Command Line Arguments

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What is it?

- Command line arguments are parameters that can be passed to a C or C++ program from the operating system command line.

- These are known as (argc and argv).
Argc and Argv

- **Argc** is an integer and represents the number of parameters (including the program name itself) that is typed by the user.

- **Argv** is an array of character strings which hold the program name, and the parameters that are passed to the program.
Example:

- Assuming we have a program called “copy”, and the program takes two arguments called “source” and “destination”, the command line may look like:

  c:\> copy source destination

In this case:
- `argc` will be 3, and
- `argv` will be an array of character strings that will look like the table below.

<table>
<thead>
<tr>
<th>Argv[0]</th>
<th>copy\0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argv[1]</td>
<td>source\0</td>
</tr>
<tr>
<td>Argv[2]</td>
<td>destination\0</td>
</tr>
</tbody>
</table>
To display argc and argv

```cpp
#include <iostream>

using namespace std;

void main( int argc, char *argv[] )
{
    cout << "Argc = " << argc << endl;

    for (int i=0; i< argc;  i++)
        cout << "argv[" << i <<"]  = " << argv[i] << endl;
}
```

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Adding parameters using the Visual Studio IDE

- Let’s add the following parameters:
  - parameter1 parameter2 parameter3

- Using the menu, click: project-Properties-Debugging-Command Arguments.
Run the program again!
Running the program from command prompt:

- Using the window search, type "command prompt"
Change to the proper directory
Run the command