**<http://www.tldp.org/LDP/Bash-Beginners-Guide/html/>**

10. [More on variables](http://www.tldp.org/LDP/Bash-Beginners-Guide/html/chap_10.html)

10.2. [Array variables](http://www.tldp.org/LDP/Bash-Beginners-Guide/html/sect_10_02.html)

**10.2. Array variables**

**10.2.1. Creating arrays**

|  |
| --- |
| C1:  array[0] = val # several ways to define an array  array[1] = val  array[2] = val  C2:  array=([2]=val [0]=val [1]=val)  C3:  array(val val val) |

## 10.2.2. Dereferencing the variables in an array

|  |  |
| --- | --- |
| In order to refer to the content of an item in an array, use curly braces. This is necessary, as you can see from the following example, to bypass the shell interpretation of expansion operators. If the index number is *@* or *\**, all members of an array are referenced.   |  | | --- | | [bob in ~] **ARRAY=*(one two three)***  [bob in ~] **echo ${ARRAY[\*]}**  one two three  [bob in ~] **echo $ARRAY[\*]**  one[\*]  [bob in ~] **echo ${ARRAY[2]}**  three  [bob in ~] **ARRAY[3]=*four***  [bob in ~] **echo ${ARRAY[\*]}**  one two three four |   Referring to the content of a member variable of an array without providing an index number is the same as referring to the content of the first element, the one referenced with index number zero. |

# Special usage

|  |
| --- |
| ${array[i]} # displays array's value for this index. If no index is supplied, array element 0 is assumed  ${#array[i]} # to find out the length of any element in the array  ${#array[@]} # to find out how many values there are in the array |