of type action
- → BRVOrientationList query of type action
- $\rightarrow$  **BRVRange** query and set of type float
- $\rightarrow~{\bf BRVRotationAngle}$  query and set of type float
- → BRVSavedAngles query and set of type int
- $\rightarrow$  BRVSavedCouch query and set of type float
- $\rightarrow$  BRVSavedGantry query and set of type float
- $\rightarrow~{\bf BRVStepSize}$  query and set of type float
- $\rightarrow$  **BRVWindowLabel** query of type action
- $\rightarrow$  BackgroundColor query and set of type int
- $\rightarrow$  **Beam** query and set of type
- → BeamObject query of type pointer set of type action
- → **BevGridColor** query and set of type ObjString
- → BevGridResolution query and set of type float
- ightarrow BevGridStyle query and set of type EnumeratedList with labels
- → BevWindowId query and set of type int
- → BevWindowName query of type action
- → CancelBev set of type action
- → DRRValid query and set of type action
- → **Display2dBevFirstOrder** query and set of type bool
- → Display2dBevOffset query and set of type float
- → **DisplayBevGrid** query and set of type bool
- → **DisplayOtherBeams** query and set of type bool
- → FilmImageIndex query and set of type int
- → IsDrrOrDcr query of type action
- $\rightarrow$  NeedToRender query and set of type bool
- → OverrideRender query of type action
- $\rightarrow$  RemoveViewController set of type action
- → RenderDRRImageIfNecessary set of type action

- ightarrow RenderImage set of type action
- $\rightarrow \ \mathbf{RenderImageIfNecessary} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{SetBeamDRRVolume} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **SetupBev** set of type action
- $\rightarrow$  **SetupCPImageBev** set of type action
- $\rightarrow~\mathbf{SetupImageBev}$  set of type action
- $\rightarrow~{\bf Type}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{UpdateDisplayOnDestruction}$  query and set of type bool
- $\rightarrow \ \mathbf{UpdateRoomsEyeView} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{UseHighQuality}$  query and set of type bool
- $\rightarrow$  **WindowId** query and set of type int
- $\rightarrow~\mathbf{WindowTypeNoREVList}$  query and set of type StringList

### **BeamlineCrossSection**

- $\rightarrow~\mathbf{InnerXHalfWidth}$  query of type float set of type action
- $\rightarrow$  InnerYHalfWidth query of type float set of type action
- $\rightarrow~\mathbf{IsElliptical}$  query and set of type bool
- $\rightarrow$   ${\bf IsRectangular}$  query and set of type action
- $\rightarrow \ \mathbf{ModificationDependency} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → OuterXHalfWidth query of type float set of type action
- $\rightarrow~\mathbf{OuterYHalfWidth}$  query of type float set of type action
- $\rightarrow$   $\mbox{\bf ScaleFactor}$  query and set of type float
- $\rightarrow~\mathbf{ScaleInnerDimToFieldSize}$  query and set of type bool
- $\rightarrow~\mathbf{ScaleOuterDimToFieldSize}$  query and set of type bool

#### **BeamlineSource**

- → ApplyFermiEygesScattering query and set of type bool
- → ApplyXYBlur query and set of type bool
- → ApplyZBlur query and set of type bool
- → FermiEygesNonAirFactor query and set of type float
- → **HasWeight** query of type action
- → InitialParticleWeight query and set of type float
- $\rightarrow~\mathbf{MaxPolarAngle}$  query and set of type float
- $\rightarrow$  ModificationDependency query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{ParticleType}$  query and set of type Enumerated List with labels
- → ParticlesPerSample query of type action
- → PolarAngleInverseVariance query and set of type float
- → PolarFalloffExponent query and set of type float
- $\rightarrow~\mathbf{SamplingPlaneRegion}$  subobject of type BeamlineCrossSection
- $\rightarrow~\mathbf{SamplingPlaneZPosition}$  query and set of type float
- → SourceVolCrossSection subobject of type BeamlineCrossSection
- → SourceVolMinZ query and set of type float
- → SourceVolZLength query and set of type float
- $\rightarrow$  **Spectrum** subobject of type MCSpectrum
- $\rightarrow$  StandardSamplingPlaneOuterXHalfWidth query of type action
- $\rightarrow$  StandardSamplingPlaneOuterYHalfWidth query of type action
- $\rightarrow \ \mathbf{StandardSamplingPlaneScaleFactor} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → StandardSamplingPlaneZPosition query of type action
- → StandardSourceZPosition query of type action
- $\rightarrow$  **Type** query of type int
- $\rightarrow$  **TypeName** query of type string
- $\rightarrow~\mathbf{UseRetrospectiveSampling}$  query and set of type bool
- $\rightarrow$  Weight query and set of type float
- → XYBlurFWHM query and set of type float
- $\rightarrow$  **ZBlurFWHM** query and set of type float

# BinDesc

- $\rightarrow~\mathbf{BinBounds}$  query and set of type action
- $\rightarrow$  **BinCount** query of type int set of type action
- $\rightarrow$   ${\bf Indices Inverted}$  query and set of type int
- $\rightarrow~\mathbf{RegularBins}$  query and set of type int

# ${\bf Binary Volume}$

- $\rightarrow~\mathbf{BinaryData}$  query and set of type action
- $\rightarrow~\mathbf{BinaryDataHasBeenRead}$  query and set of type bool
- $\rightarrow~\mathbf{EdgeCheckTransverseOnly}$  query and set of type bool
- $\rightarrow~\mathbf{EdgeVoxelWeight}$  query and set of type float
- $\rightarrow$   ${\bf InnerVoxelWeight}$  query and set of type float
- $\rightarrow~\mathbf{XDim}$  query and set of type int
- $\rightarrow~\mathbf{XMax}$  query and set of type int
- $\rightarrow~\mathbf{XMin}$  query and set of type int
- $\rightarrow~\mathbf{YDim}$  query and set of type int
- $\rightarrow$  **YMax** query and set of type int
- $\rightarrow~\mathbf{YMin}$  query and set of type int
- $\rightarrow~\mathbf{ZDim}$  query and set of type int
- $\rightarrow$  **ZMax** query and set of type int
- $\rightarrow~{\bf ZMin}$  query and set of type int

# BioEval

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow~\mathbf{Cancel}$  set of type action
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \, \mathbf{Revision} \,\, \mathrm{query} \,\, \mathrm{of} \,\, \mathrm{type} \,\, \mathrm{string}$
- $\rightarrow$  Run set of type action
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

## BioResponse

- $\rightarrow~\mathbf{AlphaBetaRatio}$  query and set of type float
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~\mathbf{D50}$  query and set of type float
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  **Gamma** query and set of type float
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow$  Name query and set of type string
- $\rightarrow$  Reference query and set of type string
- $\rightarrow$   $\,$  Seriality query and set of type float

#### **Bolus**

- → AddToDisplayList set of type action
- → **ApplyBoundingBox** query and set of type bool
- $\rightarrow$  **BBDependency** query and set of type pointer
- $\rightarrow$  BackPlaneDepth query and set of type
- → BeamDependencyList query of type action
- → BeginMessageBatch set of type action
- → BolusCreationView query and set of type EnumeratedList with labels
- → BolusROI subobject of type RegionOfInterest
- → BoundingBox subobject of type BoundingBox
- → BoxSize query and set of type action
- $\rightarrow$  BuildingBolusMessage query of type action
- → CanBeDeleted query of type action
- → CancelBolusCreation query and set of type bool
- → CheckDose query of type action
- → CheckName query of type action
- → CleanAndDelete set of type action
- $\rightarrow$  Color query and set of type action
- → Contour subobject of type CurvePainter
- → ConvertedToVariable query and set of type bool
- → CreateBolus set of type action
- $\rightarrow$  CreatingBolus query and set of type bool
- → **DeleteInferiorEndCurve** set of type action
- ightarrow **DeleteSuperiorEndCurve** set of type action
- → **Density** query of type float set of type action
- → **DisplacementX** query and set of type
- $\rightarrow$  **DisplacementY** query and set of type
- $\rightarrow~\mathbf{Display2d}$  query and set of type action
- $\rightarrow$  **Display3d** query and set of type action
- → **DisplayBoundingBox** query and set of type bool
- → **DisplayCallback** set of type action
- → **DisplayDependency** query of type action
- $\rightarrow$  **EditROI** subobject of type RegionOfInterest
- → EncompassData query of type bool set of type action
- → EndMessageBatch set of type action
- → EnforceValidity set of type action
- $\rightarrow$  **Height** query and set of type
- → InferiorDistance query and set of type float
- → InferiorEndPosition query of type action
- → IsConstant query of type bool set of type action
- $\rightarrow$  IsValid query of type action
- → Line2dWidth query and set of type action

- $\rightarrow\,$  Material query of type ObjString set of type action
- $\rightarrow$   ${\bf Modification Dependency}$  query of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow$  **NumVoxelsSet** query and set of type
- $\rightarrow$  **OKForPaintBrushTool** query of type action
- $\rightarrow$  **PolyReduction** query and set of type
- ightarrow ROINumber query and set of type action
- → RedrawBinaryVolume set of type action
- $\rightarrow \ \mathbf{RemoveBEVContour} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RemoveFromDisplayList set of type action
- $\rightarrow$  **SelectedSliceIndex** query and set of type int
- → SelectedUserSliceNumber query of type action
- $\rightarrow$  **SetBolusCreationView** set of type action
- $\rightarrow~\mathbf{SuperiorDistance}$  query and set of type float
- → SuperiorEndPosition query of type action
- $\rightarrow$  **Thickness** query and set of type float
- → TraverseCurrentBeam query and set of type bool
- $\rightarrow$  **Type** query and set of type
- → VolumeToWorldTransform query and set of type
- $\rightarrow$  VolumeValid query of type bool set of type action
- → VoxelDimX query and set of type
- $\rightarrow$  **VoxelDimY** query and set of type
- $\rightarrow~\mathbf{VoxelDimZ}$  query and set of type
- $\rightarrow~\mathbf{Width}$  query and set of type
- $\rightarrow~\mathbf{WorldToVolumeTransform}$  query and set of type
- $\rightarrow$  **XOrigin** query and set of type action
- $\rightarrow$  XSize query and set of type action
- $\rightarrow$  **YOrigin** query and set of type action
- $\rightarrow$  **YSize** query and set of type action
- $\rightarrow$  **ZOrigin** query and set of type action
- $\rightarrow~\mathbf{ZSize}$  query and set of type action

## BoundingBox

- $\rightarrow$  CenterLock query and set of type bool
- $\rightarrow$  Color query and set of type ObjString
- $\rightarrow$  CopyBB set of type action
- $\rightarrow$  **Display** set of type action
- $\rightarrow~\mathbf{DisplayXOrigin}$  query and set of type action
- $\rightarrow$  **DisplayYOrigin** query and set of type action
- $\rightarrow~\mathbf{DisplayZOrigin}$  query and set of type action
- $\rightarrow~\mathbf{DoNotUpdate}$  query and set of type bool
- $\rightarrow~\mathbf{Origin}$  subobject of type Point
- $\rightarrow$  **SetToVolume** set of type action
- $\rightarrow~\mathbf{Size}$  subobject of type Point
- $\rightarrow$  **SlabCenter** set of type action
- $\rightarrow~\mathbf{SlabMode}$  query and set of type bool
- ightarrow SlabNormal set of type action
- $\rightarrow~\mathbf{SlabThickness}$  query of type float set of type action
- $\rightarrow$  **XOrigin** query and set of type action
- $\rightarrow$  **XSize** query and set of type action
- → YOrigin query and set of type action
- $\rightarrow$  **YSize** query and set of type action
- $\rightarrow$  **ZOrigin** query and set of type action
- $\rightarrow$  **ZSize** query and set of type action

#### **BrachyDB**

- $\rightarrow$  AddIsotopeList list of type Isotope
- → BrachyTemplateList list of type BrachyTemplate
- $\rightarrow \ \mathbf{BuildVersionIsotopeList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Commission FailureDescription query and set of type ObjString
- → CommissionIsotope set of type action
- → CopyCurrentAddIsotope set of type action
- $\rightarrow$  CopyLocatedIsotope set of type action
- → CreateDefaultIsotope set of type action
- $\rightarrow$   $\mathbf{CurrentIsotopeList}$  query and set of type EnumeratedList with labels
- → **DeleteReadOnlyIsotope** set of type action
- $\rightarrow$  InstallROIsotopeList set of type action
- → InstallRWIsotopeList set of type action
- $\rightarrow$   $\bf Isotope Locator$  subobject of type FileList
- $\rightarrow \ \mathbf{LoadBrachyTemplateList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → LocatedIsotopeIsValid query and set of type bool
   → LocatedIsotopePath query and set of type ObjString
- → NameAndVersion query and set of type ObjString
- → ReadIsotopeNameAndVersion set of type action
- → ReadOnlyDeletedIsotopeList list of type Isotope
- → ReadOnlyIsotopeList list of type Isotope
- $\rightarrow \ \mathbf{ReadWriteDeletedIsotopeList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{Isotope}$
- → ReadWriteIsotopeList list of type Isotope
- → SaveBrachyTemplateList set of type action
- $\rightarrow~\mathbf{SaveIsotopeData}$  query and set of type bool
- $\rightarrow \ \mathbf{SaveRWIsotopeList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **SetAddIsotopeListToCurrent** set of type action
- → UndeleteReadOnlyIsotope set of type action
- → UniqueIsotopeList list of type Isotope
- → VersionIsotopeList list of type Isotope

# ${\bf BrachyFilm}$

- $\rightarrow$   ${\bf Collimator}$  query and set of type float
- $\rightarrow~\mathbf{Couch}$  query and set of type float
- $\rightarrow~\mathbf{Gantry}$  query and set of type float
- $\rightarrow$   ${\bf Machine Object}$  query and set of type pointer
- $\rightarrow$   $\,$  Magnification query and set of type action
- $\rightarrow$   $\mathbf{MarkerHasBeenRead}$  query and set of type bool
- $\rightarrow~\mathbf{MarkerX}$  query and set of type float
- → MarkerY query and set of type float
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  **SAD** query of type float set of type action
- $\rightarrow~\mathbf{SFD}$  query and set of type float
- $\rightarrow~\mathbf{ShiftDistance}$  query and set of type float
- $\rightarrow~\mathbf{Target}$  subobject of type Annotated Curve

#### BrachyManager

- → AddCatheter set of type action
- → AddCatheterSource set of type action
- → AddCatheterSourceList query and set of type EnumeratedList with labels
- $\rightarrow$  AddNewSourceGroup set of type action
- → AddRowMakeCurrent set of type action
- → BrachyFilm1 subobject of type BrachyFilm
- → BrachyFilm2 subobject of type BrachyFilm
- → BrachyLayout query and set of type EnumeratedList with labels
- → BrachyPPPLayout query and set of type EnumeratedList with labels
- $\rightarrow$  CatheterDisplay2d query and set of type bool
- → CatheterDisplay3d query and set of type bool
- → CatheterList list of type Catheter
- → CatheterRotate set of type action
- → CheckReconstructionType set of type action
- $\rightarrow$  ClearCurrentPoint set of type action
- → ColumnFormat query of type action
- → ColumnHeader query of type action
- → CommonAxisErrorTolerance query and set of type float
- → ConfirmCoordSysChange query of type action
- → ConfirmMarkerInvalidate query of type action
- $\rightarrow$  ConfirmMarkerValid query of type action
- $\rightarrow$   ${\bf CopyCatheter}$  set of type action
- $\rightarrow$  CopyLoading set of type action
- $\rightarrow \ \mathbf{CreateCatheterTemplate} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → CurrentBrachyFilm query and set of type int
- $\rightarrow~\mathbf{CurrentDimension}$  query and set of type int
- → CurrentPoint query and set of type action
- $\rightarrow~\mathbf{DefaultSegmentTipTineLength}$  query and set of type float
- → DeleteAllTargetPoints set of type action
- → DeleteRow set of type action
- → DigitizedMarker set of type action
- $\rightarrow$  **DigitizedValue** set of type action
- → **DoseInvalidWhileFiling** query and set of type bool
- → DoubleLoadBase query and set of type bool
- → **DoubleLoadTip** query and set of type bool
- → DrawCurrentCathOnly query and set of type bool
- → **Empty** query of type action
- → EmptyCellsExist query of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  Film0IsCurrent query and set of type action
- $\rightarrow$  **FilmAP** query and set of type bool

- $\rightarrow$  FilmRL query and set of type bool
- $\rightarrow$  FilmReconstructionList query and set of type EnumeratedList with labels
- $\rightarrow$  FirstEmptyRowTargetName query of type action
- $\rightarrow$  HighlightCurrentCath query and set of type bool
- → HighlightCurrentSource query and set of type bool
- → InsertRowAfter set of type action
- → InsertRowBefore set of type action
- → InterSourceSpace query and set of type float
- → IsAllCatheters query and set of type bool
- → IsCatheterCoordinates query and set of type bool
- → IsCatheterReconstruction query of type action
- → IsCurveAndNewCath query of type action
- → IsCurveReconstruction query of type action
- → IsOrthogonalReconstruction query of type action
- → IsSeedReconstruction query of type action
- → IsSimulatorReconstruction query of type action
- → IsSourceOrSeedReconstruction query of type action
- $\rightarrow$  IsSourceReconstruction query of type action
- → IsStereoShiftReconstruction query of type action
- → LaunchCatheterWindow set of type action
- → LaunchSourceWindow set of type action
- $\rightarrow$  LoadCatheter set of type action
- → LoadSeedArray set of type action
- $\rightarrow$  MachineName set of type action
- → MachineNameAndVersion query and set of type action
- → MachineObject query and set of type pointer
- $\rightarrow$  MakeFirstEmptyRowCurrent set of type action
- → MakePreviousRowCurrent set of type action
- $\rightarrow$  MarkerValid query and set of type bool
- ightarrow ModificationDependency query of type action
- $\rightarrow$  **NumColumns** query of type action
- $\rightarrow~\mathbf{NumRows}$  query of type action
- ightarrow NumberOfSourcesToLoad query and set of type float
- $\rightarrow$  **OKToDeleteSources** query of type action
- $\rightarrow$  **ProcessNewSource** set of type action
- $\rightarrow$  ReconstructMarker set of type action
- $\rightarrow$   $\bf ReconstructionErrorTolerance$  query and set of type float
- $\rightarrow$   $\bf ReconstructionList$  list of type BrachyReconstruction
- → RemoveAllCatheterSources set of type action
- → RemoveAllCatheters set of type action
- → RemoveAllSources set of type action
- → RemoveAllSourcesInSeedArray set of type action

- → RemoveCatheter set of type action
- $\rightarrow$  **RemoveSource** set of type action
- → RotateAboutTip query and set of type bool
- → RotationLabel query of type action
- → RowHeader query of type action
- $\rightarrow$  **SeedArray** subobject of type SeedArray
- $\rightarrow$  **SeedList** list of type Seed
- $\rightarrow$  SeedsForAllCaths query and set of type bool
- $\rightarrow$  SelectionTolerance query and set of type float
- → SetCurrentFilmFromDigitizer set of type action
- → SourceGroupList list of type SeedGroup
- $\rightarrow$  SourceIsGloballyCurrent query of type action
- $\rightarrow$  **SourceList** list of type Seed
- → SourcePositionList query and set of type EnumeratedList with labels
- → SpecifiedMarkerX query and set of type float
- $\rightarrow$  **SpecifiedMarkerY** query and set of type float
- $\rightarrow~\mathbf{SpecifiedMarkerZ}$  query and set of type float
- $\rightarrow~\mathbf{StereoShiftEnabled}$  query and set of type bool
- → StereoShiftIsVertical query and set of type bool
- → TargetReconstructionList query and set of type EnumeratedList with labels
- → TemplateAutoLoadCatheters query and set of type bool
- → TemplateCatheterLength query and set of type float
- $\rightarrow$  **TemplateColumnSpace** query and set of type float
- $\rightarrow$  TemplateColumns query and set of type int
- $\rightarrow$  **TemplateGuideCathCentered** query and set of type bool
- $\rightarrow$  **TemplateOffsetGap** query and set of type bool
- $\rightarrow$  **TemplateRowSpace** query and set of type float
- $\rightarrow$  TemplateRows query and set of type int
- $\rightarrow~\mathbf{TipToFirstSourceSpace}$  query and set of type float
- ightarrow ToggleCurrentBrachyFilm set of type action
- $\rightarrow~$  Transform subobject of type Transform
- ightarrow UpdateFilmNames set of type action
- ightarrow **UpdateTargetPoints** query of type action
- $\rightarrow \ \mathbf{UpdateTargetType} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ValidateTargetType set of type action
- $\rightarrow$  Value query and set of type action
- ightarrow WorldOriginPOI subobject of type Poi
- $\rightarrow~\mathbf{XRotationDegrees}$  query and set of type float
- → XTranslationLabel query of type action
- → YRotationDegrees query and set of type float
- → YTranslationLabel query of type action
- → **ZRotationDegrees** query and set of type float

 $\rightarrow$  **ZTranslationLabel** query of type action

# ${\bf Brachy Reconstruction}$

- $\rightarrow~\mathbf{CatheterName}$  query and set of type <code>ObjString</code>
- $\rightarrow~\mathbf{Error}$  query and set of type float
- $\rightarrow~\mathbf{PoiName}$  query and set of type ObjString
- $\rightarrow~\mathbf{RoiName}$  query and set of type ObjString
- $\rightarrow~\mathbf{SourceName}$  query and set of type <code>ObjString</code>

# **BrachyTemplate**

- $\rightarrow~{\bf BeginMessageBatch}$  query and set of type bool
- → ColumnLabelList list of type SimpleString
- $\rightarrow$  ColumnSpacing query and set of type float
- $\rightarrow~\mathbf{DefaultFrontPlaneOffset}$  query and set of type float
- $\rightarrow$  **DefaultXPosition** query and set of type float
- $\rightarrow$  **DefaultYPosition** query and set of type float
- $\rightarrow~\mathbf{DepthSpacing}$  query and set of type float
- $\rightarrow~\mathbf{EndMessageBatch}$  query and set of type bool
- → Format query and set of type action
- → FormatIsCustom query of type action
- → FormatList query and set of type StringList
- $\rightarrow$  MaxDepth query and set of type float
- $\rightarrow$  Name query and set of type ObjString
- → NumberOfColumns query and set of type int
- $\rightarrow$  NumberOfRows query and set of type int
- ightarrow **ObjectVersion** subobject of type ObjectVersion
- $\rightarrow$  Reformat set of type action
- $\rightarrow$  RowLabelList list of type SimpleString
- $\rightarrow$  RowSpacing query and set of type float

# ${\bf Browser}$

- $\rightarrow~\mathbf{Object}$  query and set of type
- $\rightarrow$   $\bf{RootKey}$  query and set of type ObjString

#### **CPManager**

- → AllCPDoseValid query and set of type action
- → AllCPDoseValidOrWeightZero query of type action
- → AllowWeightChange query and set of type bool
- $\rightarrow$  AnyODMModifiedSinceOptimization query of type action
- → AnyODMsValid query of type action
- → AreThereClosedLeafPairsInTheField query of type action
- → **Beam** subobject of type Beam
- → BeamAnglesEqualForAllCPs query of type action
- → BeamObject subobject of type Beam
- $\rightarrow$  **BeginMessageBatch** query and set of type bool
- → BottomJawPosition query and set of type action
- → BottomMLCPosition query and set of type action
- → CArmAngle query and set of type action
- → **CPManagerObject** query and set of type action
- $\rightarrow$  CheckJawValidityWithWedge set of type action
- → ClosedLeafPairsMaxPosition query and set of type float
- $\rightarrow$   ${\bf ClosedLeafPairsMinPosition}$  query and set of type float
- → Collimator query and set of type action
- → CollimatorDependency query of type action
- → CollimatorStop query and set of type action
- ightarrow ComputeClosedLeafPairsPositions query of type action
- $\rightarrow~\mathbf{ComputeDoseFromODM}$  query and set of type bool
- ightarrow ControlPointList list of type ControlPoint
- $\rightarrow$  Couch query and set of type action
- → CouchDependency query of type action
- → CouchStop query and set of type action
- → **DoAutoSurround** set of type action
- ightarrow **DoAutoSurroundMLC** set of type action
- $\rightarrow~\mathbf{DoseSummationType}$  query and set of type int
- → DrawCArm query and set of type action
- ightarrow **DrawCollimator** query and set of type action
- → DrawCouch query and set of type action
- → DrawGantry query and set of type action
- → EndMessageBatch set of type action
- → EnforceMaxTipDiffOverall set of type action
- → EnforceMinDynamicLeafGap set of type action
- → EquivalentSquare query of type action
- → EquivalentSquareMLC query of type action
- → ForceAllCPDoseInvalid set of type action
- $\rightarrow$  Gantry query and set of type action
- → GantryDependency query and set of type action

- $\rightarrow$  GantryIsCCW query and set of type bool
- → GantryStop query and set of type action
- $\rightarrow$  GantryStopColor query of type action
- $\rightarrow$  **HasMultiModels** query of type action
- → InternalCollimator query and set of type action
- $\rightarrow$  InternalCollimatorStop query and set of type action
- $\rightarrow$  InternalCouch query and set of type action
- $\rightarrow$  InternalCouchStop query and set of type action
- $\rightarrow$  InternalGantry query and set of type action
- → InternalGantryStop query and set of type action
- $\rightarrow$  InvalidateCPDose set of type action
- $\rightarrow$  IsCollimatorStartStopLocked query of type bool
- $\rightarrow$  IsCouchStartStopLocked query of type bool
- → IsGantryStartStopLocked query and set of type bool
- → IsLeftRightIndependent query of type bool set of type action
- → IsTopBottomIndependent query of type bool set of type action
- → **JawDependency** query of type action
- $\rightarrow \ \mathbf{JawPositionsEqualForAllCPs} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → JawPositionsValid query of type action
- → JawsConformance query and set of type EnumeratedList with labels
- → LeafShiftConstant query and set of type float
- → LeafShiftLinear query and set of type float
- $\rightarrow$  LeafShiftQuadratic query and set of type float
- $\rightarrow$  LeftJawPosition query and set of type action
- $\rightarrow$  **LeftMLCPosition** query and set of type action
- → LeftRightJawWidth query and set of type action
- $\rightarrow~\mathbf{LeftRightMLCFieldSize}$  query and set of type action
- $\rightarrow \ \mathbf{LoadTrueOpeningDensityMatrix} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow MLCBestCollimatorAngle query and set of type action
- $\rightarrow$  MLCError query and set of type action
- $\rightarrow$  MLCErrorPerCollimator query and set of type action
- $\rightarrow \ \mathbf{MLCFieldBottomEdgeAllCPs} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{MLCFieldHeightAllCPs} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{MLCFieldLeftEdgeAllCPs} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → MLCFieldRightEdgeAllCPs query of type action
- $\rightarrow \ \mathbf{MLCFieldTopEdgeAllCPs} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{MLCFieldWidthAllCPs} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → MLCInfo query and set of type action
- → MLCMaxPosition query and set of type action
- → MLCMaxPositionAllCPs query of type action
- $\rightarrow$  MLCMinPosition query and set of type action
- → MLCMinPositionAllCPs query of type action

- $\rightarrow$  MLCOptimizeCollimatorAngle set of type action
- → MLCPlotStyle query and set of type action
- → MLCPushMethod query and set of type EnumeratedList with labels
- → MLCSegmentList list of type ControlPoint
- ightarrow MLCTransForDisplay query and set of type action
- $\rightarrow$  MLCTransmissionIfValid query and set of type action
- $\rightarrow$  MakeJawsStatic set of type action
- → MaxBottomJawPosition query of type action
- → MaxLeftJawPosition query of type action
- → MaxRightJawPosition query of type action
- → MaxTopJawPosition query of type action
- → MessageBatchMode query of type action
- $\rightarrow$  MinDynamicLeafGapMustBeEnforced query of type action
- $\rightarrow$  MinLeafGapToEnforce query of type action
- → ModifierDependency query of type action
- → ModifierList query and set of type action
- → NumberOfControlPoints query and set of type action
- ightarrow OpenExtraLeafPairs set of type action
- → Oppose set of type action
- → OpposeTable set of type action
- → PerformingAutoSurround query and set of type float
- → PushInFieldClosedLeafPairsBehindJaws set of type action
- → PushMLCLeavesToBlock set of type action
- $\rightarrow$  PushMLCLeavesToJaws set of type action
- $\rightarrow$  PushMLCLeavesToJawsCenter set of type action
- → RightJawPosition query and set of type action
- $\rightarrow$  RightMLCPosition query and set of type action
- $\rightarrow$  **SetCArm** set of type action
- → SetCollimator set of type action
- $\rightarrow$  **SetCouch** set of type action
- → **SetGantry** set of type action
- $\rightarrow$  **SetWedge** set of type action
- $\rightarrow$  StoreCPDose query of type bool set of type action
- ightarrow ToggleWedgeOrientation set of type action
- ightarrow TopBottomJawHeight query and set of type action
- $\rightarrow~\mathbf{TopBottomMLCFieldSize}$  query and set of type action
- $\rightarrow$  **TopJawPosition** query and set of type action
- $\rightarrow$   $\bf TopMLCPosition$  query and set of type action
- → UpdateControlPointWeights set of type action
- → UpdateMachineDependentAttributes set of type action
- → UserCanEditCPWeights query of type action
- $\rightarrow$  Wedge query and set of type action

- $\rightarrow$   $\bf WedgeAngle$  query and set of type action
- $\rightarrow~\mathbf{WedgeContext}$  query and set of type action
- $\rightarrow~\mathbf{WedgeIsValid}$  query of type action
- $\rightarrow~\mathbf{WedgeName}$  query and set of type action
- $\rightarrow$   $\bf WedgeOffsetDistance$  query and set of type action
- $\rightarrow \ \mathbf{WedgeOffsetList} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$   $\bf WedgeOffsetOrigin$  query and set of type action
- $\rightarrow~$  Wedge Orientation query and set of type action
- $\rightarrow \ \mathbf{WedgeOrientationLabel} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$   $\bf WedgeRotation$  query of type action

### CTScanner

- $\rightarrow~\mathbf{CtToDensityTableName}$  query of type ObjString set of type action
- → CtToStoppingPowerTableName query of type ObjString set of type action
- $\rightarrow$  **DeleteCTScanner** set of type action
- ightarrow HasAlignmentSystem query of type action
- $\rightarrow$  HasCalibrationTable query of type action
- → HasCtToDensityTable query of type action
- $\rightarrow \ \mathbf{HasCtToStoppingPowerTable} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow LaserAlignmentSystemName query and set of type ObjString
- → LaserCalibrationTableName query of type ObjString set of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{PeakKVP}$  query and set of type ObjString
- → ScannerManufacturer query and set of type ObjString
- $\rightarrow$  **ScannerModel** query and set of type ObjString
- → SetCTScanner set of type action
- $\rightarrow$  **UsePeakKVP** query and set of type bool

# CalibratedSource

- $\rightarrow$  CalibrationDate subobject of type Time
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{SourceStrength}$  query and set of type float
- $\rightarrow~\mathbf{StrengthUnits}$  query and set of type Enumerated List with labels

# CalypsoExport

- $\rightarrow$  **BeginMessageBatch** set of type action
- → Cancel set of type action
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **Export** set of type action
- $\rightarrow~\mathbf{ExportFileList}$  subobject of type FileList
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow$   $\,$  Isocenter query and set of type string
- → PluginName query of type string
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- → Transponder1Label query and set of type string
- $\rightarrow$  Transponder1Poi query and set of type string
- → Transponder2Label query and set of type string
- → Transponder2Poi query and set of type string
- $\rightarrow$  Transponder3Label query and set of type string
- ightarrow Transponder3Poi query and set of type string
- $\rightarrow$  **UnitTestMode** query and set of type bool

# ${\bf CalypsoUT}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Cancel}$  set of type action
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{IsNewer}$  query of type bool
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~{\bf Revision}$  query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### Catheter

- $\rightarrow$  AddSegment set of type action
- $\rightarrow$  **ArrayXIndex** query and set of type int
- → ArrayYIndex query and set of type int
- → CatheterLength query of type action
- $\rightarrow$  Color subobject of type Color
- $\rightarrow \ \mathbf{DistanceToCurrentActiveBase} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{DistanceToCurrentActiveTip} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → DistanceToCurrentSourceBase set of type action
- → DistanceToCurrentSourceCenter set of type action
- → DistanceToCurrentSourceTip set of type action
- → DrawScale set of type action
- $\rightarrow$  **DrawSegmentsAndSeeds** set of type action
- $\rightarrow~\mathbf{GetClosestSource}$  query of type action
- $\rightarrow$  **GetFurthestSource** query of type action
- ightarrow **HighlightColor** subobject of type Color
- $\rightarrow$  InterSourceSpace query and set of type float
- $\rightarrow$  IsInSeedArray query and set of type bool
- $\rightarrow$  MakeContinous set of type action
- $\rightarrow$  MoveSourceToEnd set of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  Radius query and set of type float
- ightarrow RecomputeSourcePositions set of type action
- $\rightarrow$  **SegmentList** list of type CatheterSegment
- $\rightarrow$  **SegmentTipTineLength** query and set of type float
- $\rightarrow$  **SourceList** list of type Seed
- → TipToFirstSourceSpace query and set of type float

# ${\bf Catheter Segment}$

- $\rightarrow~\mathbf{BasePositionX}$  query and set of type float
- $\rightarrow$  BasePositionY query and set of type float
- $\rightarrow~{\bf BasePositionZ}$  query and set of type float
- $\rightarrow~\mathbf{CatheterObject}$  query of type pointer set of type action
- $\rightarrow \ \mathbf{CheckIfClosestToPoint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Display2d}$  query and set of type bool
- $\rightarrow~\mathbf{Display3d}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayChangeNode}$  query of type action
- $\rightarrow~\mathbf{DrawWithHighlight}$  query and set of type bool
- $\rightarrow~\mathbf{SegmentLength}$  query and set of type action
- $\rightarrow~\mathbf{Tine Length}$  query and set of type float
- $\rightarrow~\mathbf{TipPositionX}$  query and set of type float
- $\rightarrow~\mathbf{TipPositionY}$  query and set of type float
- $\rightarrow$  **TipPositionZ** query and set of type float
- $\rightarrow$  **Transform** set of type action

# CircularCollimator

- $\rightarrow~{\bf BottomJawPosition}$  query and set of type float
- $\rightarrow~\mathbf{Diameter}$  query and set of type float
- $\rightarrow~\mathbf{LeftJawPosition}$  query and set of type float
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{RightJawPosition}$  query and set of type float
- $\rightarrow~\mathbf{TopJawPosition}$  query and set of type float

### ColorPrint

- $\rightarrow~\mathbf{Capture}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{CaptureList}$  query and set of type StringList
- $\rightarrow~\mathbf{HeaderHeight}$  query and set of type int
- $\rightarrow$  IsClick query of type action
- $\rightarrow~\mathbf{IsDefine}$  query of type action
- $\rightarrow$  **IsSpecify** query of type action
- $\rightarrow~\mathbf{IsZoom}$  query of type action
- $\rightarrow$  Margin query and set of type int
- $\rightarrow~\mathbf{PageSize}$  query and set of type Enumerated List with labels
- $\rightarrow\,$  Scale query and set of type float
- $\rightarrow~\mathbf{WindowID}$  query and set of type int
- $\rightarrow~\mathbf{ZoomList}$  query and set of type StringList
- $\rightarrow~{\bf ZoomTo}$  query and set of type Enumerated List with labels

#### CompareProfile

- $\rightarrow$  BlockDoseComputation query and set of type bool
- ightarrow CalcMeasuredToComputedDoseFitMetrics set of type action
- → ColumnFormat query of type action
- → ColumnHeader query of type action
- → CompareProfileClassBuildUpMetricsEndWeight query and set of type float
- → CompareProfileClassBuildUpMetricsStartWeight query and set of type float
- → ComputationVersion query and set of type ObjString
- → ComputedDoseValid query of type bool set of type action
- → ComputedDoseValidKeepLast set of type action
- → ComputedDoseValidNotEC set of type action
- → ComputedInThisSession query and set of type bool
- → ComputedProfile subobject of type DoseProfile
- → ECDoseInfoArray query and set of type pointer
- → EndMessageBatch set of type action
- → ErrorDescription query and set of type ObjString
- → ErrorNormalization query and set of type float
- → InvalidateECDoseInfo set of type action
- → LastComputedDoseValid query and set of type bool
- → LastComputedProfile subobject of type DoseProfile
- → MeasureGeometryObject query and set of type pointer
- $\rightarrow$  MeasuredProfile query and set of type
- → MeasuredProfileList query and set of type
- → MeasuredProfileListObject set of type action
- → MeasuredProfileName query and set of type ObjString
- → ModificationDependency query of type action
- → NormalizationDepth query and set of type float
- → NormalizationOffset query and set of type float
- $\rightarrow$  NormalizeByIntegral query and set of type bool
- → NumColumns query of type action
- → NumRows query of type action
- → **ObjectVersion** subobject of type ObjectVersion
- → **PlotStyle** subobject of type PlotStyle
- → **Profile** query of type action
- → ProfileErrorRatioHighDose query of type action
- → **ProfileMetrics** subobject of type ProfileMetrics
- → RecomputeDoseMetrics set of type action
- $\rightarrow$  SCDWhenDoseLastComputed query and set of type float
- $\rightarrow \ \mathbf{SetBlockComputationStateFromMeasuredProfile} \ \mathtt{set} \ \mathtt{of} \ \mathtt{type} \ \mathtt{action}$
- → Value query of type action

#### Compensator

- → ActualHomogeneity query and set of type float
- → AllocateThicknessArray set of type action
- → **ArrayObjectName** query and set of type ObjString
- $\rightarrow$  **BeginMessageBatch** query and set of type bool
- → CancelOptimization query and set of type bool
- → CenterAtZero query and set of type bool
- → ColumnFormat query and set of type
- → ColumnHeader query and set of type
- → CompensatorHangsDown query and set of type bool
- $\rightarrow$  CompensatorOutput set of type action
- $\rightarrow$  CompuFormerEnabled query and set of type bool
- → CutoffHomogeneity query and set of type float
- $\rightarrow$  **Density** query and set of type float
- $\rightarrow$  **DisplayResolution** query and set of type float
- → DoseCompMode query and set of type EnumeratedList with labels
- $\rightarrow$  **DoseMax** query and set of type float
- $\rightarrow$  **DoseMean** query and set of type float
- $\rightarrow$  **DoseMin** query and set of type float
- $\rightarrow$  **DoseStdDev** query and set of type float
- ightarrow EdgeOfFieldBorder query and set of type float
- $\rightarrow~\mathbf{EndMessageBatch}$  query and set of type bool
- $\rightarrow$   $\mathbf{ExportFormat}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{ExportName}$  query and set of type ObjString
- $\rightarrow~\mathbf{FillOutsideMode}$  query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{FillOutsideThickness}$  query and set of type float
- $\rightarrow$   $\bf Generated Automatically$  query and set of type bool
- $\rightarrow$  **Height** query and set of type float
- $\rightarrow$  IgnoreStatInvalidation query and set of type bool
- → IncludePolyBase query and set of type bool
- → InitialThickness guery and set of type float
- → InvalidateStats set of type action
- $\rightarrow$  IsValid query of type bool set of type action
- → IsValidForOutput query of type action
- → IterationCount query and set of type int
- → LoadFluenceFilterInfo set of type action
- → MakeWedge set of type action
- → MaxAllowableThickness query and set of type float
- $\rightarrow$  MaxIterations query and set of type int
- $\rightarrow$  MillingThickness query and set of type float
- $\rightarrow$  MillingXScaler query and set of type float
- $\rightarrow$  MillingYScaler query and set of type float

- → MillingZScaler query and set of type float
- → ModificationDependency query of type action
- → ModifiedSinceOptimization query of type action
- → ModifierMeanThickness query of type action
- → Name query and set of type ObjString
- → NumColumns query and set of type
- $\rightarrow$  **NumRows** query and set of type
- $\rightarrow~\mathbf{OptimizeToMinDoseFirstIteration}$  query and set of type bool
- → OutputFactor query and set of type float
- → ParScientificEnabled query and set of type bool
- $\rightarrow$  **PlaneDepth** query and set of type float
- → PositiveMilled query and set of type float
- $\rightarrow$  **PrintTransmission** set of type action
- $\rightarrow$  **ProtonSourceToCompensatorDistance** query and set of type float
- → ResampleUsingLinearInterpolation query and set of type bool
- $\rightarrow$  Resolution query and set of type float
- → RoundData query of type bool set of type action
- → RoundingValue query of type float set of type action
- → RowHeader query and set of type
- → SaveCompensatorVolume query and set of type action
- → ScaleWidthHeight query and set of type bool
- → SetupForOptimization set of type action
- $\rightarrow$  SourceToCompensatorDistance query and set of type float
- $\rightarrow$  **StartOptimizationWithCurrent** query and set of type bool
- → StatsAreValid query of type action
- → Thickness query and set of type action
- $\rightarrow$  **ThicknessObject** query and set of type
- $\rightarrow$  Transmission query and set of type action
- → TrayNumber query and set of type ObjString
- ightarrow TrayNumberIfValid query of type action set of type string
- $\rightarrow~\mathbf{Type}$  query and set of type Enumerated List with labels
- → Value set of type action
- $\rightarrow$  **WetXDim** query and set of type int
- → WetYDim query and set of type int
- $\rightarrow$  Width query and set of type float
- → **XDimension** set of type action
- → YDimension set of type action

#### CompensatorConverter

- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  Cancel set of type action
- → CancelConversion query and set of type bool
- $\rightarrow$  ClassName query of type string
- → ClearUnitTestData set of type action
- $\rightarrow$  ComputeEffectiveODM set of type int
- → ComputeEffectiveODMCurrentBeam set of type action
- ightarrow ComputeODMDifference query and set of type bool
- $\rightarrow$  ConvertAllBeams set of type action
- → ConvertBeam set of type int
- → Converting query of type bool
- → **Density** query and set of type float
- $\rightarrow$  **Destroy** set of type action
- → EndMessageBatch set of type action
- $\rightarrow~{\bf ErrorTolerance}$  query and set of type float
- → **Existence** query of type bool
- $\rightarrow$  **FieldEdgeBorder** query and set of type float
- → FillOutsideMode query and set of type string
- $\rightarrow$  FillOutsideThickness query and set of type float
- $\rightarrow~\mathbf{FilterODM}$  query and set of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow$  **JawMargin** query and set of type float
- $\rightarrow$  KernelSize query and set of type int
- $\rightarrow$   ${\bf LinearInterpolation}$  query and set of type bool
- $\rightarrow~\mathbf{MaxAllowableThickness}$  query and set of type float
- $\rightarrow~\mathbf{MaxNumberOfIterations}$  query and set of type int
- $\rightarrow~\mathbf{OptimizeCompensator}$  query and set of type bool
- $\rightarrow \ \mathbf{OutputUnitTestResults} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  Resolution query and set of type float
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  **Run** set of type action
- $\rightarrow$  SCD query and set of type float
- $\rightarrow$  **StopConversion** set of type action
- $\rightarrow$  **TrialList** list of type DCITrial
- → UnitTestMode query and set of type bool

# ConfigRV

- $\rightarrow$  **BottomJaw** query and set of type EnumeratedList with labels
- $\rightarrow$  **ElektaRelativeMLCPositions** query and set of type bool
- $\rightarrow~$  Enabled query and set of type bool
- $\rightarrow~\mathbf{LeftJaw}$  query and set of type Enumerated List with labels
- $\rightarrow$  MLCBankSwap query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{MLCBankSwapValue}$  query and set of type int
- $\rightarrow$   $\mathbf{MLCOrderSwap}$  query and set of type Enumerated List with labels
- $\rightarrow$  MLCOrderSwapValue query and set of type int
- $\rightarrow~\mathbf{RightJaw}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{TopJaw}$  query and set of type Enumerated List with labels
- $\rightarrow$  **X1Jaw** query of type action
- $\rightarrow~\mathbf{X2Jaw}$  query of type action
- $\rightarrow$  **Y1Jaw** query of type action
- $\rightarrow$  **Y2Jaw** query of type action

# Constraint Manager

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Current}$  subobject of type Orbit Constraints
- $\rightarrow~\mathbf{CurrentName}$  query and set of type string
- $\rightarrow \ \mathbf{CurrentNameIs} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  InterfaceCount query of type int
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{OrbitBioConstraints}$  subobject of type OrbitBioConstraints
- $\rightarrow~\mathbf{OrbitConstraints}$  subobject of type OrbitConstraints
- $\rightarrow~\mathbf{TypeNames}$  query of type StringList

#### ContourDataEditor

- $\rightarrow$  AddContour set of type action
- $\rightarrow \ \mathbf{AddContourPoint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  ContourCount query of type int
- $\rightarrow$  ContourIndex query and set of type int
- $\rightarrow$  ContourPointCount query of type int
- $\rightarrow$  ContourPointIndex query and set of type int
- $\rightarrow~\mathbf{DataHasChanged}$  query and set of type bool
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **IsCurrent** set of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow \ \mathbf{RemoveAllContours} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → UpdateRoi set of type action
- $\rightarrow$  X query and set of type float
- $\rightarrow$  **Y** query and set of type float
- $\rightarrow$  **Z** query and set of type float

#### ControlPoint

- $\rightarrow$  AreThereClosedLeafPairsInTheField query of type action
- → BeginMessageBatch set of type action
- → BottomJawPosition query and set of type action
- $\rightarrow$  **BottomMLCPosition** query and set of type action
- → CArmAngle query and set of type action
- → CPDoseIsValid query and set of type bool
- → **CPManagerObject** query of type pointer set of type action
- → CalcLeafSpeed set of type action
- → CloseMLCLeaves set of type action
- → Collimator query and set of type action
- $\rightarrow$  ComputeCPDose query and set of type bool
- → Couch query and set of type action
- $\rightarrow$  CumulativeCoeff query and set of type float
- $\rightarrow$  **DeliveryTime** query and set of type float
- $\rightarrow$  **DisplayMonitorUnits** query of type action
- → **DisplayedWeightAsPercent** query of type action
- → **DoAutoSurround** set of type action
- $\rightarrow$  **DoAutoSurroundMLC** set of type action
- $\rightarrow$  **DoseRate** query and set of type float
- $\rightarrow$  **DoseVector** query and set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  EnforceMLCLimits set of type action
- → EquivalentSquare query of type action
- $\rightarrow \ \mathbf{EquivalentSquareMLC} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → FluenceFilterArray query of type action
- → ForceCPDoseInvalid query and set of type bool
- → Gantry query and set of type action
- → GantryRate query of type action
- $\rightarrow~\mathbf{GetMinLeafEndSeparation}$  query of type action
- → HasSharedModifierList query and set of type bool
- → InternalCollimator query of type float set of type action
- → InternalCouch query of type float set of type action
- → InternalGantry query of type float set of type action
- → InvalidateCPDose set of type action
- → IsLeftRightMLCSymmetric query and set of type
- → IsTopBottomMLCSymmetric query and set of type
- → LeafSpeed query of type action
- → LeftJawPosition query and set of type action
- → LeftMLCPosition query and set of type action
- $\rightarrow$  LeftRightJawWidth query and set of type action
- $\rightarrow$  LeftRightMLCFieldSize query and set of type action

- $\rightarrow$  MLCBestCollimatorAngle query and set of type float
- $\rightarrow$  MLCError query and set of type float
- → MLCErrorPerCollimator subobject of type AnnotatedCurve
- → MLCInfo query and set of type action
- → MLCLeafPositions subobject of type AnnotatedCurve
- → MLCLeavesAreOpen query of type action
- → MLCLowerFieldExtent query of type action
- $\rightarrow$  MLCMaxPosition query of type action
- → MLCMinPosition query of type action
- → MLCOptimizeCollimatorAngle set of type action
- → MLCPlotStyle subobject of type PlotStyle
- → MLCShiftDistance query and set of type float
- $\rightarrow$  MLCTransForDisplay query and set of type float
- ightarrow MLCTransmissionIfValid query of type action
- $\rightarrow$  MLCUpperFieldExtent query of type action
- → MakeLeftRightSymmetric set of type action
- $\rightarrow$  MakeTopBottomSymmetric set of type action
- $\rightarrow$  MaxJawTravelDistance query of type action
- ightarrow MaxLeafTravelDistance query of type action
- $\rightarrow$  MessageBatchMode query of type action
- → ModifierList list of type BeamModifier
- → MonitorUnits query and set of type action
- → Name query and set of type ObjString
- $\rightarrow$  **NextCP** query of type action
- $\rightarrow$  **ODM** query of type action
- → OpenExtraLeafPairs set of type action
- → OpenLeafPairsForSiemens set of type action
- $\rightarrow \ \mathbf{OpenMLCLeaves} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → OpenMLCMaxPosition query of type action
- ightarrow **OpenMLCMinPosition** query of type action
- $\rightarrow$  **OpposeMLCLeaves** set of type action
- → PercentOfArc query of type action set of type float
- $\rightarrow \ \mathbf{PushInFieldClosedLeafPairsBehindJaws} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- ightarrow PushMLCLeavesToBlock set of type action
- → PushMLCLeavesToJaws set of type action
- ightarrow PushMLCLeavesToJawsCenter set of type action
- $\rightarrow$  RemoveWedge set of type action
- → RightJawPosition query and set of type action
- → RightMLCPosition query and set of type action
- → SegmentArea query of type action
- → SetupDependencies set of type action
- $\rightarrow \ \mathbf{ShiftMLCBank1} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$

- $\rightarrow$  ShiftMLCBank2 set of type action
- $\rightarrow~\mathbf{TPBDoseCalculator}$  query and set of type
- $\rightarrow$  TargetProjectionValid query and set of type bool
- $\rightarrow$  ToggleWedgeOrientation query and set of type
- $\rightarrow$  TopBottomJawHeight query and set of type action
- $\rightarrow$  TopBottomMLCFieldSize query and set of type action
- $\rightarrow$  **TopJawPosition** query and set of type action
- $\rightarrow~\mathbf{TopMLCPosition}$  query and set of type action
- → UpdateMLCLeavesFromMachine set of type action
- $\rightarrow \ \mathbf{UpdateMLCLeavesIfInvalid} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Wedge** query and set of type
- $\rightarrow~\mathbf{WedgeAngle}$  query and set of type
- $\rightarrow$  **WedgeContext** subobject of type WedgeContext
- $\rightarrow~\mathbf{WedgeName}$  query and set of type
- $\rightarrow$  WedgeOffsetDistance query and set of type
- $\rightarrow$  WedgeOffsetList query and set of type
- → WedgeOffsetOrigin query and set of type
- $\rightarrow$   $\bf WedgeOrientation$  query and set of type
- $\rightarrow$  WedgeOrientationLabel query and set of type
- $\rightarrow$  WedgeRotation query and set of type
- $\rightarrow$  Weight query and set of type float
- → WeightAsPercent query and set of type action
- $\rightarrow$   $\mathbf{WeightLocked}$  query and set of type bool

# ConvKernel

- $\rightarrow~\mathbf{FreeKernel}$  query and set of type
- $\rightarrow$  MonoEnergeticKernelPath query and set of type ObjString
- $\rightarrow \ \mathbf{NumberOfAngularBins} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$
- $\rightarrow \ \mathbf{NumberOfRadialBins} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$

### CoordSysEditor

- → BindXScale set of type action
- → BindYScale set of type action
- → BindZScale set of type action
- $\rightarrow$  BufferXScale query and set of type action
- → BufferYScale query and set of type action
- $\rightarrow$  BufferZScale query and set of type action
- → CheckXScaleParallel set of type action
- → CheckYScaleParallel set of type action
- → CheckZScaleParallel set of type action
- $\rightarrow$  CopyCoordSystem set of type action
- $\rightarrow$  CopyXScaleToY set of type action
- $\rightarrow$  EditCoordSystem subobject of type CoordSystem
- $\rightarrow$  **FinalCoordSystem** subobject of type CoordSystem
- → LeftRightMode query and set of type EnumeratedList with labels
- → LeftRightModeList query and set of type StringList
- $\rightarrow$  Name query and set of type ObjString
- → NextXPoint set of type action
- → NextXYPoint set of type action
- → NextYPoint set of type action
- → PreviousXYPoint set of type action
- $\rightarrow~\mathbf{ReferencePointX}$  query and set of type float
- $\rightarrow~\mathbf{ReferencePointY}$  query and set of type float
- $\rightarrow~\mathbf{ReferencePointZ}$  query and set of type float
- $\rightarrow$  RestrictToXY set of type action
- $\rightarrow~\mathbf{RightHandedFlag}$  query and set of type action
- $\rightarrow~\mathbf{RotatedNotRotatedList}$  query and set of type StringList
- → RotatedYesNo query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{RotationFlag}$  query and set of type action
- → ScaleCoordSystemX subobject of type CoordSystem
- → ScaleCoordSystemY subobject of type CoordSystem
- → ScaleCoordSystemZ subobject of type CoordSystem
- ightarrow ScaleMode query and set of type EnumeratedList with labels
- → ScaleModeList query and set of type StringList
- → ScaleSeparateMode query and set of type EnumeratedList with labels
- → ScaleSeparateModeList query and set of type StringList
- → ScaleTogetherMode query and set of type EnumeratedList with labels
- → ScaleTogetherModeList query and set of type StringList
- → ShiftCoordSystem set of type action
- → ShiftUsingReferencePoint set of type action
- $\rightarrow$  TransformPointTo query and set of type
- $\rightarrow$  **UpdateCoordSystem** set of type action

- $\rightarrow~\mathbf{UpdateTransform}$  query and set of type
- $\rightarrow \ \mathbf{UseXAxisForScale} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UseYAxisForScale} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{UseZAxisForScale}$  set of type action

#### CoordSystem

- $\rightarrow$  CheckOrthoXY set of type action
- → CheckOrthoXZ set of type action
- → CheckOrthoYZ set of type action
- $\rightarrow$  Clear set of type action
- $\rightarrow$  CurrentX query and set of type action
- → CurrentY query and set of type action
- → CurrentZ query and set of type action
- → DeriveLeftHandedXFromY set of type action
- → DeriveLeftHandedYFromX set of type action
- $\rightarrow \ \mathbf{DeriveRightHandedXFromY} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **DeriveRightHandedYFromX** set of type action
- → IsRightHanded query of type action
- $\rightarrow$  MakeNoneCurrent set of type action
- → MakeOriginCurrent set of type action
- → MakeOrthogonal set of type action
- → MakeXAxisCurrent set of type action
- $\rightarrow$  MakeYAxisCurrent set of type action
- → MakeZAxisCurrent set of type action
- → ModificationDependency query of type action
- → OriginIsCurrent query of type action
- $\rightarrow$  **OriginX** query and set of type float
- $\rightarrow$  **OriginY** query and set of type float
- $\rightarrow$  **OriginZ** query and set of type float
- $\rightarrow~\mathbf{OrthoTolerance}$  query and set of type float
- $\rightarrow~\mathbf{ParallelTolerance}$  query and set of type float
- → ReverseX set of type action
- $\rightarrow \ \mathbf{ShiftAllUsingCurrent} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \, \mathbf{TransformPointFrom} \,\, \mathbf{set} \,\, \mathbf{of} \,\, \mathbf{type} \,\, \mathbf{action}$
- $\rightarrow$  **TransformPointTo** set of type action
- $\rightarrow \ \mathbf{TranslateBy} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → UpdateTransform set of type action
- ightarrow **XAxisIsCurrent** query of type action
- → XAxisX query and set of type float
- $\rightarrow$  **XAxisY** query and set of type float
- $\rightarrow$  **XAxisZ** query and set of type float
- → XLength query and set of type float
- → XScale query and set of type action
- → XUnitsLabel query and set of type ObjString
- → YAxisIsCurrent query of type action
- $\rightarrow$  YAxisX query and set of type float
- $\rightarrow$  **YAxisY** query and set of type float

- $\rightarrow~\mathbf{YAxisZ}$  query and set of type float
- $\rightarrow~\mathbf{YLength}$  query and set of type float
- $\rightarrow~\mathbf{YScale}$  query and set of type action
- $\rightarrow~\mathbf{YUnitsLabel}$  query and set of type <code>ObjString</code>
- ightarrow **ZAxisIsCurrent** query of type action
- $\rightarrow~\mathbf{ZAxisX}$  query and set of type float
- $\rightarrow~\mathbf{ZAxisY}$  query and set of type float
- $\rightarrow~\mathbf{ZAxisZ}$  query and set of type float
- $\rightarrow~\mathbf{ZLength}$  query and set of type float
- $\rightarrow~\mathbf{ZScale}$  query and set of type action
- $\rightarrow~{\bf ZUnitsLabel}$  query and set of type ObjString

### CtToDensityTable

- $\rightarrow$  **AddPoint** set of type action
- $\rightarrow~\mathbf{CanModifyDoseFlag}$  query and set of type bool
- $\rightarrow$  ColumnFormat query of type action
- → ColumnHeader query of type action
- $\rightarrow~\mathbf{DeleteRow}$  set of type action
- → EndMessageBatch set of type action
- $\rightarrow$  InOutDirection query and set of type EnumeratedList with labels
- → InValidDescription query of type action
- $\rightarrow$  InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- $\rightarrow$  IsValid query of type action
- $\rightarrow$   ${\bf IsoShift}$  query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{IsoShiftName}$  query of type action
- $\rightarrow$  ModificationDependency query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  NotForDoseComputation query and set of type bool
- → NumColumns query and set of type
- → NumRows query and set of type
- $\rightarrow$  NumberOfPoints query and set of type
- $\rightarrow~\mathbf{ObjectVersion}$  subobject of type ObjectVersion
- $\rightarrow \ \mathbf{OffsetX} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PlotStyle}$  subobject of type PlotStyle
- $\rightarrow~\mathbf{RelyOnList}$  list of type CTS canner
- $\rightarrow~\mathbf{RightLeftDirection}$  query and set of type EnumeratedList with labels
- $\rightarrow~$  Table subobject of type CurveNd
- $\rightarrow$  Value set of type action
- $\rightarrow$  **X** set of type action
- $\rightarrow$  **Y** set of type action

# ${\bf CtToOpacityTable}$

- $\rightarrow \ \mathbf{AddPoint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  InValidDescription query of type action
- $\rightarrow$  IsValid query of type action
- ightarrow ModificationDependency query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  **NumberOfPoints** query and set of type
- $\rightarrow~\mathbf{ObjectVersion}$  subobject of type ObjectVersion
- $\rightarrow$  OffsetX set of type action
- $\rightarrow~\mathbf{PlotStyle}$  subobject of type PlotStyle
- $\rightarrow$  **ShowTransformed** set of type action
- $\rightarrow~$  Table subobject of type CurveNd
- $\rightarrow~\mathbf{TransformedX}$  query and set of type float
- $\rightarrow$  **TransformedY** query and set of type float
- $\rightarrow$  Value set of type action
- $\rightarrow$  **X** set of type action
- $\rightarrow$  **Y** set of type action

### ${\bf CtToStoppingPowerTable}$

- $\rightarrow$  AddPoint set of type action
- → ColumnFormat query of type action
- $\rightarrow$  ColumnHeader query of type action
- $\rightarrow~\mathbf{DeleteRow}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  InValidDescription query of type action
- $\rightarrow$  InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- $\rightarrow$  IsValid query of type action
- ightarrow ModificationDependency query of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{NotForDoseComputation}$  query and set of type bool
- $\rightarrow$  NumColumns query and set of type
- $\rightarrow~\mathbf{NumRows}$  query and set of type
- $\rightarrow~$  Number OfPoints query and set of type
- $\rightarrow~\mathbf{ObjectVersion}$  subobject of type ObjectVersion
- $\rightarrow \ \mathbf{OffsetX} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PlotStyle}$  subobject of type PlotStyle
- $\rightarrow$  RelyOnList query and set of type
- $\rightarrow~{\bf Table}$  subobject of type CurveNd
- $\rightarrow~$  Value set of type action
- $\rightarrow~\mathbf{X}$  set of type action
- $\rightarrow~\mathbf{Y}$  set of type action

#### CurveNd

- → AddPoint set of type action
- → CopyToPointList set of type action
- → CopyXToArray set of type action
- → CopyYToArray set of type action
- $\rightarrow \ \mathbf{CopyZToArray} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **DeleteAllPoints** set of type action
- → **DeleteLastPoint** set of type action
- → DeleteRow set of type action
- → InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- → LastValue query and set of type action
- $\rightarrow$  LoadPointList set of type action
- → NumColumns query of type int
- $\rightarrow$  **NumRows** query of type int
- → NumberOfDimensions query of type int set of type action
- → NumberOfPoints query of type int set of type action
- → Offset set of type action
- $\rightarrow$  OffsetX set of type action
- → OffsetXY set of type action
- → OffsetY set of type action
- $\rightarrow$  OffsetZ set of type action
- $\rightarrow~\mathbf{PointsAsBlob}$  query and set of type action
- $\rightarrow~\mathbf{PointsBinaryIO}$  query and set of type action
- $\rightarrow$  **PointsBinaryIOSupported** query and set of type bool
- → PointsDone set of type action
- → PointsFirst query and set of type action
- → PointsNext query and set of type action
- → PointsNumColsPerLine query of type action
- → ReadFromFile set of type action
- → Scale set of type action
- → ScaleX set of type action
- $\rightarrow$  **ScaleY** set of type action
- → ScaleZ set of type action
- $\rightarrow$  **SortByDimension** set of type action
- → SortByX set of type action
- $\rightarrow$  **SortByY** set of type action
- → SortByZ set of type action
- → Value query and set of type action
- $\rightarrow$  WriteToFile set of type action
- $\rightarrow$  X query and set of type action
- $\rightarrow$  **Y** query and set of type action

 $\rightarrow~{\bf Z}$  query and set of type action

#### CurvePainter

- $\rightarrow$  AddEditPoint set of type action
- → AddToDisplayList set of type action
- → BeginMessageBatch set of type action
- $\rightarrow$  **BoxSize** query and set of type int
- → BoxSizeList query and set of type StringList
- → BoxSizeString query and set of type action
- → Color query and set of type action
- $\rightarrow$  Curve subobject of type AnnotatedCurve
- → **DecubitusOrientation** query and set of type action
- $\rightarrow$  **DefaultBoxSize** query and set of type int
- $\rightarrow$  **Dimension** query of type action
- $\rightarrow$  **DisplayIn2d** query and set of type bool
- $\rightarrow$  **DisplayOn** query and set of type bool
- $\rightarrow$  **DisplayOnThickSlices** query and set of type bool
- → DrawBoxes query and set of type bool
- → EndMessageBatch set of type action
- → GoToNearestSlice set of type action
- ightarrow IncrementSliceCoordinate set of type action
- → InsertEditPoint set of type action
- $\rightarrow$  **LineStyle** subobject of type LineStyle
- $\rightarrow$  **NextSlice** set of type action
- $\rightarrow$  **OnFirstSlice** query of type action
- $\rightarrow~\mathbf{OnLastSlice}$  query of type action
- ightarrow Orientation query and set of type EnumeratedList with labels
- → **OrientationCoordinate** query and set of type EnumeratedList with labels
- → OrientationLabel query of type action
- $\rightarrow$  **OrientationList** query of type action
- → OrientationString query of type action
- → **PreviousSlice** set of type action
- → RemoveEditPoint set of type action
- → RemoveFromDisplayList set of type action
- $\rightarrow$  SliceCoordinate query and set of type float
- ightarrow SliceNumber query and set of type action
- → StartClosedCurve set of type action
- → StartEdit set of type action
- → StartMoveAllPoints set of type action
- → StartStretch set of type action
- $\rightarrow$  TrackEdit set of type action
- → TrackMoveAllPoints set of type action
- $\rightarrow$  **TrackStretch** set of type action
- → Volume query and set of type pointer

ightarrow VolumeByName set of type action

### Cutplane

- $\rightarrow$  AddToDisplayList set of type action
- $\rightarrow~\mathbf{ApplyToAllVolumes}$  query and set of type bool
- $\rightarrow$  BufferedNormalX query and set of type float
- $\rightarrow~\mathbf{BufferedNormalY}$  query and set of type float
- $\rightarrow$  BufferedNormalZ query and set of type float
- → Color query and set of type string
- → DeleteCutplanesForVolume set of type action
- → DeleteMarkedCutplanes set of type action
- → Display2DIfMarked query and set of type bool
- → IsInUse query and set of type bool
- → MarkCutplanesForVolume set of type action
- → Marked query and set of type action
- → Name query and set of type string
- $\rightarrow$  NormalX query of type float set of type action
- → NormalY query of type float set of type action
- → NormalZ query of type float set of type action
- → **PointX** query and set of type float
- → PointY query and set of type float
- $\rightarrow$  **PointZ** query and set of type float
- → RemoveFromDisplayList set of type action
- $\rightarrow$  ResequenceCutplanes set of type action
- $\rightarrow$  ResequenceCutplanesForVolume set of type action
- → ReverseCutplanesForVolume set of type action
- $\rightarrow$  ReverseMarkedCutplanes set of type action
- → SequenceNumber query and set of type int
- $\rightarrow$  SliceThickness query and set of type float
- $\rightarrow$  **StepCount** query and set of type int
- $\rightarrow~\mathbf{StepLength}$  query and set of type float
- $\rightarrow$  **UpdateBufferedNormal** set of type action
- → UpdateNormal set of type action
- $\rightarrow~$  Volume Name query and set of type action

# **DCITrial**

- $\rightarrow~\mathbf{BeamExtensionList}$  query and set of type
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow~\mathbf{HasBeamExtensionList}$  query of type bool
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow~\mathbf{Params}$  query and set of type

# **DCMTrial**

- $\rightarrow~\mathbf{BeamExtensionList}$  query and set of type
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$   $\,$  Converter query and set of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{HasBeamExtensionList}$  query of type bool
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$

### **DCRPresets**

- $\rightarrow~\mathbf{DCRBrightness}$  query and set of type int
- $\rightarrow~\mathbf{DCRContrast}$  query and set of type int
- $\rightarrow$  **DCRHi0** query and set of type int
- $\rightarrow$  DCRHi1 query and set of type int
- $\rightarrow$  **DCRHi2** query and set of type int
- $\rightarrow$  DCRHi3 query and set of type int
- $\rightarrow~\mathbf{DCRLevel}$  query and set of type int
- $\rightarrow~\mathbf{DCRLo0}$  query and set of type int
- $\rightarrow~\mathbf{DCRLo1}$  query and set of type int
- $\rightarrow~\mathbf{DCRLo2}$  query and set of type int
- $\rightarrow~\mathbf{DCRLo3}$  query and set of type int
- $\rightarrow~\mathbf{DCROpacity0}$  query and set of type float
- $\rightarrow~\mathbf{DCROpacity1}$  query and set of type float
- $\rightarrow~\mathbf{DCROpacity2}$  query and set of type float
- $\rightarrow~\mathbf{DCROpacity3}$  query and set of type float
- $\rightarrow~\mathbf{DCRWindow}$  query and set of type int
- $\rightarrow~\mathbf{DcrControlType}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{DcrControlTypeList}$  query and set of type StringList
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{SystemPreset}$  query and set of type bool

#### **DICOM**

- → AbortAssociation set of type action
- → **ApplicationID** query of type int
- → **AssociationID** query of type int
- $\rightarrow$  **AssociationStatus** query of type int
- → AssociationStatusDependency query of type action
- $\rightarrow$  Attribute query and set of type int
- → BeginTagRead query and set of type float
- $\rightarrow$  CancelPrint set of type action
- → CloseAssociation set of type action
- → CloseDICOMFile query of type action
- → ComputeOffScreen query and set of type bool
- → ConfigPath query of type ObjString set of type action
- → **DICOMImageFile** query and set of type ObjString
- → DerivedXPixels query and set of type int
- → Echo set of type action
- $\rightarrow$  EndTagRead query and set of type float
- → FilmHeight query of type action
- $\rightarrow$  **FilmWidth** query of type action
- → FreeResponseMessage set of type action
- → GetAttribute query of type action
- $\rightarrow$  **GetUID** query of type action
- → ImageXPixels query of type action
- → Initialize set of type action
- → InputCallback set of type action
- → LocalAETitle query and set of type ObjString
- → MessageID query and set of type int
- → MessageStatus query of type int
- $\rightarrow$  NoAssociation query and set of type bool
- → **OpenAssociation** set of type action
- → OpenAssociationWithoutWarning set of type action
- → OpenDICOMFile query of type action
- → **Print** set of type action
- → PrintCompleteDependency query of type action
- → **PrintDestinations** list of type SimpleString
- → **PrintFilmSizes** list of type SimpleString
- → **PrintMagnifications** list of type SimpleString
- → **PrintMedia** list of type SimpleString
- → **PrintPriorities** list of type SimpleString
- → **PrintStatus** set of type int
- $\rightarrow$  **PrintStatusDependency** query of type action
- → **PrintTest** set of type action

- $\rightarrow~\mathbf{PrintXPixels}$  query and set of type int
- $\rightarrow~\mathbf{PrinterDBPath}$  query of type ObjString set of type action
- $\rightarrow$  ReleaseDICOM set of type action
- $\rightarrow~\mathbf{RemoteAETitle}$  query and set of type ObjString
- $\rightarrow~\mathbf{RemoteHost}$  query and set of type ObjString
- $\rightarrow~\mathbf{RemotePort}$  query and set of type int
- $\rightarrow~\mathbf{ResponseID}$  query of type int
- $\rightarrow \ \mathbf{ResponseReceivedDependency} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **ResponseService** query of type ObjString
- $\rightarrow$  **ResponseType** query of type int
- $\rightarrow$  **SendRequestMessage** set of type action
- $\rightarrow \ \mathbf{SendResponseMessage} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **SendTest** set of type action
- $\rightarrow$  **SendToPlugin** set of type action
- $\rightarrow$   $\mathbf{ServiceListName}$  query and set of type ObjString
- $\rightarrow$  TimeOutCallback set of type action
- $\rightarrow$  TimeOutLength query of type int set of type action
- $\rightarrow~\mathbf{UnitTest}$  query and set of type bool

### ${\bf DICOMDerived Export Plugin}$

- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  Cancel set of type action
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow~\mathbf{ImageBytesPerPixel}$  query and set of type int
- $\rightarrow$  ImageData query and set of type pointer
- $\rightarrow$  ImageHeight query and set of type int
- $\rightarrow$  ImagePrintedSizeMM query and set of type float
- $\rightarrow$  ImageWidth query and set of type int
- → InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow$  **PluginName** query of type string
- $\rightarrow$  RemoteAETitle query and set of type string
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  **Run** set of type action
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

### **DICOMExportPlugin**

- → AnnotateDRR query and set of type bool
- $\rightarrow$  **AnnotateSetup** query and set of type bool
- → BeamDescription query and set of type string
- → BeamName query and set of type string
- → BeginMessageBatch set of type action
- → CanExportPlan query of type bool
- → CanExportRTDose query of type bool
- → CanExportRTImage query of type bool
- → CanExportSpatialRegistration query of type bool
- $\rightarrow$  CanExportStructureSet query of type bool
- $\rightarrow$  Cancel set of type action
- → ClassName query of type string
- → **DICOMImageList** query of type StringList
- $\rightarrow$  **Destroy** set of type action
- → DestroySetupBeams set of type action
- $\rightarrow$  **DisplaySetupBeam** query and set of type bool
- $\rightarrow$  **DoseRate** query and set of type float
- $\rightarrow$   ${\bf Enable Beam Type\_Patch}$  query and set of type bool
- $\rightarrow$  EnableConformalArc query and set of type bool
- → EnableOldBolus\_Patch query and set of type bool
- $\rightarrow~\mathbf{EnableVarianMaxDeliveryTime}$  query and set of type bool
- $\rightarrow~EnableVaris2\_2a\_Patch$  query and set of type bool
- $\rightarrow~{\bf Enable Varis Setup Beams}$  query and set of type bool
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$   $\mathbf{ExceptionWindow}$  subobject of type TreeListWindow
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow~\mathbf{ExportDoseRate}$  query and set of type bool
- $\rightarrow~\mathbf{ExportDoseRatePerCPDynamicArc}$  query and set of type bool
- → GantryRotationDirectionInEveryCP query and set of type bool
- → InstanceName query of type string
- → IsDataTransmitting query and set of type bool
- $\rightarrow$  **IsFiling** query of type bool
- → IsNewer query of type bool
- → MaximumDeliveryTime query and set of type float
- → NoSourceToBeamLimitingDeviceDistance query and set of type bool
- → NumberOfBeamsExported query and set of type int
- $\rightarrow$  NumberOfBeamsExportedMember query and set of type
- → PluginName query of type string
- → PopulateServerList set of type action
- $\rightarrow$  RemoteAETitle query and set of type string
- $\rightarrow$   $\bf RemoveSetupBeamReference$  query and set of type bool

- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow$  **SSDInArcs** query and set of type bool
- → SendDICOMImage query and set of type bool
- $\rightarrow$  **SendDRR** query and set of type bool
- $\rightarrow$  SendPlan query and set of type bool
- $\rightarrow$  **SendPlanarDose** query and set of type bool
- $\rightarrow$  **SendRTDose** query and set of type bool
- → SendRTDoseForPlan query and set of type bool
- $\rightarrow$  **SendRTDosePerBeam** query and set of type bool
- → SendRTDosePerCP query and set of type bool
- → SendRTDosePerPrescription query and set of type bool
- $\rightarrow$  **SendSetup** query and set of type bool
- $\rightarrow$  SendSpatialRegistration query and set of type bool
- → SendStructures query and set of type bool
- → ServerList list of type SimpleString
- $\rightarrow$  **SetupBeam1** subobject of type Beam
- → SetupBeam1Name query and set of type string
- → SetupBeam2 subobject of type Beam
- → SetupBeam2Name query and set of type string
- → **SetupBeamMachine** query and set of type string
- → SetupBeamMachineList query of type StringList
- $\rightarrow$  ToleranceLabel query and set of type string
- $\rightarrow$  **ToleranceNumber** query and set of type int
- $\rightarrow$  **UnitTest** query and set of type bool
- → UnitTestMode query and set of type bool
- → UpdateDICOMImageList set of type pointer
- → UpdatePrescriptionList set of type pointer
- $\rightarrow \ \mathbf{UpdateSetupBeamList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{pointer}$
- $\rightarrow$  **UpdateStructureList** set of type pointer

### ${\bf DICOMImportPlugin}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Cancel set of type action
- $\rightarrow$  ClassName query of type string
- → **DICOM\_Directory** subobject of type DICOM\_Directory
- $\rightarrow~\mathbf{DatasetForDose}$  query and set of type string
- $\rightarrow \ \mathbf{DeleteSelectedPatient} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{DeleteSelectedPatientObjects} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{ExceptionWindow}$  subobject of type TreeListWindow
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{ImportPatient}$  set of type action
- $\rightarrow \ \mathbf{ImportPatientSensitivity}$  query of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow \ \mathbf{IsNewer} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{PatientList}$  list of type SimpleString
- $\rightarrow$  **PatientObjectsListValue** query of type StringList
- $\rightarrow$  PatientObjectsSelectedList set of type pointer
- → PluginName query of type string
- $\rightarrow \ \mathbf{RefreshPatientList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

# $\mathbf{DICOM\_Directory}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{CurrentIndex}$  query and set of type int
- $\rightarrow$  CurrentPatient query and set of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- → **HasPatients** query of type bool
- $\rightarrow$  **InstanceName** query of type string
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow \ \mathbf{PatientCount} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$
- $\rightarrow$  PatientPath query and set of type string
- $\rightarrow~\mathbf{Update}$  set of type action

### **DMEPlugin**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Cancel set of type action
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{DoYouWantToSaveElectronApplicatorTable} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{ElectronApplicatorTable} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{DME\_ElectronApplicator}$
- $\rightarrow$   $\bf ElectronApplicatorTableIsBeingEdited$  query and set of type bool
- $\rightarrow \ \mathbf{ElectronApplicatorTableIsNotValid} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool}$
- $\rightarrow \ \mathbf{ElectronApplicatorTableIsValid} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool}$
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- → InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow \ \mathbf{LoadElectronApplicatorTable} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{MakeElectronApplicatorCurrentByName} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **OutputPlan** set of type action
- $\rightarrow$  **PluginName** query of type string
- $\rightarrow$  **Revision** query of type string
- ightarrow Run set of type action
- $\rightarrow \ \mathbf{SaveElectronApplicatorTable} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

# $DME\_Electron Applicator$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow~{\bf Electron Applicator Name}$  query and set of type string
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **EnergyToJawsList** list of type DME\_EnergyToJaws
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  MakeEnergyCurrentByName set of type string

### $DME\_EnergyToJaws$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{EnergyName}$  query and set of type string
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow~\mathbf{JawsX}$  query and set of type float
- $\rightarrow~\mathbf{JawsY}$  query and set of type float

### **DRRSpecs**

- $\rightarrow$  AddToBrightness set of type action
- $\rightarrow$  **BrightnessFactor** query and set of type float
- $\rightarrow$  CtToDensTableAddress subobject of type CtToDensityTable
- → CtToDensityTable query and set of type ObjString
- $\rightarrow$  **Energy** query and set of type float
- $\rightarrow~{\bf ImagePixels}$  query of type int set of type action
- $\rightarrow~\mathbf{ImageWidth}$  query and set of type float
- $\rightarrow$  InterpolationMode set of type action
- $\rightarrow$  LinearImageLoad query and set of type bool
- → LowerThreshold query and set of type float
- $\rightarrow$  ModificationDependency query of type action
- $\rightarrow~\mathbf{PatientThickness}$  query and set of type float
- $\rightarrow~\mathbf{RayInterpolationMode}$  query and set of type EnumeratedList with labels
- → SetCtToDensityIfInvalid set of type action
- $\rightarrow$  **StepSize** query and set of type float
- → UpperThreshold query and set of type float
- $\rightarrow~\mathbf{UseRenderingLimits}$  query and set of type bool
- $\rightarrow$  **UseThreshold** query and set of type bool

### ${\bf DRRWindowLevel}$

- $\rightarrow~\mathbf{DRRBrightness}$  query and set of type int
- $\rightarrow~\mathbf{DRRContrast}$  query and set of type int
- $\rightarrow~\mathbf{DRRLevel}$  query and set of type float
- $\rightarrow~\mathbf{DRRWindow}$  query and set of type float
- $\rightarrow~\mathbf{DrrControlType}$  query and set of type Enumerated List with labels
- $\rightarrow$   $\mathbf{DrrControlTypeList}$  query and set of type StringList
- $\rightarrow~\mathbf{MaxDensity}$  query and set of type float
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{SystemPreset}$  query and set of type bool

### **DVHGroup**

- $\rightarrow~\mathbf{ActualMaxDose}$  query and set of type float
- $\rightarrow$  AutoComputeMaxDose query and set of type bool
- $\rightarrow$  ClickDrag query and set of type bool
- $\rightarrow$  **DVHExist** query and set of type bool
- $\rightarrow~\mathbf{DVHList}$ list of type DoseVolHist
- ightarrow **DVHPlotStyle** subobject of type PlotStyle
- $\rightarrow~{\bf DVHToolMode}$  query and set of type Enumerated List with labels
- $\rightarrow$  **DVHToolModeTo** set of type action
- $\rightarrow~{\bf DVHTrackColor}$  query and set of type ObjString
- $\rightarrow$  **DVHZoomColor** query and set of type ObjString
- ightarrow **DoseAtPointer** query and set of type ObjString
- $\rightarrow$  **DrawPlot** query and set of type action
- ightarrow MaxDoseOverride query and set of type float
- $\rightarrow~\mathbf{MaxDoseOverrideInCentiGrey}$  query and set of type float
- $\rightarrow$  RoiAtPointer query and set of type ObjString
- → **SetPointer** set of type action
- $\rightarrow$  ToClickDrag set of type action

### Date

- $\rightarrow~\mathbf{DateAsCompactString}$  query and set of type action
- $\rightarrow~\mathbf{DateAsDays}$  query and set of type action
- $\rightarrow~\mathbf{DateInSeconds}$  query and set of type int
- $\rightarrow$  **Day** query and set of type int
- $\rightarrow~\mathbf{Hour}$  query and set of type int
- $\rightarrow$  Minute query and set of type int
- $\rightarrow$  **Month** query and set of type int
- $\rightarrow$   $\,$  Second query and set of type int
- $\rightarrow$  **Year** query and set of type int

### DcrSlider

- $\rightarrow~\mathbf{ClassificationBinNumber}$  query and set of type int
- $\rightarrow$  ColorBarPrevValue query and set of type float
- $\rightarrow$  **Count** query of type action
- $\rightarrow~\mathbf{DcrBinBottom}$  query and set of type ObjString
- $\rightarrow~\mathbf{DcrBinTop}$  query and set of type ObjString
- $\rightarrow~\mathbf{DcrSliderColor}$  query and set of type ObjString
- $\rightarrow$  **Draw** query and set of type action
- $\rightarrow$  EnableIsoUpdate set of type action
- $\rightarrow$  Maximum query and set of type int
- $\rightarrow~\mathbf{Minimum}$  query and set of type int
- $\rightarrow~\mathbf{OpacityColor}$  query and set of type <code>ObjString</code>
- $\rightarrow~\mathbf{SetBinLimits}$  set of type action
- $\rightarrow~\mathbf{SliderHeight}$  query and set of type int
- $\rightarrow~\mathbf{UpdateColorBarLine}$  query and set of type int

# ${\bf Density Material Pair}$

- $\rightarrow~\mathbf{Density}$  query and set of type float
- $\rightarrow\,$  Material query and set of type ObjString

# ${\bf Density Material Table}$

- $\rightarrow$  **AddRow** set of type action
- $\rightarrow$  **DeleteCurrentRow** set of type action
- $\rightarrow$  InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- $\rightarrow$  InvalidDescription query of type action
- $\rightarrow~\mathbf{IsEditable}$  query and set of type bool
- $\rightarrow$  IsValid query of type action
- $\rightarrow$  **MaxDensity** query of type action
- $\rightarrow$   ${\bf MinDensity}$  query and set of type float
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$   ${\bf ObjectVersion}$  subobject of type ObjectVersion
- $\rightarrow~{\bf Table}$ list of type Density Material Pair

### **DigitizerControl**

- → AcknowledgementDelay query and set of type int
- → ActualCmPerCmX query and set of type action
- → ActualCmPerCmY query and set of type action
- → AddButton2Message set of type action
- $\rightarrow$  AddButton3Message set of type action
- → AddButton4Message set of type action
- $\rightarrow$  AddLimitMessage set of type action
- $\rightarrow$  AddPostMessage set of type action
- → AddPreMessage set of type action
- → AddToDeviceList set of type action
- → AddXMessage set of type action
- $\rightarrow$  AddYMessage set of type action
- → **ApplicationType** query and set of type EnumeratedList with labels
- $\rightarrow$   $\bf ApplicationTypeList$  query and set of type StringList
- → Beep query and set of type
- $\rightarrow$  **BlockTransform** set of type action
- → Button1SensitivityMessage query and set of type ObjString
- → Button2Message set of type action
- → Button2SensitivityMessage query and set of type ObjString
- → Button3Message set of type action
- $\rightarrow~$  Button3SensitivityMessage query and set of type ObjString
- $\rightarrow \ \mathbf{Button4Message} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~$  Button 4SensitivityMessage query and set of type ObjString
- $\rightarrow$  CanBeOpened query of type action
- → ClearAllMessages set of type action
- → Close set of type action
- → CmPerActualCmX query and set of type action
- $\rightarrow$  CmPerActualCmY query and set of type action
- → CoordSysEditor query and set of type action
- → CoordSysEditorList list of type CoordSysEditor
- → CountLimit query and set of type int
- $\rightarrow$  **DecrementCount** set of type action
- → **DeviceLastOpened** query and set of type ObjString
- → **DeviceList** list of type SimpleString
- → **Digitizer** subobject of type NumonicsDigitizer
- → **DigitizerLock** subobject of type SimpleLockFile
- → **DoubleFilms** query and set of type bool
- → EnforceFileLocking query of type bool set of type action
- $\rightarrow$  **EnforceLimit** query and set of type bool
- $\rightarrow$  GenericCount query and set of type int
- $\rightarrow$  **HaveDigitizer** query of type action

- $\rightarrow$  IncrementCount set of type action
- $\rightarrow$  InputCallback set of type action
- $\rightarrow$  **IsOpen** query and set of type bool
- → LeftCoordSysDefined query of type action
- $\rightarrow$  **LeftLastRead** query and set of type bool
- → LimitMessage set of type action
- $\rightarrow$  LockData query and set of type ObjString
- $\rightarrow \ \mathbf{MakeCurrentCoordSysEditor} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Open** set of type action
- $\rightarrow$  **PostMessage** set of type action
- → PostTransform set of type action
- $\rightarrow$  **PreMessage** set of type action
- → ReadDevicesFromFile set of type action
- $\rightarrow~\mathbf{RegionBoundaryX}$  query and set of type float
- $\rightarrow$  RegionBoundaryY query and set of type float
- $\rightarrow$  RegionBoundaryZ query and set of type float
- $\rightarrow$  RemoveFromDeviceList set of type action
- $\rightarrow$  RightLastRead query and set of type bool
- → SetXScaleDefault set of type action
- $\rightarrow$  SetYScaleDefault set of type action
- → TargetObject query and set of type pointer
- $\rightarrow$  UnBlockTransform set of type action
- $\rightarrow$  **UseTransform** query and set of type bool
- $\rightarrow$  WriteDevicesToFile set of type action
- $\rightarrow$  **XMessage** set of type action
- $\rightarrow$  YMessage set of type action

# DisplayList

- $\rightarrow~\mathbf{Add}$  set of type action
- $\rightarrow~\mathbf{Draw}$  set of type action
- $\rightarrow \ \mathbf{Draw2dImageModifiers} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{OnSliceTolerance}$  query and set of type float
- $\rightarrow~\mathbf{QuickDisplay}$  query and set of type bool
- $\rightarrow$  RedisplayModifiedWindows set of type action
- $\rightarrow \ \mathbf{RedrawObjects} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Remove** set of type action
- $\rightarrow$  RemoveIfPresent set of type action
- $\rightarrow$  WithinSliceTolerance query and set of type float

#### **Document**

- $\rightarrow$   $\mathbf{ActualPaperSize}$  query and set of type EnumeratedList with labels
- $\rightarrow$  AddDocGraphic set of type action
- $\rightarrow$  **AddDocString** set of type action
- $\rightarrow$  AddEncapsulatedPS set of type action
- $\rightarrow$  ColorNotClinical query and set of type bool
- → CorrectionXScaleFactor query of type action
- ightarrow CorrectionYScaleFactor query of type action
- → **DebugInfo** set of type action
- $\rightarrow~\mathbf{ExpectedPaperSize}$  query and set of type EnumeratedList with labels
- $\rightarrow$  LoadPaperSizesFromFile set of type action
- $\rightarrow$  Margin query of type action
- → MarginInInches set of type action
- ightarrow **OutputPostscriptToFile** set of type action
- → **PSCreationDate** query and set of type ObjString
- $\rightarrow$  **PSCreator** query and set of type ObjString
- $\rightarrow$  **PSFor** query and set of type ObjString
- → **PSTitle** query and set of type ObjString
- $\rightarrow$  PageHeight query of type action
- → PageMargin query of type action
- ightarrow PageOrientation query and set of type EnumeratedList with labels
- → PageWidth query of type action
- $\rightarrow$  PageXScaleFactor query and set of type float
- $\rightarrow$  PageYScaleFactor query and set of type float
- $\rightarrow$  **PaperSizeList** list of type PaperSize
- → PixelsFromInches query of type action
- $\rightarrow$  PlanNotClinical query and set of type bool
- $\rightarrow$  Rotation query and set of type int
- $\rightarrow$  **Stream** set of type action

#### DosePlane

- $\rightarrow~\mathbf{Beam}$  query and set of type
- $\rightarrow$  BeamName query and set of type action
- $\rightarrow~\mathbf{ComputationStatus}$  query and set of type ObjString
- → **DataType** query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{DataTypeList}$  query and set of type StringList
- → **DoseType** query and set of type EnumeratedList with labels
- $\rightarrow$  **DoseTypeList** query and set of type StringList
- $\rightarrow$  **DoseUnitsDescr** query of type action
- $\rightarrow$  **ExportAscii** query and set of type
- $\rightarrow$  **ExportName** query and set of type ObjString
- $\rightarrow$  FlatWaterPhantom set of type action
- $\rightarrow$  InterpolateFromTrial set of type action
- → IsDosePending query of type action
- ightarrow IsDoseValid query of type action
- $\rightarrow$  Name query of type ObjString set of type action
- $\rightarrow \ \mathbf{PlanarDosePointFileList} \ \mathrm{subobject} \ \mathrm{of} \ \mathrm{type} \ \mathrm{FileList}$
- → PlanarDoseStatus query and set of type action
- $\rightarrow$  **PlanarDoseVolume** subobject of type Volume
- $\rightarrow$  ReadPointsFromFile query and set of type bool
- $\rightarrow$  **SetDataType** set of type action
- $\rightarrow$  **SetDoseType** set of type action
- $\rightarrow$  **SetReadPointsFromFile** set of type action
- $\rightarrow$   ${\bf SourceToPlaneDistance}$  query and set of type float
- $\rightarrow$   ${\bf SourceToSurfaceDistance}$  query and set of type float
- $\rightarrow$  **TrialObject** query and set of type pointer
- $\rightarrow$  **VoxelSize** set of type action
- $\rightarrow~\mathbf{XDimension}$  query and set of type action
- $\rightarrow$  **YDimension** query and set of type action

#### **DoseProfile**

- $\rightarrow$  AddPoint set of type action
- → AutoCenter set of type action
- $\rightarrow$  AutoModelDescription query of type action
- → BreakPointErrorList list of type SimpleString
- → ClassDefaultXResolution query and set of type float
- $\rightarrow$  ClassMinimumTailLength query and set of type float
- → ColumnFormat query of type action
- → ColumnHeader query of type action
- → ComputeMetricRegionsBreakPoints set of type action
- → Curve subobject of type CurveNd
- → DefaultElectronHighDoseBreakPointDoseFraction query and set of type float
- ightarrow **DefaultElectronHighDoseGradientThreshold** query and set of type float
- → DefaultElectronLowDoseBreakPointDoseFraction query and set of type float
- → DefaultHighDoseBreakPointDoseFraction query and set of type float
- $\rightarrow$  **DefaultHighDoseGradientThreshold** query and set of type float
- → DefaultLowDoseBreakPointDoseFraction query and set of type float
- → DefaultPhotonHighDoseBreakPointDoseFraction query and set of type float
- → DefaultPhotonHighDoseGradientThreshold query and set of type float
- → DefaultPhotonLowDoseBreakPointDoseFraction query and set of type float
- → **DeleteAllPoints** set of type action
- $\rightarrow$  **DeleteLastPoint** set of type action
- → **DeleteRow** set of type action
- ightarrow **DepthDoseMaximumPoint** query and set of type int
- → DepthDoseOffsetX query and set of type float
- → DepthDoseOffsetY query and set of type float
- → **Description** query of type action
- → DoseProfileModality query and set of type EnumeratedList with labels
- ightarrow **DoseProfileModalityList** query and set of type StringList
- → DownSampleFilter set of type action
- → ElectronDepthDoseLowerBreakPoint query and set of type int
- → ElectronDepthDoseThresholdHigh query and set of type int
- $\rightarrow~{\bf ElectronDepthDoseThresholdLow}$  query and set of type int
- $\rightarrow$  **ElectronDepthDoseUpperBreakPoint** query and set of type int
- $\rightarrow~{\bf ElectronHighDoseBreakPointDoseFraction}$  query and set of type float
- $\rightarrow$  ElectronHighDoseGradientThreshold query and set of type float
- → ElectronLowDoseBreakPointDoseFraction query and set of type float
- → EndMessageBatch set of type action
- $\rightarrow$  ExcludeFromMetricsGathering query and set of type bool
- → ExportFileList subobject of type FileList
- $\rightarrow$  FirstHeelBreakPoint query and set of type int
- → FirstShoulderBreakPoint query and set of type int

- $\rightarrow$  GaussFilter set of type action
- → GeometryProfileMismatch query and set of type bool
- $\rightarrow$  **GradientFilter** set of type action
- → HasPoints query of type action
- ightarrow HighDoseGradientThreshold query and set of type float
- $\rightarrow \ \mathbf{IfUndefinedComputeMetricRegionsBreakPoints} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → ImportFileList subobject of type FileList
- $\rightarrow$  ImportType query and set of type EnumeratedList with labels
- ightarrow Includes Cross Beam Low Gradient Low Dose Points query of type action
- → InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- → IsComputedData query and set of type bool
- → IsLastComputedData query and set of type bool
- → LastValue set of type action
- $\rightarrow$  **LineStyle** subobject of type LineStyle
- → LineStyleObject query of type action
- $\rightarrow$  MagnitudeCutoff query and set of type float
- $\rightarrow$  MeanDeltaX query of type action
- → MeanFilter set of type action
- $\rightarrow$  MedianFilter set of type action
- → MetricRegionsAreDefined query and set of type bool
- $\rightarrow$  MirrorAndAverage set of type action
- $\rightarrow$  ModificationDependency query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  **NoiseWindowWidth** query and set of type action
- $\rightarrow$  NumColumns query and set of type
- $\rightarrow$  **NumRows** query and set of type
- $\rightarrow$  NumberOfPoints query and set of type
- $\rightarrow$  Offset set of type action
- $\rightarrow$  OffsetX set of type action
- → OffsetY set of type action
- $\rightarrow$  OffsetZ set of type action
- $\rightarrow \ \mathbf{PhotonHighDoseBreakPointDoseFraction} \ \mathbf{query} \ \mathbf{and} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{float}$
- $\rightarrow~\mathbf{PhotonHighDoseGradientThreshold}$  query and set of type float
- $\rightarrow~\mathbf{PhotonLowDoseBreakPointDoseFraction}$  query and set of type float
- $\rightarrow$  **Plot** query of type action
- $\rightarrow$  **PlotStyle** subobject of type PlotStyle
- $\rightarrow~\mathbf{ProfileDepth}$  query and set of type float
- $\rightarrow \ \mathbf{ReadFromFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RestoreOriginalCurve} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → SaveOriginalCurve set of type action
- → Scale set of type action

- $\rightarrow$  **ScaleX** set of type action
- $\rightarrow$  **ScaleY** set of type action
- $\rightarrow$  **ScaleZ** set of type action
- → SecondHeelBreakPoint query and set of type int
- $\rightarrow$   $\bf SecondShoulderBreakPoint$  query and set of type int
- → SelectProfiles set of type action
- $\rightarrow$  **SincFilter** set of type action
- → SortByDimension set of type action
- → SourceFileName query and set of type ObjString
- $\rightarrow~{\bf Type}$  query and set of type Enumerated List with labels
- $\rightarrow$  **TypeList** query and set of type StringList
- $\rightarrow$  **UnselectProfiles** set of type action
- → UseProfileToDefineMetrics query and set of type bool
- $\rightarrow$  Value set of type action
- $\rightarrow$  ValueUsedToNormalize query and set of type float
- → VerifyOKForDigitization query of type action
- $\rightarrow$  **X** query and set of type
- $\rightarrow$  XOffset query and set of type float
- $\rightarrow~\mathbf{XProfileOffsetY}$  query and set of type float
- $\rightarrow$  XScale query and set of type float
- $\rightarrow$  **Y** query and set of type
- $\rightarrow$  **YOffset** query and set of type float
- $\rightarrow~\mathbf{YProfileOffsetX}$  query and set of type float
- $\rightarrow~\mathbf{YScale}$  query and set of type float

DoseRate		
$\rightarrow~\mathbf{DoseRate}$ query and set of type float		

#### DoseVolHist

- → AutoComputeBinSize query and set of type bool
- → AutoComputeMaxDose query and set of type
- $\rightarrow$  **Beam** query and set of type
- → BeamName query and set of type action
- → BeginMessageBatch query and set of type bool
- → BinSize query of type float set of type action
- → BinSizeP query of type float set of type action
- → BroadcastRegenerateDependency set of type action
- → ColumnFormat query of type action
- $\rightarrow$  ColumnHeader query of type action
- $\rightarrow$  ColumnsPerRow query and set of type int
- → ComputedNTCP query and set of type float
- → **DVHGroupObject** query and set of type pointer
- → **DashColor** query of type ObjString set of type action
- → **Data** subobject of type CurveNd
- → **Description** query of type action
- ightarrow **DoseMax** query and set of type float
- $\rightarrow$  **DoseMaxDisplay** query of type action
- $\rightarrow$  **DoseMean** query and set of type float
- → **DoseMeanDisplay** query of type action
- → **DoseMin** query and set of type float
- $\rightarrow~\mathbf{DoseMinDisplay}$  query of type action
- → **DoseStd** query and set of type float
- ightarrow **DoseStdDisplay** query of type action
- $\rightarrow$  **DrawLineType** query and set of type action
- ightarrow Effective Volume query and set of type float
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{ForceRegenerate}$  set of type action
- $\rightarrow~\mathbf{IncludeInReports}$  query and set of type bool
- → **LineStyle** subobject of type LineStyle
- → LineStyleObject query of type action
- $\rightarrow$  MaxDoseOverride query and set of type
- → ModificationDependency query of type action
- $\rightarrow$  **NTCP** subobject of type NTCP
- → NTCPDisplay subobject of type AnnotatedCurve
- → NTCPDisplayMaxDose query and set of type float
- → NTCPDisplayPlotStyle subobject of type PlotStyle
- → NTCPDisplayVolume query and set of type float
- $\rightarrow$  NTCPLabel query of type action
- → Name query and set of type ObjString
- → NumColumns query of type int

- $\rightarrow$  **NumRows** query of type action
- $\rightarrow~\mathbf{NumberOfBins}$  query of type int set of type action
- $\rightarrow$  NumberOfBinsP query of type int set of type action
- $\rightarrow~\mathbf{NumberOfPoints}$  query and set of type
- $\rightarrow~\mathbf{ObjectVersion}$  subobject of type ObjectVersion
- $\rightarrow~\mathbf{PercentOutOfRange}$  query and set of type float
- $\rightarrow~\mathbf{PercentUnknown}$  query and set of type float
- $\rightarrow$  Regenerate set of type action
- $\rightarrow~\mathbf{RegionOfInterest}$  subobject of type RegionOfInterest
- $\rightarrow~\mathbf{RegionOfInterestName}$  query and set of type action
- $\rightarrow$  RoiGroup query and set of type
- $\rightarrow~\mathbf{RowHeader}$  query of type action
- $\rightarrow$  **Trial** query and set of type action
- $\rightarrow~$   $\bf TrialName$  query and set of type action
- $\rightarrow$  **TrialTagName** query and set of type action
- $\rightarrow$  Value query of type action
- → Volume query and set of type float
- $\rightarrow~\mathbf{X}$  query and set of type
- $\rightarrow$  **Y** query and set of type

## DyeKom

- $\rightarrow~\mathbf{AETitle}$  query and set of type ObjString
- $\rightarrow$  **AETitles** query of type action
- $\rightarrow~\mathbf{AnyImages}$  query and set of type bool
- $\rightarrow~\mathbf{CkProgress}$  query of type action
- $\rightarrow~\mathbf{DICOMDir}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{FailureType}$  query and set of type ObjString
- $\rightarrow~{\bf InProgress}$  query and set of type bool
- $\rightarrow~\mathbf{IsIdle}$  query and set of type bool
- $\rightarrow~\mathbf{NoMerge}$  query and set of type ObjString
- $\rightarrow$  **PatientBusy** query of type action
- $\rightarrow~\mathbf{PreDICOMDir}$  query and set of type ObjString
- $\rightarrow \ \mathbf{StartXfer} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Timer** set of type action
- $\rightarrow~\mathbf{XferBad}$  query and set of type bool
- $\rightarrow~\mathbf{XferOK}$  query and set of type bool

# ${\bf Dynamic Wedge Data}$

- $\rightarrow~\mathbf{AngleType}$  query and set of type int
- $\rightarrow$  CheckProfiles query of type action
- $\rightarrow$  **DisplayProfile** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{InstallPhotonEnergy} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{LoadFluenceFilterInfo} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type bool
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  ProfileValidity query and set of type action
- $\rightarrow$  RelatedGeometries query and set of type
- $\rightarrow$  **SetVendor** set of type action
- $\rightarrow$   ${\bf TransmissionFactor}$  query and set of type float
- $\rightarrow \ \mathbf{UninstallPhotonEnergy} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdateRelatedGeometries} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$   ${\bf Vendor Data List}$ pluriform list of types Varian Dynamic<br/>Wedge Siemens Dynamic Wedge
- $\rightarrow~\mathbf{VendorType}$  query and set of type action

# **EPID**

- $\rightarrow~\mathbf{Length}$  query of type float set of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{SID}$  query of type float set of type action
- $\rightarrow~\mathbf{SPD}$  query and set of type float
- $\rightarrow$  **SSD** query of type action
- $\rightarrow$  **Side** query of type action
- $\rightarrow~\mathbf{Thickness}$  query of type float set of type action
- $\rightarrow~\mathbf{Width}$  query of type float set of type action

# **EPIDDensity**

- $\rightarrow$  **DestroyGrids** set of type action
- ightarrow **EPIDDoseObject** query of type pointer set of type action
- $\rightarrow~\mathbf{GridsReady}$  query of type action
- $\rightarrow~\mathbf{SetupGrids}$  set of type action

#### **EPIDDose**

- $\rightarrow~\mathbf{Beam}$  query and set of type
- → BeamName query and set of type action
- $\rightarrow~\mathbf{Dose}$  subobject of type Volume
- $\rightarrow$  **EPIDName** query and set of type action
- $\rightarrow$  **Fluence** subobject of type Volume
- $\rightarrow$  **HasEPID** query of type action
- $\rightarrow$  Image subobject of type Volume
- $\rightarrow$   ${\bf ImageType}$  query and set of type Enumerated List with labels
- $\rightarrow$   $\bf ImageTypeList$  query and set of type StringList
- $\rightarrow$  **IsImagePending** query of type action
- $\rightarrow$  IsImageValid query of type action
- $\rightarrow$  Name query of type ObjString set of type action
- → Output set of type action
- $\rightarrow$  **Resolution** query and set of type action
- $\rightarrow$  **SID** query of type action
- $\rightarrow$  **SPD** query and set of type float
- $\rightarrow$  **SSD** query of type action
- $\rightarrow$  **SetImageType** set of type action
- $\rightarrow$  Size query of type float set of type action
- $\rightarrow$  Status query and set of type action
- $\rightarrow~\mathbf{StatusString}$  query and set of type ObjString
- $\rightarrow$  **TrialObject** query and set of type pointer

## **ElectronApplicator**

- $\rightarrow~\mathbf{BeginMessageBatch}$  query and set of type bool
- $\rightarrow$  CutoutHalfXOutside query and set of type float
- $\rightarrow$  CutoutHalfYOutside query and set of type float
- $\rightarrow$  CutoutIsDivergent query and set of type bool
- $\rightarrow~\mathbf{CutoutIsRectangular}$  query and set of type bool
- $\rightarrow~\mathbf{CutoutMassDensity}$  query of type float set of type action
- $\rightarrow~\mathbf{CutoutMaterial}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{CutoutThickness}$  query and set of type float
- $\rightarrow~\mathbf{EndMessageBatch}$  query and set of type bool
- $\rightarrow~\mathbf{JawApertureData}$  subobject of type AnnotatedCurve
- $\rightarrow~\mathbf{Length}$  query and set of type float
- $\rightarrow$   $\bf ManufacturerCode$  query and set of type ObjString
- $\rightarrow~$  Name query and set of type ObjString
- $\rightarrow \ \mathbf{PatientFreeDistalZ} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **ScraperList** list of type Scraper
- $\rightarrow~\mathbf{SourceToCutoutDistance}$  query and set of type float
- $\rightarrow~\mathbf{Width}$  query and set of type float

# ElectronCone

- $\rightarrow~\mathbf{BeginMessageBatch}$  query and set of type bool
- $\rightarrow~\mathbf{ConeSize}$  query of type float set of type action
- $\rightarrow~\mathbf{ElectronModelObject}$  query and set of type pointer
- $\rightarrow$  EndMessageBatch query of type bool set of type action
- $\rightarrow~\mathbf{RemoveFromList}$  set of type action
- $\rightarrow~\mathbf{XRatio}$  subobject of type Annotated Curve
- $\rightarrow~\mathbf{YRatio}$  subobject of type Annotated Curve

#### **ElectronModel**

- $\rightarrow \ \mathbf{ComputedIncidentEnergy} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ComputedProfileDepth query of type action
- $\rightarrow~\mathbf{ConeList}$ list of type ElectronCone
- $\rightarrow$  CutoutMaterialTransmissionFactor query and set of type
- $\rightarrow$  **DepthDoseCurve** subobject of type CurveNd
- $\rightarrow$  **DepthStepSize** query and set of type float
- $\rightarrow$  **DriftDistance** query and set of type float
- $\rightarrow$  **FMCS** query and set of type float
- $\rightarrow~\mathbf{FileChecksum}$  query and set of type ObjString
- → **IncidentEnergy** query and set of type float
- $\rightarrow$  InvalidateChecksum set of type action
- $\rightarrow \ \mathbf{InvalidateMatchingProfiles} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow~\mathbf{OffAxisRatio}$  query and set of type
- → OffAxisWeightFactor query and set of type
- $\rightarrow$  **PhysicsDataObject** subobject of type PhysicsData
- → PracticalRange query and set of type float
- → PreviousPracticalRange query and set of type action
- $\rightarrow$  **ProfileDepth** query and set of type float
- $\rightarrow~\mathbf{ReferenceSSD}$  query and set of type float
- → RestorePracticalRange set of type action
- → SetupSSD query and set of type float
- $\rightarrow$  SigmaThetaX query and set of type float
- $\rightarrow$  SuppressProfileWarnings query and set of type bool
- $\rightarrow$  VirtualSSD query and set of type float
- $\rightarrow$  WaterPhantomLateralSize query and set of type float
- $\rightarrow$   $\mathbf{WaterPhantomVerticalResolution}$  query and set of type float
- $\rightarrow$  WaterPhantomVerticalSize query and set of type float

# Element

- $\rightarrow~\mathbf{AtomicMass}$  query and set of type float
- $\rightarrow$  **AtomicNumber** query and set of type int
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{Symbol}$  query and set of type ObjString

## ${\bf ExportDVF}$

- $\rightarrow$  BeginMessageBatch set of type action
- → Cancel set of type action
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~$  **DeformationTime** query and set of type int
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow~\mathbf{ExportBinaryMask}$  set of type action
- $\rightarrow \ \mathbf{ExportDVFAction} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **FixedVolumeName** query and set of type string
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- ightarrow Is Newer query of type bool
- $\rightarrow$  MaskCompare set of type action
- $\rightarrow$  MaskCompareAndReport set of type action
- $\rightarrow \ \mathbf{MaskCompareAndReportUsingInputRoiFile} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  MovingVolumeName query and set of type string
- → PluginName query of type string
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### FeatureDetector

- → AdaptOnFilteredDataset query and set of type bool
- → AvoidCTRange query and set of type EnumeratedList with labels
- $\rightarrow$   $\mathbf{AvoidCTRangeIndex}$  query and set of type int
- → AvoidCTRangeList query and set of type StringList
- → AvoidCTThreshold query of type float set of type action
- → BeginMessageBatch set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$   $\bf Feature Weight$  query and set of type float
- → GradientClipping query and set of type EnumeratedList with labels
- → GradientClippingIndex query and set of type int
- $\rightarrow$  GradientClippingList query and set of type StringList
- → GradientDirection query and set of type EnumeratedList with labels
- → GradientDirectionIndex query and set of type int
- → GradientDirectionList query and set of type StringList
- $\rightarrow~\mathbf{LimitFeatureSearch}$  query and set of type EnumeratedList with labels
- $\rightarrow$  LimitFeatureSearchList query and set of type StringList
- $\rightarrow$  LowerCTBound query of type float set of type action
- $\rightarrow$  MaximumGradient query of type float set of type action
- $\rightarrow$  **PixelSize** query and set of type float
- $\rightarrow$  **ProfileLength** query and set of type int
- $\rightarrow$  **UpperCTBound** query of type float set of type action
- $\rightarrow$  **ZeroSampleStop** query of type action

# ${f Field Help}$

- $\rightarrow~\mathbf{DescriptionAndLimit}$  query and set of type ObjString
- $\rightarrow~\mathbf{FieldName}$  query and set of type <code>ObjString</code>
- $\rightarrow~\mathbf{QueryValueKey}$  query and set of type ObjString
- $\rightarrow$   $\,$  Selector query and set of type ObjString
- $\rightarrow~\mathbf{WindowName}$  query and set of type <code>ObjString</code>

# FileName

- $\rightarrow~\mathbf{DirectoryName}$  query of type ObjString
- $\rightarrow~\mathbf{ExpandedName}$  query of type ObjString
- $\rightarrow~\mathbf{FileStatus}$  query of type int
- $\rightarrow$  **IsDirectory** query of type action
- $\rightarrow~\mathbf{IsValid}$  query of type action
- $\rightarrow~\mathbf{IsWritable}$  query of type action
- $\rightarrow~\mathbf{Name}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{RootName}$  query of type ObjString

#### **FilmAnnotation**

- $\rightarrow~\mathbf{DisplayBeamGeometry}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayComment}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayDependency}$  query of type action
- $\rightarrow~\mathbf{DisplayInstitutionInfo}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayIsocenterInfo}$  query and set of type bool
- $\rightarrow$  **DisplayMachineInfo** query and set of type bool
- $\rightarrow~\mathbf{DisplayModifiers}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayPrescriptionInfo}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayRequiredInfo}$  query and set of type bool
- $\rightarrow$  **Printing** query and set of type bool

#### **FilmImage**

- → **ApplyBoundingBox** query of type bool set of type action
- → ApplyDcrControl query and set of type bool
- → ApplyDrrControl query of type bool set of type action
- $\rightarrow~\mathbf{ApplyOpacityTable}$  query and set of type bool
- → AutoWLMode query of type bool set of type action
- → BBDependency query and set of type pointer
- → **BEVOptions** query and set of type StringList
- $\rightarrow$  **Beam** query and set of type
- → BeamFineTuneOpacity query and set of type action
- → BeamObject query and set of type pointer
- $\rightarrow$  BeginMessageBatch set of type action
- → BoundingBox subobject of type BoundingBox
- $\rightarrow$  **BoxMode** query and set of type bool
- $\rightarrow$  ClassifList list of type ClassifParam
- → ColumnFormat query and set of type
- $\rightarrow$  ColumnHeader query and set of type
- ightarrow CtToOpacityTable subobject of type CtToOpacityTable
- → CurrentGate query of type int set of type action
- → DCRAutoWLMode query and set of type bool
- $\rightarrow$  DCRBrightness query and set of type int
- $\rightarrow$  **DCRContrast** query and set of type int
- $\rightarrow$  **DCRHi** query and set of type int
- $\rightarrow~\mathbf{DCRLo}$  query and set of type int
- → DCROpacity query and set of type action
- → DRRAutoWLMode query and set of type bool
- $\rightarrow$  **DRRValid** query and set of type action
- $\rightarrow~\mathbf{DcrControlLevel}$  query and set of type float
- ightarrow **DcrControlLoadPreset** set of type action
- ightarrow **DcrControlTable** subobject of type CtToDensityTable
- → **DcrControlType** query and set of type EnumeratedList with labels
- → DcrControlTypeList query and set of type StringList
- ightarrow **DcrControlWindow** query and set of type float
- → **DcrSliderList** list of type DcrSlider
- → DcrTableMax query and set of type int
- $\rightarrow$  **DcrTableMin** query and set of type int
- → DrawOpacity query and set of type action
- → DrrControlLevel query and set of type float
- → DrrControlLoadPreset set of type action
- $\rightarrow$  **DrrControlMaxDensity** query and set of type float
- $\rightarrow$  **DrrControlNoRender** query and set of type bool
- ightarrow **DrrControlTable** subobject of type CtToDensityTable

- → DrrControlType query and set of type EnumeratedList with labels
- → DrrControlTypeList query and set of type StringList
- → DrrControlWindow query and set of type float
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **FastDRRSpecs** subobject of type DRRSpecs
- $\rightarrow$  **FastImage** subobject of type Volume
- $\rightarrow$  Film1Fraction query and set of type float
- $\rightarrow$  Film1Index query and set of type int
- $\rightarrow$  Film2Index query and set of type int
- → FineTuneOpacity query and set of type action
- $\rightarrow$  FinishModifyOpacity set of type action
- → GateMode query of type bool set of type action
- → GatedVolumes query of type int set of type action
- $\rightarrow$  HighQuality query and set of type action
- → Image subobject of type Volume
- → ImageData query and set of type action
- → InvalidateDRR set of type action
- $\rightarrow$  **IsoUpdate** query and set of type bool
- → IsodensityAllOff set of type action
- → IsodensityOff set of type action
- → IsodensityUpdate set of type action
- → LoadContrastBrightness set of type action
- $\rightarrow$  LoadNewDcrPreset set of type action
- $\rightarrow$  ModificationDependency query of type action
- $\rightarrow$  ModifyOpacity set of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  **NormalDRRSpecs** subobject of type DRRSpecs
- $\rightarrow$  NumClassifBins query of type action
- $\rightarrow$  NumColumns query and set of type
- → **NumRows** query and set of type
- $\rightarrow \ \mathbf{OpacityGraphUpdate} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{OpacityTable}$  subobject of type LookupTable
- $\rightarrow$  **OpacityUpdate** set of type action
- → **Options** set of type action
- → OverrideDRRAutoGeneration query and set of type bool
- $\rightarrow~\mathbf{PatientVolumeHistogram}$  query and set of type pointer
- $\rightarrow$  RemoveGatedVolume set of type action
- $\rightarrow \ \mathbf{ResetBeamFineTuneOpacity} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ResetDcrMinMax} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ResetFineTuneOpacity} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  RowHeader query and set of type
- → SetupClassifBins set of type action

- $\rightarrow~\mathbf{SourceToFilmDistance}$  query and set of type float
- $\rightarrow~\mathbf{Type}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{UseDCR}$  query and set of type bool
- $\rightarrow~\mathbf{UseHighQuality}$  query and set of type bool
- $\rightarrow$  VolumesInvalid query and set of type bool
- $\rightarrow~\mathbf{WindowType}$  query and set of type int

## Float

- $\rightarrow~\mathbf{Absolute}$  query and set of type action
- $\rightarrow \ \mathbf{Add} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Divide}$  set of type action
- $\rightarrow~\mathbf{Invert}$  set of type action
- $\rightarrow~\mathbf{Multiply}$  set of type action
- $\rightarrow~\mathbf{Negate}$  set of type action
- $\rightarrow$  **Nint** query and set of type action
- $\rightarrow~\mathbf{Round}$  query and set of type action
- $\rightarrow~{\bf Square}$  set of type action
- $\rightarrow \ \mathbf{SquareRoot} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Subtract} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~$  Value query and set of type float

# FloatBinNd

- $\rightarrow~\mathbf{BinDescList}$ list of type BinDesc
- $\rightarrow~\mathbf{Data}$  query and set of type pointer
- $\rightarrow~\mathbf{NumberOfDimensions}$  query and set of type int
- $\rightarrow~\mathbf{PointsBinaryIO}$  query and set of type action
- $\rightarrow~\mathbf{PointsBinaryIOSupported}$  query and set of type bool
- $\rightarrow~\mathbf{TotalBinCount}$  query and set of type int

#### Gate

- $\rightarrow$  **AVGDone** query and set of type bool
- → **AVGVolume** query and set of type
- $\rightarrow$  BeginPhase query and set of type ObjString
- → CreateAVG set of type action
- $\rightarrow$  **CreateMIP** set of type action
- → CreateMinIP set of type action
- $\rightarrow$  CurrentVolIndex query of type action
- → CurrentVolume query and set of type pointer
- $\rightarrow$  EndPhase query and set of type ObjString
- → FirstVolume query of type action
- → GatePhases query and set of type StringList
- → ImportedAVG query and set of type bool
- $\rightarrow$  ImportedMIP query and set of type bool
- → ImportedMinIP query and set of type bool
- $\rightarrow$  LoadComputedPhases set of type action
- $\rightarrow$  MIPDone query and set of type bool
- $\rightarrow$  MIPVolume query and set of type
- $\rightarrow$  MinIPDone query and set of type bool
- $\rightarrow$  MinIPVolume query and set of type
- → NextGated query of type action
- $\rightarrow$  **NextVolume** query of type action
- → NoDatasetComp query and set of type bool
- → NumGated query and set of type int
- → PreviousGated query of type action
- $\rightarrow$  **PreviousVolume** query of type action
- $\rightarrow$  **PrimaryPhases** query and set of type StringList
- $\rightarrow$  **RemoveAVG** set of type action
- $\rightarrow$  **RemoveMIP** set of type action
- $\rightarrow$  RemoveMinIP set of type action
- $\rightarrow$  SaveComputedPhases set of type action
- $\rightarrow~{\bf Save Phase}$  query and set of type ObjString
- $\rightarrow$  SaveSet query and set of type bool
- $\rightarrow$  SaveVolume query and set of type
- $\rightarrow$  **SetToPhase** set of type action
- ightarrow **SetVolumes** set of type action
- → TotalGated query and set of type int
- $\rightarrow~$  Volume Phases query and set of type StringList

# ${\bf GeoObject}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  InstanceName query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$

#### **HalfBeamProfile**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow$  **EffectiveSourceSize** query and set of type float
- $\rightarrow$   ${\bf Effective Source Size Cutoff}$  query and set of type float
- $\rightarrow$   $\bf Effective Source Size Slope$  query and set of type float
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow~\mathbf{FitHalfBeam}$  set of type action
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  IsLeftBlocked query and set of type bool
- $\rightarrow$  IsRangeValid query of type bool
- $\rightarrow$  **IsSymmetric** query and set of type bool
- $\rightarrow~\mathbf{MeasuredDataReadIn}$  query and set of type bool
- $\rightarrow$  Name query and set of type string
- $\rightarrow \ \mathbf{OffSetSubProfiles} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Offset}$  query and set of type float
- $\rightarrow~\mathbf{Profile}$  query of type int
- $\rightarrow~\mathbf{Range}$  query and set of type float
- $\rightarrow$  ResetHalfBeam set of type action
- $\rightarrow~\mathbf{SubProfileList}$ list of type SubProfile

# ${\bf HotScriptList}$

- $\rightarrow~\mathbf{FileLocation}$  subobject of type FileName
- $\rightarrow~\mathbf{FileSelectionList}$  subobject of type FileList
- $\rightarrow~\textbf{Load}$  set of type action
- $\rightarrow \ \mathbf{LoadAllLists} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{MinimumLength}$  query and set of type int
- $\rightarrow \ \mathbf{Save} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

#### **IECCoords**

- $\rightarrow$  BlockInfo query and set of type action
- → Collimator query and set of type action
- $\rightarrow~\mathbf{CompensatorInfo}$  query and set of type action
- $\rightarrow$  Couch query and set of type action
- $\rightarrow~\mathbf{CouchStop}$  query and set of type action
- $\rightarrow$  Count query of type action
- $\rightarrow$  **Current** query and set of type action
- $\rightarrow$  Gantry query and set of type action
- $\rightarrow~\mathbf{GantryStop}$  query and set of type action
- $\rightarrow~\mathbf{IsXAsymmetric}$  query and set of type action
- $\rightarrow~\mathbf{IsYAsymmetric}$  query and set of type action
- $\rightarrow \ \mathbf{MLCAlignedWithX} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- ightarrow MLCInfo query and set of type action
- $\rightarrow~\mathbf{ODMInfo}$  query and set of type action
- $\rightarrow$   $\,$  WedgeOrientation query and set of type action
- $\rightarrow~\mathbf{X1InMM}$  query and set of type action
- $\rightarrow~\mathbf{X1MaxInMM}$  query of type action
- $\rightarrow~\mathbf{X2InMM}$  query and set of type action
- $\rightarrow$  **X2MaxInMM** query of type action
- $\rightarrow~\mathbf{Y1InMM}$  query and set of type action
- $\rightarrow \ \mathbf{Y1MaxInMM} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Y2InMM** query and set of type action
- $\rightarrow~\mathbf{Y2MaxInMM}$  query of type action

#### **IMRTPreferences**

- $\rightarrow~\mathbf{ComputeFinalDose}$  query and set of type bool
- → DMPOMinSegmentArea query and set of type float
- → DMPOMinSegmentMUs query and set of type float
- → **DoseIteration** query and set of type int
- ightarrow **FinalDoseEngine** query and set of type ObjString
- → FinalDoseEngineList query and set of type StringList
- $\rightarrow~\mathbf{IMFASTMinSegmentArea}$  query and set of type float
- → IMFASTMinSegmentMUs query and set of type float
- → IntermediateDoseEngine query and set of type ObjString
- → IntermediateDoseEngineList query and set of type StringList
- $\rightarrow$  **KMeansMinSegmentArea** query and set of type float
- $\rightarrow$  **KMeansMinSegmentMUs** query and set of type float
- $\rightarrow$  MaxIterations query and set of type int
- $\rightarrow$  MaxOverlapDistance query and set of type float
- $\rightarrow$  MinLeafEndSepIMRT query and set of type float
- → MinLeafPairs query and set of type int
- $\rightarrow~\mathbf{MinOverlapDistance}$  query and set of type float
- $\rightarrow~\mathbf{Save}\mathbf{CPDoseForDynamicArc}$  query and set of type bool
- $\rightarrow$   ${\bf SiemensLeafGap}$  query and set of type float
- $\rightarrow~\mathbf{SmartArc\_ComputeInterDose}$  query and set of type bool
- $\rightarrow$  SmartArc\_FinalGantrySpacing query and set of type ObjString
- → SmartArc\_FinalGantrySpacingList query and set of type StringList
- ightarrow SmartArc\_InterDoseEngine query and set of type ObjString
- → SmartArc\_InterDoseEngineList query and set of type StringList
- ightarrow SmartArc\_MaxDeliveryTime query and set of type float
- → SmartArc\_MaxLeafMotion query and set of type float

## **IMRTTrial**

- → ApplyODMTran query and set of type bool
- → BeamExtensionList query and set of type
- ightarrow BeamWeightOptimizationAfterConversion query and set of type bool
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  CoexistenceFactor query and set of type float
- → ComputeFinalDose query and set of type bool
- → ComputeIntermediateDose query and set of type bool
- → ConstrainLeafMotion query and set of type bool
- → ConvertAfterOptimization query and set of type bool
- → Destroy set of type action
- → **DoseIteration** query and set of type int
- → Existence query of type bool
- → FieldEdgeOverlap query and set of type
- → FineResolutionODM query and set of type bool
- → HasBeamExtensionList query of type bool
- → **IsFiling** query of type bool
- → LeafMotionConstraint query and set of type float
- → LimitMU query and set of type bool
- → MaxDynamicSegments query and set of type int
- $\rightarrow$   $\mathbf{MaximumMUPerSegment}$  query and set of type float
- $\rightarrow$   $\mathbf{MaximumOverlap}$  query and set of type float
- → MinDoseRate query and set of type float
- → MinLeafEndSepIMRT query and set of type float
- → MinLeafEndSepSA query and set of type float
- $\rightarrow$  MinLeafGap query and set of type float
- → MinLeafPairCount query and set of type int
- → MinimumMUPerSegment query and set of type float
- → MinimumOverlap query and set of type float
- → MinimumSegmentArea query and set of type float
- → ODMLowerBound query and set of type float
- $\rightarrow$  RemoveCPs query and set of type bool
- $\rightarrow$  ResearchCompositeName query and set of type string
- $\rightarrow$  ResearchROI query and set of type
- → ResearchROIName query and set of type string
- $\rightarrow$  ResearchTargetDose query and set of type float
- → TrialWasOptimized query and set of type bool
- $\rightarrow$  UseCoexistenceFactor query and set of type bool
- $\rightarrow~$  UseResearchCompositeFunction query and set of type bool
- $\rightarrow$  **UseSVD** query and set of type bool

#### **ImageInfo**

- → BeginMessageBatch set of type action
- $\rightarrow$  ByteOffset query and set of type
- → ClassUID query and set of type action
- → CloseDICOMFile set of type action
- → ColorLUTScale query and set of type float
- → ComputedThickness query and set of type float
- → ContainerObject query and set of type pointer
- $\rightarrow$  CouchPos query and set of type float
- $\rightarrow$  **DICOMFileName** query and set of type action
- → DecrementSliceNumber set of type action
- $\rightarrow$  EndMessageBatch set of type action
- → Fraction query and set of type float
- $\rightarrow$  **FrameUID** query and set of type action
- → GantryAngle query and set of type
- $\rightarrow$  **GetDICOMAttribute** query of type action
- → ImageFileName query and set of type
- $\rightarrow$  IncrementSliceNumber set of type action
- $\rightarrow$  InstanceUID query and set of type action
- $\rightarrow$  **IsDICOM** query of type action
- → OpenDICOMFile set of type action
- $\rightarrow$  SUVScale query and set of type float
- $\rightarrow$  **ScanType** query and set of type
- $\rightarrow$  SeriesUID query and set of type action
- $\rightarrow$  SharesZCoordinate query and set of type bool
- $\rightarrow$  SiblingList query and set of type
- ightarrow SiblingListObject query and set of type pointer
- → SliceNumber query of type int set of type action
- $\rightarrow$  SliceThickness query and set of type
- → StudyInstanceUID query and set of type action
- → TableAngle query and set of type
- → TablePosition query and set of type action
- ightarrow TablePositionAltered query and set of type bool
- → **XDim** query and set of type
- $\rightarrow$  **XPixelDim** query and set of type
- $\rightarrow$  **XStart** query and set of type
- $\rightarrow$  **YDim** query and set of type
- → YPixelDim query and set of type
- $\rightarrow$  **YStart** query and set of type
- → **ZCoordinate** query and set of type action
- ightarrow **ZCoordinateNoCheck** query of type float set of type action
- → **ZCoordinateWithOffset** query of type action

 $\rightarrow~{\bf ZOffset}$  query and set of type float

# ${\bf ImpProfileList}$

- $\rightarrow~\mathbf{ApplyToAllProfiles}$  query and set of type bool
- → **DetermineImportTypeForFile** set of type action
- $\rightarrow~\mathbf{Energy}$  query and set of type int
- $\rightarrow~\mathbf{FaultTolerant}$  query and set of type bool
- $\rightarrow \ \mathbf{ImportFileList}$  subobject of type FileList
- $\rightarrow~\mathbf{LastImportType}$  query and set of type Enumerated List with labels
- $\rightarrow \ \mathbf{LoadXLPlanMachineNames} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Machine query and set of type pointer
- $\rightarrow~\mathbf{ProfileList}$ list of type Imported Profile
- $\rightarrow \ \mathbf{ReadFromFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ReadFromFilesInList set of type action
- $\rightarrow \ \mathbf{ScanListForXLPlanFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{ToggleWedgeOrientation}$  set of type action
- $\rightarrow~\mathbf{XLPlanMachineList}$ list of type XLPlanMachine

# ${\bf Imported Profile}$

- $\rightarrow~\mathbf{DefaultEnergy}$  query and set of type int
- $\rightarrow~\mathbf{Energy}$  query and set of type int
- $\rightarrow~\mathbf{FileName}$  query and set of type ObjString
- $\rightarrow~{\bf Geometry}$  subobject of type Measure Geometry
- $\rightarrow~\mathbf{ImportIntoNewGeometry}$  query and set of type bool
- $\rightarrow~\mathbf{Machine}$  query of type pointer set of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow$  **Profile** subobject of type DoseProfile
- $\rightarrow$  **ProfileNumber** query and set of type int

#### InversePlanningManager

- → ActiveWindow set of type pointer
- → AddObjective set of type action
- $\rightarrow$  **ApplyODMTran** query and set of type bool
- → BeamSplitter subobject of type BeamSplitter
- → BeamWeightOptimizationAfterConversion query and set of type bool
- → BeginMessageBatch set of type action
- → CPWeightLowerBound query and set of type float
- → CPWeightUpperBound query and set of type float
- → Cancel set of type action
- → CancelOptimization set of type action
- → ClassName query of type string
- $\rightarrow$  CoexistenceFactor query and set of type float
- → CombinedObjectiveList pluriform list of types OrbitResearchConstraint OrbitEUDConstraint OrbitD-VHConstraint OrbitDoseConstraint OrbitUniformityConstraint OrbitResearchObjective OrbitEUDObjective OrbitDVHObjective OrbitDoseObjective Objective
- $\rightarrow$  CombinedObjectiveTypeNames query of type StringList
- → ComputeFinalDose query and set of type bool
- → ComputeTrialObjectives set of type action
- $\rightarrow~\mathbf{ConstraintManager}$  subobject of type ConstraintManager
- ightarrow ConvertAfterOptimization query and set of type bool
- → CopyObjectivesToTrial set of type int
- ightarrow CurrentObjectiveConstraintIndex query and set of type int
- $\rightarrow \ \mathbf{CurrentObjectiveConstraintIs} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool}$
- ightarrow CurrentObjectiveConstraintString query and set of type string
- ightarrow **DeleteCurrentObjective** set of type action
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{DoseEngineForIntermediateDose}$  query and set of type string
- $\rightarrow$   $\mathbf{DoseEngineManager}$  subobject of type DoseEngineManager
- → **DrawPlot** guery and set of type pointer
- → **DrawProgressPlot** subobject of type InversePlanningManager
- → EndLoadPlugins set of type action
- → EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- → ExternalParameterCount query and set of type int
- → FieldEdgeOverlap query and set of type
- → FineResolutionODM query and set of type bool
- → FireDependency set of type string
- → Initialize set of type action
- → InnerMargin query and set of type float
- → InstanceName query of type string

- → InterpolateControlPointsForBeam set of type pointer
- → **IsFiling** query of type bool
- → **IsNewer** query of type bool
- → IsOkForBioOpt query of type bool
- $\rightarrow$  IsOkForDMPO query of type bool
- $\rightarrow$  IsOkForSlidingWindow query of type bool
- $\rightarrow$  IsOkForSmartArc query of type bool
- $\rightarrow~\mathbf{IsOkToSave}$  query and set of type bool
- → LeftRightJawMargin query and set of type float
- $\rightarrow$  LimitMU query and set of type bool
- → LoadPersistentData set of type action
- $\rightarrow$  MakeBeamsStepShoot query and set of type bool
- → MaxDynamicSegments query and set of type int
- → MaxIterations query and set of type int
- → MaximumOverlap query and set of type float
- → MinLeafEndSepIMRT query and set of type float
- $\rightarrow$   $\bf MinLeafEndSepSA$  query and set of type float
- $\rightarrow$  MinLeafPairCount query and set of type int
- → MinimumEquivalentSquare query and set of type float
- → MinimumMUPerSegment query and set of type float
- → MinimumOverlap query and set of type float
- → MinimumSegmentArea query and set of type float
- $\rightarrow$  **ODMLowerBound** query and set of type float
- ightarrow **ODMUpperBound** query and set of type float
- $\rightarrow$  **ObjectiveChange** set of type pointer
- $\rightarrow \ \mathbf{ObjectiveConstraintNameList} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{StringList}$
- $\rightarrow$   ${\bf Objective Manager}$  subobject of type ObjectiveManager
- $\rightarrow$   ${\bf OptimizationManager}$  subobject of type OptimizationManager
- $\rightarrow \ \, \mathbf{OptimizationParameterList} \ \, \mathbf{query} \ \, \mathbf{of} \ \, \mathbf{type} \ \, \mathbf{StringList}$
- $\rightarrow~\mathbf{OptimizationParameterType}$  query and set of type string
- $\rightarrow \ \mathbf{OptimizeAndConvert} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Optimizing** query of type bool
- $\rightarrow~\mathbf{OuterMargin}$  query and set of type float
- $\rightarrow \ \mathbf{ParameterCount} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$
- → PluginName query of type string
- $\rightarrow \ \mathbf{PrevOptTrialList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{IMRTTrial}$
- $\rightarrow~\mathbf{PrintIMRTReport}$  set of type action
- ightarrow PrintODMForCurrentBeam set of type action
- → **ProtocolManager** subobject of type ProtocolManager
- → ReassignObjectiveIndexes set of type action
- → RefreshObjectiveValues set of type action
- → ResearchCompositeName query and set of type string

- $\rightarrow$  ResearchPluginDirectory query and set of type string
- $\rightarrow$  ResearchROI query and set of type
- $\rightarrow$  ResearchROIName query and set of type string
- $\rightarrow$  ResearchTargetDose query and set of type float
- → ResetBeamsForIMRT set of type action
- → **Resetting** query of type bool
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow$  SavePersistentData query of type int
- $\rightarrow$  **SegmentSorterManager** subobject of type SegmentSorterManager
- → **SetConstrain** set of type bool
- $\rightarrow$  **SetObjective** set of type pointer
- $\rightarrow$  **SetObjectiveType** set of type string
- $\rightarrow~\mathbf{StepShootInnerMargin}$  query and set of type float
- → StepShootOuterMargin query and set of type float
- $\rightarrow$  SuppressOptFinishedOutputMessages query and set of type bool
- → TopBottomJawMargin query and set of type float
- $\rightarrow$  **TrialList** list of type IMRTTrial
- $\rightarrow$  **UnitTestMode** query and set of type bool
- $\rightarrow$  UnloadPlan set of type action
- → UpdateControlPointParameters set of type action
- $\rightarrow$  UseCoexistenceFactor query and set of type bool
- ightarrow UseResearchCompositeFunction query and set of type bool
- $\rightarrow$  **UseSVD** query and set of type bool

# **IrregPoint**

- $\rightarrow~\mathbf{ClassDefaultDepth}$  query and set of type float
- → ClassDefaultSSD query and set of type float
- $\rightarrow~\mathbf{ClassSimulatorSAD}$  query and set of type float
- → Color query and set of type ObjString
- $\rightarrow~\mathbf{Depth}$  query and set of type float
- $\rightarrow$  **DepthCheckLock** set of type action
- $\rightarrow~\mathbf{DisplayRadius}$  query and set of type float
- $\rightarrow$  **Dose** query of type action
- $\rightarrow$  **DosePerMonitorUnit** query and set of type float
- ightarrow **DosePerMonitorUnitIfValid** query of type action
- $\rightarrow~\mathbf{DoseValid}$  query and set of type bool
- $\rightarrow$  LockRaylineString query of type action
- $\rightarrow$  LockToRayline query and set of type bool
- $\rightarrow$  MonitorUnits query and set of type float
- → Name query and set of type ObjString
- → NormalizedDose query and set of type float
- $\rightarrow$  NormalizedDoseIfValid query of type action
- $\rightarrow \ \mathbf{RescaleXYToNewSAD} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{SSD}$  query and set of type float
- $\rightarrow~\mathbf{SSDCheckLock}$  set of type action
- $\rightarrow$  SourceToPointDistance query of type action
- $\rightarrow~\mathbf{XCoord}$  query and set of type float
- $\rightarrow \ \mathbf{XCoordAtSAD} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **YCoord** query and set of type float
- $\rightarrow \ \mathbf{YCoordAtSAD} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

# IsodoseControl

- $\rightarrow~\mathbf{AddToDisplayList}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{LineList}$ list of type IsodoseLine
- $\rightarrow~\mathbf{NormalizationMode}$  query and set of type Enumerated List with labels
- $\rightarrow$  **ObjectVersion** subobject of type ObjectVersion
- $\rightarrow$  RemoveFromDisplayList set of type action
- $\rightarrow \ \mathbf{UpdateColorTable} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow **UpdateLines** set of type action
- $\rightarrow \ \mathbf{UpdateVolumeName} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

## IsodoseLine

- $\rightarrow~{\bf Color}$  query and set of type ObjString
- $\rightarrow$  ColorPixel query and set of type ObjString
- $\rightarrow~\mathbf{CopyToRoiList}$  set of type action
- $\rightarrow~ \mathbf{Display2dOn}$  query and set of type bool
- $\rightarrow~\mathbf{Display3dMode}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{IsPercentage}$  query and set of type bool
- $\rightarrow~\mathbf{IsoValue}$  query and set of type float
- $\rightarrow~\mathbf{IsoValueLabel}$  query of type action
- $\rightarrow~\mathbf{LineWidth}$  query and set of type int
- $\rightarrow~\mathbf{LineWidthList}$  query and set of type StringList
- $\rightarrow~\mathbf{LineWidthString}$  query and set of type action
- → RecomputeLine set of type action
- $\rightarrow$  RedisplayLine set of type action
- $\rightarrow~\mathbf{TrialLineList}$ list of type TrialIsodoseLine

### Isotope

- → ActiveLength query and set of type float
- → ActiveLengthInCM query and set of type action
- → ActiveLengthInMM set of type action
- $\rightarrow$  AirRoentgenToRadFactor query and set of type float
- → AirRoentgenToRadUnits query and set of type EnumeratedList with labels
- → **AnisotropyFunction** subobject of type Volume
- → BeginMessageBatch query and set of type bool
- → CalibratedSourceList list of type CalibratedSource
- → CancelComputation set of type action
- ightarrow CartesianAnisotropyFunction query of type bool set of type action
- → CartesianGeometryFunction query of type bool set of type action
- → CommissionVersion query and set of type ObjString
- → CommissionedBy query and set of type ObjString
- → ComputationVersion query and set of type ObjString
- ightarrow ComputeGeometryFunction query and set of type bool
- → ComputeLookupTableFromGeometry query and set of type bool
- → ComputeRadialFunction query and set of type bool
- → ConfirmChangeAnisotropyFunction query of type action
- → ConfirmChangeManualGeometryFunction query of type action
- ightarrow ConfirmChangeManualRadialFunction query of type action
- ightarrow ConfirmGeometryFunctionModification query of type action
- $\rightarrow \ \mathbf{ConfirmLookupIsValid} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ConfirmParameterChange query of type action
- → ConfirmRadialFunctionModification query of type action
- → **DistanceUnitsList** query and set of type StringList
- ightarrow **DoseLookupTable** query and set of type
- → DoseRateConstant query and set of type float
- → DoseRateConstantUnits query and set of type EnumeratedList with labels
- → EndMessageBatch set of type action
- → GammaFactor query and set of type float
- → GammaUnits query and set of type EnumeratedList with labels
- ightarrow Geometry Function subobject of type Volume
- → HalfLife query and set of type float
- → HalfLifeUnits query and set of type EnumeratedList with labels
- → HalfLifeUnitsList query and set of type StringList
- → Institution query and set of type ObjString
- → **IsComputing** query of type action
- → IsDeleted query and set of type bool
- → IsExposureRateConstant query of type action
- → IsLineSource query of type action
- → **IsotopeId** query and set of type int

- $\rightarrow$  LateralSourceStepSize query and set of type float
- $\rightarrow$  LateralStepSizeDivisor query and set of type float
- → LateralVoxelSize query and set of type
- → LineSourceEndpointOffset query and set of type float
- ightarrow LinearAbsorptionUnits query and set of type EnumeratedList with labels
- → **LoginName** query and set of type ObjString
- → LookupTable subobject of type Volume
- → LookupTableIsValid query and set of type bool
- → LookupTableValid query of type action
- → MaxLateralSourceStepSize query and set of type float
- $\rightarrow$  MaxLookupTableDose query and set of type
- → MaxVerticalSourceStepSize query and set of type float
- $\rightarrow$   $\mathbf{MinimumRadiusForInvSquare}$  query and set of type float
- → MostRecentVersion query and set of type bool
- → Name query and set of type ObjString
- → NameAndVersion query of type action
- → NumberOfInnerPolygons query and set of type int
- $\rightarrow$  NumberOfLateralBins query and set of type
- → NumberOfOuterPolygons query and set of type int
- → NumberOfPolynomialCoefficients query and set of type
- → NumberOfVerticalBins query and set of type
- → **ObjectVersion** subobject of type ObjectVersion
- $\rightarrow$  **OverallDiameter** query and set of type float
- $\rightarrow \ \mathbf{Overall Diameter In CM} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → OverallDiameterInMM set of type action
   → PercentDone query of type action set of type int
- → PhysicalDimensionsUnits query and set of type action
- → PhysicalLength query and set of type float
- → PhysicalLengthInCM query and set of type action
- → PhysicalLengthInMM set of type action
- → PhysicsLayout query and set of type EnumeratedList with labels
- → PhysicsLayoutIndex set of type action
- → PhysicsLayoutList query of type action
- → PhysicsLayoutLongList query of type action
- → PolynomialCoeffA query and set of type float
- → PolynomialCoeffB query and set of type float
- → PolynomialCoeffC query and set of type float
- → PolynomialCoeffD query and set of type float
- → PolynomialCoeffE query and set of type float
- → PolynomialCoeffF query and set of type float
- → PolynomialDistanceUnits query and set of type
- $\rightarrow$  **PolynomialMaximumValidDistance** query and set of type float

- $\rightarrow$  RadialDoseFunction subobject of type Volume
- → RadialDoseFunctionPlotStyle query and set of type action
- → ReadWriteIsotope query and set of type bool
- → RecomputeLookupTable set of type action
- $\rightarrow$  RelyOnList list of type SeedGroup
- ightarrow RequireLinearAbsorptionCoefficients query of type action
- $\rightarrow$  RoentgenToRadFactor query and set of type float
- $\rightarrow$  RoentgenToRadUnits query and set of type EnumeratedList with labels
- → SourceLinearAbsorptionCoefficient query and set of type float
- → SourceType query and set of type EnumeratedList with labels
- → SourceTypeList query and set of type StringList
- → SphereTriangleLevel query and set of type int
- → TemporaryDataCopy subobject of type Volume
- → TissueRoentgenToRadFactor query and set of type float
- → TissueRoentgenToRadUnits query and set of type EnumeratedList with labels
- → UnitsAreCM query of type action
- → UnitsAreMM query of type action
- → UseAnisotropyFactor query and set of type bool
- → UseDoseRateConstant query and set of type bool
- → VersionColor query of type action
- → VersionDescription query and set of type ObjString
- → VersionTimestamp query of type ObjString set of type action
- → VerticalSourceStepSize query and set of type float
- $\rightarrow$  VerticalStepSizeDivisor query and set of type float
- $\rightarrow$  VerticalVoxelSize query and set of type
- $\rightarrow$  WallLinearAbsorptionCoefficient query and set of type float
- $\rightarrow$  WallThickness query and set of type float
- $\rightarrow$  WallThicknessInCM set of type action
- ightarrow WallThicknessInMM set of type action
- ightarrow XAnisotropyBinSize query and set of type action
- ightarrow **XAnisotropyOrigin** query and set of type action
- → XGeometryBinSize query and set of type action
- ightarrow XGeometryOrigin query and set of type action
- ightarrow XLookupBinSize query and set of type action
- $\rightarrow$  XNAnisotropyBins query and set of type action
- ightarrow XNGeometryBins query and set of type action
- $\rightarrow~\mathbf{XNLookupBins}$  query and set of type action
- → YAnisotropyBinSize query and set of type action
- → YAnisotropyOrigin query and set of type action
- → YGeometryBinSize query and set of type action
- → YGeometryOrigin query and set of type action
- → YLookupBinSize query and set of type action

- $\rightarrow$  **YNAnisotropyBins** query and set of type action
- $\rightarrow~\mathbf{YNGeometryBins}$  query and set of type action
- $\rightarrow~\mathbf{YNLookupBins}$  query and set of type action
- $\rightarrow~\mathbf{YNRadialBins}$  query and set of type action
- $\rightarrow~\mathbf{YRadialBinSize}$  query and set of type action
- $\rightarrow~\mathbf{YRadialOrigin}$  query and set of type action

# Laser

- $\rightarrow$   $\bf Horizontal Offset$  query and set of type float
- $\rightarrow$  **Name** query and set of type ObjString
- $\rightarrow~\mathbf{RelyOnList}$  query and set of type
- $\rightarrow~\mathbf{VerticalOffset}$  query and set of type float

### LaserLocalizer

- $\rightarrow$  **AbsAvail** query and set of type bool
- → AbsLoc set of type action
- → **AbsShifts** subobject of type Poi
- → AcceptPatientMarking set of type action
- $\rightarrow$  AddBRScanner set of type action
- → AddDependency set of type action
- → AddLaser set of type action
- → AddMXScanner set of type action
- $\rightarrow$  AddPQScanner set of type action
- $\rightarrow$  AddUZScanner set of type action
- → BodyBoardAngle set of type action
- → CenterFromAbs set of type action
- → CouchUnits query and set of type ObjString
- → DisplayAlways query and set of type bool
- ightarrow **DisplayCenter** query and set of type EnumeratedList with labels
- $\rightarrow$  **DisplayCenterOptions** query and set of type StringList
- $\rightarrow$  EnteringName query and set of type bool
- → ExportFileName query and set of type ObjString
- → ExportFormat query and set of type EnumeratedList with labels
- $\rightarrow$  **FinishPosition** set of type action
- $\rightarrow$   $\mathbf{GammexExportEnabled}$  query and set of type bool
- $\rightarrow \ \mathbf{GetTransformFromLocalizer} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow GetTransformToLocalizer set of type action
- $\rightarrow$  HorizontalOffset query of type action
- $\rightarrow$  **IsBR** query of type action
- $\rightarrow~\mathbf{IsMarked}$  query and set of type bool
- $\rightarrow \ \mathbf{IsNotMX} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow~\mathbf{IsPQ}$  query of type action
- → IsValidForLocalizing query of type action
- $\rightarrow$  LapExportEnabled query and set of type bool
- $\rightarrow~\mathbf{LaserCalTableName}$  query and set of type ObjString
- $\rightarrow~{\bf Laser Cal Table Name Is NONE}$  query and set of type bool
- → LaserCenter subobject of type Poi
- $\rightarrow$  LaserList list of type Laser
- → LaserToWorld subobject of type Transform
- $\rightarrow$  LockBeam query and set of type bool
- → LockCouch query and set of type bool
- $\rightarrow$  LockJaw query of type bool set of type action
- → **Locked** query and set of type bool
- $\rightarrow$  MarkPatient set of type action
- → MarkerNameIsOK query of type action

- → MenuOptionsList query and set of type StringList
- $\rightarrow$  MenuSelection query and set of type Enumerated List with labels
- → MyPatient set of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  NameOfPersonMarking query of type ObjString set of type action
- → NeedReconOffsetWarning query of type action
- $\rightarrow$  NewBodyBoardAngle query of type float set of type action
- → OkForAbs query of type action
- → **OkForRelCoord** query of type action
- → PinnLaserCoord set of type action
- → PositionHasBeenModified query and set of type bool
- → **PrintAbs** set of type action
- $\rightarrow$  **RelPosition** subobject of type Poi
- → RelativeCoord set of type action
- → RemoveDependency set of type action
- $\rightarrow$  **SetLasersToPOI** set of type action
- → SetReferencePoint set of type action
- $\rightarrow$  **StartPosition** set of type action
- → StoreLaser set of type action
- $\rightarrow$  TrackPosition set of type action
- → TransformFromLocalizer set of type action
- → TransformToLocalizer set of type action
- → TransformVectorFromLocalizer set of type action
- → TransformVectorToLocalizer set of type action
- $\rightarrow$  **Units** query and set of type ObjString
- ightarrow UseBodyBoardAngle query of type bool set of type action
- $\rightarrow$   $\bf WorldToLaser$  subobject of type Transform
- $\rightarrow$  **XCoordLabel** query and set of type ObjString
- $\rightarrow$  **XPlaneIsCurrent** query and set of type bool
- $\rightarrow$  **YCoordLabel** query and set of type ObjString
- ightarrow YPlaneIsCurrent query and set of type bool
- $\rightarrow$   ${\bf ZCoordLabel}$  query and set of type ObjString
- $\rightarrow~{\bf ZPlaneIsCurrent}$  query and set of type bool

# ${\bf Lookup Table}$

- $\rightarrow~\mathbf{CopyToArray}$  set of type action
- $\rightarrow~\mathbf{MaximumBinValue}$  query of type action
- $\rightarrow~\mathbf{MaximumValue}$  query of type float
- $\rightarrow$  MinimumBinValue query of type action
- $\rightarrow~\mathbf{MinimumValue}$  query of type float
- $\rightarrow \ \mathbf{NumberOfBins} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$
- $\rightarrow~{\bf Table}$  subobject of type CurveNd

MACTControl
$\rightarrow$ MACTList list of type MassAttnCoefTable

# MLCCine

- $\rightarrow~\mathbf{CreateImages}$  set of type action
- $\rightarrow~\mathbf{CurrentImageIndex}$  query of type int set of type action
- $\rightarrow~\mathbf{CurrentImageIndexPlusOne}$  query and set of type action
- $\rightarrow~\mathbf{DestroyImages}$  set of type action
- $\rightarrow$   ${\bf FramesPerSecond}$  query and set of type float
- $\rightarrow$  **NextImage** set of type action
- $\rightarrow~\mathbf{PainterObject}$  set of type action
- $\rightarrow$  **Play** set of type action
- $\rightarrow$  **PreviousImage** set of type action
- $\rightarrow$  **Stop** set of type action

## MLCExport

- $\rightarrow \ \mathbf{CreateMLCExportFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ExportAllMLCData query and set of type bool
- → ExportDirectory query and set of type ObjString
- $\rightarrow$  **ExportFormat** query and set of type EnumeratedList with labels
- → ExportPhilipsMLCData set of type action
- → ExportToshibaMLCData set of type action
- $\rightarrow$  ExportVarianMLCData set of type action
- → MLCExportFile query and set of type
- → PatientID query and set of type ObjString
- $\rightarrow$  **PhilipsAccessory** query and set of type bool
- $\rightarrow$  **PhilipsFitmentCode** query and set of type int
- → PhilipsMLCAppendBeamName query and set of type bool
- → PhilipsMLCAppendPatientID query and set of type bool
- → PhilipsMLCAppendPatientName query and set of type bool
- $\rightarrow$  **PhilipsMLCEnabled** query and set of type bool
- → PhilipsMLCName query and set of type ObjString
- → ToshibaAccessory query and set of type
- → ToshibaAccessoryCode query and set of type
- → ToshibaConformation query and set of type
- → ToshibaDoseRate query and set of type EnumeratedList with labels
- ightarrow ToshibaMLCConformalEnabled query and set of type bool
- → ToshibaMLCEnabled query and set of type bool
- ightarrow ToshibaUpdateBeamNumbers set of type action
- → ValidatePatientId set of type action
- → VarianMLCEnabled query and set of type bool
- $\rightarrow$  VarianPromptIEC query and set of type bool
- $\rightarrow$  VarianTolerance query and set of type float
- ightarrow Varian Version query and set of type Enumerated List with labels

### **MLCLeafPair**

- $\rightarrow \ \mathbf{CheckOpposingAdjacentLeafOverlap} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  LeafCoordinateScalar query of type action
- $\rightarrow$  MaxTipPosition query and set of type float
- $\rightarrow$  MinInterLeafDistance query and set of type action
- $\rightarrow~\mathbf{MinTipPosition}$  query and set of type float
- $\rightarrow~\mathbf{NegateLeafCoordinate}$  query and set of type bool
- $\rightarrow~\mathbf{NegativeEdgePosition}$  query of type action
- $\rightarrow~\mathbf{PositiveEdgePosition}$  query of type action
- $\rightarrow~\mathbf{SiblingList}$  query and set of type
- $\rightarrow~\mathbf{SiblingListObject}$  query and set of type pointer
- $\rightarrow~\mathbf{SideLeakageWidth}$  query and set of type float
- $\rightarrow~\mathbf{TipLeakageWidth}$  query and set of type float
- $\rightarrow \ \mathbf{UpdateAndEnforceLimits} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Width}$  query and set of type action
- $\rightarrow$  **XDescription** query of type action
- $\rightarrow~\mathbf{YCenterPosition}$  query and set of type float
- $\rightarrow~\mathbf{YDescription}$  query of type action

### Machine

- → AddProfilesFromImportList set of type action
- → AllMeasuredDataIn query of type action
- → BeginMessageBatch set of type action
- → BlocksAllowed query and set of type bool
- → BottomJawName query and set of type ObjString
- → CPMonitorUnitDecimalPlaces query of type int set of type action
- → CheckProfiles query of type action
- → CircularCollimatorList list of type CircularCollimator
- → ClipBeamMUToMax query and set of type int
- $\rightarrow$  CollimatorAngle subobject of type MachineAngle
- $\rightarrow$  ColorPixel query of type action
- → CommissionVersion query and set of type ObjString
- → CommissionedBy query and set of type ObjString
- → CommissionedForElectrons query and set of type bool
- $\rightarrow$   ${\bf CommissionedForMCElectrons}$  query and set of type bool
- → CommissionedForPhotons query and set of type bool
- $\rightarrow~\mathbf{CommissionedForStereo}$  query and set of type bool
- → ConfigRV subobject of type ConfigRV
- → ConfirmElectronOutputFactors query of type action
- → ConfirmMCElectronOutputFactors query of type action
- ightarrow ConfirmMeasurementGeometries query of type action
- $\rightarrow \ \mathbf{ConfirmPhotonMeasurementGeometries} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow ConfirmPhotonOutputFactors query of type action
- $\rightarrow~\mathbf{CouchAngle}$  subobject of type MachineAngle
- → CreatingLeafPairsMessage query of type action
- → **DefaultBlockJawOverlap** query and set of type float
- → DefaultDoseRate set of type action
- $\rightarrow$  **DefaultMinLeafJawOverlap** set of type action
- → **DefaultMinMUPerSeg** query and set of type float
- → **DefaultSegJawIsStatic** query and set of type
- → **DefaultToleranceTableName** query and set of type ObjString
- ightarrow **DisplayBlockAndTrayFactorWarning** query and set of type bool
- → DisplayJawConformanceWarning query and set of type bool
- → **DisplayTrayFactorWarning** query and set of type bool
- → DoseRateConstant query and set of type bool
- → DoseRateContinuouslyVariable query and set of type bool
- → ElectronApplicatorList list of type ElectronApplicator
- → ElectronEnergyList list of type MachineEnergy
- → EndMessageBatch set of type action
- $\rightarrow$  **EnergyListList** list of list of type MachineEnergy
- ightarrow **FixImportedProfilesForFixedJawMachine** set of type action

- → FixedLeftRightJawPosition query of type float set of type action
- → FixedTopBottomJawPosition query of type float set of type action
- → GantryAccelerationLimit query and set of type float
- → GantryAngle subobject of type MachineAngle
- $\rightarrow \ \mathbf{GenerateIllegalMLCPositionsWarning} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → GenerateIllegalMLCPositionsWarningForMeasGeos set of type action
- ightarrow GenerateIllegalMLCPositionsWarningForOFs set of type action
- → HasFixedJaw query of type bool set of type action
- → **HasMLC** query of type bool set of type action
- → HasUniversalWedge query of type action
- → ImportModality guery and set of type EnumeratedList with labels
- → ImportedProfileList subobject of type ImpProfileList
- → Institution query and set of type ObjString
- → IsParticleMachine query and set of type bool
- → **IsSimulator** guery and set of type bool
- ightarrow IsValidMachineName query of type action
- → **LeftJawName** query and set of type ObjString
- ightarrow LeftRightCanBeIndependent query of type bool set of type action
- → LeftRightDecimalPlaces query and set of type int
- → LeftRightJawMaterial query of type ObjString set of type action
- → LeftRightJawThickness query and set of type float
- $\rightarrow \ \mathbf{LeftRightJawsNotEnabledWarning} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  LeftRightMassDensity query of type float set of type action
- ightarrow LeftRightMaximumPosition query of type float set of type action
- $\rightarrow$  **LeftRightMinimumPosition** query of type float set of type action
- $\rightarrow$  LeftRightName query and set of type ObjString
- ightarrow LimitGantryAcceleration query and set of type bool
- $\rightarrow~$  LoginName query and set of type ObjString
- ightarrow MachineDisplay subobject of type MachineDisplay
- $\rightarrow$  MachineId query and set of type int
- $\rightarrow$  MachineType query and set of type ObjString
- → MaxJawSpeed query and set of type float
- $\rightarrow \ \mathbf{MaximumSourceToJawDistance} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{ModalityList} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → MonitorUnitDecimalPlaces query of type int set of type action
- $\rightarrow$   ${\bf Monitor Unit Maximum}$  query and set of type float
- $\rightarrow$   ${\bf Monitor Unit Per Degree Maximum}$  query and set of type float
- ightarrow MostRecentVersion query and set of type bool
- $\rightarrow~$  MultiLeaf subobject of type MultiLeaf
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- → NameAndVersion query of type action
- → NominalBottomJawPosition query of type float set of type action

- → NominalLeftJawPosition query of type float set of type action
- → NominalRightJawPosition query of type float set of type action
- → NominalTopJawPosition query of type float set of type action
- $\rightarrow$  NonUniversalWedgeList query of type action
- $\rightarrow$  NotForDoseComputation query and set of type bool
- → OKToChangeWedgeLimits query of type action
- → OKToChangeWedgeName query of type action
- → OKToDeleteWedge query of type action
- → **ObjectVersion** subobject of type ObjectVersion
- → ParticleMachine subobject of type ProtonMachine
- → PhotonEnergyList list of type MachineEnergy
- $\rightarrow$  **PrefixName** set of type action
- $\rightarrow$  **PrimaryCollimationAngle** query and set of type float
- → ReadWriteMachine query and set of type bool
- → ResponseToBlockAndTrayFactorWarning query and set of type bool
- → ResponseToJawConformanceWarning query and set of type bool
- → ResponseToTrayFactorWarning query and set of type bool
- ightarrow RightJawName query and set of type ObjString
- $\rightarrow$  **SAD** query and set of type float
- → SelectedMachineHasNoMLC query of type action
- → SourceToBlockTrayDistance query and set of type float
- → SourceToFirstScatteringFoilDistance query and set of type float
- $\rightarrow$  SourceToFixedJawDistance query of type float set of type action
- ightarrow SourceToFlatteningFilterDistance query and set of type float
- $\rightarrow$  SourceToLastScatteringFoilDistance query and set of type float
- ightarrow SourceToLeftRightJawDistance query and set of type float
- ightarrow SourceToTopBottomJawDistance query and set of type float
- → StereoEnergyList list of type MachineEnergy
- ightarrow ToleranceTableList list of type TolTable
- $\rightarrow \ \, \mathbf{ToleranceTableListNumbersAreUnique} \ \, \mathbf{query} \ \, \mathbf{of} \ \, \mathbf{type} \ \, \mathbf{action}$
- ightarrow TopBottomCanBeIndependent query of type bool set of type action
- $\rightarrow$  TopBottomDecimalPlaces query and set of type int
- ightarrow TopBottomJawMaterial query of type ObjString set of type action
- $\rightarrow$   $\bf TopBottomJawThickness$  query and set of type float
- ightarrow TopBottomJawsNotEnabledWarning query of type action
- $\rightarrow~\mathbf{TopBottomMassDensity}$  query of type float set of type action
- ightarrow TopBottomMaximumPosition query of type float set of type action
- ightarrow TopBottomMinimumPosition query of type float set of type action
- ightarrow TopBottomName query and set of type ObjString
- → **TopJawName** query and set of type ObjString
- → Units query of type action
- → UniversalWedgeList query of type action

- $\rightarrow \ \mathbf{UpdateDefaultToleranceTable} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{VersionDescription}$  query and set of type <code>ObjString</code>
- $\rightarrow~$  Version Timestamp query of type ObjString set of type action
- $\rightarrow~\mathbf{WarnAboutComputedProfiles}$  query and set of type bool
- $\rightarrow$  **WedgeList** list of type Wedge

## **Machine Angle**

- → AngularRateConstant query and set of type bool
- $\rightarrow$  **BeginMessageBatch** query and set of type bool
- → CArmColor query of type action
- → CArmDecimalPlaces query and set of type int
- → CArmMaxAngle query and set of type float
- → CanBeArc query and set of type bool
- → ClockwiseIncreases query and set of type bool
- → ColumnFormat query of type action
- → ColumnHeader query of type action
- → ConformalArc query and set of type bool
- $\rightarrow$  **DecimalPlaces** query and set of type int
- → **DecimalRoundUp** query of type action
- $\rightarrow$  **DeleteRow** set of type action
- $\rightarrow$  **DiscreteAngleTable** subobject of type CurveNd
- $\rightarrow$  **DiscreteGantryAnglesList** query of type action
- $\rightarrow~\mathbf{DrawIcon}$  query and set of type action
- → DrawIconNominal query and set of type action
- $\rightarrow$  **DynamicArc** query and set of type bool
- $\rightarrow$  EndMessageBatch query and set of type bool
- → HasCArm query of type bool set of type action
- $\rightarrow$  InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- ightarrow IsGantryContinuous query and set of type bool
- $\rightarrow$  LastValue query and set of type
- → MaxGantryRotationSpeed query and set of type float
- → MaxGantryRotationSpeedMU query and set of type float
- → MaximumAngle query and set of type float
- $\rightarrow$  MinGantryRotationSpeedMU query and set of type float
- → MinimumAngle query and set of type float
- → ModificationDependency query of type action
- → Name query and set of type ObjString
- $\rightarrow$  NineOClockAngle query of type action
- → NominalAngle query and set of type float
- → NumColumns query and set of type
- $\rightarrow$  **NumRows** query and set of type
- → NumberOfPoints query and set of type
- → PitchAngle query and set of type float
- → RangeBisectAngle query of type action
- → RollAngle query and set of type float
- ightarrow RotationDirection query and set of type EnumeratedList with labels
- → RoundDecimal set of type action

- $\rightarrow \ \mathbf{SetAngles} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{SixOClockAngle}$  query of type action
- $\rightarrow~\mathbf{StartColor}$  query of type action
- $\rightarrow$  **StopColor** query of type action
- $\rightarrow \ \mathbf{ThreeOClockAngle} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{TwelveOClockAngle}$  query and set of type float
- $\rightarrow \ \mathbf{TwelveOClockColor} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Value set of type action

# MachineBroker

- $\rightarrow~\mathbf{BeamObject}$  subobject of type Beam
- $\rightarrow$  **Preserve** set of type action
- $\rightarrow \ \mathbf{Restore} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

### **MachineDB**

- → AddMachineDescriptionList query of type action
- → AddMachineList list of type Machine
- → AddMachineListIsDeletedList query of type action
- → AddMachineListIsReadOnlyList query of type action
- ightarrow AddMachineListIsReadOnlyOldMachineList query of type action
- → AddParticleMachineDescriptionList query of type action
- → AddParticleMachineList guery and set of type
- → BuildVersionMachineList set of type action
- → CommissionFailureDescription query and set of type ObjString
- → CommissionMachine set of type action
- → CommissionProtonMachine set of type action
- → CopyCurrentAddMachine set of type action
- → CopyCurrentAddParticleMachine set of type action
- → CopyLocatedMachine set of type action
- → CreateDefaultMachine set of type action
- → CreateDefaultParticleMachine set of type action
- → CurrentAddMachineList query and set of type action
- → **DeleteAllVersionsROM** set of type action
- → DeleteAllVersionsROMPermanently set of type action
- → DeleteReadOnlyMachine set of type action
- $\rightarrow \ \mathbf{DeleteReadOnlyMachinePermanently} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{DeleteUnusedPhaseSpaceFiles} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  InstallDeletedList set of type action
- $\rightarrow \ \mathbf{InstallROMachineList} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → InstallRWMachineList set of type action
- ightarrow InstallStandardList set of type action
- ightarrow Install VersionList set of type action
- $\rightarrow$  **IsParticle** query and set of type bool
- ightarrow IsSimulator query and set of type bool
- → LoadPhysicsMachinesForPlanning set of type action
- → LocatedMachineIsValid query and set of type bool
- $\rightarrow$   $\mathbf{LocatedMachinePath}$  query and set of type ObjString
- → MachineLocator subobject of type FileList
- $\rightarrow$  NameAndVersion query and set of type ObjString
- → ParticleMachineList list of type Machine
- → ROSimulatorMachineList list of type Machine
- → RWSimulatorMachineList list of type Machine
- → ReadMachineNameAndVersion set of type action
- → ReadOnlyDeletedMachineList list of type Machine
- $\rightarrow$  ReadOnlyMachineList list of type Machine
- → ReadOnlyOldMachineList list of type Machine

- $\rightarrow \ \mathbf{ReadWriteDeletedMachineList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{Machine}$
- $\rightarrow \ \mathbf{ReadWriteMachineList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{Machine}$
- $\rightarrow$  SaveCurrentMachine set of type action
- $\rightarrow \ \mathbf{SaveCurrentProtonMachine} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{SaveMachineData}$  query and set of type bool
- $\rightarrow$  SaveMachines set of type action
- $\rightarrow \ \mathbf{StandardMachineList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{Machine}$
- $\rightarrow \ \mathbf{UndeleteReadOnlyMachine} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{UniqueMachineList}$  list of type Machine
- $\rightarrow~\mathbf{UniqueSimulatorMachineList}$  list of type Machine
- $\rightarrow$  UpdateMachineList set of type action
- $\rightarrow$  VersionMachineList list of type Machine

## **Machine Display**

- $\rightarrow~\mathbf{AcceleratorDepth}$  query and set of type float
- $\rightarrow$  FloorHeight query and set of type float
- $\rightarrow~\mathbf{FloorWidth}$  query and set of type float
- $\rightarrow~\mathbf{GantryDepth}$  query and set of type float
- $\rightarrow$  **GantryHeight** query and set of type float
- $\rightarrow~\mathbf{GantryToFloorDistance}$  query and set of type float
- $\rightarrow~\mathbf{GantryTopDepth}$  query and set of type float
- $\rightarrow~\mathbf{GantryTopHeight}$  query and set of type float
- $\rightarrow$  GantryWidth query and set of type float
- $\rightarrow$  **IsoToFloorDistance** query and set of type float
- $\rightarrow$  IsoToGantryDistance query and set of type float
- $\rightarrow$  TableBaseHeadToIsoDistance query and set of type float
- $\rightarrow~\mathbf{TableBaseLength}$  query and set of type float
- $\rightarrow~\mathbf{TableBaseWidth}$  query and set of type float
- $\rightarrow~\mathbf{TableTopDistBelowIso}$  query and set of type float
- $\rightarrow~\mathbf{TableTopHeadToIsoDistance}$  query and set of type float
- $\rightarrow~\mathbf{TableTopLength}$  query and set of type float
- $\rightarrow~\mathbf{TableTopThickness}$  query and set of type float
- $\rightarrow~\mathbf{TableTopWidth}$  query and set of type float

## MachineEnergy

- $\rightarrow$  **AvailableDoseRateList** list of type DoseRate
- → BeginMessageBatch query and set of type bool
- → CheckDoseRateTableValidity set of type action
- → CopyAllMeasureGeometries set of type action
- $\rightarrow \ \mathbf{CopyMeasureGeometry} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → DefaultBlockAndTrayFactor query and set of type float
- ightarrow **DefaultCutoutMaterialTransmissionFactor** query and set of type float
- $\rightarrow$  **DefaultDoseRate** query of type float set of type action
- $\rightarrow$  **DefaultMLCFactor** query and set of type float
- $\rightarrow$  **DefaultTrayFactor** query and set of type float
- → **DisplayWarning** query and set of type bool
- $\rightarrow$  EndMessageBatch set of type action
- → GenerateDefaultDoseRateTable set of type action
- $\rightarrow$  **Id** query and set of type int
- $\rightarrow$  InitialDoseRateForTable query and set of type float
- → MCPhysicsData subobject of type MCPhysicsData
- → MachineObject query of type pointer set of type action
- $\rightarrow$  MaxDoseRate query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{PhysicsData}$ subobject of type PhysicsData
- $\rightarrow$  RelyOnList query and set of type
- $\rightarrow$   $\mathbf{ScanPatternLabel}$  query and set of type ObjString
- ightarrow SetDefaultElectronCutoutTransmission set of type action
- $\rightarrow$  Value query and set of type float
- $\rightarrow$   ${\bf Variable DoseRateTable}$  subobject of type AnnotatedCurve

### MachineHeadModel

- $\rightarrow$  **ArbitraryProfileInRange** query of type action
- → **ArbitraryProfileLowerLimit** query and set of type float
- $\rightarrow$   $\bf Arbitrary Profile Upper Limit$  query and set of type float
- $\rightarrow$  **BeamSpotSizeX** query and set of type float
- $\rightarrow$  **BeamSpotSizeY** query and set of type float
- → BeginMessageBatch query and set of type bool
- $\rightarrow$  EndMessageBatch query and set of type bool
- → FilterArbitraryProfile query and set of type bool
- $\rightarrow~\mathbf{FilterProfilePlotStyle}$  subobject of type PlotStyle
- → GaussianHeight query and set of type float
- $\rightarrow$  GaussianWidth query and set of type float
- → GenerateDefaultArbitraryProfile set of type action
- $\rightarrow$  IncFluConeAngle query and set of type float
- $\rightarrow~\mathbf{IncFluConeRadius}$  query of type float set of type action
- $\rightarrow~\mathbf{IncFluModel}$  query and set of type Enumerated List with labels
- $\rightarrow$  **JawTransmission** query of type float set of type action
- ightarrow LeftRightJawTransmission query and set of type float
- $\rightarrow$  MLCTransInRange query of type action
- $\rightarrow$   ${\bf MLCTransmission}$  query of type float set of type action
- $\rightarrow~\mathbf{MLCTransmissionIfValid}$  query of type action set of type float
- ightarrow ModificationDependency query of type action
- $\rightarrow$   ${\bf ModifierScatterFactor}$  query and set of type float
- $\rightarrow \ \mathbf{MultiJawTransHasMeaning} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow~\mathbf{NumArbitraryProfilePoints}$  query and set of type int
- $\rightarrow~\mathbf{NumFilterPoints}$  query and set of type int
- $\rightarrow~\mathbf{SingleJawTransHasMeaning}$  query of type action
- $\rightarrow~\mathbf{TopBotJawTransmission}$  query and set of type float
- → UseSingleJawTransmission query and set of type bool
- → **UserDefinedFilterProfile** subobject of type AnnotatedCurve

# ${\bf Mass Attn Coef Table}$

- $\rightarrow~\mathbf{CurveEnergyMACT}$  subobject of type CurveNd
- $\rightarrow$  **Name** query and set of type ObjString
- $\rightarrow~\mathbf{Nominal Density}$  query and set of type float

### Material

- ightarrow AddElement set of type action
- $\rightarrow~\mathbf{DefaultDensity}$  query and set of type float
- $\rightarrow~\mathbf{ElementList}$  subobject of type Annotated Curve
- $\rightarrow$  **ElementName** query of type action
- $\rightarrow$  **InsertElement** set of type action
- $\rightarrow$   ${\bf IsRequired}$  query and set of type bool
- $\rightarrow~\mathbf{MeanExcitationEnergyInEv}$  query and set of type float
- $\rightarrow~\mathbf{Name}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{ProportionsByMass}$  query and set of type bool
- $\rightarrow~\mathbf{X}$  query and set of type action
- $\rightarrow$  **Y** query of type action

### MeasureGeometry

- → ApplyToAllProfiles query and set of type bool
- → AutoCenter set of type action
- $\rightarrow$  **AutoModelDescription** query of type action
- $\rightarrow$  BeginMessageBatch set of type action
- → BlockDoseComputation query and set of type bool
- → BottomJawOF set of type action
- → BottomJawPosition query of type float set of type action
- ightarrow BottomMLCPosition query of type float set of type action
- → ChangeWedge set of type action
- → CheckAndCorrectMLCLeafPositions set of type action
- → CheckMLCLeafPositions set of type action
- → CheckSymmetric set of type action
- → CircularCollimatorName query of type ObjString set of type action
- → ClosedMLCLeafOffset query of type float set of type action
- → CollimatorOutputFactor query of type action
- → CompareList list of type CompareProfile
- → ConeSize query of type action
- $\rightarrow~\mathbf{CutoutApertureIsRectangular}$  query and set of type bool
- → CutoutApertureXHalfWidth query and set of type float
- ightarrow CutoutApertureYHalfWidth query and set of type float
- → **DeleteProfile** set of type action
- $\rightarrow~\mathbf{Description}$  query of type action
- $\rightarrow \ \mathbf{DownSampleFilter} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~{\bf ElectronApplicatorName}$  query of type ObjString set of type action
- → ElectronDescription query of type action
- $\rightarrow$  EndMessageBatch set of type action
- → EquivalentSquare query of type action
- → FieldHeight query of type action
- → FieldSize query of type action
- → FieldSizeAndWedge query of type action
- → FieldWidth query of type action
- $\rightarrow$  GaussFilter set of type action
- → GeometryChangeDependency query of type action
- → GradientFilter set of type action
- → InstallOFDepthIntoProfile set of type action
- → InvalidateInExclusiveRange set of type action
- → InvalidateWedgedProfiles set of type action
- → JawsAreValid query of type action set of type float
- → LeftJawOF set of type action
- $\rightarrow$  LeftJawPosition query of type float set of type action
- → **LeftMLCPosition** query of type float set of type action

- $\rightarrow$  LeftRightJawDecimalPlaces query and set of type action
- ightarrow LeftRightJawsIndependent query of type action set of type float
- → MCElectronDescription query of type action
- → MCElectronFieldSize query of type action
- $\rightarrow$  MLCBottomOF set of type action
- $\rightarrow$  MLCFieldSize query of type action
- → MLCIncludedInProfile set of type action
- → MLCLeftOF set of type action
- → MLCRightOF set of type action
- → MLCTopOF set of type action
- $\rightarrow$  MLCsViolateMachineLimits query and set of type bool
- → MachineAddress query of type action
- → MachineEnergyName query of type action
- → MachineObject query of type pointer set of type action
- → MakeCompareListValid set of type action
- → MaxDepth query of type action
- → MaxMLCLeftRightTipPosition query of type action
- $\rightarrow$  MaxMLCTopBottomPosition query of type action
- → MeanFilter set of type action
- → MeasuredDataModified set of type action
- → MeasuredOutputFactor query and set of type float
- $\rightarrow$  MeasurementSSD query and set of type float
- $\rightarrow$  MessageBatch query and set of type bool
- $\rightarrow$  MinMLCLeftRightTipPosition query of type action
- $\rightarrow$  MinMLCTopBottomPosition query of type action
- $\rightarrow$  MirrorAndAverage set of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow$  OffsetX set of type action
- $\rightarrow$  OffsetY set of type action
- ightarrow OpposingJawMinimum query and set of type float
- $\rightarrow~\mathbf{OutputFactorDepth}$  query and set of type float
- $\rightarrow~\mathbf{OutputFactorObject}$  query and set of type pointer
- $\rightarrow~\mathbf{PhantomOutputFactor}$  query and set of type float
- $\rightarrow~\mathbf{PhysicsDataObject}$  query and set of type pointer
- $\rightarrow~\mathbf{PhysicsMode}$  query and set of type bool
- $\rightarrow$  **PlotStyle** query and set of type action
- $\rightarrow$  **ProfileList** list of type DoseProfile
- $\rightarrow \ \mathbf{RightJawOF} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RightJawPosition query of type float set of type action
- → **RightMLCPosition** query of type float set of type action
- $\rightarrow$  **ScaleX** set of type action
- → ScaleY set of type action

- $\rightarrow~\mathbf{SelectProfiles}$  set of type action
- $\rightarrow$  **SetBottomMLCPosition** set of type action
- $\rightarrow$  **SetLeftMLCPosition** set of type action
- $\rightarrow$  **SetRightMLCPosition** set of type action
- $\rightarrow$  **SetTopMLCPosition** set of type action
- → SincFilter set of type action
- $\rightarrow$  **StereoDescription** query of type action
- $\rightarrow$  ToggleWedgeOrientation query and set of type
- $\rightarrow$  TopBottomJawDecimalPlaces query and set of type action
- ightarrow TopBottomJawsIndependent query of type action set of type float
- → TopJawOF set of type action
- $\rightarrow$  **TopJawPosition** query of type float set of type action
- → TopMLCPosition query of type float set of type action
- → UnselectProfiles set of type action
- → UseElectronCutout query and set of type bool
- → UserDefinedMLCInProfile query of type bool set of type action
- → WedgeAngle query and set of type
- $\rightarrow~\mathbf{WedgeChange}$  set of type action
- $\rightarrow$   $\mathbf{WedgeContext}$  subobject of type WedgeContext
- → WedgeIsInstalled query of type action
- $\rightarrow$  **WedgeName** query and set of type
- $\rightarrow$  WedgeObject query and set of type
- $\rightarrow$  **WedgeOrientation** query and set of type

## ModelOptimizer

- $\rightarrow~\mathbf{CancelOptimization}$  query and set of type bool
- → CancellationOccurred query and set of type bool
- $\rightarrow$  **FitPenalty** query and set of type float
- → FitPenaltyWeight query and set of type float
- → GoodnessOfFit query of type action
- → HighDoseGradientThreshold query and set of type
- → IterationCount query and set of type int
- → LoadStateList set of type action
- → MaxIterationsPerRestart query and set of type int
- → MaxRestarts query and set of type int
- $\rightarrow$   $\bf MeasurementGeometryList$  query and set of type ObjString
- $\rightarrow$  ModelObject query and set of type pointer
- $\rightarrow$  **NDimensions** query and set of type int
- $\rightarrow~\mathbf{OptimizationFileList}$  subobject of type FileList
- $\rightarrow$  **OptimizationInProgress** query and set of type bool
- $\rightarrow$  **OptimizeAll** set of type action
- $\rightarrow$  **OptimizeCurrentState** query and set of type bool
- $\rightarrow$  **OptimizeStateList** set of type action
- → OptimizerType query and set of type EnumeratedList with labels
- → OverallScaleScalar query and set of type float
- $\rightarrow$  ParameterPenalty query and set of type float
- $\rightarrow$  ParameterStatusList query of type action
- $\rightarrow~\mathbf{PhysicsDataObject}$ subobject of type PhysicsData
- ightarrow SaveMachineOnStateTransition query and set of type bool
- $\rightarrow~\mathbf{ScriptFileName}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{ScriptFilePath}$  query and set of type ObjString
- $\rightarrow~\mathbf{SendProfileSelectsToAllGeometries}$  query and set of type bool
- $\rightarrow~\mathbf{StateList}$ list of type ModelingState
- $\rightarrow$   ${\bf StepRescaler}$  query and set of type float
- $\rightarrow~\mathbf{SuppressProfileWarning}$  query and set of type bool
- $\rightarrow\,$  Tolerance query and set of type float

# ModelingState

- $\rightarrow~\mathbf{IF}$  query and set of type
- $\rightarrow$  MachineList query and set of type
- $\rightarrow$  MaxIterations query and set of type int
- $\rightarrow$  MaxRestarts query and set of type int
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow$  **OptStateDescription** query and set of type ObjString
- $\rightarrow~\mathbf{Script}$  query and set of type ObjString
- $\rightarrow$  **StateOptimizerType** query and set of type EnumeratedList with labels
- $\rightarrow$   ${\bf StepRescalar}$  query and set of type float
- $\rightarrow~$  Tolerance query and set of type float
- $\rightarrow~\mathbf{ToleranceFactor}$  query and set of type float
- $\rightarrow$  **UncertaintyGoal** query and set of type float
- $\rightarrow$   $\mathbf{WorthSavingMachine}$  query and set of type bool

### MultiLeaf

- ightarrow AlignedWithLeftRightJaw query of type bool set of type action
- → AllowMUWhenReplacesJaw query and set of type
- → BeginMessageBatch set of type action
- ightarrow CheckOpposingAdjacentLeafOverlap set of type action
- → ContainerObject subobject of type Machine
- → CreateLeafPairsFromTemplate set of type action
- $\rightarrow$  **DecimalPlaces** query and set of type int
- → **DefaultLeafPositionTolerance** query and set of type float
- → DefaultMaxLeafSpeed query and set of type float
- $\rightarrow$  **DefaultMaxLeafSpeedMU** query and set of type float
- $\rightarrow~\mathbf{DefaultMinLeafJawOverlap}$  query of type float set of type action
- → EndMessageBatch set of type action
- → EnforceLeafRules set of type action
- → GenerateDefaultCalibrationTable set of type action
- → GeometryChangeDependency query of type action
- $\rightarrow$  HalfMinLeafWidth query of type action
- $\rightarrow$  HalfThickness query of type action
- → HasCarriage query and set of type bool
- → InterLeafLeakageTrans query and set of type float
- $\rightarrow \ \mathbf{InterLeafLeakageWidth}$  query and set of type float
- $\rightarrow$   $\mathbf{JawsConformance}$  query and set of type action
- $\rightarrow$   $\mathbf{JawsConformanceList}$  query and set of type StringList
- $\rightarrow$  **LeafPairList** list of type MLCLeafPair
- $\rightarrow \ \mathbf{LeafSpeedOverJawSpeed} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{LeafTemplate}$  subobject of type MLCLeafPair
- $\rightarrow~\mathbf{LeafXBasePosition}$  query and set of type float
- → LeftBankName query and set of type ObjString
- $\rightarrow$  MLCTracks Jaw<br/>ForOpenFields query and set of type Enumerated<br/>List with labels
- → MLCTracksJawForOpenFieldsList query and set of type StringList
- → MatchMachineVendor set of type action
- → MaxAdjacentLeafDifference query and set of type
- $\rightarrow~\mathbf{MaxLeafJawOverlap}$  query of type float set of type action
- → MaxLeftRightTipPosition query of type action
- $\rightarrow$  MaxOverallLeafDifference query and set of type float
- → MaxTipPositionFromJaw query and set of type float
- → MaxTopBottomPosition query of type action
- → MessageBatchMode query of type bool
- $\rightarrow$  MinDynamicLeafGap query of type float set of type action
- → MinLeafJawOverlap query of type float set of type action
- $\rightarrow$  MinLeafWidth query of type action
- → MinLeftRightTipPosition query of type action

- → MinPerpendicularLeafJawOverlap query of type float set of type action
- $\rightarrow$  MinStaticLeafGap query of type float set of type action
- → MinTopBottomPosition query of type action
- $\rightarrow$  NegateLeafCoordinates query and set of type bool
- → NumberOfLeafPairsToCreate query and set of type int
- → OpenExtraLeafPairs query and set of type bool
- ightarrow OpposingAdjacentLeavesCanOverlap query and set of type bool
- $\rightarrow$  ReplacesJaw query and set of type bool
- → RightBankName query and set of type ObjString
- → RoundedLeafCalibrationTablePlotStyle subobject of type PlotStyle
- → RoundedLeafEndCalibrationTable subobject of type AnnotatedCurve
- $\rightarrow$  RoundedLeafMLC query and set of type bool
- → SourceToMLCDistance query and set of type float
- $\rightarrow$  **SwapLeafOrderOnExport** query of type bool
- → SwapLeafPairsOnExport query of type bool
- → SwapOrderOnExport query of type bool
- → SwapPairsOnExport query of type bool
- $\rightarrow$  SwapVarianXOutput query of type bool
- → SwapVarianYOutput query of type bool
- → SymmetricLeafPairs query of type action
- → Thickness query of type float set of type action
- → TipLeakageRadius query and set of type float
- $\rightarrow~\mathbf{TongueAndGrooveLeakageWidth}$  query and set of type float
- $\rightarrow$  UpperTongueAndGrooveLimit query of type action
- $\rightarrow$  UseRoundedLeafEndCalTable query and set of type
- → ValidImage query of type action
- ightarrow ValidLeafPositions query of type action
- → ValidLeafText query of type action
- $\rightarrow$  VarianVersionF query of type bool
- $\rightarrow$  **Vendor** query and set of type ObjString

# NLString

- $\rightarrow$  **CopyFrom** set of type action
- $\rightarrow$  CopyTo set of type action
- $\rightarrow~\mathbf{English}$  query and set of type ObjString
- $\rightarrow~\mathbf{Local}$  query and set of type ObjString
- $\rightarrow~\mathbf{Severity}$  query and set of type Enumerated List with labels

### NTCP

- $\rightarrow$   $\,$  Complication query and set of type ObjString
- $\rightarrow~\mathbf{Gamma50}$  query and set of type action
- $\rightarrow~\mathbf{IsNTCP}$  query and set of type bool
- $\rightarrow \ \mathbf{IsValid} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type int
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{ReferenceVolume}$  query and set of type float
- $\rightarrow\,$  Slope query and set of type float
- $\rightarrow$  **ToleranceDose50** query and set of type float
- $\rightarrow$  ToleranceDoseUnits query and set of type
- $\rightarrow$  **UseReferenceVolume** query and set of type bool
- $\rightarrow~\mathbf{VolumeFactor}$  query and set of type float

### NetReviewControl

- $\rightarrow~\mathbf{BinPath}$  set of type action
- $\rightarrow~\mathbf{FileNameRoot}$  set of type action
- $\rightarrow~\mathbf{GenerateReview}$  set of type action
- $\rightarrow~\mathbf{ImageList}$ list of type NetReviewImage
- $\rightarrow~\mathbf{LoadImageList}$  set of type action
- $\rightarrow \ \mathbf{SaveImageList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~{\bf ViewReview}$  set of type action

# ${\bf Net Review Image}$

- $\rightarrow~\mathbf{BinPath}$  query and set of type ObjString
- $\rightarrow \ \mathbf{Capture} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{CaptureWithClick}$  query and set of type bool
- $\rightarrow$  **Description** query and set of type ObjString
- $\rightarrow~\mathbf{FileName}$  query and set of type ObjString
- $\rightarrow~\mathbf{FileNameRoot}$  query and set of type ObjString

## ${\bf Numonics Digitizer}$

- $\rightarrow \ \mathbf{AcknowledgementReceived} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~{\bf Beep}$  set of type action
- $\rightarrow~\mathbf{Close}$  set of type action
- $\rightarrow~\mathbf{DeviceId}$  query and set of type int
- $\rightarrow~\mathbf{HeightInCm}$  query and set of type float
- $\rightarrow$  **IsOpen** query and set of type bool
- $\rightarrow \ \mathbf{LoadButtonEvent} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{NormalizationFactor}$  query and set of type float
- ightarrow **OpenOnDevice** set of type action
- $\rightarrow \ \mathbf{RequestAcknowledgement} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{WidthInCm}$  query and set of type float

- → ApplyMinimumValue set of type action
- → BeamModified query and set of type bool
- → BottomJawPosition query and set of type float
- → ComputeDoseFromEffectiveODM query and set of type bool
- $\rightarrow$  ComputingEffectiveODM query and set of type bool
- → ConversionEfficiency query and set of type
- → EffectiveODMIsValid query and set of type bool
- → EndMessageBatch set of type action
- $\rightarrow$  **ExportAscii** query and set of type bool
- $\rightarrow$  **ExportEffectiveODM** query and set of type bool
- $\rightarrow$  **ExportName** query and set of type ObjString
- → FillWithConstant set of type action
- ightarrow Fuzzy Maximum query of type action
- → GeneratedAutomatically query of type bool set of type action
- $\rightarrow$  IncludeConvolutionTerm query and set of type bool
- $\rightarrow$  Invalidate set of type action
- $\rightarrow \ \mathbf{InvalidateByForce} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{IsValid}$  query of type bool set of type action
- $\rightarrow~\mathbf{LeftJawPosition}$  query and set of type float
- ightarrow LoadFluenceFilterInfo set of type action
- $\rightarrow~\mathbf{MUForODM}$  query and set of type float
- $\rightarrow$   ${\bf ModifiedSinceOptimization}$  query of type action
- $\rightarrow$   $\mathbf{ModuleTestMode}$  query and set of type bool
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- → ODMData query and set of type action
- → **ODMDifference** subobject of type Volume
- → **ODMVolume** subobject of type Volume
- ightarrow **OFForODM** query and set of type float
- → RightJawPosition query and set of type float
- $\rightarrow$  SourceToODMDistance query and set of type float
- → TopJawPosition query and set of type float
- → TransCorrection query and set of type EnumeratedList with labels
- ightarrow Use40cmFieldForScatterConvolution query and set of type

#### ObjectList

- $\rightarrow$  \* query and set of type action
- $\rightarrow$  **Add** set of type action
- → AddByStringList set of type action
- → AddChildren set of type action
- → CaseSensitiveNames query and set of type bool
- → ChildClassName query and set of type action
- → ChildClassNameAlias query and set of type ObjString
- → ChildNameFormat query of type ObjString
- → Children query and set of type action
- $\rightarrow$  **ChildrenEachCurrent** set of type action
- → ChildrenReverseOrder set of type action
- $\rightarrow$  Class query and set of type action
- → ContainerObject query and set of type pointer
- $\rightarrow$  ContainsObject query of type action
- → Copy set of type action
- $\rightarrow$  Count query of type action
- $\rightarrow$  CreateChild set of type action
- → CreateChildIfEmpty set of type action
- → CreateChildMakeCurrent set of type action
- $\rightarrow$  CreateChildren set of type action
- $\rightarrow$  Current query and set of type action
- ightarrow CurrentByAttribute set of type action
- $\rightarrow$  CurrentIndex query and set of type action
- ightarrow CurrentIndexPlusOne query of type action
- → CurrentObjectPointer query of type action
- $\rightarrow \ \mathbf{DestroyAllChildren} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{First}$  query and set of type action
- $\rightarrow$  **GrabNextObject** query of type action
- → **HasElements** query of type action
- → HasMatchingObjects query of type action
- → HasMultipleElements query of type action
- → HasNoElements query of type action
- $\rightarrow$  Last query and set of type action
- → LastObjectPointer query of type action
- → MakeNextCurrent set of type action
- → MakePreviousCurrent set of type action
- → ModificationDependency query and set of type
- → Name query and set of type ObjString
- → NextChildName query of type action
- $\rightarrow$  **NextCurrent** set of type action
- $\rightarrow$  NumColumns query and set of type action

- $\rightarrow$  **NumRows** query and set of type action
- $\rightarrow~\mathbf{NumberOfPoints}$  query and set of type action
- $\rightarrow~\mathbf{PersistenceList}$  query and set of type action
- $\rightarrow$  **Remove** set of type action
- ightarrow RemoveAllObjects set of type action
- $\rightarrow \ \mathbf{RemoveByStringList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RemoveDuplicateObjects} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RenumberChildren} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **SortBy** set of type action
- $\rightarrow~$  Value query and set of type action
- $\rightarrow$  X query and set of type action
- $\rightarrow$  **Y** query and set of type action

### ${\bf Object Version}$

- $\rightarrow~\mathbf{BeginMessageBatch}$  query and set of type bool
- $\rightarrow~\mathbf{CreateTimeStamp}$  query and set of type ObjString
- $\rightarrow~\mathbf{CreateVersion}$  query and set of type ObjString
- $\rightarrow$  IsCreateVersionUnknown query of type action
- $\rightarrow \ \mathbf{IsWriteVersionUnknown}$  query of type action
- $\rightarrow~\mathbf{LastModifiedTimeStamp}$  query and set of type ObjString
- $\rightarrow~$  LoginName query and set of type ObjString
- $\rightarrow$  **SetVersionsToUnknown** set of type action
- $\rightarrow~\mathbf{TimeStamp}$  query and set of type ObjString
- $\rightarrow \ \mathbf{UpdateAndReturnWriteVersion} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow~\mathbf{WasIFiledIn}$  query and set of type bool
- $\rightarrow$  WriteTimeStamp query and set of type ObjString
- $\rightarrow~\mathbf{WriteVersion}$  query and set of type ObjString

### Objective

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow$  InstanceName query of type string
- $\rightarrow~\mathbf{IsComposite}$  query of type bool
- $\rightarrow$  **IsConstrained** query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsTargetObjective** query of type bool
- $\rightarrow~\mathbf{OptimizationDirection}$  query of type int
- $\rightarrow$  **PropertyList** query and set of type
- $\rightarrow \ \mathbf{Type} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **TypeList** query of type StringList
- $\rightarrow$  **UniqueIndex** query and set of type int
- $\rightarrow~$  Value query and set of type float

## ${\bf Objective Manager}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Current}$  subobject of type OrbitObjectives
- $\rightarrow~\mathbf{CurrentName}$  query and set of type string
- $\rightarrow \ \mathbf{CurrentNameIs} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  InterfaceCount query of type int
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{OrbitBioObjectives}$  subobject of type OrbitBioObjectives
- $\rightarrow~\mathbf{OrbitObjectives}$  subobject of type OrbitObjectives
- $\rightarrow~\mathbf{TypeNames}$  query of type StringList

### ${\bf Optimization Manager}$

- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Current}$  subobject of type PinnOptimizer
- $\rightarrow$  CurrentIterationNumber query and set of type int
- → CurrentName query and set of type string
- → CurrentNameIs query of type bool
- $\rightarrow~\mathbf{CurrentType}$  query and set of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  InterfaceCount query of type int
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow$  MaxNumberOfIter query and set of type int
- $\rightarrow$  **Optimizing** query of type bool
- $\rightarrow~\mathbf{PinnOptimizer}$  subobject of type PinnOptimizer
- $\rightarrow~\mathbf{PythonOwnOptimizer}$  subobject of type PythonOwnOptimizer
- $\rightarrow$  **StartOptimization** set of type action
- $\rightarrow$  **StopOptimization** set of type action
- $\rightarrow$  **TypeList** query of type StringList

# ${\bf Optimizer Trial}$

- $\rightarrow~\mathbf{BeamExtensionList}$  query and set of type
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~\mathbf{CurrentIteration}$  query and set of type int
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow~\mathbf{HasBeamExtensionList}$  query of type bool
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$   ${\bf MaxIterations}$  query and set of type int
- $\rightarrow~\mathbf{OptimalityTolerance}$  query and set of type float

#### **OrbitBioConstraints**

- $\rightarrow$  **Add** set of type action
- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  Cancel set of type action
- → ClassName query of type string
- $\rightarrow$  CompositeNTCP query and set of type float
- $\rightarrow$  CompositePPlus query and set of type float
- $\rightarrow$  CompositeTCP query and set of type float
- $\rightarrow$  ConstrainNTCP query and set of type bool
- → ConstrainPPlus query and set of type bool
- → ConstrainTCP query and set of type bool
- $\rightarrow \ \mathbf{DeleteCurrentConstraint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- → ExportResponseData set of type string
- → InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow$  ModelNameList query of type StringList
- $\rightarrow$  NTCPBound query and set of type float
- ightarrow NTCPCompositeFunction subobject of type OrbitPlotDataFunction
- $\rightarrow$  **PPlusBound** query and set of type float
- $\rightarrow \ \mathbf{PPlusCompositeFunction} \ \mathrm{subobject} \ \mathrm{of} \ \mathrm{type} \ \mathrm{OrbitPlotDataFunction}$
- $\rightarrow$  **PluginName** query of type string
- ightarrow ResponseCurveList query and set of type
- $\rightarrow~\mathbf{ResponsePlotStyle}$  subobject of type PlotStyle
- → **Revision** query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow$  **SetConstraintType** set of type string
- $\rightarrow$  TCPBound query and set of type float
- $\rightarrow$   $\mathbf{TCPCompositeFunction}$  subobject of type OrbitPlotDataFunction
- → TrialConstraintList list of type TrialConstraint
- → **TypeCount** query of type int
- $\rightarrow$  **TypeNames** query of type StringList
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### **OrbitBioDB**

- $\rightarrow \ \mathbf{AddOrgan} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow **AddTumorSite** set of type action
- $\rightarrow$  BeginMessageBatch set of type action
- $\rightarrow$  Cancel set of type action
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{DeleteOrgan}$  set of type action
- $\rightarrow~\mathbf{DeleteTumorSite}$  set of type action
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow~\mathbf{FileList}$  subobject of type FileList
- $\rightarrow~{\bf Initialize}$  set of type action
- $\rightarrow$  InstanceName query of type string
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow~\mathbf{IsNewer}$  query of type bool
- $\rightarrow~\textbf{Load}$  set of type action
- $\rightarrow \ \mathbf{MergeFactoryFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{OrganList}$ list of type SiteResponseData
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{RevertOrganEndpoint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{RevertTumorStage}$  set of type action
- $\rightarrow \ \, \mathbf{Revision} \,\, \mathrm{query} \,\, \mathrm{of} \,\, \mathrm{type} \,\, \mathrm{string}$
- $\rightarrow~\mathbf{Run}$  set of type action
- $\rightarrow$  **Save** set of type action
- $\rightarrow~\mathbf{TumorSiteList}$ list of type SiteResponseData
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### **OrbitBioObjectives**

- $\rightarrow$  **Add** set of type action
- $\rightarrow$  **AddFirst** set of type action
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → Cancel set of type action
- → ClassName query of type string
- → CompositeNTCP query and set of type float
- $\rightarrow~\mathbf{CompositePPlus}$  query and set of type float
- → CompositeTCP query and set of type float
- $\rightarrow$  **DeleteCurrentObjective** set of type action
- → **DeleteFirstCurrent** set of type action
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- → Existence query of type bool
- $\rightarrow \ \mathbf{ExportResponseData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  InstanceName query of type string
- → IsFiling query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow \ \mathbf{ModelNameList} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{StringList}$
- $\rightarrow~\mathbf{NTCPCompositeFunction}$  subobject of type OrbitPlotDataFunction
- → OptimizationParameter query of type int set of type string
- → OptimizeNTCP query of type bool
- → OptimizePPlus query of type bool
- → OptimizeTCP query of type bool
- $\rightarrow~\mathbf{PPlusCompositeFunction}$ subobject of type OrbitPlotDataFunction
- $\rightarrow$  **PluginName** query of type string
- → ResponseCurveList list of type OrbitPlotDataFunction
- → ResponsePlotStyle subobject of type PlotStyle
- → Revision query of type string
- → Run set of type action
- → SetFirstObjectiveType set of type string
- → SetObjectiveType set of type string
- ightarrow TCPCompositeFunction subobject of type OrbitPlotDataFunction
- → **TrialObjectiveList** list of type TrialObjective
- → TypeCount query of type int
- → **TypeNames** query of type StringList
- → UnitTestMode query and set of type bool

#### **OrbitConstraints**

- $\rightarrow$  **Add** set of type action
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Cancel}$  set of type action
- $\rightarrow$  ClassName query of type string
- $\rightarrow \ \mathbf{DeleteCurrentConstraint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow$  **PluginName** query of type string
- $\rightarrow \ \, \mathbf{Revision} \,\, \mathrm{query} \,\, \mathrm{of} \,\, \mathrm{type} \,\, \mathrm{string}$
- $\rightarrow$  Run set of type action
- $\rightarrow \ \mathbf{SetConstraintType} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{TrialConstraintList} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{TrialConstraint}$
- $\rightarrow \ \mathbf{TypeCount} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$
- $\rightarrow~\mathbf{TypeNames}$  query of type StringList
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### **OrbitDVHConstraint**

- $\rightarrow$  **Active** query and set of type bool
- $\rightarrow$  BeginMessageBatch set of type action
- $\rightarrow$  ClassName query of type string
- → **Destroy** set of type action
- $\rightarrow$  **Dose** query and set of type float
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$   $\,$  Function subobject of type OrbitDoseFunction
- $\rightarrow$   $\,$  Gradient query and set of type pointer
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsComposite** query of type bool
- $\rightarrow$  **IsConstrained** query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  IsTargetObjective query of type bool
- $\rightarrow~\mathbf{LowerBound}$  query and set of type float
- $\rightarrow~\mathbf{Optimization Direction}$  query of type int
- $\rightarrow$  **Percent** query and set of type float
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow~{\bf ROI}$  subobject of type RegionOfInterest
- $\rightarrow$  ROIName query and set of type string
- → **Type** query of type string
- → **TypeList** query of type StringList
- $\rightarrow$  **UniqueIndex** query and set of type int
- $\rightarrow$  **UpperBound** query and set of type float
- $\rightarrow$  **UserPercent** query and set of type float
- $\rightarrow$  Value query and set of type float
- $\rightarrow$  Violated query and set of type bool

### OrbitDVHObjective

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  **Dose** query and set of type float
- $\rightarrow~\mathbf{DoseUnit}$  query and set of type int
- → EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$   $\,$  Function subobject of type OrbitDoseFunction
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow~\mathbf{IsComposite}$  query of type bool
- $\rightarrow$  **IsConstrained** query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsTargetObjective** query of type bool
- $\rightarrow$  **OptimizationDirection** query of type int
- $\rightarrow$  **Percent** query and set of type float
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow~\mathbf{ROI}$  subobject of type RegionOfInterest
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow$  **Type** query of type string
- $\rightarrow~\mathbf{TypeList}$  query of type StringList
- $\rightarrow~\mathbf{UniqueIndex}$  query and set of type int
- $\rightarrow~\mathbf{UserPercent}$  query and set of type float
- $\rightarrow~$  Value query and set of type float
- $\rightarrow$   $\mbox{\bf Weight}$  query and set of type float

#### **OrbitDoseConstraint**

- $\rightarrow$  **Active** query and set of type bool
- $\rightarrow$  BeginMessageBatch set of type action
- $\rightarrow$  ClassName query of type string
- → **Destroy** set of type action
- $\rightarrow~\mathbf{Dose}$  query and set of type float
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **Function** subobject of type OrbitDoseFunction
- $\rightarrow$  **Gradient** query and set of type pointer
- → InstanceName query of type string
- $\rightarrow$  **IsComposite** query of type bool
- $\rightarrow$  **IsConstrained** query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsTargetObjective** query of type bool
- $\rightarrow$  LowerBound query and set of type float
- → OptimizationDirection query of type int
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow$  ROI subobject of type RegionOfInterest
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow$  **Type** query of type string
- → **TypeList** query of type StringList
- $\rightarrow$  **UniqueIndex** query and set of type int
- $\rightarrow$  **UpperBound** query and set of type float
- $\rightarrow$  Value query and set of type float
- $\rightarrow$  **Violated** query and set of type bool

#### **OrbitDoseFunction**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow$  **DoseUnit** query and set of type int
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$   $\,$  Gradient query and set of type pointer
- $\rightarrow$  InstanceName query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow~{\bf ROIName}$  query and set of type string
- $\rightarrow$  Value query and set of type float
- $\rightarrow$  ValueDescr query of type string
- $\rightarrow~\mathbf{ValueValid}$  query and set of type bool

### ${\bf Orbit Dose Objective}$

- $\rightarrow$  BeginMessageBatch set of type action
- → ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{Dose}$  query and set of type float
- $\rightarrow$  **DoseUnit** query and set of type int
- → EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **Function** subobject of type OrbitDoseFunction
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow$  **InstanceName** query of type string
- $\rightarrow$  **IsComposite** query of type bool
- $\rightarrow$  **IsConstrained** query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsTargetObjective** query of type bool
- $\rightarrow$  **OptimizationDirection** query of type int
- $\rightarrow$   ${\bf PropertyList}$  subobject of type PropertyList
- $\rightarrow~{\bf ROI}$  subobject of type RegionOfInterest
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow \ \mathbf{Type} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **TypeList** query of type StringList
- $\rightarrow~\mathbf{UniqueIndex}$  query and set of type int
- $\rightarrow~$  Value query and set of type float
- $\rightarrow$  **Weight** query and set of type float

#### **OrbitEUDConstraint**

- $\rightarrow~\mathbf{Active}$  query and set of type bool
- $\rightarrow$  BeginMessageBatch set of type action
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{Dose}$  query and set of type float
- $\rightarrow$  **EUD** query and set of type float
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$   $\,$  Function subobject of type Orbit EUDFunction
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow \ \mathbf{IsComposite} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{IsConstrained}$  query of type bool
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{IsTargetObjective}$  query of type bool
- $\rightarrow~\mathbf{LowerBound}$  query and set of type float
- $\rightarrow~\mathbf{Optimization Direction}$  query of type int
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow~\mathbf{ROI}$  subobject of type RegionOfInterest
- $\rightarrow~\mathbf{ROIName}$  query and set of type string
- $\rightarrow$  **Type** query of type string
- → **TypeList** query of type StringList
- $\rightarrow~\mathbf{UniqueIndex}$  query and set of type int
- $\rightarrow$  **UpperBound** query and set of type float
- $\rightarrow$  Value query and set of type float
- $\rightarrow$  **Violated** query and set of type bool
- $\rightarrow~\mathbf{a}$  query and set of type float

#### **OrbitEUDFunction**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{DoseUnit}$  query and set of type int
- $\rightarrow \ \mathbf{EUDDescr} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{Gradient}$  query and set of type pointer
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow~{\bf ROIName}$  query and set of type string
- $\rightarrow$  Value query and set of type float
- → ValueDescr query of type string
- $\rightarrow~\mathbf{ValueValid}$  query and set of type bool

### OrbitEUDObjective

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  **Dose** query and set of type float
- $\rightarrow~\mathbf{DoseUnit}$  query and set of type int
- $\rightarrow~{\bf EUD}$  query and set of type float
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$   $\,$  Function subobject of type Orbit EUDFunction
- $\rightarrow$   $\,$  Gradient query and set of type pointer
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **IsComposite** query of type bool
- $\rightarrow$   ${\bf IsConstrained}$  query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  IsTargetObjective query of type bool
- $\rightarrow$  **OptimizationDirection** query of type int
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow~\mathbf{ROI}$  subobject of type RegionOfInterest
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow$  **Type** query of type string
- $\rightarrow~\mathbf{TypeList}$  query of type StringList
- $\rightarrow~\mathbf{UniqueIndex}$  query and set of type int
- $\rightarrow~$  Value query and set of type float
- $\rightarrow$   $\mbox{\bf Weight}$  query and set of type float
- $\rightarrow~\mathbf{a}$  query and set of type float

### **OrbitObjectives**

- $\rightarrow$  **Add** set of type action
- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  Cancel set of type action
- → ClassName query of type string
- $\rightarrow \ \mathbf{DeleteCurrentObjective} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- → PluginName query of type string
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- $\rightarrow$  **SetObjectiveType** set of type string
- → **TrialObjectiveList** list of type TrialObjective
- $\rightarrow$  **TypeCount** query of type int
- $\rightarrow$  **TypeNames** query of type StringList
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### **OrbitPlotDataFunction**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$   $\,$  Gradient query and set of type pointer
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{LineStyle}$  subobject of type LineStyle
- $\rightarrow~\mathbf{LineStyleObject}$  subobject of type LineStyle
- ightarrow ModificationDependency subobject of type OrbitPlotDataFunction
- $\rightarrow$  NumberOfPoints query of type int
- $\rightarrow~\mathbf{PropertyList}$  query and set of type
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow~$  Value query and set of type float
- $\rightarrow$  ValueDescr query of type string
- $\rightarrow~\mbox{{\bf ValueValid}}$  query and set of type bool
- $\rightarrow$  **X** query of type float
- $\rightarrow~\mathbf{Y}$  query of type float

#### ${\bf Orbit Research Constraint}$

- $\rightarrow$  **Active** query and set of type bool
- $\rightarrow$  **BeginMessageBatch** set of type action
- → ClassName query of type string
- → Destroy set of type action
- → EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$   $\,$  Function subobject of type OrbitResearch Function
- $\rightarrow$  **Gradient** query and set of type pointer
- → InstanceName query of type string
- → **IsComposite** query of type bool
- $\rightarrow$  IsConstrained query of type bool
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow$  IsTarget query and set of type bool
- $\rightarrow$  **IsTargetObjective** query of type bool
- $\rightarrow$  LowerBound query and set of type float
- $\rightarrow$  **OptimizationDirection** query of type int
- $\rightarrow$  ParameterString query and set of type string
- $\rightarrow$   ${\bf PropertyList}$  subobject of type PropertyList
- $\rightarrow$  ROI subobject of type RegionOfInterest
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow \ \mathbf{Type} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **TypeList** query of type StringList
- $\rightarrow~\mathbf{UniqueIndex}$  query and set of type int
- $\rightarrow$  **UpperBound** query and set of type float
- $\rightarrow~$  Value query and set of type float
- $\rightarrow~$  Violated query and set of type bool

#### **OrbitResearchFunction**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$   $\,$  Gradient query and set of type pointer
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **IsTarget** query and set of type bool
- $\rightarrow$  **ParameterString** query and set of type string
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow$  **ROIName** query and set of type string
- $\rightarrow$  Value query and set of type float
- $\rightarrow$  ValueDescr query of type string
- $\rightarrow~\mathbf{ValueValid}$  query and set of type bool

### ${\bf Orbit Research Objective}$

- $\rightarrow$  BeginMessageBatch set of type action
- → ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **Function** subobject of type OrbitResearchFunction
- $\rightarrow$  **Gradient** query and set of type pointer
- → InstanceName query of type string
- $\rightarrow~\mathbf{IsComposite}$  query of type bool
- $\rightarrow$  **IsConstrained** query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  IsTarget query and set of type bool
- $\rightarrow$  **IsTargetObjective** query of type bool
- $\rightarrow$  **OptimizationDirection** query of type int
- ightarrow ParameterString query and set of type string
- $\rightarrow$   $\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow~{\bf ROI}$  subobject of type RegionOfInterest
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow \ \mathbf{Type} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **TypeList** query of type StringList
- $\rightarrow~\mathbf{UniqueIndex}$  query and set of type int
- $\rightarrow~$  Value query and set of type float
- $\rightarrow$  **Weight** query and set of type float

### OrbitResponseObjective

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  EndPointStage query and set of type string
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$   $\,$  Function query and set of type
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow \ \mathbf{IncludeInComposite}$  query and set of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsComposite** query of type bool
- $\rightarrow~\mathbf{IsConstrained}$  query of type bool
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  **IsNTCP** query of type bool
- $\rightarrow$  **IsTCP** query of type bool
- $\rightarrow$  IsTargetObjective query of type bool
- $\rightarrow$  Model query and set of type string
- ightarrow **OptimizationDirection** query of type int
- $\rightarrow~\mathbf{OrganTumor}$  query and set of type string
- $\rightarrow$  **PropertyList** query and set of type
- $\rightarrow$  **ROI** query and set of type
- → ROIName query and set of type string
- $\rightarrow$   $\,$  Selected query and set of type bool
- $\rightarrow$  **Type** query of type string
- $\rightarrow~\mathbf{TypeList}$  query of type StringList
- $\rightarrow$  **UniqueIndex** query and set of type int
- $\rightarrow$  Value query and set of type float

### ${\bf Orbit Uniformity Constraint}$

- $\rightarrow$  **Active** query and set of type bool
- $\rightarrow$  BeginMessageBatch set of type action
- $\rightarrow$  ClassName query of type string
- → **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → Existence query of type bool
- $\rightarrow$   $\,$  Function subobject of type Orbit UniformityFunction
- → Gradient query and set of type pointer
- $\rightarrow$  InstanceName query of type string
- → **IsComposite** query of type bool
- $\rightarrow$  **IsConstrained** query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  IsTargetObjective query of type bool
- → LowerBound query and set of type float
- → OptimizationDirection query of type int
- → **PropertyList** subobject of type PropertyList
- $\rightarrow~{\bf ROI}$  subobject of type RegionOfInterest
- $\rightarrow$  **ROIName** query and set of type string
- $\rightarrow$  **Type** query of type string
- $\rightarrow$  **TypeList** query of type StringList
- $\rightarrow$  **Uniformity** query and set of type float
- $\rightarrow$  **UniqueIndex** query and set of type int
- ightarrow **UpperBound** query and set of type float
- $\rightarrow$  Value query and set of type float
- $\rightarrow$  **Violated** query and set of type bool

## ${\bf Orbit Uniformity Function}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{PropertyList}$  subobject of type PropertyList
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow~$  Value query and set of type float
- $\rightarrow$  ValueDescr query of type string
- $\rightarrow~\mbox{{\bf ValueValid}}$  query and set of type bool

#### OutputFactor

- $\rightarrow$  **AreAllOFComputed** query of type action
- → BeginMessageBatch set of type action
- → CalculatedCalibrationDose query and set of type float
- → CalculatedCalibrationDoseValid query and set of type bool
- $\rightarrow$  Calibration Geometry subobject of type Measure Geometry
- $\rightarrow$  ColumnFormat query of type action
- → ColumnHeader query of type action
- → ComputationVersion query and set of type ObjString
- ightarrow ComputeDefaultCalibrationGeometry set of type action
- → CreateOFListForPlot set of type action
- → CreateOFOptionMenuList set of type action
- → CreateOFOptionMenuSubList set of type action
- → DosePerMuAtCalibration query and set of type float
- → DosePerMuCal query of type action
- $\rightarrow$  **DosePerUnitFluenceCal** query of type action
- → ElectronSSDTolerance query and set of type float
- → EndMessageBatch set of type action
- → InvalidateOutputFactors set of type action
- $\rightarrow$  IsElectronOutputFactor query and set of type bool
- → MeasureGeometryList list of type MeasureGeometry
- → MinMLCPositionAtCalibration query and set of type float
- → ModificationDependency query of type action
- → NumColumns query of type action
- → NumRows query of type action
- → NumberOfPoints query of type action
- → OutputFactorOptionMenuList list of type SimpleString
- → OutputFactorOptionMenuSubList list of type SimpleString
- → OutputFactorsForPlot query of type action
- $\rightarrow~\mathbf{PlotStyle}$  subobject of type PlotStyle
- $\rightarrow~\mathbf{ReferenceDepth}$  query and set of type float
- → RowHeader query of type action
- ightarrow SetCalibGeomBottomMLC set of type action
- $\rightarrow \ \mathbf{SetCalibGeomLeftMLC} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{SetCalibGeomRightMLC} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  **SetCalibGeomTopMLC** set of type action
- ightarrow SourceToCalibrationPointDistance query and set of type float
- ightarrow UseSquareRootMethod query and set of type bool
- $\rightarrow$  Value query of type action
- $\rightarrow$  X query of type action
- $\rightarrow$  **Y** query of type action

### $\mathbf{PE\_Composites}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{NTCPColor}$  query and set of type string
- $\rightarrow \ \mathbf{NTCPColorPixel} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$
- $\rightarrow~\mathbf{NTCPSelected}$  query and set of type bool
- $\rightarrow~\mathbf{PPlusColor}$  query and set of type string
- $\rightarrow~\mathbf{PPlusColorPixel}$  query of type int
- $\rightarrow~\mathbf{PPlusSelected}$  query and set of type bool
- $\rightarrow~\mathbf{TCPColor}$  query and set of type string
- $\rightarrow$  **TCPColorPixel** query of type int
- $\rightarrow~\mathbf{TCPSelected}$  query and set of type bool
- $\rightarrow \ \, \textbf{TouchCompositeResponseValues} \,\, \textbf{set of type string} \,\,$

### PE\_EUDObjective

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  **Dose** query and set of type float
- $\rightarrow$  **DoseUnit** query and set of type int
- $\rightarrow~{\bf EUD}$  query and set of type float
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **Function** subobject of type OrbitEUDFunction
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow$  InstanceName query of type string
- $\rightarrow \ \mathbf{IsComposite} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$   ${\bf IsConstrained}$  query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{IsTargetObjective}$  query of type bool
- $\rightarrow~\mathbf{Optimization Direction}$  query of type int
- → **PropertyList** subobject of type PropertyList
- $\rightarrow~{\bf ROI}$  subobject of type RegionOfInterest
- $\rightarrow$  **ROIName** query and set of type string
- $\rightarrow$  **Trial** query and set of type
- $\rightarrow$  **TrialName** query of type string
- → **Type** query of type string
- $\rightarrow$  **TypeList** query of type StringList
- → UniqueIndex query and set of type int
- $\rightarrow$  Value query and set of type float
- $\rightarrow$  **Weight** query and set of type float
- $\rightarrow$  **a** query and set of type float

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow~\mathbf{ROI}$  query and set of type
- $\rightarrow~{\bf Selected}$  query and set of type bool
- $\rightarrow~\mathbf{aValue}$  query and set of type float

# $PE\_ResponseValue$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ClassName query of type string
- $\rightarrow~{\bf Color}$  query and set of type string
- $\rightarrow$  **Description** query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{DrawLineType}$  subobject of type PE\_ResponseValue
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow~\mathbf{Function}$  subobject of type OrbitPlotDataFunction
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{LineStyle}$  subobject of type LineStyle
- $\rightarrow$  **Probability** query of type string
- $\rightarrow$  **ROI** query and set of type
- $\rightarrow$  ROIName query and set of type string
- $\rightarrow$  **TheName** query and set of type string
- $\rightarrow~$  Trial query and set of type
- $\rightarrow$  **TrialName** query of type string

- $\rightarrow~\mathbf{BeamName}$  query and set of type string
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{BioLineType}$  query and set of type string
- $\rightarrow$  ClassName query of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{LineType}$  query and set of type string
- $\rightarrow~{\bf Selected}$  query and set of type bool
- $\rightarrow~{\bf SelectedBio}$  query and set of type bool
- $\rightarrow~$  Trial query and set of type
- $\rightarrow$  **TrialName** query of type string

# PaperSize

- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{XSize}$  query and set of type int
- $\rightarrow~\mathbf{YSize}$  query and set of type int

#### **PatientRepresentation**

- → BeamDensityGrid subobject of type Volume
- → BeginMessageBatch set of type action
- $\rightarrow$  **BottomZPadding** query and set of type float
- → CtToDensityLookup subobject of type LookupTable
- → CtToDensityName query and set of type action
- → CtToDensityTable subobject of type CtToDensityTable
- → CtToDensityTableAccepted query and set of type action
- → CtToDensityTableExtended query and set of type bool
- → CtToDensityVersion query and set of type action
- → CtToStoppingPowerAccepted query and set of type action
- → CtToStoppingPowerExtended query and set of type bool
- $\rightarrow$  CtToStoppingPowerTable subobject of type CtToStoppingPowerTable
- → CtToStoppingPowerTableAccepted set of type action
- $\rightarrow$  CtToStoppingPowerTableDeleted query and set of type bool
- → CtToStoppingPowerTableName query and set of type action
- $\rightarrow$  CtToStoppingPowerVersion query and set of type action
- ightarrow **DMTable** subobject of type DensityMaterialTable
- → **DMTableName** query and set of type action
- → **DMTableVersion** query and set of type action
- → DensityBottomZPadding query and set of type float
- $\rightarrow~\mathbf{DensityGrid}$  subobject of type Volume
- $\rightarrow~\mathbf{DensityLookupTable}$  query of type action
- $\rightarrow \ \mathbf{DensityOverrideChange} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{DensityTopZPadding}$  query and set of type float
- $\rightarrow$  **DensityValid** query and set of type bool
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{HighResDensityGrid}$  query and set of type
- $\rightarrow~\mathbf{HighResDensityMask}$  query and set of type
- → HighResDensityValid query of type action set of type bool
- → HighResZSpacingForVariable query and set of type float
- → InstallCtToDensityTableForPhysics set of type action
- $\rightarrow \ \mathbf{InstallCtToStoppingPowerTableForPhysics} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → InvalidateBeamDensity set of type action
- → MakeOverrideVolumeValid set of type action
- → MaterialNames query and set of type StringList
- → MaterialOverrideChange set of type action
- → MaterialVolume subobject of type Volume
- → MaterialVolumeValid query and set of type bool
- → OutsidePatientAirThreshold query of type float set of type action
- $\rightarrow$  OutsidePatientCtNumber query of type action
- → OutsidePatientDensity query of type action

- $\rightarrow~\mathbf{OutsidePatientIsCtNumber}$  query of type bool set of type action
- $\rightarrow~\mathbf{OverrideDisplayDependency}$  query of type action
- $\rightarrow$  **OverrideDisplayVolume** query of type action
- → OverrideVolumeValid query and set of type bool
- → PatientAirMask query and set of type
- $\rightarrow$  PatientAirMaskValid query and set of type bool
- $\rightarrow~\mathbf{PatientVolume}$  subobject of type Volume
- $\rightarrow$  PatientVolumeName query and set of type action
- ightarrow PatientVolumeNameCheckCoordFrame query and set of type action
- $\rightarrow$  **PatientVolumeObject** subobject of type Volume
- → **SPMaxBin** query of type action
- $\rightarrow~\mathbf{TopZPadding}$  query and set of type float
- $\rightarrow$  **TransportGrid** subobject of type Volume
- $\rightarrow~\mathbf{TransportValid}$  query and set of type bool
- $\rightarrow$  UseHighResDensityGrid query and set of type bool

### **PatientSetup**

- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{ObjectVersion}$  subobject of type ObjectVersion
- $\rightarrow~$  Orientation query and set of type Enumerated List with labels
- $\rightarrow$   $\bf Orientation List$  query and set of type StringList
- $\rightarrow~\mathbf{PlanSavedWithProductionVersion}$  query and set of type bool
- $\rightarrow$  **Position** query and set of type action
- $\rightarrow$  **PositionFailSafe** query and set of type EnumeratedList with labels
- $\rightarrow$  **PositionList** query and set of type StringList
- $\rightarrow~\mathbf{ProductionLevel}$  query and set of type bool
- $\rightarrow$   ${\bf ShortOrientation}$  query and set of type EnumeratedList with labels
- $\rightarrow$   ${\bf ShortOrientationList}$  query and set of type StringList
- $\rightarrow$   ${\bf Table Motion}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{Table}\mathbf{MotionList}$  query and set of type StringList

## PhaseSpaceFileSource

- $\rightarrow$  **ApplyRadialSymmetry** query of type bool set of type action
- $\rightarrow$  **ApplyXAxisSymmetry** query of type bool set of type action
- $\rightarrow~\mathbf{ApplyYAxisSymmetry}$  query of type bool set of type action
- $\rightarrow$  **BeginMessageBatch** query and set of type bool
- $\rightarrow$  EndMessageBatch query and set of type bool
- $\rightarrow~\mathbf{FileList}$  subobject of type FileList
- $\rightarrow$  **HasWeight** query of type action
- $\rightarrow$   $\bf Histories Per Record$  query of type int set of type action
- → ModificationDependency query of type action
- $\rightarrow~$  Name query and set of type ObjString
- $\rightarrow$  ParticlesPerSample query of type int
- $\rightarrow$  Sampling PlaneRegion subobject of type BeamlineCrossSection
- $\rightarrow$   ${\bf SamplingPlaneZPosition}$  query and set of type float
- → **SwapBytes** query and set of type bool
- $\rightarrow$  **Type** query of type int
- → TypeName query of type string
- ightarrow **UseNrcFormat** query of type bool set of type action
- → Weight query and set of type float

#### PhotonModel

- → AddPoint set of type action
- → BeamSpectrum subobject of type BeamSpectrum
- → BeginMessageBatch query and set of type bool
- $\rightarrow$  ColumnFormat query and set of type
- $\rightarrow$  ColumnHeader query and set of type
- → CommonECFieldsInSiblings query of type action
- → CopyModelToMinMax set of type action
- → CopyToWedge set of type action
- → **DeleteRow** set of type action
- $\rightarrow$  **DepthScalar** query of type action
- → **Description** query of type action
- → DoseCompGridResolution query and set of type float
- $\rightarrow$  **DoseCompStatus** subobject of type NLString
- $\rightarrow$  ECAddToDose query and set of type bool
- $\rightarrow$   ${\bf ECContamination DoseOnly}$  query and set of type bool
- $\rightarrow$  **ECDepthCoefficient** query and set of type float
- $\rightarrow$  **ECDepthFraction** query and set of type float
- → ECDisplayMode query and set of type EnumeratedList with labels
- ightarrow **ECDisplayPlotStyle** subobject of type PlotStyle
- $\rightarrow~\mathbf{ECFieldSizeC1}$  query and set of type float
- $\rightarrow~\mathbf{ECFieldSizeC2}$  query and set of type float
- $\rightarrow~\mathbf{ECFieldSizeC3}$  query and set of type float
- $\rightarrow~\mathbf{ECMaximumDepth}$  query and set of type float
- $\rightarrow$   ${\bf ECOffAngleCoefficient}$  query and set of type float
- → ECOverallScaleFactor query and set of type float
- $\rightarrow~\mathbf{ECScaleFraction}$  query and set of type float
- → **ElectronContamCurve** subobject of type AnnotatedCurve
- $\rightarrow$  EndMessageBatch query and set of type bool
- → Energy query and set of type ObjString
- → EquivalentSquare query and set of type float
- → EquivalentSquareMax set of type action
- $\rightarrow$  EquivalentSquareMin set of type float
- → InsertRowAfter set of type action
- → InsertRowBefore set of type action
- → **Institution** query and set of type ObjString
- $\rightarrow$  IsAllFieldSizes query and set of type bool
- → IsInterpolated query and set of type bool
- → IsOkForDoseComp query and set of type bool
- $\rightarrow$  **IsReadOnly** query and set of type bool
- $\rightarrow$  IsSingleModel query of type action
- $\rightarrow$  LengthLinear query and set of type float

- → LinearConvolve query and set of type bool
- ightarrow LongDescription query of type action
- → MachineHeadModel subobject of type MachineHeadModel
- → MachineType query and set of type ObjString
- → MatchingModels set of type action
- → ModificationDependency query and set of type
- ightarrow Name query and set of type ObjString
- → NumColumns query and set of type
- $\rightarrow~\mathbf{NumRows}$  query and set of type
- → **ObjectVersion** subobject of type ObjectVersion
- → PhysicsDataObject query and set of type pointer
- → QAMassAttenDensity query and set of type float
- $\rightarrow$  QAMassAttenDepthStep query and set of type float
- $\rightarrow~\mathbf{QAMassAttenOffAxisAngle}$  query and set of type float
- $\rightarrow$  QAMassAttenStepCount query and set of type int
- $\rightarrow$  **QAMassAttenTable** subobject of type AnnotatedCurve
- $\rightarrow~\mathbf{QAMassAttenUseLookupTable}$  query and set of type bool
- $\rightarrow \ \mathbf{RemoveFromList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → SetCurrentByBeamObject set of type action
- → SetCurrentByEquivalentSquare set of type action
- → SetEquivSquare set of type action
- $\rightarrow$  SiblingList query and set of type
- → SiblingListObject query and set of type pointer
- $\rightarrow$  StepLinear query and set of type float
- $\rightarrow$  **StepNN** query and set of type float
- → **TPBKernel** subobject of type TPBKernel
- → Value set of type action
- $\rightarrow~\mathbf{WarnAboutMatchingModelChange}$  query and set of type bool
- $\rightarrow$   ${\bf WaterPhantomLateralSize}$  query and set of type float
- → WaterPhantomSize set of type action
- $\rightarrow~\mathbf{WaterPhantomVerticalSize}$  query and set of type float
- → WedgeName query and set of type ObjString

#### PhotonModelOptimizer

- → ClearAllIncludeFlags set of type action
- → ClearAllLockFlags set of type action
- → ComputeMeasGeoKey query of type action
- → ComputeMetrics set of type action
- $\rightarrow$  CurrentPhotonModel query and set of type action
- → DepthDoseBuildUpRegionError query of type action
- → DepthDoseBuildUpRegionWeight query and set of type float
- $\rightarrow \ \mathbf{DepthDoseLowGradientHighDoseError} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → DepthDoseLowGradientHighDoseWeight query and set of type float
- → HighGradientError query of type action
- → HighGradientWeight query and set of type float
- → IncludeBeamSpotSizeX query and set of type bool
- → IncludeBeamSpotSizeY query and set of type bool
- $\rightarrow$  IncludeECContaminationDoseOnly query and set of type bool
- → IncludeECDepthCoefficient query and set of type bool
- ightarrow IncludeECDepthFraction query and set of type bool
- → IncludeECFieldSizeC1 query and set of type bool
- ightarrow IncludeECFieldSizeC2 query and set of type bool
- $\rightarrow$  IncludeECFieldSizeC3 query and set of type bool
- $\rightarrow$   $\mathbf{IncludeECMaximumDepth}$  query and set of type bool
- $\rightarrow \ \mathbf{IncludeECOffAngleCoefficient}$  query and set of type bool
- $\rightarrow~\mathbf{IncludeECOverallScaleFactor}$  query and set of type bool
- $\rightarrow~\mathbf{IncludeECScaleFraction}$  query and set of type bool
- $\rightarrow \ \mathbf{IncludeGaussianHeight}$  query and set of type bool
- $\rightarrow \ \mathbf{IncludeGaussianWidth}$  query and set of type bool
- $\rightarrow~\mathbf{IncludeIncFluConeAngle}$  query and set of type bool
- $\rightarrow~\mathbf{IncludeIncFluConeRadius}$  query and set of type bool
- $\rightarrow~\mathbf{IncludeJawTransmission}$  query and set of type bool
- $\rightarrow \ \mathbf{IncludeLeftRightJawTransmission}$  query and set of type bool
- → IncludeMLCTransmission query and set of type bool
- → IncludeModifierScatterFactor query and set of type bool
- $\rightarrow$   $\bf Include Parametric Spectrum$  query and set of type bool
- → IncludeSofteningControlParam1 query and set of type bool
- → IncludeSpectrum query and set of type bool
- → IncludeTopBotJawTransmission query and set of type bool
- → IncludeUserDefinedFilterProfile query and set of type bool
- → IncludeWedgedMeasurementGeometries query and set of type bool
- → LockBeamSpotSizeX query and set of type bool
- → LockBeamSpotSizeY query and set of type bool
- $\rightarrow~\mathbf{LockECContaminationDoseOnly}$  query and set of type bool
- → LockECDepthCoefficient query and set of type bool

- $\rightarrow$  LockECDepthFraction query and set of type bool
- → LockECFieldSizeC1 query and set of type bool
- → LockECFieldSizeC2 query and set of type bool
- $\rightarrow$  LockECFieldSizeC3 query and set of type bool
- $\rightarrow~\mathbf{LockECMaximumDepth}$  query and set of type bool
- ightarrow LockECOffAngleCoefficient query and set of type bool
- $\rightarrow$  LockECOverallScaleFactor query and set of type bool
- $\rightarrow$  LockECScaleFraction query and set of type bool
- $\rightarrow$  LockGaussianHeight query and set of type bool
- → LockGaussianWidth query and set of type bool
- → LockIncFluConeAngle query and set of type bool
- $\rightarrow$  LockIncFluConeRadius query and set of type bool
- ightarrow LockJawTransmission query and set of type bool
- → LockLeftRightJawTransmission query and set of type bool
- → LockMLCTransmission query and set of type bool
- → LockModifierScatterFactor query and set of type bool
- → LockParametricSpectrum query and set of type bool
- $\rightarrow~\mathbf{LockSofteningControlParam1}$  query and set of type bool
- → LockSpectrum query and set of type bool
- → LockTopBotJawTransmission query and set of type bool
- → LockUserDefinedFilterProfile query and set of type bool
- $\rightarrow \ \mathbf{LowGradientHighDoseError} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  LowGradientHighDoseWeight query and set of type float
- $\rightarrow$  LowGradientLowDoseError query of type action
- $\rightarrow$  LowGradientLowDoseWeight query and set of type float
- → MapExplicitSpectrum query of type action
- $\rightarrow$  MapParametricSpectrum query of type action
- ightarrow ModelOptimizerObject subobject of type ModelOptimizer
- $\rightarrow$  **OptimizeAll** set of type action
- $\rightarrow$  ParameterStatusList query of type action
- ightarrow ProfileEdgeLimit query and set of type float
- → **ProfileMetrics** subobject of type ProfileMetrics
- ightarrow RequiresSingleModel query and set of type bool
- → SelectMinimalProfileList set of type action
- $\rightarrow$  **SelectProfiles** set of type action
- $\rightarrow$   $\bf SendProfileSelectsToAllGeometries$  query and set of type bool
- $\rightarrow~\mathbf{StatMomentsQueryList}$  query and set of type EnumeratedList with labels
- $\rightarrow$  **UnselectProfiles** set of type action
- → UseMeanSquareMetrics query and set of type bool
- → ValidateModel set of type action
- → ZeroAllWeights set of type action

#### PhotonPhysicsControl

- → AddMachine set of type action
- → AddMachineElectronEnergy set of type action
- → AddMachinePhotonEnergy set of type action
- → AddMachineStereoEnergy set of type action
- → ComputeElectron set of type action
- → ComputeElectronOutputFactors set of type action
- → ComputeMCElectron set of type action
- → ComputeMCElectronOutputFactors set of type action
- $\rightarrow$  ComputePhoton set of type action
- $\rightarrow$  ComputePhotonOutputFactors set of type action
- → ComputeStereo set of type action
- → DeleteMachineEnergy set of type action
- → **DisplayElectron** query and set of type bool
- $\rightarrow$  **DisplayMCElectron** query and set of type bool
- → **DisplayPhoton** guery and set of type bool
- $\rightarrow$  **DisplayStereo** query and set of type bool
- $\rightarrow$  **ElectronProfilesComputed** query of type action
- → MCElectronProfilesComputed query of type action
- → MachineList query and set of type
- → OptimizationInProgress query and set of type bool
- $\rightarrow~\mathbf{OutputFactorStatus}$  query and set of type <code>ObjString</code>
- $\rightarrow \ \mathbf{PhotonProfilesComputed} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$   $\mathbf{ProfileSmoothingType}$  query and set of type EnumeratedList with labels
- $\rightarrow$   $\mathbf{ProfileSymmetryType}$  query and set of type EnumeratedList with labels
- $\rightarrow \ \mathbf{ReadElectronMeasuredData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ReadMCElectronMeasuredData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ReadPhotonMeasuredData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ReadStereoMeasuredData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow SaveElectronMeasuredData set of type action
- → SaveMCElectronMeasuredData set of type action
- → SavePhotonMeasuredData set of type action
- → SaveStereoMeasuredData set of type action
- → SmoothDoseAllDirections query and set of type bool
- → SmoothDoseByRegion query and set of type bool
- → SmoothProfileSize query and set of type float
- $\rightarrow$  SmoothProfileSizeHighDose query and set of type float
- → SmoothProfileSizeHighGrad query and set of type float
- $\rightarrow$   $\mathbf{SmoothProfileSizeLowDose}$  query and set of type float
- $\rightarrow~\mathbf{StandardBeamSpectraList}$  query and set of type
- $\rightarrow$  **StereoProfilesComputed** query of type action
- $\rightarrow$  **Trial** query and set of type

- ightarrow UncomputedList list of type SimpleString
- $\rightarrow \ \mathbf{UpdateUncomputedProfiles} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{UseCrossProfileSymmetry}$  query and set of type bool
- $\rightarrow~\mathbf{UseProfileSymmetry}$  query and set of type bool
- $\rightarrow$   $\mathbf{WaveletTransformDepth}$  query and set of type int
- $\rightarrow$   $\mathbf{WaveletTransformType}$  query and set of type EnumeratedList with labels

#### **PhysicsData**

- → AddModelToLibrary set of type action
- → BeamSpectrum query and set of type action
- → BeginMessageBatch query and set of type bool
- → CheckConeProfiles query of type action
- $\rightarrow$  CheckElectronProfiles query of type action
- → CheckPhotonProfiles query of type action
- → CheckStereoProfiles query of type action
- → ConfirmParameterChange query of type action
- → ConvKernel subobject of type ConvKernel
- → CopyModelFromLibrary set of type action
- → CreatePhotonModelLibrarian set of type action
- → DelayInvalidateDoseProfiles query and set of type bool
- → **DeleteMeasureGeometry** set of type action
- → **DeleteModelFromLibrary** set of type action
- → DoseCompGridResolution query and set of type action
- ightarrow **ElectronModel** subobject of type ElectronModel
- $\rightarrow$  **ElectronModelChange** set of type action
- $\rightarrow$   $\mathbf{EndMessageBatch}$  query and set of type bool
- $\rightarrow \ \mathbf{ExportPhotonModelLibrary} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → GridLinearParameters subobject of type PhotonModel
- $\rightarrow \ \mathbf{ImportPhotonModelLibrary} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow InvalidateDoseProfiles set of type action
- $\rightarrow \ \mathbf{LoadPhotonModelLibrary} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$   ${\bf MACTControl}$  subobject of type MACTControl
- $\rightarrow \ \mathbf{MLCTransOkToCommission}$  query of type action
- → MachineHeadModel query and set of type action
- $\rightarrow \ \mathbf{MatchElectronModelToMeasurementGeometry} \ \operatorname{set} \ \operatorname{of} \ \operatorname{type} \ \operatorname{action}$
- $\rightarrow \ \mathbf{MatchMeasurementGeometryToElectronModel} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → MaximumFieldSize query of type action
- → MeasureGeometryList list of type MeasureGeometry
- → MeasureGeometryModified set of type action
- $\rightarrow$  MeasuredDataIn query and set of type bool
- → ModelOkToCommission query of type action
- → NewFilesAreNotInstalled query of type action
- → OutputFactor subobject of type OutputFactor
- → PhotonModelChange set of type action
- → PhotonModelChangeEC set of type action
- → PhotonModelLibrarian list of type MeasureGeometry
- → PhotonModelLibrary list of type PhotonModel
- $\rightarrow$  **PhotonModelList** list of type PhotonModel
- $\rightarrow \ \mathbf{PhotonModelOptimizer}$  subobject of type PhotonModelOptimizer

- $\rightarrow \ \mathbf{PhysicsToolDoseEngine}$  subobject of type DoseEngine
- $\rightarrow~\mathbf{PointLinearParameters}$  subobject of type PhotonModel
- $\rightarrow \ \mathbf{SavePhotonModelLibrary} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{SetPhotonModel} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{SetPhotonModelIfCurrentMeasGeo} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow~{\bf StereoPhysicsData}$ subobject of type StereoPhysicsData
- $\rightarrow~\mathbf{TPBKernel}$  query and set of type action
- $\rightarrow~\mathbf{WarnAboutComputedProfiles}$  query and set of type bool

#### **PinnPreferences**

- → AntPostDoseGridResolution query and set of type float
- → AutoSaveBinary query and set of type bool
- → AutoSelectMesh query and set of type bool
- → AutoSelectMeshDistance query and set of type float
- → ComputeUncomputedBeams query and set of type bool
- $\rightarrow$  CrossHatchOffWithMLC query and set of type bool
- → **DICOMDefaultDestination** query and set of type ObjString
- → **DICOMTimeOut** query and set of type int
- → DRRInterpolationTypeList query and set of type StringList
- → **DefaultAutoSaveIncrement** query and set of type float
- ightarrow **DefaultBEVBrightnessFactor** query and set of type float
- → **DefaultBEVCtToDensityTable** query and set of type ObjString
- $\rightarrow$  **DefaultBEVEnergy** query and set of type float
- → DefaultBevRotationAngle query and set of type float
- $\rightarrow$  **DefaultColorPrinter** query and set of type ObjString
- $\rightarrow~\mathbf{DefaultDCRAutoWLMode}$  query and set of type bool
- ightarrow **DefaultDRRAutoWLMode** query and set of type bool
- ightarrow **DefaultDRRInterpolation** query and set of type ObjString
- ightarrow **DefaultDoseDecimalPlace** query of type int set of type action
- $\rightarrow~\mathbf{DefaultGridSize}$  query of type float set of type action
- $\rightarrow~$  **DefaultMachine** query and set of type ObjString
- $\rightarrow~\mathbf{DefaultMidMouseWinLev}$  query and set of type bool
- $\rightarrow~\mathbf{DefaultPrinter}$  query and set of type ObjString
- $\rightarrow~\mathbf{DefaultStereoLocalizer}$  query and set of type ObjString
- $\rightarrow~\mathbf{DisplayHotScriptWindow}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayOnOtherVolumesDefault}$  query and set of type bool
- → EndMessageBatch set of type action
- → FilmAnnotation subobject of type FilmAnnotation
- $\rightarrow~\mathbf{LateralDoseGridResolution}$  query and set of type float
- → LinkWindowLevelByModality query and set of type bool
- → Loaded query and set of type bool
- $\rightarrow~\mathbf{MultidataIsGrid}$  query and set of type bool
- → **ObjectVersion** subobject of type ObjectVersion
- ightarrow PoiDisplayOnOtherVolumesDefault query and set of type bool
- → QuickSimPref subobject of type QuickSimPref
- → RVRemoteDirectory query and set of type ObjString
- → RVRemoteHost query and set of type ObjString
- → RVRemoteLogin query and set of type ObjString
- → RVRemotePassword query and set of type ObjString
- $\rightarrow$  RoundControlPointMUs query and set of type bool
- → **SetDefaultsFromPrefs** set of type action

- $\rightarrow~\mathbf{SingleMoveableLaser}$  query and set of type bool
- $\rightarrow~\mathbf{SupInfDoseGridResolution}$  query and set of type float
- $\rightarrow~\mathbf{SymmetricJawsForNewBeams}$  query and set of type bool
- $\rightarrow$  TabToNextFieldAfterEntry query and set of type bool
- $\rightarrow~\mathbf{UpArrowAdvancesSuperior}$  query and set of type bool
- $\rightarrow~\mathbf{UpdateDRRAutomatically}$  query and set of type bool
- ightarrow UseAutoSurroundByDefault query and set of type bool
- ightarrow UseGyForDoseDisplay query and set of type bool
- $\rightarrow~\mathbf{UseLinear2dInterpolation}$  query and set of type bool
- $\rightarrow~\mathbf{UseSinglePlanningWindow}$  query and set of type bool
- $\rightarrow$  WarnAboutComputedProfiles query and set of type bool
- $\rightarrow \ \mathbf{WarnAboutUnlockedPlan}$  query and set of type bool
- → WarpPointerToWindow query and set of type bool
- $\rightarrow$  WellhoferCrossplaneIsX query and set of type bool

# PinnReport

- ightarrow AddPinnacleFooter set of type action
- $\rightarrow \ \mathbf{AddPinnacleFootersToAllPages} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{AddPinnacleHeader} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{AddPlanFooter} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{AddPlanFootersToAllPages} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  AddPlanHeader set of type action
- $\rightarrow~\mathbf{PrintWaterMark}$  query and set of type bool
- $\rightarrow~\mathbf{ProgramName}$  query and set of type ObjString
- $\rightarrow~\mathbf{Report}$  subobject of type Report
- $\rightarrow~\mathbf{ReportTag}$  query and set of type ObjString

#### Pinnacle

- → **AAPMFilePrefix** query and set of type ObjString
- → AAPMOutputFileList subobject of type FileList
- → AcQSimBeamsPanelLayout query and set of type EnumeratedList with labels
- ightarrow AcQSimBeamsViewLayout query and set of type EnumeratedList with labels
- → AcQSimPrefs subobject of type PinnPreferences
- → AcQSimViewLayout query and set of type EnumeratedList with labels
- $\rightarrow$  **ActivateMPR** set of type action
- → AddBolus set of type action
- → AddCoronalCutplane set of type action
- → AddFilmBBToDisplayList set of type action
- → AddSagittalCutplane set of type action
- → AddSourcesAtCentroids query of type bool set of type action
- $\rightarrow$  AddTransverseCutplane set of type action
- → AddVolumeBBToDisplayList set of type action
- ightarrow AllBolusConfirmInvalidation query of type action
- $\rightarrow$  AllBolusConfirmInvalidationWhenCouchPosChanges query of type action
- → AllTrialConfirmDoseChange query of type action
- → AlternateMode query and set of type bool
- → AmbientLightComponent set of type action
- → Anatomy query and set of type action
- $\rightarrow$  **AppLabel** query of type ObjString
- $\rightarrow$  **AppLongName** query of type ObjString
- $\rightarrow$  **AppRevision** query of type ObjString
- $\rightarrow$  **AppShortName** query of type ObjString
- $\rightarrow$  **AppVersion** query of type ObjString
- ightarrow **AppVersionAndRevision** query of type ObjString
- $\rightarrow$  **AskGeneralButton1** query and set of type ObjString
- ightarrow **AskGeneralButton2** query and set of type ObjString
- $\rightarrow~\mathbf{AskGeneralButton3}$  query and set of type ObjString
- $\rightarrow~\mathbf{AskGeneralDefault}$  query and set of type int
- → **AskGeneralPrompt** query and set of type ObjString
- $\rightarrow$  **AskGeneralQuestion** query of type action
- → **AskGeneralTitle** query and set of type ObjString
- → AskYesNo query of type action
- → AskYesNoDefault query and set of type int
- → **AskYesNoPrompt** query and set of type ObjString
- → AtlasHostKey subobject of type LicenseKey
- → AtlasName query and set of type ObjString
- → **AtlasPassword** subobject of type Password
- $\rightarrow~\mathbf{AtlasPasswordFileName}$  query and set of type ObjString
- → AtlasPreferences subobject of type AtlasPreferences

- $\rightarrow$  AtlasSegmentationManager subobject of type AtlasSegMgr
- → AutoFusionLayout query and set of type EnumeratedList with labels
- $\rightarrow$  **AutoplaceCurrentPoi** set of type action
- $\rightarrow$  AutoplaceLaserCenter set of type action
- ightarrow BeamLayout query and set of type EnumeratedList with labels
- → BeamMacroExecute set of type action
- ightarrow BeamMacroFileList subobject of type FileList
- $\rightarrow~\mathbf{BinArchitectureDirectory}$  query and set of type ObjString
- → BolusList list of type Bolus
- $\rightarrow$  **BrachyDB** subobject of type BrachyDB
- → BrachyMacroExecute set of type action
- → BrachyMacroFileList subobject of type FileList
- → BrachyVersionMatches query of type action
- → CTScannerList list of type CTScanner
- ightarrow CTSimLaserAutoplaceSensitivity query of type action
- → CalypsoDecubitusOK query and set of type bool
- → CalypsoFeetFirstOK query and set of type bool
- → CanP3MDRunFusion query of type action
- → CancelBeamModifierEditing set of type action
- → CancelRoiEditing set of type action
- → CancelandExit set of type action
- → CauseMemoryFailure set of type action
- $\rightarrow~\mathbf{ChangeShiftDirectionWidgets}$  query and set of type action
- ightarrow CheckDecubitusRightOrLeft set of type action
- $\rightarrow$  CheckForFileErrors set of type action
- $\rightarrow$  **CheckMatchedMRNumber** set of type action
- $\rightarrow \ \mathbf{CheckMatchedPatientName} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \, \mathbf{CheckMatchedPatientPosition} \ \, \mathbf{set} \ \, \mathbf{of} \ \, \mathbf{type} \ \, \mathbf{action}$
- → CheckMatchedPixelValue set of type action
- $\rightarrow \ \mathbf{CheckMatchedScanAcquisition} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  CheckMatchedVisOnly set of type action
- $\rightarrow$  CheckOKToConcat set of type action
- $\rightarrow$  CheckSliceOverlap set of type action
- ightarrow CheckUserName query of type action
- ightarrow ClearDiskFullHappened set of type action
- $\rightarrow~\mathbf{CloseMLCLeavesForElekta}$  query and set of type bool
- $\rightarrow~\mathbf{ColorList}$ list of type SimpleString
- → ColorPrint subobject of type ColorPrint
- → ColorPrinterControl subobject of type PrinterControl
- $\rightarrow \ \mathbf{ComputeAllRoiStats} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ComputedProfileHierarchy query of type action
- $\rightarrow$  ConcatVolumeList set of type action

- → ConfirmLockPlan set of type action
- → ConfirmOutputPlan query of type action
- → ConfirmPoiReposition query of type action
- → ConfirmReportPrint query of type action
- ightarrow ConfirmTrialColorPrint query of type action
- → ConfirmTrialPrint query of type action
- → ControlPanel query and set of type action
- $\rightarrow$  ControllerDB query and set of type
- → CopyAllTrials query and set of type bool
- → CopyCurrentRoi set of type action
- → CopyCurrentTrial set of type action
- $\rightarrow$  CopyPlan query and set of type bool
- $\rightarrow \ \mathbf{CreateMenuless2dViewingWindowInParent} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  CreateMenulessViewingWindowInParent set of type action
- → CreateNewBeam set of type action
- $\rightarrow$  CreateNewPOI set of type action
- → CreateNewROI set of type action
- $\rightarrow$  CreateNewROR set of type action
- → CreateViewingWindowInParent set of type action
- → CreateWindowConfig subobject of type ViewWindowConfig
- → CreatingAndPositioningSourcesMessage query of type action
- → CtSimBeamLayout query and set of type EnumeratedList with labels
- → CtSimLayout query and set of type EnumeratedList with labels
- → CtSimSetupLayout query and set of type EnumeratedList with labels
- → CtTableListEmptyOrValid query of type action
- $\rightarrow \ \mathbf{CtToDensTableListForDoseCalc} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{CtToDensityTable}$
- $\rightarrow$  CtToDensityModified query and set of type bool
- $\rightarrow~\mathbf{CtToDensityTableList}$ list of type CtToDensityTable
- $\rightarrow~\mathbf{CtToStoppingPowerTableList}$ list of type CtToStoppingPowerTable
- $\rightarrow \ \mathbf{CtToStoppingPowerTableListForDoseCalc} \ \mathrm{list} \ \mathrm{of} \ \mathrm{type} \ \mathrm{CtToStoppingPowerTable}$
- $\rightarrow~\mathbf{CurrentVolumeUsedForMBS}$  query of type int set of type action
- → CutplaneList list of type Cutplane
- $\rightarrow$  CutplaneMode query and set of type action
- $\rightarrow~\mathbf{CutplaneModeList}$  query of type action
- → **DCRPresetsList** list of type DCRPresets
- → **DICOM** subobject of type DICOM
- → **DRRCtToDensityTableName** query and set of type ObjString
- → **DRRWindowLevelList** list of type DRRWindowLevel
- → **DVHGroup** subobject of type DVHGroup
- → **DVHLayout** query and set of type EnumeratedList with labels
- $\rightarrow$  **DVHList** query and set of type
- $\rightarrow$  **DVHPlotStyle** query and set of type

- → **DeadObjectList** query and set of type
- $\rightarrow$  **DecubitusRightOrLeft** query and set of type bool
- $\rightarrow$  **DefaultReport** subobject of type PinnReport
- $\rightarrow$  **Deform** subobject of type Deform
- $\rightarrow$  **DeformROIs** query and set of type bool
- → DeleteSelectedROIs set of type action
- → **DeleteVolumeSlice** set of type action
- $\rightarrow$  **DeletedSliceVolume** subobject of type Volume
- → **DeletedSliceVolumeObject** subobject of type Volume
- → **DeletingSliceMessage** query of type action
- $\rightarrow$  **DestroyCurrentBolus** set of type action
- → DestroyCurrentROI set of type action
- → DestroyCurrentRoR set of type action
- → **DestroyInterfaceObjects** set of type action
- → **DigitizerControl** subobject of type DigitizerControl
- → DirtyQuit set of type action
- → **DiskHighWaterMark** query and set of type action
- $\rightarrow$  **DisplayCTImage** query of type bool set of type action
- $\rightarrow$  **DisplayCurrentFilmBB** query and set of type bool
- $\rightarrow~ \mathbf{DisplayCurrentVolumeBB}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayFusionSixWindowLayout}$  query and set of type bool
- → **DisplayKey** subobject of type LicenseKey
- $\rightarrow$  **DisplayList** subobject of type DisplayList
- $\rightarrow$  **DisplayLocalNTCPList** query and set of type bool
- $\rightarrow$  **DistanceBetweenPoints** query of type action
- → DoCurrentFilmBBDisplay set of type action
- $\rightarrow \ \mathbf{DoCurrentVolumeBBDisplay} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{DoseAccum}$  subobject of type DoseAccum
- $\rightarrow$  **DoseDisplayFormat** query of type action
- $\rightarrow \ \mathbf{DoseDistributionsExist} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{DoseModifiedDuringFiling}$  query and set of type bool
- $\rightarrow \ \mathbf{DoseUnitsToUserScalar} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  **DoseValueUnits** query of type action
- $\rightarrow~\mathbf{DrawMLC}$  query and set of type action
- $\rightarrow~\mathbf{DumpProfiles}$  query and set of type bool
- → **DumpWindowForReport** set of type action
- $\rightarrow~{\bf DyeKom}$  subobject of type DyeKom
- $\rightarrow$  **EPIDList** list of type EPID
- → ElectronVersionMatches query of type action
- $\rightarrow$  EnableFusionDisplay set of type action
- → EndRecoverOn set of type action
- → EnterAtlasPassword set of type action

- → EnterOMLPassword set of type action
- → EnterPhysicsPassword set of type action
- $\rightarrow$  **ExitWithoutSaving** set of type action
- $\rightarrow$  **ExportDICOMRT** set of type action
- → ExportFileList subobject of type FileList
- → ExportOption query and set of type EnumeratedList with labels
- → ExportRoi set of type action
- → FdmDvhLayout query and set of type EnumeratedList with labels
- → FdmTrialRoiSelectLayout query and set of type EnumeratedList with labels
- → **FieldHelp** subobject of type FieldHelp
- → FourDRoi subobject of type FourDRoi
- → FusionDisplayMode3D query and set of type action
- → FusionDisplayModeList3D query of type action
- → FusionMode query and set of type bool
- → FusionVolumeList list of type Volume
- → FusionVolumeNames query of type action
- → **Gated** subobject of type Gate
- $\rightarrow$  **GatingMode** query of type action
- → HasAnyValidBrachySources query of type action
- → HasAnyValidMachinesAndEnergies query of type action
- → Hide4DFeatures query and set of type bool
- → HostKey subobject of type LicenseKey
- → **HotScriptList** subobject of type HotScriptList
- ightarrow IMRTPreferences subobject of type IMRTPreferences
- → ImageConcatModeMakeVolumeCurrent set of type action
- ightarrow ImageEditorLayout query and set of type EnumeratedList with labels
- $\rightarrow$  ImageEditorMode query and set of type bool
- ightarrow ImageSetConcatMode query and set of type bool
- $\rightarrow$  ImportRoi set of type action
- ightarrow ImportedProfile subobject of type ImportedProfile
- $\rightarrow~\mathbf{ImrtLayout}$  query and set of type Enumerated List with labels
- $\rightarrow$   $\mathbf{ImrtReviewLayout}$  query and set of type EnumeratedList with labels
- ightarrow ImrtTemplateLayout query and set of type EnumeratedList with labels
- → InfoMessage set of type action
- $\rightarrow$  InitializePlan set of type action
- $\rightarrow \ \mathbf{Initialize} \mathbf{RoiExpand} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → InitializeVolume set of type action
- → InstitutionDirectory query and set of type ObjString
- ightarrow InvalidateStereoLocalizerTrialDoseAndBolusVolume query of type action
- → InvalidateTrialDoseAndBolusVolume query of type action
- $\rightarrow \ \mathbf{InvalidateTrialDoseAndBolusWhenCouchPosChanges} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → IrregLayout query and set of type EnumeratedList with labels

- $\rightarrow$  **IrregMode** query and set of type bool
- $\rightarrow$  Is2d query and set of type bool
- $\rightarrow$  **IsAcQLoc** query and set of type bool
- → IsAlgorithmTypeSFBR query and set of type bool
- $\rightarrow~\mathbf{IsAtlasPasswordMode}$  query and set of type bool
- $\rightarrow$  IsAtlasSegMode query and set of type bool
- $\rightarrow$  **IsCTSim** query and set of type bool
- $\rightarrow$  **IsCopyToPhantom** query of type bool
- → **IsDICOMExport** query of type action
- → IsIntensityDIRTypeBSpline query and set of type bool
- → IsOkForAAPMMLC query and set of type bool
- → IsOkForAAPMMLCVertical query and set of type bool
- → IsOkForAcQsim3 query of type bool
- → IsOkForAdaptive query of type bool
- → IsOkForAdaptiveOrMBS query of type action
- $\rightarrow$  IsOkForAtlas query of type bool
- → IsOkForAutoFusion query of type bool
- $\rightarrow$  IsOkForBrachy query of type bool
- → IsOkForBrachyTG43 query of type bool
- → IsOkForCArm query of type bool
- → IsOkForClinicalUse query of type action
- $\rightarrow \ \mathbf{IsOkForConformalArc}$  query of type bool
- $\rightarrow$  IsOkForDICOMPrint query of type bool
- $\rightarrow$  IsOkForDICOMRT query of type bool
- $\rightarrow$  IsOkForDynamicArc query of type bool
- $\rightarrow$  IsOkForDynamicWedge query of type bool
- $\rightarrow$  IsOkForElectron query of type bool
- $\rightarrow$   ${\bf IsOkForFusion}$  query and set of type bool
- $\rightarrow$  IsOkForIMRT query of type bool
- $\rightarrow$  **IsOkForMBS** query of type bool
- $\rightarrow$   $\mathbf{IsOkForMLCSegments}$  query of type bool
- $\rightarrow \ \mathbf{IsOkForOpenRTPExport} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool}$
- $\rightarrow$  **IsOkForPhoton** query of type bool
- $\rightarrow~\mathbf{IsOkForPrimeviewRV}$  query and set of type bool
- $\rightarrow$  **IsOkForProton** query of type bool
- $\rightarrow~\mathbf{IsOkForRoiDigitizing}$  query of type bool
- $\rightarrow~\mathbf{IsOkForStereo}$  query of type bool
- $\rightarrow \ \mathbf{IsOkToPrintPlans} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- → IsOkToSavePlans query of type bool
- $\rightarrow~\mathbf{IsPhysicianReview}$  query and set of type bool
- $\rightarrow$  **IsPhysicsMode** query of type bool
- → IsProductionVersion query of type bool

- → IsProstatePrePlan query and set of type bool
- → IsResearchMode query of type bool set of type action
- $\rightarrow$  IsValidPlan query of type action
- → IsodoseControl subobject of type IsodoseControl
- $\rightarrow$  **IsotopeList** list of type Isotope
- → **KeyBypassDisabled** query of type bool
- → **KeyDependencyList** list of type KeyDependency
- → LaserLocalizerTrialConfirmDoseChange query of type action
- → LastLoadedRoiList query and set of type
- → LaunchAboutBox set of type action
- → LaunchVerticalSideWindow set of type action
- $\rightarrow$  LimitRadiusOnAutoplace query and set of type bool
- → LoadAndValidateProgramRevision set of type action
- → LoadAtlasPreferences set of type action
- → LoadBolus set of type action
- → LoadBolusROI set of type action
- → LoadColorFile set of type action
- $\rightarrow \ \mathbf{LoadCtToDensityTablesForDoseCalc} \ \operatorname{set} \ \operatorname{of} \ \operatorname{type} \ \operatorname{action}$
- → LoadDCRPresetsPresets set of type action
- → LoadDCRPresetsSystemPresets set of type action
- → LoadDRRWinLevSystemPresets set of type action
- → LoadDRRWindowLevelPresets set of type action
- → LoadDoseVolHist set of type action
- ightarrow LoadGridLinearParameters set of type action
- $\rightarrow$  LoadIMRTPrefs set of type action
- → LoadIsodoses set of type action
- $\rightarrow$  LoadKeys set of type action
- → LoadLaserLocalizer set of type action
- → LoadPatientSetup set of type action
- ightarrow LoadPhysicsDoseEngineParameters set of type action
- $\rightarrow$  LoadPinnPreferences set of type action
- → LoadPluginData set of type action
- → LoadPointLinearParameters set of type action
- → LoadPointsOfInterest set of type action
- → LoadRegionsOfInterest set of type action
- $\rightarrow~\mathbf{LoadRoiManager}$  set of type action
- → LoadStereoLocalizers set of type action
- $\rightarrow$  LoadSyntegraPrefs set of type action
- → LoadSystemPresetsWithOverwrite set of type action
- → LoadTrials set of type action
- $\rightarrow$  LoadVolumeDisplayList set of type action
- → LoadWindowLevelPresets set of type action

- $\rightarrow$  LocalNTCPList list of type NTCP
- $\rightarrow$  LockLocalNTCPList set of type action
- $\rightarrow~\mathbf{LockPlan}$  set of type action
- → MACTControl subobject of type MACTControl
- ightarrow MBSFilteredVolume query of type action
- $\rightarrow$  MBSVolume query of type action
- $\rightarrow$  MBSVolumeZDim query and set of type int
- $\rightarrow$  MBSVolumeZVoxelSize query and set of type float
- → MCData subobject of type MCData
- → MLCCine subobject of type MLCCine
- → MLCTransArrayStartX query and set of type int
- → MLCTransArrayStartY query and set of type int
- → MLCTransArrayStopX query and set of type int
- → MLCTransArrayStopY query and set of type int
- → MLCTypeList list of type SimpleString
- → MachineDB subobject of type MachineDB
- → MachineList list of type Machine
- $\rightarrow$  MachineTypeList list of type SimpleString
- → MakeAllVolumesRenderable set of type action
- → MakeProstatePrePlanPhantom query and set of type bool
- → MakeWaterPhantom query and set of type bool
- → ManualFusionLayout query and set of type EnumeratedList with labels
- $\rightarrow$  MarkerPoint query and set of type
- $\rightarrow$   ${\bf MatchedMRNumber}$  query and set of type bool
- $\rightarrow$  MatchedPatientName query and set of type bool
- $\rightarrow$  MatchedPatientPosition query and set of type bool
- $\rightarrow$  MatchedPixelValue query and set of type bool
- ightarrow MatchedScanAcquisition query and set of type bool
- $\rightarrow$  MaxThreads query and set of type action
- $\rightarrow \ \mathbf{MultipleGatingVolumes} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{MultipleROIplaceLaserCenter} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → MultipleROIplacePOI set of type action
- $\rightarrow~\mathbf{NetReviewControl}$  subobject of type NetReviewControl
- $\rightarrow~\mathbf{NoDisplayJustSaveImage}$  query and set of type bool
- → NoWarnAboutClippedVoxels query and set of type bool
- $\rightarrow \ \mathbf{NonModalInfoMessage} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → NonModalWarningMessage set of type action
- $\rightarrow~\mathbf{OKForSyntegraInPinnacle}$  query and set of type bool
- → **OKToConcat** query and set of type bool
- → **OMLPassword** subobject of type Password
- $\rightarrow~\mathbf{OMLPasswordFileName}$  query and set of type <code>ObjString</code>
- $\rightarrow$  **OMLPasswordMode** set of type action

- → **ObjectBrowser** subobject of type Browser
- → OnlyRenderCurrentVolume set of type action
- ightarrow OpenOrthoDRRSWindow set of type action
- → OpenRTPFilePrefix query and set of type ObjString
- $\rightarrow$  **OpenRTPOutputFileList** query and set of type
- → OptStateDescription query and set of type
- $\rightarrow$  **OutputMLCTransArray** query and set of type bool
- → PatientDirectory query of type action
- $\rightarrow$  **PatientSetup** subobject of type PatientSetup
- → PerformingAutoReplan query and set of type bool
- → PhantomTargetBeam query and set of type ObjString
- → PhantomTargetPOI query and set of type ObjString
- → PhotonOFVersionMatches query of type action
- $\rightarrow$  **PhotonPhysicsControl** subobject of type PhotonPhysicsControl
- → PhotonVersionMatches query of type action
- → PhysicianReviewOKToModifyROI query of type action
- → PhysicianReviewOKToMovePOI query of type action
- ightarrow PhysicianReviewOKToTranslateVolume query of type action
- → PhysicsLock subobject of type SimpleLockFile
- → PhysicsPassword subobject of type Password
- → PhysicsPasswordFileName query and set of type ObjString
- $\rightarrow~\mathbf{PinnPreferences}$  query and set of type action
- $\rightarrow$  PinnacleFormatSaveVol4D query and set of type bool
- → PlanFilesExist query of type action
- $\rightarrow$  **PlanInfo** subobject of type PlanInfo
- → PlanLoadingInProgress query and set of type bool
- → PlanName query of type action
- $\rightarrow$  PlanRecordTrialList list of type Trial
- $\rightarrow$  **PlanningPrefs** subobject of type PinnPreferences
- → PlaySystemScript set of type action
- $\rightarrow$   $\ensuremath{\mathbf{PluginDirectory}}$  query and set of type ObjString
- $\rightarrow$  **PluginManager** subobject of type PluginManager
- ightarrow PluginManagerIsInitialized query and set of type bool
- $\rightarrow$  **PluginModules** list of type Plugin
- → PoiAutoplaceMode query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{PoiDiameterList}$ list of type Float
- → PoiLayout query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{PoiList}$ list of type Poi
- → PreferenceOnlyMode query and set of type bool
- → **PrescriptionManager** subobject of type PrescriptionManager
- → PrimaryAndFusionVolumeNameList query of type action
- → **PrimaryPoiList** list of type Poi

- → PrintDoseProfilePlot set of type action
- → PrintDoseProfilePlots set of type action
- → PrintOutputFactorReportFromPhysicsMode set of type action
- → PrintOutputFactorReportFromPlanning set of type action
- → PrintPhotonModelReport set of type action
- → PrintPhysicsProfileReport set of type action
- $\rightarrow$  **PrintProtonModelReport** set of type action
- → PrintWindowDumpReport set of type action
- → PrintWindowToFilm set of type action
- → **PrinterControl** subobject of type PrinterControl
- $\rightarrow$  **ProceedPrintWindow** set of type action
- → ProcessGlobalHotKey set of type action
- → ProstatePrePlanDisplayTools query and set of type bool
- → ProstatePrePlanlayout query and set of type EnumeratedList with labels
- → **ProtonReport** subobject of type ProtonReportGenerator
- → PublicScriptDirectory query of type ObjString
- → PublishedBeamSpectrumList list of type BeamSpectrum
- $\rightarrow~\mathbf{QAToolsLayout}$  query and set of type Enumerated List with labels
- $\rightarrow$  **Quit** set of type action
- → QuitWithSave set of type action
- → RVDestination query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{RVExportName}$  query and set of type ObjString
- $\rightarrow$  RVExportOfSegmentsOk query and set of type bool
- ightarrow RVFormat query and set of type EnumeratedList with labels
- → **RVRemoteDirectory** query and set of type ObjString
- $\rightarrow$  **RVRemoteHost** query and set of type ObjString
- $\rightarrow$  **RVRemoteLogin** query and set of type ObjString
- $\rightarrow$  RVRemotePassword query and set of type ObjString
- $\rightarrow$  RVSaveFTPDefaults set of type action
- $\rightarrow~\mathbf{ReadOnly}$  query and set of type bool
- $\rightarrow$   $\bf RecommendReadOnly$  query and set of type bool
- $\rightarrow \ \mathbf{Recompute} \mathbf{RoiStats} \mathbf{If} \mathbf{Density} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  RecoverOn query and set of type bool
- $\rightarrow~\mathbf{RecoveryMode}$  query and set of type bool
- $\rightarrow \ \mathbf{RecreatePrimaryPoiList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Remove2DCurrentBeam} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RemoveBevAndRevCurrentBeam set of type action
- ightarrow RemoveBevCurrentBeam set of type action
- → RemoveBrachySourceAndCath set of type action
- $\rightarrow \ \mathbf{RemoveCtToDensityTableForDoseCalc} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RemoveDoseDistributions set of type action
- → RemoveRevCurrentBeam set of type action

- → ReportComment query and set of type ObjString
- → ReportCurrentPhotonModel query and set of type bool
- → ReportRevision subobject of type ReportRevision
- → ResetCtSimSetupDisplay set of type action
- $\rightarrow$  ResetDefaultMCPoiPosition set of type action
- → ResetDefaultPoiPosition set of type action
- $\rightarrow$  ResetImagesForVolumeChange set of type action
- $\rightarrow$  RestoreVolumeSlice set of type action
- $\rightarrow~\mathbf{RoRLayout}$  query and set of type Enumerated List with labels
- → RoRList list of type Record
- → RoiExpandControl subobject of type RoiExpandControl
- → RoiExportFile query and set of type ObjString
- → RoiGroupListTree query of type action
- ightarrow RoiImportFileList subobject of type FileList
- → RoiLayout query and set of type EnumeratedList with labels
- → RoiList list of type RegionOfInterest
- → RoiManager subobject of type RoiManager
- ightarrow RoiMultipleControl subobject of type RoiExpandControl
- → RoiReliantList list of type RegionOfInterest
- → RoiSequence subobject of type RoiSequence
- → RoiTemplateLib subobject of type RoiTemplateLib
- $\rightarrow$  **Root** subobject of type Root
- → RotateAboutY set of type action
- $\rightarrow$  SaveAllVolumesAndExit set of type action
- $\rightarrow$  SaveAllVolumesEdited query and set of type bool
- → SaveAtlasPreferences set of type action
- ightarrow SaveAutoFilesOnAbnormalExit query and set of type bool
- $\rightarrow$  SaveCurrentVolumeAndExit set of type action
- → SaveDCRPresetsPresets set of type action
- $\rightarrow$  SaveDRRWindowLevelPresets set of type action
- $\rightarrow$  SaveDefaultIsodoseLines set of type action
- $\rightarrow$  SaveIMRTPrefs set of type action
- $\rightarrow$  SaveLocalNTCPList set of type action
- $\rightarrow~\mathbf{SavePinnPreferences}$  set of type action
- → SavePlan set of type action
- → SavePlanInfo set of type action
- → SavePoiDiameterList set of type action
- $\rightarrow$  SaveReportRevision set of type action
- → SaveSaboteur subobject of type SaveSaboteur
- $\rightarrow~\mathbf{SaveScannerDataWhenExitingPhysics}$  query and set of type bool
- → SaveSyntegraPrefs set of type action
- $\rightarrow$  SaveSyntheticHeader set of type action

- $\rightarrow$  SaveWindowLevelPresets set of type action
- → SelectCurrentFromList query of type bool set of type action
- $\rightarrow$  **SetFusionWindows** set of type action
- → SetMark5UpdateViewWindows set of type action
- $\rightarrow$  **SetPhantomPOIAndBeam** set of type action
- $\rightarrow~\mathbf{SetPhysicsModeAtStartup}$  query of type bool set of type action
- → SetResearchMode set of type action
- → SetUpFileErrorDependency set of type action
- → SetUpInterfaceObjects set of type action
- → SetUpPhysicsControl set of type action
- $\rightarrow$  **SetVersionToTest** set of type action
- → SetVolumeBeingEdited set of type action
- → SetWindowsToVolume set of type action
- → Setup2DCurrentBeam set of type action
- → SetupBevAndRevCurrentBeam set of type action
- → SetupBevCurrentBeam set of type action
- → SetupRevCurrentBeam set of type action
- $\rightarrow \ \mathbf{SetupViewWindowConfig} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ShowREVwithBEV query and set of type bool
- → ShowScatterArray query and set of type bool
- → ShowToolTips query and set of type bool
- $\rightarrow$  **SimulateMPR** set of type action
- $\rightarrow$  **SiteDirectory** query and set of type ObjString
- $\rightarrow$  **StartAcQSim** set of type action
- $\rightarrow$  **StartAtlasSeg** set of type action
- $\rightarrow$  **StartCTSim** set of type action
- $\rightarrow$  **StartCTSimReadOnly** set of type action
- $\rightarrow$  **StartDoseAccumulation** set of type action
- $\rightarrow$  **StartFusionMode** set of type action
- $\rightarrow$  StartIMRT set of type action
- → StartOnLineManual set of type action
- $\rightarrow$  **StartPhysicsMode** set of type action
- $\rightarrow$  StartPinnacle2d set of type action
- $\rightarrow \ \mathbf{StartRecordViewer} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{StartWithDICOM}$  query and set of type bool
- $\rightarrow~\mathbf{StaticDirectory}$  query and set of type ObjString
- $\rightarrow~\mathbf{StereoFrameList}$ list of type StereoFrame
- $\rightarrow \ \mathbf{StereoLocalizerTrialConfirmDoseChange} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → StereoVersionMatches query of type action
- $\rightarrow~\mathbf{StopSimulateMPR}$  set of type action
- $\rightarrow$  **Store** subobject of type StringKeyDict
- ightarrow SubIrregLayout query and set of type EnumeratedList with labels

- → SyncVolumesFromCopiedPlans set of type action
- → SyntegraPanel query and set of type EnumeratedList with labels
- → SyntegraPrefs subobject of type SyntegraPreferences
- → SyntegraView query and set of type EnumeratedList with labels
- → SystemNTCPList list of type NTCP
- → SystemScriptDirectory query of type ObjString
- → TempReport query and set of type pointer
- → TemporalNavigatorKey set of type action
- → **TestTimeDifference** subobject of type TimeDifference
- → ToggleGateAVG set of type action
- → ToggleGateMIP set of type action
- → ToggleGateMinIP set of type action
- → ToggleHighlightColor set of type action
- → TransmitMLCLeaves query of type bool set of type action
- $\rightarrow$   $\bf TrialDoseComparison$  subobject of type TrialDoseComparison
- → TrialDoseInvalidWhileFiling query and set of type bool
- → **TrialList** list of type Trial
- → **TrialPoiReport** subobject of type TrialPoiReport
- → TurnOffCine set of type action
- → UnderLoading query and set of type bool
- → UnloadAndReloadPlan set of type action
- → UpdatePhantomPlanPosition set of type action
- $\rightarrow$  UpdatePlanRecordTrialList set of type action
- ightarrow UpdateRoiReliantList set of type action
- ightarrow UseGyForDoseDisplay query and set of type bool
- → ValidateFileListSave query of type action
- → ViewMBSFilteredVolume set of type action
- ightarrow ViewWindowConfigList list of type ViewWindowConfig
- → **ViewWindowList** list of type ViewWindow
- ightarrow VolumeBeingEdited subobject of type Volume
- ightarrow VolumeBeingEditedObject subobject of type Volume
- ightarrow VolumeDisplayList list of type VolumeDisplay
- ightarrow VolumeEditorLayout query and set of type EnumeratedList with labels
- ightarrow VolumeEditorMode query and set of type bool
- ightarrow VolumeList list of type Volume
- ightarrow VolumeOptimizer subobject of type VolumeOptimizer
- $\rightarrow$  WaitMessage set of type action
- $\rightarrow$  WaitMessageIsOn query of type action
- → WaitMessageOff set of type action
- → Warn2DBRVRotationRequiresAcqsimLicense set of type action
- → WarnAboutComputedProfiles set of type action
- → WarnAboutNTCP query and set of type bool

- $\rightarrow \ \mathbf{WarnBrachyNotEnabled} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{WarnNoTrialSelected} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow WarningMessage set of type action
- $\rightarrow~\mathbf{WindowLevelList}$ list of type WindowLevel
- $\rightarrow$   $\mathbf{WindowList}$  pluriform list of types WindowWrapper GeoForm
- $\rightarrow \ \mathbf{WriteAAPMOutput} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{WriteOpenRTPOutput} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{WriteVolumePath}$  query and set of type <code>ObjString</code>
- $\rightarrow~\mathbf{WriteVolumePrefix}$  query and set of type ObjString

## PlanEvalPlugin

- $\rightarrow$  **BeginMessageBatch** set of type action
- → Cancel set of type action
- → ClassName query of type string
- → Composites subobject of type PE\_Composites
- → Destroy set of type action
- → **EUDObjectiveList** list of type PE\_EUDObjective
- → EndLoadPlugins set of type action
- → EndMessageBatch set of type action
- → EvaluateEUD set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **ExportResponseData** set of type string
- $\rightarrow$   $\mathbf{HasSavedResponses}$  query and set of type bool
- → Initialize set of type action
- $\rightarrow$  **InstanceName** query of type string
- → InvalidateComposites set of type action
- → IsFiling query of type bool
- → IsNewer query of type bool
- $\rightarrow$  IsOkForBioEval query of type bool
- $\rightarrow$  IsOkToSave query and set of type bool
- $\rightarrow$  LineTypeList list of type SimpleString
- $\rightarrow \ \mathbf{LoadPersistentData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow PlanHasUnlicensedResponses query of type bool
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Populate** set of type action
- → **ROIGroupList** list of type PE\_ROIGroup
- → **ROIList** list of type PE\_ROI
- → RedrawDVH set of type action
- → RedrawResponseValues set of type action
- → RemoveCurrentResponseFromTrialsRelyOnList set of type action
- → RemoveResponseFromTrialsRelyOnList set of type string
- → ResponseChanged set of type string
- $\rightarrow$  ResponseDeleted set of type action
- → ResponseObjectiveList list of type OrbitResponseObjective
- → ResponseObjectiveListTypes query and set of type string
- → ResponseSelected set of type string
- → **ResponseValueList** list of type PE\_ResponseValue
- → ResponseValuesPlotStyle subobject of type PlotStyle
- → ResponseValuesValid query of type bool
- → ResponseValuesValidity query of type string
- $\rightarrow$  ResponseValuesValidityColorPixel query of type int
- → **Revision** query of type string

- $\rightarrow~\mathbf{RoiGroupTab}$  query and set of type bool
- $\rightarrow \ \mathbf{Run} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{SavePersistentData} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{int}$
- $\rightarrow~\mathbf{TrialList}$  list of type PE\_Trial
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool
- $\rightarrow \ \mathbf{UnloadPlan} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdateCompositesValidity} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdateTrialsValidity} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

#### PlanInfo

- $\rightarrow$  Comment query and set of type ObjString
- $\rightarrow$  **DateOfBirth** query and set of type ObjString
- → **Diagnosis** query and set of type ObjString
- → **Disease** query and set of type ObjString
- → EncounterNumber query and set of type ObjString
- → FirstName query and set of type ObjString
- → Gender query and set of type ObjString
- → **Institution** query and set of type ObjString
- → LastName query and set of type ObjString
- → MedicalRecordNumber query and set of type ObjString
- → MiddleName query and set of type ObjString
- $\rightarrow$  **OKForSyntegra** query and set of type bool
- $\rightarrow$  **PatientID** query and set of type int
- $\rightarrow$  **PatientName** query and set of type ObjString
- $\rightarrow$  **PatientPath** query and set of type ObjString
- $\rightarrow$  **Physician** query and set of type ObjString
- $\rightarrow$  **Physicist** query and set of type ObjString
- $\rightarrow~\mathbf{PlanIsEditable}$  query and set of type bool
- ightarrow PlanLockStatus query and set of type ObjString
- $\rightarrow$  PlanName query and set of type ObjString
- $\rightarrow~\mathbf{PlanPath}$  query and set of type ObjString
- $\rightarrow$  **Planner** query and set of type ObjString
- $\rightarrow$  **Prescription** query and set of type ObjString
- → **PrimaryImageType** query and set of type ObjString
- $\rightarrow$  **TimeStamp** query of type action
- → **TrialName** query and set of type ObjString

# Plugin

- $\rightarrow~\mathbf{Cancel}$  set of type action
- $\rightarrow~\mathbf{HasProcess}$  query of type action
- $\rightarrow~\mathbf{IsRunning}$  query and set of type bool
- $\rightarrow~\mathbf{ProcessHandle}$  query and set of type pointer
- $\rightarrow~\mathbf{Run}$  set of type action
- $\rightarrow~\mathbf{SharedLib}$  subobject of type SharedLib

#### Poi

- → AddToDisplayList set of type action
- → AssociatedVolume query of type action
- → BroadcastDisplay set of type action
- $\rightarrow$  Color query and set of type ObjString
- → ColorPixel query of type action
- → CoordSys query and set of type EnumeratedList with labels
- → CoordinateFormat query and set of type ObjString
- → CurrXCoord query and set of type action
- → CurrYCoord query and set of type action
- → CurrZCoord query and set of type action
- $\rightarrow$  **DefaultXPosition** query and set of type float
- $\rightarrow$  **DefaultYPosition** query and set of type float
- $\rightarrow$  **DefaultZPosition** query and set of type float
- → Diameter query and set of type action
- → **DiameterUnits** query of type action
- → DicomCoordDisplayOn query of type action
- $\rightarrow~\mathbf{DicomXCoord}$  query and set of type action
- → DicomYCoord query and set of type action
- → DicomZCoord query and set of type action
- → Display2d query and set of type EnumeratedList with labels
- $\rightarrow$  **Display2dOptions** query and set of type StringList
- $\rightarrow$  **Display3DOn** query and set of type action
- $\rightarrow~\mathbf{Display3d}$  query and set of type Enumerated List with labels
- → **Display3dOptions** query and set of type StringList
- $\rightarrow~\mathbf{DisplayPlanes}$  query and set of type bool
- $\rightarrow$  **DisplayXCoord** query and set of type action
- $\rightarrow~\mathbf{DisplayYCoord}$  query and set of type action
- $\rightarrow$  **DisplayZCoord** query and set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **IsPrimaryPoi** query of type action
- → LocalVolX query and set of type action
- $\rightarrow~\mathbf{LocalVolY}$  query and set of type action
- → LocalVolZ query and set of type action
- ightarrow LocalXCoord query and set of type action
- $\rightarrow$   ${\bf LocalYCoord}$  query and set of type action
- → LocalZCoord query and set of type action
- → MoveToDefaultPosition set of type action
- → Name query and set of type ObjString
- → **ObjectVersion** subobject of type ObjectVersion
- $\rightarrow$  **Parent** subobject of type Pinnacle
- → ParentIsRecord query of type action

- $\rightarrow~\mathbf{PoiDisplayOnOtherVolumes}$  query and set of type bool
- $\rightarrow~\mathbf{PoiInterpretedType}$  query and set of type EnumeratedList with labels
- $\rightarrow$  **PoiInterpretedTypeList** query and set of type StringList
- → PolygonShadingMode query and set of type int
- → PostVolumeMove set of type action
- $\rightarrow$  **PreVolumeMove** set of type action
- $\rightarrow$  Radius query and set of type float
- $\rightarrow~\mathbf{RelativeXCoord}$  query and set of type action
- $\rightarrow$  RelativeYCoord query and set of type action
- $\rightarrow$  RelativeZCoord query and set of type action
- → RelyOnList query and set of type
- $\rightarrow \ \mathbf{RemoveFromDisplayList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Rotation** subobject of type Point
- $\rightarrow \ \mathbf{SetVolumeName} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → SphereTriangleLevel query and set of type int
- $\rightarrow$  ToggleCoordSys set of type action
- → **Transform** set of type action
- $\rightarrow~\mathbf{TransverseOnly}$  query and set of type bool
- $\rightarrow~\mathbf{TrialObject}$  query and set of type pointer
- $\rightarrow$  **Units** query and set of type EnumeratedList with labels
- → VolumeName query and set of type ObjString
- → XCoord query and set of type action
- $\rightarrow$  XRotation query and set of type action
- $\rightarrow~\mathbf{YCoord}$  query and set of type action
- $\rightarrow$  **YRotation** query and set of type action
- $\rightarrow~\mathbf{ZCoord}$  query and set of type action
- $\rightarrow~{\bf ZRotation}$  query and set of type action

# ${\bf PoiPrescription}$

- $\rightarrow~\mathbf{ActualDose}$  query and set of type float
- $\rightarrow~\mathbf{DesiredDose}$  query and set of type float
- $\rightarrow~\mathbf{Equality}$  query and set of type Enumerated List with labels
- $\rightarrow$   $\,$  Penalty query and set of type float
- $\rightarrow~\mathbf{Poi}$  query and set of type
- $\rightarrow~\mathbf{PoiName}$  query and set of type action

# Point

- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{X}$  query and set of type float
- $\rightarrow~\mathbf{Y}$  query and set of type float
- $\rightarrow~{\bf Z}$  query and set of type float

#### Prescription

- → ActualDose query and set of type float
- → ActualDosePerFraction query of type action
- $\rightarrow$  **ActualDoseValid** query and set of type bool
- → ActualMUPerFraction query of type action
- → AllBeamsComputed query of type action
- → ApplicableToleranceTableList query of type action
- → BeamMachineDependency set of type action
- → Color query and set of type ObjString
- → ColorPixel query of type action
- $\rightarrow$  **DefaultToleranceTableName** query of type action
- $\rightarrow$  **Description** query of type action
- → DoseUncertainty query and set of type float
- $\rightarrow$  **DoseUncertaintyLabel** query of type action
- → DoseUncertaintyValid query and set of type bool
- → IsPrescribe query of type action
- $\rightarrow$  **IsPrescribeToPoint** query of type action
- $\rightarrow$  IsPrescribeToRoi query of type action
- → IsSetMonitorUnits query of type action
- → **Method** guery and set of type EnumeratedList with labels
- → MethodList query and set of type StringList
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  NormalizationIsPoi query of type action
- → NormalizationIsRoi query of type action
- $\rightarrow~\mathbf{NormalizationMethod}$  query and set of type action
- ightarrow NormalizationMethodList query of type action
- → NumberOfBeams query of type action
- ightarrow NumberOfFractions query and set of type float
- $\rightarrow~\mathbf{PrescripUncertaintyValid}$  query and set of type bool
- ightarrow **PrescriptionDose** query and set of type float
- → PrescriptionPercent query and set of type float
- → **PrescriptionPeriod** query and set of type EnumeratedList with labels
- ightarrow **PrescriptionPeriodList** query and set of type StringList
- → PrescriptionPoint query and set of type action
- → PrescriptionRoi query and set of type action
- → PrescriptionUncertainty query and set of type float
- → PrescriptionUncertaintyLabel query of type action
- → **PrescriptionValid** query and set of type bool
- $\rightarrow$  RelyOnList query and set of type
- $\rightarrow$  RequestedMonitorUnitsPerFraction query and set of type float
- → SelectedForDICOMExport query and set of type bool
- → TargetPrescription query and set of type float

- $\rightarrow~\mathbf{ToleranceTableName}$  query and set of type action
- $\rightarrow~ {\bf Tolerance Table Number}$  query of type action
- $\rightarrow~\mathbf{TotalMonitorUnitsPerFraction}$  query and set of type float
- $\rightarrow~\mathbf{TrialObject}$  query and set of type pointer
- $\rightarrow \ \mathbf{ValidForMonteCarlo} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \, \textbf{ValidatePrescriptionPoint} \,\, \text{set of type action}$
- $\rightarrow \ \mathbf{ValidatePrescriptionRoi} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$   $\bf Weights Proportional To$  query and set of type Enumerated List with labels
- $\rightarrow$  Weights ProportionalToList query and set of type StringList

#### Printer

- $\rightarrow~\mathbf{AETitle}$  query and set of type action
- → BorderDensity query and set of type EnumeratedList with labels
- $\rightarrow$  CanCollate query and set of type bool
- $\rightarrow$  ColorCapable query and set of type EnumeratedList with labels
- → Command query and set of type ObjString
- → ConfigurationString query and set of type ObjString
- $\rightarrow$  **Destination** query and set of type action
- ightarrow **EmptyDensity** query and set of type EnumeratedList with labels
- $\rightarrow$  FilmSize query and set of type action
- → IsValidPrintMargin query of type action
- $\rightarrow$  Magnification query and set of type action
- $\rightarrow~\mathbf{MaxDensity}$  query and set of type int
- $\rightarrow$   $\,$  Medium query and set of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{OutputFormat}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{PaperSize}$  query and set of type ObjString
- $\rightarrow~\mathbf{Polarity}$  query and set of type Enumerated List with labels
- $\rightarrow$  **Print** set of type action
- $\rightarrow$  **PrintMargin** query and set of type float
- → **PrintMarginWarning** set of type action
- → **PrintMemory** set of type action
- → **Priority** subobject of type SimpleString
- $\rightarrow~\mathbf{SmoothingType}$  query and set of type ObjString
- $\rightarrow$  TimeOut query and set of type int
- $\rightarrow$  **Trim** query and set of type bool
- $\rightarrow$  XFeatureSize query and set of type
- $\rightarrow$  **YFeatureSize** query and set of type

#### **PrinterControl**

- $\rightarrow$  CompanionClassPtr query and set of type pointer
- $\rightarrow$  CompanionObjectPtr query and set of type pointer
- → LoadPrinterList set of type action
- $\rightarrow$  MaxScale query and set of type float
- → PrintConfirmationMessage query and set of type ObjString
- $\rightarrow$  **PrintToFile** query and set of type bool
- → PrintToFileFileList subobject of type FileList
- → **PrintToFilePaperSize** query and set of type ObjString
- $\rightarrow$  **PrinterCommandFileName** query and set of type ObjString
- → **PrinterList** list of type Printer
- → PrinterListFileName query and set of type ObjString
- $\rightarrow~\mathbf{PrinterName}$  query and set of type <code>ObjString</code>
- $\rightarrow$  SavePrinterList set of type action
- → SendToSelectedPrinter set of type action
- $\rightarrow \ \mathbf{UpdateScaleMethod} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ValidateSelectedPrinter} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  WindowDumpFieldWidth query and set of type float
- → WindowDumpHeight query and set of type int
- ightarrow WindowDumpScaleFactor query of type float set of type action
- $\rightarrow~\mathbf{WindowDumpScaleMethod}$  query and set of type EnumeratedList with labels
- → WindowDumpSelectionMethod query and set of type EnumeratedList with labels
- → WindowDumpWidth query and set of type int
- $\rightarrow$  WindowDumpWindowId query and set of type int
- $\rightarrow$  WindowDumpWindowName query of type action
- $\rightarrow$  WindowDumpXOffset query and set of type int
- $\rightarrow$  WindowDumpYOffset query and set of type int
- $\rightarrow \ \mathbf{WriteSelectedPrinterCommandToFile} \ \operatorname{set} \ \operatorname{of} \ \operatorname{type} \ \operatorname{action}$

### **ProfileMetrics**

- $\rightarrow$  BroadcastChange set of type action
- $\rightarrow$  ClearAll set of type action
- $\rightarrow~\mathbf{DepthDoseBuildUpRegion}$  subobject of type StatMoments
- $\rightarrow \ \mathbf{DepthDoseLowGradientHighDose} \ \mathbf{Subobject} \ \mathbf{of} \ \mathbf{type} \ \mathbf{StatMoments}$
- $\rightarrow \ \mathbf{ElectronDepthDoseBuildUpRegion} \ \mathrm{subobject} \ \mathrm{of} \ \mathrm{type} \ \mathrm{StatMoments}$
- $\rightarrow$  **ElectronDepthDoseHighGradient** subobject of type StatMoments
- $\rightarrow \ \mathbf{ElectronDepthDoseLowGradientLowDose} \ \mathbf{subobject} \ \mathbf{of} \ \mathbf{type} \ \mathbf{StatMoments}$
- $\rightarrow$  **HighGradient** subobject of type StatMoments
- $\rightarrow \ \mathbf{LowGradientHighDose} \ \mathrm{subobject} \ \mathrm{of} \ \mathrm{type} \ \mathrm{StatMoments}$
- $\rightarrow \ \mathbf{LowGradientLowDose} \ \mathrm{subobject} \ \mathrm{of} \ \mathrm{type} \ \mathrm{StatMoments}$

### **Property**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  BoolValue query and set of type bool
- $\rightarrow$  ClassName query of type string
- $\rightarrow \ \, \textbf{Description} \,\, \text{query of type string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{DoubleValue}$  query and set of type double
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Existence} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{FloatValue}$  query and set of type float
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow~\mathbf{IntValue}$  query and set of type int
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{StringListValue}$  query of type StringList
- $\rightarrow$  StringValue query and set of type string
- $\rightarrow~\mathbf{VoidPtrValue}$  query and set of type pointer

# ${\bf PropertyList}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{List}$  list of type Property

## ${\bf Protocol Manager}$

- $\rightarrow~\mathbf{Add}$  set of type action
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~\mathbf{Delete}$  set of type action
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow~\mathbf{FileList}$  subobject of type FileList
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- $\rightarrow~\mathbf{IsFiling}$  query of type bool
- $\rightarrow~\mathbf{Load}$  set of type action
- $\rightarrow$  **Save** set of type action
- $\rightarrow$  **SetName** set of type string
- $\rightarrow~\mathbf{SystemListCurrent}$  query and set of type bool

### QuickSimPref

- $\rightarrow$  **BeamDefaultColor** query and set of type ObjString
- → BeamsInitialViewingLayout query and set of type ObjString
- $\rightarrow$  BeamsViewIconLabel query of type action
- → CouchDefaultColor query and set of type ObjString
- → CreateOrthogonalBeams query and set of type bool
- → CubeVoi query and set of type action
- → DefaultApplyDrrControl query and set of type action
- ightarrow **DefaultDcrControlTypeName** query and set of type ObjString
- ightarrow **DefaultDrrControlTypeName** query and set of type ObjString
- → **DefaultLayout** query and set of type int
- $\rightarrow$  **DefaultROIOutlineBEV** query and set of type action
- $\rightarrow~\mathbf{DefaultWindowLevel}$  query and set of type ObjString
- $\rightarrow~\mathbf{EnableQuickSim}$  query and set of type bool
- → Grid2DDefaultColor query and set of type ObjString
- → InitialViewIconLabel query of type action
- → InitialViewingLayout query and set of type ObjString
- ightarrow LaserDefaultColor query and set of type ObjString
- → LockCollimators query and set of type action
- $\rightarrow$  **POIDefaultColor** query and set of type ObjString
- → PaintBrushRadius query of type float set of type action
- → ROIDefaultColor query and set of type ObjString
- → RefInd2D query and set of type action
- ightarrow RenderAutomatically query of type bool set of type action
- $\rightarrow$  **SidePopup** query and set of type action
- $\rightarrow$  ToggleRefInd2D set of type action
- ightarrow UpperRightWin query and set of type EnumeratedList with labels
- → UpperRightWinList query of type action

#### RegionOfInterest

- → AdaptAfterPropagate query and set of type bool
- $\rightarrow$  AdaptSurfaceMesh set of type action
- → AdaptationStatus query and set of type action
- ightarrow AddIsodToModifierDisplayList set of type action
- $\rightarrow$  AddSplineNode set of type action
- $\rightarrow$  AddToBolusList set of type action
- $\rightarrow$  AddToDisplayList set of type action
- → AddToModifierDisplayList set of type action
- $\rightarrow \ \mathbf{AnyChangeDependency} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{ApplyBoundingBox}$  query and set of type bool
- $\rightarrow$  **AssociatedVolume** query and set of type action
- → Author query and set of type ObjString
- → AutoContourROI set of type action
- → AutoContourUnits query and set of type action
- → AutoContourUnitsTypeList query and set of type StringList
- $\rightarrow$  **AutoLower** query and set of type action
- $\rightarrow~\mathbf{AutoUpdateContours}$  query and set of type bool
- $\rightarrow~\mathbf{AutoUpper}$  query and set of type action
- → BBDependency query and set of type pointer
- → BelongToPrimary query of type action
- $\rightarrow~\mathbf{BinVol}$  query and set of type
- $\rightarrow$  **BinaryOutput** query and set of type
- $\rightarrow~{\bf Binary Volume}$  query and set of type
- $\rightarrow~\mathbf{BoundingBox}$ subobject of type BoundingBox
- $\rightarrow$  **BoxSize** query and set of type
- $\rightarrow~\mathbf{CTNumber}$  query of type int set of type action
- $\rightarrow \ \mathbf{CanUseSUV} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  CancelAdaptation query and set of type bool
- → CancelExpansion query and set of type bool
- → Centroid query of type action
- → CheckBinVolMatchesContours set of type action
- → Clean set of type action
- → CleanAndDelete set of type action
- → CleanAndMove set of type action
- → CleanMesh set of type action
- → Color query of type string set of type action
- → ColorPixel query of type action
- → ComputeRoiVolume set of type action
- $\rightarrow$  ConfirmInvalidateBoluses query of type action
- $\rightarrow \ \, \mathbf{ConfirmTrialDoseChangeIfOverride} \ \, \mathbf{query} \ \, \mathbf{of} \ \, \mathbf{type} \ \, \mathbf{action}$
- → ContourData subobject of type ContourDataEditor

- → ContourInterpolationMode query and set of type EnumeratedList with labels
- → ContoursMatchMesh query and set of type bool
- $\rightarrow$  ContoursValid query and set of type action
- → CopyCurveToEditCurve set of type action
- → CopyCurvesOnLastSliceToSlice set of type action
- → CopyEditCurveToCurve set of type action
- → CopyEditCurveToNewCurve set of type action
- $\rightarrow \ \mathbf{CopyEditCurveToNewCurveAndClear} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → CopyEditCurveToSliceRange set of type action
- → CopyMeshToTargetRoi set of type action
- → CopyOrganModelToMesh set of type action
- → CreateBinaryRoiOutput set of type action
- → CursorPosition subobject of type Point
- → CurveCount query of type int
- → CurveErrorList query and set of type StringList
- → CurveMinArea query of type float set of type action
- → CurveOverlapMinimum query and set of type float
- $\rightarrow$  **DBName** query of type string set of type action
- → DecimateToSurfaceMesh set of type action
- → DeleteEditedCurveIfEmpty set of type action
- → **DeleteInterpolatedCurves** set of type action
- → DeleteSplineNodes set of type action
- → **DeleteUnmarkedCurves** set of type action
- → **Density** query of type float set of type action
- $\rightarrow$   $\mathbf{DensityUnits}$  query and set of type EnumeratedList with labels
- → **DesiredVolumeName** query and set of type ObjString
- → **DestMeshName** query and set of type ObjString
- $\rightarrow~$   $\bf Display2d$  query and set of type action
- $\rightarrow$  **Display2dOptions** query of type action
- ightarrow **Display2dWithMeshCheck** set of type action
- $\rightarrow$  **Display3d** query and set of type action
- ightarrow **Display3dOptions** query of type action
- $\rightarrow \ \mathbf{Display3dWithMeshCheck} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → **DisplayBoundingBox** query and set of type bool
- $\rightarrow$  **DisplayIsMesh** query of type action
- → **DisplayIsodensity** query of type bool set of type action
- ightarrow **DisplayOnOtherVolumes** query and set of type bool
- $\rightarrow~\mathbf{Dose}$  query and set of type action
- → DumpIteratorData set of type action
- $\rightarrow~\mathbf{EditCurve}$  subobject of type Curve Painter
- → EditCurveIndex query and set of type int
- → EditCurveNotEmpty query of type action

- → EditPlotStyle subobject of type PlotStyle
- → EndMessageBatch set of type action
- → ErodeDilate2d set of type action
- $\rightarrow$  **ErodeDilate3d** set of type action
- $\rightarrow$  **ErodeDilatePixelFraction** query and set of type float
- $\rightarrow$  EstimateTPC query and set of type bool
- $\rightarrow$  EstimateVertices set of type action
- $\rightarrow$  ExcludeAirVoxels query and set of type bool
- → ExcludeOtherRoi set of type action
- → ExpandingRoi query and set of type bool
- $\rightarrow$  **FileName** subobject of type FileName
- → FlatShading set of type action
- → FreeIteratorData set of type action
- → GaussianToolInUse query and set of type bool
- → GouraudShading set of type action
- → HasCurves query of type action
- → InterpolateContours set of type action
- $\rightarrow$   ${\bf InterpolationModeList}$  query and set of type StringList
- → InvalidateAffectedBoluses set of type action
- → InvertDensityLoading query of type bool set of type action
- → **IsAdapting** query and set of type bool
- $\rightarrow$  IsAddToGroupRoiList query and set of type bool
- $\rightarrow$  IsBeingDrawn query and set of type bool
- $\rightarrow~\mathbf{IsBeingEdited}$  query of type action
- $\rightarrow$  IsBeingPainted query and set of type bool
- $\rightarrow$  IsBolusROI query and set of type bool
- $\rightarrow$   $\mathbf{IsCreatedByAtlasSeg}$  query and set of type bool
- $\rightarrow$  IsLinked query and set of type bool
- $\rightarrow \ \mathbf{IsRemoveFromGroupRoiList}$  query and set of type bool
- $\rightarrow~\mathbf{IsSelectedForDeletion}$  query and set of type bool
- $\rightarrow$  IsSpline query of type bool set of type action
- ightarrow IssueCompositeWarning set of type action
- ightarrow IssueIsovalueWarning set of type action
- $\rightarrow \ \mathbf{IssueObliqueOrthoWarning} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow IssueObliqueWarning set of type action
- $\rightarrow \ \mathbf{IssueWrongVolumeWarning} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{IterateWithOldAlgorithm}$  query and set of type bool
- $\rightarrow~\mathbf{LessThanTwoCurves}$  query and set of type bool
- → Line2dWidth query and set of type int
- → Line2dWidthList query and set of type StringList
- → Line2dWidthString query and set of type action
- → Line3dWidth query and set of type int

- → LinkAndName query of type action
- → LinkAndName\_Short query of type action
- $\rightarrow$  LoadIntoDataSet set of type action
- → LoadOption query and set of type EnumeratedList with labels
- $\rightarrow$  LoadVTK set of type action
- $\rightarrow$  LongLoadOptionList query and set of type StringList
- $\rightarrow$  Magnify set of type action
- → Material query and set of type ObjString
- → MaxContourPts query and set of type action
- → MaxDisplay query of type action
- → MaxSliceCoordForCopy query and set of type float
- → Maximum query of type action
- $\rightarrow$  **Mean** query of type action
- → **MeanDisplay** query of type action
- → MeanMeshIsPersistent query and set of type bool
- → MeshDisplayDependency query of type action
- $\rightarrow$  MinDisplay query of type action
- $\rightarrow \ \mathbf{MinSliceCoordForCopy}$  query and set of type float
- → **Minimum** query of type action
- → MoveCurrentPOIToSlice set of type action
- → Name query of type string set of type action
- $\rightarrow \ \mathbf{NumberOfSplineNodes} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- ightarrow **ObjectVersion** subobject of type ObjectVersion
- → **OrganName** query and set of type ObjString
- → OutlineBEVDRR query of type bool set of type action
- → OverrideDensity query and set of type action
- $\rightarrow$  **OverrideImage** query of type action
- $\rightarrow$  **OverrideMaterial** query and set of type action
- $\rightarrow$  **OverrideOrder** query and set of type int
- $\rightarrow$  PaintAllowCurveClosing query and set of type bool
- $\rightarrow \ \mathbf{PaintBrushDiameterIconName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PaintBrushRadius}$  query and set of type float
- ightarrow PaintNearnessMultiplier query and set of type float
- $\rightarrow$  **Parent** subobject of type Pinnacle
- → ParentIsRecord query of type action
- $\rightarrow~\mathbf{PencilToolInUse}$  query and set of type bool
- → PercentOutsideVol query of type action
- $\rightarrow$  **PhongShading** set of type action
- → **PriorColor** query and set of type ObjString
- → **Propagate** query and set of type bool
- → ROINumber query and set of type int
- → ReadContourData set of type action

- → ReadFromDate query and set of type ObjString
- → ReadFromProgram query and set of type ObjString
- $\rightarrow$  **ReadFromVersion** query and set of type ObjString
- → RecommendedVertices query and set of type int
- → RecomputeStatistics set of type action
- $\rightarrow$  RecomputeStatisticsForRoi set of type action
- ightarrow RecomputeStatisticsIfMatchingVol set of type action
- → RecomputeStatsIfDensity set of type action
- → RecomputeStatsWhenAltered set of type action
- → RecomputeStatsWhenRequested set of type action
- → RedisplayDependency query of type action
- → ReduceArea set of type action
- → ReduceDistance set of type action
- → RelativeCentroid query of type action
- → RelativeCentroidRefPoint query and set of type action
- → RelativeMagnitude query of type action
- → RelyOnList query and set of type
- $\rightarrow \ \mathbf{RemoveAllCurves} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RemoveAllCurvesWithoutWarning set of type action
- → RemoveFromDisplayList set of type action
- → RemoveFromModifierDisplayList set of type action
- $\rightarrow$  RemoveIsodFromModifierDisplayList set of type action
- $\rightarrow$  RemoveLastSplineNode set of type action
- $\rightarrow$  RepairAfterMeshGeneration query and set of type bool
- $\rightarrow$  RepairOverlap set of type action
- $\rightarrow$  ReplaceSplineNode set of type action
- $\rightarrow$  RequestedVertices query and set of type int
- $\rightarrow \ \mathbf{ResetRoiExpandState} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  ResetToDesiredVolume set of type action
- $\rightarrow \ \mathbf{ResetToDesiredVolumeWithoutWarning} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  RestoreDisplaySettings set of type action
- $\rightarrow~\mathbf{RoiExpandState}$  query and set of type EnumeratedList with labels
- ightarrow RoiInterpretedType query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{RoiInterpretedTypeList}$  query and set of type StringList
- ightarrow RoiVolume query and set of type float
- $\rightarrow$  RoiVolumeDate query of type action
- → RoiVolumeDescription query of type action
- $\rightarrow \ \mathbf{SaveBinaryVolumeAs} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → SaveDisplaySettings set of type action
- → SaveDoseGrid set of type action
- $\rightarrow$  **SaveVTK** set of type action
- → SelectForDeletionIfAtlas set of type action

- → SelectedForEditing query and set of type bool
- → SetDensityUnits set of type action
- → ShowColorwashWithMesh query of type bool set of type action
- $\rightarrow$  ShowContoursWithMesh query and set of type bool
- → ShowMeanMesh query of type bool set of type action
- → SliceNumberOfLastCurve query of type action
- $\rightarrow$  SmoothAfterMeshGeneration query and set of type bool
- → SmoothContour set of type action
- → SmoothMeanMesh set of type action
- → SmoothMesh set of type action
- $\rightarrow$  SplineNodeList query and set of type
- $\rightarrow$  **StatUnits** query of type action
- → StatisticsValid query of type action
- $\rightarrow$  StatisticsVolumeLocked query and set of type bool
- → StatsVolumeList query of type action
- → StatsVolumeName query and set of type action
- → **StdDev** query of type action
- $\rightarrow$  StdDevDisplay query of type action
- → StoppingPower query of type float set of type action
- $\rightarrow$  **StoppingPowerOverrideHelper** subobject of type StoppingPowerOverrideHelper
- → **Sum** query of type action
- $\rightarrow~\mathbf{SuppressDVHComputation}$  query of type bool set of type action
- $\rightarrow$  **SurfaceMesh** subobject of type SurfaceMesh
- $\rightarrow$  SurfaceMeshModified set of type action
- → SurfaceMeshToDisplay set of type action
- → SurfaceMeshToTransverseContours set of type action
- → ThinAllContours set of type action
- $\rightarrow$  **Transform** set of type action
- $\rightarrow~\mathbf{UID}$  query and set of type ObjString
- $\rightarrow$  **UndoLastCurve** set of type action
- ightarrow **UpdateVolumeName** set of type action
- $ightarrow \ \mathbf{UpdateWorldCoordsIfMatchingVol} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{UseInterpRoi}$  query and set of type bool
- ightarrow UseSUVForAutoContour query of type action
- $\rightarrow~\mathbf{UseSUVForStats}$  query and set of type bool
- $\rightarrow$  **Volume** query of type action
- $\rightarrow~$  VolumeName query of type string set of type action
- $\rightarrow$  VolumeUnits query of type action
- → VolumeValueUnits query of type action
- → Warped query and set of type bool
- ightarrow WorldToLocalVolTransform query of type action
- $\rightarrow$  XSurfaceMeshOffset query of type action

- $\rightarrow \ \mathbf{YSurfaceMeshOffset} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{ZSurfaceMeshOffset} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

# ${\bf Render Options}$

- $\rightarrow$   $\mathbf{LowerRenderThreshold}$  query and set of type float
- $\rightarrow~\mathbf{RenderFlags}$  query and set of type int
- $\rightarrow~\mathbf{RenderStepSize}$  query and set of type float
- $\rightarrow \ \mathbf{SetPrimaryDataSetDefaults} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{UpperRenderThreshold}$  query and set of type float

### Report

- $\rightarrow~\mathbf{CurrentXPosition}$  query and set of type int
- $\rightarrow$  CurrentYPosition query and set of type int
- $\rightarrow$  **Document** subobject of type Document
- $\rightarrow~\mathbf{HighPageNumber}$  query and set of type int
- $\rightarrow \ \mathbf{NextPage} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PageNumber}$  query and set of type int
- $\rightarrow~\mathbf{QueryObject}$  query and set of type pointer
- $\rightarrow \ \mathbf{ScaleNextQueryWithMsg} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow **TextJustification** query and set of type EnumeratedList with labels
- $\rightarrow$  **TextPointSize** query and set of type int
- $\rightarrow~\mathbf{TextSizeLimit}$  query and set of type int
- $\rightarrow$  **TextStyle** query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{TextUnderline}$  query and set of type bool
- → TextXBlockOffset query of type int set of type action
- $\rightarrow~\mathbf{TextYBlockOffset}$  query of type int set of type action

## ReportRevision

- $\rightarrow \ \mathbf{CurrentReportRevision} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{DoseModifiedSinceLastReport}$  query and set of type bool
- $\rightarrow~\mathbf{DoseRevision}$  query and set of type int
- $\rightarrow~\mathbf{LockedRevision}$  query and set of type ObjString
- $\rightarrow~\mathbf{PoiModifiedSinceLastReport}$  query and set of type bool
- $\rightarrow~\mathbf{PoiRevision}$  query and set of type int
- $\rightarrow$  ReportRevisionChanged query of type action
- $\rightarrow~\mathbf{RoiModifiedSinceLastReport}$  query and set of type bool
- $\rightarrow$  RoiRevision query and set of type int
- $\rightarrow~\mathbf{SavedDuringUpdate}$  query and set of type bool
- $\rightarrow$  **UpdateReportRevision** set of type action
- $\rightarrow \ \mathbf{UpdatedReportRevision} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

#### RoiAtlas

- $\rightarrow~\mathbf{CenterX}$  query and set of type float
- $\rightarrow$  CenterY query and set of type float
- $\rightarrow~\mathbf{CenterZ}$  query and set of type float
- $\rightarrow~{\bf Color}$  query and set of type ObjString
- $\rightarrow~\mathbf{ColorPixel}$  query of type action
- $\rightarrow \ \mathbf{Compute} \mathbf{CenterFromOrgans} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Display2d}$  query and set of type ObjString
- $\rightarrow \ \mathbf{Display2dWithMeshCheck} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Display3d}$  query and set of type ObjString
- $\rightarrow$  **Display3dWithMeshCheck** set of type action
- $\rightarrow$  Line2dWidth query and set of type int
- $\rightarrow~\mathbf{Line2dWidthList}$  query and set of type StringList
- $\rightarrow~\mathbf{Line2dWidthString}$  query and set of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{OrganList}$ list of type RegionOfInterest
- $\rightarrow$  SwitchToAtlasDisplay set of type action
- $\rightarrow~\mathbf{SwitchToRoiDisplay}$  set of type action
- $\rightarrow~\mathbf{SynchOrganDisplay}$  query and set of type bool
- $\rightarrow \ \mathbf{UpdateOrganDisplay} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

## RoiExpandControl

- $\rightarrow~\mathbf{CheckTargetRoi}$  set of type action
- → ConstantPadding query and set of type float
- $\rightarrow$  CreateNewTarget query and set of type bool
- → **DoExpand** set of type action
- $\rightarrow$  **DoGroupExpand** set of type action
- $\rightarrow~\mathbf{DoGroupRingExpansion}$  set of type action
- $\rightarrow~\mathbf{DoRingExpansion}$  set of type action
- $\rightarrow$  **Expand** query and set of type bool
- $\rightarrow$  **NegXPadding** query and set of type float
- $\rightarrow$  **NegYPadding** query and set of type float
- ightarrow NegZPadding query and set of type float
- $\rightarrow$  **PosXPadding** query and set of type float
- $\rightarrow$  **PosYPadding** query and set of type float
- ightarrow PosZPadding query and set of type float
- $\rightarrow$  TargetRoi query and set of type action
- $\rightarrow~\mathbf{TargetRoiName}$  query of type ObjString set of type action
- $\rightarrow~\mathbf{UseConstantPadding}$  query and set of type bool

#### RoiManager

- $\rightarrow$  AdaptSurfaceMesh set of type action
- → AddToGroupRoiList set of type action
- → **AtlasList** list of type RoiAtlas
- → BeginMessageBatch set of type action
- $\rightarrow$   ${\bf Cancel Propagation}$  query and set of type bool
- → CleanMesh set of type action
- → ConvertAllMeshToContours set of type action
- $\rightarrow$  CopyOrganModelToMesh set of type action
- $\rightarrow \ \mathbf{CreateRoiGroup} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  CurrentRoiList list of type RegionOfInterest
- $\rightarrow$  **DeformablyPropagate** query and set of type bool
- $\rightarrow$  **DeformablyPropagateOrgans** set of type action
- → **DeformationValid** query of type action
- → **DeleteRoiGroup** set of type action
- → EndMessageBatch set of type action
- $\rightarrow \ \mathbf{LinkMeshDisplayToVolDisplay} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{LoadCenter} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → Magnify set of type action
- → PropagateFromRecord set of type action
- → **PropagateOrgans** set of type action
- $\rightarrow$  **PropagatingRois** query and set of type bool
- $\rightarrow \ \mathbf{RemoveFromAllAtlases} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RemoveFromGroupRoiList set of type action
- → **RepairOverlap** set of type action
- → ResetGroupRoiListSelection set of type action
- → ResetUID set of type action
- $\rightarrow~\mathbf{RoiGroupList}$ list of type RoiGroup
- $\rightarrow$  RoiListName query and set of type action
- $\rightarrow$  SmoothMeanMesh set of type action
- → SmoothMesh set of type action
- $\rightarrow$  SurfaceMesh set of type action
- → **TempRoiList** list of type RegionOfInterest
- → UpdateTempRoiList set of type action

# ${\bf RoiOrder}$

- $\rightarrow~\mathbf{Order}$  query and set of type int
- $\rightarrow$  **Roi** query and set of type pointer

# ${\bf RoiSequence}$

- $\rightarrow \ \mathbf{Add} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Build} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Delete}$  set of type action
- $\rightarrow~\mathbf{Lock}$  query and set of type bool
- $\rightarrow~\mathbf{OrderList}$ list of type Roi<br/>Order
- $\rightarrow$  **Rebuild** set of type action
- $\rightarrow~\mathbf{Reorder}$  set of type action
- $\rightarrow~\mathbf{TargetRoi}$  query and set of type pointer
- $\rightarrow~\textbf{ToggleOverriding}$  set of type action

# ${\bf RoiTemplate Group}$

- $\rightarrow \ \mathbf{AddTemplateFromFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{AtlasList}$ list of type Roi<br/>Atlas
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{CurrentTemplateAtlasName}$  query and set of type action
- ightarrow **DeleteCurrentTemplate** set of type action
- $\rightarrow~\mathbf{DirectoryName}$  query and set of type ObjString
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Name}$  query of type ObjString set of type action
- ightarrow TemplateList list of type RegionOfInterest

#### RoiTemplateLib

- $\rightarrow$  AddGroup set of type action
- → CheckName set of type action
- $\rightarrow \ \mathbf{ConfirmPermanentChange} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → CreateFromCurrentAtlas set of type action
- → CreateFromCurrentGroup set of type action
- → CreateFromCurrentTemplate set of type action
- $\rightarrow$  CreateFromSpecificTemplate set of type action
- → CreateRootIfNecessary set of type action
- $\rightarrow$  **DeleteGroup** set of type action
- $\rightarrow~\mathbf{FileHierarchy}$  query of type action
- $\rightarrow~\mathbf{GroupList}$ list of type Roi Template<br/>Group
- $\rightarrow$  ImportRoiLibrary set of type action
- $\rightarrow$  LibRootPath query and set of type ObjString
- $\rightarrow$  LoadByName set of type action
- $\rightarrow$  LoadFullLib set of type action
- → MergeUpdateAuthorField set of type action
- $\rightarrow$  MergeWithCurrentTemplate set of type action
- $\rightarrow$  MoveTemplateToGroup set of type action
- $\rightarrow~\mathbf{NameOfModifyingAuthor}$  query of type ObjString set of type action
- $\rightarrow$   $\bf NotRestoreList$  query and set of type ObjString
- $\rightarrow \ \mathbf{RestoreFactorySettings} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{RestoreList}$  query and set of type ObjString
- $\rightarrow~\mathbf{RoiLibraryImportFileList}$  subobject of type FileList
- → SaveROIAsNewTemplate set of type action
- $\rightarrow \ \mathbf{SelectByName} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

#### Root

- $\rightarrow$  **AnyEventPending** query of type action
- $\rightarrow$  **Beep** set of type action
- $\rightarrow$  BlockAllInputCallbacks set of type action
- → BuildDateAndTime query and set of type ObjString
- $\rightarrow$  BuildYear query of type action
- → Button1Pushed query of type action
- $\rightarrow$  Class query and set of type action
- → ClassBrowserList list of type ClassBrowser
- $\rightarrow$  **DeferDisplayUpdate** query and set of type action
- → Echo query and set of type action
- $\rightarrow$  False query of type action
- → FileErrorHierarchy query of type action
- → FileErrorList list of type ObjectList
- → GetEnv query of type action
- $\rightarrow$  **IF** query and set of type action
- $\rightarrow~{\bf IsVerbose}$  query and set of type bool
- $\rightarrow~\mathbf{LexicalTimeStamp}$  query of type action
- $\rightarrow~\mathbf{LogStatusMaxAllowedReportLevel}$  query and set of type action
- $\rightarrow$  **Malloc** set of type action
- $\rightarrow$  **Message** set of type action
- $\rightarrow$  **NEG** query of type action
- → **Number** query of type action
- $\rightarrow$  ReportMemUsage set of type action
- → ResolveDependencies set of type action
- → SpawnCommand set of type action
- → SpawnCommandNoWait set of type action
- ightarrow **Test** subobject of type Test
- → **True** query of type action
- → UpdateClassBrowserList set of type action
- $\rightarrow$  **UserName** query of type action
- $\rightarrow$  WaitMessage set of type action
- → WaitMessageNoCursor set of type action
- $\rightarrow$  WaitMessageOff set of type action

#### **SFBR**

- $\rightarrow$  **Anatomy** query and set of type string
- → AnatomyList query of type StringList
- → **BBendX** query and set of type int
- $\rightarrow$  **BBendY** query and set of type int
- → **BBendZ** query and set of type int
- $\rightarrow$  **BBstartX** query and set of type int
- → **BBstartY** query and set of type int
- $\rightarrow$  **BBstartZ** query and set of type int
- $\rightarrow$  BeginMessageBatch set of type action
- $\rightarrow$  Cancel set of type action
- $\rightarrow$  CancelDeforming query and set of type bool
- $\rightarrow$  ClassName query of type string
- → ComputeSimulatedDeformation set of type action
- → CreateNewDeformedVol query and set of type bool
- $\rightarrow$  **DVFEditState** query and set of type bool
- $\rightarrow$  **DVFdisplayType** query and set of type bool
- $\rightarrow$  **DVFvolumeFlag** query and set of type bool
- $\rightarrow$  **DeformNonPrimary** query and set of type bool
- ightarrow **DeformPrimaryToSecondary** query and set of type bool
- ightarrow **DeformationStatus** query and set of type string
- $\rightarrow$  **Deforming** query of type bool
- $\rightarrow$  **Destroy** set of type action
- ightarrow EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- → ExportDeformationMapAction set of type action
- → ExportDeformationMapBool query and set of type bool
- → GridLineColor query and set of type string
- $\rightarrow~\mathbf{GridLineWidth}$  query and set of type int
- → ImportDVF set of type action
- → InstanceName query of type string
- → IsAutoBB query and set of type bool
- $\rightarrow$  **IsBoundingBoxPresent** query and set of type bool
- → **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- → MIFlag query and set of type bool
- $\rightarrow$  MSDscoreAfter query and set of type double
- → MSDscoreBefore query and set of type double
- $\rightarrow$  MaskCompare set of type action
- → ModalityPair query and set of type bool
- $\rightarrow$  NoiseRemovalFlag query and set of type bool
- → PerformSyntegraRigidRegistration set of type action

- $\rightarrow$  **PluginName** query of type string
- $\rightarrow$  **PropagateInPlace** query and set of type bool
- $\rightarrow$  ReWarpROI query of type bool
- $\rightarrow$  ReconstructDVFgrid set of type action
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  **Run** set of type action
- $\rightarrow$  **StartDeformation** set of type action
- $\rightarrow$  **StopDeformation** set of type action
- → SyncDVF set of type action
- $\rightarrow$  **UnitTestMode** query and set of type bool
- → UseAtlasSegmentedROIs query and set of type bool
- $\rightarrow~\mathbf{UseManualBB}$  query and set of type bool
- $\rightarrow$  Verbose query of type bool set of type action
- $\rightarrow$  VolToDeformFromName query and set of type string
- → VolToDeformFromNameFiltered query of type string
- → VolToDeformToName query and set of type string
- ightarrow VolToDeformToNameFiltered query of type string
- $\rightarrow$  WarpROIs set of type action
- $\rightarrow$  **XgridSpacing** query and set of type int
- → YgridSpacing query and set of type int
- $\rightarrow$  **ZgridSpacing** query and set of type int
- $\rightarrow$  rigidRegFlag query and set of type bool

## ${\bf SVDDose Engine}$

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Cancel}$  set of type action
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{IsNewer}$  query of type bool
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~{\bf Revision}$  query of type string
- $\rightarrow$  **Run** set of type action
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

### Scraper

- $\rightarrow~\mathbf{BeginMessageBatch}$  query and set of type bool
- $\rightarrow$  EndMessageBatch query and set of type bool
- → HalfXAperture query of type float set of type action
- $\rightarrow~$  HalfXOutside query of type float set of type action
- $\rightarrow~\mathbf{HalfYAperture}$  query of type float set of type action
- $\rightarrow~$  HalfYOutside query of type float set of type action
- → **IsAnnular** query of type action
- → **IsDivergent** query and set of type bool
- → **IsRemovedForCutout** query and set of type bool
- $\rightarrow~\mathbf{MassDensity}$  query of type float set of type action
- $\rightarrow\,$  Material query of type ObjString set of type action
- → Name query and set of type ObjString
- $\rightarrow$  **Shape** query and set of type EnumeratedList with labels
- → SourceToScraperDistance query and set of type float
- $\rightarrow~\mathbf{Thickness}$  query and set of type float

#### Seed

- $\rightarrow$  **ActiveLengthInCM** query of type action
- → **Activity** set of type action
- → ActivityUnits query and set of type
- → ActualDirectionX query and set of type float
- $\rightarrow~\mathbf{Actual Direction Y}$  query and set of type float
- $\rightarrow$  **ActualDirectionZ** query and set of type float
- → ArrayXIndex query and set of type int
- → ArrayYIndex query and set of type int
- → ArrayZIndex query and set of type int
- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  CalibrationDistance query and set of type
- → CatheterName query and set of type ObjString
- → CenterPositionX query and set of type float
- $\rightarrow$  CenterPositionY query and set of type float
- $\rightarrow$  CenterPositionZ query and set of type float
- → **Description** query of type action
- $\rightarrow$  **DisplayChangeNode** query of type action
- → **DisplayOn** query and set of type bool
- → DistanceToActiveBase guery and set of type action
- $\rightarrow~\mathbf{DistanceToActiveTip}$  query and set of type action
- $\rightarrow~\mathbf{DistanceToSeedBase}$  query and set of type action
- $\rightarrow~\mathbf{DistanceToSeedCenter}$  query and set of type float
- ightarrow **DistanceToSeedTip** query and set of type action
- → DrawWithHighlight query and set of type bool
   → DwellTimeDescription query of type action
- → EndMessageBatch set of type action
- → InnerColor query and set of type
- $\rightarrow$  InstallPotentialDirection set of type action
- → **IsAtCatheterTip** query and set of type bool
- → IsInCatheter query of type action
- → IsInSeedArray query and set of type bool
- → **IsotopeName** set of type action
- → Name query and set of type ObjString
- $\rightarrow$  **NominalDwellTime** query and set of type float
- → NominalDwellTimeInSeconds query of type action
- → NormalizePotentialDirection set of type action
- → OuterColor query and set of type
- $\rightarrow$  **PotentialDirectionX** query and set of type float
- → PotentialDirectionY query and set of type float
- $\rightarrow$  **PotentialDirectionZ** query and set of type float
- $\rightarrow$  **SeedGroup** query and set of type

- $\rightarrow~\mathbf{SeedGroupName}$  query and set of type action
- $\rightarrow~\mathbf{SeedLengthInCM}$  query of type action
- $\rightarrow~\mathbf{SetSeedGroupList}$  set of type action
- $\rightarrow~{\bf ShortDescription}$  query of type action
- $\rightarrow~\mathbf{TimeUnits}$  query and set of type Enumerated List with labels
- ightarrow **UseDwellTime** query and set of type bool

#### **SeedArray**

- $\rightarrow~\mathbf{CatheterLength}$  query and set of type float
- → Color query and set of type ObjString
- $\rightarrow$   ${\bf CoordSystem}$  subobject of type CoordSystem
- $\rightarrow$  **DisplayEnabled** query and set of type bool
- $\rightarrow~\mathbf{FrontPlaneOffset}$  query and set of type float
- → InstallContainerObject set of type action
- → InstallDefaultTemplate set of type action
- → InstallTemplate set of type action
- $\rightarrow$  InstallVolume set of type action
- $\rightarrow$   ${\bf IsLocked}$  query and set of type bool
- $\rightarrow$  LoadStructures set of type action
- → MultiSeedCathColor query and set of type ObjString
- $\rightarrow$  **PositionDefined** query and set of type bool
- → SingleSeedCathColor query and set of type ObjString
- $\rightarrow \ \mathbf{StructureLoadControl}$  subobject of type RoiExpandControl
- $\rightarrow$  **StructureNameList** list of type SimpleString
- $\rightarrow \ \mathbf{SynchronizeAllCatheters} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Template}$  subobject of type Brachy Template
- $\rightarrow~\mathbf{TemplateName}$  query and set of type action
- $\rightarrow~\mathbf{XDimension}$  query and set of type int
- $\rightarrow~\mathbf{YDimension}$  query and set of type int
- $\rightarrow~{\bf ZDimension}$  query and set of type int

### SeedGroup

- $\rightarrow$  **BeginMessageBatch** set of type action
- → CalibratedSource subobject of type CalibratedSource
- $\rightarrow \ \mathbf{CopyCalibratedSource} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Description** query of type action
- $\rightarrow$  **Display2d** query and set of type bool
- $\rightarrow$  **Display3d** query and set of type bool
- $\rightarrow$  **DisplayActiveLength** query and set of type bool
- $\rightarrow~\mathbf{DisplayAsCylinder}$  query and set of type bool
- $\rightarrow~\mathbf{DisplayDiameter}$  query and set of type float
- $\rightarrow$  EndMessageBatch set of type action
- → **HighlightColor** query and set of type ObjString
- → InnerColor query and set of type ObjString
- → InstallIsotopeVersion set of type action
- → **Isotope** subobject of type Isotope
- $\rightarrow$  **IsotopeName** query and set of type action
- $\rightarrow$  **IsotopeNameAndVersion** query and set of type action
- $\rightarrow$  MatchingCalibratedSource query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  **OuterColor** query and set of type ObjString
- $\rightarrow$  **SeedList** query and set of type
- → UseDisplayDiameter query and set of type bool
- $\rightarrow~\mathbf{UseDisplayDiameterLabel}$  query and set of type bool

#### SegmentSorterManager

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → ClassName query of type string
- $\rightarrow \ \mathbf{ComputeCompositeTravelDistance} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → Current subobject of type BruteForceSorter
- $\rightarrow$  CurrentCompositeTravelDistance query of type float
- → CurrentType query and set of type string
- $\rightarrow~\mathbf{CurrentTypeIs}$  query of type bool
- → CurrentWindowLayoutIndex query and set of type int
- $\rightarrow$  CurrentWindowLayoutIs query of type bool
- $\rightarrow~\mathbf{CurrentWindowLayoutString}$  query and set of type string
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  **FinalCompositeTravelDistance** query of type float
- $\rightarrow$  InitialCompositeTravelDistance query of type float
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  InterfaceCount query of type int
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  LargestSegmentCount query of type int
- $\rightarrow$  LargestSegmentFirst query and set of type bool
- $\rightarrow~\mathbf{SortAllBeams}$  set of type action
- $\rightarrow \ \mathbf{SortBeam} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{int}$
- $\rightarrow$  **SortCurrentBeam** set of type action
- $\rightarrow~\mathbf{TypeList}$  query of type StringList
- $\rightarrow~\mathbf{WindowTabList}$  query of type StringList

### SharedLib

- $\rightarrow~\mathbf{ClearErrorMessage}$  set of type action
- $\rightarrow$  **Close** set of type action
- $\rightarrow~\mathbf{ErrorMessage}$  query of type action
- $\rightarrow~\mathbf{FileName}$  query and set of type action
- $\rightarrow$  **Handle** query of type action
- $\rightarrow~\mathbf{HasSymbol}$  query of type action
- $\rightarrow$  **IsActivated** query of type action
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type bool
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{Reload}$  set of type action
- $\rightarrow$  **Symbol** query of type action

### ${\bf Siemens Dynamic Wedge}$

- $\rightarrow \ \mathbf{DefaultAngleType} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **DisplayProfile** set of type action
- $\rightarrow$  FillTransmissionProfile set of type action
- $\rightarrow$   $\mathbf{HighMaxDoseRate}$  query and set of type float
- $\rightarrow~\mathbf{HighMinDoseRate}$  query and set of type float
- ightarrow IsSiemensDynamicWedge query of type action
- $\rightarrow$  LowMaxDoseRate query and set of type float
- $\rightarrow~\mathbf{LowMinDoseRate}$  query and set of type float
- $\rightarrow$  MaxJawSpeed query and set of type float
- $\rightarrow~\mathbf{MinJawSpeed}$  query and set of type float
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type bool
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{ProfileValidity}$  query and set of type action
- → SiemensLinearAttenuation query and set of type float
- $\rightarrow~\mathbf{SiemensUserDefinedConstant}$  query and set of type float
- $\rightarrow~\mathbf{UnitTesting}$  query and set of type bool
- $\rightarrow~\mathbf{VirtualWedgeIsDeliverable}$  query of type action

### SimpleLockFile

- $\rightarrow~\mathbf{BinArchitectureDirectory}$  query and set of type ObjString
- $\rightarrow$  **BinCommonDirectory** query and set of type ObjString
- $\rightarrow$  **FileName** query and set of type ObjString
- $\rightarrow~\mathbf{Host}$  query and set of type ObjString
- $\rightarrow~\mathbf{IsLocked}$  query of type action
- $\rightarrow~\mathbf{IsLockedNoWarning}$  query of type action
- ightarrow IsLockedWithTimeout query of type action
- $\rightarrow~\mathbf{IsStaleLock}$  query of type action
- $\rightarrow~\mathbf{Lock}$  set of type action
- $\rightarrow~\mathbf{LockMessage}$  query of type action
- $\rightarrow \ \mathbf{NotStaleWithTimeout} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PID}$  query and set of type int
- $\rightarrow$  **Unlock** set of type action
- $\rightarrow~\mathbf{User}$  query and set of type ObjString

# ${\bf Simple String}$

- $\rightarrow \ \mathbf{AppendString} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Contains}$  query of type action
- $\rightarrow \ \mathbf{Execute} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Is}$  query of type action
- $\rightarrow \ \mathbf{IsNull} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  Matches query of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{String}$  query and set of type ObjString
- $\rightarrow~$  Value query and set of type ObjString

# ${\bf SimplexOptimizer}$

- $\rightarrow~\mathbf{Alpha}$  query and set of type float
- $\rightarrow~\mathbf{Beta}$  query and set of type float
- $\rightarrow$   $\,$  Function query and set of type pointer
- $\rightarrow~\mathbf{FunctionData}$  subobject of type BeamPoiWeightOptimizer
- $\rightarrow$  Gamma query and set of type float
- $\rightarrow$  MaxIterations query and set of type int
- $\rightarrow~\mathbf{NumDimensions}$  query and set of type int
- $\rightarrow~\mathbf{NumberOfRestarts}$  query and set of type int
- $\rightarrow$  SimplexScale query and set of type float
- $\rightarrow~{\bf Solution Tolerance}$  query and set of type float
- $\rightarrow \ \mathbf{UnitTest} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

# ${\bf Site Response Data}$

- $\rightarrow \ \mathbf{AddResponse} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{DeleteCurrentResponse} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow~\mathbf{InstanceName}$  query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~$  Name query and set of type string
- $\rightarrow~\mathbf{ResponseList}$ list of type BioResponse

#### ${\bf Sliding Window Converter}$

- → AllowConversionWithFixedJaw query and set of type bool
- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  Cancel set of type action
- → CancelConversion query and set of type bool
- → ClassName query of type string
- → ClearUnitTestData set of type action
- → ComputeEffectiveODM set of type int
- → ComputeEffectiveODMCurrentBeam set of type action
- $\rightarrow~\mathbf{ComputeODMDifference}$  query and set of type bool
- → ConvertAllBeams set of type action
- → ConvertBeam set of type int
- → Converting query of type bool
- → CorrectForRoundedLeafEnds query and set of type bool
- → Destroy set of type action
- $\rightarrow$  **DoseRate** set of type float
- → EndLeavesSimultaneously query and set of type bool
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- → FilterODM query and set of type bool
- → InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- → **IsNewer** query of type bool
- → KernelSize query and set of type int
- → LeafJawOverlap query and set of type
- ightarrow MUTrimmingAbsoluteDiffLimit query and set of type float
- → MUTrimmingMaximumIterationCount query and set of type int
- $\rightarrow$  MUTrimmingPercentDiffLimit query and set of type float
- $\rightarrow$  MaxLeafSpeed set of type float
- ightarrow MaxNumberOfControlPoints query and set of type int
- $\rightarrow \ \mathbf{MaximizeControlPointCount}$  query and set of type bool
- → OutputUnitTestResults set of type action
- $\rightarrow$  **PluginName** query of type string
- $\rightarrow$  **Revision** query of type string
- $\rightarrow$  Run set of type action
- → **StopConversion** set of type action
- ightarrow **TrialList** list of type DCITrial
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### **StatMoments**

- $\rightarrow$  **AddPoint** set of type action
- $\rightarrow \ \mathbf{BroadcastChange} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~{\bf Clear}$  set of type action
- $\rightarrow \ \mathbf{MeanSquaredValue} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  **MeanValue** query of type action
- $\rightarrow~\mathbf{StdDev}$  query of type action
- $\rightarrow~\mathbf{SumOfRawWeights}$  query and set of type double
- $\rightarrow~\mathbf{SumOfWeightedRawValues}$  query and set of type double
- $\rightarrow~\mathbf{SumOfWeightedRawValuesSquared}$  query and set of type double
- $\rightarrow~\mathbf{TotalWeight}$  query of type double
- $\rightarrow~$  Variance query of type action

#### StepAndShootConverter

- → **ActualError** query of type float
- $\rightarrow$  **ActualLevels** query of type int
- → AllClosedLeafPairsOnSameSide query and set of type bool
- → BeginMessageBatch set of type action
- → Cancel set of type action
- → CancelConversion query and set of type bool
- → ClassName query of type string
- → ClearUnitTestData set of type action
- → ComputeEffectiveODM set of type int
- ightarrow ComputeEffectiveODMCurrentBeam set of type action
- $\rightarrow$  ComputeODMDifference query and set of type bool
- → ConvertAllBeams set of type action
- → ConvertBeam set of type int
- $\rightarrow$  Converting query of type bool
- $\rightarrow$  CorrectForRoundedLeafEnds query and set of type bool
- → Destroy set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- → FilterODM query and set of type bool
- → FluenceImportanceFactor query and set of type float
- ightarrow GradientImportanceFactor query and set of type float
- $\rightarrow~\mathbf{HeadScatterCorrectionPixelSize}$  query and set of type float
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow \ \mathbf{IsNewer} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  **KernelSize** query and set of type int
- $\rightarrow$  **LeafJawOverlap** query and set of type
- $\rightarrow$  Levels query and set of type int
- $\rightarrow~$  Minimize query and set of type string
- → MinimizeList query of type StringList
- $\rightarrow$  MinimumMUSetting query and set of type float
- ightarrow MinimumOpenArea query and set of type float
- $\rightarrow$  **OutputUnitTestResults** set of type action
- $\rightarrow$  **PluginName** query of type string
- $\rightarrow \ \, \mathbf{Revision} \,\, \mathrm{query} \,\, \mathrm{of} \,\, \mathrm{type} \,\, \mathrm{string}$
- $\rightarrow$  **Run** set of type action
- → SegmentWeightOptimization query and set of type bool
- $\rightarrow$  SortSegmentsAfterConversion query and set of type bool
- → StopConversion set of type action
- $\rightarrow$  **Tolerance** query and set of type float
- → **TrialList** list of type DCITrial

$\rightarrow$	${\bf Unit Test Mode}$	query	and	set	of	type	boo	l
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$\rightarrow$	UseSimp	${f lexOptim}$	ization	query	and	set	of ·	type	bool
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#### StereoCollimatorData

- $\rightarrow$   $\bf BackScatterFactor$  query and set of type float
- $\rightarrow~\mathbf{Collimator Diameter}$  query and set of type float
- $\rightarrow~$  Collimator Name query and set of type ObjString
- $\rightarrow~\mathbf{CollimatorObject}$  query and set of type pointer
- $\rightarrow~\mathbf{DiFileChecksum}$  query and set of type ObjString
- $\rightarrow$  **Diameter** query and set of type float
- → Name query and set of type ObjString
- ightarrow PencilFileChecksum query and set of type ObjString
- $\rightarrow~\mathbf{RelativeOutputFactor}$  query and set of type float
- → ResetChecksums set of type action
- → StereoPhysicsDataObject subobject of type String
- $\rightarrow~\mathbf{TARFileChecksum}$  query and set of type ObjString

### StereoFrame

- $\rightarrow~{\bf AngioFrame}$  subobject of type AngioFrame
- $\rightarrow$  **DefaultRodSearchThreshold** query and set of type float
- $\rightarrow$  **DefaultTopRowForRodSearch** query and set of type int
- → FrameBaseCoordinate query and set of type float
- $\rightarrow$  FrameHeight query and set of type float
- → FrameRodAngleInDegrees query and set of type float
- $\rightarrow$  FrameType query of type ObjString set of type action
- → IsNFrame query of type action
- ightarrow IsVFrame query of type action
- → Name query and set of type ObjString
- ightarrow NumberOfRods query of type int set of type action
- $\rightarrow~\mathbf{PatientInferiorIsPositiveZ}$  query and set of type bool
- $\rightarrow~\mathbf{PatientPosteriorIsPositiveY}$  query and set of type bool
- $\rightarrow~\mathbf{PatientRightIsPositiveX}$  query and set of type bool
- $\rightarrow$  **Rods** list of type StereoRod
- $\rightarrow~\mathbf{Side1SlantTowardLowerRod}$  query and set of type bool
- $\rightarrow~\mathbf{Side2SlantTowardLowerRod}$  query and set of type bool
- $\rightarrow~\mathbf{Side3SlantTowardLowerRod}$  query and set of type bool
- $\rightarrow~\mathbf{Side4SlantTowardLowerRod}$  query and set of type bool
- $\rightarrow~\mathbf{TopLeftRodIndex}$  query and set of type int
- $\rightarrow$  TopRightRodIndex query and set of type int
- $\rightarrow~\mathbf{Units}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{UnitsList}$  query and set of type StringList
- → **XCoordLabel** query and set of type ObjString
- $\rightarrow~\mathbf{YCoordLabel}$  query and set of type <code>ObjString</code>
- → **ZCoordLabel** query and set of type ObjString

#### StereoLocalizer

- → AddDependency set of type action
- → AngioLocalizer subobject of type AngioLocalizer
- → AutoFindAllSlices set of type action
- → BeginMessageBatch query and set of type bool
- → Color query and set of type ObjString
- $\rightarrow$  ComputingTransformationsOnAllSlicesMessage query of type action
- → **Description** query of type action
- → **DisplayMode** query and set of type ObjString
- → **DisplayPOI** subobject of type Poi
- → EndMessageBatch query and set of type bool
- $\rightarrow$  FindAllRodCenters set of type action
- → FindCurrentRodCenter set of type action
- $\rightarrow$  FindingRodsOnAllSlicesMessage query of type action
- → FinishPosition set of type action
- $\rightarrow$  FrameIsRemoved query and set of type bool
- $\rightarrow$  GetTransformFromLocalizer set of type action
- → GetTransformToLocalizer set of type action
- → IsValidForLocalizing query of type action
- → Name query of type action
- → PerformAutoFind set of type action
- → RemoveDependency set of type action
- → RemoveFrame set of type action
- → RestoreFrame set of type action
- → SetReferencePoint set of type action
- $\rightarrow$  SliceDataList list of type StereoSliceData
- → StartPosition set of type action
- → **StereoFrame** subobject of type StereoFrame
- → StereoFrameName query and set of type action
- → TrackPosition set of type action
- → TransformFromLocalizer set of type action
- → TransformToLocalizer set of type action
- → TransformVectorFromLocalizer set of type action
- → TransformVectorToLocalizer set of type action
- $\rightarrow$  **Units** query of type action
- → Volume subobject of type Volume
- → VolumeName query and set of type action
- → XCoordLabel query of type action
- → YCoordLabel query of type action
- $\rightarrow$  **ZCoordLabel** query of type action

### StereoPhysicsData

- $\rightarrow~\mathbf{BackScatterFactor10x10}$  query and set of type float
- $\rightarrow$  **DepthBinCount** query and set of type int
- $\rightarrow$  **DepthBinWidth** query and set of type float
- $\rightarrow~\mathbf{DosePerMuInAir10x10}$  query and set of type float
- $\rightarrow \ \mathbf{InterpolateCurrentBSF} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{InvalidateDoseProfiles} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  LowerSSD query and set of type float
- $\rightarrow$  **MeasureGeometryList** list of type MeasureGeometry
- → ModificationDependency query of type action
- $\rightarrow$  RadiiPerTable query and set of type int
- $\rightarrow~\mathbf{RadiusBinCount}$  query and set of type int
- $\rightarrow$  RadiusBinWidth query and set of type float
- $\rightarrow$  **SetCollimatorList** set of type action
- $\rightarrow$  **StereoCollimatorDataList** list of type StereoCollimatorData
- $\rightarrow~\mathbf{UpperSSD}$  query and set of type float

# StereoRod

- $\rightarrow~{\bf Color}$  query and set of type ObjString
- $\rightarrow~\mathbf{Diameter}$  query and set of type float
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow~\mathbf{XCoordinate}$  query and set of type float
- $\rightarrow~\mathbf{YCoordinate}$  query and set of type float

#### StereoSliceData

- $\rightarrow$  ComputeTransformation set of type action
- → **Description** query of type action
- $\rightarrow~\mathbf{ErrorEstimate}$  query and set of type float
- $\rightarrow$  ErrorLimit query and set of type float
- $\rightarrow$  **FinishRodRepositioning** set of type action
- $\rightarrow$  **FrameToWorld** subobject of type Transform
- $\rightarrow$  InitializeToPosition set of type action
- $\rightarrow \ \mathbf{MoveCurrentRodToPosition} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{PointStorageDone}$  query and set of type action
- ightarrow PointStorageForPersistence query of type action
- → RodPositionList list of type Poi
- $\rightarrow$  RodSearchThreshold query and set of type float
- → SearchMinPoints query and set of type int
- → SearchSpiralLength query and set of type int
- $\rightarrow$  **SelectRodFromPosition** set of type action
- $\rightarrow$   $\bf SliceCoordinate$  query and set of type float
- $\rightarrow~\mathbf{StatusMessage}$  query and set of type ObjString
- $\rightarrow~\mathbf{StereoFrame}$  query and set of type
- $\rightarrow~{\bf StereoFrameObject}$  query of type pointer set of type action
- $\rightarrow~\mathbf{TopRowForRodSearch}$  query and set of type int
- $\rightarrow~\mathbf{TransformationValid}$  query and set of type bool
- $\rightarrow~\mathbf{WorldToFrame}$  subobject of type Transform

# ${\bf String Key Dict}$

- $\rightarrow~\mathbf{At}$  query and set of type action
- $\rightarrow \ \mathbf{DestroyObjectsOnFree} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{FloatAt}$  query and set of type action
- $\rightarrow~\mathbf{FreeAt}$  query and set of type action
- ightarrow ModificationDependency query of type action
- $\rightarrow$  **NumRows** query of type action
- $\rightarrow$  **PersistenceList** query and set of type action
- $\rightarrow~\mathbf{RemoveAt}$  query and set of type action
- $\rightarrow$  RowHeader query of type action
- $\rightarrow~\mathbf{StringAt}$  query and set of type action
- $\rightarrow$  Value query and set of type action

#### SurfaceMesh

- → AdaptationType query and set of type EnumeratedList with labels
- → AdaptationTypeIndex query and set of type int
- → AdaptationTypeList query and set of type StringList
- → AllocateDeformedVertices set of type action
- → AllowAdaptation query and set of type bool
- → AutoCleanContours query and set of type bool
- → AutoSmoothMesh query and set of type bool
- → **AvoidROIName** query and set of type ObjString
- → BeginMessageBatch set of type action
- → BufferMesh set of type action
- $\rightarrow$  CenterX query and set of type float
- $\rightarrow$  CenterY query and set of type float
- $\rightarrow$  CenterZ query and set of type float
- → CleanMesh set of type action
- → ComputeCenter set of type action
- $\rightarrow$  CopyMeshToOrganModel set of type action
- → CopyMeshToOrganModelNoWarning set of type action
- → CopyOrganModelToMesh set of type action
- $\rightarrow$  **DefaultDeformWeight** query and set of type float
- $\rightarrow$  **DeformWeight** query and set of type float
- $\rightarrow~\mathbf{DeformedCount}$  query and set of type int
- $\rightarrow$  **DistanceWeight** query and set of type float
- $\rightarrow$  EndMessageBatch set of type action
- → FeatureDetector subobject of type FeatureDetector
- → FeatureWeight query and set of type
- $\rightarrow$  **FinishPencil** set of type action
- → FreeMesh set of type action
- $\rightarrow$   ${\bf Gaussian Tool Radius}$  query and set of type float
- → InternalWeight query and set of type float
- → IsValid query of type action
- → Magnify set of type action
- $\rightarrow$  MagnifyIncrement query and set of type float
- → MaxIterations query and set of type int
- → MeanMeshSamples query and set of type action
- → MergeTriMeshWithMeanMesh set of type action
- → NumberOfMeanMeshTriangles query of type action
- → NumberOfMeanMeshVertices query of type action
- → NumberOfModes query and set of type int
- → NumberOfTriangles query and set of type int
- $\rightarrow$  NumberOfVertices query and set of type int
- $\rightarrow$  **OKToUndo** query and set of type bool

- → **Orient** set of type action
- → Parent subobject of type RegionOfInterest
- $\rightarrow$  **PixelSize** query and set of type
- $\rightarrow$  **PreparePencil** set of type action
- $\rightarrow$  **ProfileLength** query and set of type
- ightarrow PullPencilInPlaneCapture query and set of type float
- $\rightarrow$  PullPencilToPlaneCapture query and set of type float
- $\rightarrow$   ${\bf RepairBetweenIterations}$  query and set of type bool
- → RepairOverlap set of type action
- → ReplaceMeanMesh query and set of type bool
- → Rotate set of type action
- → RotationIncrement query and set of type float
- → SmoothBetweenIterations query and set of type bool
- → SmoothIterations query and set of type int
- → SmoothMeanMesh set of type action
- → SmoothMesh set of type action
- → SphereToolRadius query and set of type float
- $\rightarrow$  SurfaceWeight query and set of type float
- → TrackDeformedVertices query and set of type bool
- $\rightarrow$  **TranslateCM** set of type action
- → TranslateIncrementCM query and set of type float
- → **Undo** set of type action
- → UnsetDeformVertices set of type action
- → UserDistanceWeight query and set of type action
- → UserInternalWeight query and set of type action
- → VertexDragCurvature query and set of type float
- $\rightarrow~\mathbf{VertexDragNeighborLayers}$  query and set of type int
- $\rightarrow$  WorldCenterX query and set of type action
- $\rightarrow$   $\mathbf{WorldCenterY}$  query and set of type action
- $\rightarrow$  WorldCenterZ query and set of type action
- $\rightarrow$  **XDisplayOffset** query of type action
- → YDisplayOffset query of type action
- $\rightarrow$  **ZDisplayOffset** query of type action
- $\rightarrow~{\bf ZeroSampleStop}$  query and set of type

### SyntegraPreferences

- $\rightarrow~\mathbf{Apply}$  set of type action
- $\rightarrow$  **ApplyVolumeDisplayPrefs** set of type action
- $\rightarrow$  **AutoregistrationAlgorithm** query and set of type ObjString
- $\rightarrow~\mathbf{Initial View Layout}$  query and set of type Enumerated List with labels
- $\rightarrow$   $\mathbf{MoveSecCenterToPrimaryCenter}$  query and set of type bool
- $\rightarrow~\mathbf{PrimaryColor2d}$  query and set of type ObjString
- $\rightarrow~\mathbf{PrimaryColorRampFunc}$  query and set of type ObjString
- $\rightarrow~\mathbf{PrimaryLevel}$  query and set of type float
- → **PrimaryWinLevelUnits** query and set of type ObjString
- $\rightarrow$  **PrimaryWindow** query and set of type float
- $\rightarrow~\mathbf{SecondaryColor2d}$  query and set of type ObjString
- $\rightarrow~\mathbf{SecondaryColorRampFunc}$  query and set of type <code>ObjString</code>
- $\rightarrow$   $\,$  Secondary Level query and set of type float
- $\rightarrow~\mathbf{SecondaryWinLevelUnits}$  query and set of type <code>ObjString</code>
- $\rightarrow$   $\,$  SecondaryWindow query and set of type float

#### ${\bf TPBDoseCalculator}$

- $\rightarrow~\mathbf{Accumulate Dose Difference}$  query and set of type bool
- $\rightarrow$  BuildRaysOnly query and set of type bool
- $\rightarrow~\mathbf{DataErrorMessage}$  query of type action
- $\rightarrow$  **FreeRayList** set of type action
- $\rightarrow$  InitialRayRelevanceValue query and set of type bool
- $\rightarrow~\mathbf{IsTPBDoseCalculator}$  query of type action
- $\rightarrow$  IsValidTPBData query of type action
- $\rightarrow$  MaxTransmission query and set of type float
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type bool
- → PhotonDoseNorm query and set of type float
- $\rightarrow$  StoreDoseOnly query and set of type bool
- $\rightarrow$  **TPBKernelValid** query and set of type bool
- $\rightarrow$  **TPBRayList** list of type TPBRay
- $\rightarrow$  **TPBRayListStoreDose** query and set of type bool
- $\rightarrow~\mathbf{TPBRayListValid}$  query and set of type bool
- $\rightarrow$  **XDimension** query and set of type int
- $\rightarrow$  XStart query and set of type float
- $\rightarrow$  **YDimension** query and set of type int
- $\rightarrow~\mathbf{YStart}$  query and set of type float

### **TPBDoseEngine**

- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Cancel}$  set of type action
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow~\mathbf{IsNewer}$  query of type bool
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~{\bf Revision}$  query of type string
- $\rightarrow$  **Run** set of type action
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool

#### **TPBKernel**

- $\rightarrow \ \mathbf{AllocateKernelData} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → CenteredOnCAX query and set of type bool
- $\rightarrow$  **DataErrorMessage** query of type action
- → **DepthResolution** query and set of type float
- $\rightarrow$  FilterTPBKernel set of type action
- → **IsTPBKernel** query of type action
- $\rightarrow$  IsValidTPBData query of type action
- $\rightarrow~\mathbf{KernelInMemory}$  query and set of type bool
- $\rightarrow~\mathbf{KernelIsCached}$  query and set of type bool
- → MaxDepth query and set of type float
- → ModificationDependency query and set of type bool
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{RadAzimLookupCount}$  query and set of type int
- $\rightarrow$  RadialCutoff query and set of type float
- $\rightarrow~\mathbf{RelevantKeeperThreshold}$  query and set of type float
- → RelevantThreshold query and set of type float
- $\rightarrow$  ScaleTPBKernel set of type action
- $\rightarrow~\mathbf{TPBKernelData}$  subobject of type FloatBinNd
- $\rightarrow~\mathbf{TPBPixelResolutionX}$  query and set of type float
- → TPBPixelResolutionY query and set of type float
- → TermaStepZ query and set of type float
- → TermaStepsX query and set of type int
- $\rightarrow$  **TermaStepsY** query and set of type int
- → ThresholdCutoff query and set of type float
- → WriteKernelData set of type action
- → WriteKernelDataAtRes set of type action
- $\rightarrow$  WriteTPBKernel set of type action

### **TPBRay**

- $\rightarrow \ \mathbf{AccumulateRayDose} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  AllocateTPBRayData set of type action
- $\rightarrow$  CurrentIncidentFluence query and set of type float
- $\rightarrow~\mathbf{CurrentTransmission}$  query and set of type float
- $\rightarrow~\mathbf{DataErrorMessage}$  query of type action
- $\rightarrow$  FreeStaticDoseVolumes set of type action
- $\rightarrow~\mathbf{IncidentFluence}$  query and set of type float
- $\rightarrow~\mathbf{IsTPBRay}$  query of type action
- $\rightarrow$  IsValidTPBData query of type action
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type bool
- $\rightarrow~\mathbf{NumberOfSteps}$  query and set of type int
- $\rightarrow~\mathbf{TPBRayDoseListStored}$  query and set of type bool
- $\rightarrow~\mathbf{TPBSSD}$  query and set of type float
- $\rightarrow$  **TPBStepLength** query and set of type float
- $\rightarrow$   $\,$  Transmission query and set of type float

# ${\bf Temporal Object}$

- $\rightarrow \ \mathbf{AssociatedImageSetName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{Description} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  InstanceName query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow$  **TimeStamp** query of type string

- $\rightarrow~\mathbf{CatchAllWarnings}$  query and set of type bool
- $\rightarrow~\mathbf{CatchAskYesNo}$  query and set of type bool
- $\rightarrow~\mathbf{CatchWarning}$  query and set of type bool
- $\rightarrow$  ClearExpectedAskYesNo set of type action
- $\rightarrow$  ClearExpectedWarningMessage set of type action
- $\rightarrow \ \mathbf{ExpectAskYesNo} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ExpectWarningMessage} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **ExpectedAskYesNo** query and set of type ObjString
- $\rightarrow~\mathbf{ExpectedAskYesNoReply}$  query and set of type int
- $\rightarrow~\mathbf{ExpectedWarning}$  query and set of type <code>ObjString</code>
- $\rightarrow~\mathbf{LogFileName}$  query and set of type action
- $\rightarrow$  **LogTest** set of type action
- $\rightarrow~\mathbf{LogTestFail}$  set of type action
- $\rightarrow$  LogTestPass set of type action
- $\rightarrow \ \mathbf{NewUTObject} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **PopulateTreeWithBoolean** set of type action
- $\rightarrow \ \mathbf{PopulateTreeWithFloat} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **UTObject** subobject of type GeoObject

# ThickSliceDisplay

- $\rightarrow~\mathbf{ObliqueStepSize}$  query and set of type float
- $\rightarrow$  **Thickness** query of type float set of type action
- $\rightarrow$  XValid query of type action
- $\rightarrow$  **YValid** query of type action
- $\rightarrow$  **ZValid** query of type action

### Time

- $\rightarrow$  **CTime** query of type action
- $\rightarrow~\mathbf{DayLightSavingsTimeInEffect}$  query and set of type action
- $\rightarrow~\mathbf{DayOfMonth}$  query and set of type int
- $\rightarrow~\mathbf{DayOfWeek}$  query and set of type int
- $\rightarrow~\mathbf{DayOfYear}$  query and set of type int
- $\rightarrow~\mathbf{Hours}$  query and set of type int
- $\rightarrow~\mathbf{ISODate}$  query and set of type action
- $\rightarrow~\mathbf{ISODateAndTime}$  query and set of type action
- $\rightarrow~\mathbf{ISODateAndTimeString}$  query and set of type action
- $\rightarrow$   $\,$  Minutes query and set of type int
- $\rightarrow~\mathbf{Month}$  query and set of type action
- $\rightarrow~\mathbf{Seconds}$  query and set of type int
- $\rightarrow~\mathbf{UTC\_ISODateAndTimeString}$  query and set of type action
- $\rightarrow~\mathbf{Year}$  query and set of type action

# TimeDifference

- $\rightarrow~$  Difference query of type action
- $\rightarrow$  **DifferenceInDays** query of type action
- $\rightarrow~\mathbf{Time1}$  subobject of type Time
- $\rightarrow$  **Time2** subobject of type Time

# TolTable

- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{Number}$  query and set of type action
- $\rightarrow~\mathbf{UniqueNumber}$  query and set of type action

### Transform

- $\rightarrow~\mathbf{ApplyTransform}$  set of type action
- → ApplyTransformFromObject set of type action
- $\rightarrow~\mathbf{Data}$  subobject of type CurveNd
- ightarrow GetTransform set of type action
- $\rightarrow~\mathbf{RotateX}$  set of type action
- $\rightarrow~\mathbf{RotateY}$  set of type action
- $\rightarrow$  RotateZ set of type action
- $\rightarrow$  **SetScaling** set of type action
- $\rightarrow~\mathbf{SetToUnit}$  set of type action
- $\rightarrow~\mathbf{SetTransform}$  set of type action
- $\rightarrow \ \mathbf{SetTransformFromObject} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{SetTranslation}$  set of type action
- $\rightarrow \ \, \textbf{TransformPoint} \,\, \text{set of type action}$
- $\rightarrow \ \mathbf{Transform} \mathbf{Unit} \mathbf{Vector} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

## ${\bf TransformOptimizer}$

- $\rightarrow~\mathbf{CenterX}$  query and set of type float
- $\rightarrow$  CenterY query and set of type float
- $\rightarrow~\mathbf{CenterZ}$  query and set of type float
- $\rightarrow$   ${\bf CostFunction}$  query and set of type pointer
- $\rightarrow$  CostObject query and set of type pointer
- $\rightarrow~\mathbf{NumberOfFunctionEvaluations}$  query and set of type int
- $\rightarrow~\mathbf{OutOfRangeCostSlope}$  query and set of type float
- $\rightarrow~\mathbf{RotationLimit}$  query and set of type float
- $\rightarrow~\mathbf{RotationScale}$  query and set of type float
- → SimplexOptimizer subobject of type SimplexOptimizer
- $\rightarrow$  TranslationLimit query and set of type float
- $\rightarrow$  TranslationScale query and set of type float
- $\rightarrow$  **UnitTest** set of type action
- $\rightarrow~\mathbf{XRotate}$  query and set of type float
- $\rightarrow~\mathbf{XTranslate}$  query and set of type float
- $\rightarrow~\mathbf{YRotate}$  query and set of type float
- $\rightarrow~\mathbf{YTranslate}$  query and set of type float
- $\rightarrow~{\bf ZRotate}$  query and set of type float
- $\rightarrow~\mathbf{ZTranslate}$  query and set of type float

### **TreeListWindow**

- $\rightarrow$  **BeginMessageBatch** set of type action
- $\rightarrow$  Button1Action query and set of type string
- $\rightarrow~{\bf Button1Label}$  query and set of type string
- $\rightarrow$  Button2Action query and set of type string
- $\rightarrow~$  Button2Label query and set of type string
- $\rightarrow~{\bf Button 3 Action}$  query and set of type string
- $\rightarrow~{\bf Button3Label}$  query and set of type string
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$   $\,$  Description query and set of type string
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  **Existence** query of type bool
- $\rightarrow$  **InstanceName** query of type string
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **Print** set of type action
- → RealizeWindow set of type action
- $\rightarrow$  **TreeList** list of type SimpleString
- $\rightarrow~\mathbf{WindowTitle}$  query and set of type string

#### Trial

- → AddEPIDDose set of type action
- → AddEPIDDoseForAllBeams set of type action
- → AddOtherGrids query and set of type bool
- → AddPlanarDose set of type action
- ightarrow AddPlanarDoseForAllBeams set of type action
- → AddPrescription set of type action
- → AddQABeam set of type action
- → AllBeamCPWeightsValid query of type action
- → AllBeamsHaveSameBoliConfig query of type action
- → AllBeamsHaveValidAbsoluteDose query of type action
- → AllBeamsHaveValidDose query of type action
- $\rightarrow$  AllBeamsHaveValidSSD query of type action
- → AlwaysDisplay2dCouchPosition query and set of type bool
- → AlwaysDisplay3dCouchPosition query and set of type bool
- → AnyBeamsHaveValidDose query of type action
- $\rightarrow$  AtLeastOneBeamDynamicArc query of type action
- $\rightarrow \ \mathbf{AtLeastOnePrevBeamDynamicArc} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → AutoCoverPatient set of type action
- → AutoCoverROI set of type action
- → AutoCoverSlices set of type action
- $\rightarrow$  **BeamForWindowID** query of type action
- $\rightarrow~\mathbf{BeamList}$ list of type Beam
- $\rightarrow \ \mathbf{BeamListHaveSameBottomJawLabels} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{BeamListHaveSameLeftJawLabels} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → BeamListHaveSameLeftRightLabels query of type action
- $\rightarrow \ \mathbf{BeamListHaveSameRightJawLabels} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → BeamListHaveSameTopBottomLabels query of type action
- $\rightarrow \ \mathbf{BeamListHaveSameTopJawLabels} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → BeamPageSelection query and set of type EnumeratedList with labels
- → **BeamPoiWeightOptimizer** subobject of type BeamPoiWeightOptimizer
- → BeamPrescriptionChange set of type action
- $\rightarrow \ \mathbf{BeamWeightChange} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → BeginMessageBatch set of type action
- → BrachyDose query and set of type action
- → BrachyDoseComputationVersion query and set of type ObjString
- → BrachyImplantDateAndTime subobject of type Time
- → BrachyImplantDuration query and set of type float
- $\rightarrow$  BrachyImplantDurationDescription query of type action
- ightarrow BrachyImplantDurationUnits query and set of type EnumeratedList with labels
- $\rightarrow$  **BrachyManager** subobject of type BrachyManager
- $\rightarrow$  **BrachyPrescriptionDescription** query of type action

- → BrachyPrescriptionMethod query and set of type EnumeratedList with labels
- → CTScanner query and set of type ObjString
- → CTScannerSelection set of type action
- → CalledFromDICOMRTExport query and set of type bool
- ightarrow CanMachineDataModelWindowDismiss query and set of type bool
- → CenterOpposedBeams set of type action
- $\rightarrow$   ${\bf ChangeShiftDirection}$  query and set of type EnumeratedList with labels
- $\rightarrow$   $\mathbf{CheckCtToDensityExtension}$  query and set of type bool
- → Colorwash set of type action
- → ComputeDose set of type action
- → ComputeEPIDImage set of type action
- $\rightarrow$  ComputeICF set of type action
- → ComputeIrregPoints set of type action
- $\rightarrow$  ComputeMCDose set of type action
- → ComputePlanarDose set of type action
- → ComputeRelativeDose query of type bool set of type action
- → ComputeSeedDose set of type action
- $\rightarrow$  ComputeStandaloneDose set of type action
- $\rightarrow$  ComputeTrialDose set of type action
- → ComputeUncomputedBeams set of type action
- → ComputingPointsMessage query of type action
- $\rightarrow \ \, \mathbf{ConfirmDoseChange} \,\, \mathbf{query} \,\, \mathbf{of} \,\, \mathbf{type} \,\, \mathbf{action}$
- → ConfirmUnlockWeights query of type action
- ightarrow ConfirmUnlockWeightsAndCheckDose query of type action
- → CoordRefPoint subobject of type Poi
- → CopyPatientVolumeToDoseGrid set of type action
- → CopySource query and set of type pointer
- → CouchDisplayColor query and set of type ObjString
- $\rightarrow~\mathbf{CouchRemovalDisplayYCoordinate}$  query and set of type float
- ightarrow CouchRemovalYCoordinate query of type float set of type action
- $\rightarrow$  CourseID query and set of type action
- $\rightarrow$  CreateDummyDose set of type action
- → CreateRefPointTransform set of type action
- $\rightarrow$  CtToDensityName query and set of type
- → CtToDensityVersion query and set of type
- ightarrow CtToStoppingPowerTableName query and set of type
- ightarrow CtToStoppingPowerVersion query and set of type
- $\rightarrow$  **DRRHelper** query and set of type
- → DensityBottomZPadding query and set of type
- → DensityTopZPadding query and set of type
- → **DepthGrid** subobject of type Volume
- → Display2dCouchPosition query and set of type bool

- → Display3dCouchPosition query and set of type bool
- → **DisplayAir** query and set of type bool
- → DisplayAllowJawMotionLabel query of type action
- → DisplayPrevAllowJawMotionLabel query of type action
- $\rightarrow$  **DisplayPrevSplitBeamsLabel** query of type action
- $\rightarrow$  **DisplayPrimaryVOI** query and set of type bool
- $\rightarrow$  **DisplaySplitBeamsLabel** query of type action
- → **DisplayState** query and set of type EnumeratedList with labels
- $\rightarrow$  **DoseChangeNode** query of type action
- → DoseDisplayValid query and set of type bool
- → **DoseEndSlice** query and set of type int
- → DoseErrorMessage query of type action
- → **DoseGrid** subobject of type Volume
- ightarrow **DoseInvalidWhileFiling** query and set of type bool
- → **DoseIsValid** query of type bool
- $\rightarrow$  **DoseObjective** query and set of type action
- → **DoseOptimizer** query and set of type action
- $\rightarrow$  **DoseStartSlice** query and set of type int
- → DoseStatusChange set of type action
- → DrawCatheterDependencies query of type action
- → DrawCatheterImageValues query and set of type action
- → DrawCatheterRoiIntersection query and set of type action
- ightarrow DrawCatheterSegmentsAndSeeds query of type action
- → **EPIDDensity** subobject of type EPIDDensity
- $\rightarrow$  **EPIDDoseList** list of type EPIDDose
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow~\mathbf{ExportActualCPDoseForDynamicArcs}$  query and set of type bool
- $\rightarrow~\mathbf{ExportPlanarDoseAscii}$  query and set of type bool
- $\rightarrow$  **FluenceGrid** subobject of type Volume
- $\rightarrow~\mathbf{FluenceGridMatchesDoseGrid}$  query and set of type bool
- $\rightarrow$   $\ensuremath{\mathbf{FluenceGridResolution}}$  query and set of type float
- $\rightarrow$  FluenceValid query of type bool
- $\rightarrow$  HasBeamsOrSources query of type action
- $\rightarrow~\mathbf{HasCArmPlan}$  query of type action
- → **HasDose** guery and set of type bool
- $\rightarrow \ \mathbf{HasLockedWeights} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  IncludesObject query of type action
- $\rightarrow \ \mathbf{InitializeForProstatePrePlan} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → InvalidDoseText query of type action
- → InvalidateDose set of type action
- → InvalidatePlanarDose set of type action
- → IsOkForExport query of type action

- → **IsocenterList** list of type Poi
- → IsodoseNormPoint query and set of type
- $\rightarrow$   $\mathbf{IsodoseNormPointDose}$  query and set of type float
- $\rightarrow \ \mathbf{IsodoseNormPointName}$  query and set of type action
- → IsodoseNormPointStatus query and set of type ObjString
- $\rightarrow$  LaserLocalizer subobject of type LaserLocalizer
- $\rightarrow$  LaserLocalizerInUseAndComputed query of type action
- $\rightarrow~\mathbf{LaserOutput}$  set of type action
- → LastRelativeDoseReferenceField query and set of type ObjString
- → LocalizerList list of type LaserLocalizer
- → MCGlobalUncertaintyType query and set of type ObjString
- $\rightarrow$  MCMaxSeconds query and set of type float
- $\rightarrow$  MCProfileCancel set of type action
- → MCStatisticsThreshold query and set of type float
- → MCUncertaintyGoal query and set of type float
- → MLCCloseLeafType query and set of type EnumeratedList with labels
- → MLCExport subobject of type MLCExport
- $\rightarrow$  MUInvalidForTrials query of type action
- → MakeAllCPWeightsProportional set of type action
- → MatchBeam1 query and set of type ObjString
- → MatchBeam2 query and set of type ObjString
- → MatchOpposedBeams set of type action
- $\rightarrow$  MaxDoseForSeeds query and set of type
- → MaxDosePoint subobject of type Poi
- → MaxDosePointDisplayOn query and set of type action
- ightarrow MaxDosePointIsInDisplayList query of type bool
- $\rightarrow \ \mathbf{MaxDosePointIsValid} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool}$
- $\rightarrow \ \mathbf{MaxTableCtValue} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$   $\mathbf{MaximumDoseForSeeds}$  query and set of type float
- $\rightarrow$  MessageBatch query of type bool
- $\rightarrow$  Monitor UnitStatus query and set of type ObjString
- $\rightarrow \ \mathbf{MultipleMachineCheck} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  MultipleMachines query and set of type bool
- $\rightarrow$  Name query and set of type ObjString
- → NegativeVoxelMsgDisplay query of type action
- $\rightarrow \ \mathbf{NumberOfMUApproximateBeams} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- → **ObjectVersion** subobject of type ObjectVersion
- ightarrow **OptimizeCompensator** set of type action
- → OutputAllPlanarDose set of type action
- → OutputCurrentPlanarDose set of type action
- → OutsidePatientAirThreshold query and set of type
- → OutsidePatientIsCtNumber query and set of type

- → Parent subobject of type Record
- → ParentIsRecord query of type action
- → PatientRepresentation subobject of type PatientRepresentation
- $\rightarrow$  PatientVolume query and set of type
- $\rightarrow$  PhysicsPlan query and set of type action
- → PlanEvalDRR set of type action
- $\rightarrow$  PlanEvalDRRSetup set of type action
- $\rightarrow$  PlanEvalDRRSetup\_DICOMRT set of type action
- → PlanarDoseList list of type DosePlane
- → **PrescriptionChange** set of type action
- $\rightarrow$  **PrescriptionList** list of type Prescription
- → **PrimaryVOI** subobject of type BoundingBox
- $\rightarrow$  **PrintBrachyByCatheter** query and set of type bool
- → PrintBrachyByGroup query and set of type bool
- → PrintIMRTSummary query and set of type bool
- → PrintIrregReport set of type action
- → PrintMLC query and set of type bool
- $\rightarrow$  **PrintMLCIrreg** query and set of type bool
- → **PrintPois** query and set of type bool
- → **PrintRois** query and set of type bool
- → PrintSubbeams query and set of type bool
- → ProfileCancel query and set of type bool
- ightarrow ProfileComputationStatus query and set of type ObjString
- $\rightarrow$  **ProfileCount** query and set of type int
- $\rightarrow$  **ProfileIndex** query and set of type int
- $\rightarrow$  **ProfileIsComputing** query and set of type bool
- $\rightarrow$  **ProfilePercentDone** query and set of type int
- $\rightarrow~\mathbf{ProtonDoseInvalidWhileFiling}$  query and set of type bool
- $\rightarrow \ \mathbf{PushInFieldClosedLeafPairsBehindJaws} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **QABeamList** list of type Beam
- $\rightarrow~\mathbf{ROICoverageMarginInCm}$  query and set of type float
- $\rightarrow \ \mathbf{ReLabelMaxDosePoint} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  RecomputeDensity query and set of type action
- $\rightarrow \ \mathbf{RecomputeHighResDensity} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RecomputeIsocenterList} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Recompute Seed Dose Continuously}$  query and set of type bool
- → RecordDoseData query and set of type action
- $\rightarrow~\mathbf{Relative Dose Computation Status}$  query and set of type <code>ObjString</code>
- $\rightarrow~\mathbf{RelativeDoseNormPoint}$  query and set of type
- → RelativeDoseNormPointName query and set of type action
- $\rightarrow$  RelativeDoseNormValid query and set of type bool
- → RelativeDoseNormValue query and set of type float

- $\rightarrow$  RelativeDoseReferenceField query and set of type
- $\rightarrow$  RelativeDoseReferenceFieldName query and set of type action
- $\rightarrow$  RelyOnList query and set of type
- → RemoveCouchFromScan query of type bool set of type action
- → RemoveCurrentPrescription set of type action
- → Report set of type action
- $\rightarrow$  **ReportType** query and set of type EnumeratedList with labels
- → RotateOMPRWindowId query and set of type int
- → SSDChangeNode query of type action
- → ScanditronixOutputFile query and set of type ObjString
- → ScreenToPrinterZoomFactor query and set of type float
- → SeedDoseInvalid set of type action
- → SeedDoseIsInGrid query of type action
- → SeedDoseValid query and set of type bool
- → SeedList query and set of type
- → SeriesDescription query and set of type ObjString
- → SeriesNumber query and set of type int
- → SetAllBeamMonitorUnits set of type action
- → SetAllBeamMonitorUnitsNoPresc set of type action
- → SetBeamMonitorUnits set of type action
- → SetCurrentBeamByWindowId set of type action
- $\rightarrow~\mathbf{SetupBeamIsocenterName}$  query and set of type ObjString
- → **SetupBeamMachineName** query and set of type ObjString
- → ShowBeamDoseDifference set of type action
- → ShowPatAirThreshold set of type action
- → ShowTrialDoseDifference set of type action
- → ShowTrialDoseSum set of type action
- $\rightarrow$   ${\bf SourceList}$  query and set of type
- $\rightarrow$  SourceToFilmDistance query and set of type float
- $\rightarrow \ \mathbf{StereoLocalizerInUseAndComputed} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **StereoLocalizerList** list of type StereoLocalizer
- → SumDoseGrids set of type action
- $\rightarrow~\mathbf{SuppressDVHComputation}$  query of type bool set of type action
- → SuppressDoseGridSumming query and set of type bool
- ightarrow **TPBDoseToolPercentChange** query and set of type float
- $\rightarrow$  **ToleranceTable** query and set of type int
- ightarrow TransFromRefPoint subobject of type Transform
- ightarrow TransToRefPoint subobject of type Transform
- → TransformFromRefPoint set of type action
- ightarrow TransformToRefPoint set of type action
- → TrialOrRecordName query of type action
- → **TrialTagName** query of type action

- $\rightarrow~\mathbf{TrialUsedForDoseDisplayOnly}$  query and set of type bool
- $\rightarrow \ \mathbf{UpdateCoordRefPoint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{UpdateDoseDisplay} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- ightarrow UpdateIsodoseNormalization set of type action
- $\rightarrow~\mathbf{UseActualPatientForIrreg}$  query and set of type bool
- $\rightarrow~\mathbf{UseCoordRefPoint}$  query and set of type bool
- $\rightarrow~\mathbf{UseSameBeamDensity}$  query and set of type bool
- $\rightarrow~\mathbf{UseTrialForTreatment}$  query and set of type bool
- $\rightarrow \ \mathbf{WarnAboutCouchRemoval}$  query and set of type bool
- $\rightarrow~\mathbf{WarnAboutLasers}$  query and set of type bool
- $\rightarrow~\mathbf{WarnAboutPadding}$  query and set of type bool
- $\rightarrow \ \mathbf{WarnExportMUApproximateBeams} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  WeightEqual set of type action
- $\rightarrow$   $\mathbf{WeightProportional}$  set of type action
- $\rightarrow \ \mathbf{WritePrescriptionToScanditronix} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

### TrialConstraint

- $\rightarrow~\mathbf{BeamExtensionList}$  query and set of type
- $\rightarrow$  ClassName query of type string
- $\rightarrow~\mathbf{ConstraintList}$  query and set of type
- $\rightarrow~\mathbf{ConstraintListTypes}$  query and set of type string
- $\rightarrow \ \mathbf{DeleteCurrentConstraint} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  **Function** query and set of type
- $\rightarrow$  **Gradient** query and set of type pointer
- $\rightarrow~\mathbf{HasBeamExtensionList}$  query of type bool
- $\rightarrow$  **IsFiling** query of type bool
- $\rightarrow$  **PropertyList** query and set of type
- $\rightarrow$  Value query and set of type float

## ${\bf Trial Dose Comparison}$

- $\rightarrow \ \mathbf{Compute Dose Difference Statistics} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~{\bf DeformationTime}$  query and set of type float
- $\rightarrow~\mathbf{DoseDiffSumValid}$  query and set of type bool
- $\rightarrow \ \mathbf{LeftWindowTrial} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{LeftWindowTrialObject}$  query and set of type
- $\rightarrow$  RegenerateDoseComparison set of type action
- $\rightarrow \ \mathbf{RightWindowTrial} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  RightWindowTrialObject query and set of type
- $\rightarrow \ \mathbf{SetLeftWindowTrial} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{SetRightWindowTrial} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

### TrialIsodoseLine

- $\rightarrow~\mathbf{Color}$  set of type action
- $\rightarrow \ \mathbf{Display2dMode} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{Display3dMode} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~{\bf IsoValue}$  query and set of type float
- $\rightarrow$  **LineType** query and set of type int
- $\rightarrow \ \mathbf{LineWidth} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RecomputeLine} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{RedisplayLine} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\,\rightarrow\,$  Trial query of type pointer set of type action
- $\rightarrow~\mathbf{TrialName}$  query and set of type action
- $\rightarrow$  **UpdateColorTable** set of type action
- $\rightarrow \ \mathbf{UpdateVolumeName} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

## ${\bf Trial Objective}$

- $\rightarrow~\mathbf{BeamExtensionList}$  query and set of type
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow \ \mathbf{DeleteCurrentObjective} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Destroy}$  set of type action
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow$  **Function** query and set of type
- $\rightarrow$   $\,$  Gradient query and set of type pointer
- $\rightarrow$  HasBeamExtensionList query of type bool
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{ObjectiveList}$  query and set of type
- $\rightarrow~\mathbf{ObjectiveListTypes}$  query and set of type string
- $\rightarrow$  **PropertyList** query and set of type
- $\rightarrow~$  Value query and set of type float

## ${\bf Trial PoiReport}$

- $\rightarrow~\mathbf{IncludeLines}$  query of type action
- $\rightarrow$  **MaxText** query of type action
- $\rightarrow~\mathbf{MinimumColumnWidth}$  query and set of type int
- $\rightarrow$  **NumColumns** query of type action
- $\rightarrow~\mathbf{NumRows}$  query of type action
- $\rightarrow$  **PoisPerSection** query and set of type int
- $\rightarrow~\mathbf{ReportObject}$  query of type action
- $\rightarrow~\mathbf{TimeOutInSeconds}$  query and set of type float
- $\rightarrow~\mathbf{TrialObject}$  query and set of type pointer
- $\rightarrow$  Value query of type action

#### **UTConversion**

- $\rightarrow$  **BeginMessageBatch** set of type action
- → BottomJawPosition query and set of type float
- → Cancel set of type action
- → ClassName query of type string
- → CreateAndLoadODM set of type action
- $\rightarrow~\mathbf{CutoffRadius}$  query and set of type float
- → Destroy set of type action
- → EndMessageBatch set of type action
- → **Existence** query of type bool
- → Frequency query and set of type float
- → IncludeInnerRect query and set of type bool
- $\rightarrow \ \mathbf{InstanceName} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{string}$
- → **IsFiling** query of type bool
- $\rightarrow$  **IsNewer** query of type bool
- $\rightarrow$  LeftJawPosition query and set of type float
- $\rightarrow$  MonitorUnits query and set of type float
- $\rightarrow$  **ODMName** query and set of type string
- → **ODMShapeType** query and set of type string
- → **ODMShapeTypeList** query of type StringList
- → PluginName query of type string
- $\rightarrow$  Region1 query and set of type float
- $\rightarrow~{\bf Region2}$  query and set of type float
- $\rightarrow~{\bf Region3}$  query and set of type float
- ightarrow Region4 query and set of type float
- ightarrow Region5 query and set of type float
- ightarrow Region6 query and set of type float
- → Region7 query and set of type float
   → Region8 query and set of type float
- → Region9 query and set of type float
- → **Revision** query of type string
- → RightJawPosition query and set of type float
- $\rightarrow$  **Run** set of type action
- $\rightarrow$  **TopJawPosition** query and set of type float
- $\rightarrow$  **UnitTestMode** query and set of type bool
- $\rightarrow$  **XDim** query and set of type int
- $\rightarrow$  XInnerRect query and set of type float
- → XOffset query and set of type float
- $\rightarrow$  XOuterRect query and set of type float
- → YDim query and set of type int
- $\rightarrow$  YInnerRect query and set of type float
- $\rightarrow$  **YOffset** query and set of type float

 $\rightarrow~\mathbf{YOuterRect}$  query and set of type float

### UTOffscreenDRR

- $\rightarrow$  **AllowInterrupt** query and set of type bool
- → Annotate query and set of type bool
- $\rightarrow \ \mathbf{BeginMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Cancel set of type action
- $\rightarrow \ \mathbf{ClassName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow$  **DrawImage** subobject of type UTOffscreenDRR
- $\rightarrow$  **DumpImage** set of type string
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{Existence}$  query of type bool
- $\rightarrow~\mathbf{FieldWidth}$  query and set of type float
- $\rightarrow~\mathbf{GenerateDRR}$  set of type action
- ightarrow InstanceName query of type string
- $\rightarrow \ \mathbf{IsFiling} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{bool}$
- $\rightarrow~\mathbf{IsNewer}$  query of type bool
- $\rightarrow \ \mathbf{PluginName} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow~\mathbf{Res}$  query and set of type int
- $\rightarrow \ \mathbf{Revision} \ \mathrm{query} \ \mathrm{of} \ \mathrm{type} \ \mathrm{string}$
- $\rightarrow$  Run set of type action
- $\rightarrow~\mathbf{StepSize}$  query and set of type float
- $\rightarrow~\mathbf{UnitTestMode}$  query and set of type bool
- $\rightarrow$  **XPix** query and set of type int
- $\rightarrow~\mathbf{YPix}$  query and set of type int

## VarianDynamicWedge

- $\rightarrow$  **AddPoint** set of type action
- → ColumnFormat query of type action
- $\rightarrow$  **DefaultAngleType** query of type action
- → **DeleteRow** set of type action
- $\rightarrow$  **DisplayProfile** set of type action
- $\rightarrow$  EndMessageBatch set of type action
- $\rightarrow$  FillTransmissionProfile set of type action
- → GoldenSTT subobject of type CurveNd
- → GoldenSTTFileList list of type SimpleString
- $\rightarrow$  ImportGoldenSTT set of type action
- $\rightarrow$  Initialize set of type action
- $\rightarrow$  InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- $\rightarrow \ \mathbf{IsVarianDynamicWedge} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$   ${\bf Modification Dependency}$  query and set of type bool
- $\rightarrow$   ${\bf Monitor Unit Min}$  query and set of type float
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{NumColumns}$  query and set of type
- $\rightarrow$  **NumRows** query and set of type
- → NumberOfPoints query and set of type
- $\rightarrow$  **ProfileValidity** query and set of type action
- $\rightarrow$  Value set of type action
- $\rightarrow$  **X** set of type action
- $\rightarrow$  **Y** set of type action

### ViewWindow

- $\rightarrow$  2DMeasureGridOn query and set of type action
- → 2dVolume query and set of type action
- → AdjustCineFrameCountAndIncrement set of type action
- $\rightarrow$  **Alpha** query and set of type float
- → AlternateInterpModeList query and set of type StringList
- → AlwaysRegenerateFrames set of type action
- → **BEV** query and set of type action
- → BEVSegmentIndex query and set of type action
- → BEVTextOffsetX query and set of type int
- $\rightarrow$  **BEVTextOffsetY** query and set of type int
- $\rightarrow$  BRV query and set of type action
- → BRVBottomTopLabel query of type action
- → BRVFrontBackLabel query of type action
- → BRVLeftRightLabel query of type action
- $\rightarrow$  BRVOrientation query and set of type action
- $\rightarrow$  BRVOrientationList query of type action
- $\rightarrow$  **Beam** query and set of type action
- $\rightarrow$  CanvasWidget query of type action
- $\rightarrow$  Center query of type action
- → ChangeBackgroundColor set of type action
- $\rightarrow~\mathbf{Cine3DRenderType}$  query and set of type action
- ightarrow Cine3DRenderTypeList query of type action
- ightarrow CineActualFramesPerSecond query and set of type float
- $\rightarrow$  CineEndImage set of type action
- $\rightarrow~\mathbf{CineFrameCount}$  query and set of type int
- ightarrow CineFramesPerSecondSpeed query and set of type action
- $\rightarrow~\mathbf{CineGate}$  query of type bool set of type action
- $\rightarrow$   ${\bf Cine Increment}$  query and set of type int
- → CineMode query and set of type action
- → CineModeList query of type action
- → CineOnOff query and set of type action
- ightarrow CineRequestedFramesPerSecond query and set of type float
- → CineStartImage query and set of type int
- → CineTemporaryPause query and set of type bool
- → CineVolumes query and set of type bool
- → Clear3DImage set of type action
- → ClearAnnotation set of type action
- $\rightarrow$  ClearRenderedImage set of type action
- $\rightarrow$  Copy2dView set of type action
- → Copy3dView set of type action
- → CopyBevView set of type action

- → CopyMultipleBevView set of type action
- → CurrentAndSharedMarkerColor query and set of type ObjString
- $\rightarrow$  **DRRValid** query and set of type action
- → Display2dSlicePosition query and set of type action
- → Display3dSlicePosition query and set of type action
- → **DisplayBEVSegment** query of type action
- ightarrow **DisplayCurrentWindowBorder** query and set of type int
- $\rightarrow$  **DisplayThickSlice** query and set of type action
- → Enter2dMode set of type action
- $\rightarrow$  Enter3dMode set of type action
- → FlipVolumeSliceX set of type action
- → FlipVolumeSliceY set of type action
- → FusionDisplay query and set of type action
- $\rightarrow$  FusionDisplayIs query of type action
- → FusionDisplayMode query and set of type action
- → FusionDisplayModeList query of type action
- → FusionDisplayModeListShort query of type action
- $\rightarrow~\mathbf{Global2DMeasureGridOn}$  query and set of type action
- → GlobalDisplayThickSlice query of type bool set of type action
- → HasActiveImage query of type action
- → HasAssociatedTrial query and set of type action
- → HasCurrentBorderDisplayed query and set of type bool
- → HasImageData query of type action
- $\rightarrow$  ImageType set of type action
- $\rightarrow$  InSynchImageGroup query and set of type bool
- → Inactive query and set of type action
- → InactiveIfAcqsim set of type action
- $\rightarrow$  InactiveIfCtSim set of type action
- → InactiveIfFusion set of type action
- → IncrementSegmentIndex set of type action
- $\rightarrow~\mathbf{InterpMode}$  query and set of type Enumerated List with labels
- → InterpModeList query and set of type StringList
- $\rightarrow$  **Is3d** query of type action
- $\rightarrow$  IsAcqsimWindow query of type action
- $\rightarrow~\mathbf{IsCoronal}$  query of type action
- $\rightarrow~\mathbf{IsCtSimWindow}$  query of type action
- ightarrow IsFusionWindow query of type action
- $\rightarrow~\mathbf{IsOblique}$  query of type action
- → IsRecordWindow query of type action
- → IsRoRWindow query of type action
- → **IsSagittal** query of type action
- → IsSelectedWindow query and set of type bool

- → **IsTransverse** query of type action
- → LoadWindowLevelPreset set of type action
- $\rightarrow$  MagicWindowOff set of type action
- $\rightarrow$  MakeCoronal set of type action
- $\rightarrow$  MakeCurrentIfVisible set of type action
- $\rightarrow$  MakeSagittal set of type action
- $\rightarrow$  MakeTransverse set of type action
- $\rightarrow$  MakeTrialValid set of type action
- → MakeVolumeMatchTrial set of type action
- → MarkerColor query and set of type ObjString
- → MarkerLength query and set of type int
- → MarkerThickness query and set of type int
- → Mirror2DDisplayY set of type action
- → MoveFocusToVolumeCenter set of type action
- → MultipleBEVSegmentIndex set of type action
- → Name query and set of type string
- → NextImage set of type action
- $\rightarrow$  NumberOfSlices query of type action
- → **Orientation** query and set of type action
- → OrientationList query of type action
- → OrientationListNoOblique query of type action
- → OrientationLocked query and set of type bool
- → OrientationString query and set of type string
- $\rightarrow$  **OverrideVolume** set of type action
- $\rightarrow$  **PanDown** set of type action
- $\rightarrow$  PanLeft set of type action
- $\rightarrow$  **PanRight** set of type action
- $\rightarrow$  PanStepSize query and set of type float
- $\rightarrow$  **PanToFraction** query and set of type action
- $\rightarrow$  **PanUp** set of type action
- $\rightarrow~\mathbf{PixelsPerSquare}$  query and set of type int
- ightarrow PixelsPerSquarePct query and set of type action
- $\rightarrow$  **PreviousImage** set of type action
- $\rightarrow~\mathbf{PromptScaleWhenPrint}$  query and set of type bool
- $\rightarrow~\mathbf{REV}$  query and set of type action
- $\rightarrow$  **Record** set of type action
- → RemoveCurrentRecord set of type action
- ightarrow RemoveCurrentTrial set of type action
- $\rightarrow \ \mathbf{RemoveSecondaryVolume} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → RemoveTrial set of type action
- $\rightarrow$  **Render** set of type action
- → RenderGradientRadius set of type action

- → RenderGradientThreshold set of type action
- → RenderIfNecessary set of type action
- → RenderLowerThreshold set of type action
- → RenderStepSize set of type action
- → RenderUpperThreshold set of type action
- $\rightarrow$  RenderWhen set of type action
- $\rightarrow$  Reset2dView set of type action
- → ResetFrameIndex set of type action
- → ResetFrom2d set of type action
- → ResetFusionDisplay set of type action
- → ResetFusionWindow set of type action
- $\rightarrow$  RotateCCW set of type action
- $\rightarrow$  RotateCW set of type action
- $\rightarrow$  RotationStepSize query and set of type float
- → ScaleStepSize query and set of type float
- $\rightarrow$  ScaleZoom set of type action
- → SecondaryVolumeList query and set of type action
- $\rightarrow$   $\bf SelectToolIndividually$  query and set of type bool
- → SetDRR set of type action
- → SetNextTrial set of type action
- → SetNextVolume set of type action
- → SetSecondaryVolume set of type action
- → SetSliceToCurrentPoi set of type action
- → SetSliceToIsocenter set of type action
- ightarrow SetToCurrentVolumeWinLevLut set of type action
- → SetToVolumeWinLevLut set of type action
- $\rightarrow$  **SetTrial** set of type action
- ightarrow **SetVolume** set of type action
- → SharedZMarkerColor query and set of type ObjString
- $\rightarrow$  **ShiftDown** set of type action
- $\rightarrow$  **ShiftLeft** set of type action
- $\rightarrow$  **ShiftRight** set of type action
- $\rightarrow$  ShiftStepSize query and set of type float
- $\rightarrow$  **ShiftUp** set of type action
- $\rightarrow$  ShowFilmAnnotations query and set of type bool
- ightarrow ShowFullDescription query and set of type bool
- $\rightarrow$  SliceNumber query and set of type action
- $\rightarrow~{\bf SlicePosition}$  set of type action
- → SynchImageIndex query and set of type int
- ightarrow SynchImageOffset query of type int set of type action
- → SynchronizedImageList query and set of type
- → Toggle2dSlicePosition set of type action

- $\rightarrow \ \mathbf{Toggle2dSlicePositionByWindowSetId} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  Tool2d set of type action
- → Tool3d set of type action
- → TransparentDisplay query and set of type action
- $\rightarrow$  **Trial** query and set of type action
- $\rightarrow$  **TrialLocked** query and set of type action
- $\rightarrow$  **TrialNonBEV** set of type action
- → TurnOff2dSlicePositionByWindowSetId set of type action
- ightarrow TurnOn2dSlicePositionByWindowSetId set of type action
- $\rightarrow$  **Type** query and set of type action
- → UpdateCtSimWindowTrial set of type action
- $\rightarrow$  UpdateCurrentWinLev set of type action
- $\rightarrow$  UpdateCurrentWindow set of type action
- $\rightarrow \ \mathbf{UpdateIfRecordWindow} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → UpdateImageZPos set of type action
- → UpdateVolumeName set of type action
- → UseLinearCtLut query of type bool set of type action
- $\rightarrow$  UseTextOffsetX query and set of type bool
- → UseTextOffsetY query and set of type bool
- $\rightarrow$  **UserSliceNumber** query and set of type action
- → ValidForCine query of type action
- → ViewController set of type action
- $\rightarrow$  ViewModeLocked query and set of type bool
- $\rightarrow$  **Viewpoint** set of type action
- $\rightarrow$  VolumeDisplayList list of type VolumeDisplay
- $\rightarrow$  VolumeLocked query and set of type bool
- $\rightarrow$  WinLevToVolume set of type action
- ightarrow WindowId query and set of type int
- $\rightarrow$  WindowSetId query and set of type action
- $\rightarrow$  **XWindowId** query of type action
- $\rightarrow~{\bf Zoom}$  query and set of type action
- $\rightarrow \ \mathbf{ZoomToVolumeCell} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **ZoomToWindow** set of type action

## **ViewWindowConfig**

- $\rightarrow~\mathbf{Cols}$  query and set of type int
- $\rightarrow$  **Description** query of type action
- $\rightarrow \ \mathbf{EndMessageBatch} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  **Height** query and set of type int
- $\rightarrow$  **Increment** query and set of type int
- $\rightarrow$  MakeValid set of type action
- $\rightarrow~\mathbf{ObjectVersion}$  subobject of type ObjectVersion
- $\rightarrow$  Realize set of type action
- $\rightarrow$  Rows query and set of type int
- $\rightarrow$  **StartImage** query and set of type int
- ightarrow **UpdateStartImages** set of type action
- $\rightarrow~\mathbf{Width}$  query and set of type int
- $\rightarrow~\mathbf{WindowSetId}$  query and set of type int
- $\rightarrow$   $\mathbf{WindowType}$  query and set of type EnumeratedList with labels
- $\rightarrow$  **XPosition** query and set of type int
- $\rightarrow$  **YPosition** query and set of type int

#### Volume

- → **AbsCouch** query of type action set of type bool
- → AbsoluteVoxelSize query of type action
- → AddFiducialPOI query and set of type
- $\rightarrow$  AllSlicesShareZCoordinate query of type bool
- → AllSlicesWereDeleted query and set of type bool
- → AllVoxelSizesValid query and set of type bool
- → AllZCoordinatesUnique query of type bool
- → AssignUIDForNonDicom set of type action
- → CanUseSUV query of type action
- $\rightarrow$  Center query and set of type action
- $\rightarrow$  CenterStart query and set of type action
- → ChangeManuf set of type action
- → CheckForNegativeValues set of type action
- → ClipData set of type action
- → ColorTableController query and set of type pointer
- → ColumnFormat query of type action
- ightarrow ColumnHeader query of type action
- → ColumnHeaderFormat query and set of type ObjString
- → ConfigureToCoverVolume set of type action
- → ConfirmOKToMove query of type action
- $\rightarrow$  CopyAlignedData set of type action
- $\rightarrow \ \mathbf{CopyDisplayToVolumeDisplay} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  CopyGeometry set of type action
- $\rightarrow$  CopyTransforms set of type action
- → CouchHeight query and set of type float
- → CouchID query and set of type string
- → CouchPos query of type action
- $\rightarrow$  CreateVolumeFromSlice query of type action
- → DB\_Name query and set of type string
- → **DICOMVersion** query and set of type string
- → DRREnergy query and set of type action
- ightarrow DRRScaleFactor query and set of type action
- $\rightarrow$  DRRUseLimits query and set of type action
- → Data query and set of type action
- → DataIsModifiedByRois query and set of type bool
- → DataIsSynthetic query and set of type bool
- → DataSlicesCopiedByReference query of type bool
- $\rightarrow$  **DatasetLookup** set of type action
- → DatasetModified query and set of type bool
- $\rightarrow$  **Date** query and set of type string
- → DateForDisplay query of type action

- → **DecubitusPrimaryDimension** query and set of type ObjString
- → **DecubitusPrimaryDimensionList** query and set of type StringList
- $\rightarrow$  **Deform** query and set of type bool
- ightarrow **DeleteAllSliceDefinitions** set of type action
- → DeleteSlice set of type action
- $\rightarrow$  **Dimension** query and set of type action
- $\rightarrow$  **DimensionZWithLimit** set of type action
- $\rightarrow$  **Display2d** query and set of type bool
- → Display2dLabelInLocalCoords query and set of type bool
- → **DisplayAs3dSecondary** query and set of type
- → DisplayAsSecondary query and set of type
- → **DisplayHistogram** query of type action
- $\rightarrow$  **Displayable** query and set of type bool
- $\rightarrow~\mathbf{DoNotAllowROILoading}$  query and set of type bool
- → **DoNotAllowROIs** query and set of type bool
- → **DoseSummationType** query and set of type int
- $\rightarrow$  EffectiveDoseType query and set of type bool
- ightarrow EndSliceClosenessTolerance query and set of type float
- → FiducialPOIList query and set of type
- $\rightarrow$  **FlipLeftRight** set of type action
- → FlipTopBottom set of type action
- $\rightarrow$  ForceSliceListToMatchZDimension set of type action
- → FrameDisplay query and set of type action
- → FrameDisplayList query of type action
- → GatePct query and set of type string
- → GatingLabel query and set of type string
- $\rightarrow$  GatingUID query and set of type ObjString
- $\rightarrow$  **GetImageSet** set of type action
- $\rightarrow$  **GetNegativeVoxel** set of type action
- $\rightarrow$  **GradientInterpolation** set of type action
- $\rightarrow$   $\bf HeaderObject$  query and set of type action
- $\rightarrow$  ImageSetPrefix query and set of type ObjString
- $\rightarrow$  ImageType query and set of type action
- $\rightarrow$  ImageTypeList query of type action
- $\rightarrow$   ${\bf ImportedDose}$  query and set of type bool
- $\rightarrow~\mathbf{InitialRotX}$  query and set of type float
- $\rightarrow$  InitialRotY query and set of type float
- $\rightarrow$  InitialRotZ query and set of type float  $\rightarrow$  InitialTransX query and set of type float
- $\rightarrow$  **InitialTransY** query and set of type float
- $\rightarrow$  InitialTransZ query and set of type float
- → InputFileName query and set of type ObjString

- → InputFilePath query and set of type ObjString
- → InputFilePrefix query and set of type ObjString
- → InsetPolyByHalfVoxel query of type bool set of type action
- → InvertYInTable query and set of type bool
- $\rightarrow$  IsAVGDataset query of type action
- $\rightarrow$  IsCTVolume query of type action
- $\rightarrow$  IsComputedDataset query of type action
- $\rightarrow$  IsCoordinateSystemValid query of type action
- → IsDICOMStartPointUsed query of type action
- → IsGated query of type action
- → IsMIPDataset query of type action
- → IsMinIPDataset query of type action
- $\rightarrow$  IsNonNegative query and set of type bool
- $\rightarrow$  IsPatientPositionEmpty query of type action
- $\rightarrow$  IsPropagateTarget query and set of type bool
- → IsRenderable query and set of type action
- → IsVariableSpacing query of type bool
- $\rightarrow$  IsVariableZRender query of type bool
- → KVP query and set of type string
- → KVPForDisplay query of type action
- → LengthInPixels query and set of type float
- $\rightarrow$  LengthInUnits query and set of type float
- $\rightarrow \ \mathbf{LoadDataFromFile} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow$  LoadDataFromVoidPtr set of type action
- $\rightarrow$  LoadHeaderFromFile set of type action
- $\rightarrow$  LoadImageInfo set of type action
- $\rightarrow$  LoadWaterPhantom set of type action
- $\rightarrow$  LoadWindowLevelPreset set of type action
- ightarrow LocalToWorldTransform set of type action
- $\rightarrow$  LowerThreshold query and set of type action
- $\rightarrow$  LowerThresholdPct set of type action
- $\rightarrow$  **MRN** query of type action
- → MaintainVolumeSize query and set of type bool
- → Manuf query and set of type string
- → ManufForDisplay query of type action
- → MaxValueForDoseDisplay query of type action
- → MaxVoxelSize query and set of type float
- $\rightarrow~\mathbf{MaximumValue}$  query of type float
- → MeanShiftEPS query and set of type float
- $\rightarrow~\mathbf{MeanShiftRange}$  query and set of type int
- $\rightarrow$  MeanShiftSize query and set of type int
- → MemoryAllocationFailed query and set of type bool

- → MemoryLimitInMegaBytes query and set of type float
- $\rightarrow$  MergeVolume set of type action
- → MinimumValue query of type float
- $\rightarrow$  Modality query and set of type string
- → Model query and set of type string
- → ModelForDisplay query of type action
- → ModificationDependency query of type action
- $\rightarrow$  MoveToCenter set of type action
- → Moveable query and set of type action
- → Name query of type string set of type action
- → NegativeValDisplay query and set of type ObjString
- → NegativeValuesExist query and set of type bool
- → NumColumns query of type action
- → NumRows query of type action
- → NumberOfPoints query of type action
- → OKToRedo query of type action
- → **OKToUndo** query of type action
- $\rightarrow~\mathbf{OnSliceClosenessTolerance}$  query and set of type float
- → OrderDescriptor query of type action set of type string
- → Origin query and set of type action
- → OurScanner query of type action
- → OverrideOurScanner query and set of type bool
- → ParentObject query and set of type pointer
- → PatientName query of type action
- $\rightarrow$  **PatientPosition** query and set of type action
- → PlanUID query and set of type ObjString
- → **PrimaryDimension** query and set of type ObjString
- ightarrow **PrimaryDimensionList** query and set of type StringList
- $\rightarrow$  **QSEnable** set of type action
- $\rightarrow~\mathbf{RTImageUID}$  query and set of type ObjString
- $\rightarrow$  RawValueUnits query and set of type int
- → RayTraceInterpolation query and set of type action
- $\rightarrow~\mathbf{RayTraceInterpolationIsLinear}$  query and set of type action
- → RayTraceInterpolationList query of type action
- → RecomputeTrialVolumeRoiList set of type action
- ightarrow RecordTransforms query and set of type bool
- $\rightarrow$  RedoTransformation set of type action
- ightarrow RegenerateColorTable query and set of type bool
- → ReloadIfModifiedByRois set of type action
- → RenderPreset set of type action
- → RenumberingSlicesMessage query of type action
- → ReorderBySliceNumber set of type action

- → ReorderByZLocation set of type action
- $\rightarrow$  ResetTransformations set of type action
- → RestoringSliceMessage query of type action
- $\rightarrow$  RoiInPrimaryList query of type action
- $\rightarrow$  RoiMask set of type action
- $\rightarrow$  RoundData query of type bool set of type action
- $\rightarrow$  RoundingValue query of type float set of type action
- → RowHeader query of type action
- → RowHeaderFormat query and set of type ObjString
- $\rightarrow$  **SSUID** query and set of type ObjString
- → SaveDataToFile set of type action
- → SaveHeaderToFile set of type action
- → SaveImageInfo set of type action
- → SaveVolumeData set of type action
- → ScanAcquisition query and set of type action
- $\rightarrow$  **SelectColor** set of type action
- → **SeriesDescription** query and set of type string
- $\rightarrow~\mathbf{SeriesExceedsLimit}$  query and set of type bool
- → SetDisplay2d set of type action
- → SetGrey2dBackground set of type action
- → SetPrimaryDimension set of type action
- $\rightarrow$  **SetSliceList** set of type action
- $\rightarrow$  **SetXYScaleFromStaticInfo** set of type action
- $\rightarrow \ \mathbf{SetupSyntheticFromLowerLeft}$  query and set of type bool
- $\rightarrow$  ShowRotationAsMatrix query and set of type bool
- $\rightarrow$  **Size** query of type action
- $\rightarrow$  SliceInfoModified set of type action
- $\rightarrow~{\bf SliceList}$ list of type ImageInfo
- $\rightarrow$  SliceListValid query of type bool
- $\rightarrow$  **SpatialUnits** query of type action
- $\rightarrow~\mathbf{SpecifiedNumOfDigit}$  query and set of type int
- → **Start** query and set of type action
- $\rightarrow$  **StepSize** query and set of type action
- $\rightarrow \ \mathbf{StoreInitVolRot} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- → StoreInitVolTrans set of type action
- $\rightarrow~\mathbf{StudyID}$  query and set of type string
- → StudyId query and set of type int
- → SyntheticWaterPhantom query and set of type bool
- → TableKeyList query of type action
- → **ThickSliceDisplay** subobject of type ThickSliceDisplay
- $\rightarrow$  **TrialVolumeRoiList** list of type RegionOfInterest
- $\rightarrow$  UndoTransformation set of type action

- $\rightarrow$  UpdateHeaderInformation set of type action
- → UpdateSliceListForConcatVolume set of type action
- → UpdateSliceListOnZStartChange set of type action
- → UpdateVolumeDisplay set of type action
- ightarrow **UpperThreshold** query and set of type action
- $\rightarrow$  UpperThresholdPct set of type action
- $\rightarrow$  **UseDICOMStartPoints** query and set of type bool
- ightarrow UseIndependentWindowLevel query and set of type bool
- → Value query and set of type action
- → ValueUnits query of type action
- → VisualizeOnly query and set of type action
- → VolDelta query and set of type action
- $\rightarrow$  VolRot query and set of type action
- → VolRotDelta query and set of type action
- → VolumeDescription query of type action
- → VolumeDisplay subobject of type VolumeDisplay
- → VolumeHistogram subobject of type VolumeHistogram
- $\rightarrow$  VolumePath query of type action
- $\rightarrow$  VoxelSize query and set of type action
- → VoxelSizeNegativeAllowed query and set of type action
- → WorldToLocalVolTransform query of type action
- $\rightarrow$  X query of type action
- $\rightarrow$  **XAxisLabel** query of type action
- $\rightarrow$  **XDim** query of type action
- $\rightarrow$  **XNegLabel** query of type action
- → XPixDim query of type action
- $\rightarrow$  **XPosLabel** query of type action
- $\rightarrow~\mathbf{XRecon}$  query and set of type float
- $\rightarrow$  XVoxelSizeValid query and set of type bool
- $\rightarrow$  **Y** query of type action
- $\rightarrow$  YAxisLabel query of type action
- → YDim query of type action
- $\rightarrow$  YNegLabel query of type action
- $\rightarrow$  **YPixDim** query of type action
- $\rightarrow$  **YPosLabel** query of type action
- ightarrow **YRecon** query and set of type float
- $\rightarrow$  YVoxelSizeValid query and set of type bool
- $\rightarrow~{\bf ZAxisLabel}$  query of type action
- → ZEnd query of type action
- $\rightarrow$  **ZIsNegated** query of type action
- → **ZNegLabel** query of type action
- → ZPosLabel query of type action

- $\rightarrow~{\bf ZVolumeSize}$  query of type action
- $\rightarrow~{\bf ZVoxelSizeValid}$  query and set of type bool
- $\rightarrow \ \mathbf{ZeroOutTransformations} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$

### VolumeDisplay

- → AddFiducialPOI set of type action
- → ApplyCubeVoi query and set of type bool
- $\rightarrow$  **BBDependency** query and set of type pointer
- $\rightarrow~{\bf BeginMessageBatch}$  query and set of type bool
- → BoundingBox subobject of type BoundingBox
- → CameFromCopiedPlan query and set of type bool
- → Color2d query and set of type ObjString
- → Color2dBackground query and set of type ObjString
- → ColorBarSetWindowLevel set of type action
- → ColorHidden query and set of type ObjString
- → ColorHighlight query and set of type ObjString
- → ColorLabel query and set of type ObjString
- → ColorRampDependency query of type action
- → ColorRampFunction query and set of type EnumeratedList with labels
- → ColorShade query and set of type ObjString
- → ColorTopLabel query and set of type ObjString
- $\rightarrow$  ColorVisible query and set of type ObjString
- → CopyFiducialDisplay set of type action
- → CtToOpacity subobject of type AnnotatedCurve
- → Display2dLabel query and set of type bool
- ightarrow **DisplayAs3dSecondary** query and set of type bool
- ightarrow **DisplayAsSecondary** query and set of type bool
- $\rightarrow$  **DrawColorBar** query and set of type action
- → EndMessageBatch set of type action
- ightarrow **FiducialPOIList** list of type Poi
- $\rightarrow$  **HistoEq** query of type action
- $\rightarrow$  Level query and set of type action
- → LevelPlusWindow query and set of type action
- → LoadedFromFile query and set of type bool
- → LoadedFromPre4p1Version query and set of type bool
- → LocalToWorldTransform subobject of type Transform
- → MaxColorValue query and set of type action
- → MaxSUVValue query and set of type float
- → MessageBatch query of type bool
- → MinColorValue query and set of type action
- → Moveable query and set of type bool
- → Name query and set of type ObjString
- → Pct2dBackground query and set of type float
- → PctLabel query and set of type float
- → PctTopLabel query and set of type float
- → RenderOptions subobject of type RenderOptions

- $\rightarrow \ \mathbf{ResetMaxColorValue} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ResetMinColorValue} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow \ \mathbf{ResetWindowLevel} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{SendImage}$  query and set of type bool
- $\rightarrow \ \mathbf{SetColorRampFunction} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{SetWindowLevelUnits} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{VolRotDelta}$  query and set of type action
- $\rightarrow~$  Volume Name query and set of type ObjString
- $\rightarrow$   $\,$  Window query and set of type action
- $\rightarrow~\mathbf{WindowLevelUnits}$  query and set of type Enumerated List with labels

## VolumeHistogram

- $\rightarrow$  **AutoWL** set of type action
- $\rightarrow$  **Bottom** query and set of type int
- $\rightarrow$  **Compute** set of type action
- → Count query of type action
- $\rightarrow$  **DisplayCount** query of type action
- $\rightarrow~\mathbf{DisplayMax}$  query and set of type int
- $\rightarrow~\mathbf{DisplayMin}$  query and set of type int
- $\rightarrow$  **Draw** query and set of type action
- $\rightarrow~\mathbf{HistogramColor}$  query and set of type ObjString
- → LowerRampColor query and set of type ObjString
- → MaxHistogramValue query and set of type int
- $\rightarrow$  Maximum query and set of type int
- $\rightarrow~\mathbf{Minimum}$  query and set of type int
- → OpacityColor query and set of type ObjString
- $\rightarrow$  **SetWindowLevel** set of type action
- → **Top** query and set of type int
- $\rightarrow$  **UpperRampColor** query and set of type ObjString
- $\rightarrow$  Valid query of type action

### VolumeOptimizer

- → APBBMargin query and set of type float
- → ActiveMask query and set of type
- → AddBothVolumesBBToDisplayList set of type action
- → AddPrimaryBBToDisplayList set of type action
- ightarrow AddSecondaryBBToDisplayList set of type action
- → **BothVolumesBB** subobject of type BoundingBox
- ightarrow BothVolumesLimitType query and set of type EnumeratedList with labels
- → CancelOptimization query and set of type bool
- $\rightarrow$  **DefineSharedBB** set of type action
- → DistanceBetweenPoints query of type action
- $\rightarrow$  FinalScore query and set of type float
- → MeanDistanceBetweenPoints query of type action
- $\rightarrow$  **OptimizationTime** query and set of type float
- → Optimize set of type action
- → PhilipsOptimizer subobject of type PhilipsOptimizer
- → **PrimaryBB** subobject of type BoundingBox
- ightarrow **PrimaryVolumeLimitType** query and set of type EnumeratedList with labels
- $\rightarrow~\mathbf{RLBBMargin}$  query and set of type float
- $\rightarrow~\mathbf{RedisplayOnUpdate}$  query and set of type bool
- $\rightarrow$  ReferenceMask query and set of type
- $\rightarrow$  SIBBMargin query and set of type float
- $\rightarrow$  **SecondaryBB** subobject of type BoundingBox
- $\rightarrow$   ${\bf Secondary Volume Limit Type}$  query and set of type Enumerated List with labels
- ightarrow TimeBetweenUpdates query and set of type float
- $\rightarrow$  **TimeLimit** query and set of type float
- $\rightarrow~\mathbf{TransformOptimizer}$  subobject of type TransformOptimizer
- $\rightarrow~\mathbf{TransformType}$  query and set of type Enumerated List with labels
- $\rightarrow~\mathbf{UsePhilipsFusion}$  query and set of type bool
- $\rightarrow~\mathbf{UseSingleMask}$  query and set of type bool
- $\rightarrow$  XRotate query and set of type float
- $\rightarrow$  XTranslate query and set of type float
- $\rightarrow~\mathbf{YRotate}$  query and set of type float
- $\rightarrow$  **YTranslate** query and set of type float
- $\rightarrow$  **ZRotate** query and set of type float
- $\rightarrow$  **ZTranslate** query and set of type float

### Wedge

- → AddDynamicWedgeData set of type action
- → AddPoint set of type action
- → **AngleType** query and set of type int
- → AttenuationCoefficient query and set of type float
- → BeginMessageBatch query and set of type bool
- → BottomToTopCode query and set of type ObjString
- → BottomToTopLabel query and set of type ObjString
- → BottomToTopLimit subobject of type WedgeJawLimits
- → CanBeBottomToTop query of type bool set of type action
- $\rightarrow~\mathbf{CanBeLeftToRight}$  query of type bool set of type action
- $\rightarrow$  CanBeRightToLeft query of type bool set of type action
- $\rightarrow$  CanBeTopToBottom query of type bool set of type action
- → CheckProfiles query of type action
- → ColumnFormat query of type action
- → ColumnHeader query of type action
- → ConfigurationValidity query and set of type action
- → CurrentDiscreteAngle query and set of type action
- $\rightarrow$  **DeleteRow** set of type action
- → **Density** query and set of type float
- → **DiscreteAngleList** list of type SimpleString
- $\rightarrow~ \mathbf{DynamicEnergyName}$  query and set of type action
- ightarrow **DynamicWedgeDataList** list of type DynamicWedgeData
- $\rightarrow$  EndMessageBatch query and set of type bool
- $\rightarrow$  InsertRowAfter set of type action
- $\rightarrow$  InsertRowBefore set of type action
- $\rightarrow$  InstallPhotonEnergy set of type action
- $\rightarrow$  **IsAboveTray** query and set of type bool
- ightarrow IsAngleContinuous query and set of type action
- $\rightarrow$  **IsAngleDiscrete** query and set of type action
- → **IsDynamic** query of type bool set of type action
- $\rightarrow$  LeftRightCanBeIndependent set of type action
- $\rightarrow$  **LeftToRightCode** query and set of type ObjString
- → LeftToRightLabel query and set of type ObjString
   → LeftToRightLimit subobject of type WedgeJawLimits
- $\rightarrow$  Length query and set of type float
- → LoadFluenceFilterInfo set of type action
- → Material query and set of type ObjString
- → MaxBottomJawSetting set of type action
- → MaxLeftJawSetting set of type action
- → MaxRightJawSetting set of type action
- → MaxTopJawSetting set of type action

- $\rightarrow$   $\,$  MaximumAngle query and set of type action
- $\rightarrow~\mathbf{MinimumAngle}$  query and set of type action
- $\rightarrow$  ModificationDependency query and set of type bool
- → ModifierMeanThickness query of type action
- $\rightarrow$  Name query and set of type ObjString
- $\rightarrow$  NominalAngle query and set of type int
- → NumColumns query and set of type
- $\rightarrow$  **NumRows** query and set of type
- → NumberOfPoints query and set of type
- $\rightarrow$  **OkForUniversalWedge** query and set of type bool
- → **Orientation** query and set of type
- → **Profile** subobject of type CurveNd
- $\rightarrow$  **ProfileValidText** query of type action
- $\rightarrow~\mathbf{ProfileValidity}$  query and set of type action
- → ReadFromFile set of type action
- $\rightarrow$  RelyOnList query and set of type
- → RemoveDiscreteAngle set of type action
- $\rightarrow~\mathbf{RightToLeftCode}$  query and set of type ObjString
- $\rightarrow~\mathbf{RightToLeftLabel}$  query and set of type ObjString
- ightarrow RightToLeftLimit subobject of type WedgeJawLimits
- $\rightarrow$  SourceToWedgeDistance query and set of type float
- → TopBottomCanBeIndependent set of type action
- $\rightarrow~\mathbf{TopToBottomCode}$  query and set of type ObjString
- $\rightarrow~\mathbf{TopToBottomLabel}$  query and set of type ObjString
- $\rightarrow~\mathbf{TopToBottomLimit}$  subobject of type WedgeJawLimits
- → **Value** set of type action
- $\rightarrow$   $\mathbf{WedgeFactor}$  query and set of type float
- $\rightarrow$   $\mathbf{WedgeHasChangedThisSession}$  query and set of type bool
- → Width query and set of type float
- $\rightarrow$  X query and set of type
- $\rightarrow$  **Y** query and set of type

### WedgeContext

- $\rightarrow$  **Angle** query and set of type action
- $\rightarrow$  **AngleName** query of type action
- → AngleType query and set of type EnumeratedList with labels
- → BeginMessageBatch set of type action
- → EndMessageBatch set of type action
- → IsValidWedge query of type action
- → LoadFluenceFilterInfo set of type action
- → Machine query and set of type action
- → MaxBottomJawPosition query of type action
- → MaxDeliverableMU query and set of type float
- → MaxLeftJawPosition query of type action
- → MaxRightJawPosition query of type action
- → MaxTopJawPosition query of type action
- → MinBottomJawPosition query of type action
- $\rightarrow$  MinDeliverableMU query and set of type float
- → MinLeftJawPosition query of type action
- $\rightarrow$  MinRightJawPosition query of type action
- → MinTopJawPosition query of type action
- → ModifierMeanThickness query and set of type
- $\rightarrow$  OffsetDistance query and set of type float
- $\rightarrow$  OffsetOrigin query and set of type action
- → **Orientation** query and set of type action
- → OrientationCanBeOpposed query of type action
- → OrientationLabel query of type action
- → ParentObject subobject of type MeasureGeometry
- → Rotation query of type action
- → ToggleOrientation set of type action
- → ToggleWedgeOrientation set of type action
- $\rightarrow$  **Wedge** set of type action
- → WedgeAngle query and set of type action
- $\rightarrow$  **WedgeCode** query of type action
- $\rightarrow$  WedgeDependency query and set of type bool
- $\rightarrow$  WedgeName query and set of type action
- $\rightarrow$  **WedgeObject** query and set of type
- ightarrow WedgeOffsetDistance query and set of type float
- $\rightarrow$  WedgeOffsetList query of type action
- ightarrow WedgeOffsetOrigin query and set of type action
- → WedgeOrientation query and set of type action
- $\rightarrow \ \mathbf{WedgeOrientationLabel} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$  **WedgeRotation** query of type action

## ${\bf Wedge Jaw Limits}$

- $\rightarrow \ \mathbf{JawPositionsAreValid} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow \ \mathbf{LeftRightCanBeIndependent} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$
- $\rightarrow$   $\mathbf{MaxBottomJawSetting}$  query of type float set of type action
- $\rightarrow$  MaxLeftJawSetting query of type float set of type action
- $\rightarrow~\mathbf{MaxRightJawSetting}$  query of type float set of type action
- $\rightarrow~\mathbf{MaxTopJawSetting}$  query of type float set of type action
- $\rightarrow \ \mathbf{TopBottomCanBeIndependent} \ \mathbf{query} \ \mathbf{of} \ \mathbf{type} \ \mathbf{bool} \ \mathbf{set} \ \mathbf{of} \ \mathbf{type} \ \mathbf{action}$

## WindowLevel

- $\rightarrow~\mathbf{Level}$  query and set of type float
- $\rightarrow~\mathbf{LevelPlusWindow}$  query and set of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow$   $\mathbf{SystemPreset}$  query and set of type bool
- $\rightarrow~\mathbf{Window}$  query and set of type float

## ${\bf Window Wrapper}$

- $\rightarrow~\mathbf{Create}$  set of type action
- $\rightarrow~\mathbf{CreateRtn}$  query and set of type pointer
- $\rightarrow~\mathbf{Data}$  query and set of type pointer
- $\rightarrow$  **Destroy** set of type action
- $\rightarrow~\mathbf{DestroyRtn}$  query and set of type pointer
- $\rightarrow$  EditingAllowed query of type action
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow \ \mathbf{RedoSpreadsheetAction} \ \mathrm{set} \ \mathrm{of} \ \mathrm{type} \ \mathrm{action}$
- $\rightarrow~\mathbf{UnrealizeIfClass}$  query and set of type
- $\rightarrow~\mathbf{WidgetList}$  query of type ObjString

## XLPlanMachine

- $\rightarrow~\mathbf{Energy}$ subobject of type Machine Energy
- $\rightarrow\,$  Machine subobject of type Machine
- $\rightarrow$   $\bf ModalityNumber$  query and set of type int
- $\rightarrow~\mathbf{Name}$  query and set of type ObjString
- $\rightarrow~\mathbf{WedgeList}$ list of type XLPlanWedge

## ${\bf XLPlanWedge}$

- $\rightarrow~\mathbf{Angle}$  query and set of type int
- $\rightarrow~\mathbf{Description}$  query of type action
- $\rightarrow~{\bf Factor}$  query and set of type float
- $\rightarrow$   $\bf Machine Name$  query and set of type ObjString
- $\rightarrow$   $\bf ModalityNumber$  query and set of type int
- $\rightarrow~\mathbf{Wedge}$  set of type action
- $\rightarrow~\mathbf{WedgeNumber}$  query and set of type int
- $\rightarrow~\mathbf{XLPlanMachine}$  query and set of type pointer

# 5 Feedback

Please evaluate this Python scripting prototype. The code is set up such that we can easily add new additional functions to objects. Let us know what you are missing and what scripts you have created. We are eager to learn from your experiences!