Script

Issue 17

THE LOCOSCRIPT NEWSLETTER

Welcome to 1991 and Issue 17 of *Script*. As you have probably noticed our subscription 'year' is again rather longer than the normal variety! We're very sorry for any annoyance this may have caused you and promise that Issue 18 will be following as soon as possible in order to complete Volume 3 of *Script*.

When preparing documents like newsletters, for example, you may want to lay out your pages so the text appears in columns. LocoScript will not do this automatically, so in our first article we will be showing you how to put text in columns yourself, either by simply using LocoScript, or using LocoMail as well.

If you have set up your own user defined characters on your PCW8256/8512 or you use many of LocoScript's accented characters, you may find the number of keystrokes you have to carry out order to produce these characters rather irritating. If you use the LocoKey program provided on the Keyboards disc, you can change your keyboard to suit yourself and the article "Reorganising your Keyboard" shows you how.

LocoMail is usually used to produce mailshots and standard business letters, but it can also carry out a range of standard arithmetic operations. So you can get LocoMail to work out things like totals and VAT calculations and then insert the results in your documents. In this issue we show you how to set up a LocoMail Master to produce a total from a datafile. We'll also be showing you how to produce an average and work the value of stock.

Next we have an article about a useful program called BACKUP. This helps you keep back-up copies of all your working discs. The article has been written by Mr Stephen Younger who developed the program, and he explains why he wrote it and describes some of its features.

In our last issue we told you about the Printer Support Pack, a new product introduced in November. In our final article we tell you about the new versions of LocoFont which were launched at the same time, LocoFont for the 8000 built-in printer and LocoFont 24 for suitable external printers.

Contents

©1991 Locomotive Software Ltd.

Text in columns

We often get letters from people who want their text to be laid out in columns. LocoScript does not have a 'columns' option, but you can overcome this if you want. In this article we will be showing you two methods of producing columns in LocoScript.

Newsletters and similar documents are traditionally laid out in columns and if you are producing documents like these with LocoScript, you might want your text in columns too. Unfortunately LocoScript can't do this automatically, so if you want columns you have to set them up yourself.

There are two ways that you can do this; by using LocoScript's Layouts, or by setting up a LocoMail program to do the job for you. In this article we'll be showing you both these ways.

Using LocoScript

The easiest way to produce columns using LocoScript is to arrange your text so that each page of your document will form a column on the paper, in the position you want. Then you can simply print out a number of the pages on the same piece of paper and your text appears in evenly spaced columns.

The first thing you have to do is work out how wide your columns are going to be. This depends on the number of columns you want on a page, and the size of the paper you are using. For example an A4 sheet of paper is about 100 characters wide (in 12 pitch), so if you wanted 3 columns you would first subtract the space you want to leave at the edges of the paper and between the columns from 100, then divide the remainder by three. Therefore if you wanted to leave 10 characters (approx 1") at either side and a gap of 4 characters between the columns, the width of your columns would be 24 characters (2").

Once you know how wide to make your columns you can set up the layouts which will position each one on your paper. The first page of your document will form the first column on your paper. You have already decided how much space you want to leave at the edge of the paper, so you set the left margin at 10. Then you move along for 24 characters and set the right margin at 34. The text of page 1 will now run down the lefthand edge of the paper.

The second page of your document will form the middle column on your paper. Set up a new layout for the second page with the left margin at 38, so when the columns are printed there will be a gap of 4 characters between them. Allow 24 characters again and set the right margin to 62. The text on this page will now be positioned in the middle of the paper.

The third page of your document will form the final column on the paper. Set up another new layout for this page, and set the left margin to 66 (again leaving 4 characters to divide the columns) and the right margin to 90. The text will now run down the righthand edge of the paper.

When you come to the fourth page you will need to set up the same layout as you used for the first page, and you keep repeating the layouts in this way through the document

The box opposite shows you how the layout of each page will look.

Because you would have to go through the whole document setting up the pages in this way, the easiest thing to do is to store each set of margins as a Stock Layout. Instructions on how to set up Stock Layouts are given in Session 11 of the LocoScript 2 User Guide. You'll need to set up three Layouts, one for each position and you should call them something instantly recognisable like LEFT, CENTRE and RIGHT. It's a good idea to set up Stock Layout 1 as the LEFT Layout, then your documents will start with this layout automatically.

When you have gone through your whole document putting each page into the appropriate layout, you can start to print. Print out the first page of your document, take the paper and put it back into the printer, then print out the second page. Now put the paper through the printer again and print out the third page. You should now have a page with three evenly spaced columns on it, just as you wanted. Repeat this process for the next three pages and continue the process until you reach the end of your document.
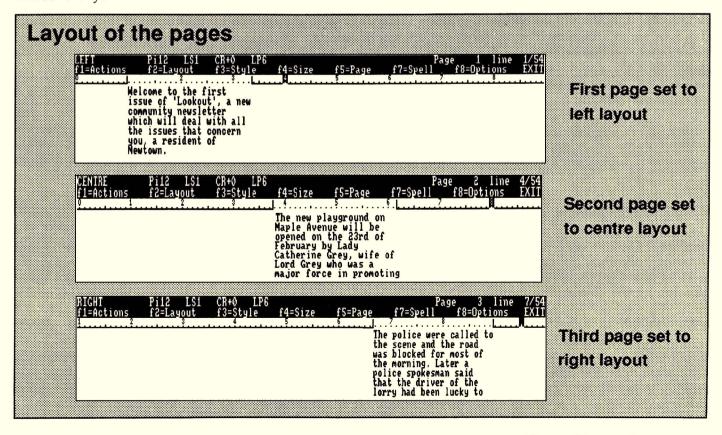
Using LocoMail

It is also possible to use LocoMail in order to put your text into columns. This will save you having to use a series of different Layouts and will also save time when printing because you won't have to print more than once. But before you can use LocoMail with your document, you have to convert your text into a LocoMail datafile and add a Record Pattern. We will now show you how to do this, and the LocoMail Master you should use.

As before you have to put your text between 'column width' margins, but this time you'll only need one layout for the whole of your document, for instance the LEFT Layout that we described in the previous section. You don't have to worry about positioning the columns yourself this time because LocoMail will do it for you.

The LocoMail Master shown overleaf works in a similar way to the Master for producing 'n' across address labels shown in Issue 15 of *Script*. The program goes through your document, adds together the lines that will be the first line of each column, and then tabs them to the correct position. For example if you say at the beginning of the Master that your page is 54 lines long and that you want three columns, the program will add lines 1, 55 and 109 together, ie. the first lines of the first 3 pages of your document. Line 55 will be tabbed to the middle and line 109 to the righthand side of the paper and the process is repeated until the end of the document.

But the LocoMail Master can only do this if it can pick out the individual lines as separate data items. This means you have to go through your document and put a carriage return at the end of every line and a Record Pattern at the beginning, which effectively turns your document into a LocoMail datafile. The Record Pattern you need in this case is line ↵/ ↵.

There are two ways of putting a carriage return at the end of every line. Either you edit the document and add all the necessary carriage returns yourself, or alternatively you can turn the document into a 'Page image' ASCII file which will give the same result. (**Note:** In either case you need to convert any blank lines into [space] ↵ – or these will be ignored by LocoMail.)

Layout of the pages

```
LEFT          Pi12   LS1    CR+0   LP6                    Page    1  line  1/54
f1=Actions      f2=Layout    f3=Style    f4=Size    f5=Page    f7=Spell    f8=Options    EXIT
0..........1..........2..........3..........4..........5..........6..........7..........8

             Welcome to the first
             issue of 'Lookout', a new
             community newsletter
             which will deal with all
             the issues that concern
             you, a resident of
             Newtown.
```

First page set to left layout

```
CENTRE        Pi12   LS1    CR+0   LP6                    Page    2  line  4/54
f1=Actions      f2=Layout    f3=Style    f4=Size    f5=Page    f7=Spell    f8=Options    EXIT
0..........1..........2..........3..........4..........5..........6..........7..........8

                          The new playground on
                          Maple Avenue will be
                          opened on the 23rd of
                          February by Lady
                          Catherine Grey, wife of
                          Lord Grey who was a
                          major force in promoting
```

Second page set to centre layout

```
RIGHT         Pi12   LS1    CR+0   LP6                    Page    3  line  7/54
f1=Actions      f2=Layout    f3=Style    f4=Size    f5=Page    f7=Spell    f8=Options    EXIT
1..........2..........3..........4..........5..........6..........7..........8..........

                                       The police were called to
                                       the scene and the road
                                       was blocked for most of
                                       the morning. Later a
                                       police spokesman said
                                       that the driver of the
                                       lorry had been lucky to
```

Third page set to right layout

The LocoMail Master

```
(#Mail)↵
↵
cols=3↵                    ; Columns per page ↵
height=54↵                 ; lines per page   ↵
↵
newpage="↵
----------------------------------------------
↵
↵
↵
cr="↵
";tab="→
↵
lineact="(#Mail)↵
#count = cols :<↵
   %"out"&[y]&"=line:↵
)<↵
   %"out"&[y]&"=out"&[y]&"&tab&line: ↵)↵
#count=1:<: %"out"&[y]&";cr:" :>↵
y=[y+1] : x=[x-1]↵
↵
(=Mail)"↵
↵
colact="↵
y=1 : x=[height-1]↵
%lineact@x(=Mail)(#Mail)↵
count=[count-1]↵
↵
↵
pageact="↵
count=cols : %colact@count↵
newpage↵
↵
↵
%pageact@line↵
```

Each method of adding the carriage returns has its advantages and drawbacks. Editing the document by hand means you'll be able to keep all the formatting commands like bold and italic. On the other hand it might be rather hard work, especially if your document is fairly long. Also using this method means that justification will be removed, so you won't be able to keep this effect for your text.

Turning your file into an ASCII file is a quick and easy way of adding the carriage returns. You will also be able to have justified text if you want, although the spacing may be rather uneven. But you will lose all your formatting commands, so you'll have to go through the document LocoMail creates for you and replace the codes for bold etc. You simply have to decide for yourself which method will suit you best.

If you decide to turn your document into ASCII, go back to the Disc Manager Screen and move the cursor to your document. Press f1 and select the Make ASCII file option from the menu that appears. You must then choose the group you want to store the ASCII file in. Because you will only be using this file temporarily you can simply store it in a group on Drive M. A menu will appear giving you the details of the original LocoScript document and the new ASCII file you have created. At the bottom of this menu there are two options. Select the Page image file option by moving the cursor to it and press ENTER. In the output ASCII file there will be a carriage return at the end of every line and you can use this with the LocoMail Master.

The tabs that control where each column starts must be set up in the Master document. Where these tabs should be depends on the paper you are using and the number of columns you want. To get the same columns as we showed earlier, you will want a tab set at 38 and another at 66 in order to produce three even columns. If you are using proportionally spaced text you must ensure that the Master is set up for this and that it is also set up for the same printer and Character Set as your original document. It might therefore be a good idea to have these details already set up in a template which you can use when creating the Master document.

After you have merged your document with the LocoMail Master, you can now print it out to produce a document like the one below.

The finished document

```
Welcome to the first        The new playground on        The police were called to
issue of 'Lookout', a       Maple Avenue will be         the scene and the road
new community newsletter     opened on the 23rd of        was blocked for most of
which will deal with all     February by Lady             the morning. Later a
the issues that concern      Catherine Grey, wife of      police spokesman said
you, a resident of           Lord Grey who was a          that the driver of the
Newtown.                     major force in promoting     lorry had been lucky to
```

Reorganising your keyboard

The combinations of keys that you need to press in order to type LocoScript 2's vast range of characters are fine for most people most of the time. Even doing things like running a French copy of LocoScript on an English PCW only needs you to add a different keyboard file from either the PCW8256/8512 or the PCW9512 Keyboards Disc.

But depending on the type of things you write about, you might wish that fewer keystrokes were needed to type some of the characters you use – particularly if you have a PCW8256/8512 and you have set up any user-defined characters. In such cases, what you need is the LocoKey program provided alongside the standard keyboard files on the Keyboards Discs. LocoKey lets you organise your keyboard any way you wish: it can also be used to make typing accented characters simpler. This article explains how.

As you will know, LocoScript makes its vast range of characters available through a system of Supershifts. The character typed by pressing a key on its own, or with [SHIFT], [ALT] or [EXTRA] depends on which Supershift is selected.

What you may not have realised is that the characters are actually organised into six keyboard layouts known as 'Normal', 'Alt', 'Extra', 'Greek', 'Cyrillic' and 'Symbol', each of which defines two characters for each key – one to be typed when [SHIFT] is held down; one to be typed without [SHIFT]. And what in fact you do when you select a different Supershift is pick a different group of three keyboard layouts: one to be used when the keys are pressed on their own; another to be used when [ALT] is held down; and the third to be used when [EXTRA] is held down. The 'Normal' Supershift selects 'Normal', 'Alt' and 'Extra'; the 'Greek' Supershift selects 'Greek', 'Normal' and 'Extra'; the 'Cyrillic' Supershift selects 'Cyrillic', 'Normal' and 'Extra'; and the 'Symbol' Supershift selects 'Symbol', 'Normal' and 'Extra'.

Which keyboard layouts are selected by the different Supershifts cannot be changed in LocoScript 2 (they can in LocoScript PC!) but by using LocoKey you can change the keyboard layouts themselves, to give the result you require. It is this procedure that we are going to describe here.

LocoKey is a CP/M program, which means that when you want to use it, you need to finish work with LocoScript and then re-load your PCW from your CP/M Start-up disc. You also need to have upgraded to LocoScript v2.12 or later but this should be no problem as an upgrade to the latest version is provided with LocoKey on the PCW8256/8512 and PCW9512 Keyboards Discs.

About LocoKey

In essence, what LocoKey does is show you each of the six keyboard layouts in turn, together with a complete list of the characters that LocoScript supports, and allows you to pick out characters from the list to put on different keys. It also has special facilities to help with more major changes like moving all the characters from one layout to another which would be extremely tedious to do one by one!

When you run LocoKey, the first thing that happens is that it asks you for the name of the Keyboard file you want to work from (as a safety measure, you always work on a copy of the Keyboard file rather than directly on the one on your LocoScript disc), the name of the new file that you want to create and for PCW8256/8512 owners, the details of the MATRIX.#xx file containing any User-defined characters you have created. Having access to this MATRIX.#xx file allows LocoKey to display your special characters alongside the standard range of LocoScript characters. LocoKey then displays its editing screen, an example is shown below.

The characters LocoScript supports are listed at the top of the screen. The keyboard diagram in the lower part of the screen shows the current details for one of the six keyboard layouts (named next to the diagram). The little block of highlighting in each area is a cursor for you to use to pick out the character or key you require. The two small boxes marked 'Work' and 'Bin' to the left of the keyboard diagram and the list of commands to its right are used in making the changes you require.

There's only room on the screen to display one keyboard layout at a time but displaying the different keyboard layouts is simply a matter of pressing either ▣ or ▣. Pressing ▣ cycles 'forwards' through the keyboard layouts in the order 'Normal', 'Extra', 'Alt', 'Greek', 'Cyrillic', 'Symbol' and then back to 'Normal' again; pressing ▣ cycles 'backwards' through the same sequence. You simply keep pressing either ▣ or ▣ until the keyboard layout you want is displayed.

The standard procedure

The standard procedure for adding characters to a keyboard layout, indeed the way you will make many of your changes, is as follows:

The first step is to display the keyboard layout that you want to change – by pressing ▣ or ▣ as described above. You then move the cursor in the character list to the character you require, hold down SHIFT and press COPY. This places a copy of the character under the cursor

in LocoKey's Work box (anything already in this Work box is automatically moved to the Bin). You then pick out the place on the keyboard diagram you want this character – the upper part of the key if it's to be the Shifted character, the lower part if it's to be the Unshifted character – and press PASTE. LocoKey then puts the character from the Work box on this key and moves the character it replaces to the Bin.

However, the list of characters at the top of the screen is not the only place you can copy a character to the Work box from. You can also copy from the keyboard diagram – by moving the keyboard cursor to the key that currently has this character on it and pressing either CUT or COPY, depending on whether you want to move this character to another key or duplicate it. CUT is the key to use if you want to move the character because this both copies the character to the Work box and deletes it from its original location. COPY simply copies the character to the Work box.

Combined operations

While the basic technique is to work on one key at a time, there are also ways of changing a number of keys and even whole layouts 'at a stroke' – or at least, at rather fewer strokes than you would otherwise need.

For example, another of LocoKey's facilities is to swap the character in the Work box with the character currently on your chosen key by pressing FIND/EXCH. It turns out that you can build this keystroke into a simple procedure that allows you to do everything from swapping over the characters on two keys to re-arranging the characters over a number of keys. Full details of this procedure are given in the LocoKey booklet.

What you can do to whole layouts 'at a stroke' is swap all the characters between one layout and another. For example, if you type a lot of Greek but don't often need the characters on the 'Alt' keyboard, you could use this option to swap these two keyboard layouts and so make the Greek characters available via the ALT key in the Normal Supershift.
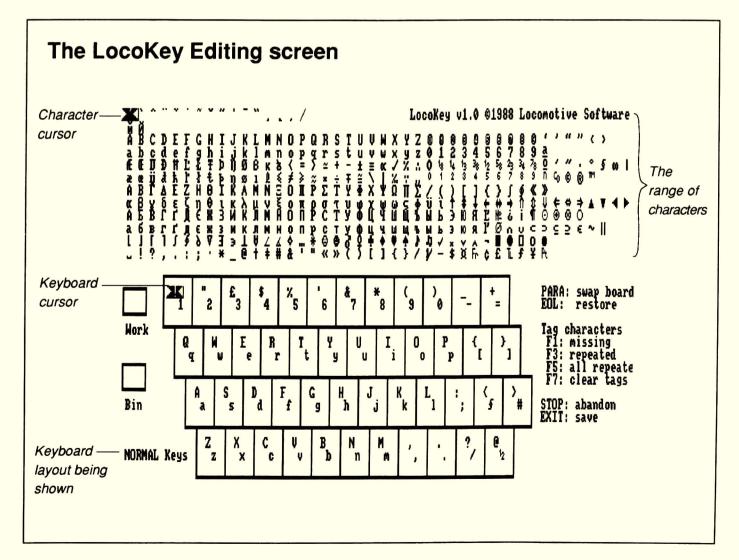
Another option, rather than swapping the whole of two keyboard layouts, is to swap just the Shifted characters or just the Unshifted characters. You can even swap the Unshifted characters on one keyboard layout (for instance, the 'Cyrillic' layout) with the Shifted characters on the other layout (say, the 'Greek layout') if you want. The result of this change would be that, in the Greek Supershift, you would type lower case Greek letters by pressing the keys on their own and lower case Cyrillic letters by holding SHIFT as you type.

There is, however, one restriction on the swaps that you can make and that is that the 'Extra' keyboard can only be swapped with either the Shifted or the Unshifted characters from another keyboard. It cannot be swapped with a whole keyboard. Unlike other keyboards, the 'Extra' keyboard only has an Unshifted set of characters. EXTRA SHIFT is not a key combination that you can use to type characters.

User-defined characters

If you have a PCW8256 or a PCW8512, you have the option of having up to 16 characters of your own to display on the screen and print on your PCW's built-in matrix printer. You create these characters by using the LocoChar program provided alongside the LocoScript 2 program on PCW8256/8512 Master discs. (PCW9512 owners aren't offered the option of User-defined characters because their built-in printer can only print the characters available on its printwheels.)

The User-defined characters you create replace standard characters in the LocoScript Character Set – the *circled* digits 0...9, ', ', ", ", ‹, and ›. In particular, they take their places on the keyboard layout. User-defined character 0, for example, replaces the circled digit 0 which is typed by pressing EXTRA 0; User-defined character A replaces ' which is typed by

The LocoKey Editing screen

pressing [ALT] 6. With the standard keyboard layouts, you would have to use precisely the same keystroking to type your User-defined characters – which might not be very convenient. This is where LocoKey can help.

As we said earlier, when you run LocoKey on a PCW8256 or 8512, it asks you for the details of the MATRIX.#*xx* file containing any User-defined characters you have created. If you specify such a file, LocoKey automatically puts *your* characters into the character list at the top of the screen rather than the standard characters. Your characters are also shown in the relevant places on the keyboard diagrams.

Making your User-defined characters more convenient to type is then simply a matter of picking them out on the character list and placing them on the keyboard diagrams, just like any other character.

Accented characters

As well as re-organising your keyboard, LocoKey can also be used to let you type accented characters directly.

The way this is done depends on the accented character you want to place. Something that is normally hidden from you is that LocoScript's Character Set actually includes a wide range of accented characters. These are separate characters in the Character Set to allow them to have their own character designs, which in turn allows us to refine their appearance both on the screen and when they are printed.

The accented characters that are included in the Character set are listed among the other characters at the top of the screen. If the accented character you want is in this list, you can pick out and place it on the keyboard layout just like any other character. If the accented character you want isn't among those listed, you can still place it on the keyboard but you have to 'build' it first in the Work box.

To do this, you first copy the unaccented character to the Work box in the usual way. With the character in the Work box, you pick out the accent you require from the character list and press [SHIFT] [RELAY]. LocoKey now amalgamates the accent you have selected with the character in the Work box. You can then paste the accented character on the key you require as if it were any other character. (It may not, however, look as nice on the screen as the standard accented characters.)

Checking your layouts

Ultimately the way to check your keyboard layouts is to see how well they work in practice. However, LocoKey provides a number of ways in which you can check the layouts before you finish work on them.

For instance, you can ask LocoKey to pick out characters in the list that haven't been allocated to any keyboard layout. Alternatively, you can ask it to show you which characters in this list have been allocated to more than one key – and you can get it to distinguish between characters that have been allocated to multiple keys on different layouts and those allocated to multiple keys on the same layout.

You can also ask LocoKey to show you which key – or keys – a particular character is on. Just pick out the character with the cursor in the character list at the top of the screen and press [SHIFT] [CHAR]. LocoKey then displays a keyboard layout that includes this character in it and picks out the actual key with the 'Keyboard' cursor. To see if this character is on any other key, simply press [SHIFT] [CHAR] again.

Each time you press [SHIFT] [CHAR], LocoKey looks forward through the cycle of keyboard layouts and picks the next one it finds which has this character. When you return to the first key that LocoKey found, you know that you have found every key with this character on it.

When you feel happy with your changes, finish work with LocoKey and save your changes. Make a copy of your LocoScript Start-of-day disc (in case you change your mind) and overwrite the KEYBOARD.JOY file on this disc with a copy of the new keyboard file. Load LocoScript from this disc and try out your new keyboard layouts. You can always go back and make further changes if you want.

Calculations with LocoMail

LocoMail can carry out all the functions of a simple calculator, which makes it extremely useful when you are creating financial documents like invoices or VAT returns from information stored in a datafile. LocoMail can perform all the calculations and enter the results, giving you a perfectly laid out document.

In this article we will be showing you how to prepare a simple LocoMail Master which will produce a total from a datafile. We'll also show you how to adapt this Master in order to carry out more complicated calculations which you may find useful.

LocoMail is most commonly used to produce standard letters for mailshots. But it can also carry out all the common arithmetic functions like addition, subtraction, division and multiplication. This means you can use LocoMail to do more complicated things like producing an invoice or working out VAT, once you have set up the necessary Master document.

The symbols used in LocoMail calculations are exactly the same as you would expect; +'s and -'s for adding and subtracting, * for multiplication and / for division. You also have a lot of control over the format of the results; you can tell LocoMail how many decimal places you want in the answer, and you can choose whether to round or truncate your results.

A full explanation of how LocoMail deals with numbers is given in Chapter 8 of the LocoMail User Guide.

In this article we'll be showing you how to create a simple Master document to produce a total from a datafile. This Master can then be used as a sort of 'building block' for more complicated tasks, such as working out an average from a series of numbers in a datafile, or calculating the value of your stock.

Producing a total

The datafile we are using is a very simple one. Each record has three items; a name item, a quantity item which holds the amount of the product in stock and finally a price item. An example is shown in the box.

In order to produce a stock total, the LocoMail Master must go through the datafile and add all the quantity items together. The Master is shown overleaf. At the beginning the `total` is set to 0. As LocoMail goes through the records, the quantity from each record is added to `total` by the instruction `total=[total+quantity]`. The square brackets tell LocoMail that you want it to calculate a value. When the end of the datafile is reached the final figure is displayed as shown overleaf.

The datafile

```
┌─Record:1════════════════════════Changed═══┐
│ Product                 Quantity  Price    │
│ SuperVac 1700a          12        195.97   │
│ ┌─Record:2═══════════════════════Changed═══
│ │ Product               Quantity  Price    │
│ │ MiniVac2              56        45.99    │
```

Name of product   Number of product   Price of product

The Master to produce a total

```
(+Mail) Totals Master document ↵
↵
null="" ; tab="→        " ; cr="↵
↵

total=0↵

total_loop="↵
#quantity<>null:{;total=[total+quantity]}↵
product;tab;quantity;cr↵
}↵
↵

(-Mail)Product→        Quantity↵
↵
(+Mail)%[total_loop]product↵
(-Mail)↵
Total;(+Mail)tab;total↵
(-Mail)↵
```

But as well as working out the total, you must also tell LocoMail to ignore any records which have a blank item. If you don't do this you might get the message 'Type mismatch error' when you tried to carry out the merge. This is because LocoMail regards blank items as text, not numbers, so it would be trying to add text to the total which can't be done. So you put the calculation in a 'conditional instruction', which first checks whether the relevant item is null (empty). If the item is empty the calculation isn't carried out and the program moves to the next record.

Producing an average

With only a couple of extra commands you can change the Master we have shown you to produce an average figure from a series of numbers in a datafile. This Master is shown on the facing page. This calculates the average number of the products in stock, but you could use the same technique with other datafiles to produce an average exam result or cricket score.

Again you want the Master to add the relevant items to together to produce a total figure. But this time you also want it to divide the final total by the number of items added. So you set up an item in the Master called itemcount, and put in an instruction to add 1 to itemcount every time a number is added to total. The final total is then divided by the number of items added by the instruction [total/itemcount].

The figure produced is given to 9 decimal places, which is probably more than you need! So you can 'round' the figure by using LocoMail's formatting commands.

You specify the format you want inside square brackets after the calculation. To separate the two sets of instructions you use the special | character. Then all you have to do to round your result is type in the number of decimal places you want (within the range of 0 to 9). In this case we only want 2 decimal places, so we have put |2 after the calculation.

The result of the merge

```
Product→        Quantity↵
↵
SuperVac 1700a→        12↵
MiniVac2→        56↵
PortaVac 1750→        71↵
AutoVac→        45↵
↵
Total:→        184↵
```

Valuing the stock

You can also change the Master to calculate how much your stock is worth from the information you have stored in the datafile.

What you want the Master to do is multiply the price on each record with the quantity, then add all the totals together. The Master you'll need is shown below.

As before you don't want LocoMail to carry out the calculation for records that have a blank items. This time there are two items that could possibly be blank, price and quantity, so you add quantity<>null to the instructions we showed you for blank price items. These are connected with the AND instruction, which turns the two clauses into a 'multiple comparison'. This means that LocoMail will only carry out the calculation when *both* the quantity and price items are filled; if either one is empty, the calculation won't take place.

The price on each record is multiplied by the number of product and the result is stored as stockcost. The stockcost item from each record is added to total, and the full value of all the items in stock is given in the final figure.

If your prices were given in pence in the datafile, you will probably want the final total shown in pounds. All this involves is adding

an extra calculation to your Master, so LocoMail will work out the price in pounds before multiplying it with the price. The instruction you need will be:

```
total=[[price/100]*quantity]
```

LocoMail works through calculations in the standard order, so you would still get the right result even if you left out the extra set of square brackets. However putting them round the price/100 instruction makes it absolutely clear that the correct calculation is carried out.

The Master to produce an average

```
(+Mail)┤ Average Master document ├↵
↵
null="" : tab="→        " : cr=""↵
""↵
↵
total=0↵
itemcount=0↵
↵
totalloop=""↵
#quantity<>null:<:total=[total+quantity]:>↵
itemcount=[itemcount+1]↵
product:tab:quantity:cr↵
:+↵
""↵
↵
(-Mail)Product→        Quantity↵
↵
(+Mail)↵
%totalloop%product↵
(-Mail)↵
Average:(+Mail)tab:[total/itemcount]2↵
```

The Master to calculate the value of stock

```
(+Mail)┤ Stock totals Master document ├↵
↵
null="" : tab="→        " : cr=""↵
""↵
zero="0"↵
↵
total=0↵
↵
totalloop=""↵
#quantity<>null AND price<>null:<↵
    stockcost=[price * quantity]↵
    total=[total+stockcost]↵
><↵
    stockcost=zero↵
>↵
product:tab:quantity:tab:price:tab:stockcost:cr↵
:+↵
""↵
↵
(-Mail)Product→        Quantity→        Price→ Value↵
↵
(+Mail)↵
%totalloop%product↵
(-Mail)↵
Total:→                →        →(+Mail)total↵
```

Backing up your discs

In Issue 9 of *Script* we had an article about Dave Smith's 'Disk Doctor Service'. For some time now Dave has been salvaging corrupt discs and saving important data for people who haven't made a backup. But because prevention is better than a cure, his company have launched a new utility called 'BACKUP' which encourages people to be systematic about backing up their discs, so they are always up-to-date.

Dave's Disk Doctor Service has given the marketing rights of this product to the cancer charity BACUP and in this article Stephen Younger, the author of the program, describes its advantages and why he wrote it.

"It was, I think, a letter in 8000 Plus that did it. A list of Dos and Don'ts. She said DON'T leave the discs in the drives when you switch off, or pour coffee on the keyboard especially if you take sugar. She said DO make a backup copy of your work. It was then that I realised that I had **never** made a backup copy of my LocoScript documents! And when I thought about it I realised that it was not a job that I fancied doing. It either meant copying the entire disc using the LocoScript Disc Manager f2 option, or trying to work out which files on the disc were new and needed to be backed up. There had to be a better way of doing it. A program tailor made for the job seemed to be the answer.

I had been in touch with Dave Smith, the Disk Doctor for about a year, thanks to *Script*. I thought that I could help him with his salvage work. If we produced the program together he could get into disc preventative medicine as well as disc surgery and we agreed that this was a good idea.

At first I concentrated on moving files. The mechanism for selecting files for backing up already existed, but there was no program that I knew of that would maintain files when the drive was changed. This meant that the PCW's peculiar need to copy via Drive M and back again wasn't catered for. So introducing this was the first special feature of the program.

Another worry when backing up is whether there is enough space on the destination disc. It rather upsets the apple cart if you get a 'disc full' message when the copying is nearly done. With some of the files transferred and others not, you really do have to start all over again on a disc that has enough space, or when you have cleared space on the current disc. To stop this happening, the BACKUP program always tests that there is enough space on the destination disc first. 'Limbo' files are assessed separately, and you have the option to clear these if you want.

The three generation system of keeping backups uses the destination disc for working on and keeps the disc from which the copy was made in reserve, in case of mistakes. You have to be sure that the destination disc has all your files, so the BACKUP program makes a 'family identity' number by adding up the ASCII values of all the directory names.

Once this identity number is created it is never changed and it can therefore be used to tell if the destination disc is of the correct family (ie. has the same files), because the chances of two different families having the same identity number is rather unlikely. The disc identity and other information used by the BACKUP program is kept on a part of the disc which is never otherwise used.

Discs are always organised with a directory which usually starts at track 1, and a data area which occupies the higher track numbers of the disc and is where the actual files are kept. To copy a file from a disc, the disc drive has to first look at the directory to find where the file is, and then skip up the disc to find it. If there are a lot of files the time taken to look up the directory and then go back up the directory for each file can be quite considerable. So Dave suggested that the faster routines for copying by track, which is the method used by LocoScript's f2 function, should be somehow incorporated into the BACKUP program.

But when I started to think about it, it struck me what a terrible waste of time it was to copy the parts of a disc that have no data. If you have a 720k disc with, say, 200k of documents on it, they will occupy probably less than 50 tracks. All the time and effort spent copying tracks 51 to 159 achieves nothing. The clue as to which parts of the disc are actually in use lies in the directory. Therefore BACKUP always reads and analyses the directory to discover the highest track number with data and stops copying when that number is reached.

Unless the user specifies that he only wants to copy by track, BACKUP has to decide itself which method to use. This is done by a simple 'rule of thumb'. The program assumes that about three tracks can be copied in the time taken to move the drive head between the data and the directory areas, so to work out which method to use it adds 12k to the actual size of each file that has to be transferred and if this inflated total is still less than the number of kilobytes that would be moved if copying the track, BACKUP will choose to copy by file.

One of the facts of life is that you never know if you'll be able to finish a job until you have,

and the same goes for computer programs. In the case of BACKUP, certainty of a satisfactory copy onto the destination disc only happens when the copying has been completed. Because of this, the last operation in making a backup is to mark the source disc to show that the copy has been made.

The standard CP/M procedure for marking directory entries is very slow if there are a lot of them to be done. BACKUP therefore copies the whole of the directory into memory 'en bloc', updates it, then writes it back again. A 256 entry directory can be dealt with in this way in less than 7 seconds; the more orthodox method might take over a minute.

In spite of this, CP/M is a superb operating system with years of development behind it and a whole host of features for dealing with disc errors. I have done my best to ensure that BACKUP takes full advantage of the system and reliably reports all problems to the user.

Finally it was clear that for the program to be generally acceptable it had to have a LocoScript 'feel'. If Locomotive were a picky bunch they might have sued me for plagiarism, but luckily they're not and they haven't! In fact they have been extremely supportive and thanks to their generosity and that of Digital Research, when you buy BACKUP you get a 'freebie' in the form of the very latest version of the CP/M system file (the one that ends in .EMS).

This new CP/M has many useful improvements over the version issued with your machine, such as enabling you to write protect any Start-of-day disc which uses a PROFILE.SUB file, and it will enable CP/M users to take full advantage of all the 1888k of memory provided by the latest 1.5 megabyte RAMPAC. **"**

The new versions of LocoFont

If you have a PCW8256/8512 or a suitable 24-pin printer, you can use LocoFont to extend the range of typestyles available to you. These typestyles include formal 'business' styles for use in official documents, also more decorative styles like Copper Plate and even Old English.

The LocoFont Set 1 and LocoFont Set 2 packs for the PCW8256/8512 built-in printer are now combined, as are the two LocoFont 24 sets for use on 24-pin dot-matrix printers.

The LocoFont packs provide a variety of extra typestyles to give you more choice about the appearance of your documents. There are two sets of LocoFont, one for use on the PCW8256/8512 built-in printer, and the other for suitable 24-pin dot-matrix printers used as 'external' printers. Your 24-pin printer must be able to accept 'downloaded' characters in order to use the typestyles supplied. 'Downloading' means that LocoScript is able to send the shapes of the characters to the printer. The printers that have this facility are marked by a † in the list in Issue 16 of *Script*.

The typestyles are provided as a set of Character Set files, one Character Set file per typestyle. All you have to do to use the different typestyles is take the appropriate Character Sets from the LocoFont disc, copy them to your Start-of-day disc and update the Settings file accordingly. Full instructions on how to set up your documents to use these new Character Sets is given in the booklet supplied with the LocoFont discs.

The LocoFont typestyles, with the exception of one, include all the LocoScript 2 characters. The exception is Old English where you don't have things like Greek and Cyrillic letters because they would be rather inappropriate in that style! Samples of all the typestyles are given in the box opposite.

The pack for the 8256/8512

Formerly there were two sets of LocoFont for the 8256/8512 printer, LocoFont Set 1 and LocoFont Set 2. The typestyles provided on the LocoFont Set 1 disc were Standard, Sans Serif, Roman, Script, Copper Plate, Definite, Capitals, Deco, Finesse and Modern, while LocoFont Set 2 had Standard, Sans Serif, Penman, Old English, Mini 15/17 and Mini PS. Now all the files from both the discs are available in the new pack, which is called simply 'LocoFont'.

The two mini styles are designed for use at eight lines per inch so you can get a lot of text on a single page. The rest are intended for use at six lines per inch, and the more ornate fonts, such as Copper Plate and Old English should always be proportionally spaced as this gives the best results.

The Standard and Sans Serif characters have the same widths so the text will be laid out in the same way whichever font is used. However, the other styles have slightly different widths, so using them can make a slight difference to your documents. For example, if the characters are generally wider then your document may become longer and things like page breaks will be in different positions.

The pack for download printers

This pack is called 'LocoFont 24' and it can only be used with a 24-pin printer that supports downloaded characters, or the Epson GQ5000 and EPL-7100 laser printers which also have the download facility. You'll also need the correct Printer Driver for your printer. This used to be supplied on the 24-Pin Printers Drivers disc, but the files are now part of the Printer Support Pack (see the article in Issue 16 of *Script*).

Previously the typestyles for download printers were divided between two discs; the Text Set and the Display Set. Now all the fonts are provided in the new LocoFont 24 pack.

The range of fonts is basically the same as those provided for the 8256/8512 printer: although LocoFont 24 doesn't include the Modern and Mini 15/17 fonts.

Also supplied with LocoFont 24 is the LocoChar 24 program. This is a CP/M program that allows you to define up to 16 special characters of your own, which you can then print out on your 24-pin printer. This works in a similar way to LocoChar for the 8256/8512 which allows you to define your own characters for printing on the 8256/8512 built-in printer and is provided as a standard feature on the LocoScript 2 Master disc.

Each LocoFont pack costs £29.95 including VAT. If you have an old version of LocoFont you can upgrade to the new version for just £14.95, providing you enclose your old LocoFont Master disc with your order.

Examples of the fonts

Standard
Please find enclosed confirmation of your order for an additional 50 brass fittings with screw threads. There is unfortunately an ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Sans Serif
Taking as our hypothesis $\nabla(\Sigma, \Theta\Sigma_2) \cong \infty$ we can follow through the argument to give the result $\int_\sqrt{}\Sigma_2\Theta\Sigma_1 = 0$
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Roman
The minutes of the previous meeting were accepted as correct. There were five matters arising which were not dealt with ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Capitals
FOR SALE: MINI 1000 — GOOD LITTLE RUNNER, NEEDS A LITTLE WORK. TAX AND MOT UNTIL AUGUST. NEW SUBFRAME AND BRAKES AT LAST MOT. OFFERS? ...
ABCDE ABCDE ABΓΔE ABΓΔE AБВГГ АББГГ 12345 ÉÇÖÍÅ

Script
We're glad to hear that you enjoyed the little "surprise" party that we organised for you on your birthday. The flowers were father's idea and ...
abcde ABGDE αβγδε ABΓDE aδβzr АББΓГ 12345 éçöíå

Deco
Avocado Pear with prawns   £2.95
Seafood Cocktail   £2.50
Orange and Cucumber Soup   £1.95
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Copper Plate
You are invited to join in with another of Ted's housewarming parties. The new house is supposed to be finished on the 27th June, ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Finesse
Greenways Residents Association Annual Fête The fête this year will be held on the 10th June — if wet the Tennis Club have ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Definite
We have been forced to adopt a tougher approach to returns of faulty product. No returns will be accepted without prior ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Modern
After disconnecting the mains power, unscrew the three screws marked '▶' and remove the cover slowly. Be very careful not to ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Penman
It seems ages since I last wrote to you — and even longer since we last met. Now that I've got more time why don't we meet up in London one day soon for a ...
abcde ABCDE αβγδε ABΓΔE aбвr АББГГ 12345 éçöíå

Mini 15/17
The software contained in this package is supplied to you on the terms and conditions indicated below. The opening of this package indicates your acceptance of these terms and conditions. If such terms and conditions are not accepted ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Mini PS
Word Processor: Used to describe a computer together with special software or simply to describe the software. A word processor provides a facility to create and modify documents on a screen before ...
abcde ABCDE αβγδε ABΓΔE абвгг АББГГ 12345 éçöíå

Old English
𝕿𝖍𝖊 𝕺𝖑𝖉 𝕬𝖓𝖙𝖎𝖖𝖚𝖊𝖘 𝕾𝖍𝖔𝖕, 27 𝕿𝖍𝖊 𝕾𝖖𝖚𝖆𝖗𝖊, 𝖂𝖊𝖘𝖙 𝕾𝖙𝖗𝖊𝖊𝖙, 𝕮𝖎𝖗𝖊𝖓𝖈𝖊𝖘𝖙𝖊𝖗, 𝕲𝖑𝖔𝖚𝖈𝖊𝖘𝖙𝖊𝖗𝖘𝖍𝖎𝖗𝖊.
abcde ABCDE 12345

Letters

Transferring files

I have a PCW8512 which I use at home for letters and household accounts. However I recently did some office work while I was at home with a broken leg and I now want to transfer the files from my PCW to the machines at the office, which are PCs. I was told that I could fit a disc drive to my PCW which takes 5¼" discs and copy the files in this way, but this sounds a rather expensive way to go about it and I wondered if there is another way.

Mr IW, Yeovil

If you don't want to fit alternative disc drives to either your PC or your PCW, you can use a special package for taking files from a PCW to a PC. Since the launch of LocoScript PC we have been supplying a package for this, called LocoLink.

LocoLink is a special cable that plugs directly into the expansion port on the back of your PCW, plus a couple of special programs. You won't need any other interface and it fits any standard UK PCW. The other ends fits into the parallel printer port on the PC. Once the machines are connected, you run the two LocoLink programs: LLPC at the PC end and LLPCW at the PCW end. LLPCW is included with LocoLink and LLPC is supplied with the LocoScript PC word processing package. If you don't have LocoScript PC, you can buy the LLPC program as a separate package called LocoLink PC which costs £19.95.

When the two programs are running you can transfer all the files you want. The only problem in using LocoLink in your case is that the PCW must be next to the PC in order to use the LocoLink cable, so you'll have to take your PCW into work to carry out the transfer in this way.

Depending on the type of file, you may also need to convert it to use it on the PC. All PCW LocoScript documents and LocoFile datafiles are converted when you use them with LocoScript PC. If you are not using LocoScript PC, then you should turn your files into ASCII before transferring them to use them with other word processors, although this means you will lose all your formatting commands.

LocoLink comes with full instructions and costs £29.95 plus VAT.

Problems with footers

I have a PCW9512 with LocoScript 2.29 and I also have the 24-Pin Printers Drivers disc to run an Epson LQ1500. When printing a long document on continuous stationery, I have found that the text from the Footer zone is printed on the following page. What is happening?

Mr AB, Whitehaven

There are two possible causes for this problem. Firstly your paper may be positioned incorrectly in your printer so there is too much space left at the top. This would mean that the printing would begin too far down the paper, resulting in the footers being pushed to the following page. This is easily fixed by re-positioning your paper. Alternatively the problem may be due to the fact that the paper you are using is shorter than the length set in the Paper Type you are using. If this is the case, the overlap would get progressively worse as you went through the document. The solution here is to set up a new Paper Type that corresponds to the measurements of your paper.

All the information about Paper Types is held in SETTINGS.STD on your Start-of-day disc. Go to the Disc Manager Screen, put your Start-of -day disc in Drive A and tell LocoScript you have changed discs by pressing [f7]. Then press [f6] to display the Settings menu. New Paper Type is already selected for you so just press [ENTER]. You will now see a special version of the Paper Type menu, which already contains the details of last Paper Type you used. Change these details to match the paper you want to use. Then give your new Paper Type a name that will be easy to pick out whenever you want to use it again. You do this by moving the cursor to Paper:, pressing [-] to remove the old name then typing in the new name. The option Create New Paper Type is automatically selected, so just press [ENTER].

This takes you back to the Settings menu which you leave by selecting the Exit option with the cursor (eg. by pressing [EXIT]), and pressing [ENTER]. LocoScript then displays a special message offering to update your SETTINGS.STD file to include the new Paper Type. Press [ENTER] and the new version of the Settings file will be written to your Start-of-day disc.

Letters

Print Extract feature

I have an 8256 with an expanded memory. The database I have set up consists of scientific references, some of which have long titles. I have tried to produce a print-out of these titles by using a paper size of 50 width and 15 length, and by printing an extract consisting of Number and Reference. However I find that the longer titles are truncated so only the part that will fit on the first line will print and the rest is ignored. There is nothing in my User Guide to say that printed extracts are limited to a certain size, and I would be grateful if you could solve this dilemma for me.

Dr CP, Loughborough

You are using LocoFile's Print Extract feature which is slightly different to the normal Extract feature. This feature was included to make printing labels from address datafiles easier, but it can also be used to print simple lists like the one you want. However, as you have found, this feature does have certain limitations.

The main problem is that if any of the lines are longer than the width of your paper they won't be 'wrapped' onto a new line. This means you'll only get the part of the text that fits onto a single line. You can solve this problem by splitting the long lines yourself with a carriage return before you try to extract the item, then all your text will be included.

The Print Extract feature is explained in Section 5.2 of the LocoFile User guide. In newer editions; ie. May 89 or later, the manual looks specifically at its use in printing labels and lists. If you have an earlier copy of the manual you can get the new version by sending the back cover of your User Guide to us, together with a cheque for £5.95.

Characters on a LaserJet

We have connected a Hewlett Packard LaserJet II to the PCW8512 and are using LocoScript v2.14 and the HPLASER.PRI printer driver. We have found that the LaserJet can only print a very limited set of characters from the PCW. We particularly wanted the 'to the power of' function and the degree symbol. Is there a way to improve the range of characters?

Mr DF, Littlehampton

A HP LaserJet II has 'to the power of' characters in its PC-8 Symbol Set, but unfortunately the HPLASER.PRI driver only supports the Roman 8 Symbol Set. However you can use the PC-8 Symbol Set if you set up a separate Character Set containing the necessary printer sequences. You do this using the CHARKIT program, and the articles on CHARKIT in Issues 14 and 15 of *Script* will tell you how to do this.

The other option is to produce 'to the power of' numbers using LocoScript's superscript facility. Put (+SupeR) and (-SupeR) codes round the 'power' number and you will find that the figure will be raised above the line. As it will still be the same size as the rest of your text, you can make it smaller by changing the pitch. Therefore to produce 3^3 you will need the sequence
`3(+SupeR)(+Pitch15)3(-SupeR)(-Pitch)`.

The degree symbol is available in the Roman 8 Symbol Set, but you may have been typing the wrong keystroke combination which is why you couldn't produce it. The correct keystroke on your system is [EXTRA] [SHIFT] H.

Editor Data Buffer

I have been writing a LocoMail program for my PCW9512 to sort different types of wines into groups. The program seemed to be fine, until on testing I got a message saying "Data Buffer Full". What memory are we talking about running out of? My PCW has been fitted with a SCA RAMPAC which should give me plenty of space. I enclose a copy of the program.

Mr AW, Billericay

The Editor Data Buffer is the area of memory in which LocoScript stores part of the document you are editing and the current values of all LocoMail items. If your LocoMail application involves a large number of items or the program is very complicated, then the Editor Data Buffer can run out of space to store things in. Having a RAMPAC makes no difference to the size of the buffer: the only solution is to make your LocoMail program less complicated.

Letters

Headed paper

I have recently upgraded to LocoScript 2 and I want to be able to print out my address heading in the Old English font, then continue the rest of my letter in the Penman font. I have tried to make one of these fonts a default font but I don't get the result I wanted. How can I make two default fonts on one disc?

Mr AD, St Asaph

In LocoScript 2 it is impossible to use more than one font in printing a single document. But you can get the effect you want by storing the address and the letter as separate documents, but printing them on the same piece of paper.

Create a document with your address in the font you want at the top of the page, then print out this document. This gives you 'headed' paper. Then create another document and type in your letter in the font you want, leaving the same number of blank lines at the top of the page as you used for the address. When you put the 'headed' paper into the printer and print out your letter, the result will be what you wanted.

If you wanted to produce letters like this regularly it might be a good idea to set up a template for the letters, with the font you want to use and the right number of blank lines at the top. Templates are explained in more detail in the article in Issue 1 of *Script*.

Selective mailshot

We have a LocoFile file called CUSTMR.DAT. We want to print labels selectively from the 500 or so records on this file to send Christmas cards. We thought we could do this by clearing all the 'changed' records first, then going through the records putting a space in any record that we wanted to print. Then these records would be marked 'changed' and we could just select these for the labels. However we have to use LocoMail to lay out the records and LocoMail does not recognise the 'changed' records. What should we do instead?

Mr DU, Peterborough

What you need is a better way of marking the records – for example putting a special item in all the records you want to use. Call this item something like 'Xmas' and put a specific value in the item, like a number or a word. Then you can set up your LocoMail Master document to test the value of the Xmas item in each record, using a # instruction, and then print out the records that meet the requirements. Selecting specific records from a datafile is explained in more detail in Chapter 11 of the LocoFile User Guide.

There is no need to create a separate version of your datafile to hold your Christmas data if you use this method. All you have to do is go into Datafile Set up after you have printed your labels and remove the Xmas item, which removes the item from all your records.

Margins for Mini PS

I have a number of documents which I am trying to convert into PS, with a scale pitch of 15 and in the mini PS font. To do this I set up a special template as suggested in Issue 3 of *Script* with Pitch PS, Scale Pitch 15, mini PS font, Line Pitch 8 and the standard margins. I put all this into the Stock Layouts and copied them to group 1 of my Start-of-day disc.
The result has been that all the commands have taken effect with the exception of the margins – the effect being to shorten the lines rather than increase the number of characters on the line, as *Script* suggested would occur. Obviously I am doing something wrong, but nothing I do seems to help.

Mr RC, Coventry

The reason your lines have been shortened is because although you have changed the Scale pitch, you haven't extended the margins to take this change into account. In Scale Pitch 15 the margin at 80 characters is only 5¼" from the left hand side.

To keep your righthand margin at 8" you have to multiply the new Scale pitch by 8 which gives you the position of the right margin; ie 15 x 8 = 120 characters. Once you have done this you should find that your documents will be laid out in the way you want.

Letters

Making a secure file

I am trying to make a secure file using passwords. I am having no problems with the actual writing of the file but of course all the LocoMail instructions appear on the screen, which gives the game away. Is there any way of hiding these instructions? I really do want to use LocoMail to do this job.

Mr GG, Southampton

It might be possible to 'hide' LocoMail instructions by storing them far to the right of the document. Change the left hand margin to a position beyond the right hand edge of the screen (changing the right hand margin accordingly) and put the LocoMail instructions here. To save time you can set up the margins as a new Layout so you can call it up every time you want to hide something, going back to the standard Layout for ordinary text.

This method does not of course stop people from scrolling over to the LocoMail instructions if they want to, but it may prevent a 'casual' observer from noticing the passwords.

Working out record size

I have a PCW8256 without any extra memory and I have bought LocoScript 2 and LocoFile to help me with a membership list of about 1,000 names and addresses. I realise that I will have to break down the list into several sections, but I can't decide how until I have an idea of how much space each record will take up. Is there a quick way of working this out?

Mr JC, London

The space each record will take depends on the length of your names and addresses so we can't give you any definite figure. However you can work it out approximately by allowing 10 bytes for each record, plus 3 bytes per item, plus 1 byte for each character in the name and address of each record (the average number will be sufficient; don't bother counting every character!). Taking typical values for names and addresses, we estimate that 125 records will take up between 25 and 35k of memory, which shouldn't exceed the space available on Drive M of a PCW8256.

Using LocoMail's 'Fill' mode

We have set up a standard letter using LocoMail which we want to send to list of clients whose names and addresses are stored in a LocoFile datafile. At the moment we are using the 'Fill' option and are typing in the relevant name and address as we come to them or going into LocoFile and saving each name and address to a Block, then pasting them into the standard letter. The problem is that once we are in LocoMail with the standard letter on the screen, we can't call up LocoFile in order to copy the name and address. We realise that we could use the merge feature but this would mean that we'd have to produce letters for the whole datafile, when we only want produce a few.

Mr PJ, Chesterfield

The problem you are having in accessing LocoFile from within a 'Fill' has a number of solutions.

The first is not to 'Fill' the document but simply edit it, as you are only typing in a small amount of information. This means you'll be able to call up LocoFile without any problems

at all. **The second solution is to add the client's information after the Fill is complete. Just leave a space for the name and address, then once the Fill has been carried out, select** Edit Result **and run LocoFile to copy the details.**

However you are mistaken in supposing that you can't just use the names and addresses you want if you use the merge feature. LocoMail does not have to produce letters from the start to the end of the datafile, it can produce a single document addressed to a specific client if you want.

What you need to use is a $= instruction to change to a specific index from within the merge. Then you use $$ instructions to select the record you require (this works in the same way as LocoFile's GOTO feature). Using these instructions to produce a selective mailshot is explained in more detail in the article 'Printing lists the LocoMail way' which appeared in Issue 9 of *Script*.

PostScript

Three years ago John Eley was invalided out of the Ambulance service due to a serious back injury. This meant that he was able to devote all of his time to his rather unusual 'hobby'. John is an osteological anthropologist, an expert on human bones, and he examines and reports on the findings of archeological digs throughout the Thanet area of Kent.

It all started on a Sunday afternoon walk over 20 years ago. John and his family stopped to watch an archaeological dig in progress near their home. They were asked if they'd like to help in washing the finds, and from then on John was hooked. He started to help with the bones found on digs and now he can receive up to 400 skeletons at a time, all to be examined and analysed.

John's interest is time-consuming and a source of bewilderment to his friends and neighbours. Certainly his dog leaves well alone. "I can leave them lying around", says John, "He won't touch them. Never has funnily enough."

For every skeleton he examines, John has to prepare a detailed report on the state of the bones, any information he can give about the person and the possible causes of death. He used to type everything on a typewriter, keeping carbon copies. Unfortunately things got lost rather frequently, which was inconvenient and a great shame as some of the records were irreplaceable.

But times have changed. About the time of his accident John bought a PCW and now he can't imagine life without LocoScript. 20 years' worth of reports are now on disc and using LocoFile he's able to compile statistical reports sorted into whatever form he chooses.

Using a template he can prepare all the reports quickly without having to type in each case separately. Then using his LocoFile records he can find out, for example, how many Saxon women died when they were between 20 and 30 years of age, or the number of Romans who died from battle wounds. With this information and artifacts such as pottery, jewellery and weapons from the site, it is possible to form a good idea of the society and events of the time. John has also set up a routine that calculates the average height, sex and age ratios of the skeletons found for the final report on the site. In addition, LocoFile is used to catalogue all the sites within the district and the graves where the bones were found. All the photographs of bones and finds are also catalogued by LocoFile, so nothing gets lost or muddled.

With LocoScript, John's paper work is drastically reduced. For a typical site of 200 graves he used to have to type a minimum of 800 A4 sheets . Now he can pull in information from the datafile, save repetition by using standard letters and compile analysis for final reports all at the same time. "I was a rank beginner as far as word processing was concerned just three years ago" says John. "Now this software is doing everything I want it to and more."

Which is just as well. After all, you never know when another skeleton is going to show up!