



## About GamePak 1

**GamePak 1** is a title in the PowerMoves 3D Content series that is designed for game developers and game animators. GamePak 1 contains 50 plus ready-to-use, royalty-free typical game play actions and transitions. It contains a full complement of game play actions such as attack, react, locomotion and waiting motions. GamePak 1 is designed for flexibility. It provides transitions and motions that can be mixed and matched to create smooth game play sequences.

### *GamePak 1 motions are provided in:*

- Segments have the same start and end poses 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, LightWave3D, PowerAnimator, Maya, and Cinema 4D.
- Sets for simple to detailed generic models.

## Using GamePak 1

Faced with tight deadlines and budgets, creative professionals are finding that they do not have enough time to create all motions and models from scratch. Here's where GamePak 1 can help.

GamePak 1's royalty free creative content can be used as a motion resource for:

- creating real-time action sequences for animated characters.
- creating prerendered sprite animation.
- kick starting your animation planning and brainstorming process.
- animation workshops and demos.

GamePak 1 offers flexibility by providing motions and transitions that can be combined as you wish. The motions can be further edited in Life Forms or another 3D software to achieve a desired effect before they are applied to 3D characters \*. You will get maximum use out of GamePak 1 if you use **Life Forms Studio 4.0** . Please read the **Technical Notes** for detailed information about using GamePak 1.

\* **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 GamePak 1 to animate 3D characters will also depend on the similarity between the character and motion source.

## File Formats Supported

GamePak 1 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
Cinema 4D	.BVH	Cinema 4D XL*

\* Maxon's BioVision plug-in (v 1.6) required.

\*\*ElectricImage's BioVision import plug-in is required if using V2.8.

## The Motions

### Organization and Naming

GamePak 1 contains typical game play actions. To help to create the correct transitions between motions, the motions are listed by their start and end poses. The poses are abbreviated as follows:

Ready ( <b>R</b> ),	Casual walk ( <b>Wc</b> ),
Neutral ( <b>N</b> ),	Backwards walk ( <b>Wb</b> ),
Run ( <b>Run</b> ),	Crawl ( <b>C</b> ),
Stalking walk ( <b>Ws</b> ),	Fallen ( <b>F</b> ).

Each motion's file name has a prefix that indicates the start and end pose. For example, **R2F\_run\_to\_trip** has the prefix **R2F**. This prefix means that the motion begins in the **Ready** pose and ends in the **Fallen** pose. The **Composer matrix** uses this system to classify GamePak 1 motions and display the relationships between the motions. Use the Compose matrix to help you select and find the motions you need. An alphabetical listing of every file in GamePak 1 is also provided.

## Generic Models

Characters that do not need much flexibility or articulation in the spine, for example 3D avatars, are typically built with only one back joint and no shoulders. On the other hand, characters that are capable of expressive movement in the back and arms are built with several back pieces and collar bones.

To support the various requirements of animators, GamePak 1 supplies the motion using three generic models: **SimpleSkel**, **MediumFlexi**, and **FullFlexi**.



## Composing an Action Sequence

You can string GamePak 1 motions together to create extended action sequences. For example, in the timeline, you can insert:

- 1) **Run2Run\_run\_cycle**, followed by
- 2) **Run2R\_run\_to\_ready**, followed by
- 3) **R2R\_backflip** after it.

The resulting animation will be a two-step run cycle followed by a back flip. The task of assembling an action sequence is most easily done in Life Forms. This is because Life Forms automatically adjusts the position values of the pasted animation so that it continues smoothly from the previous animation. We strongly recommend using Life Forms for assembling animations.

You can also assemble animations other 3D software. However, you may have to adjust the position values for each keyframe. Step-by-step instruction on assembling motions in Life Forms is given in the **Technical Notes**.

## Applying Motions to Characters

### *In Life Forms*

Life Forms imports custom models from several applications: 3D Studio Max, LightWave 3D, TrueSpace 4.1, any application that exports VRML 1 & VRML 97. When building models for animation, please refer to the Life Forms User guide for guidelines. You should also refer to the 3D tutorials about using Life Forms with your 3D software. In Life Forms you can map GamePak 1 motions to custom models by using the **Joint Map editor**.

### *In Other Programs*

You can also apply the motions to characters within other 3D software programs. Some 3D applications have commands for applying motion from one model to another, for example **3D Studio Max's** Insert Tracks command, **Cinema 4D's** Copy Animation command, **PowerAnimator's** ApplyAMC and **Maya's** importer melscript. Such commands allow you to use the motion to animate characters that are similar to the source model. For tips and techniques for using GamePak 1 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.

## Getting More out of GamePak 1

You can get more out of GamePak 1 by using Life Forms. GamePak 1 motions were animated, tested and converted to various motion file formats using Life Forms. Thus, Life Forms is the optimal tool to use for **reassembling** and **editing** GamePak 1 animations and exporting them to the desired file format.

Moreover, Life Forms allows you to apply or **retarget motion** from the generic models to your custom models. This gives you the power to quickly use the same motions to animate several Game characters.

## Editing Motion

GamePak 1 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.

## **Contact Information**

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