

Gerald's Column *by Gerald Fitton*

Last month I recounted a little of the history of the BBC Computer's <Copy> key. I used this to explain why PipeDream refers to the <End> key as the <Copy> key. I described how this Copy function is still used in both BASIC and the Command Line.

When it comes to clothes, education, social structures and even what is regarded as impolite, those of you who have lived long enough will know that fashions in almost everything is cyclical. Keyboard shortcuts are no exception.

This month I shall describe a facility within PipeDream which allows you to keep up with the latest fashion.

But first, fifteen seconds of fame for Roy Tillcock!

Puzzle

Roy, who lives on that beautiful island off the coast of Southampton, has sent me a fully worked solution to one of the puzzles I set. I asked for the probability that a 32 five flippin' coin event would yield the 'expected' result. Roy gives an exact answer (a fraction) which approximates to 0.000927, one in a thousand. I have forwarded Roy's solution to Colin Singleton for more detailed comment—and a second ration of fame.

Proof

On a marginally philosophical note I would ask you to consider what you (yes, I mean you my lonesome reader!) mean when you refer to experimental proof. Sometime in the near future I shall refer you to the mathematics of the five coin experiment which I may or may not have 'fixed' by slipping in a double headed coin. I shall make use of a spreadsheet, some statistics—and lots of insight!

I shall wait for some feedback first. I'm not surprised that I haven't had any yet because I am writing this article earlier than usual. At the end of this month, I have to go to hospital for a minor operation and I don't want to risk a late delivery! Anyway, email or write to me with your comments about my 'Challenge'. You will remember: you flip five coins thirty two times and the average number of heads is not 2.5 but 3.0. How do you answer my marginally philosophical questions: "Is a sample mean of 3.0 sufficient evidence for rejecting your initial belief that all five coins are unbiased?" & "What does 'Proof' mean?"

The Input Focus

I have spoken of "fashion"; now I must use the word "progress".

When using the Command Line or the text editor which is supplied with BASIC, you can not move the what I have called the Input Focus with a click of the mouse. The point in your text (or 'script' if you prefer that term) where you made the last entry is the point where you must make your next entry or deletion.

You can delete one character at a time; you can add one character at a time. However, like the “moving finger” of that ancient mathematician, philosopher and poet Omar Khayyám, having “writ” or deleted your one character, the input focus “moves on” and then, after <Return> has been tapped, neither you nor your “piety nor wit shall lure it back to cancel half a line, nor all thy tears wash out a word of it”.

Last month I referred to something which I called a “Pointer” which could be moved around. This pointer symbol is the underline character. Let me emphasise that the pointer to which I referred and whose action I described is definitely not the input focus.

Word Processing

What is the most important feature of a word processor?

Some might list Cut and Paste or even Undo (for correcting mistakes) but I have no doubt what it is. It was with the first word processor that we saw something we now take for granted, control over the position of the input focus. Without this feature a word processor would be as unusable as is the command line interface.

To move the input focus you can use the arrow keys to reposition what is often called the cursor (to distinguish it from what I have called the pointer). This cursor is usually a red vertical line and, amazingly, wherever this line appears is the position of your input focus. Alternatively you can use the mouse and the blue pointer. Simply point to the position in your text and click; you have moved the input focus! Isn't this a wonderful feature?

These days few if any people write BASIC programs using the text editor built into BASIC. They use a word processor such as !Edit, !Zap, StrongEd, etc. They do so mainly because, in these word processors, they have control over the input focus. The (almost) universal use of word processors has made the “Copy” function (which I described last month) totally and completely irrelevant. On today's keyboards you will not find a key labelled “Copy”. The key which performs this “Copy” function is marked “End”.

PipeDream's “End” Key

Back to PipeDream and its “End/Copy” key.

As supplied, straight out of the box, the “End/Copy” key will move the input focus to the bottom of the current column. Of course that action by the “End” key is both instinctive and the description is easy to understand. “End” means the end of the column (or possibly end of the row)—or does it? You wouldn't believe how many people complain that using the <End> key to move the input focus to the end of the current column is “quirky”!

Impression

Along came Impression with all its keyboard shortcuts. One of these was, and still is, to use the “Copy/End” key to delete the character immediately to the right of the cursor. Computer Concepts redefined the action of the <End> key this way because they defined the <Delete> key (next to the <End> key) to delete the character to the left of the cursor.

!Edit

Perhaps I'm being unfair to Computer Concepts, after all Acorn's !Edit functions in exactly the same way as Impression. It soon became common practice for all Acorn packages (except PipeDream) to use the <End> key this way.

PipeDream became the “quirky one”!

PipeDream's [Key] File

PipeDream 3 had a full set of keyboard shortcuts built into it. Every function key by itself or with <Shift> or with <Ctrl> executed a short cut. Then along came PipeDream 4.

RISC OS had moved on. Packages had become more sophisticated. There was a need for a more uniform user interface across all packages. Because of this ‘progress’ the keyboard shortcuts built into PipeDream 4 were different from those built into PipeDream 3 so that they were more in line with Acorn's guide to ‘good custom and practice’. Those who upgraded from PipeDream 3 to PipeDream 4 didn't like the unfamiliar keyboard shortcuts. They asked for the return of the PipeDream 3 keyboard shortcuts. PipeDream 4 was became substantially more “quirky”—even to users of PipeDream 3.

What could be done about it?

The solution was to include a [Key] file. The exact location has varied but, in recent versions of PipeDream this optional PipeDream Command File is located in the !PipeDream.User subdirectory. This optional [Key] file, a command file, is executed automatically when PipeDream 4 is loaded to the icon bar. A simple two line example is:

```
\Cdf|i “Copy” |i “G|M” |m  
\Fq|m
```

This two line PipeDream Command File will define the function key “Copy” (of course this is the “End” key) to delete the character to the right of the cursor. Without this file the “End” key will do what it says on the key; it will move the input focus to the end of the current column. If this [Key] file is included within !PipeDream.User then PipeDream will execute it as it loads to the icon bar. Thereafter, until you quit, PipeDream will delete the character to the right of the input focus whenever you tap <End>.

This ‘delete to the right’ action was not the original reason why the [Key] file facility was added to PipeDream. There were many reasons but the overriding one was so that former users of PipeDream 3 could change the action of all the function keys (and combinations with <Shift> and <Ctrl>) so that PipeDream 4 acted in exactly the same way that their more familiar PipeDream 3 used to work.

Included with every copy of PipeDream 4 is a file called [PD3Keys]. It contains thirty keyboard shortcut definitions and, if this file is renamed [Key] and placed in the !PipeDream.User directory, then the keyboard shortcuts will be those of PipeDream 3 rather than PipeDream 4. Instructions for its use are included with PipeDream 4. I have included a copy on the Archive monthly disc and in all the other usual places.

Of course you can do much more with such a [Key] facility than simply define a set of keyboard shortcuts. You can do anything which you can do with a command file! I am seriously tempted to digress and give you some examples but I shall resist. Be patient!

The Latest Fashion

It is Castle's firm intention to make their new 32 bit Iyonix RISC OS computer available to what they call "the wider market". By this they mean to people who have more familiarity with Windows packages than RISC OS packages.

Unless you have one you may not know what happens when you tap the <End> key in most Windows packages. I have no doubt, my discerning reader, that even if you didn't know before by now you will have guessed that <End> means "Move the input focus to the End or the column (or row)" and not (as on the well established RISC OS machines) "Delete the character to the right of the input focus".

Castle have asked software suppliers to change the use of <End> so that it reverts to the use which is currently the default for PipeDream namely <End> means "End" and has nothing to do with deletion.

Whilst we're on the subject of the custom and practice in "the wider market" I wonder if you are familiar with the "wider" operation of the <Delete> key (this is the one which you'll find on the immediate left of the <End> key)?

On the Archive monthly disc you'll find a definition in the directory Files02 which should give you a clue. The file [Files02.!PipeDream.Key] is a two line command file which reads:

```
\Cdf|i "Delete" |i "\G|M" |m  
\Fq|m
```

Yes! The convention on Windows machines is that the <Delete> key (to the left of the <End> key) deletes the character to the right of the input focus and the <Backspace> key (immediately to the right of the +/- key) is used for deleting the character to its left. Of course the <End> key does what it says; it moves the cursor to the end of the currently selected document. If software suppliers follow the recommendation of Castle then we shall find that 32 bit RISC OS 5 machinery will contain applications which follow more closely these Windows conventions.

Currently the latest fashion for the <End> key is that <End> means "End".

Summary

Fashions in keyboard shortcuts do change. Some changes such as the facility to move the input focus are rightly called Progress. Other changes such as <End> meaning "End" rather than "Delete" are cyclical.

What do you think? Progress or Regression?