



APPLICATION NOTE

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Product Family: C-more

Number:

**Subject: How to import Control/CompactLogix
Pre Defined Data Types**

Date Issued: AN-EA-001

Revision: Original

Introduction

There are very many Pre Defined data types in this Allen Bradley ControlLogix and CompactLogix PLCs. A Pre Defined data type is a data type that is already created in the RS Logix 5000 software when starting a new project. Some common Pre Defined data types are TIMER and COUNTER.

The complication of importing Pre Defined data type is that there are very, very many Pre Defined data types in the RS Logix 5000 software and within many of these data types, there are many different data type members. Many/most of these members of these Pre Defined data types, while useful in the PLC application, will not be needed in the C-more project. So the complication is to decide which Pre Defined data types should be imported and which members of these data types should or shouldn't be imported.

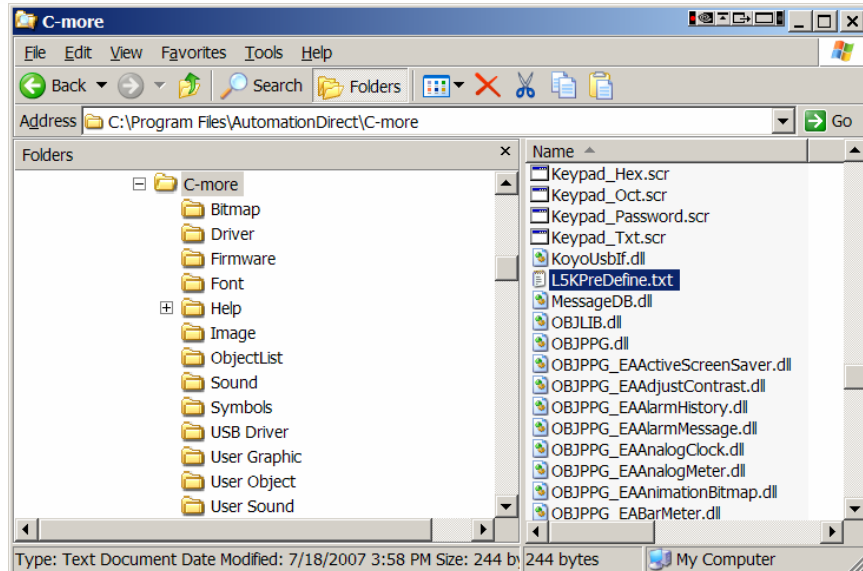
Solution

There is a file located inside of the root directory of the C-more programming software that can be modified to determine which data types and their members should be imported into the C-more project. The image below shows where the C-more programming software is installed by default. The location of your C-more programming software may be different, depending upon how the software was installed.

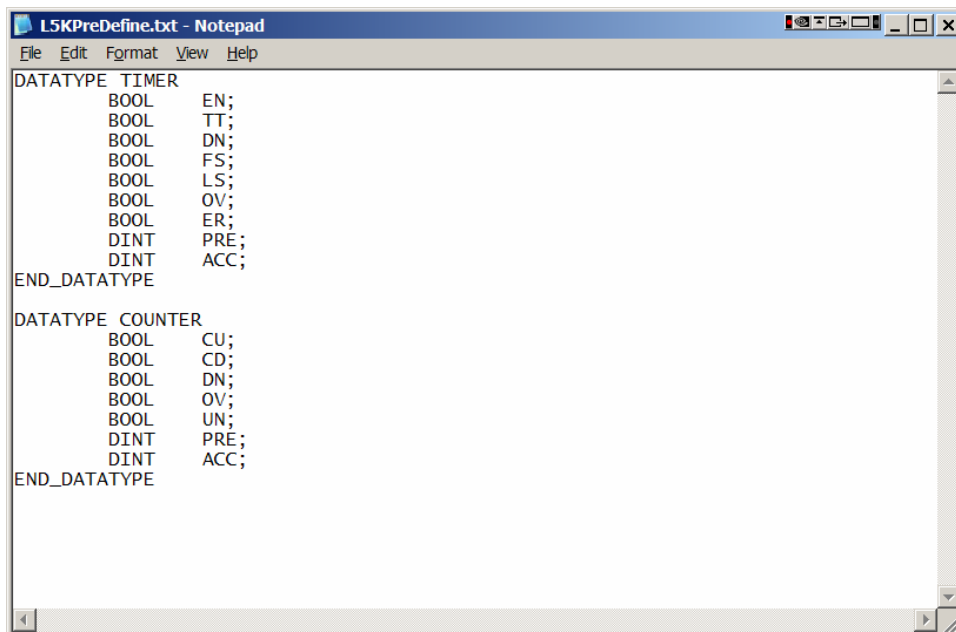


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The name of this file (as shown above) is L5KPreDefine.txt and by default looks like the image below:



So, by default, the C-more programming software will import the TIMER and COUNTER Pre Defined data types.

To add more Pre Defined data types, you can type them in using the format shown above or you can open up a master template file called: L5KPreDefine_template.txt. This file can be downloaded from Automationdirect.com on the Free Software, Upgrades section of the tech support page. It will be listed under the Tools and Utilities section. This file can also be found in the Help Folder from the downloaded Install zip file or on the C-more Programming Software CD.



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Here is an example of how to add the SELECT data type to the list of the Pre Defines that will be imported. Open up the L5KPreDefine_template.txt file and scroll down to the DATATYPE SELECT heading as shown below:

```
L5KPreDefine_template.txt - Notepad
File Edit Format View Help
      BOOL      WLEADINV;
      BOOL      ZETALEADINV;
      BOOL      HIGHLOWLIMSINV;
      BOOL      TIMINGMODEINV;
      BOOL      RTSMISSED;
      BOOL      RTTIMEINV;
      BOOL      RTTIMESTAMPINV;
      BOOL      DELTATINV;
END_DATATYPE

DATATYPE SELECT
      BOOL      ENABLEIN;
      REAL      IN1;
      REAL      IN2;
      BOOL      SELECTORIN;
      BOOL      ENABLEOUT;
      REAL      OUT;
END_DATATYPE

DATATYPE SELECTABLE_NEGATE
      BOOL      ENABLEIN;
      REAL      IN;
      BOOL      NEGATEENABLE;
      BOOL      ENABLEOUT;
      REAL      OUT;
END_DATATYPE
```

Use the cursor and highlight the entire section for the SELECT data type beginning at DATATYPE and ending at END_DATATYPE.



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```
File Edit Format View Help
BOOL WLEADINV;
BOOL ZETALEADINV;
BOOL HIGHLOWLIMSINV;
BOOL TIMINGMODEINV;
BOOL RTSMISSED;
BOOL RTSTIMEINV;
BOOL RTSTAMPINV;
BOOL DELTAINV;
END_DATATYPE

DATATYPE SELECT
BOOL ENABLEIN;
REAL IN1;
REAL IN2;
BOOL SELECTORIN;
BOOL ENABLEOUT;
REAL OUT;
END_DATATYPE

DATATYPE SELECTABLE_NEGATE
BOOL ENABLEIN;
REAL IN;
BOOL NEGATEENABLE;
BOOL ENABLEOUT;
REAL OUT;
END_DATATYPE
```

Click on Edit and Copy to copy the highlighted area. Then click over in the L5KPreDefine.txt file and go to the bottom and click on Edit and Paste to make the L5KPreDefine file look like below:

```
File Edit Format View Help
BOOL FS;
BOOL LS;
BOOL OV;
BOOL ER;
DINT PRE;
DINT ACC;
END_DATATYPE

DATATYPE COUNTER
BOOL CU;
BOOL CD;
BOOL DN;
BOOL OV;
BOOL UN;
DINT PRE;
DINT ACC;
END_DATATYPE

DATATYPE SELECT
BOOL ENABLEIN;
REAL IN1;
REAL IN2;
BOOL SELECTORIN;
BOOL ENABLEOUT;
REAL OUT;
END_DATATYPE
```

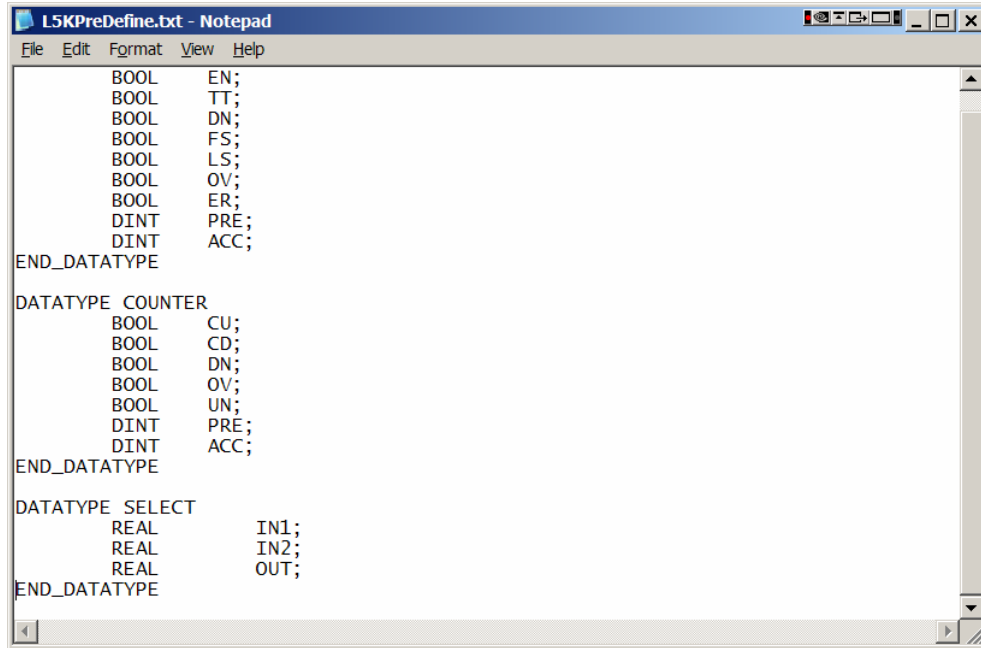
If you wish to import all the members of the SELECT data type shown above then all that needs to be done is to save and close the L5KPreDefine.txt file and re start the C-more programming software.



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You can also remove the members of the data type that are needed in the C-more project as shown below:



```
L5KPreDefine.txt - Notepad
File Edit Format View Help
      BOOL      EN;
      BOOL      TT;
      BOOL      DN;
      BOOL      FS;
      BOOL      LS;
      BOOL      OV;
      BOOL      ER;
      DINT      PRE;
      DINT      ACC;
END_DATATYPE

DATATYPE COUNTER
      BOOL      CU;
      BOOL      CD;
      BOOL      DN;
      BOOL      OV;
      BOOL      UN;
      DINT      PRE;
      DINT      ACC;
END_DATATYPE

DATATYPE SELECT
      REAL      IN1;
      REAL      IN2;
      REAL      OUT;
END_DATATYPE
```

It is important to remember the format required in the L5KPreDefine.txt file:

DATATYPE Desired data type name as shown in RS Logix 5000
Memory type (IE BOOL, DINT, etc...) member name (as shown in RS Logix);
END_DATATYPE

The semi colon is necessary after each member name of the data type.