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```

xgraph

Graphics library for the Multicomp Z80 and MESCC,
under the CP/M operating system running on the Multicomp Z80.

Copyright (c) 2019 Kurt Mueller written for Multicomp Z80
(Based on the xpcw-package from Miguel Garcia / FloppySoftware, Spain)

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OVERVIEW

xgraph is a graphics library for the Multicomp Z80 and MESCC, under
the CP/M Plus operating system.

It consists of a CP/M Plus RSX file, with some library files (.h)
(Actually for MESCC, for Hi-Tech-C there have to be edit some thinks).

THE RSX

The RSX is written in Z80 assembler source code.

It can be accessed by any CP/M program or language, provided it follows
its conventions (read the RSX source code for more information).

To generate the RSX, you can do the following steps:

```

m80 =xgraph          <- Compile with M80, to generate xgraph.REL
link xgraph[op]       <- Link to generate xgraph.PRL
erase xgraph.rsx      <- Erase previous xgraph.RSX file if exists
rename xgraph.prl xgraph.rsx <- Rename xgraph.PRL to xgraph.RSX

```

The above steps are for your information how to compile, because the
xgraph.RSX file isn't included in the xgraph distribution files at present.

The xgraph.RSX file, has to be attached to any program that uses this
library:

```
gencom myprog.com xgraph.rsx
```

THE LIBRARIES

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Only one MESCC library is needed (xgraph.h), the other are optional.

The libraries are:

- xgraph.h - Main library with function-table & RSX-call
- xdraw.h - Functions to draw pixels, lines, etc.
- xtext.h - Functions to write text, set the font, change attributes, etc.
- xchrdef.h - Functions to get / set internal/external char-font.
- xbitmap.h - Functions to draw bitmaps.

You can extend the libraries, or create new ones.

See the libraries source code, for more information about the available functions.

MAKE PROGRAMS THAT USE xgraph

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The xgraph RSX can be called from any CP/M program, written in any programming language, provided it follows the xgraph conventions (read the RSX source code for more information).

In this section, you will see how to make a program written in MESCC, that uses the xgraph libraries.

In your MESCC source code, you must write the following line, to include the xgraph.h library:

```
#include "xgraph.h"
```

As the other libraries are optional, you have to include only the libraries you will use.

For example, if you will use functions to draw pixels, you have to include the xdraw.h library:

```
#include "xdraw.h"
```

Once you have compiled your program with MESCC, you have to attach the RSX file to it.

The full procedure is as follows:

cc myprog	<- To generate MYPROG.ZSM
zsm myprog	<- To generate MYPROG.HEX
hexcom myprog	<- To generate MYPROG.COM
gencom myprog.com xgraph.rsx	<- To attach xgraph.RSX to MYPROG.COM

Then, you can run your program by writing at the CP/M prompt:

```
myprog
```

EXAMPLES

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As an example, you can see the XDEMO program:

- xdemo.com - Executable
- xdemo.c - Source code.