

Writing Animation Assistants for Infini-D™ 2.6

Infini-D 2.6 incorporates an external code plug-in mechanism for its Animation Assistants, similar to the way Adobe Photoshop handles external filters. Animation Assistants allow the Infini-D user to apply complex motion effects to their animations in a streamlined, simple way. Because the system uses external code modules, anyone with a knowledge of software development on the Macintosh can write their own Animation Assistants for Infini-D.

Animation Assistants are stand-alone code modules that are called multiple times by Infini-D, each time with a different "message." The body of a typical Assistant will be a switch statement to handle the various messages appropriately. At this time, the only actions an Assistant can take involve creating, deleting, and changing the timing of events, and modifying the position, orientation, dimension, ease-in, and ease-out of new and existing events.

This document should be accompanied by a sample Symantec THINK C (version 6) project demonstrating how to build an Animation Assistant, including source code and resource file. Currently, only 68k code resources are supported, and, in order to be compatible with the emulator on the PowerPC, Assistants should not use 68881 FPU instructions directly. There is a version and flags mechanism for the plug-in which will allow us to offer support for Native Assistants in the near future.

If you are not using THINK C, you need to set some resource information. The animation assistant Type and Creator are 'IASp' and 'SI∞D', respectively. The compiled code resource is also 'IASp' with ID = 128, Attributes = purgeable. You will also need the IASf and IASv resources which can be found in the ResEdit template file that came with the developers kit.

This is not an "idiots guide to plug-in authorship" and to prove it I'm going to recommend at this point that you refer to the example code and the IASExternal.h header file for the nuts and bolts of what a programmer can and must do to write an Animation Assistant ("IAS" is the acronym for the original name for the Animation Assistants, "Intelligent Animation System"). The most important thing to keep in mind is that there are far more things that you might imagine you'd like to be able to do than there are things you actually can do. For example, Animation Assistants only get information about the eventmarks that are *selected* in the Sequencer at the time the Assistant is selected. This version of the Animation Assistant specification is limited by design; as we hear ideas from developers about specific enhancements to the functionality they'd like to see, we can incorporate them into future versions.

We will do our best to maintain backwards compatibility as we advance the Animation Assistant interface. The version mechanism and the generality of the current interface should help us do so. However, we cannot make any sweeping guarantee. The best way for us to maximize backwards compatibility with your Assistants is for you to tell us about them so that we know they exist.

©1994 Specular International
Mar 2, 2025

For further information, contact Chris Johnston, Director of 3D Products, Specular International, 479 West St., Amherst, MA, 01002, (413) 253-3100.