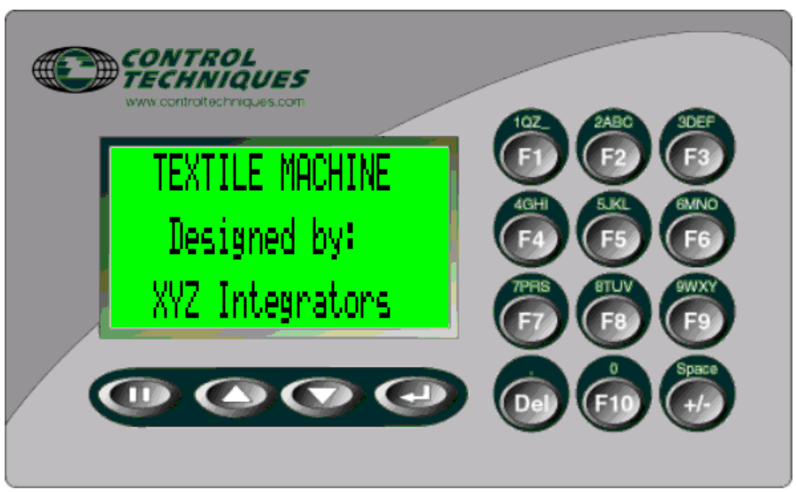
Application Note
CTAN #245

The Application Note is pertinent to our CTIU Family Range

Creating a Power-Up Splash Screen with the CTIU Operator Interface Unit

It is sometimes desirable to offer a special screen that appears at each power-up cycle on an HMI Operator screen before going to a Main Operators screen. This application note will outline a procedure to allow you to create a customized ***Splash*** Screen such as the one shown below:



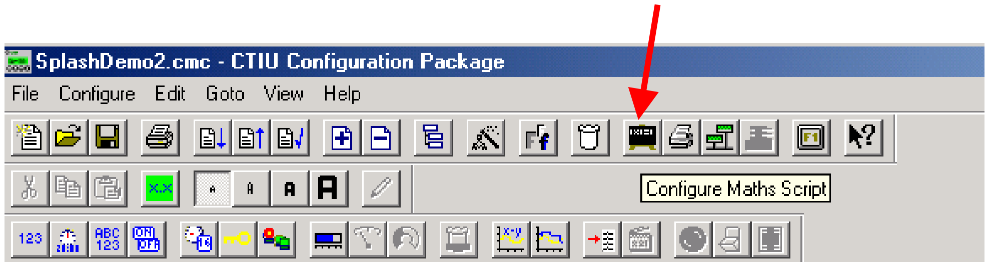
In order to create a Power Up Splash screen, you will need the CTIU Configuration program. This method can be used on any CTIU except the CTIU50 series, as it does not support the Math functions.

The CTIU configurator can be downloaded from our website at or by clicking on the link below:

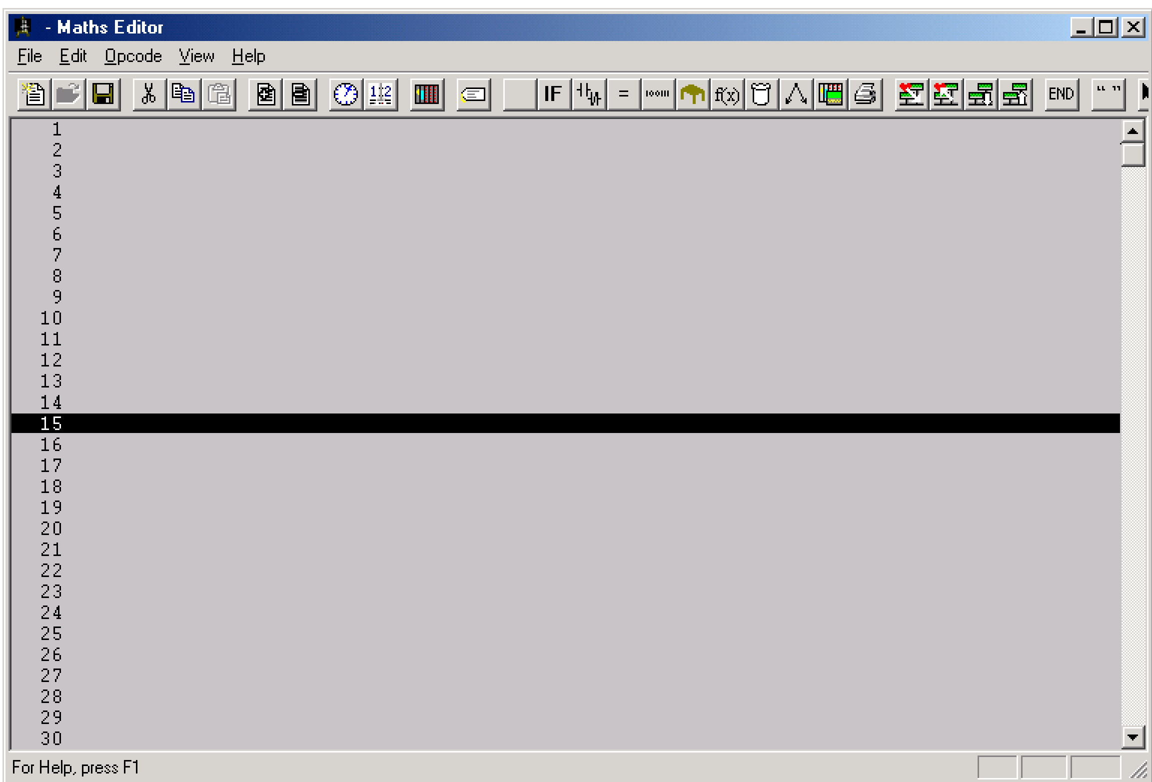
http://www.emersonct.com/download_usa/software_drives.htm

The CTIU has the ability to create internal programs in what is called the Maths area.

The Maths area can be invoked by clicking on the following icon



This will cause the Maths Editor list to appear:



There is an internal System Register area which can be referenced within this Math area.

Terminal Interface Unit Help file

File Edit Bookmark Options Help

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System Registers

Name	Read/Write	Description
%SR01	R/W	Current Page ID
%SR02	R	Contains bit state of Pause/Up/Down/Enter keys
%SR03	R/W	Global PLC Network Address
%SR04	R/W	Most recently entered password
%SR05	R	Current Edit Variable (0 = no editing, 1 = editing first variable etc...)
%SR06	R/W	Keyboard LED AND mask
%SR07	R/W	Keyboard LED OR mask
%SR08	R/W	Base Menu Page
%SR11	R	RTC seconds
%SR12	R	RTC minutes
%SR13	R	RTC hours
%SR14	R	RTC date
%SR15	R	RTC month
%SR16	R	RTC year
%SR17	R	Days in current month
%SR18	R	Number of day in year (eg Ist of February = 32)
%SR19	R	RTC day of week
%SR21	R	Total accepted alarms
%SR22	R	Total unaccepted alarms
%SR23	R/W	Total communication attempts to AE (write to clear all counts)
%SR24	R/W	Total good communication transactions with AE
%SR25	R/W	Total bad communication transactions with AE
%SR26	R/W	Total no reply communication transactions with AE
%SR31	R	Can status
%SR32	R	Can test result
%SR33	R	Can off count
%SR41	R/W	Recipe operation database selector
%SR42	R/W	Recipe operation recipe selector
%SR43	R/W	Recipe operation field selector
%SR44	R/W	Recipe operation error flag
%SR81..100	R/W	Last accessed database record name
%SR101..999	R/W	Last accessed database record contents

Since the Current Display page(%SR01) is designated R/W (read/write) , we can create a Splash Screen on any screen and refer to that page for a duration upon power-up. I would suggest making the Splash screen the last screen within your CTIU screen list.

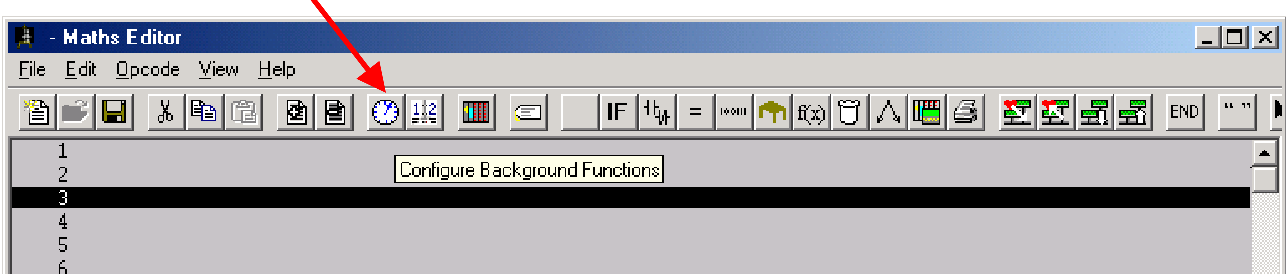
If you wish to test this, make a Main Customer screen on Page 1 and perhaps another screen on page 2, then make your Power-Up Splash screen on page 3.

My Splash Screen

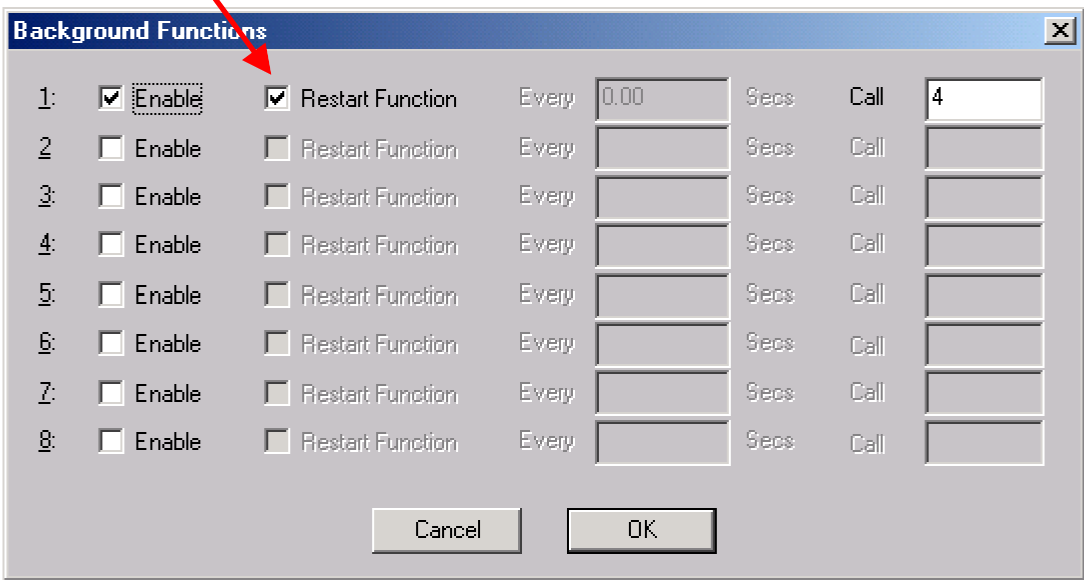
Perhaps Flash this line for more attention

Now we just need to create a small program that runs upon power-up to display this screen for a few seconds then displays the normal page 1, after that the program would go dormant. We can do this with the Maths Editor.

Click on the Clock icon which opens the Background Function selector.

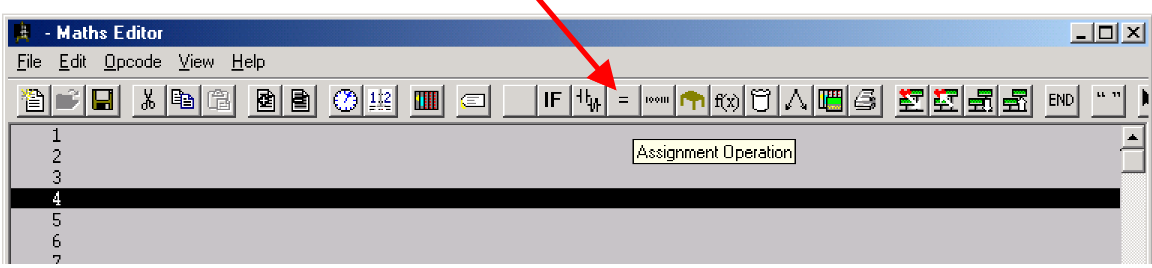


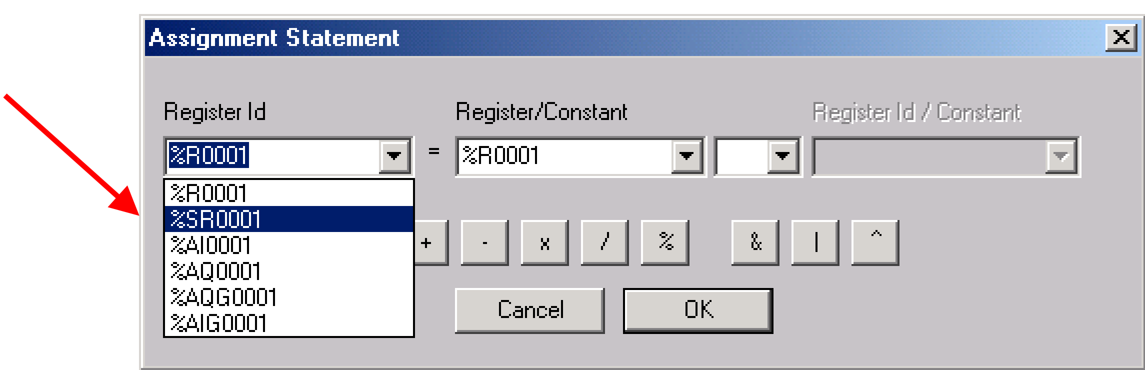
For our Splash function, we need to activate a Background function and direct it to activate upon Re-Start

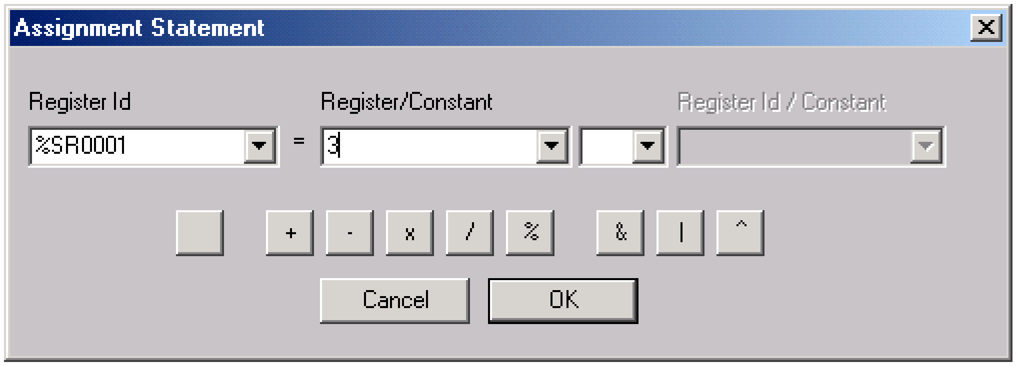


Arbitrarily, we can tell this Background function to go to line 4 upon power-up and execute some code.

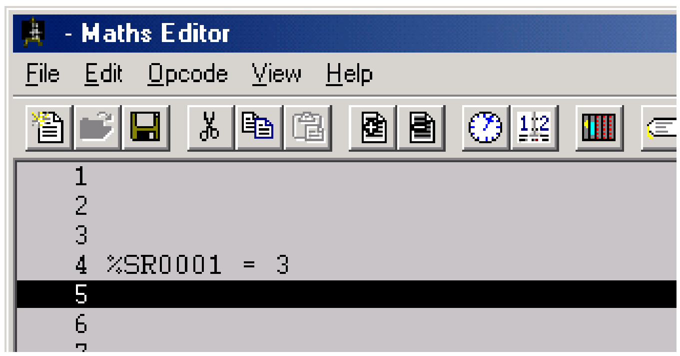
Since what we want to do is to make the Display page register %SR0001 to be set to a 3 (for page 3 where the Splash screen is located) we would click on the = or assignment Math function.



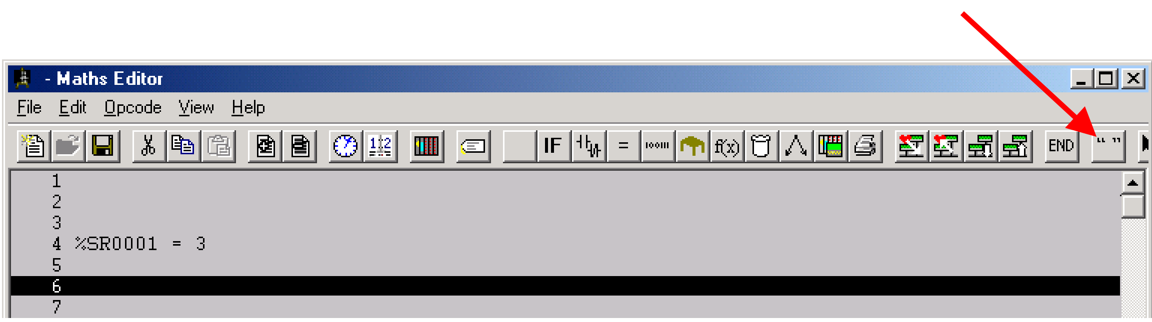


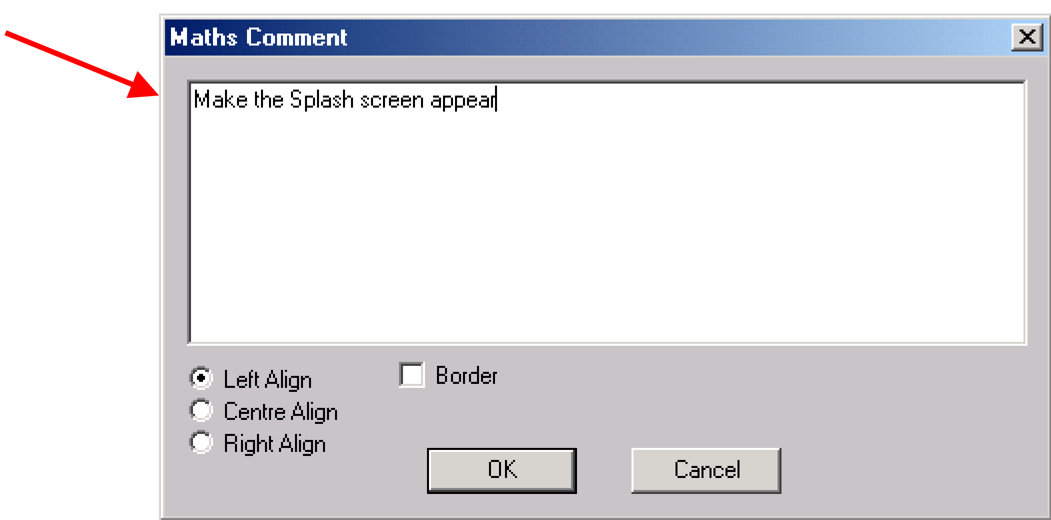


This would result in the following :

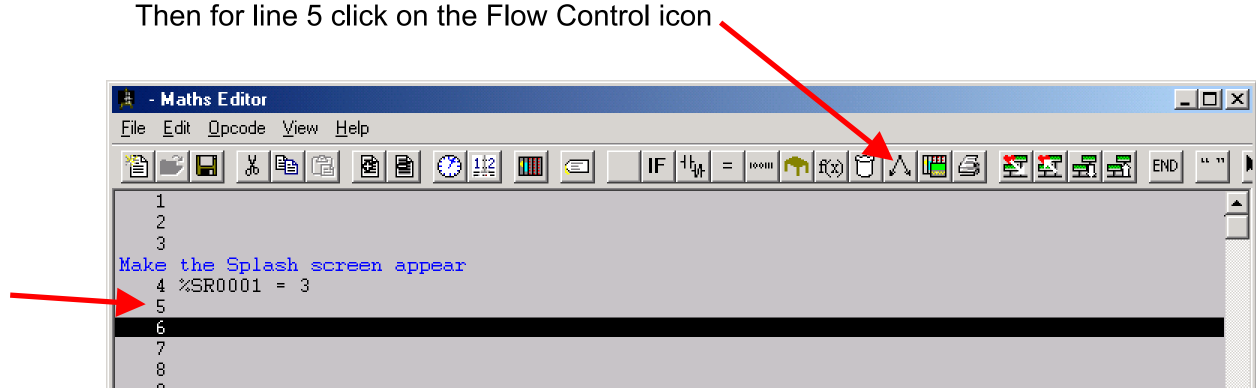


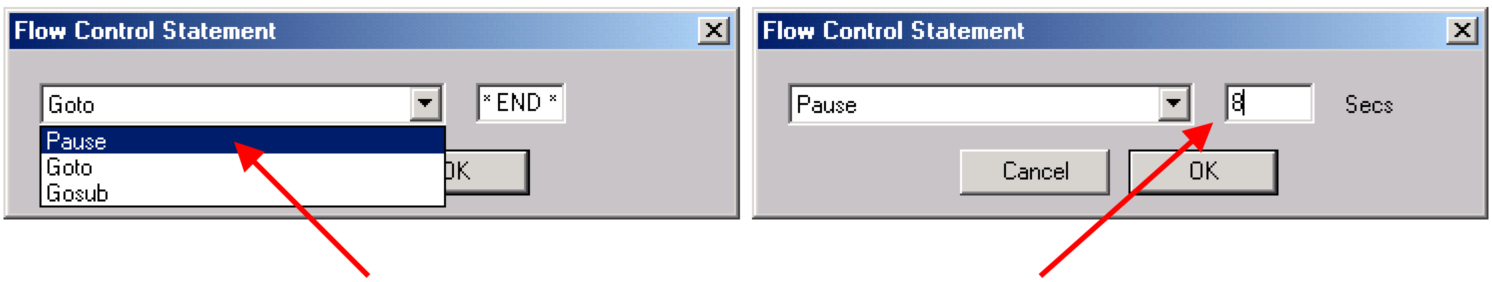
It would be best to insert a comment on that line for future reference





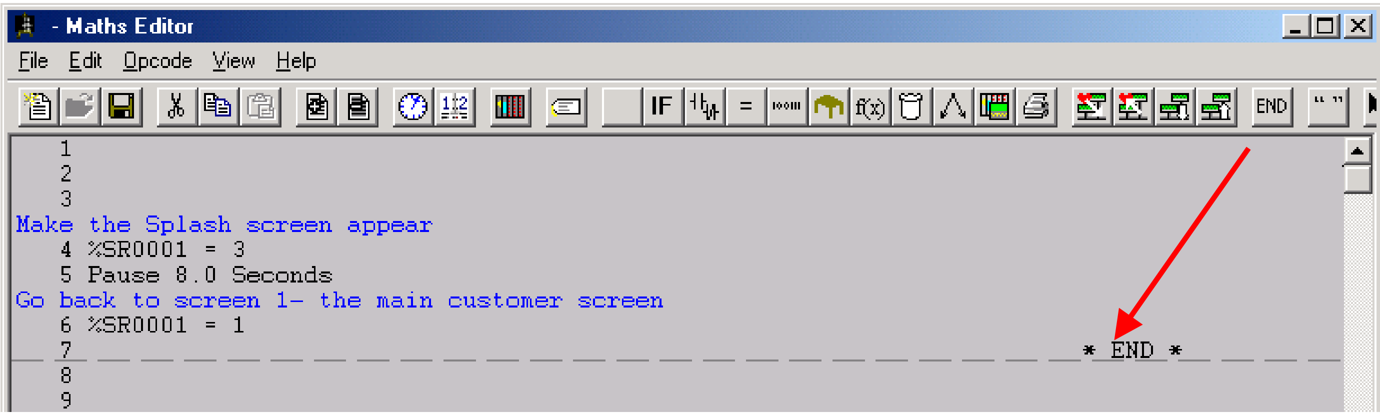
Then for line 5 click on the Flow Control icon





Select the PAUSE function and enter the Splash screen duration

The resultant bit of code to perform the Splash screen control is shown below:



This completes the code that will execute on power up and go dormant thenceafter.

Other applicable Application Notes for CTIU can be obtained by clicking on the links below:

CTAN246 Creating Unidrive PopUp Fault Screen
CTAN247 Creating a Fault History Screen
CTAN248 Creating PopUp Fault Screen using Maths

Questions ?? Ask the Author:

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