

Memory Variables in FoxPro

A memory variable in FoxPro is a temporary storage space in the computer's memory used to hold values while a program is running. These variables do not get saved in the database; they exist only during program execution. They can store numbers, text, dates, logical values, or even arrays.

Memory variables are very useful in FoxPro for calculations, loops, and storing temporary data during program execution.

Characteristics of Memory Variables:

1. **Temporary:** Memory variables disappear when the program ends or when explicitly cleared.
2. **Flexible:** They can store any type of data.
3. **Dynamic:** No need to define their type in advance; FoxPro determines it automatically.
4. **Accessible:** They can be used in commands, expressions, conditions, and calculations.

Creating and Using Memory Variables

You can create a memory variable simply by assigning a value to a name.

Example 1: Numeric Variable

```
x = 50    && numeric value
```

```
y = 20
```

```
Sum = x + y && addition of two variables
```

```
? Sum    && Output: 70
```

Example 2: Character Variable

```
name = "Ali"
```

```
city = "Patna"
```

```
? "Student Name: " + name + ", City: " + city
```

Output:

```
Student Name: Ali, City: Patna
```

Example 3: Logical Variable

```
Passed = .T.  && .T. = True, .F. = False
```

```
? Passed
```

Output:

```
.T.
```

Example 4: Using Memory Variables with Table Data

```
USE BCA_Student  && open table
```

```
LOCATE FOR Roll = 1
```

```
x = Marks  && store Marks of student in memory variable
```

```
? "Marks of Roll 1:" + STR(x)
```

Here, x is a memory variable storing a record value temporarily.

Clearing Memory Variables

You can clear memory variables using:

```
CLEAR && clears all memory variables
```

Or clear a single variable: