

# Animation Importer (AI 9)

BPA Delivery 6 for V5R19 &  
Virtools4.0 (V5.6)

***Implementation Guide***

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# ***About Animation Importer***

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## ***What is Animation Importer***

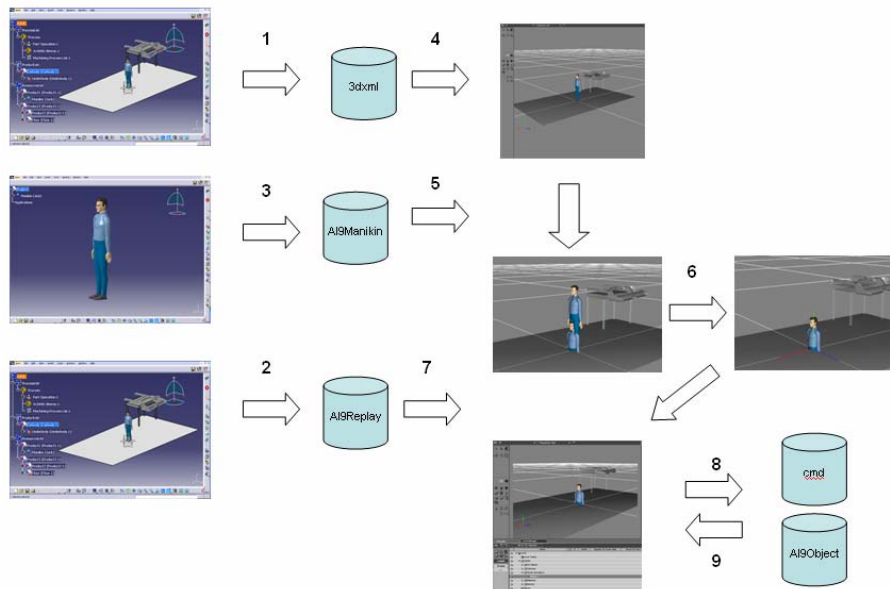
Animation Importer is a translator that imports the animation which is created in CATIA or DELMIA to Virtools, with this tool we can:

- Avoid Work Duplication
  - No need to re-design the movements in Virtools, although it has been already designed in the CAD system.
  - Time and money optimization
- Ensure Exact Moves in Virtools
  - The moves in Virtools will look exactly like the original moves defined in the CAD system with kinematics constraints and definitions
- Optimized Virtools Animation
  - Virtools is using a highly optimized class of objects for animation: the Virtools Animation
  - The moves in Virtools will always looks smooth thank the key-frame mechanism implemented by Virtools Animation class

## ***WORKFLOW Reminder***

1. Start from a V5R19 Replay Object (CATIA or DELMIA)
2. Export Geometric Models to 3DXML
3. Export Replay Data to the Positions File
4. Export Manikins one by one
5. Import Geometric Models with 3DXML into Virtools
6. Import the Manikins into Virtools
7. Replace the Manikins in Geometric models with the imported Manikin
8. Import Replay Data from the Positions File to Virtools
9. Save animation with the Manikins
10. Load animation with the Manikins

# 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. Export the Manikins one by one



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

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

5. Import a Manikin

Function to import a Manikin which is exported from CATIA

6. Replace the Manikins in Geometric models with Imported Manikins( Virtools Functionality)

Use Virtools' functions to replace the Manikins in Geometric models with the imported Manikins

7. Import Replay data from the positions file

Function to import replay data from the positions file.

8. Save Animation with Manikins

Function to save animation with the imported manikin.

9. Load Animation with Manikins

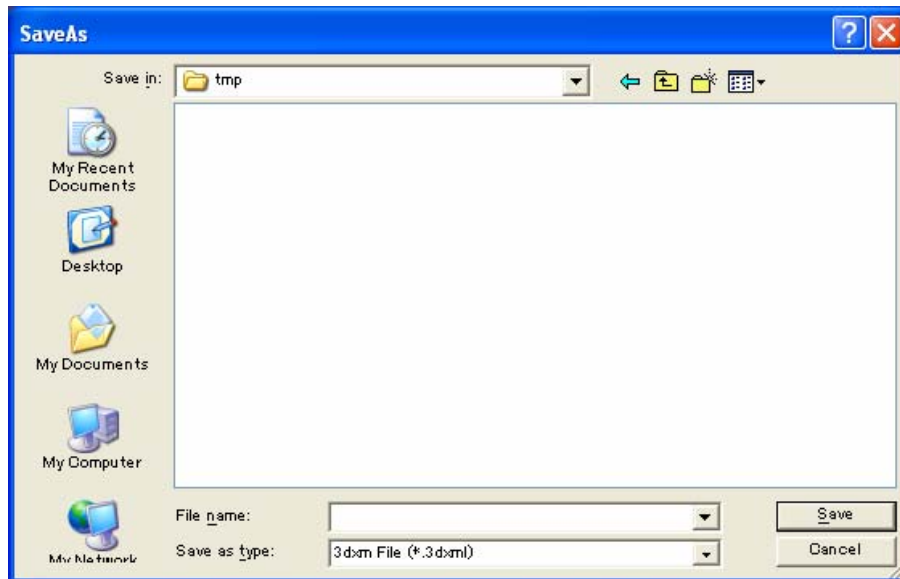
Function to load the animation with Manikins

1,2 and 3 capabilities can be accessed through the use of a CATIA V5 Toolbar and 4,5,6,7,8,9 can be accessed in Virtools.

# Export Geometric Models to 3DXML



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



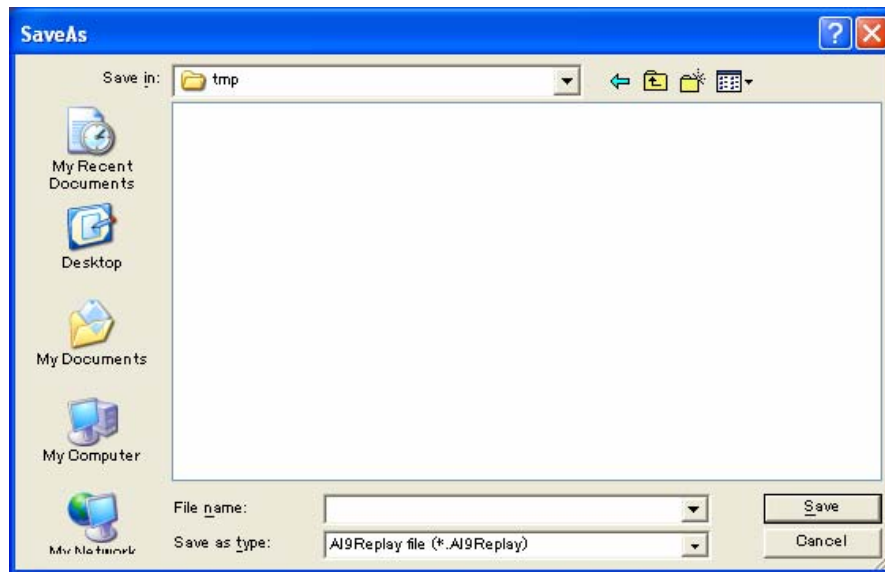
2. Select the path and input a file name in "File name" field to save the models.
3. Press "Save" to save models

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

## *Export Replay data into the Positions file.*



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

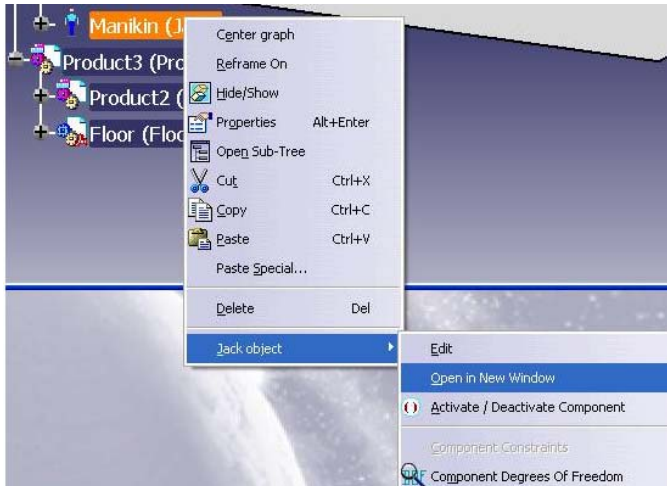
The Replay data is saved to a file with suffix ".AI9Replay".



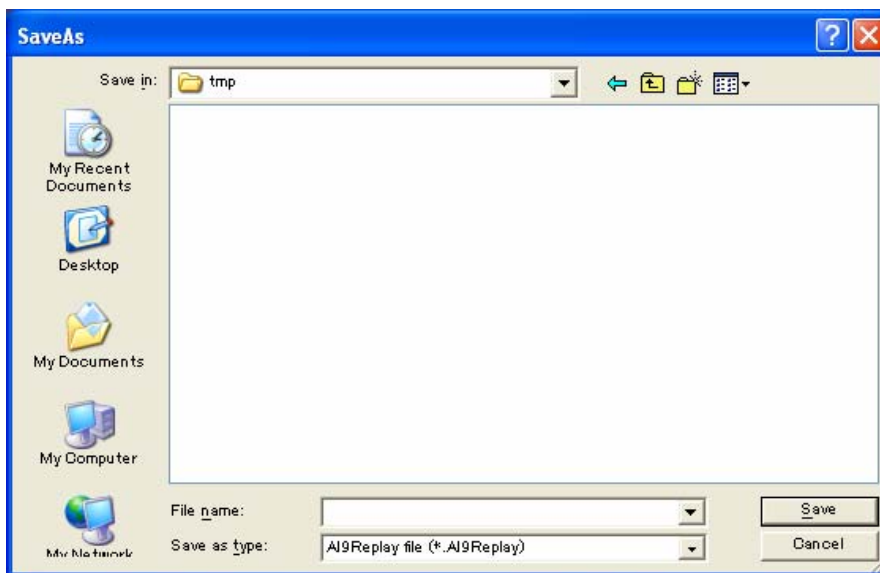
## Export a Manikin



1. Open a Manikin in new window



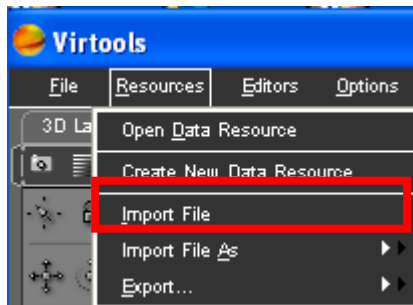
2. Select Function “Export Manikin ” to launch “SaveAs” dialog



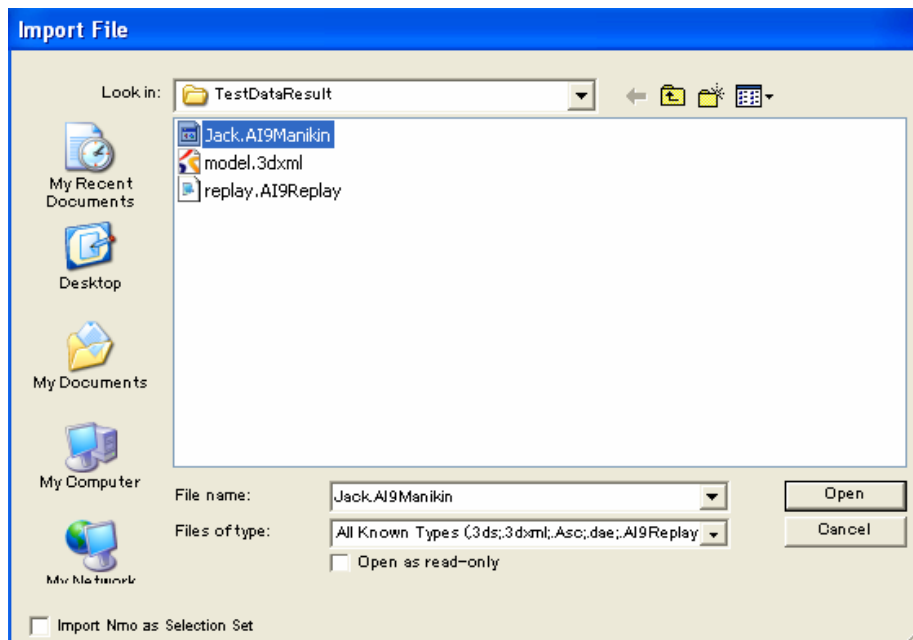
3. In the dialog, input a path and file name in the “File name” field.
4. Press “Save” to save the Manikin

The Manikin data is exported to a file with the suffix “.AI9Manikin”.

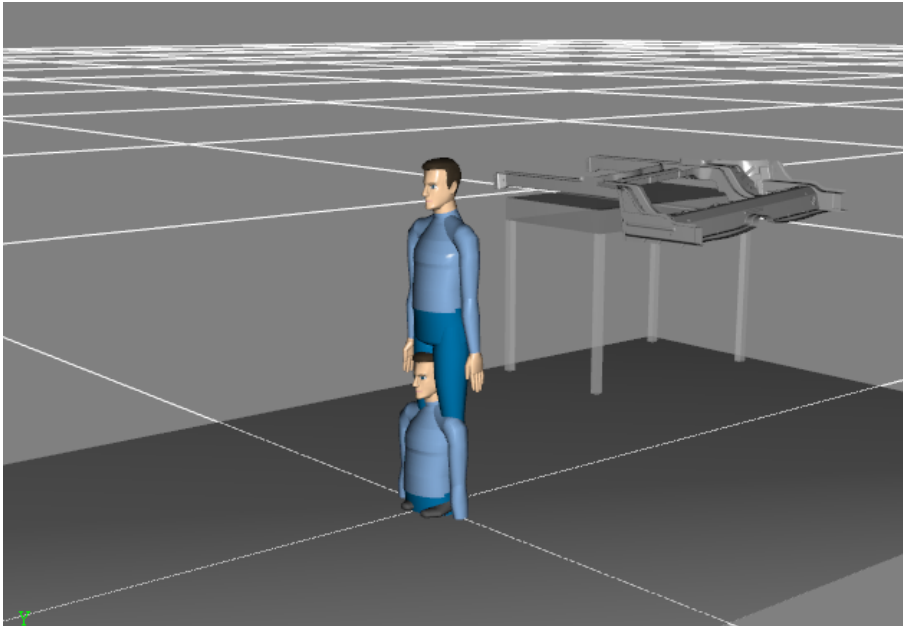
# Import Manikins into Virtools



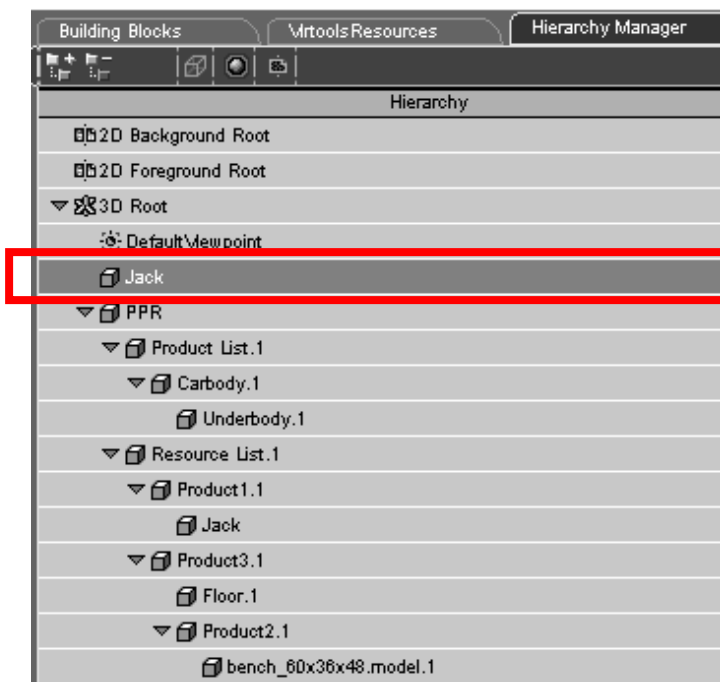
1. launch "Import File" dialog with "Resources->Import file"



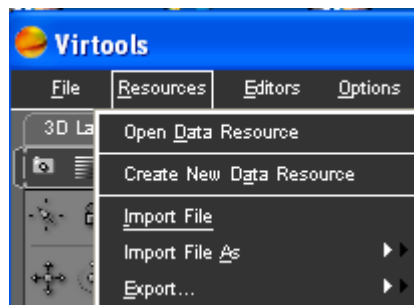
2. Select a AI9Manikin file that includes one Manikin exported from CATIA
3. Press "Open" to import the Manikin.
4. The Manikin is imported



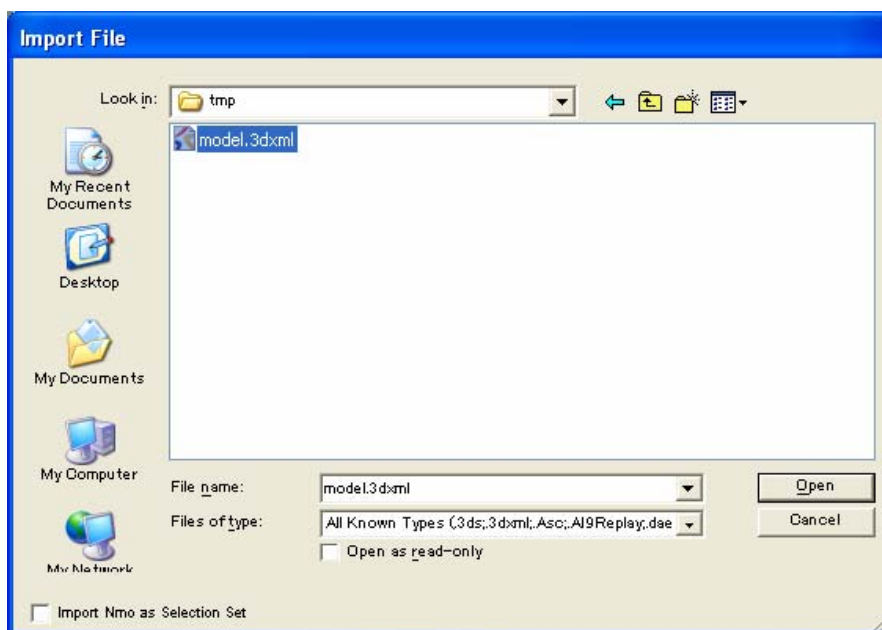
5 Check the location of the Manikin with Virtools' Hierarchy Manager.



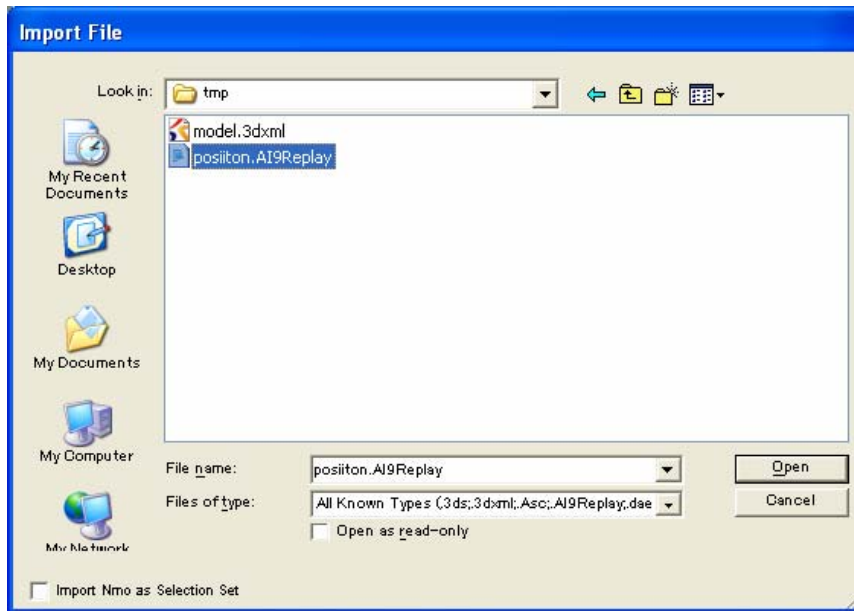
# Import Replay data from position file



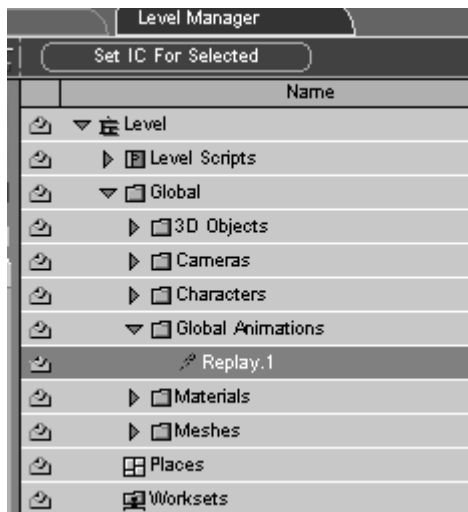
1. In Virtools, launch "Import File" dialog with "Resources->Import file"



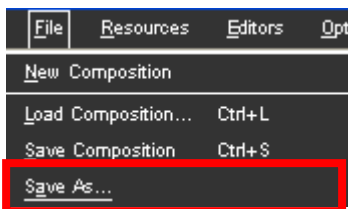
2. In the dialog, input the name of the positions file in "File name" field.



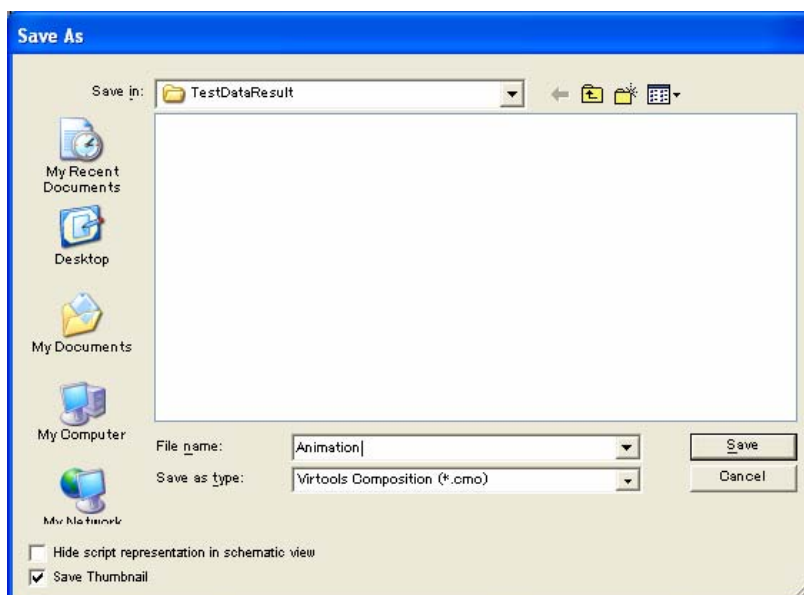
3. Press “Open” to import the positions file
4. After importing the positions file data, a Replay is created in Virtools.



## Save animation with Manikins



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

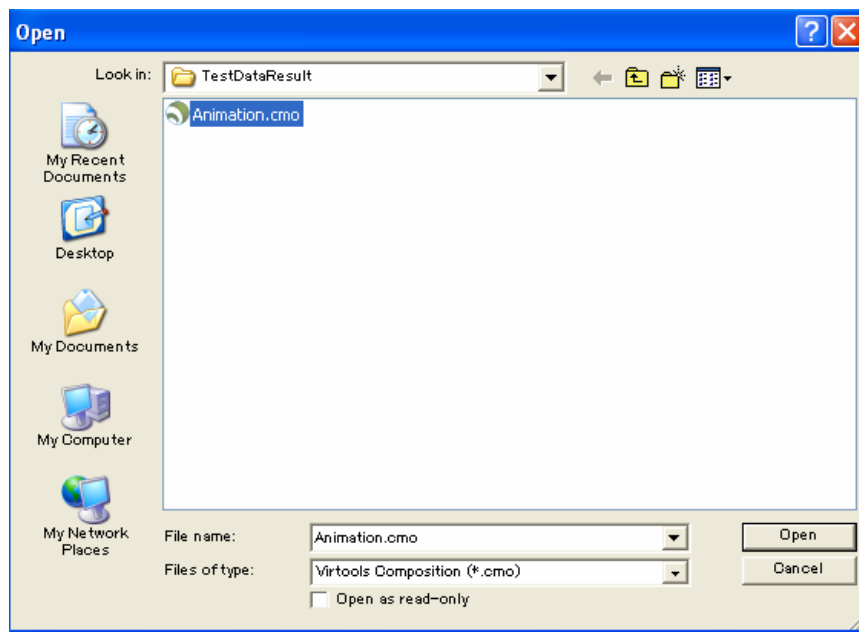


2. In “Save As” dialog, input the path and file name in the field “File name”
3. Press “Save” to save the model and animation
  - a. A cmo file and a file with suffix “.AI9Object” are created. The file with suffix “.AIObject” includes the information of the imported Manikin”

# 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 and the Manikins are loaded

