

Application Note: AN10110

How to set a timing requirement in the XTA

This application note is a short how-to on programming/using the xTIMEcomposer tools. It shows how to set a timing requirement in the XTA.

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 set a timing requirement in the XTA

Compile some code, for example:

```
int f() {  
    return 0;  
}  
  
int main() {  
    return f();  
}
```

First, load the executable into the XTA, then time the function 'f'. This will create a route as shown in the Routes view in the left hand panel. The top pane of the Routes view allows a route to be selected, whereas the bottom pane displays the timing for the current selection.

Right-click on the route and select 'Set timing requirement' Once supplied, the pass/fail status of the route will be displayed in this routes icon.

To set a timing requirement using the command line XTA, or from an XTA script/embedded source command, the following can be used:

```
set required 0 10.0 us
```

This will set a timing requirement of 10 microseconds on the route with an id of 0.