

# PowerPak 1

POWERMOVES™ - MOTIONREADY™

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## About PowerPak

**PowerPak** is the first title in the PowerMoves 3D content series. PowerPak contains **50 ready-to-use, royalty-free** motions; But, it is not simply a set of 50 files. This collection is unique in the number of file formats supported. It is also unique because the motions provided are designed to be easily reassembled into longer animations.

**PowerPak** motions are provided in:

- Segments that have the same start and end pose so that they can be **easily assembled** into longer animations.
- **Industry standard file formats** such as BioVision, Acclaim and 3DS.
- File formats for **popular 3D software** such as 3D Studio Max, Poser 3, LightWave3D, PowerAnimator, Maya, Cinema 4D, Strata Studio Pro, and TrueSpace.
- Sets for **common model types**, wherever possible. For example, motions are provided for models with extra back joints and shoulders versus models with only one back joint and no shoulders.

## Using PowerPak

Faced with tight deadlines and budgets for production, creative professionals are finding that they do not have enough time to create all motions and models from scratch. Here's where PowerPak can help. PowerPak's royalty free creative content can be used in:

- Game development
- Prototype development
- Animation workshops and demos
- Multimedia productions

PowerPak motions can be edited as desired in Life Forms or another 3D software, and then applied to 3D characters \*. You will have maximum flexibility in using PowerPak if you also have **Life Forms Studio 3.0**.

For information specific to your 3D software, please read the ***Technical Notes***.

\* Note: 3D software vary in the ability to apply motion from skeletons to 3D character, and in the ability to edit motion data. Ability to use PowerPak to animate 3D characters will also depend on the similarity between character and motion source.

## File Formats Supported

PowerPak motions are provided in these file formats for the following applications:

File Format	Extension	Applications
Life Forms Animation	.LFA	Life Forms,
3D Studio Max	.MAX	3D Studio Max
3D Studio R 4	.3DS	3D Studio Max and Release 4
Lightwave scene	.LWS	LightWave 3D, Inspire 3D
BioVision Hierarchical Motion	.BVH	Poser 3D, Cinema 4D XL*, ElectricImage **
Acclaim Motion Capture	.AMC, .ASF	
Maya melscript	.MEL, .MOV	Maya
PowerAnimator	.AMC, .ASF	PowerAnimator
Strata Hierarchical Motion	.SHM	Strata Studio Pro 2.5.3
Cinema 4D	.C4D	Cinema 4D

\* Maxon's BioVision plug-in (v 1.6) required. \*\* ElectricImage's BioVision import plug-in is required if using v2.8.

## The Motions

### Categories

PowerPak contains moves selected from various movement categories: everyday, dance, and gymnastics, walks cycles, fights and skiing. Some categories contain more motions than others.

### Naming Convention

Each motion is named by its movement category and then by the specific motion it contains. For example, the cough, and the handshake are called everyday\_cough, everyday\_handshake.

PowerPak motions are designed to be pieced together to create longer sequences. Some of the motion files provided were created by connecting several motion files from the same category, for example, Gym\_long\_routine, dance\_break, and swordfight. For a *full listing* of motion files provided see *Next*.

### Organization

The motion files are also provided in a several file formats for a number of popular 3D software. Motion files are organized by the software they are for.

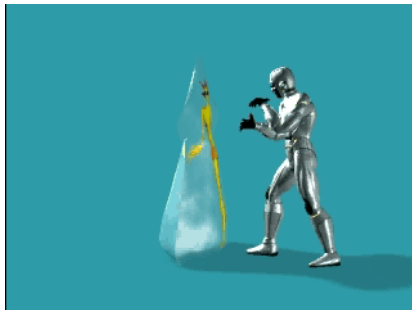
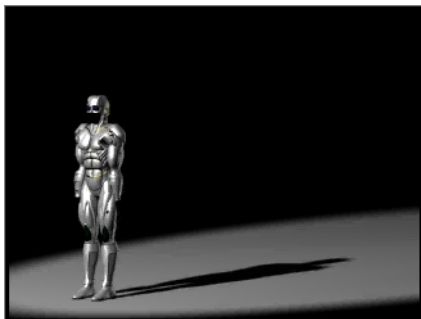
## List of Motions

<b>DANCE</b> _break	everyday_rest	<b>GYM</b> _back_handspring	sword_stepback
dance_headspin	everyday_scratch_head	gym_back_walkover	sword_stepforward
dance_headspin_loop	everyday_scratch_side	gym_backroll_handstand	sword_still
dance_india	everyday_shrug	gym_front_handspring	sword_swing
dance_neckkip	everyday_sit_drink	gym_front_walkover	sword_winner
dance_pop	everyday_sneeze	gym_frontroll_handstand	swordfight
dance_worm	everyday_stand_listen	gym_long_routine	<b>WALK</b> _average
<b>EVERYDAY</b> _argument	everyday_stand_talk	<b>SKIING</b>	walk_cool
everyday_cough	everyday_stand_wait	skiing_telemark	walk_crawl
everyday_handshake	<b>FIGHT</b> _faceplant	snowboarding	walk_run_for_life
everyday_hauling_ropes	fight_gunfight	<b>SWORD</b> _die	walk_sad
everyday_kidsplay	fight_karate	sword_loser	walk_skip
		sword_stab	walk_sneak

## PowerPak in Action

Below are examples of animations featuring PowerPak motions. These movies show motion created by linking Flexiskel to a single-skin mesh using Physique in 3D Studio Max. Details of this technique is given in the *Technical Notes*.

- **Mesh:** Hero from Life Forms 3.0
- **Tools:** 3D Studio Max, Character Studio Physique



## PowerPak in Action

Below are examples of PowerPak motions applied to Poser figures in Poser 3. PowerPak contains BVH motion data that work with Poser 3 People figures. More information is given the *Technical notes*..





## Skeleton Figures

Characters that do not need much flexibility or articulation in the spine, for example 3D avatars, are typically built with only one back joint. On the other hand, characters that are capable of producing expressive movement in the back and arms are built with several back pieces and collar bones.

To support the various requirements of animators, PowerPak supplies the motion using two generic models: **Flexiskel**, and **SimpleSkel**.



**Flexiskel**



**SimpleSkel**

## Motion for Life Forms users

For Life Forms users, PowerPak supplies motions as Life Forms (.lfa) file. These files contain motion for Life Forms default Male figure. After opening the files in Life Forms **version 3.0** you can switch to the Female default figure.

Motions for Life Forms users are in the PowerPak CD / Life Forms folder.

Life Forms figures have 22+ back joints and are thus highly articulated. These figures are not meant to be used in other 3D software.

### Applying Motion

Life Forms imports custom models from several applications: 3D Studio Max, LightWave 3D, TrueSpace 4.1, any application that exports VRML 1 & VRML 97. You can apply PowerPak motions to an imported model by pasting the keyframes to the custom model. When you do so, the Joint Map editor opens and you can control how the motion is to be pasted to the model. Please consult the Life Forms User Guide for guidelines on building custom models.

## Editing Motion

PowerPak motions can be used as they are or altered to fit your needs. By performing simple editing tasks in Life Forms you can:

- Apply a relative or absolute rotation joints over a range of frames.
- Copy and paste motion to create longer animations.
- Speed up or slow down the animations.
- Create multi-figure animations.
- Rotate and move animation paths.
- Mirror an action.
- Reverse the action so that the figure performs the keyframes in reverse order.

## Getting More out of PowerPak

You can get more out of PowerPak by using software tools that allow you to edit the motion and apply them to 3D characters. Life Forms is such a tool. Other 3D tools also have these capabilities.

### Editing Motion

Because the motions in PowerPak are designed to be mix-n-match, you will get more out of the motions if your 3D software has motion editing functions that let you assemble the motions. Assembling motions is easy to do in Life Forms. With Life Forms, you can not only paste motions together, but you can keyframe ranges, and rotate paths very easily.

### Applying Motion

Some 3D applications have commands for applying motion from one model to another, for example 3D Studio Max's Insert command, and Cinema 4D's Copy Animation command. Such commands allow you to use the motion to animate characters that are similar to the source model. For tips and techniques for using PowerPak motions in various 3D software, please refer to the *Technical Notes*. You should also investigate your software tools to learn how to apply motion data to 3D characters.

## **Contact Information**

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