

Strings (from the class Str)

Strings are sequences of characters that are viewed as one unit. They are very useful objects, found in a class called Str. Strings are similar to types, such as int and real, but are also somewhat different. Particular strings are surrounded by double quotes as in the following examples:

```
"A" -- comment----- a single character
"CA" ----- a sequence, two characters
"yes" ----- a word, all in lower case
"Monday" ----- a day of the week, capped M
"Joe Blow" ----- a name, with a separating gap
"Gone Fishing!" -- a message, with spaces, mixed caps, etc
"77" ----- a "numeral", which is not int 77 or real 77.0
"$1,234,567.89" -- an amount of money, which is formatted carefully
```

Declarations of boxes of class string Str are similar to type declarations except that "ofType" is replaced by "ofClass" as in:

```
Box name ofClass Str
Boxes day, name, grade, prompt, state, reply, message ofClass Str
```

Assignment is also similar to that of types, with the Set command as:

```
Set day = "Monday"
Set name = "Smith"
Set grade = "A"
Set prompt = "Enter a name "
Set balance = "$1,234,567.89"
Set storybook = "Once there lived 3 bulls, a mommy bull ... after."
```

Operations involving strings are many; a few follow.

Input and output of strings are again very similar to that of other types:

```
Output prompt
Input reply
```

Concatenation, or joining strings can be done with the "+" operator as in:

```
Set fullName = firstName + lastName
Set message = greeting + message + appendage
```

Some special strings are more convenient when named such as:

```
Set Space = " "
Set Dash = "-"
Set Hyphen = "-"
Set Period = "."
Set Return = "\n"
Set TAB = "\t"
```

and used as in:

```
Set fullName = firstName + Space + initial + Period + Space + lastName
```

Access of strings is done with a dot notation. For example, the length (number of characters) of name, is given by:

```
Set size = name.length()
```

Similarly the conversion of name to all capitalized or uppercase letters is given by:

```
Set capName = name.toUpperCase()
```