

# Introduction to C++ Programming

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The background is a dark blue field filled with glowing light blue circuit traces and several stylized computer monitor icons. Some icons are in the foreground, appearing larger and more detailed, while others are smaller and further back, creating a sense of depth. The overall aesthetic is high-tech and digital.

00

Revision

# switch-case statement

```
#include <iostream>

using namespace std;

int main()
{
    code1...;
    switch (expression)
    {
        case x:
            code2...;
            break;
        case y:
            code3...;
            break;
        default:
            code4...;
    }
    code5...;
    return 0;
}
```



The background is a dark blue field filled with glowing light blue circuit traces and nodes. Several stylized computer monitor icons are scattered across the scene, some appearing to float or be part of the circuitry. A large, dark blue square with a thin black border is positioned in the upper left, containing the number '01'. A large, dark blue rectangle with a thin yellow border is positioned in the lower half, containing the word 'While'.

01

While

# while statement

```
#include <iostream>

using namespace std;

int main()
{
    code1...;
    while (condition)
    {
        code2...;
    }
    code3...;
    return 0;
}
```

# do - while statement

```
#include <iostream>

using namespace std;

int main()
{
    code1...;
    do
    {
        code2...;
    }
    while(condition);
    code3...;
    return 0;
}
```

break;

continue;

# Infinite Loop

```
#include <iostream>

using namespace std;

int main()
{
    while (true)
    {
    }
    return 0;
}
```



The background is a dark blue field filled with glowing light blue circuit lines and several glowing computer monitor icons. The icons are stylized with two dots for eyes and a rectangular body. They are scattered across the frame, with some appearing larger and more prominent than others. The overall aesthetic is high-tech and digital.

02

For

# for statement

```
#include <iostream>

using namespace std;

int main()
{
    for (one_time_statement; condition; every_time_statement)
    {
    }
    return 0;
}
```



The background is a dark blue field filled with glowing light blue circuit traces and nodes. Several stylized computer monitor icons are scattered across the scene, some appearing to float or be part of the circuitry. A dark blue square with a thin black border is positioned in the upper left, and a larger dark blue rectangle with a thin yellow border is in the lower center.

03

# Arrays



# Arrays in C++

```
#include <iostream>

using namespace std;

int main()
{
    //Definition
    data_type array_name[array_size] = {value_0, value_1, ..., value_size-1} ;
    data_type array_name[array_size] ;
    //Assignment
    array_name[index] = value ;
    return 0;
}
```

# Multi-Dimensional Arrays

```
#include <iostream>

using namespace std;

int main()
{
    //Definition
    data_type array_name[dimension_1_size][dimension_2_size] = {{, , }, {, , }, ..., {, , }} ;
    data_type array_name[dimension_1_size][dimension_2_size] ;
    //Assignment
    array_name[index_1][index_2] = value ;
    return 0;
}
```



Thanks!