

Application Note: AN10127

How to pass arguments to the target application

This application note is a short how-to on programming/using the xTIMEcomposer tools. It shows how to pass arguments to the target application.

Required tools and libraries

This application note is based on the following components:

• xTIMEcomposer Tools - Version 14.0.0

Required hardware

Programming how-tos are generally not specific to any particular hardware and can usually run on all XMOS devices. See the contents of the note for full details.



1 How to pass arguments to the target application

The xTIMEcomposer tools support the passing of arguments to the target application via *argc/argv* parameters in *main*.

You must first specify the maximum size of the buffer to use to contain the command line arguments in target memory. This is specified using the *-fcmdline-buffer-bytes* compiler switch. As seen in the *Makefile*, in this case we have set it to 128 bytes.

Now compile the following code snippet:

```
#include <stdio.h>
int main(int argc, char *argv[]) {
    printf("argc = %d\n", argc);
    for (unsigned int i = 0; i < argc; ++i) {
        printf("argv[%d] = %s\n", i, argv[i]);
    }
    return 0;
}</pre>
```

This code simply displays both the total number of command line arguments passed, and each of thier values.

The resulting executable can then be run from the command line:

```
> xrun --io --args bin/AN10127_xtimecomposer_target_argument_support.xe a b
```

This will produce the following output:

```
argc = 3
argv[0] = bin/AN10127_xtimecomposer_target_argument_support.xe
argv[1] = a
argv[2] = b
```

Likewise, arguments can be passed to the target if calling xgdb directly:

```
> xgdb --args a.xe bin/AN10127_xtimecomposer_target_argument_support.xe a b
```

Finally, if running on the simulator, the mechanism is the same:

```
> xsim --args a.xe bin/AN10127_xtimecomposer_target_argument_support.xe a b
```

If you are developing from within the xTIMEcomposer studio, arguments can be specified using the *Arguments* tab in the run/debug configurations.



Copyright © 2015, All Rights Reserved.

Xmos Ltd. is the owner or licensee of this design, code, or Information (collectively, the "Information") and is providing it to you "AS IS" with no warranty of any kind, express or implied and shall have no liability in relation to its use. Xmos Ltd. makes no representation that the Information, or any particular implementation thereof, is or will be free from any claims of infringement and again, shall have no liability in relation to any such claims.