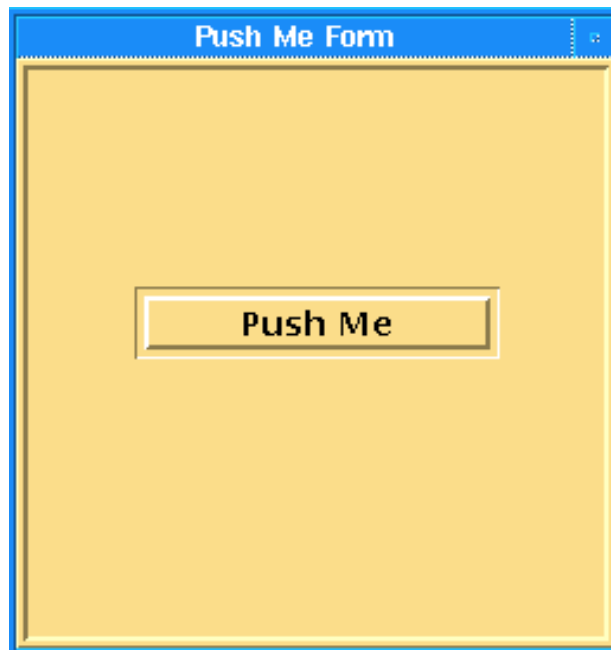


---

## Exercise 11

# *Create a Simple Form*



### Objectives:

- Write a class to create a form with a single button.



## Exercise Description:

This exercise creates a new form called Push Me. The Push Me form contains a single button called Push Me. When pressed the button will execute a function which writes a text string to the command window.

## Files:

All the files that are used in this exercise are listed below. Each list includes the file, where it originated, and a summary of information of how it relates to the exercise.

<b>File</b>	<b>Supplied/Created</b>	<b>Description</b>
exercise_11.template	Supplied	A template file that you may use to fill in the missing PCL calls that should be added to the function.
push.pcl	Created	This file should be created after all the blanks are filled in the exercise_11.template file.
p3epilog.pcl	Created	This file should be created in order to input the proper files into MSC.Patran upon start up.

## Exercise Procedure:

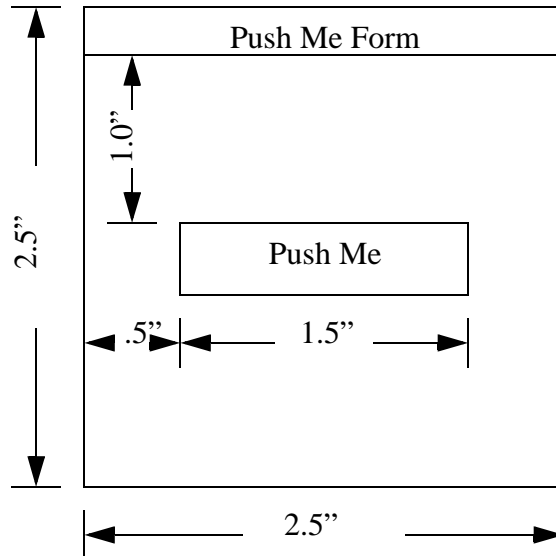
1. Edit the PCL function in the file *exercise\_11.template*. Replace the blanks with the appropriate PCL expressions. Rename the file to *push\_me.pcl* when you are done.

The dimension parameters used for the example are 5 inches from the left and 1 inch from the top of the upper left corner of the screen. The form is 2.5 inches tall by 2.5 inches wide. The button is located 0.5 inches from the left and 1 inch from the top of the form. The button is 1.5 inches wide with default height. When pressed it calls a function to print "You have just programmed your First Form" to the command window.

---

You may also use the template file your instructor will provide for you to add the missing PCL code.

## EXAMPLE



2. Compile the function.

Type in the command:

```
p3pclcomp
```

Enter the command **!!input push\_me.pcl** into the p3 compiler (p3pclcomp).

All the error messages and diagnostics will be written in the xterm, or dos command window.

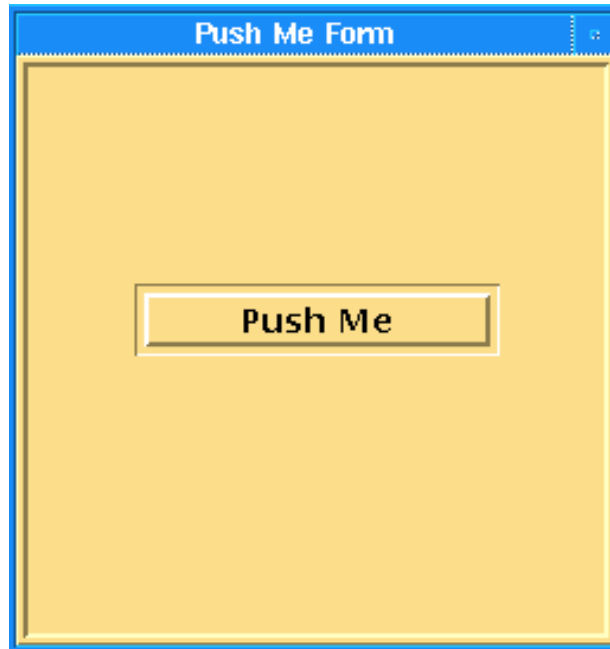
3. To test the function create a **p3epilog.pcl** file in the directory from which you are going to invoke MSC.Patran. The file should contain:

```
!!input push_me.pcl
!!input training.pcl
ui_exec_function ("TRAINING", "DISPLAY")
```

4. Start MSC.Patran, by typing **patran**, in the directory in which you just created the **p3epilog.pcl** file.

Pull down the Training menu in the Main Window. Select the Exercise 11 option. When the form appears, press the Push Me button.

Your form should appear as shown.



Press the button, Push Me, which results in the following display in the command window:

You have just programmed your First Form!!!

---

## Sample Solution:

```
/*$$ Use of PCL in creating customized forms/widgets
*
* Purpose:
*       Create a simple form with a Single button.
*
* Input:
*       <None>
*
* Output:
*       <None>
*
* Log:
*
* Notes:
*
*/

CLASS push_me

    /* Variable initialization */

    CLASSWISE widget form_id, @
        push_me_button

    FUNCTION INIT()

        /*
        * Create the form
        */
        /* Insert the values for these parameters */

        form_id=ui_form_create(                                     @
            /* callback */      *****1*****                  @
            /* x */             *****1*****                  @
            /* y */             *****1*****                  @
            /* position */      *****1*****                  @
            /* width */         *****1*****                  @
            /* height */        *****1*****                  @
            /* label */         *****1*****                  @
            /* unused */        *****1*****                  )

        /*
        * Create the "Push Me" button
        */

        push_me_button = ui_button_create(                       @
            /* parent */        *****2*****                  @
            /* callback */      *****2*****                  @
            /* x */             *****2*****                  @
            /* y */             *****2*****                  @
            /* width */         *****2*****                  @
            /* height */        *****2*****                  @
            /* label */         *****2*****                  @
            /* labelinside */   *****2*****                  @
            /* highlight */     *****2*****                  )

    END FUNCTION

    FUNCTION DISPLAY()
```

```
        ui_form_display( *****3*****)  
  
END FUNCTION  
  
FUNCTION push_me_cb()  
        ui_write("You have just programmed your First Form!!")  
        ui_form_hide( *****4*****)  
  
END FUNCTION  
  
END CLASS
```

**Note:** Each

- \*1\* "", 5.0, 1.0, "UL", 2.5, 2.5, "Push Me Form", ""
- \*2\* form\_id, "push\_me\_cb", 0.5, 1.0, 1.5, 0.0, "Push Me", TRUE, TRUE
- \*3\* "push\_me"
- \*4\* "push\_me"

