

## Writing C/C++ Code for CARMEN Services

For C/C++ code we must compile it to an executable before wrapping it as a service. Obviously the code must be compiled for the architecture of the Carmen servers that the service will be running on, i.e. AMD 64 Linux/Windows.

Here we show an example of a C program being prepared for use as a command line. It takes three input parameters, and outputs a reference to a filename. The three input parameters are an input filename, the required name for the generated output filename, and a numeric value. The algorithm has been removed for clarity.

```
int main(int argc, char * argv[]) {
    // process input arguments
    argc--;argv++;
    FILE *ipfp = fopen(argv[0], "r");
    FILE *opfp = fopen(argv[1], "w");
    if (ipfp == null || opfp = null)
        return -1;

    int numToAdd = atoi(argv[2]);

    // do stuff here
    . . .

    // close files and print output to screen
    fclose(ipfp);
    fclose(opfp);
    printf("<output>%s</output>", argv[1]);
    return 0;
}
```