Preface

This tutorial is designed to be used with the **Mentor Graphics Reference Manual.** Beneath each heading, there are several page numbers. These page numbers refer to the **Mentor Graphics Reference Manual. GSFF** refers to the **Getting Started with Falcon Framework Training Workbook** section. **DATW** refers to the **Design Architect Training Workbook** section. **SVTW** refers to the **SimView Training Workbook** section. And Finally, **QSTW** refers to the **QuickSim II Training Workbook** section (Quicksim II is based on SimView, a common siulation user interface). Refer to these sections if you find you are having problems.

The philosophy for this tutorial is to train (not educate) you how to use Mentor Graphics. There are many other features in Mentor that are not even mentioned that you will discover over the course of the semester. This tutorial is designed to help you become comfortable with the tools. Once comfortable, you must take an active role in learning more. Read the documentation, experiment with unfamiliar features, and look for other ways of doing things. If you find a bug or have a suggestion for improvement, please let me know (e-mail : cbachman@ece.nwu.edu).

Finally, this tutorial will be hard. Since most people do not even know what Mentor Graphics is, you will have the challenge of learning the system as well as trying to complete a design problem. Allow yourself plenty of time to work. Also, try not to do the entire tutorial in one sitting. Take a break after each part.

Christopher Bachmann

Conventions

The following conventions are used in this tutorial. Any time that you are asked to type something, it is assumed, unless otherwise noted, to be followed by a carriage return or enter. Text that is in **bold** letters is either a name from the reference manual, a command to be typed from a UNIX prompt, or the name of a Mentor Graphics application. Text that is in *italics* refers to something from within the application, i.e. menu commands, parts, mouse commands, etc.

0.1 Menus

The following illustrates the conventions used to describe menu commands.

(Window_Name Menu Bar) Setup > Session Defaults...

- *Window_Name.* Indicates a specific window must be active. If it is not, then the command may not be found or work improperly.
- *Menu Bar.* The menu type.
- *Setup > Session Defaults...* The path to the command to be executed.

(Popup) ***Draw*** *> Copy > Selected.*

- *Popup.* The menu type. When no explicit window name is mentioned, then the active window is not important.
- ***Draw***. The name of the menu. This text is located at the top between two double lines. If this differs from the command you are trying to execute, then you probably have (un)selected something that is not supposed to be
- *Copy > Selected.* The path to the command to be executed.

0.2 I.1 Murphy's Computer Law:

1. *Murphy would have never used one.*
2. *Murphy would have loved them.*

BEFORE You Come To Lab

❒SKIM GSFF Section 2

❒READ GSFF 4-5 to 4-8 ; 6-6; 6-10

❒READ DATW 2-8;2-10;2-52;2-16

❒READ DATW 2-24 to 2-28;2-38;2-34

❒READ DATW 3-4;3-10;3-14;3-46;3-54

❒READ DATW 4-12 to 4-19;4-8 to 4-11

❒READ SVTW 2-8;2-14 to 2-21;2-24

❒READ SVTW 4-8 to 4-13;4-30;4-32;6-6 to 6-9

❒READ QSTW 1-12;1-18;1-20;4-24

❒READ QSTW 6-4 to 6-7;6-16;8-16 to 8-19

❒READ THE ENTIRE TUTORIAL

Do NOT come to lab without doing the above. You will be hopelessly lost and confused.

Add these to your HP .cshrc (this depends on how your account was created and such where these lines go to make sure that you can use the libraries):

```
#--------------------------------------------------------------
# Mentor Graphics Stuff
setenv PATH ${PATH}:/vol/MGC/bin
setenv MGC_HOME /vol/MGC
setenv MGC_LOCATION_MAP /vol/MGC/ece_lib/mgc_location_map
setenv AMPLE_PATH /vol/MGC/ece_lib/mgc_hep/userware:$HOME/mgc/userware
setenv MENTOR_LIB /vol/MGC/lib
setenv SCMOS_IC_TECH /vol/MGC/ece_lib/mgc_hep/technology/ic/scna20orbit.params4
setenv MGC_WD $HOME/MGC/ecec03
setenv MGLS_HOME /vol/MGC/pkgs/mgls
setenv MGLS_LICENSE_FILE /vol/MGC/etc/cust/mgls/mgc.licenses
setenv MGC_TMPDIR /tmp
setenv ECE_C03 $HOME/MGC/ecec03
setenv ECE_290LIB /a/alg1/files/home/cbachman/MGC/ece290_lib

# Mentor Graphics
alias swd 'setenv MGC_WD `pwd`'
alias ecec03 'cd $HOME/MGC/ecec03; setenv MGC_WD `pwd`'
#--------------------------------------------------------------
```

Create a directory in your home directory called MGC, and then one more under it called ecec03. The result will be a heirarchy of files, $HOME/MGC/ecec03