# SLPC & YS170 Program Conversion

Overview

Most SLPC and YS170 controllers in the field contain a custom program stored on an EPROM in the case of the SLPC and in NVRAM in the case of the YS170. When upgrading from an SLPC or YS170 to a YS1700, it is necessary to either rewrite the program in YS1700 language or convert the program from SLPC or YS170.
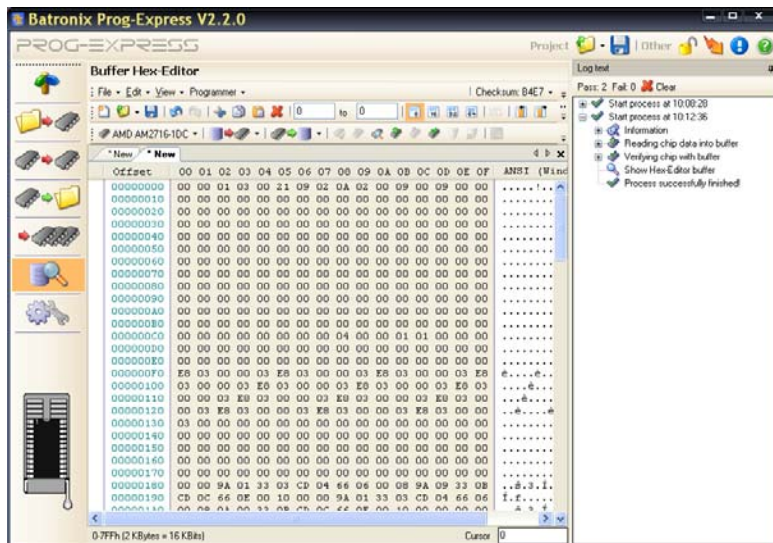
SLPC Program Conversion

To be able to convert the SLPC program, it is necessary to first read the program from the EPROM. Yokogawa has standardized on a low cost reader from Batronix located in Germany. The BX32 is capable of reading the SLPC and saving the file in a format that is convertible to the YS1700 language.

Reading the EPROM

The Batronix software (Prog-Express) that comes with the BX32 is easy to use.
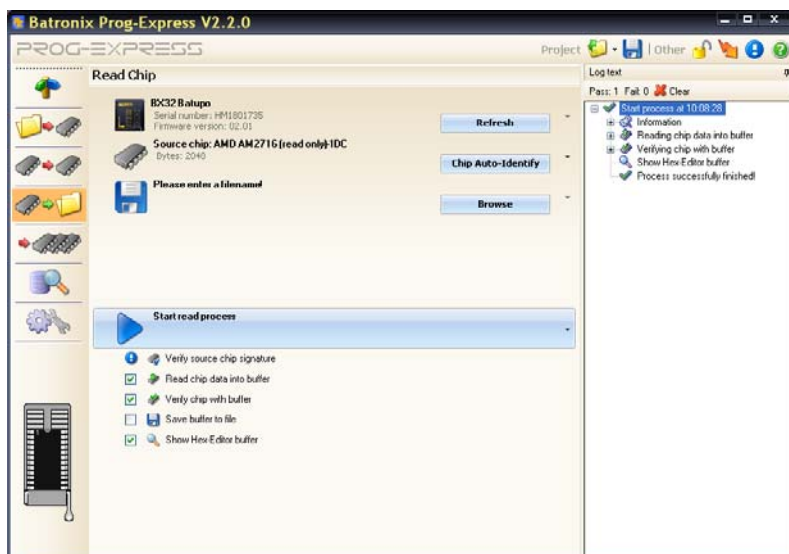
It is just a matter of selecting the proper EPROM to read from and then executing the read.

The program reads the data from the EPROM and converts it to hexadecimal. Save the file as a .BIN (binary) file. This is the file type that the YSS1000 software needs.

Converting the .BIN File

Now that we have the SLPC program converted to a binary file, it is possible to convert it to a YS1700 file. Launch the YSS1000 software, choose CONVERT and select SLPC. Choose the .BIN file that was created in the Batronix software. This automatically converts the file to a YS1700 text file.
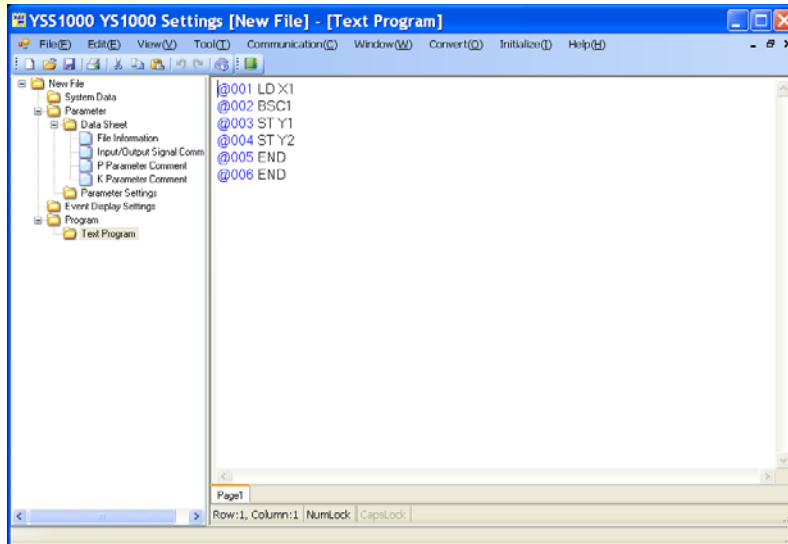
It is now possible to download the newly created file directly to the replacement YS1700.

YS170 Program Conversion

Converting the YS170 program requires (1) less step then the SLPC file. The YS170 program consists of (4) files, .HD, .OBJ, .PMT and .PRG. All (4) files are needed to be able to convert the program.

```
    LD Y1        ; Input to BSC
    LD P1        ; Time constant for lag
    LAG1         ; Execute lag
    LD P2        ; Dead time value 1.0 in P2 = 1 sec
    DED1         ; Execute the deadtime
                 ; Send simulated input into PID block
    BSC1         ; PID for loop 1
                 ; Now store MV1 to register Y1 for output as 4-20 ma
    ST Y1        ; MV1 now in Y1 register
    END
```

This is an example of a short YS170 text program. The conversion is very simple.

Launch the YSS1000 software, choose CONVERT and select READ YSS20 File. Choose the .HD file that you want to convert.
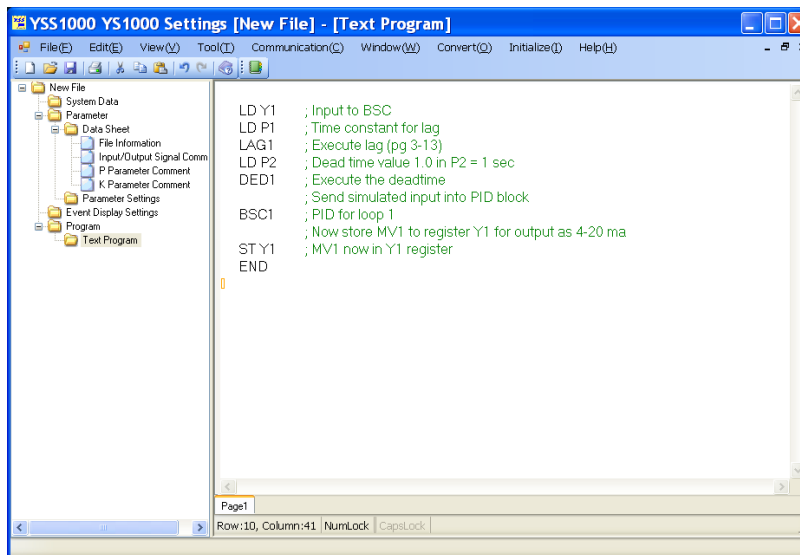
You now have a file that can be downloaded directly to the YS1700.

Any Questions? Please contact me.

Rob Sink
Product Specialist – Control Products
Network Solutions Group
(800) 888-6400 x4349
rob.sink@us.yokogawa.com