

## Bringing Visual PRO/5 to TAOS: The Developer's Workbench Code Sample

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taos\_vp5.h TAOS 1.31+ include file to interface with Visual PRO/5

Version: 1.0

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This code may only be used in PRO/5 and Visual PRO/5 environments. Attempting to incorporate this code in BBxPROGRESSION/4 run-time files will result in errors and possible corruption of data files. Do not use this code in any form or procedure which will be tokenized for and used in the BBxPROGRESSION/4 environment.

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These variable names are used by the following subroutines:

rwi\_\_sysgui  
rwi\_\_sysgui\_open  
rwi\_\_platform\$  
rwi\_\_sysgui\_alias\$  
rwi\_\_tsk\$  
rwi\_\_context  
rwi\_\_sysfn\$  
rwi\_\_sysgui\$  
rwi\_\_x  
rwi\_\_y  
rwi\_\_w  
rwi\_\_h  
rwi\_\_title\$  
rwi\_\_event  
rwi\_\_numeric\_data  
rwi\_\_string\_data\$  
rwi\_\_ctrl\$  
rwi\_\_id  
rwi\_\_convert\_xy

These function names are used (and defined):

current\_win  
change\_to  
sysgui\_width  
sysgui\_height  
fnSysgui\_Width  
fnSysgui\_Height

```
*/
```

```
#define current_win          rwi__context
#define change_to(window_id) current_win=window_id; gosub change_window;
#define sysgui_width        fnSysgui_Width(0)
#define sysgui_height       fnSysgui_Height(0)

subroutine open_sysgui
{
  rwi__sysgui_open=0;
  rwi__platform$=info(0,0);
  if rwi__platform$(1,3)<>"WIN" then
    goto end_open_sysgui;
  rwi__alias=0;
  rwi__sysgui_alias$="";
  init rwi__tsk$:"type:u(1),opens:u(1),name:c(1*=0),dname:c(1*=0),pname:c(1*=0),modes:c(1*=0)";
check_tsk:
  if rwi__sysgui_alias$<>" " then
    goto done_with_tsk;
#3glbegin
  rwi__tsk$=tsk(rwi__alias,err=done_with_tsk)
#3glend
  if rwi__sysgui_alias$=" " then
    {
      if cvs(rwi__tsk.pname$,7)="SYSGUI" then
        {
          rwi__sysgui_alias$=rwi__tsk.name$;
          goto done_with_tsk;
        }
    }
  rwi__alias=rwi__alias+1;
  goto check_tsk;
done_with_tsk:
  if rwi__sysgui_alias$=" " then
    goto end_open_sysgui;
#3glbegin
  rwi__sysgui=unt
  open (rwi__sysgui,err=end_open_sysgui)rwi__sysgui_alias$
#3glend
  rwi__sysgui_open=1;
end_open_sysgui:
}

subroutine close_sysgui
{
  if rwi__sysgui then
    {
#3glbegin
      close (rwi__sysgui)
#3glend
      rwi__sysgui=0;
    }
}
```

subroutine create\_window

```
{
rwi__created=0;
if rwi__sysgui then
{
    rwi__x=abs(int(rwi__x));
    rwi__y=abs(int(rwi__y));
    if rwi__x=0 then
        rwi__x=20;
    if rwi__y=0 then
        rwi__y=20;
    rwi__w=abs(int(rwi__w));
    rwi__h=abs(int(rwi__h));
    if rwi__w=0 then
        rwi__w=sysgui_width-rwi__x;
    if rwi__h=0 then
        rwi__h=sysgui_height-rwi__y;
#3glbegin
    dim rwi__sysfin$:tmpl(rwi__sysgui,ind=0)
    rwi__sysfin$=fin(rwi__sysgui,ind=0)
    current_win=rwi__sysfin.available_context
    print (rwi__sysgui,err=end_create_window)'context'(current_win)
    print (rwi__sysgui,err=end_create_window)'window'(rwi__x,rwi__y,rwi__w,rwi__h,rwi__title,$,$,$)
#3glend
    rwi__created=1;
end_create_window:
}
}
```

subroutine change\_window

```
{
if rwi__sysgui then
{
#3glbegin
    print (rwi__sysgui,err=end_change_window)'context'(current_win)
#3glend
}
end_change_window:
}
```

subroutine create\_label

```
{
rwi__label_created=0;
if rwi__sysgui then
{
    rwi__w=abs(int(rwi__w));
    rwi__h=abs(int(rwi__h));
    if rwi__w=0 then
        rwi__w=50;
    if rwi__h=0 then
        rwi__h=25;
    rwi__x=abs(int(rwi__x));
    rwi__y=abs(int(rwi__y));
    if rwi__convert_xy then
```

```
gosub convert_xy_coordinates;
```

```
#3glbegin
```

```
print (rwi__sysgui,err=end_create_label)'text'(rwi__id,rwi__x,rwi__y,rwi__w,rwi__h,rwi__title$, $$)
```

```
#3glend
```

```
    rwi__label_created=1;
```

```
    }
```

```
end_create_label:
```

```
    }
```

```
subroutine create_edit
```

```
{
```

```
    rwi__edit_created=0;
```

```
    if rwi__sysgui then
```

```
        {
```

```
            rwi__w=abs(int(rwi__w));
```

```
            rwi__h=abs(int(rwi__h));
```

```
            if rwi__w=0 then
```

```
                rwi__w=50;
```

```
            if rwi__h=0 then
```

```
                rwi__h=25;
```

```
            rwi__x=abs(int(rwi__x));
```

```
            rwi__y=abs(int(rwi__y));
```

```
            if rwi__convert_xy then
```

```
                gosub convert_xy_coordinates;
```

```
#3glbegin
```

```
print (rwi__sysgui,err=end_create_edit)'edit'(rwi__id,rwi__x,rwi__y,rwi__w,rwi__h,rwi__title$, $$)
```

```
#3glend
```

```
    rwi__edit_created=1;
```

```
    }
```

```
end_create_edit:
```

```
    }
```

```
subroutine create_button
```

```
{
```

```
    rwi__button_created=0;
```

```
    if rwi__sysgui then
```

```
        {
```

```
            rwi__w=abs(int(rwi__w));
```

```
            rwi__h=abs(int(rwi__h));
```

```
            if rwi__w=0 then
```

```
                rwi__w=50;
```

```
            if rwi__h=0 then
```

```
                rwi__h=25;
```

```
            rwi__x=abs(int(rwi__x));
```

```
            rwi__y=abs(int(rwi__y));
```

```
            if rwi__convert_xy then
```

```
                gosub convert_xy_coordinates;
```

```
#3glbegin
```

```
print (rwi__sysgui,err=end_create_button)'button'(rwi__id,rwi__x,rwi__y,rwi__w,rwi__h,rwi__title$, "")
```

```
#3glend
```

```
    }
```

```
end_create_button:
```

```
    }
```

subroutine get\_event

```
{
  rwi__event=0;
  if rwi__sysgui then
    {
#3glbegin
    dim rwi__event$:tmpl(rwi__sysgui,err=end_get_event)
    read record (rwi__sysgui,siz=10,err=end_get_event,tim=0)rwi__event$
#3glend
    rwi__event=1;
    }
end_get_event:
}
```

subroutine get\_numeric\_data

```
{
  rwi__numeric_data=0;
  rwi__ctrl$="";
  if rwi__sysgui then
    {
#3glbegin
    rwi__ctrl$=ctrl(rwi__sysgui,rwi__id,4,err=end_get_numeric_data)
    if rwi__ctrl$(2,1)<>$0A$ then goto end_get_numeric_data
    rwi__ctrl$=ctrl(rwi__sysgui,rwi__id,1)
#3glend
    rwi__numeric_data=num(rwi__ctrl$,err=end_get_numeric_data);
    }
end_get_numeric_data:
}
```

subroutine get\_string\_data

```
{
  rwi__string_data$="";
  rwi__ctrl$="";
  if rwi__sysgui then
    {
#3glbegin
    rwi__ctrl$=ctrl(rwi__sysgui,rwi__id,4,err=end_get_string_data)
    if dec($00$+rwi__ctrl$(2,1))<>16 then goto end_get_string_data
    rwi__string_data$=ctrl(rwi__sysgui,rwi__id,1)
#3glend
    }
end_get_string_data:
}
```

subroutine load\_control

```
{
  rwi__loaded=0;
  if rwi__sysgui then
    {
#3glbegin
    print (rwi__sysgui,err=end_load_control)'title'(rwi__id,"")
    print (rwi__sysgui,err=end_load_control)'title'(rwi__id,rwi__title$)
#3glend
```

```

        rwi__loaded=1;
    }
end_load_control:
}

subroutine convert_xy_coordinates
{
    if rwi__sysgui=0 then
        goto end_convert_xy_coordinates;
    rwi__x=int(rwi__x*(sysgui_width/80));
    rwi__y=int(rwi__y*(sysgui_height/24));
    rwi__w=int(rwi__w*(sysgui_width/80));
    rwi__h=int(rwi__h*(sysgui_height/24));
end_convert_xy_coordinates:
}

#3glbegin
    def  fnSysgui_Width(rwi__width_fn)
        if rwi__sysgui=0 then return 0
        rwi__sysfin$=fin(rwi__sysgui,ind=0,err=end_fnSysgui_Width)
        return dec(rwi__sysfin$(24,2))
    end_fnSysgui_Width:
        return 0
    fnend
    def  fnSysgui_Height(rwi__Height_fn)
        if rwi__sysgui=0 then return 0
        rwi__sysfin$=fin(rwi__sysgui,ind=0,err=end_fnSysgui_Width)
        return dec(rwi__sysfin$(26,2))
    end_fnSysgui_height:
        return 0
    fnend
#3glend

```