

```

1 $ java -jar MiX10.jar -mix10c\  

2 -arg_info "DOUBLE&1*1&REAL"\  

3 -main "./examples/bubble/drv_bubble.m"\  

4 -od "./output/"

```

This should create the output x10 file, `drv_bubble_x10.x10` under the `output` directory. It also creates a package directory named `simpleArrayLib` which contains a file named `Mix10.x10`, the library file containing the builtins. In addition to generating the output X10 file, the above command also displays some debug information on the console. If everything worked correctly, the debug information should end with printing the X10 program on the console, followed by a message, "No files provided, must have at least one file.". This message can be safely ignored (It will be resolved in future releases of MiX10 and McLAB [2, 1]).

1.3.3 Understanding the switches

As seen in the above example, there are four compulsory switches that are required to run the MiX10 compiler. They are described below:

1. `-mix10c` This switch is required to invoke the MiX10 compiler.
2. `-arg_info` This switch describes the type, shape and Real/Complex nature of the input argument that is passed to the entry point function of the MATLAB program. In the above example, the value `DOUBLE&1*1&REAL` describes that the input argument to the entry function is of type Double, is scalar (matrix of size 1*1) and is a Real numerical value.
3. `-main` This switch reads the following string after it as the path to the entry point function of the input MATLAB program. The path can be relative or absolute.
4. `-od` This switch reads the following string as the path to the directory where the generated X10 code should be placed. This path can be relative or absolute.
5. `-class_name` This switch takes string value which is used as the name of the generated X10 program. By default, the generated class name is created by appending "_x10" to the name of the MATLAB entry point function.
6. `-use_region_arrays` This is a boolean switch that tells the compiler to explicitly use the region arrays even if it is possible to use the simple arrays. Section 4 of the paper describes the default behaviour, that is to generate the simple arrays whenever possible.
7. `-no_intok` This is also a boolean switch to explicitly tell the compiler to disable the IntegerOkay analysis described in section 5 of the paper.

1.3.4 Current limitations

The development of the MiX10 compiler is a work in progress and there are some limitations to how it works. These limitations are as follows: