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### **PowerModels**

PowerModels is an collection of over 40 ready-to-use models. Every model has been set up for animation: pivot points are set, and models are prelinked, premapped, constrained and colored. Everything is set up for you to start animating immediately!

The models are provided in 3D Studio Max (.3ds & .max), LightWave 3D, and Life Forms files so that you can animate the models in any of these applications, or any applications that read 3D Studio Max, LightWave 3D or DXF files. When you animate in Life Forms remember that you can export the animation to 3D Studio Max and LightWave 3D for rendering. Browse this online guide to get more information about using PowerModels.

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# **Organization of PowerModels**

Every model in this CD is provided in 5 file formats. These files are found in the sub-folders of the Models folder

Model folder/	Files
Life Forms	.LFA
3dmax	.MAX
3ds	.3DS
Lightwave	.LWS
DXF(unlinked)	.DXF

The models are further grouped into 3 categories: Bug Characters, Human Characters and Realistic Humans.

- Bug Characters are insect models with humanoid qualities.
- Human Characters are humanoid models in various roles.
- Realistic Humans are models of every-day people.

### **View the Models**

The models in the PowerModels collection is grouped into 3 categories: Bug Character, Human Characters and Realistic Humans.

- Bug Characters are insect models with humanoid qualities.
- Human Characters are humanoid models in various roles.
- Realistic Humans are models of every-day people.

To view the models click on the following links.

Bug Characters Human Characters Realistic Humans







## **Realistic Humans**

The PowerModels collection contains 24 models of every-day people. Each model is available in a high-resolution and low-resolution version. You may choose to animate the low-rez model and replace it with the high-rez model just before rendering.

### File names

The models are named as follows:

- The first two letters usually indicate the ethnicity of the model: **as** means Asian, **af** means African, **ca** means Caucasian.
- The next three letters describes the models dress: cas means casual, biz means business.
- The next 2 or 3 letter indicates the sex: **wm** or **wom** means female, and **mn** or **man** means male.
- Some file names use the following descriptors: **old**, **yong** (young), **ave** (average), **hevy** (heavy) and **style**(nude).
- Filenames that end with "j" are files which have the high resolution version of the model.

For example, "afbizwmj" is a high rez model of an African woman in business clothes.







# Using the PowerModels

There are many ways to use PowerModels. PowerModels are ready to be animated in Life Forms, 3D Studio Max, LightWave 3D, and Inspire 3D, or any tool that accepts these file formats, for example Cinema 4D. You can also use PowerModels in any application that reads DXF files.

If you have Life Forms, 3D Studio Max, LightWave 3D, or Inspire 3D, simply open the correct file format for your 3D application and start animating. If you have Life Forms and any one of the previously mentioned applications you can animate the models in **Life Forms Studio 3** and the export the animation to one of those applications for rendering. The optimal process for using Life Forms with another 3D application is explained in the following screens.

Find out more about using PowerModels in these applications:

Life Forms Supported 3D Programs Life Forms and 3D Studio Max Life Forms and LightWave 3D or Inspire 3D

# Animating in Life Forms

There are many advantages in using Life Forms to animate your PowerModel. The most significant advantage is that you can apply motion capture and other premade animations to models in Life Forms. PowerModels are premapped so that you can apply motion capture data and premade animations to them in a snap. All PowerModels are also constrained for IK manipulation, and colored for rendering.

### To animate in Life Forms:

 Open any Life Forms .LFA file from PowerModels CD > Life Forms folder. You are now ready to animate by keyframing, pasting animations and using the Walk Generator. Refer to the User Guide for information about pasting keyframes in the Timeline window.

PowerModels have preset joint constraints. However, you don't have to use them.

### To disable constraints:

1. In the Figure editor, click the **Enable Limits** checkbox.

# Animating by Applying BioVision Motion Capture

The PowerModels have been mapped to the BioVision skeleton so that you can apply mocap data to PowerModels. More information about joint mapping is found in the Life Forms User Guide.

When we mapped the BioVision skeleton to the PowerModels, we chose not to map the head and neck joints. We did not map the head and neck because the default position of the head and neck bones of the BioVision skeleton is bent forward instead being erect. This position is not compatible with the correct head position of PowerModels. Because the neck and head joints are not mapped, the motion BioVision skeleton's head and neck joints are not applied when you paste motion capture animation to PowerModels.

If you want to apply motion of the head and neck of the BioVision skeleton you can do so by mapping these joints in the Joint Map editor. You can then correct or adjust the position by using the Range edit function. Information about using the Joint Map editor and Range editing is found in the Life Forms User Guide.

# **Other Supported 3D Programs**

Every model in this CD is provided in 5 file formats. These in the subfolders of the Model folder.

Model folder/	Files
Life Forms	.LFA
3dmax	.MAX
3ds	.3DS
Lightwave	.LWS
DXF(unlinked)	.DXF

### To animate in a supported 3D software:

1. Open the correct file format for your 3D application and start animating. All PowerModels have been linked and have correct pivot points. They are also correctly constrained for IK manipulation.

Life Forms imports and exports many file formats. Visit Credo's website for latest information: http://www.credo-interactive.com.

# Using Life Forms with 3D Studio Max

If you have Life Forms Studio 3.0 and 3D Studio Max, you can use process shown below. In Life Forms, apply premade and motion captured animations, or block out a sequence using Life Forms keyframing functions. In 3D Studio Max, complete the project by rendering the animation.



#### Important Notes:

In Step 1, you must use the model in the Life Forms file format. These files are found in the PowerModels CD > Models > Life Forms folder. Do not use 3DS version of the same model. We recommended this because the Life Forms files contain joint map and other model settings that makes it easier to animate the model in Life Forms. To use this process you must have the latest version of the 3DS plug-ins for Life Forms: 3DS.in.dll and 3DS.out.dll. These files can be downloaded from Credo's website. Please follow the instructions for installing these plug-in files.

#### To merge animation to a 3DS file

You can merge or insert just the animation's keyframes from a Life Forms file to the identical model in a 3DS file. Merging is recommended because keyframes are inserted into the 3DS file without affecting additional scene elements or model settings that the 3DS file may contain.

- 1. Choose File menu > Export.
- 2. In the Export Format list, click the **3D Studio Max icon**.
- 3. Click the Merge checkbox.
- Click the Choose File button. In the merge dialog box, browse and locate the corresponding 3DS file in the PowerModels CD > Models > 3DS folder.
- 5. Click **Open**.
- 6. Name and Save the new 3DS file. Life Forms creates a new 3DS file that contains the animation.

### For more resources about 3D Studio Max and Life Forms go to:

http://www.credo-interactive.com

# Using Life Forms with LightWave 3D

If you have both Life Forms Studio 3.0, and LightWave 3D or Inspire 3D, you can use process shown below. In Life Forms, apply premade and motion captured animations, or block out a sequence using Life Forms keyframing functions. In LightWave 3D or Inspire 3D complete the project by rendering the animation.



#### Important Notes:

In Step 1, you must use the model in the Life Forms file format. These files are found in the PowerModels CD > Models > Life Forms folder. Do not use LWS version of the same model. We recommended this because the Life Forms files contains joint map and other model settings that make it easier to animate the model in Life Forms. To use this process you must have the latest version of the LightWave plug-ins for Life Forms: LWS.in.dll and LWS.out.dll. These files can be downloaded from Credo's website. Please follow the instructions for installing these plug-in files.

#### To merge animation to a LWS file

You can merge *or insert* just the animation's keyframes from a Life Forms file to the identical model in a LightWave file. Merging is recommended because keyframes are inserted into the LWS file without affecting additional scene elements or model settings that the LWS file may contains.

- 1. Choose File menu > Export.
- 2. In the Export Format list, click the LightWave 3D icon.
- 3. Clear the Merge checkbox. Be sure that this checkbox is not selected.
- Click the Merge File button. In the merge dialog box, browse and locate the corresponding LWS file in the PowerModels CD > Models > LightWave folder.
- 5. Click Open.
- 6. Name and Save the new LWS file. Life Forms creates a new Light-Wave .LWS file that contains animation and the model.

## For more resources about LightWave 3D and Life Forms go to:

http://www.credo-interactive.com

# **Contact Information**

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