The following steps and the code below show you how easy it is to use the ReforMath library; the comments alone should give you an idea what's going on:

- 1. Include the library's header 'libreformath.h'
- 2. Declare an mml_handle variable
- 3. Call mml_create_handle() to create the handle
- 4. Call mml_convert() to convert your MathML input
- 5. Call mml_can_render() to determine whether there is something to render. Even in case of errors, a portion of the input may have been converted successfully
- 6. Do something with the result by calling mml_save_to_file() (UTF-8) or mml_save_to_file_w() (the widechar version) or mml_save_to_stream(). When saving to memory, you must call mml_destroy_stream() to free any memory allocated
- 7. Free the handle by calling mml_free()

REMINDER: Please make sure the STIX fonts are installed!

```
#include "libreformath.h" // the library's header (required)
#include <stdio.h>
#include <string>
using namespace std;
#pragma comment( lib, "libreformath.lib" )
int main( int argc, char **argv )
        // declare the handle
        mml_handle *mhandle;
        bool result;
        string input;
        // create a handle
        mhandle = mml_create_handle();
        if( !mhandle )
                perror( "unable to create handle" );
               return 1;
        }
        // let's create some MathML input
        // <math> tag is optional; the default is inline; the xmlns attribute is
ignored
        input = "<math display='block'>";
        input += "<mfenced open='[' close=']'><mfrac>";
        input += "<mn>1</mn><mn>2</mn>";
        input += "</mfrac></mfenced>";
        input += "</math>";
        // convert and check the result
        result = mml_convert( mhandle, input.c_str() );
        if( result && mml_can_render( mhandle ) )
```

```
{
           // call either mml_save_to_file() or mml_save_to_file_w to save to a file
           // or mml_save_to_stream to save to memory. When saving to memory, you must
call
           // mml_destroy_stream() to free any memory used
           // Return values omitted for brevity.
           // It's your responsibility to provide an explicit extension for the
filename.
           // The file type is based on the second argument and NOT on the file
extension!
            mml_save_to_file( mhandle, "sample.pdf", mml_file_type_pdf );
            mml_save_to_file( mhandle, "sample.svg", mml_file_type_svg );
            mml_save_to_file( mhandle, "sample.xaml", mml_file_type_xaml );
            // do some scaling
            mml_set_scale( mhandle, 2.0 );
            mml_save_to_file( mhandle, "sample.png", mml_file_type_png );
           // to save to a stream, declare these 2 variables
           unsigned char *buffer = NULL;
           int buf_size;
           mml_save_to_stream( mhandle, &buffer, &buf_size, mml_file_type_svg );
           // do something with the output like dumping to console
           puts( (char *) buffer );
           // free the buffer; note that the argument is a
           // pointer to a pointer so the buffer can be set to NULL
           mml_destroy_stream( &buffer );
        }
        // free the handle when done
        mml_free( mhandle );
        return 0;
}
```

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