

Animation Importer (AI9)

**BPA Delivery 8 for V5R20 &
Virtools 4.0, 4.1,5SP1 & 5SP3
(V5.8)**

User's Guide

Table of Contents

Table of Contents	1
Copyright Notice	3
Animation Importer deliverables	4
Export Geometric Model to 3DXML	6
Export Replay data to the positions file	8
Import 3dxml geometric Models in to Virtools (Virtools functionality)	10
Import Replay data from the Positions file	13
AI9 Play Animation	16
Save animation with Manikins.....	19
Load animation with Manikins.....	21
Help About – Animation Importer	23
Export vmo and play in 3D XE player	24
New in Animation Importer (AI9) – v5.8.....	25

Copyright Notice

© 2010. Dassault Systèmes, All Rights Reserved.

This guide is delivered subject to the following conditions and restrictions:

CONFIDENTIAL - This document contains unpublished, confidential and proprietary information of Dassault Systèmes.

This document or any part thereof shall not be reproduced or transferred to other documents or formats, disclosed to others or used for any purpose other than that for which it is furnished, without the prior written consent of Dassault Systèmes.

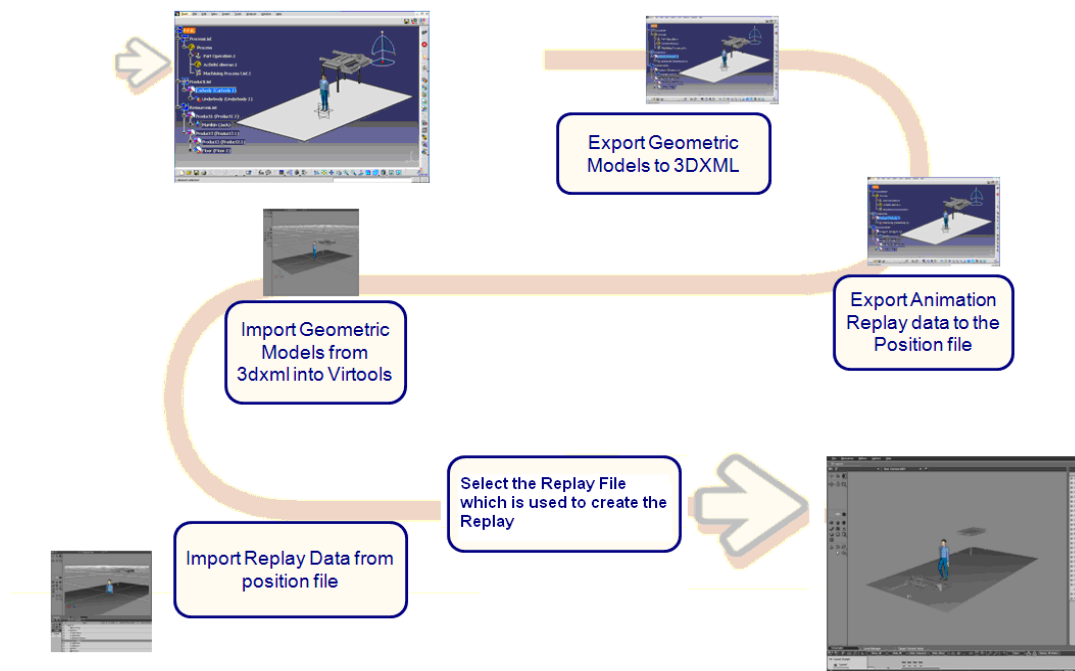
It shall be returned to Dassault Systèmes upon request.

Dassault Systèmes is a registered trademark of Dassault Systèmes.

All other trademarks belong to their respective owners.

CATIA is a registered trademark of Dassault Systèmes SA.

Animation Importer deliverables



The Animation Importer deliverables are provided as an executable package including the following functions:

1. Export Geometric Models to 3DXML



Function to export the geometric models to 3DXML that can be imported in Virtools

2. Export Animation Replay data to the Positions file



Function to export the current animation replay data into the positions file which can be imported in Virtools.

3. Import Geometric Models from 3dxml (Virtools Functionality)

Function to import the Geometric Models into Virtools from 3dxml which is exported from CATIA or DELMIA.

4. Import Replay data from the positions file

Function to import replay data from the positions file.

5. Save Animation with Manikins

Function to save animation with the imported manikin.

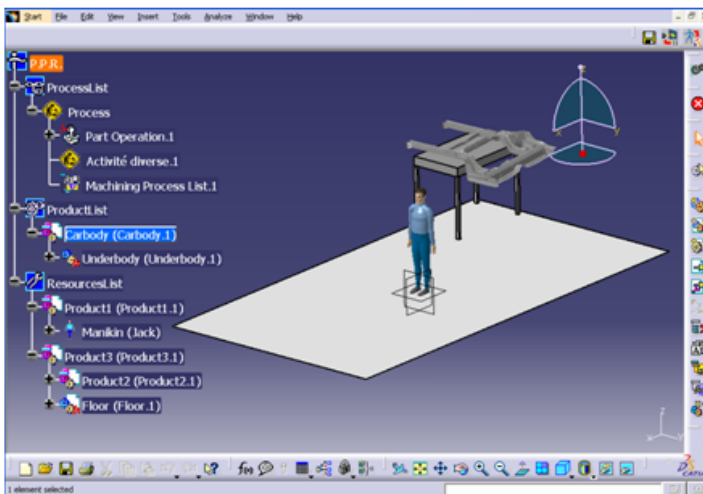
6. Load Animation with Manikins

Function to load the animation with Manikins

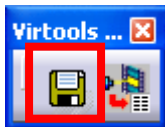
1 and 2 capabilities can be accessed through the use of a CATIA V5 or DELMIA Toolbar and 3, 4, 5 and 6 can be accessed in Virtools.

Export Geometric Model to 3DXML

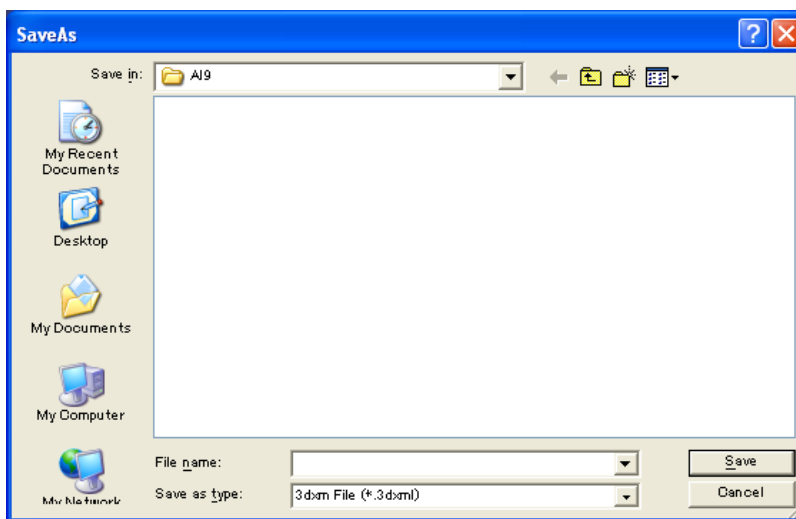
This function is to export geometric models to 3DXML that can be imported in Virtools.



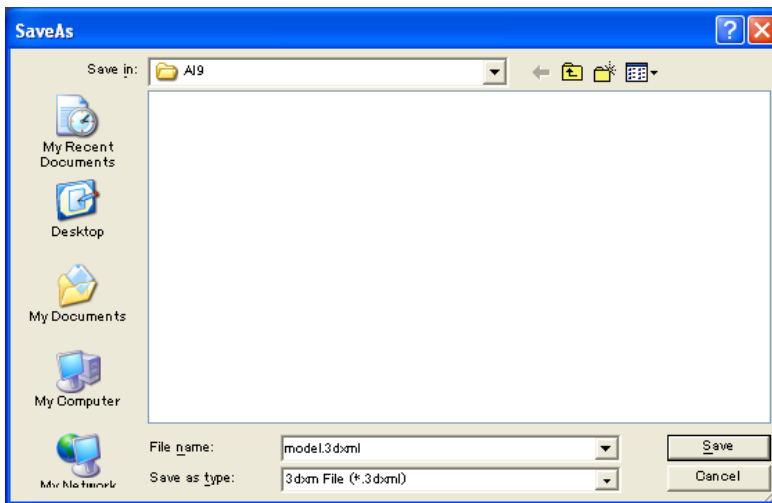
Geometric Models



1. Select Function "Export Geometric Model as 3dxml" to launch a panel



2. Select the path and input a file name in "File name" field to save the models.



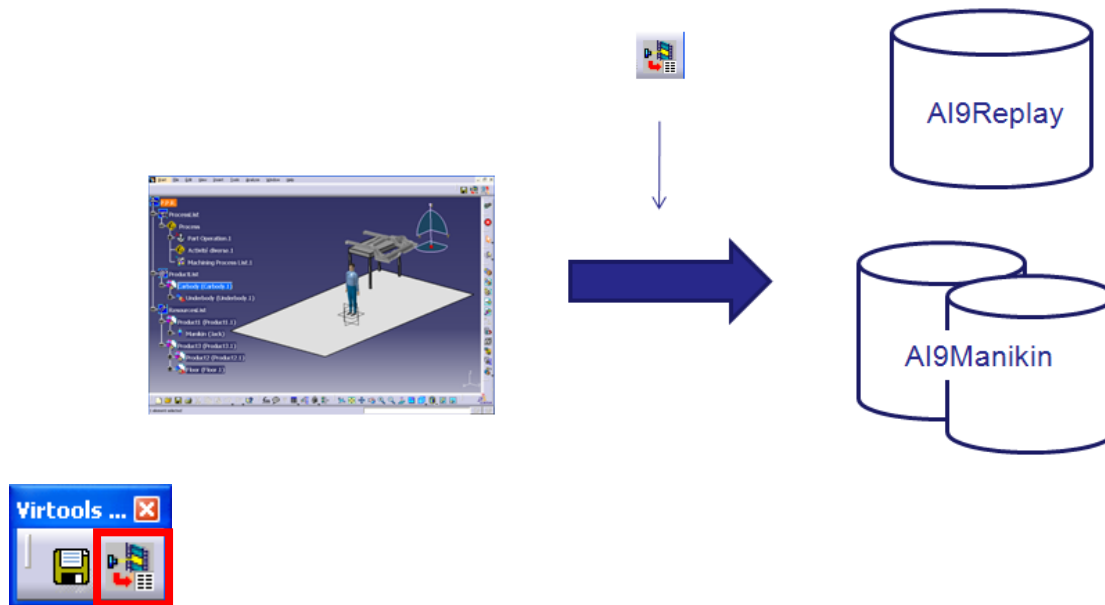
3. Press “Save” to save models

The current geometric models are saved to a 3DXML file.

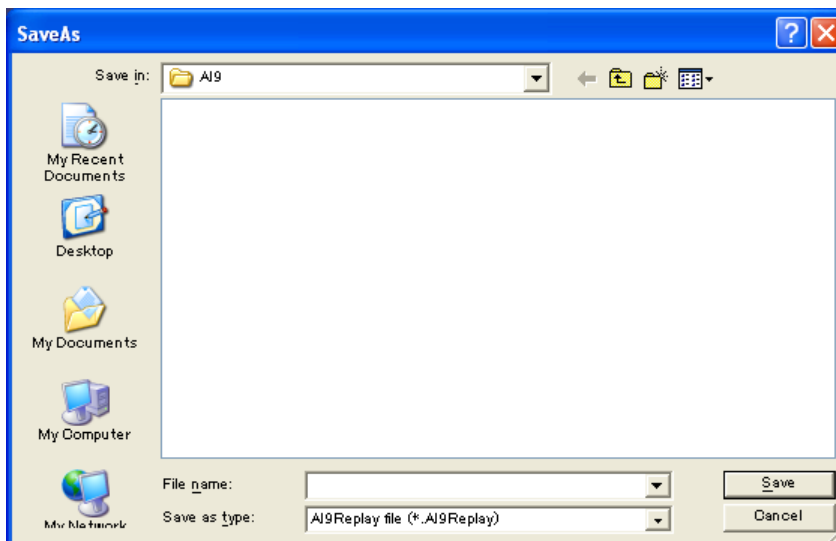
.

Export Replay data to the positions file

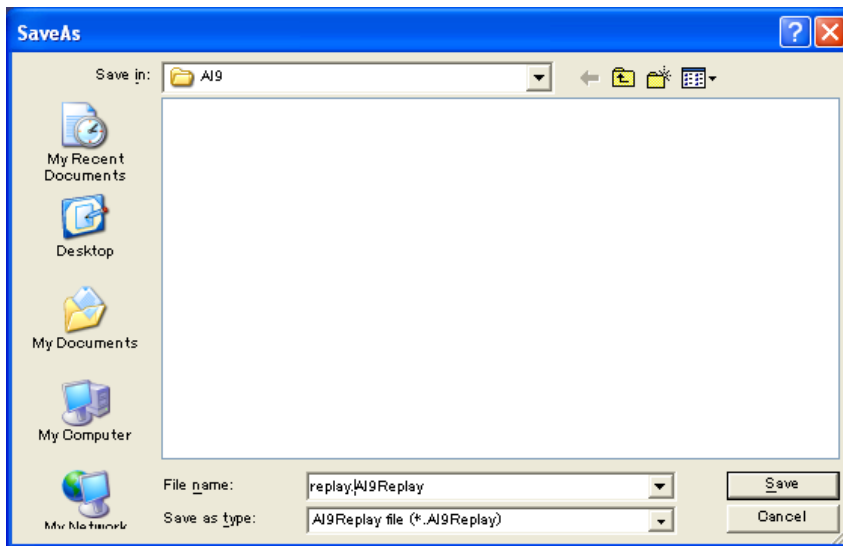
This function is to export Replay data stored in CATIA or DELMIA to the positions file and the file can be imported to create a replay in Virtools.



1. Select Function "Export the Replay Data " to launch "SaveAs" dialog



2. In the dialog, input a path and file name in the "File name" field.



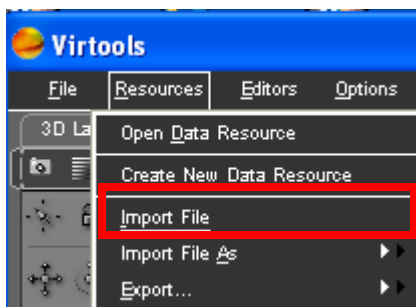
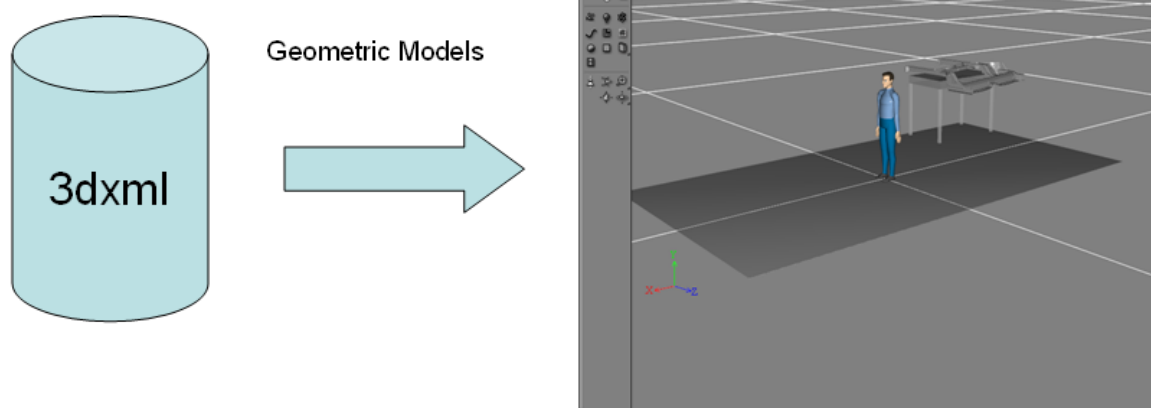
3. Press “Save” to save the Replay data to the positions file

The Replay data is saved to a file with suffix “.AI9Replay”.

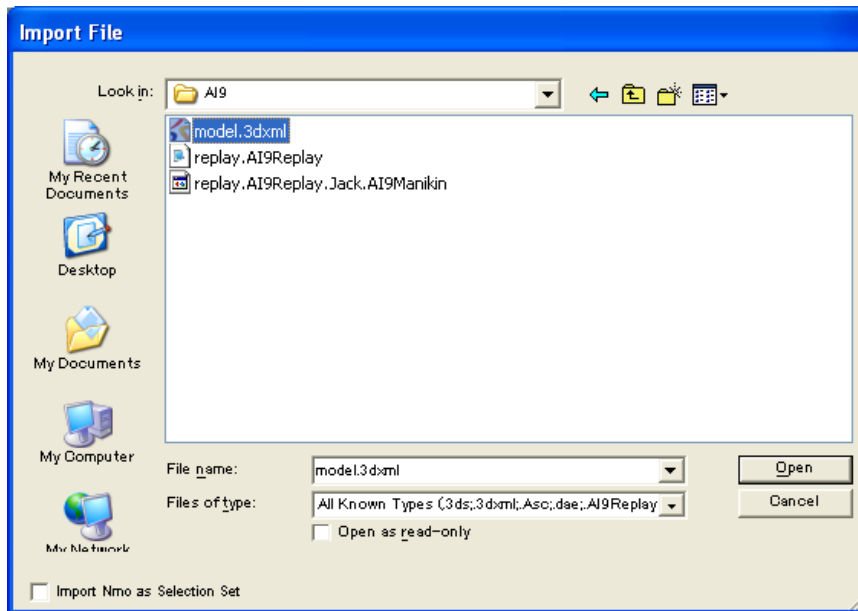
All the manikins are saved to files with suffix “.AI9Manikin”

Import 3dxml geometric Models in to Virtools (Virtools functionality)

This function is to import geometric models from 3dxml which is exported from CATIA or DELMIA.



1. launch "Import File" dialog with "Resources->Import file"

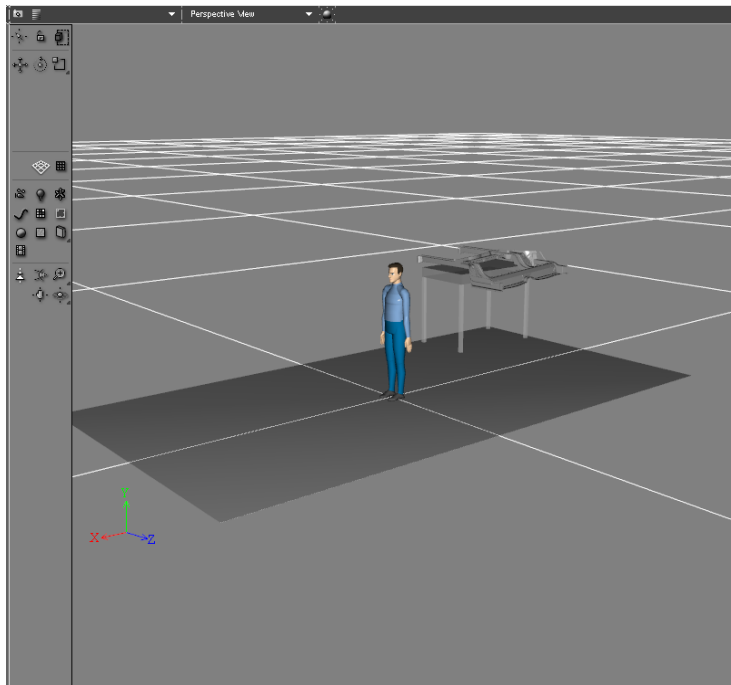


2. Select a 3dxml file which includes the geometric model that is exported from CATIA or DELMIA
3. Press “Open” to open a “3D XML import options” panel



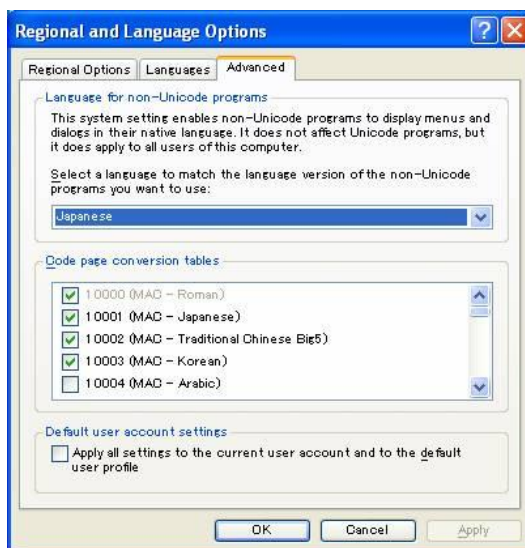
4. Select the options as followings:
 - a. UnitFactor : 0.001
 - b. NormalsProcessingMode:Two-sided lighting shader
 - c. MaterialOverrideMode:Propagate

5. Press "OK" to import the geometric models
6. The geometric models are imported in Virtools



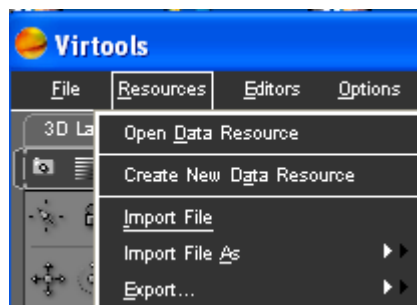
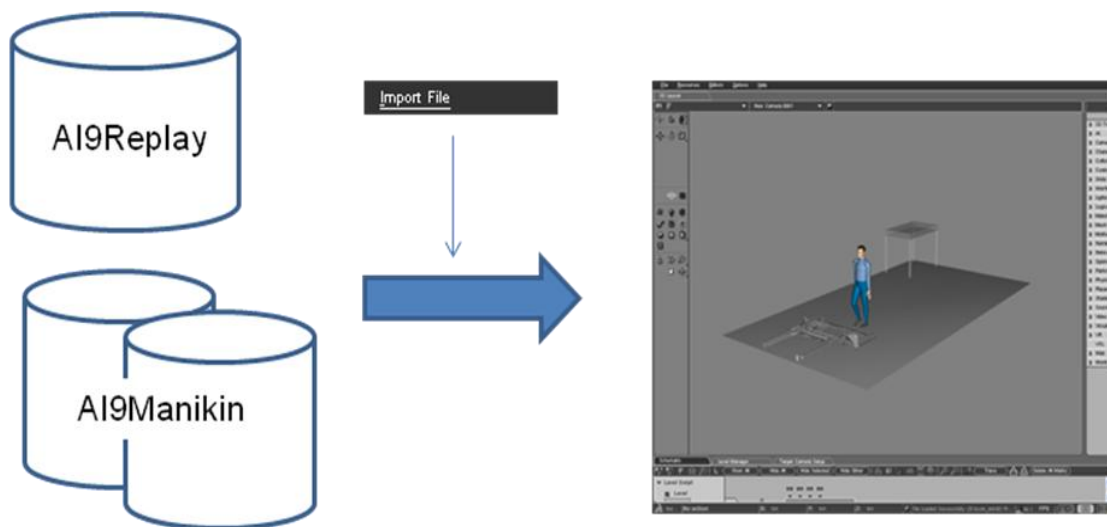
Note: In order to have Virtools to work with AI9 in multiple languages, it is needed to set "Language for non-Unicode programs" in Regional and Language Options to the language you select to export 3dxml in CATIA or DELMIA before you launch Virtools.

For example, if 3dxml is exported with Japanese in CATIA/DELMIA, it is needed to set "Language for non-Unicode programs" in Regional and Language Options like:

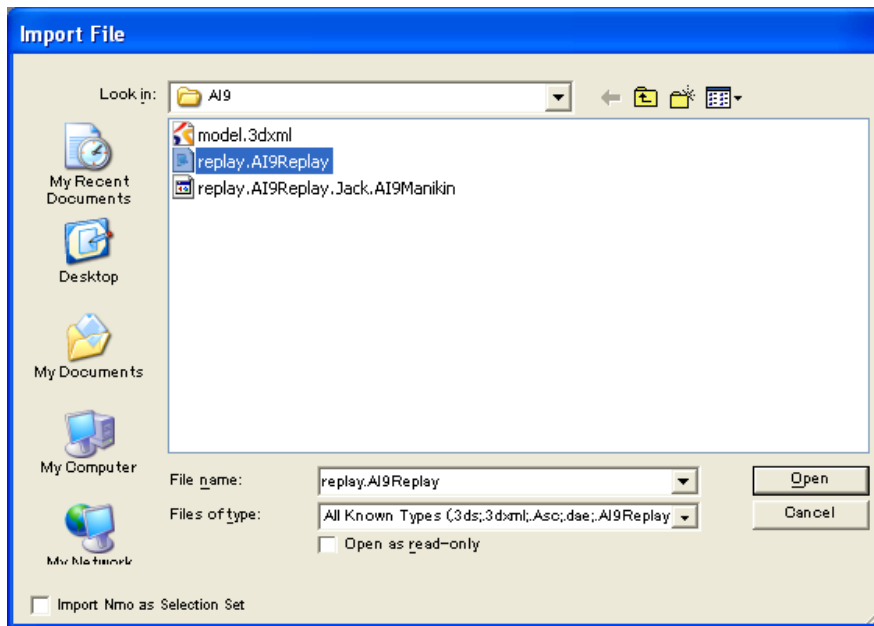


Import Replay data from the Positions file

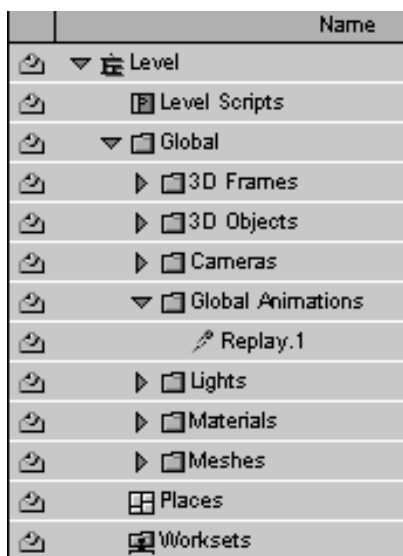
This function is to import Replay data from the positions file and create an animation object in Virtools.



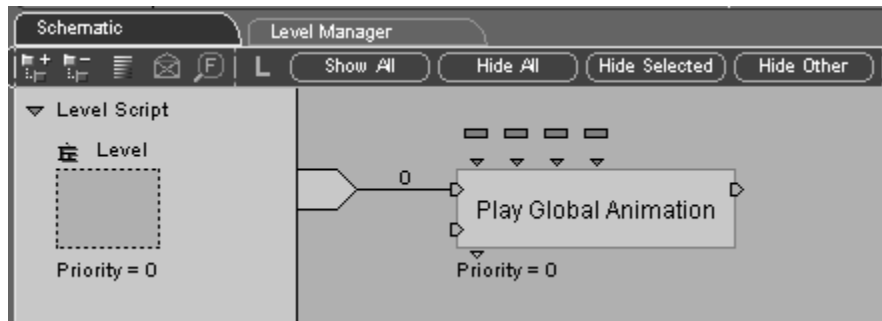
1. In Virtools, launch "Import File" dialog with "Resources->Import file"
2. In the dialog, input the name of the positions file in "File name" field.



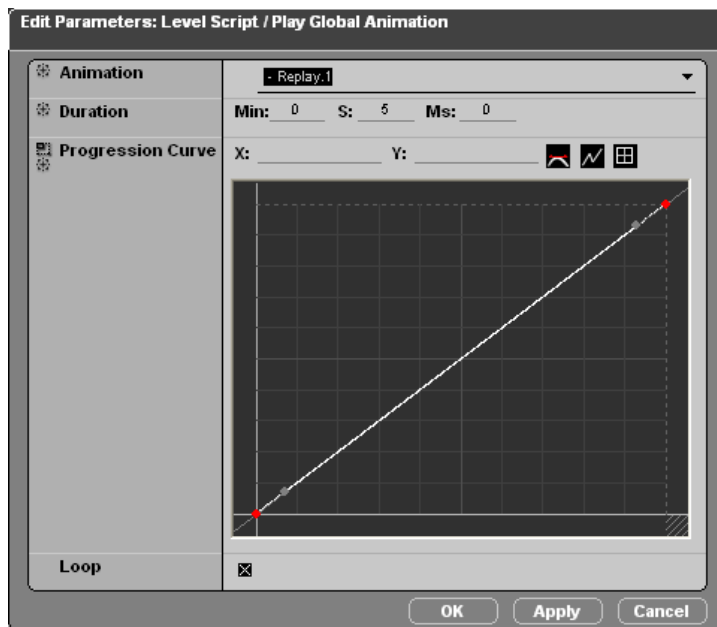
3. Press "Open" to import the positions file
 - a. If there are AI9Manikin files under the same folder with selected positions file, these AI9Manikin files are imported to replace the manikin in geometric model
4. After importing the positions file data, a Replay is created in Vrttools.



5. Confirm the animation
 - a. Create a script using "Play Global Animation" on Level Scripts



- b. Select the created animation as input of “Play Global Animation”

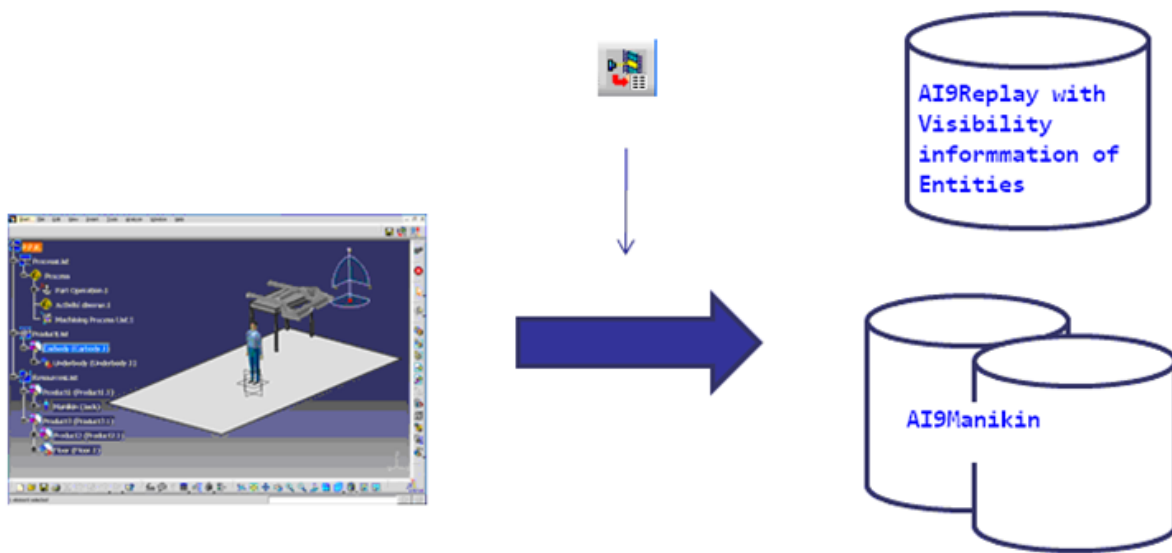


- c. Run the script

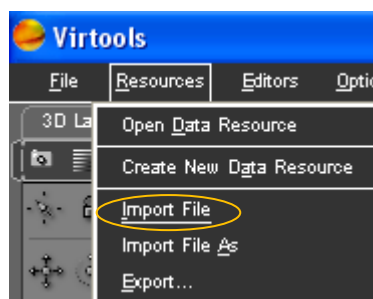


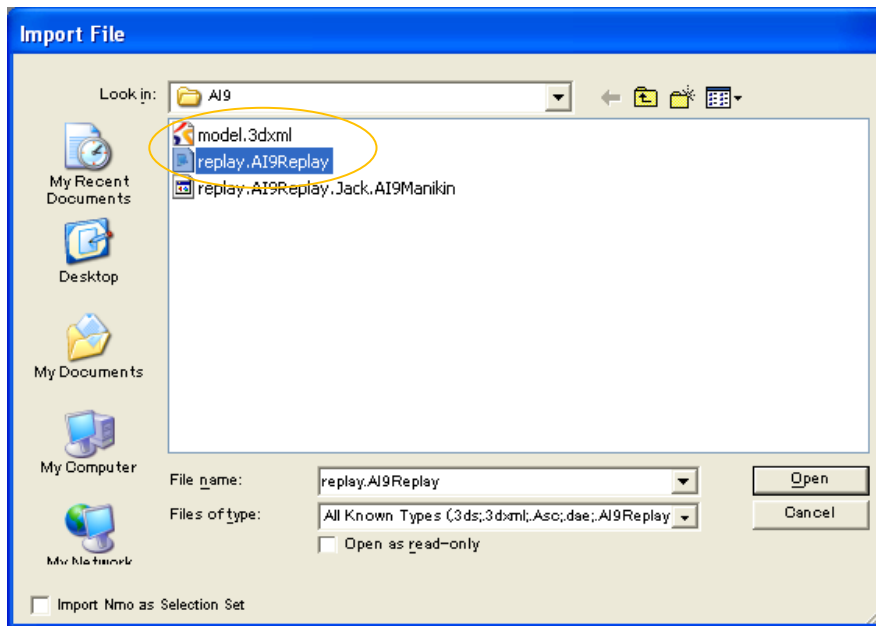
AI9 Play Animation

Using this function in addition to position and rotation information user will also be able to import the visibility information of the entities in an animation.

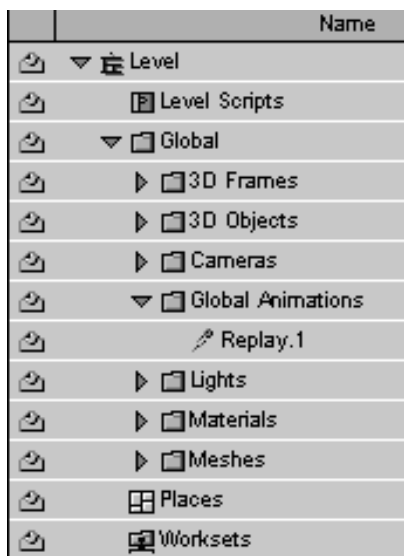


1. In Virtools side import Animation Replay data with Visibility information and the 3dxml file.

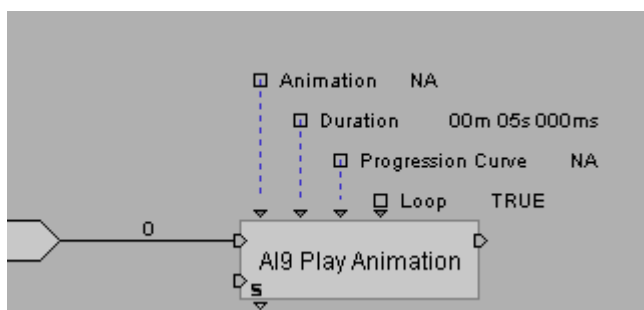




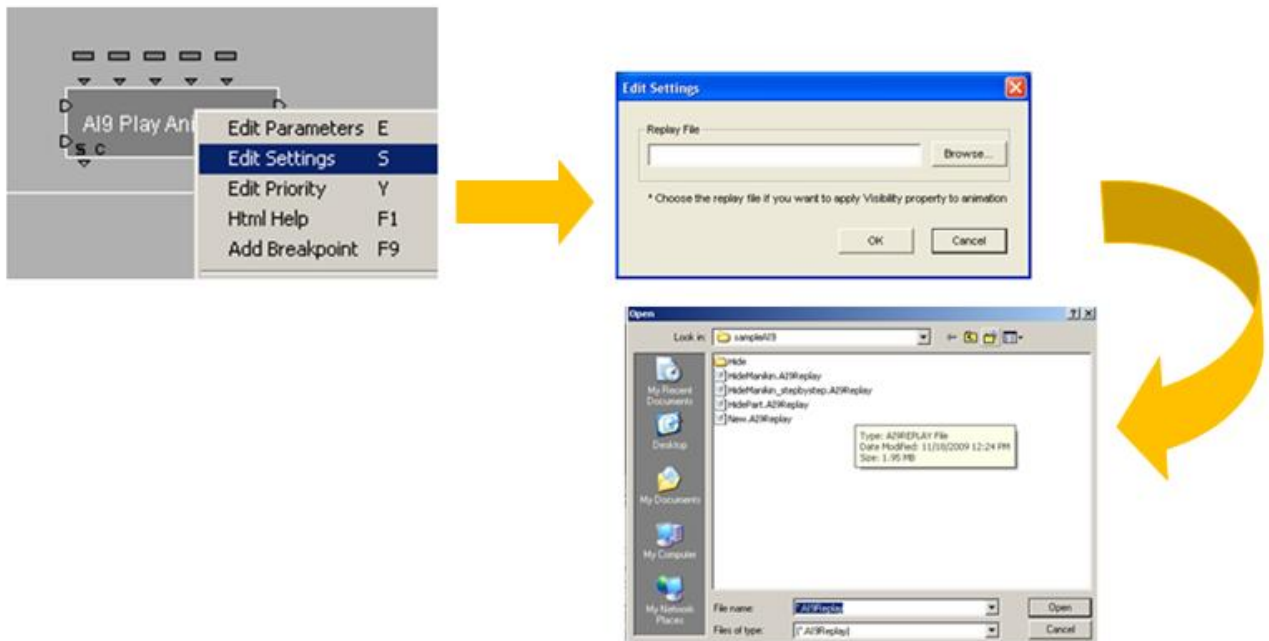
2. After importing the positions file data, a Replay is created in Virtools.



3. Create a script using "AI9 Play Animation" on Level Scripts and give the arguments.



4. Then after Clicking “OK”, right-click on the BB and select “Edit Settings” and browse to the Replay file, from which you have created the Global Animation.

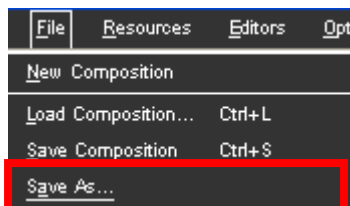
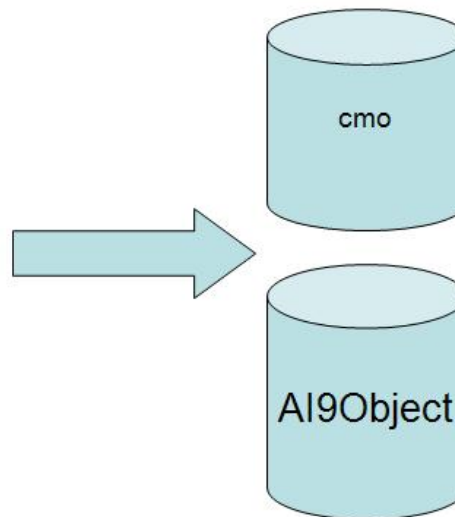
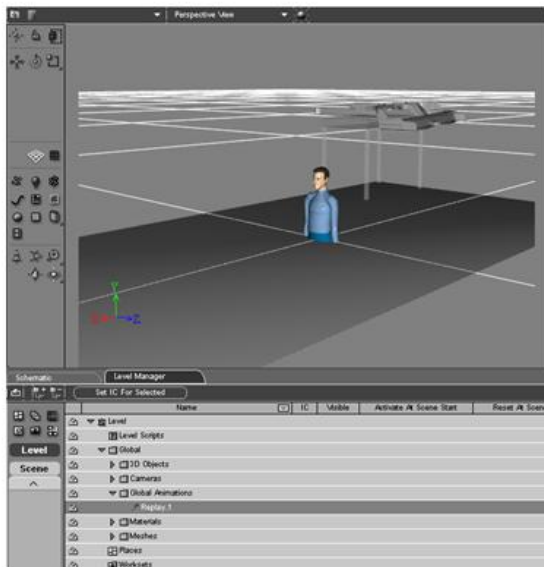


5. Select the proper Replay file and Click “Open” and press “OK” on the Settings panel.
6. Play the Animation in Virtools UI.

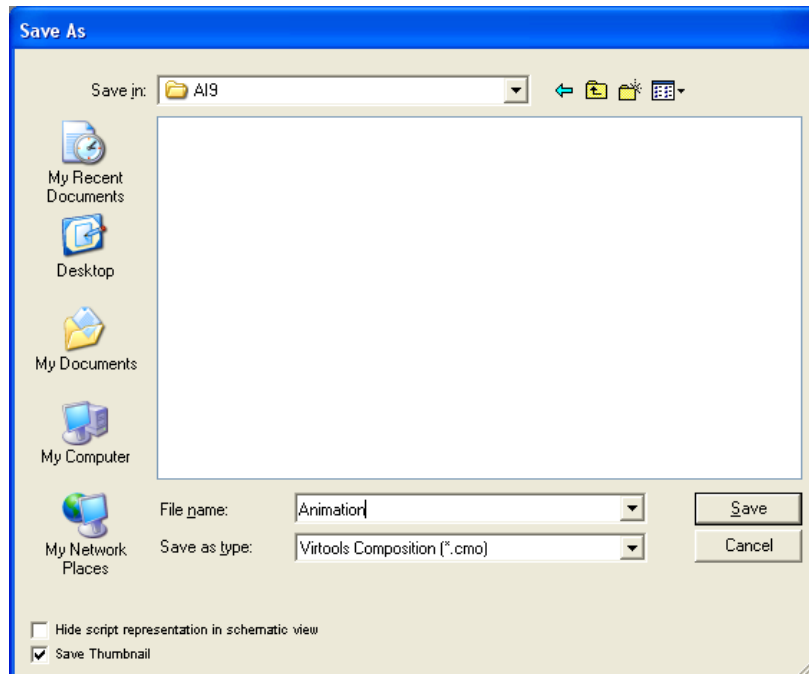


Save animation with Manikins

This function is to save animation with imported Manikins.



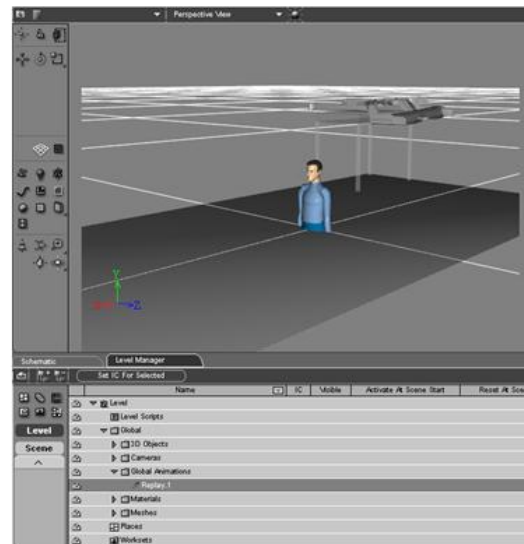
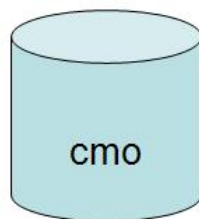
1. In Virtools, launch "Save As" dialog with "File->Save..."



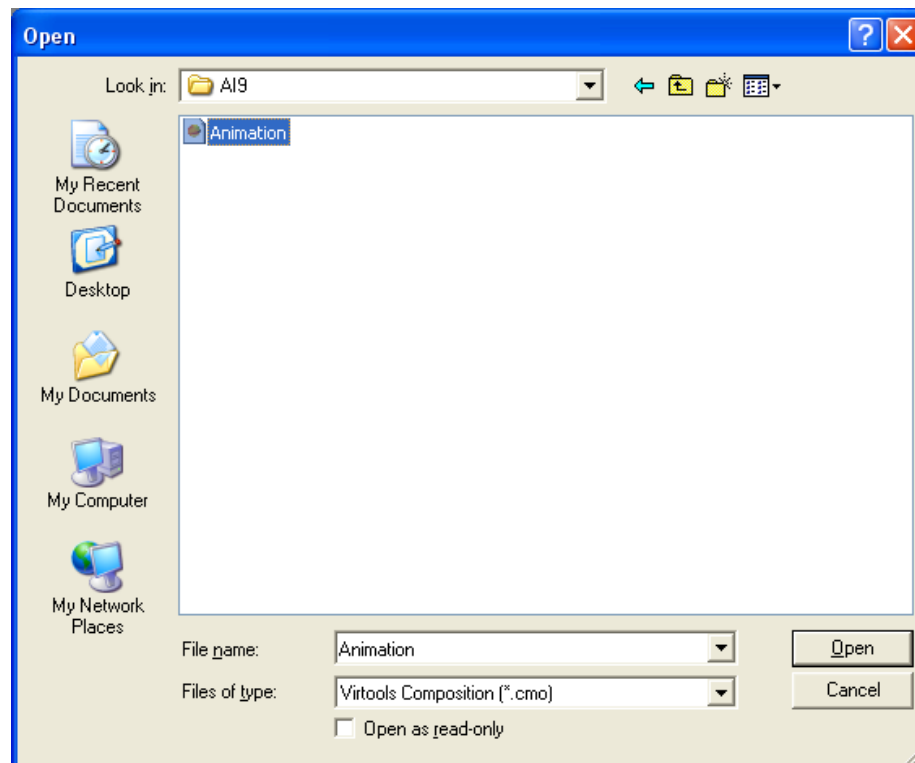
2. In “Save As” dialog, input the path and file name in the field “File name”
3. Press “Save” to save the model and animation
 - a. A cmo file and a file with suffix “.AI9Object” are created.

Load animation with Manikins

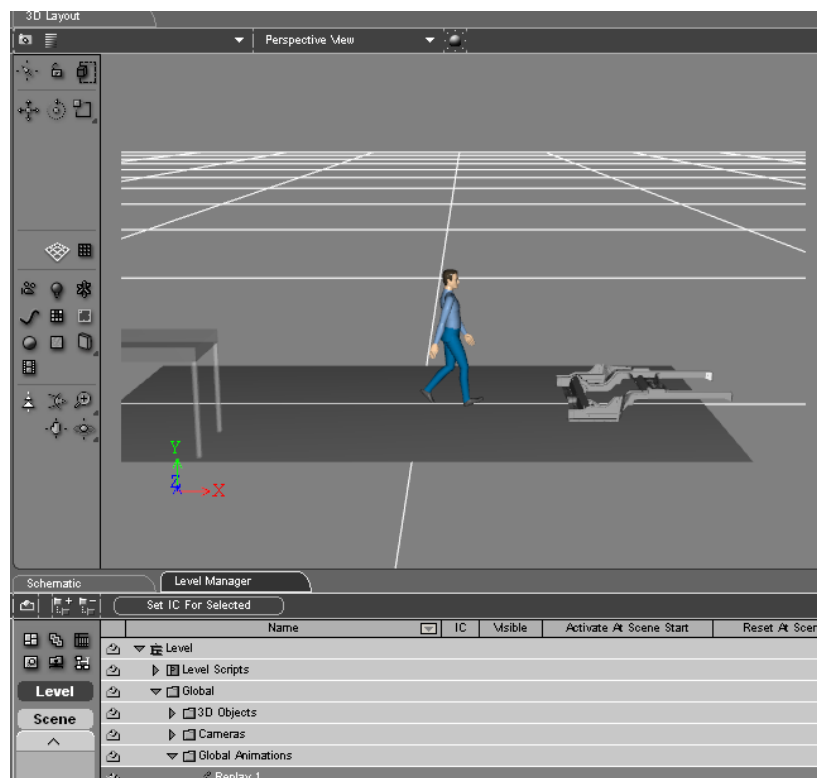
This function is to load animation with Manikins



1. In Virtools, launch "Open" dialog with "File->Load Composition..."

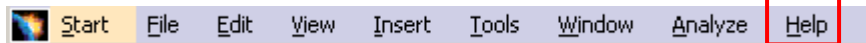


2. In “Open” dialog, select a cmo file that includes animation
3. Press “Open” to open the file
4. Animation is loaded.

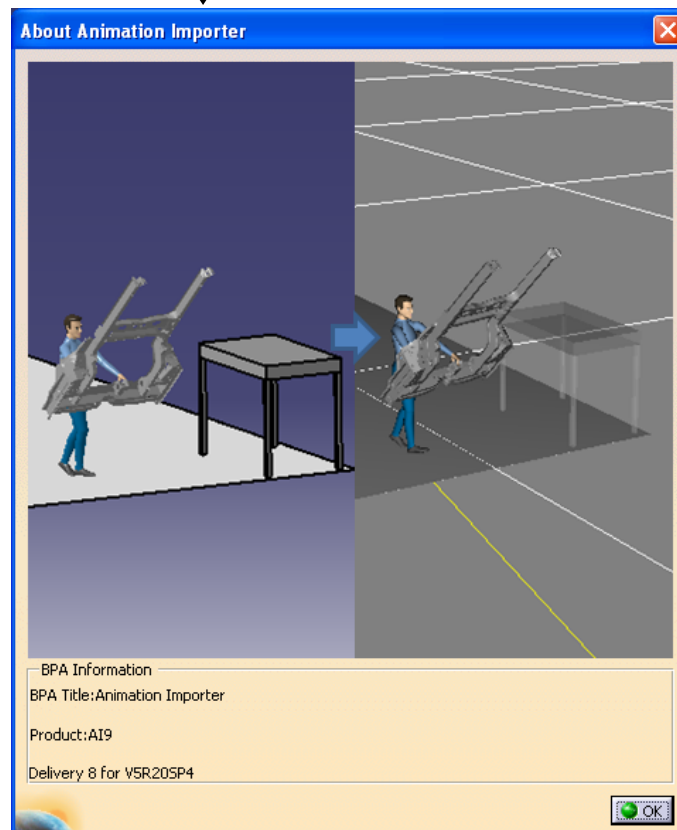
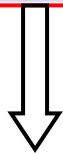
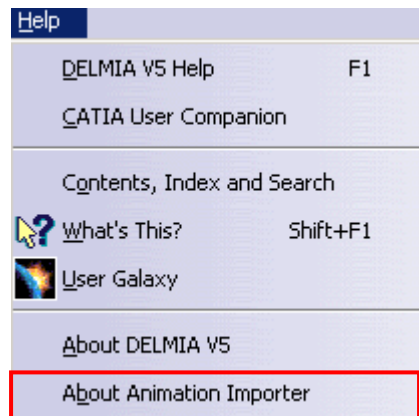


Help About – Animation Importer

1. Click on Help in the Menu bar.

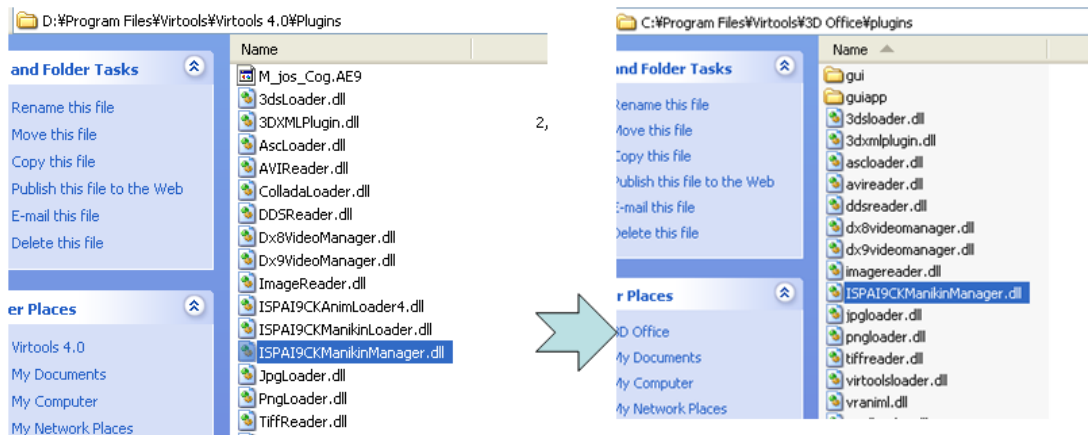


2. Now click on About Animation Importer.



Export vmo and play in 3D XE player

1. Copy this ISPAI9CKManikinManager.dll from the plugins folder of Virtools to the plugins under 3D XE player like: ~\3D Office\plugins



2. Use the following steps to export vmo and replay it in 3D XE player:
 - set all entities in their initial positions
 - run “save composition” to get AI9Object file
 - run “Export to Virtool Play” to get vmo
 - put AI9Object and vmo in same folder
 - launch 3D XE player and open vmo

New in Animation Importer (AI9) – v5.8

1. Import/export the visibility information of the entities of an animation.
2. In addition to position and rotation information user will also be able to import the visibility information of the entities in an animation.