

What's New in Varian Scripting APIs 13.0

- Added Smart Adapt Scripting API.
- Added Portal Dosimetry Scripting API.
- Added Eclipse Scripting API for Research Users.

What's New in Eclipse Scripting API 13.0

- Brachytherapy Plan data model added to Eclipse Scripting API.
- The Eclipse Scripting API provides access to IMRT optimization parameters, objectives (excluding line objectives), and optimal fluences.

What Is New in Eclipse Scripting API 13.5

- The Eclipse Scripting API provides access to line objectives, mean dose objectives and gEUD optimization objectives.
- DVH Estimates added to the Eclipse Scripting API.
- Added new property Dose.UID to provide access to the DICOM UID of Dose objects.

What Is New in Eclipse Scripting API for Research Users 13.5

In this version for Eclipse Scripting API for Research Users you can

- Create scripts that execute VMAT optimization and DVH Estimation.
- Specify Mean Dose and EUD objectives for IMRT and VMAT optimization.

What Is New in Eclipse Scripting API 13.6

You can now add favorite scripts to the Eclipse menu and define keyboard shortcuts for them. See *Launching Scripts*.

The following new properties, functions, and classes have been added or changed in ESAPI 13.6. See the detailed documentation in *Eclipse Scripting API Online Help*.

- `VMS.TPS.Common.Model.API.Course`: added properties `Diagnoses`, `Intent`, and `Patient`.
- `VMS.TPS.Common.Model.API.PlanningItem`: changed the type of the property `Dose` from `VMS.TPS.Common.Model.API.Dose` to `VMS.TPS.Common.Model.API.PlanningItemDose`.
- `VMS.TPS.Common.Model.API.PlanSetup`: added properties `Series`, `SeriesUID`, `PlanIntent`, and `VerifiedPlan`.
- `VMS.TPS.Common.Model.API.PlanSum`: added properties `Course` and `PlanSumComponents`. Added functions `GetPlanSumOperation` and `GetPlanWeight`.
- `VMS.TPS.Common.Model.API.Beam`: added properties `BeamNumber`, `Dose`, and `ToleranceTableLabel`.
- `VMS.TPS.Common.Model.API.ControlPoint`: added properties `TableTopLateralPosition`, `TableTopLongitudinalPosition`, and `TableTopVerticalPosition`.
- `VMS.TPS.Common.Model.API.Dose`: added properties `Series` and `SeriesUID`.
- `VMS.TPS.Common.Model.API.Structure`: added property `StructureCodeInfos`.

- **Class** `VMS.TPS.Common.Model.API.Dose` is now a base class. New derived classes are: `VMS.TPS.Common.Model.API.PlanningItemDose` and `VMS.TPS.Common.Model.API.BeamDose`.
- A new class `VMS.TPS.Common.Model.API.PlanSumComponent` was added to provide information about component plans of plan sums. See the new property `VMS.TPS.Common.Model.API.PlanSum.PlanSumComponents`.
- A new class `VMS.TPS.Common.Model.API.Diagnosis` was added to provide information about the diagnoses that have been attached to the course. See the new property `VMS.TPS.Common.Model.API.Course.Diagnoses`.
- A new struct `VMS.TPS.Common.Model.Types.StructureCodeInfo` was added to provide information about structure codes that have been assigned to a structure. See the new property `VMS.TPS.Common.Model.API.Structure.StructureCodeInfos`.
- **Class** `VMS.TPS.Common.Model.API.ScriptContext`: added properties `ApplicationName` and `VersionInfo`.

What Is New in Eclipse Scripting API for Research Users 13.6

In this version of the Eclipse Scripting API for Research Users you can do the following:

- Create scripts that use intermediate dose calculation during IMRT and VMAT optimization. See the new methods `VMS.TPS.Common.Model.API.ExternalPlanSetup.Optimize(OptimizationOptionsIMRT)` and `VMS.TPS.Common.Model.API.ExternalPlanSetup.OptimizeVMAT(OptimizationOptionsVMAT)`.
- Terminate IMRT optimization automatically upon convergence instead of using the specified number of iterations. See the new method `VMS.TPS.Common.Model.API.ExternalPlanSetup.Optimize(OptimizationOptionsIMRT)`.
- Copy a 3D image from another patient. See the new method `VMS.TPS.Common.Model.API.Patient.CopyImageFromOtherPatient`.
- Add an external beam plan as a verification plan. See the new method `VMS.TPS.Common.Model.API.Course.AddExternalPlanSetupAsVerificationPlan`.
- Set a three-dimensional asymmetric margin around a structure. See the new method `VMS.TPS.Common.Model.API.SegmentVolume.AsymmetricMargin`.

The following new properties, functions, and classes have been added or changed:

- A new class `VMS.TPS.Common.Model.API.EvaluationDose` has been added and `SetVoxels` functionality has been moved there from the base class `VMS.TPS.Common.Model.API.Dose`.
- `VMS.TPS.Common.Model.API.ExternalPlanSetup`: added a property `DoseAsEvaluationDose`.

What Is New in Eclipse Scripting API 13.7

The following new properties, functions, and classes have been added or changed in ESAPI 13.7. See the detailed documentation in *Eclipse Scripting API Online Help*.

- `VMS.TPS.Common.Model.API.Course`:
 - Property `PlanSetups` can now return a collection of plans of type `ExternalPlanSetup`, `BrachyPlanSetup`, and `IonPlanSetup`.
 - New property `IonPlanSetups`.
- `VMS.TPS.Common.Model.API.ScriptContext`:
 - Property `PlansInScope` can now return a collection of plans of type `ExternalPlanSetup`, `BrachyPlanSetup`, and `IonPlanSetup`.
 - New property `IonPlanSetup`.
 - New property `IonPlansInScope`.
- New classes `VMS.TPS.Common.Model.API.IonPlanSetup`, `IonBeam`, `IonControlPoint`, `IonSpot`, `RangeShifter`, `LateralSpreadingDevice`, and `RangeModulator` were added to provide access to information about proton plans.
- New classes `VMS.TPS.Common.Model.API.PlanUncertainty` and `BeamUncertainty` were added to provide access to plan uncertainty information.
- `VMS.TPS.Common.Model.API.PlanSetup`: new property `PlanUncertainties` provides access to associated `PlanUncertainty` objects.

What Is New in Eclipse Scripting API for Research Users 13.7

In this version of the Eclipse Scripting API for Research Users you can additionally do the following:

- Create scripts that modify raw and final scan spot weights and positions for proton plans. See the method `VMS.TPS.Common.Model.API.IonBeam.GetEditableParameters()` and `ApplyParameters()`, and new classes `VMS.TPS.Common.Model.API.IonBeamParameters`, `VMS.TPS.Common.Model.API.IonControlPointPairs`, `VMS.TPS.Common.Model.API.IonControlPointParameters`, and `VMS.TPS.Common.Model.API.IonSpotParameters`.
- Create scripts that calculate dose for proton plans. See method `IonPlanSetup.CalculateProtonDose()`.
- Can now copy whole plans - See new method `Course.CopyPlanSetup`.
- It is now possible to create evaluation dose for Proton Plans – see new method `Course.AddIonPlanSetupAsVerificationPlan`.
- New method `Beam.FitCollimatorToStructure` and associated types.