

Section 4: Strings

In addition to numeric values, Extended XYBASIC lets you use strings containing up to 255 ASCII characters. You can write string formulas which construct new strings, and you can assign string values to string variables. Strings are an extremely powerful programming tool. You can use the string capabilities of XYBASIC to write text processing programs for a wide variety of applications. This section describes in detail the string manipulation facilities of Extended XYBASIC.

Quoted Strings

You have already used the simplest type of string, the quoted string, in Section 2 above. A quoted string is just a sequence of characters enclosed in quote marks (" "), as in the command:

```
PRINT "HELLO"
HELLO
OK
```

The characters you can include within a quoted string include any printable ASCII characters. In particular you can use both upper and lower case alphabetic characters:

```
PRINT "Hello again"
Hello again
OK
```

You can also use the character <control-G> within quoted strings. On most terminals <control-G> will be "PRINTed" as an audible bell or beep. To include nonprintable ASCII characters (or the quote mark character) within strings you can construct a string formula using the CHR\$ function, as described below.

String Variables

Extended XYBASIC lets you assign string values to string variables, in exactly the same way as numeric values are assigned to numeric variables. Any legal variable name followed by the character \$ is a string variable. String variables are always initialized to the null (or empty) string, the string containing no characters, when first encountered. You can assign a new value to a string variable with LET:

```
LET A$ = "DOG"
OK
PRINT A$
DOG
OK
```

Of course the word LET is optional, as before. In this example the value assigned to A\$ is given by a quoted string. You can also use string variables or more complicated string formulas (built up from the string-valued functions described below) as the right side of a LET command. However, a TM (Type Mismatch) error will occur if you try to