NMA Assignment
Research seminar
Field Text

Introduction:

In this report I will be explaining what a field is in the context of Macromedia's Director program. I will also be showing what tasks it can be used for and how these tasks can be used creatively when making Director movies using examples.

Definition of a field:

A field cast member is similar to a text cast member in that it is a member that allows the entry and editing of text. The main difference between a field and a text cast member is the number of editing functions available. Applying spacing, tabs, or indents to paragraphs cannot be done in a field; so for more detailed text a text cast member should be used.

The advantage of using a field to contain a text value is the amount of memory in RAM it takes up. The way a field works is similar to the way Director as a program itself uses the computer operating system to display drop down menu's when making a movie. This means that although field text is not a very good way to display text that requires grammatical detail, it is good for displaying text if RAM is at a minimum.

Technical uses of a field:

The best uses for a field text cast member will revolve around the requirement for a text cast member that uses a small amount of memory. This may not be the case when working on a multimedia project designed for a professional quality system for an exhibition or a CD-ROM. But it may be the case when designing for the Internet.
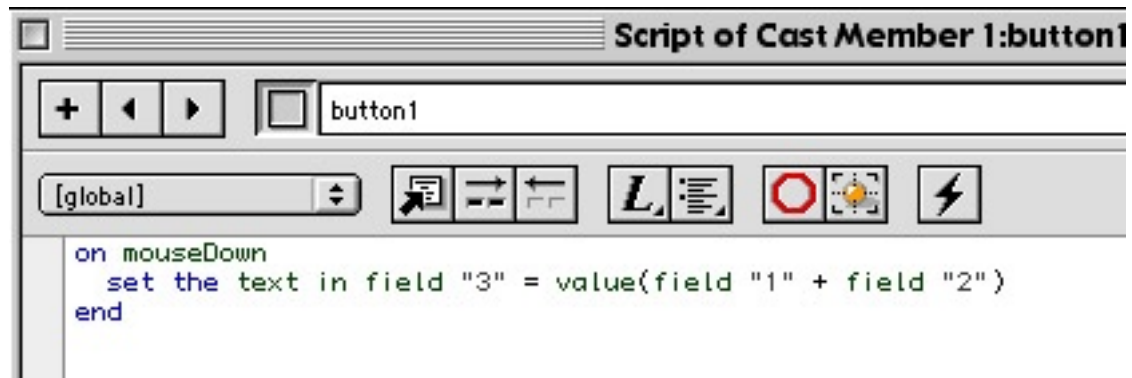
Download times for interactive Web-sites increase with the amount of data to be transferred. Because of this it makes sense to use a text cast member that uses less RAM. The other advantage a field cast member has over a text cast member is the fact it uses the system font of the computer rather than a specified font on the computer it was created on. In order for a text cast member to keep the original font it was created in, the font would have to be embedded in the movie. This makes the movie even larger and as result the download time increases.

So, despite the restrictions, for display purposes on a web-site field text may be preferable.

As a container for text values and strings it simply makes sense to use a field as it will not be seen as a display on the stage and therefore the appearance of the cast member is irrelevant. Lingo can be used to return values and strings to a field in text form. These can then be used practically within a movie.
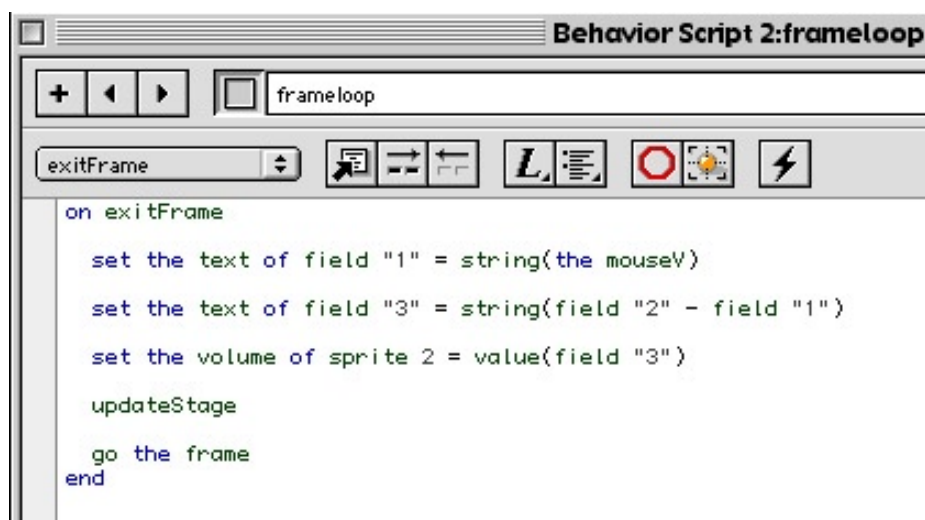
Creative uses and examples:

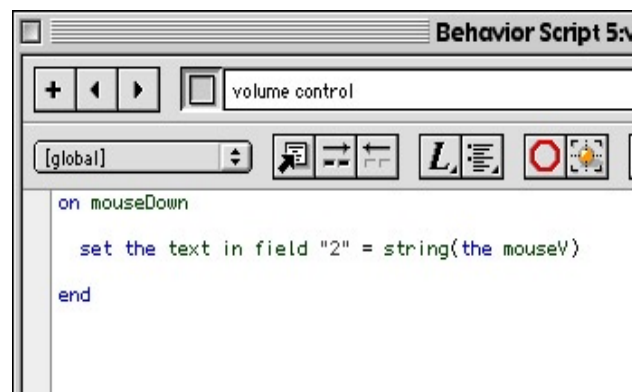The best use of storing values and strings in an unseen field in the cast is when performing calculations. Lingo can perform mathematical equations using the values stored in multiple fields. Example 1 shows a piece of lingo that is attached to a button. When clicked, the button adds together the value contained in field "1" with the value contained in field "2" and stores the result in field "3":

Example 1:

```
Script of Cast Member 1:button1

[+] [◄] [►]  [☐] button1

[global] [▼]  [icons...]

on mouseDown
  set the text in field "3" = value(field "1" + field "2")
end
```

The values contained in field "1" and field "2" can be any value that can be returned by director. Such values may vary from the mouse location on the stage to the time of day (depending on the time settings in the operating system). But may also be a specific value entered by the user such as a simple numeric value in the case of Example 1. In example 2 the lingo calculates the difference between the value in field "1" (the vertical mouse location returned when the mouse is clicked) and field "2" (the vertical mouse location returned constantly by the 'updateStage' function) and stores it as a value in field "3". The lingo then tells the volume to follow this value, effectively creating a fader controlled by the vertical position of the mouse:

Example 2:

```
Behavior Script 5:v

[+] [◄] [►]  [☐] volume control

[global] [▼]  [icons...]

on mouseDown

  set the text in field "2" = string(the mouseV)

end
```

```
Behavior Script 2:frameloop

[+] [◄] [►]  [☐] frameloop

exitFrame [▼]  [icons...]

on exitFrame

  set the text of field "1" = string(the mouseV)

  set the text of field "3" = string(field "2" - field "1")

  set the volume of sprite 2 = value(field "3")

  updateStage

  go the frame
end
```

Although this recent example uses more fields than necessary it does require at least one field for the equation to work.

Conclusion:

Although authoring in Director without using fields is possible there is no doubt that the inclusion of the field text feature allows for a smoother running movie that also downloads quicker when used as a Shockwave movie on the web.