

Creating and Using Arrays

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Array Variable

- An ***array variable*** is a collection of simple variables of the same type to which Visual Basic can efficiently assign a list of values.
- An array variable can be declared, or *dimensioned* by a statement of the form
Dim *arrayName*(*m to n*) **As** *varType*
where *arrayName* is an identifier, *m* and *n* are whole numbers such that $m \leq n$, and *varType* is a name of a type.

Accessing Array Elements

- An element of the array can be accessed (referenced in a VB program) as *arrayName(i)* where *i* is an expression that evaluates to a whole number within the (inclusive) *range* from *m* to *n*. Indices like *i* are called *subscripts*.

Dynamic Arrays

- In order to use variables or expressions when indicating the subscript range, one can use a ReDim statement of the form *ReDim arrayName(m to n) As varType*
ReDim statements can only be placed inside procedures. (In other words, form-level dynamic arrays cannot be declared using ReDim statements.)

Form-Level Dynamic Arrays

- At the form level, use Dim statements of the form

Dim *arrayName*() *As* *varType*

where no range for the subscripts of the array is specified. An array declared this way cannot be used until a ReDim statement is executed in a procedure to establish the range of subscripts. The “As varType” clause can be omitted from this ReDim statement.