

# **ARIS** REPORT SCRIPT CHANGES



**FROM 7.2.4 TO 9.8 SR4**

This document describes the report script language differences between ARIS 7.2.4 and ARIS 9.8 SR4.

(In most cases) the removed methods can still be called, but they have no function any more and should be removed/replaced from/in the script.

The deprecated methods should not be used any more. They are replaced by functions which are more suitable in ARIS 9.

For a description of the added methods please refer to the online help for ARIS Script.

Some attributes that exist for the most items Creator, time of creation, last modifier, time of last modification are now directly accessible via methods as item properties.

Please note, that the report scripts themselves do not exist on the server's file system any more. Instead they are stored in a database. So all script import/export/delete operations have only an effect on the (system) database content and do not touch the file system any more.

## New constants:

Additionally, there are new attribute/model/cxn/lane/symbol type constants in ARIS metamodel.

FMT\_STRIKETHROUGH - the output objects supports "strikethrough" text format

MODEL\_CXN\_DISTANCE - model flag (have distance between cxn and object)

SAVE\_AUTO - the new standard save mode in ARIS report.

Please read the details here:

<http://www.ariscommunity.com/users/thaase/2015-11-24-slow-reports-aris-9-how-improve-save-performance-when-modifying-data>

For new link functionality in ARIS 9 (so far used only by UML2):

LINKRULE\_NONE

LINKRULE\_SOURCE\_DELETES\_TARGET

LINKRULE\_SOURCE\_RENAMES\_TARGET

LINKRULE\_TARGET\_DELETES\_SOURCE

LINKRULE\_TARGET\_RENAMES\_SOURCE

LINKTYPE\_DIAGRAM\_ASSIGNMENT

LINKTYPE\_OMF\_TAGREFERENCE

LINKTYPE\_REUSE\_OBJECT\_LINK

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
signature change ABOCubeProxy.getLocale(DbSession) -> Locale		X		
changed return type ABOGroup.getGroup() -> ABOGroupInst				
ABOGroup.getSetInstance() -> ASetInstanceDTO	X			
ABOSubject.createGUIDandOID() -> void				X
ABOSubject.createGUIDandOIDNew() -> void	X			
removed AExcelAccessException			X	
ArisMetaModel.getAPIName(int,int) -> String (also available in Publisher)	X			
ArisMetaModel.getMetamodelItems(int,int) -> int[] (also available in Publisher)				
ArisMetaModel.getMetamodelName(int) -> String (also available in Publisher)				
ArisMetaModel.getMetamodels() -> int[] (also available in Publisher)				
ArisMetaModel.isUniqueCxn(int,int,int) -> int (also available in Publisher)				
AttrDateDef.getValueGMT0() -> long (also available in Publisher)	X			
AttrDateDef.setValueGMT0(long) -> boolean				
AttrTimeDef.getValueGMT0() -> long				
AttrTimeDef.setValueGMT0(long) -> boolean				
AttrTimeStampDef.getValueGMT0() -> long				
AttrTimeStampDef.setValueGMT0(long) -> boolean				
AttrOcc.getOrderNum() -> int (also available in Publisher)	X			
AttrOcc.getRotation() -> short (also available in Publisher)				
AttrOcc.setOrderNum(short) -> boolean				
BOReportRoot.assignSmartinputPermission(ABOUser) -> void	X			
BPExportData.getDbName() -> String	X			
BPExportData.getPaletteGUID() -> String				
BPExportData.getServerName() -> String				
BPExportData.getTenantID() -> String				
BPExportData.setDbName(String) -> void				
BPExportData.setPaletteGUID(String) -> void				
BPExportData.setServerName(String) -> void				
BPExportData.setTenantID(String) -> void				
removed BPExportData.getSelectedMethodFilters() -> GUID[]			X	
removed BPExportData.getSelectedMethodFiltersAsString() -> String[]				
removed BPExportData.setSelectedMethodFilters(GUID[]) -> void				
removed BPExportData.setSelectedMethodFiltersAsStringArray(String[]) -> void				
removed BPExportResult.getMsgs() -> List				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
BPLayoutInfo.getOEMProfile() -> String	X			
BPLayoutInfo.setOEMProfile(String) -> void				
BusinessPublisher.editExport(Database,BPExportData) -> BPExportResult	X			
BusinessPublisher.getLocaleId(Locale) -> int				
BusinessPublisher.getLocaleId(String) -> int				
BusinessPublisher.removeSpecialCharacters(String) -> String				
removed BusinessPublisher.uploadKey(String) -> boolean			X	
ComObjOcc.getIncomingLinks() -> Link[]	X			
ComObjOcc.getLinks() -> Link[]				
ComObjOcc.getOptionalBitmap() -> byte[]				
ComObjOcc.getOutgoingLinks() -> Link[]				
removed ComObjOcc.ObjectID(int) -> String (also available in Publisher)			X	
ConnectableDef.getCreator() -> String	X			
ConnectableDef.getIncomingLinks() -> Link[]				
ConnectableDef.getLastModifier() -> String				
ConnectableDef.getLinks() -> Link[]				
ConnectableDef.getOutgoingLinks() -> Link[]				
ConnectableDef.getTimeOfCreation() -> ATimeStamp				
ConnectableDef.getTimeOfLastModification() -> ATimeStamp				
ConnectableDef.OID() -> int[]				X
removed ConnectableDef.CreateExtCxnDef(ConnectableDef,int) -> ExtCxnDef			X	
removed ConnectableDef.fromExtCxnDefs() -> ExtCxnDef[]				
removed ConnectableDef.toExtCxnDefs() -> ExtCxnDef[]				
ConnectableOcc.getIncomingLinks() -> Link[]	X			
ConnectableOcc.getLinks() -> Link[]				
ConnectableOcc.getOutgoingLinks() -> Link[]				
removed ConnectableOcc.ObjectID(int) -> String (also available in Publisher)			X	
removed ConnectableOcc.fromExtCxnOccs() -> ExtCxnOcc[]				
removed ConnectableOcc.toExtCxnOccs() -> ExtCxnOcc[]				
ConsolidateSet.add(ObjDef,ObjDef[]) -> void	X			

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
This interface is used for „virtual“ connections created by an assignment:	X			
CxnAssign.ActiveType() -> String (also available in Publisher)	X			
CxnAssign.AssignedModels() -> Model[]				
CxnAssign.AssignedModels(int) -> Model[]				
CxnAssign.AssignedModels(int[]) -> Model[]				
CxnAssign.AttrList(int) -> Attr[] (also available in Publisher)				
CxnAssign.AttrList(int,boolean) -> Attr[] (also available in Publisher)				
CxnAssign.AttrList(int,int[]) -> Attr[] (also available in Publisher)				
CxnAssign.AttrList(int,int[],boolean) -> Attr[] (also available in Publisher)				
CxnAssign.AttrMap(int) -> Map (also available in Publisher)				
CxnAssign.AttrMap(int,boolean) -> Map (also available in Publisher)				
CxnAssign.AttrMap(int,int[]) -> Map (also available in Publisher)				
CxnAssign.AttrMap(int,int[],boolean) -> Map (also available in Publisher)				
CxnAssign.Attribute(int,int) -> Attr (also available in Publisher)				
CxnAssign.Attribute(int,int,boolean) -> Attr (also available in Publisher)				
CxnAssign.CompareAttributes(Item) -> Map (also available in Publisher)				
CxnAssign.CompareAttributes(Item,int[]) -> Map (also available in Publisher)				
CxnAssign.CreateAssignment(Model) -> boolean				
CxnAssign.CreateAssignment(Model,boolean) -> boolean				
CxnAssign.Database() -> Database (also available in Publisher)				
CxnAssign.Delete() -> boolean				
CxnAssign.Delete(boolean) -> boolean				
CxnAssign.DeleteAssignment(Model) -> boolean				
CxnAssign.GUID() -> String (also available in Publisher)				
CxnAssign.GetReorgMark() -> int				
CxnAssign.IsEqual(ArisObject) -> boolean (also available in Publisher)				
CxnAssign.IsValid() -> boolean (also available in Publisher)				
CxnAssign.KindNum() -> int (also available in Publisher)				
CxnAssign.Name(int) -> String (also available in Publisher)				
CxnAssign.Name(int,boolean) -> String (also available in Publisher)				
CxnAssign.OID() -> int[]				
CxnAssign.ObjectID() -> String (also available in Publisher)				
CxnAssign.OccList() -> CxnOcc[] (also available in Publisher)				
CxnAssign.OccList(Model[]) -> CxnOcc[] (also available in Publisher)				
CxnAssign.PassiveType() -> String (also available in Publisher)				
CxnAssign.RefGUID() -> String				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
CxnAssign.SetReorgMark(int) -> boolean	X			
CxnAssign.SourceObjDef() -> ObjDef (also available in Publisher)				
CxnAssign.TargetModel() -> Model (also available in Publisher)				
CxnAssign.TargetObjDef() -> ObjDef (also available in Publisher)				
CxnAssign.Touch() -> void				
CxnAssign.TypeNum() -> int				
CxnAssign.WriteAttributes(Map,int) -> Attr[]				
CxnAssign.getCreator() -> String				
CxnAssign.getIncomingLinks() -> Link[]				
CxnAssign.getLastModifier() -> String				
CxnAssign.getLinks() -> Link[]				
CxnAssign.getOutgoingLinks() -> Link[]				
CxnAssign.getReorgMark() -> int				
CxnAssign.getTimeOfCreation() -> ATimestamp				
CxnAssign.getTimeOfLastModification() -> ATimestamp				
CxnAssign.isImplicitCxn() -> boolean (also available in Publisher)				
CxnAssign.setReorgMark(int) -> boolean				
CxnDef.getCreator() -> String	X			
CxnDef.getIncomingLinks() -> Link[]				
CxnDef.getLastModifier() -> String				
CxnDef.getLinks() -> Link[]				
CxnDef.getOutgoingLinks() -> Link[]				
CxnDef.getTimeOfCreation() -> ATimestamp				
CxnDef.getTimeOfLastModification() -> ATimestamp			X	
removed CxnDef.CreateExtCxnDef(ConnectableDef,int) -> ExtCxnDef				
removed CxnDef.fromExtCxnDefs() -> ExtCxnDef[]				
removed CxnDef.toExtCxnDefs() -> ExtCxnDef[]				X
CxnDef.OID() -> int[]				
CxnLineStyle.getColor() -> Color	X			
CxnLineStyle.getStyle() -> int				
CxnLineStyle.getWidth() -> int				
CxnLineStyle.isDefault() -> boolean				
CxnLineStyle.setColor(Color) -> void				
CxnLineStyle.setColorValue(int) -> void				
CxnLineStyle.setDefault() -> void				
CxnLineStyle.setStyle(int) -> void				
CxnLineStyle.setWidth(int) -> void				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
CxnOcc.getDefinition() -> CxnDef (also available in Publisher)	X			
CxnOcc.getIncomingLinks() -> Link[]				
CxnOcc.getLineStyle() -> CxnLineStyle (also available in Publisher)				
CxnOcc.getLinks() -> Link[]				
CxnOcc.getOutgoingLinks() -> Link[]				
CxnOcc.getPoints() -> Point[] (also available in Publisher)				
CxnOcc.getSource() -> ObjOcc (also available in Publisher)				
CxnOcc.getTarget() -> ObjOcc (also available in Publisher)				
CxnOcc.setLineStyle(CxnLineStyle) -> boolean				
CxnOcc.setPoints(Point[]) -> boolean				
CxnOcc.CxnDef() -> CxnDef (also available in Publisher)				
CxnOcc.GetLine() -> int[] (also available in Publisher)				X
CxnOcc.PointList() -> Point[] (also available in Publisher)				
CxnOcc.SetPointList(Point[]) -> boolean				
CxnOcc.SourceObjOcc() -> ObjOcc (also available in Publisher)				
CxnOcc.SetPointList(Point[]) -> boolean				
CxnOcc.SourceObjOcc() -> ObjOcc (also available in Publisher)				
removed CxnOcc.ObjectID(int) -> String (also available in Publisher)			X	
removed CxnOcc.fromExtCxnOccs() -> ExtCxnOcc[]				
removed CxnOcc.toExtCxnOccs() -> ExtCxnOcc[]				
removed class DMSCredentials			X	
removed class DMSFileItem				
removed class DMSIntegration				
removed class DMSLock				
removed class DMSLockOptions				
removed class DMSObject				
removed class DMSProvider				
removed class DMSResultEntry				
removed class DMSSearchQuery				
removed class DMSVersion				
removed class DMSVersionCreationOptions				
removed class DTD				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
Database users are no longer stored in the ARIS database, but in the UserManagement (UMC). The corresponding report methods consequently manage the users in the UMC, so they still work „as expected“.	X			
The term „AssignedUser“ is used for a user having the right to (at least) view the database content. Non-assigned user do not even see the database in the explorer.				
Database.AssignedUserGroups() -> UserGroup[]	X			
Database.AssignedUsers() -> User[]				
Database.CreateUser(String,String,int[],boolean,int) -> User				
Database.CreateUserGroup(String,int[],int) -> UserGroup				
Database.getArisData() -> ArisData				
Database.getCreator() -> String				
Database.getDefaultFilter() -> String				
Database.getLastModifier() -> String				
Database.getPaletteGUID() -> String				
Database.getReturnSystemAttributes() -> boolean				
Database.getTimeOfCreation() -> ATimestamp				
Database.getTimeOfLastModification() -> ATimestamp				
Database.setDefaultFilter(String) -> boolean				
Database.setPaletteGUID(String) -> boolean				
Database.setReturnSystemAttributes(boolean) -> void				
Database.OID() -> int[]				X
DbInfo.getCount(int) -> long	X			
DeployResult.getMessages() -> List	X			
DeployResult.getState() -> boolean				
removed class DiagramType			X	
DialogTemplate.SetProperties(String[]) -> void	X			
removed class DisplayOption			X	
Visio import component API: var vImport = Context. getComponent(„VisioImport“):	X			
DrawingImport.getBPMNSupport() -> ReportBPMNSupport				
DrawingImport.getMapping(byte[],byte[],MethodFilter) -> Mapping				
DrawingImport.loadDrawingFile(String,byte[]) -> VisioLoader				
DrawingImport.loadDrawingFile(String,byte[],String) -> VisioLoader				
removed class EdgeSymbol			X	
removed class ExtCxnDef				
removed class ExtCxnOcc				



New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
FontStyle.getCreator() -> String	X			
FontStyle.getLastModifier() -> String				
FontStyle.getTimeOfCreation() -> ATimestamp				
FontStyle.getTimeOfLastModification() -> ATimestamp				
FontStyle.OID() -> int[]				X
FontStyle.remove() -> boolean [9.8 SR4]	X			
GfxObj.get3DEffect() -> boolean (also available in Publisher)	X			
GfxObj.set3DEffect(boolean) -> boolean				
„Group“ is now derived from „ObjDef“, so it has some more members. Classic ARIS groups have TypeNum()==Constants.OT_GROUP	X			
Group.AssignedModels() -> Model[]				
Group.AssignedModels(int) -> Model[]				
Group.AssignedModels(int[]) -> Model[]				
Group.ChangeGroup(Group) -> boolean				
Group.Consolidate(ObjDef[]) -> boolean				
Group.Consolidate(ObjDef[],boolean) -> boolean				
Group.Consolidate(ObjDef[],boolean,boolean) -> boolean				
Group.Consolidate(ObjDef[],boolean,boolean,boolean) -> boolean				
Group.CreateAssignment(Model) -> boolean				
Group.CreateAssignment(Model,boolean) -> boolean				
Group.CreateCxnDef(ObjDef,int) -> CxnDef				
Group.CxnList() -> CxnDef[] (also available in Publisher)				
Group.CxnList(Model[]) -> CxnDef[] (also available in Publisher)				
Group.CxnList(int) -> CxnDef[] (also available in Publisher)				
Group.CxnList(int,Model[]) -> CxnDef[] (also available in Publisher)				
Group.CxnListFilter(int) -> CxnDef[] (also available in Publisher)				
Group.CxnListFilter(int,String,int) -> CxnDef[] (also available in Publisher)				
Group.CxnListFilter(int,String,int,int) -> CxnDef[] (also available in Publisher)				
Group.CxnListFilter(int,String,int,int,int) -> CxnDef[] (also available in Publisher)				
Group.CxnListFilter(int,int) -> CxnDef[] (also available in Publisher)				
Group.CxnListFilter(int,int[]) -> CxnDef[] (also available in Publisher)				
Group.DeleteAssignment(Model) -> boolean				
Group.GetDefaultSymbolNum() -> int (also available in Publisher)				
Group.GetReorgMark() -> int				
Group.Group() -> Group (also available in Publisher)				
Group.HasVariants() -> boolean (also available in Publisher)				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
Group.Identifier(int) -> String (also available in Publisher)	X			
Group.IsVariant() -> boolean (also available in Publisher)				
Group.LinkVariant(ObjDef) -> boolean				
Group.Master() -> ObjDef (also available in Publisher)				
Group.OccList() -> ObjOcc[] (also available in Publisher)				
Group.OccList(Model[]) -> ObjOcc[] (also available in Publisher)				
Group.OccListInModel(Model) -> Occ[] (also available in Publisher)				
Group.OID() -> int[]				X
Group.SetDefaultSymbolNum(int,boolean) -> boolean	X			
Group.SetReorgMark(int) -> boolean				
Group.Type() -> String (also available in Publisher)				
Group.Type(boolean) -> String (also available in Publisher)				
Group.TypeNum() -> int				
Group.UnlinkVariant(ObjDef) -> boolean				
Group.Variants() -> ObjDef[] (also available in Publisher)				
Group.Variants(Group[]) -> ObjDef[] (also available in Publisher)				
Group.getConnectedObjs(int) -> ObjDef[] (also available in Publisher)				
Group.getConnectedObjs(int[]) -> ObjDef[] (also available in Publisher)				
Group.getConnectedObjs(int[],int) -> ObjDef[] (also available in Publisher)				
Group.getConnectedObjs(int[],int,int[]) -> ObjDef[] (also available in Publisher)				
Group.getCreator() -> String				
Group.getDefaultSymbolGUID() -> String (also available in Publisher)				
Group.getDefaultSymbolNum() -> int (also available in Publisher)				
Group.getDuration(int,Date,int) -> Date (also available in Publisher)				
Group.getEndDate(int,int,int) -> Date (also available in Publisher)				
Group.getIncomingLinks() -> Link[]				
Group.getLastModifier() -> String				
Group.getLinks() -> Link[]				
Group.getLockOwner() -> String				
Group.getNextWorkingDate(int,int) -> Date (also available in Publisher)				
Group.getOutgoingLinks() -> Link[]				
Group.getReorgMark() -> int				
Group.getSubTypeNum() -> int (also available in Publisher)				
Group.getTimeOfCreation() -> ATimestamp				
Group.getTimeOfLastModification() -> ATimestamp				
Group.setDefaultSymbolGUID(String,boolean) -> boolean				
Group.setDefaultSymbolNum(int,boolean) -> boolean				
Group.setReorgMark(int) -> boolean				
Group.setSubTypeNum(int) -> boolean				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
Item.getCreator() -> String	X			
Item.getLastModifier() -> String				
Item.getTimeOfCreation() -> ATimestamp				
Item.getTimeOfLastModification() -> ATimestamp				
Item.OID() -> int[]				X
Label.Database() -> Database (also available in Publisher)	X			
Label.IsValid() -> boolean (also available in Publisher)				
Label.getDefiningOccurrence() -> Occ				
Label.getFontStyleSheet() -> FontStyle				
Label.getHeight() -> int				
Label.getRotation() -> short				
Label.getTypeNum() -> int				
Label.getWidth() -> int				
Label.getX() -> int				
Label.getY() -> int				
Lane.getCreator() -> String	X			
Lane.getLastModifier() -> String				
Lane.getTimeOfCreation() -> ATimestamp				
Lane.getTimeOfLastModification() -> ATimestamp				
Lane.OID() -> int[]				X
Link.Database() -> Database	X			
Link.IsValid() -> boolean				
Link.ObjectID() -> String				
Link.getLinkDataGUID() -> String				
Link.getLinkKind() -> int				
Link.getLinkRules() -> LinkRule[]				
Link.getLinkSource() -> ArisObject				
Link.getLinkTarget() -> ArisObject				
Link.getLinkType() -> LinkType				
Used by Visio import component				
Mapping.findDrawingTypeByAlias(String) -> String	X			
Mapping.getAllUsedSymbols() -> int[]				
Mapping.getCxnType(String,String) -> int				
Mapping.getDrawingTypeNameMap(String) -> HashMap				
Mapping.getFallbackCxnType(ObjOcc,ObjOcc,int) -> int				
Mapping.getModelTypeByVisioTemplate(String) -> int				
Mapping.getSourceType() -> String				
Mapping.getSymbolByNameU(String) -> int				
Mapping.initMapping(String) -> boolean				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
Matrix.Graphic(boolean,boolean,int,boolean) -> ModelPicture (also available in Publisher)	X			
Matrix.ObjDefListBySymbols(int[]) -> ObjDef[] (also available in Publisher)				
Matrix.getCreator() -> String				
Matrix.getIncomingLinks() -> Link[]				
Matrix.getLastModifier() -> String				
Matrix.getLinks() -> Link[]				
Matrix.getLockOwner() -> String				
Matrix.getOutgoingLinks() -> Link[]				
Matrix.getTimeOfCreation() -> ATimestamp				
Matrix.getTimeOfLastModification() -> ATimestamp				
Matrix.OID() -> int[]		X		
removed Matrix.AddBusinessCase(Model) -> boolean				
removed Matrix. CreateExtCxnOcc(ConnectableOcc,ConnectableOcc,ExtCxnDef,Point[]) -> ExtCxnOcc			X	
removed Matrix. CreateExtCxnOcc(ConnectableOcc,ConnectableOcc,ExtCxnDef,Point[],boolean) -> ExtCxnOcc				
removed Matrix. removed Matrix.OriginalModel() -> Model				
MatrixCxnDef.getCreator() -> String	X			
MatrixCxnDef.getIncomingLinks() -> Link[]				
MatrixCxnDef.getLastModifier() -> String				
MatrixCxnDef.getLinks() -> Link[]				
MatrixCxnDef.getOutgoingLinks() -> Link[]				
MatrixCxnDef.getTimeOfCreation() -> ATimestamp				
MatrixCxnDef.getTimeOfLastModification() -> ATimestamp				
MatrixCxnDef.OID() -> int[]				X
removed MatrixCxnDef.CreateExtCxnDef(ConnectableDef,int) -> ExtCxnDef			X	
removed MatrixCxnDef.fromExtCxnDefs() -> ExtCxnDef[]				
removed MatrixCxnDef.toExtCxnDefs() -> ExtCxnDef[]				
removed MergeBaseOptions			X	

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
MethodFilter.AttrGroupChildren(int,boolean) -> int[] (also available in Publisher) MethodFilter.AttrGroupChildren(int,int,int,boolean) -> int[] (also available in Publisher) MethodFilter.AttrGroupParents(int) -> int[] (also available in Publisher) MethodFilter.AttrSymbols(int) -> int[] MethodFilter.AttrTypesOfAttrGroup(int,boolean) -> int[] (also available in Publisher) MethodFilter.AttrTypesOfAttrGroup(int,int,int,boolean) -> int[] (also available in Publisher) MethodFilter.AttrValueSymbol(int,int) -> Integer MethodFilter.SymbolGraphic(int,String,boolean) -> PictureBase MethodFilter.fromAPIName(String) -> int MethodFilter.getMetamodelItems(int,int) -> int[] (also available in Publisher) MethodFilter.getMetamodelName(int) -> String (also available in Publisher) MethodFilter.getMetamodels() -> int[] (also available in Publisher) MethodFilter.getMethodLocale() -> int (also available in Publisher) MethodFilter.getMethodLocales() -> MethodLocale[] MethodFilter.isUniqueCxn(int,int,int) -> int (also available in Publisher)	X			
Model.Graphic(boolean,boolean,int,boolean) -> ModelPicture (also available in Publisher) (additional last parameter) Model.ObjDefListBySymbols(int[]) -> ObjDef[] (also available in Publisher) Model.getCreator() -> String Model.getIncomingLinks() -> Link[] Model.getLastModifier() -> String Model.getLinks() -> Link[] Model.getLockOwner() -> String Model.getOutgoingLinks() -> Link[] Model.getTimeOfCreation() -> ATimeStamp Model.getTimeOfLastModification() -> ATimeStamp Model.OID() -> int[]	X		X	
removed Model.AddBusinessCase(Model) -> boolean removed Model.OriginalModel() -> Model removed Model. CreateExtCxnOcc(ConnectableOcc,ConnectableOcc,ExtCxnDef,Point[]) -> ExtCxnOcc removed Model. CreateExtCxnOcc(ConnectableOcc,ConnectableOcc,ExtCxnDef,Point[],boolean) -> ExtCxnOcc			X	X

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
ModelGenerationOptions.hideProcessInterfacesSpecial(boolean) -> void ModelGenerationOptions.setOnlyOneSatelliteTypeInHeader(long) -> void	X			
ModelPicture.getPictureTiled(int,int,String) -> PictureBase[] (also available in Publisher)	X			
ModelShortcut.getCreator() -> String	X			
ModelShortcut.getLastModifier() -> String				
ModelShortcut.getTimeOfCreation() -> ATimeStamp				
ModelShortcut.getTimeOfLastModification() -> ATimeStamp				
ModelShortcut.OID() -> int[]				X
MultiDefCxnOcc.AttrOcc(int) -> AttrOcc (also available in Publisher)	X			
MultiDefCxnOcc.AttrOccList() -> AttrOcc[] (also available in Publisher)				
MultiDefCxnOcc.Database() -> Database (also available in Publisher)				
MultiDefCxnOcc.IsEqual(ArisObject) -> boolean (also available in Publisher)				
MultiDefCxnOcc.IsValid() -> boolean (also available in Publisher)				
MultiDefCxnOcc.KindNum() -> int (also available in Publisher)				
MultiDefCxnOcc.Model() -> Model (also available in Publisher)				
MultiDefCxnOcc.ObjectID() -> String (also available in Publisher)				
MultiDefCxnOcc.Remove() -> boolean				
MultiDefCxnOcc.Remove(boolean) -> boolean				
MultiDefCxnOcc.getActive() -> boolean				
MultiDefCxnOcc.getDefinition() -> ConnectableDef				
MultiDefCxnOcc.getFontStyleSheet() -> FontStyle				
MultiDefCxnOcc.getIncomingLinks() -> Link[]				
MultiDefCxnOcc.getLabels() -> Label[]				
MultiDefCxnOcc.getLineStyle() -> CxnLineStyle				
MultiDefCxnOcc.getLinks() -> Link[]				
MultiDefCxnOcc.getMultiDefCxnOccs(boolean,boolean) -> MultiDefCxnOcc[]				
MultiDefCxnOcc.getOutgoingLinks() -> Link[]				
MultiDefCxnOcc.getParticipants() -> ConnectableDef[]				
MultiDefCxnOcc.getPoints() -> Point[]				
MultiDefCxnOcc.getSource() -> Occ				
MultiDefCxnOcc.getSymbolNum() -> int				
MultiDefCxnOcc.getTarget() -> Occ				
MultiDefCxnOcc.getZOrder() -> int (also available in Publisher)				
MultiDefCxnOcc.setActive(boolean) -> boolean				
MultiDefCxnOcc.setZOrder(int) -> boolean				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
removed class NodeSymbol			X	
ObjDef.getCreator() -> String	X			
ObjDef.getIncomingLinks() -> Link[]				
ObjDef.getLastModifier() -> String				
ObjDef.getLinks() -> Link[]				
ObjDef.getLockOwner() -> String				
ObjDef.getOutgoingLinks() -> Link[]				
ObjDef.getTimeOfCreation() -> ATimestamp				
ObjDef.getTimeOfLastModification() -> ATimestamp				
changed result type ObjDef.Shortcuts() -> Item[]		X		
ObjDef.OID() -> int[]				X
removed ObjDef.CreateExtCxnDef(ConnectableDef,int) -> ExtCxnDef			X	
removed ObjDef.fromExtCxnDefs() -> ExtCxnDef[]				
removed ObjDef.toExtCxnDefs() -> ExtCxnDef[]				
ObjDefShortcut.getCreator() -> String	X			
ObjDefShortcut.getLastModifier() -> String				
ObjDefShortcut.getTimeOfCreation() -> ATimestamp				
ObjDefShortcut.getTimeOfLastModification() -> ATimestamp				
ObjDefShortcut.OID() -> int[]				X
ObjOcc.getEmbeddedObjOccs(int[]) -> ObjOcc[]	X			
ObjOcc.getIncomingLinks() -> Link[]				
ObjOcc.getLabels() -> Label[]				
ObjOcc.getLinks() -> Link[]				
ObjOcc.getMultiDefCxnOccs(boolean,boolean) -> MultiDefCxnOcc[]				
ObjOcc.getOutgoingLinks() -> Link[]				
removed ObjOcc.AddBusinessOcc(ObjOcc) -> boolean			X	
removed ObjOcc.BusinessOccs() -> ObjOcc[]				
removed ObjOcc.ObjectID(int) -> String (also available in Publisher)				
removed ObjOcc.OriginalOcc() -> ObjOcc				
removed ObjOcc.fromExtCxnOccs() -> ExtCxnOcc[]				
removed ObjOcc.toExtCxnOccs() -> ExtCxnOcc[]				
removed exception ObjectException			X	
Occ.getIncomingLinks() -> Link[]	X			
Occ.getLinks() -> Link[]				
Occ.getOutgoingLinks() -> Link[]				
removed Occ.ObjectID(int) -> String (also available in Publisher)				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
removed OutputObjectException			X	
PCA_DATA.assignSmartinputPermission(ABOUser) -> void	X			
changed signature PCA_DATA. createSystemUser(String,String,String,AUserGroupDTO) -> ABOUser		X		
changed signature PCA_DATA. createUser(String,String,int,String,AUserGroupDTO) -> ABOUser				
Picture.Insert(Picture,int,int) -> boolean	X			
Picture.getImageData(String) -> byte[]				
Picture.Save(String) -> boolean				X
Polygon.get3DEffect() -> boolean (also available in Publisher)	X			
Polygon.set3DEffect(boolean) -> boolean				
Process.deployOrgchart(Database,String) -> DeployResult	X			
<b>Part of Visio import API:</b>				
ReportBPMNSupport.getBPMNModelTypes() -> int[]	X			
ReportBPMNSupport.isBPMNModelType(int) -> boolean				
ReportBPMNSupport.postProcessBPMN(Model,boolean,boolean) -> boolean				
removed exception ReportExecutionException	X			
removed exception ReportObjectException				
ReportScheduler.deleteSchedules(ArisObject,String[]) -> boolean	X			
ReportScheduler.getSchedules(ArisObject) -> String[]				
ReportScheduler.getSchedulesForDatabaseUser(Database,boolean) -> String[]				
ReportScheduler.setScheduleActivation(Database,String[],boolean) -> void				
RoundedRectangle.get3DEffect() -> boolean (also available in Publisher)	X			
RoundedRectangle.set3DEffect(boolean) -> boolean				
RunResult.getMessage() -> List	X			



New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
ScriptAdmin report API:	X			
ScriptAdmin.createCategory(int,int,String) -> String				
ScriptAdmin.deleteCategory(int,String) -> boolean				
ScriptAdmin.deleteScript(int,String) -> boolean				
ScriptAdmin.exportFile(int,String,String) -> ZipEntry				
ScriptAdmin.exportScript(int,String,String[]) -> byte[]				
ScriptAdmin.getCategories(int,int) -> ScriptCategoryRI[]				
ScriptAdmin.getCategoryNames(int,String) -> Map				
ScriptAdmin.getScriptComponents() -> ScriptComponentInfoRI[]				
ScriptAdmin.getScriptInfos(int,String,int) -> ScriptInfoRI[]				
ScriptAdmin.importFile(int,String,String,byte[]) -> String				
ScriptAdmin.importScript(int,String,byte[],String[]) -> String				
ScriptAdmin.renameCategory(int,String,int,String) -> boolean				
ScriptAdmin.unzip(byte[]) -> byte[]				
ScriptAdmin.zip(byte[]) -> byte[]				
ScriptCategory.getCategoryID() -> String				
ScriptCategory.getComponentID() -> int				
ScriptCategory.getName() -> String				
ScriptComponentInfo.getComponentID() -> int				
ScriptComponentInfo.getComponentName() -> String				
ScriptInfo.getDescription() -> String				
ScriptInfo.getID() -> String				
ScriptInfo.getImports() -> String[]				
ScriptInfo.getName() -> String				
ScriptInfo.isSimpleFile() -> boolean				
ServerAdmin.backupDatabase(Database) -> byte[]	X			
ServerAdmin.backupDatabase(Database,File) -> boolean				
ServerAdmin.countDbItems(Database,int[]) -> DbInfo				
!!last parameter was removed!! ServerAdmin.createArisDatabase(String,boolean) -> boolean		X		
ServerAdmin.reorganiseArisDatabase(Database,String) -> int	X			
ServerAdmin.reorganiseArisDatabase(Database,String,Collection) -> int				
ServerAdmin.restoreDatabase(File,String) -> boolean				
ServerAdmin.restoreDatabase(byte[],String) -> boolean				
removed class Symbol			X	

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
TextDef.getCreator() -> String	X			
TextDef.getLastModifier() -> String				
TextDef.getTimeOfCreation() -> ATimestamp				
TextDef.getTimeOfLastModification() -> ATimestamp				
TextDef.OID() -> int[]				X
TextOcc.getIncomingLinks() -> Link[]	X			
TextOcc.getLinks() -> Link[]				
TextOcc.getOutgoingLinks() -> Link[]				
changed result type TextOcc.setDisplayAsPostIt(boolean) -> boolean		X		
removed TextOcc.ObjectID(int) -> String (also available in Publisher)			X	
UML2 scripting:				
Omf*	X			
OmfScripting*				
Uml2Scripting*				
UML 1.x scripting				
removed class UmlEdgePresentation			X	
removed class UmlNodePresentation				
removed class UmlPresentation				
removed class UmlReport				
removed class UmlScripting				
removed class UmlScriptingException				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
<b>UMC report component interface:</b>				
UMC.getAllLicenses() -> List				
UMC.getAllPrivileges(boolean,boolean) -> List				
UMC.getAllUsergroups() -> List				
UMC.getAllUsers() -> List				
UMC.getAssignedUsergroupsForUser(UmcUser) -> List				
UMC.getAssignedUsergroupsForUserName(String) -> List				
UMC.getAssignedUsersForUsergroup(UmcUsergroup) -> List				
UMC.getAssignedUsersForUsergroupName(String) -> List				
UMC.getCurrentUser() -> UserWrapper				
UMC.getPrivilegesForUser(UmcUser,boolean,boolean,boolean) -> List				
UMC.getPrivilegesForUserName(String,boolean,boolean,boolean) -> List				
UMC.getPrivilegesForUsergroup(UmcUsergroup,boolean,boolean) -> List				
UMC.getPrivilegesForUsergroupName(String,boolean,boolean) -> List				
UMC.getSessionsForUser(UmcUser) -> List				
UMC.getSessionsForUserName(String) -> List				
UMC.getUserById(String) -> UserWrapper				
UMC.getUserByName(String) -> UserWrapper				
UMC.getUsergroupById(String) -> UsergroupWrapper				
UMC.getUsergroupByName(String) -> UsergroupWrapper				
UMC.getUsergroupsForPrivilegeQualifier(String) -> List				
UMC.getUsersForPrivilegeQualifier(String) -> List				
UmcLicense.compareTo(Object) -> int	X			
UmcLicense.getConsumedSeats() -> long				
UmcLicense.getExpirationDate() -> String				
UmcLicense.getFreeSeats() -> long				
UmcLicense.getName() -> String				
UmcLicense.getPrivilege() -> PrivilegeWrapper				
UmcLicense.getProduct() -> ProductWrapper				
UmcLicense.getQuantity() -> long				
UmcLicense.getType() -> String				
UmcPrivilege.compareTo(Object) -> int	X			
UmcPrivilege.getDisplayName() -> String				
UmcPrivilege.getId() -> String				
UmcPrivilege.getName() -> String				
UmcPrivilege.isLicensePrivilege() -> boolean				
UmcProduct.getCode() -> String	X			
UmcProduct.getName() -> String				
UmcProduct.getParent() -> ProductWrapper				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
UmcSession.getCreated() -> String	X			
UmcUser.compareTo(Object) -> int	X			
UmcUser.getAttributes() -> Map				
UmcUser.getCreated() -> String				
UmcUser.getDescription() -> String				
UmcUser.getEmail() -> String				
UmcUser.getFirstName() -> String				
UmcUser.getId() -> String				
UmcUser.getLDAPDN() -> String				
UmcUser.getLastName() -> String				
UmcUser.getName() -> String				
UmcUser.getPhone() -> String				
UmcUser.isLDAP() -> boolean				
UmcUsergroup.compareTo(Object) -> int	X			
UmcUsergroup.getAttributes() -> Map				
UmcUsergroup.getCreated() -> String				
UmcUsergroup.getDescription() -> String				
UmcUsergroup.getId() -> String				
UmcUsergroup.getLDAPDN() -> String				
UmcUsergroup.getName() -> String				
UmcUsergroup.isLDAP() -> boolean				
The standard report „User“ object:				X
User.IsAssigned() -> boolean	X			
User.getCreator() -> String				
User.getCustomAttribute(String) -> String				
User.getCustomAttributes() -> Map				
User.getLastModifier() -> String				
User.getTimeOfCreation() -> ATimestamp				
User.getTimeOfLastModification() -> ATimestamp				
User.setCustomAttribute(String,String) -> boolean				
User.OID() -> int[]				X

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
The standard report „UserGroup“ object:				X
UserGroup.IsAssigned() -> boolean	X			
UserGroup.getCreator() -> String				
UserGroup.getCustomAttribute(String) -> String				
UserGroup.getCustomAttributes() -> Map				
UserGroup.getLastModifier() -> String				
UserGroup.getTimeOfCreation() -> ATimestamp				
UserGroup.getTimeOfLastModification() -> ATimestamp				
UserGroup.setCustomAttribute(String,String) -> boolean				
UserGroup.OID() -> int[]				X

Part of visio import API	New	Changed	Removed	Deprecated
VAnnotation.toString() -> String	X			
VConnect.getFromCell() -> String				
VConnect.getFromPart() -> String				
VConnect.getFromSheet() -> String				
VConnect.getToCell() -> String				
VConnect.getToPart() -> String				
VConnect.getToSheet() -> String				
VConnect.toString() -> String				
VGeometry.getElement() -> Element				
VGeometry.getEllipse() -> List				
VGeometry.getLineTo() -> List				
VGeometry.getMoveTo() -> List				
VGeometry.getNamespace() -> Namespace				
VGeometry.toString() -> String				
VIS_Master.addShapeOfMaster(String,String,String,int) -> void				
VIS_Master.addShapesOfMaster(List) -> void				
VIS_Master.getAllShapesOfMaster() -> HashMap				
VIS_Master.getMasterID() -> String				
VIS_Master.getMasterNameU() -> String				
VIS_Master.getMasterReadableName() -> String				
VIS_Master.getMasterSymbolNum() -> int				
VIS_Master.getMasterUniqueID() -> String				
VIS_Master.getShapeNameUOfMasterByShapelD(String) -> String				
VIS_Master.getShapeSymbolNumOfMasterShapeByShapelD(String) -> int				
VIS_Master.isIsHidden() -> boolean				
VIS_Master.toString() -> String				
VIS_MasterShape.getID() -> String				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
VIS_MasterShape.getName() -> String	X			
VIS_MasterShape.getNameU() -> String				
VIS_MasterShape.getSymbolNum() -> int				
VIS_MasterShape.toString() -> String				
VIS_PointOfReference.applyScale(double) -> double				
VIS_PointOfReference.applyScale(double,String) -> double				
VIS_PointOfReference.copy() -> VIS_PointOfReference				
VIS_PointOfReference.getArisPosition(VisioLoader,VShape) -> Point				
VIS_PointOfReference.getLinePoint(Point2D\$Double) -> Point				
VIS_PointOfReference.initPointRef(VisioLoader,VShape,boolean) -> void				
VIS_PointOfReference.toString() -> String				
VName.getName() -> String				
VName.getNameU() -> String				
VName.toString() -> String				
VPage.getName() -> String				
VPage.getNameU() -> String				
VPage.getPageElement() -> Element				
VPage.name() -> String				
VPage.toString() -> String				
VShape.getID() -> String				
VShape.getMaster() -> String				
VShape.getNameU() -> String				
VShape.getShapeElement() -> Element				
VShape.getText() -> String				
VShape.getType() -> String				
VShape.name() -> String				
VShape.toString() -> String				
VShapeSize.toString() -> String				
VisioLoader.createNewVisPointOfReference(VPage) -> VIS_PointOfReference				
VisioLoader.destroy() -> void				
VisioLoader.getAlignH(VShape) -> int				
VisioLoader.getAlignV(VShape) -> int				
VisioLoader.getChildShapes(VPage) -> VShape[]				
VisioLoader.getChildShapes(VShape) -> VShape[]				
VisioLoader.getChildrenRecursive(VPage,String) -> Map				
VisioLoader.getColor(String) -> Integer				
VisioLoader.getConnects(VPage) -> VConnect[]				
VisioLoader.getFileName() -> String				
VisioLoader.getHeight(VShape) -> double				
VisioLoader.getHyperlink(VShape) -> String				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
VisioLoader.getLinePoints(VShape,VIS_PointOfReference) -> Point[]				
VisioLoader.getMasterMapping(Mapping) -> Map				
VisioLoader.getMasterShapeRootShapes(String) -> VShape[]				
VisioLoader.getPageAnnotations(VPage) -> VAnnotation[]				
VisioLoader.getPageHeight(VPage) -> String				
VisioLoader.getPageNames() -> VName[]				
VisioLoader.getPageShapes(VPage) -> VShape[]				
VisioLoader.getPages() -> VPage[]				
VisioLoader.getPositionLocPin(VShape) -> Point2D\$Double				
VisioLoader.getPositionPin(VShape) -> Point2D\$Double				
VisioLoader.getReviewers() -> HashMap				
VisioLoader.getShapeFillBkgnd(VShape) -> String				
VisioLoader.getShapeFillForeground(VShape) -> String				
VisioLoader.getShapeFillPattern(VShape) -> String				
VisioLoader.getShapeGeometry(VShape) -> VGeometry				
VisioLoader.getShapeLineColor(VShape) -> String				
VisioLoader.getShapeLinePattern(VShape) -> String				
VisioLoader.getShapeLineRounding(VShape) -> String				
VisioLoader.getShapeProperties(VShape) -> HashMap				
VisioLoader.getShapeProperty(VShape,String) -> String				
VisioLoader.getShapeSize(VShape) -> VShapeSize				
VisioLoader.getUsedTemplate() -> String				
VisioLoader.isShapeFreeFormText(VShape) -> boolean				
VisioLoader.setUsedTemplate(String) -> void			X	
Versioning.archiveItems(ArisObject[],String,VersioningOptions,boolean) -> int			X	
removed XMLExport.createDefaultXMLExportRootOptions(Group,int[]) -> XMLExportOptionsWrapper			X	
XlsSheet.setPageSize(MediaSizeFormat) -> void	X			
ZipEntry.getData() -> byte[]	X			
ZipEntry.getName() -> String				
ArisData.GetDatabaseNames(String) -> String[]	X			
ArisData.getTenantName() -> String				
ArisData.openDatabase(String,String,int) -> Database				
ArisData.openDatabase(String,String,int,boolean) -> Database				
ArisData.openDatabaseVersion(String,String,int,int) -> Database				
ArisData.openDatabaseVersion(String,String,int,int,boolean) -> Database				

New / removed / deprecated / changed methods:	New	Changed	Removed	Deprecated
ArisData.createConfigurationFilter(String,int,String,String,boolean) -> ConfigurationFilterAccess				X

Context.deleteFile(String,int) -> boolean. Deletes a „file“ controlled by the report environment.	X			
removed Context.getTempPath() -> String (also available in Publisher)			X	

## Useful Report hints

### 1. Use Context.setProperty("model-as-emf", true) once (before writing model graphics to the report)

- Makes PDF model graphics more brilliant
- maximum scalability
- smaller PDF files
- drawback: up to 10x time to create the image (due to a bug in an external library that will hopefully be fixed soon)

### 2. Open other databases using ArisData.openDatabase()

- you can log into the same DB as another user or with another filter
- do not forget to close them afterwards!

### 3. Save memory by using Database.clearCaches()

- use it where it makes sense (after using many objects that are not needed any more afterwards)

### 4. Clean up after an error! especially

- after openDatabase commands
- handle output file content in case of an error

### 5. Always use try / catch for error handling. You can report detailed error logs to the user using this code:

```
try {
    your code which might throw exceptions
}
catch(ex) {
    var line = ex.lineNumber
    var message = ex.message
    var filename = ex.fileName
    var exJava = ex.javaException
    if(exJava!=null) {
        var aStackTrace = exJava.getStackTrace()
        for(var iST=0; iST<aStackTrace.length; iST++) {
            message = message + "\n" + aStackTrace[iST].toString()
        }
    }
    Dialogs.MsgBox("Exception in file "+filename+", line "+line+":\n"+message)
}
```

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