Icetips
Window Fixer

Classes and Templates

10/14/2018

Icetips Window Fixer

Copyright ©2010 - 2018 Icetips Alta LLC

Published: October 2018

Table of Contents

Part

I

Chapter 1 - Icetips Window Fixer

1 Icetips Window Fixer

Welcome to Icetips Window Fixer

This documentation is for build 2018.10.156 released on October 14, 2018. Please refer to the "Support" tab on the templates and commented headers in the class files to verify that you have the correct documentation for the build that you are using.

Window Fixer:

- Makes sure that windows are not opened outside of the virtual screen
- Checks all available monitors to get the extent of the available screen coordinates.
- Optionally allows windows to extend over multiple monitors
- Optionally pulls windows to the nearest monitor so they are completely contained by that monitor
- Optionally allows specifying percent of windows area that can be outside of a monitor view.
- Works with Appframes, MDI and non-MDI windows.
- Works with both ABC and Clarion (Legacy) templates.
- Works with Clarion 6 and 7.

The Icetips Window Fixer is a set of templates and classes that checks window positions and sizes when windows are opened to make sure that they are visible. When window sizes and positions are set to save and restore in your application it can cause problems and it may place windows outside of the virtual screen, so the user cannot see the windows and thinks the program has crashed.

Note that the classes are NOT ABC compliant and can be used in any kind of projects, included purely handcoded projects.

See http://msdn.microsoft.com/en-us/library/dd145136(VS.85).aspx for more information about the "Virtual Screen"

1.1 Welcome

Welcome to Icetips Window Fixer. Please read the License Agreement and the User Reference to familiarize yourself with the product.

| 1.1.1 | License Agreement | Welcome |

Icetips "Window Fixer" End-User License Agreement

Important - read carefully!

By installing this software you have agreed to be bound by the following End-User Licence Agreement.

ICETIPS ALTA LLC ("ICETIPS") IS WILLING TO LICENSE THE SOFTWARE ONLY UPON THE CONDITION THAT YOU ACCEPT ALL OF THE TERMS CONTAINED IN THIS SOFTWARE LICENSE AGREEMENT. PLEASE READ THE TERMS CAREFULLY. BY CLICKING ON "YES, ACCEPT" OR BY INSTALLING THE SOFTWARE, YOU WILL INDICATE YOUR AGREEMENT WITH THEM. IF YOU ARE ENTERING INTO THIS AGREEMENT ON BEHALF OF A COMPANY OR OTHER LEGAL ENTITY, YOUR ACCEPTANCE REPRESENTS THAT YOU HAVE THE AUTHORITY TO BIND SUCH ENTITY TO THESE TERMS, IN WHICH CASE "YOU" OR "YOUR" SHALL REFER TO YOUR ENTITY. IF YOU DO NOT AGREE WITH THESE TERMS, OR IF YOU DO NOT HAVE THE AUTHORITY TO BIND YOUR ENTITY, THEN ICETIPS IS UNWILLING TO LICENSE THE SOFTWARE, AND YOU SHOULD SELECT THE "NO, DECLINE" BUTTON AND THE DOWNLOAD OR INSTALL WILL NOT CONTINUE.

SOFTWARE LICENSE AGREEMENT

1. Parties. The parties to this Agreement are you, the licensee ("You") and Icetips. If You are not acting on behalf of Yourself as an individual, then "You" means Your company or organization.

2. The Software. The Software licensed under this Agreement consists of computer programs only in compiled, object code form, data compilation(s), and documentation referred to as Icetips subscription product (the "Software").

3. Subscription Term For Registered User Version. The term of the license granted herein for the registered version of the Software shall be on a subscription basis with an initial term of one (1) year, and optional recurring renewal terms of one (1) year each, unless prior to renewal this license is terminated by written notice by You for convenience or terminated by either party for material breach. Renewal procedures are described in the accompanying documentation, and unless such procedures are strictly satisfied, including the payment of any required license fee, Your updates to the Software is not authorized, but use of Your existing Software is authorized. No updates or upgrades to the Software can be authorized unless the license fee is paid.

4. Registered Version License Grant for Single Copies (Non-Network Use). If You are a registered user of the Software, You are granted non-exclusive rights to install and use the Software by a single person who uses the Software only on one or more computers or workstations. You may copy the Software for archival purposes, provided that any copy must contain the original Software's proprietary notices in unaltered form.

5. Registered Version License Grant For Network Use. If You are a registered user of the Software, You are granted non-exclusive rights to install and use the Software and/or transmit the Software over an internal computer network, provided You acquire and dedicate a licensed copy of the Software for each user who may access the Software concurrently with any other user. You may copy the Software for archival purposes, provided that any copy must contain the original Software's proprietary notices in unaltered form.

6. Restrictions. You may not: (i) permit others to use the Software, except as expressly provided above for authorized network use; (ii) modify or translate the Software; (iii) reverse engineer, decompile, or disassemble the Software, except to the extent this restriction is expressly prohibited by applicable law; (iv) create derivative works based on the Software; (v) merge the Software with another product; (vi) copy the Software, except as expressly provided above; or (vii) remove or obscure any proprietary rights notices or labels on the Software.

7. Purchase of Additional Licenses. Registered users of the Software may purchase license rights for additional authorized use of the Software in accordance with Icetips's then-current volume pricing schedule. Such additional licenses shall be governed by the terms and conditions hereof. You agree that, absent Icetips's express written acceptance thereof, the terms and conditions contained in any purchase order or other document issued by You to Icetips for the purchase of additional licenses, shall not be binding on Icetips to the extent that such terms and conditions are additional to or inconsistent with those contained in this Agreement.

8. Transfers. You may make a one-time permanent transfer of all of your license rights to the Software to another party, provided that all of the following conditions are satisfied: (a) you notify us in writing of your intent to transfer your license rights and identify the party receiving the Software with complete contact information; (b) the transfer must include all of the Software, including all its component parts, original media, printed materials and this License Agreement; (c) you do not retain any copies of any version of the Software, full or partial, including copies stored on a computer or other storage device; and (d) the party receiving the Software reads and agrees to accept the terms and conditions of this License Agreement. Notwithstanding the foregoing, we reserve the right to require the transfer of possession of all physical copies of the Software to us for purposes of re-issue of replacement copies to the party receiving the Software.

9. Ownership. Icetips and its suppliers own the Software, all physical copies thereof, and all

intellectual property rights embodied therein, including copyrights and valuable trade secrets embodied in the Software's design and coding methodology. The Software is protected by United States copyright laws and international treaty provisions. This Agreement provides You only a limited use license, and no ownership of any intellectual property. We reserve the right to require you to transfer possession of all physical copies of the Software to us for purposes of re-issue of replacement copies.

10. Warranty Disclaimer; Limitation of Liability. ICETIPS PROVIDES THE SOFTWARE "AS-IS" AND PROVIDED WITH ALL FAULTS. NEITHER ICETIPS NOR ANY OF ITS SUPPLIERS OR RESELLERS MAKES ANY WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. ICETIPS AND ITS SUPPLIERS SPECIFICALLY DISCLAIM THE IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SYSTEM INTEGRATION, AND DATA ACCURACY. THERE IS NO WARRANTY OR GUARANTEE THAT THE OPERATION OF THE SOFTWARE WILL BE UNINTERRUPTED, ERROR-FREE, OR VIRUS-FREE, OR THAT THE SOFTWARE WILL MEET ANY PARTICULAR CRITERIA OF PERFORMANCE, QUALITY, ACCURACY, PURPOSE, OR NEED. YOU ASSUME THE ENTIRE RISK OF SELECTION, INSTALLATION, AND USE OF THE SOFTWARE. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS AGREEMENT. NO USE OF THE SOFTWARE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

11. Local Law. If implied warranties may not be disclaimed under applicable law, then ANY IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE PERIOD REQUIRED BY APPLICABLE LAW. Some jurisdictions do not allow limitations on how long an implied warranty may last, so the above limitations may not apply to You. This warranty gives you specific rights, and You may have other rights which vary from jurisdiction to jurisdiction.

12. Limitation of Liability. INDEPENDENT OF THE FORGOING PROVISIONS, IN NO EVENT AND UNDER NO LEGAL THEORY, INCLUDING WITHOUT LIMITATION, TORT, CONTRACT, OR STRICT PRODUCTS LIABILITY, SHALL ICETIPS OR ANY OF ITS SUPPLIERS BE LIABLE TO YOU OR ANY OTHER PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER MALFUNCTION, OR ANY OTHER KIND OF COMMERCIAL DAMAGE, EVEN IF ICETIPS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY TO THE EXTENT PROHIBITED BY APPLICABLE LAW. IN NO EVENT SHALL ICETIPS'S LIABILITY FOR DAMAGES FOR ANY CAUSE WHATSOEVER, AND REGARDLESS OF THE FORM OF ACTION, EXCEED IN THE AGGREGATE THE AMOUNT OF THE PURCHASE PRICE PAID FOR THE SOFTWARE LICENSE.

13. Export Controls. You agree to comply with all export laws and restrictions and regulations of the United States or foreign agencies or authorities, and not to export or re-export the Software or any direct product thereof in violation of any such restrictions, laws or regulations, or without all

necessary approvals. As applicable, each party shall obtain and bear all expenses relating to any necessary licenses and/or exemptions with respect to its own export of the Software from the U.S. Neither the Software nor the underlying information or technology may be electronically transmitted or otherwise exported or re-exported (i) into Cuba, Iran, Iraq, Libya, North Korea, Sudan, Syria or any other country subject to U.S. trade sanctions covering the Software, to individuals or entities controlled by such countries, or to nationals or residents of such countries other than nationals who are lawfully admitted permanent residents of countries not subject to such sanctions; or (ii) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals and Blocked Persons or the U.S. Commerce Department's Table of Denial Orders. By downloading or using the Software, Licensee agrees to the foregoing and represents and warrants that it complies with these conditions.

14. U.S. Government End-Users. The Software is a "commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of "commercial computer software" and "commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire the Software with only those rights as are granted to all other end users pursuant to the terms and conditions herein. Unpublished rights are reserved under the copyright laws of the United States.

15. Licensee Outside The U.S. If You are located outside the U.S., then the following provisions shall apply: (i) Les parties aux presentes confirment leur volonte que cette convention de meme que tous les documents y compris tout avis qui siy rattache, soient rediges en langue anglaise (translation: "The parties confirm that this Agreement and all related documentation is and will be in the English language."); and (ii) You are responsible for complying with any local laws in your jurisdiction which might impact your right to import, export or use the Software, and You represent that You have complied with any regulations or registration procedures required by applicable law to make this license enforceable.

16. Severability. If any provision of this Agreement is declared invalid or unenforceable, such provision shall be deemed modified to the extent necessary and possible to render it valid and enforceable. In any event, the unenforceability or invalidity of any provision shall not affect any other provision of this Agreement, and this Agreement shall continue in full force and effect, and be construed and enforced, as if such provision had not been included, or had been modified as above provided, as the case may be.

17. Arbitration. Except for actions to protect intellectual property rights and to enforce an arbitrator's decision hereunder, all disputes, controversies, or claims arising out of or relating to this Agreement or a breach thereof shall be submitted to and finally resolved by arbitration under the rules of the American Arbitration Association ("AAA") then in effect. There shall be one arbitrator,

and such arbitrator shall be chosen by mutual agreement of the parties in accordance with AAA rules. The arbitration shall take place in Port Angeles, Washington, USA, and may be conducted by telephone or online. The arbitrator shall apply the laws of the State of Washington, USA to all issues in dispute. The controversy or claim shall be arbitrated on an individual basis, and shall not be consolidated in any arbitration with any claim or controversy of any other party. The findings of the arbitrator shall be final and binding on the parties, and may be entered in any court of competent jurisdiction for enforcement. Enforcements of any award or judgment shall be governed by the United Nations Convention on the Recognition and Enforcement of Foreign Arbitral Awards. Should either party file an action contrary to this provision, the other party may recover attorney's fees and costs up to $1000.00.

18. Jurisdiction And Venue. The courts of Clallam County in the State of Washington, USA and the nearest U.S. District Court shall be the exclusive jurisdiction and venue for all legal proceedings that are not arbitrated under this Agreement.

19. Force Majeure. Neither party shall be liable for damages for any delay or failure of delivery arising out of causes beyond their reasonable control and without their fault or negligence, including, but not limited to, Acts of God, acts of civil or military authority, fires, riots, wars, embargoes, Internet disruptions, hacker attacks, or communications failures. Notwithstanding anything to the contrary contained herein, if either party is unable to perform hereunder for a period of thirty (30) consecutive days, then the other party may terminate this Agreement immediately without liability by ten (10) days written notice to the other.

20. Miscellaneous. This Agreement constitutes the entire understanding of the parties with respect to the subject matter of this Agreement and merges all prior communications, representations, and agreements. This Agreement may be modified only by a written agreement signed by the parties. If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be reformed only to the extent necessary to make it enforceable. This Agreement shall be construed under the laws of the State of Washington, USA, excluding rules regarding conflicts of law. The application the United Nations Convention of Contracts for the International Sale of Goods is expressly excluded. The parties agree that the Uniform Computer Transactions Act or any version thereof, adopted by any state, in any form ("UCITA"), shall not apply to this Agreement, and to the extent that UCITA may be applicable, the parties agree to opt out of the applicability of UCITA pursuant to the opt-out provision(s) contained therein.

Icetips Alta LLC
3430 East Highway 101, Ste. #28
Port Angeles WA 98362
EMail: support@icetips.com
http://www.icetips.com

1.1.2   Support   Welcome

You have multiple ways to contact us for support. Easiest is email to support@icetips.com   We usually respond within minutes if it is during our business hours and we are available. You can also post on our forums and we will be notified by email of new topics. By pressing the "Icetips Support" link on the "Support" tab in the templates you will get a list of all the options that you have to contact us for support.

1.1.3   Version History   Welcome

This chapter lists releases with changes to classes, templates and documentation.

Version 2018.10.156 - Sunday, October 14, 2018
Version 1.0.148 - February 24, 2015
Version 1.0.147 - January 29, 2014
Version 1.0.146 - August 3, 2013
Version 1.0.144 - May 4, 2011
Version 1.0.140 - December 21, 2010
Version 1.0.130 - Febuary 9, 2010
Version 1.0.128 - January 26, 2010

Version 2018.10.156 [October 14, 2018]

January 27, 2016:

- **Classes**   Non MDI windows that were off the left or right borders were not pulled in quite enough. Fixed.

- **Classes**   Width of "Single" border was not calculated correctly. Fixed.

- **Template**   Implemented an optional check that shows procedures with windows that do not have the IMM attribute to make it easier to identify windows that will not automatically fix.

January 21, 2016:

- **Installer**   Dual Code signing implemented.

- **Template**   Implemented optional automatic fixing on EVENT:Moved and EVENT:Sized. This requires that the window has the "Immediate" attribute set at design time.

- **Classes**   Both MDI and SDI windows that were off the right border or bottom of the frame or screen would not be pulled completely in causing scrollbars to appear in MDI windows. Fixed.

Version 1.0.148 [February 24, 2015]

February 24, 2015:

- **Installer**   Installer built for Clarion 10

Version 1.0.147 [January 29, 2014]

January 29, 2014:

- **Installer**   Installer built for Clarion 9.1

Version 1.0.146 [August 3, 2013]

August 3, 2013:

- **Installer**   Installer built for Clarion 9.0

May 31, 2011:

- **Installer**   Installer suggested "Clarion7" in the examples path. Fixed.

Version 1.0.144 [May 4, 2011]

May 4, 2011:

- **Installer**   Installer built for Clarion 8.0.

March 9, 2011:

- **Template**   Added option to select various priorities for ABC code generation. The template now supports priorities 8300, 8500, 9000 and 9500 for the code generation into ThisWindow.Init method. This allows the developer to pick any of the 4 priorities in case there are other templates that are not compatible with Window Fixer.

Version 1.0.140 [December 21, 2010]

March 15, 2010:

- **Install**   Fully Clarion 7.1 compatible.
- **Template**   Project defines were not created correctly causing a GPF as the classes were not linked correctly. Fixed.

Version 1.0.130 [February 9, 2010]

January 27, 2010:

- **Install**   Readme file for demo information was wrong.

Version 1.0.128 [January 26, 2010]

January 26, 2010:

Initial release

1.2   User Reference

Welcome to the Icetips Window Fixer User Reference.

Using the template
  Force Appframe to open on correct monitor
  Multi DLL considerations
Class Reference
  ShowAllWindow
  ShowMinPercent
  FixWindowXYPos
Examples
  Using in handcoded projects
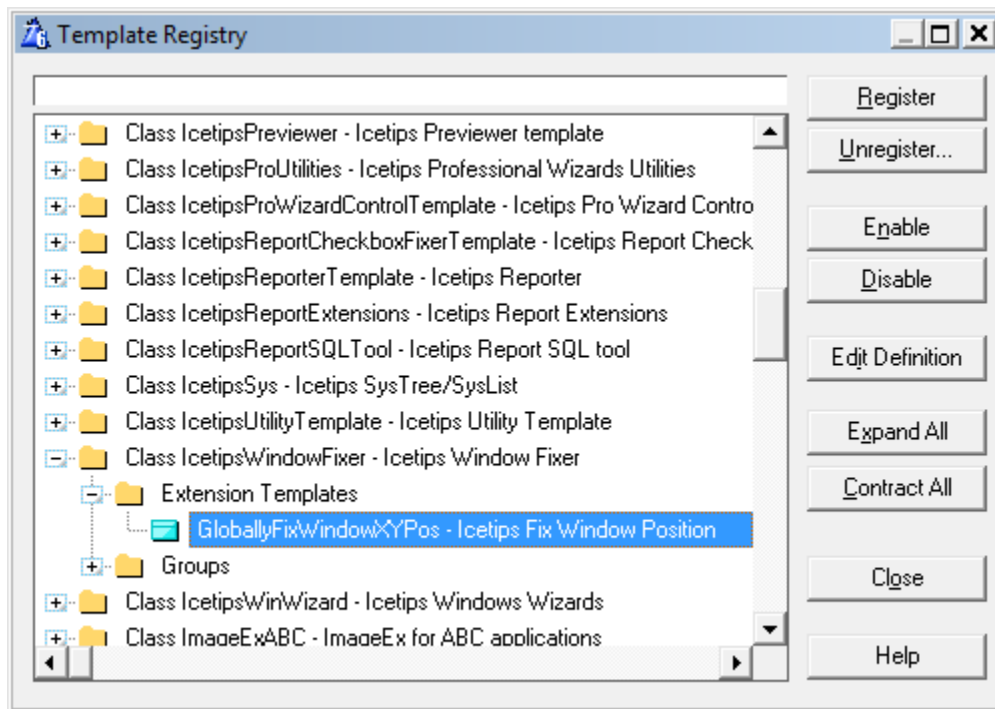 Example applications

## 1.2.1   Using the template   User Reference
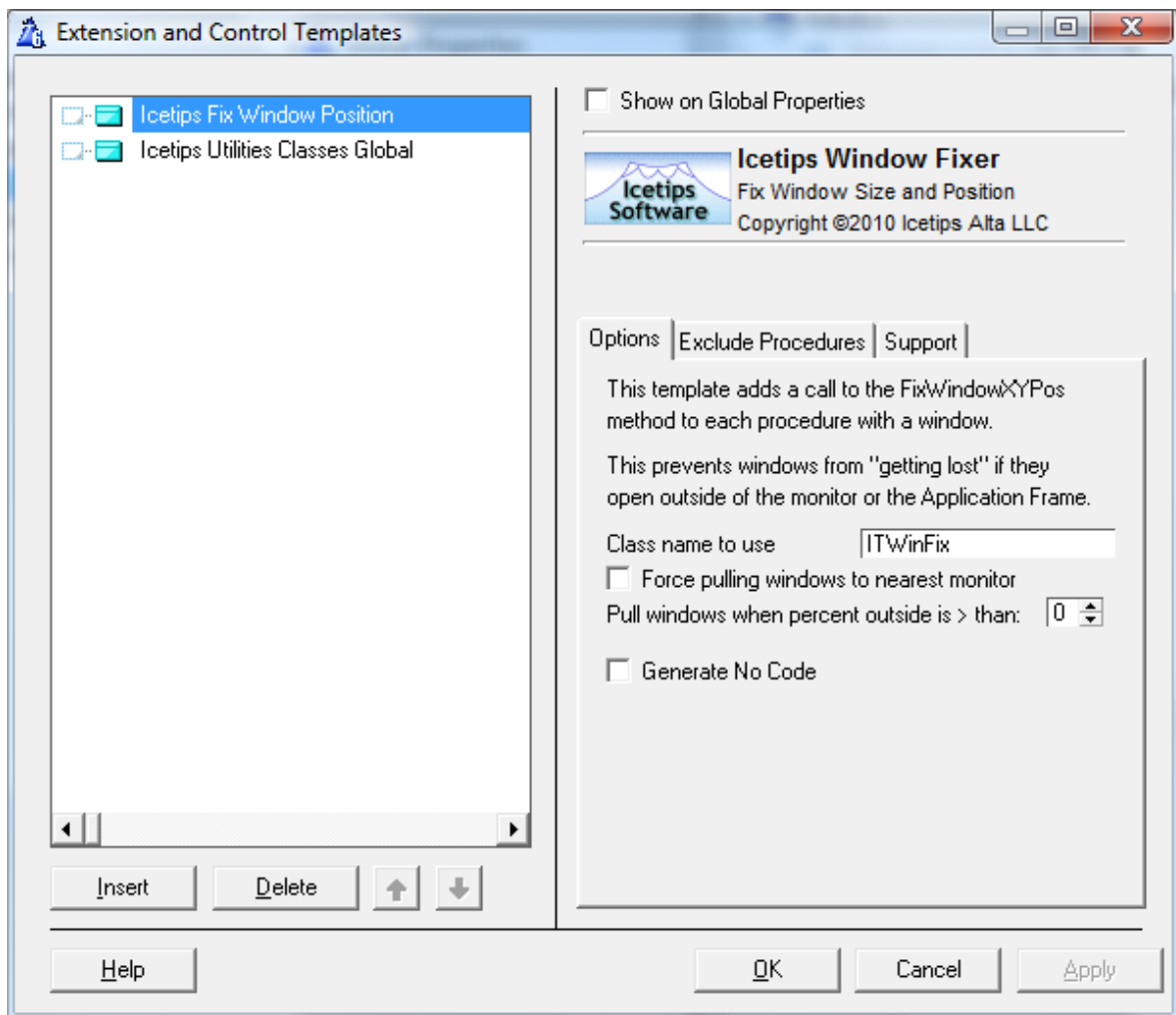
The Icetips Window Fixer is very simple to implement. A single Global extension template does all the work for you. Note that the template will only fix the window position when the window opens.

First make sure that the Icetips Window Fixer template is registered by opening the template registry.

Then open your application and add the global template.
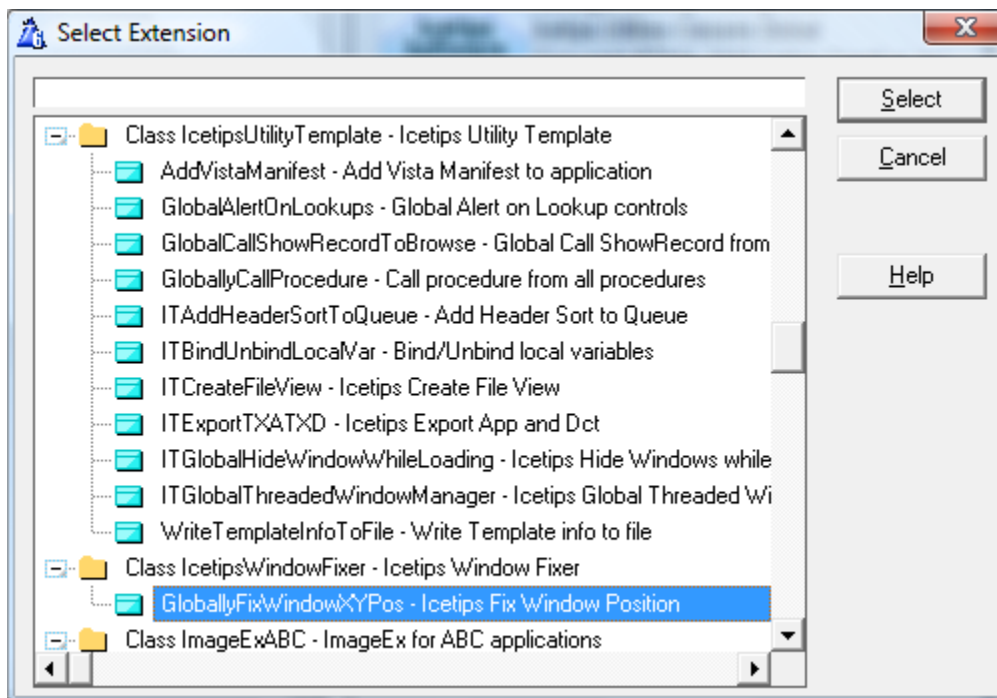
Normally this is all you need!

Class name
You can change the name of the class that is instanciated in each window procedure in your application.

Force pulling windows to nearest monitor
You can also force windows to be pulled to the nearest monitor. This setting only applies to windows that are on one or more monitors. Windows that are partially outside of the virtual screen area will always be pulled in.

**Pull windows when percent outside is > than**
You can set a percent value so that if x% or more is outside of the monitor(s) viewable area, the window will be pulled. in. For example if you set it to 25% then any window that has more than 25% of it's rectangle outside of the virtual screen will be pulled in to be fully visible on the nearest monitor. Note that this option is only applicable when the "Force pulling windows no nearest monitor" is unchecked. If it is checked, windows are always pulled in.

Generate No Code
You can optionally check the "Generate No Code" and then the template will not generate any code at all in your application.

**Exclude Procedures**
On the "Exclude Procedures" you can select procedures that you do not want to apply this template to.
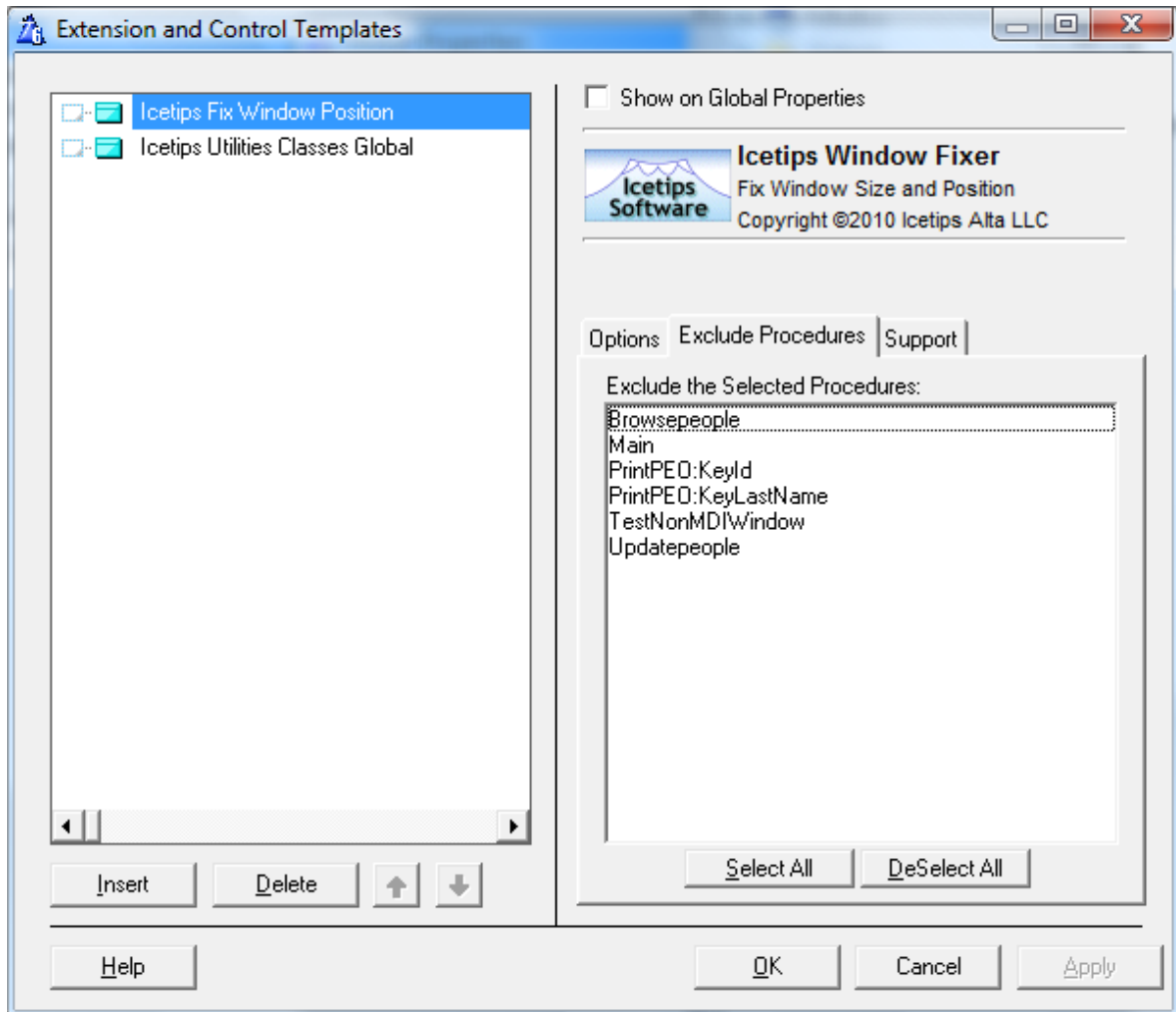
To exclude a procedure, simply click once on the list of procedures. Click again to unselect.

Support
On the "Support" tab you can see the exact build and release date of this product, as well as click buttons to go to our website, report problems and get support.
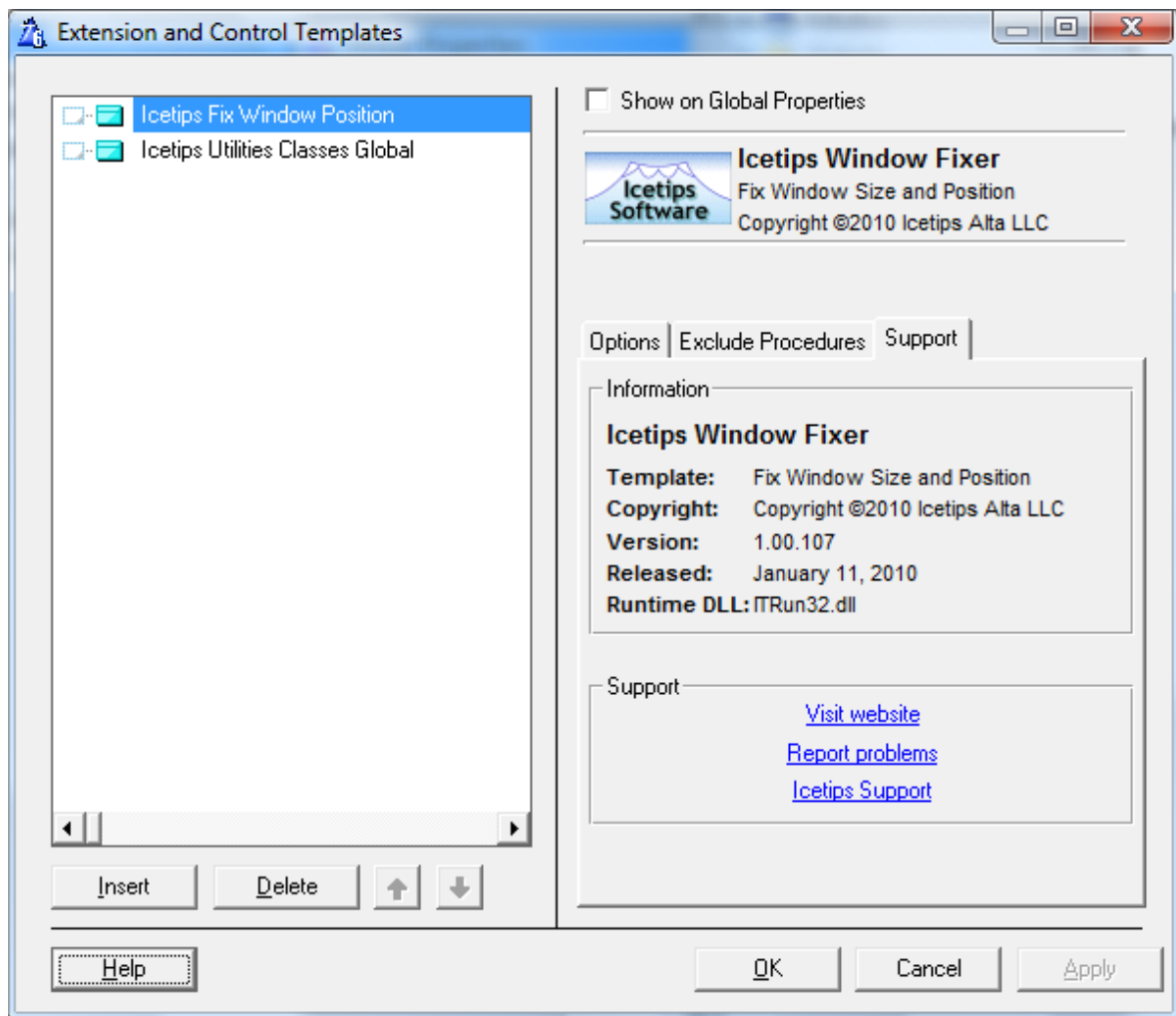
**1.2.1.1   Force Appframe to correct monitor**

By default both the ABC and Clarion (Legacy) templates and classes don't save the X and Y coordinates of the application frame window **if it is maximized**. This causes the appframe to open up on the primary monitor which may or may not be the monitor that it was open on when the appframe was closed. This can easily cause confusion an annoyance when the appframe will not open on the correct monitor. Below are very simple methods that you can use to fix this problem. One involves using our derived ITINIClass in your ABC application instead of the INIClass. The other one involves writing some very simple code in your Clarion (Legacy) application.

ABC
If you have Icetips Utilities build 1.1.2355 or later and you are working with ABC applications you can optionally also add the Utilities to the application and change the INI manager class to use the one provided by the Icetips Utilities. This build (2355) includes new method for the INI class that fixes a problem with the application frame window not being opened on the correct monitor if it was closed maximized.
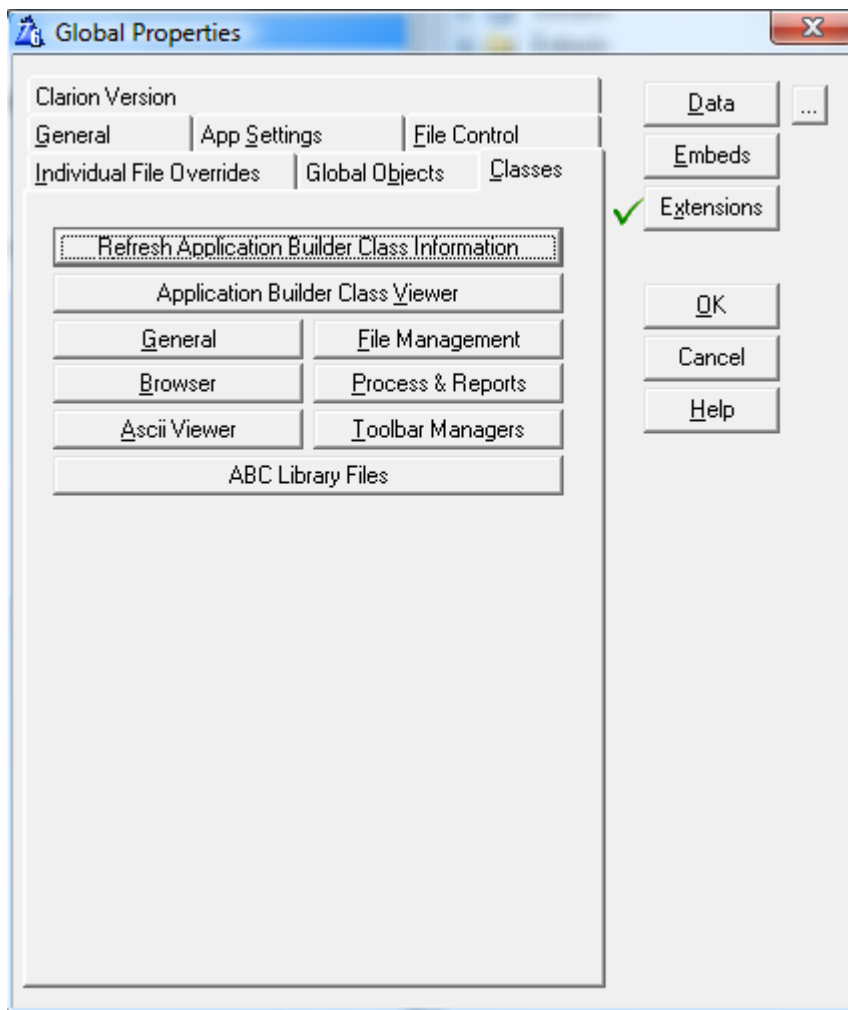
Go to the Global | Classes section and click on the "General" tab.
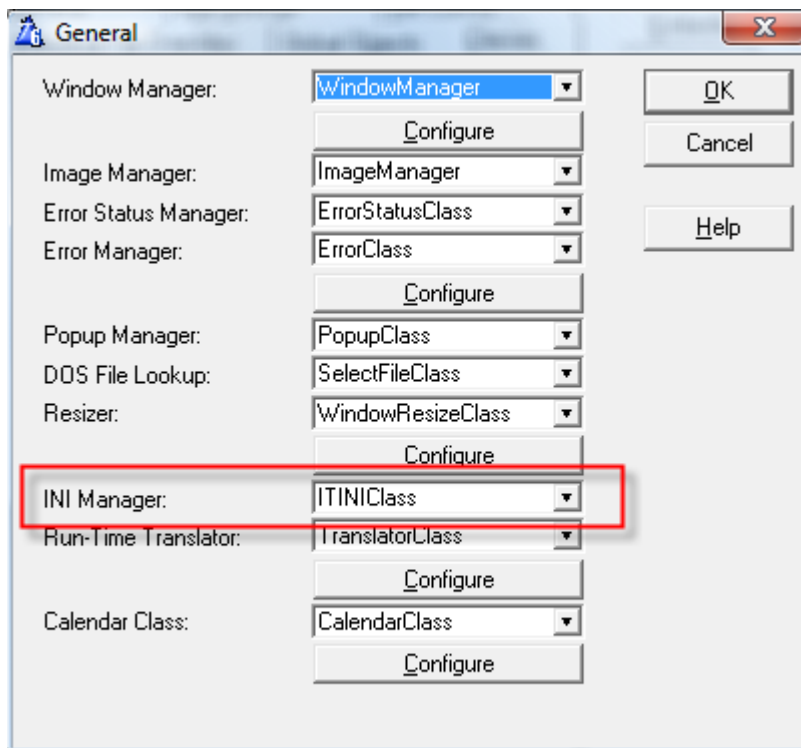
Then drop the list down for the INI Manager and select the ITINIClass instead of the INIClass. Your application frame is now fixed and it will always open on the same monitor that it was closed on.

Clarion (Legacy)

For Clarion (Legacy) applications this is a little trickier. You will have to write some code to omit the generated code that closes the window and duplicate it with some additional code.

```
    ! End of "End of Procedure, After Closing Files"
END
! Start of "Before Closing the Window"
! [Priority 5000]
OMIT('***END***')          !! AB 2010-01-05: Fix problem with Appframe maximizing on the wrong monitor
! End of "Before Closing the Window"
IF WindowOpened
  INISaveWindow('Main','.\people-leg.ini')
  CLOSE(AppFrame)
END
! Start of "After Closing the Window"
! [Priority 5000]
***END***          !! AB 2010-01-05: Fix problem with Appframe maximizing on the wrong monitor
IF WindowOpened
  INISaveWindow('Main','.\people-leg.ini')
  PutIni('Main','XPos',0{Prop:Xpos},'.\people-leg.ini')
  PutIni('Main','YPos',0{Prop:Ypos},'.\people-leg.ini')
  CLOSE(AppFrame)
END

! End of "After Closing the Window"
Do UnBindFields
! Start of "End of Procedure"
```

Note that the saving of the window position and closing of the window is omitted and then duplicated. You then need to save the X and Y positions of the appframe procedure to wherever it is supposed to be saved - in this case an INI file in the application folder. Since Legacy does not allow much flexibility in this regard I'm afraid it will have to be up to you to implement this code, at least for now. For ABC applications

Multi DLL considerations.
If your application is a multi-dll application you must apply the Icetips Window Fixer template to the application that exports file declarations (base dll/exporting dll) so the class definitions are exported correctly. You do need to add the Icetips Window Fixer template to all of your applications in the multi-dll system if you want all your windows to behave the same way.

1.2.2   Class reference   **User Reference**

While there are quite a few properties and methods in the classes, there are only two properties and one method that you need to know about.

```
ShowAllWindow              Byte
ShowMinPercent             Decimal(7,4)
[****]
FixWindowXYPos             Procedure
```

ShowAllWindow   Byte

If this is TRUE before the call to the FixWindowXYPos method it will force the class to pull the window in so that it is 100% visible on one monitor no matter what. This will force windows that are partially on one monitor and partially on another (but the whole window is visible) to be pulled in to the nearest monitor. The monitor that has the highest percentage of the total area of the window rectangle (i.e. > 50.0000%) will get the entire window.

If this is FALSE, then only windows that are < 100% will be pulled into the nearest monitor. Windows that are 100% visible, even if they are on multiple monitors, will be left where they are.   However if ShowMinPercent is not equal to zero then it will be used to compare with the visibility percent of the window to decide if it should be pulled into its nearest monitor.

ShowMinPercent   Decimal(7,4)

Can be used when ShowAllWindow is FALSE to determine how much area of a window can be outside of the virtual screen of combined monitors. For example if this is set to 25 then 25% of any given window can be outside of the virtual screen. If more than 25% is outside the virtual screen, then the window will be pulled in so that it is 100% visible.

FixWindowXYPos   Procedure

This is where all the magic happens! You can call this method at any time and it will check your window position and move it to where it should be. The template calls this method only when the window opens, after it's position has been modified by the "Save and Restore Window Location" options in the ABC and Clarion (Legacy) templates.

This method works on Appframe, MDI and Non-MDI windows. Windows are NOT resized by the window fixer, only moved.

Appframe windows are placed on the monitor that they belong to or has the highest percentage of the window. Appframe windows are always placed in relation to the screen, i.e. in screen coordinates.

MDI windows are pulled into the appframe client area and the general rule is that the upper left corner is visible. If the window is larger than the appframe's client area then the window will be placed in position 0,0 in the upper left corner of the client area. If the window is too wide, the window will be placed at X position 0. If the window is too tall, then it will be placed at Y position 0. MDI windows are always placed in relation to their parent window (appframe) location, i.e. in client coordinates.

Non-MDI windows are pulled into the monitor visible rectangle. This takes into account the size and location of the taskbar on the primary monitor and also if the taskbar is set to auto-hide or not. On other monitors the full monitor rectangle is used. If a window is partially outside of a monitor, the ShowAllWindow and ShowMinPercent properties dictate how the window is handled. If the window is completely outside the virtual screen it will always be pulled in to be visible on the nearest monitor. If the window is inside the virtual screen area, but is visible on more than one monitor, the ShowAllWindows tells how to handle it. If it is true, then the window is placed on the monitor that has the highest percent of the window visible on it. If ShowAllWindow is false, then the window is left where it is. If the window is partially outside of the virtual screen then it will be pulled in unless ShowAllWindow is false. Then it is up to the ShowMinPercent value to determine how much of the window can be outside of the virtual screen. If it is 0, then none of the window can be outside and it will be pulled in - this setting works like when ShowAllWindow is set to True. If ShowMinPercent is set to 25% then that means that up to 25% of the total window area can be outside the virtual screen. If more than 25% is outside, the window will be pulled in so that it is completely visible. Non-MDI windows are always placed in relation to the screen, i.e. in screen coordinates.
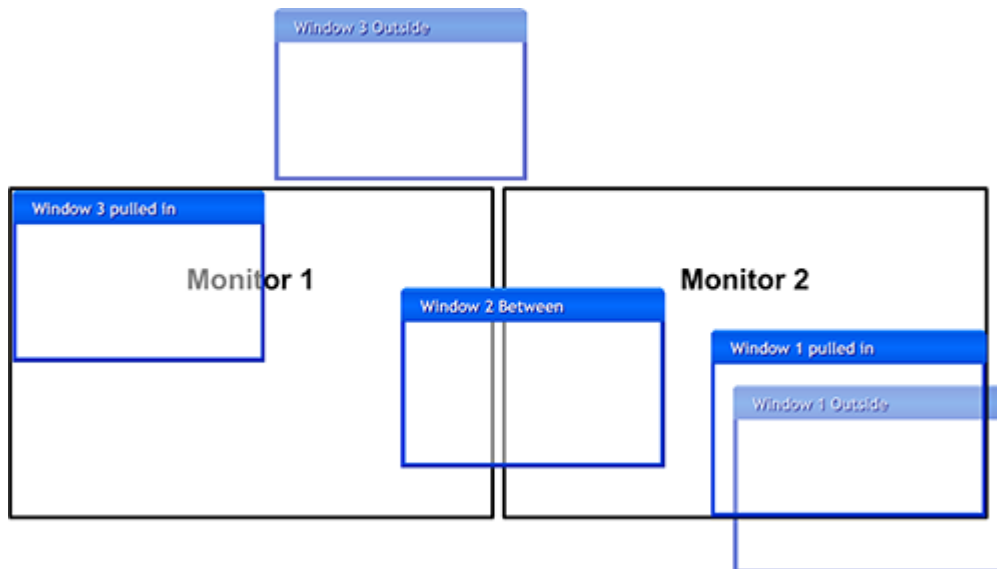
This image shows 3 windows on two same sized monitors. **Window 1** is partially outside the virtual screen in the bottom, right corner. It will be pulled up and to the left so that it is 100% visible. If ShowAllWindow is false and ShowMinPercent is set to 50%, then the window would be left where it is since there is more than 50% of the window visible on the virtual screen. **Window 2** is visible on both monitors. If ShowAllWindow is set to True, then this window would be pulled into Monitor 2, since it has more than 50% of the window rectangle on it. **Window 3** is completely outside both monitors and will always be pulled into Monitor 1 as it is the nearest one and placed at coordinates 0,0.

1.2.3   Examples   User Reference

Following is a simple example of how to use the Icetips Window Fixer in a hand coded project. There are also 3 example applications and projects shipped with the product. If you need further assistance, please do not hesitate to ask for help and support:)

1.2.3.1   Using in handcoded projects   User Reference - Examples

It is easy to use the Window fixer in a hand coded project.

First you need to add two lines to the project file:

```
_ITFixWinDllMode_=>0
_ITFixWinLinkMode_=>1
```

This is for stand alone exe or a base dll exporting declarations. For anything else use:

```
_ITFixWinDllMode_=>1
_ITFixWinLinkMode_=>0
```

You need to include the class in your global module:

```
 Include('ITFixWindowClass.inc'),ONCE
```

You can now instanciate the class and use it anywhere in your project:

```
ITWinFix   ITFixWindowClass

 Code
 Open(W)
 !! Set the window position
 ITWinFix.FixWindowXYPos
```

A simple hand coded project is included in the examples, that looks like this:

```
 Program

 Include('KEYCODES.CLW'),ONCE
 Include('ITFixWindowClass.inc'),ONCE

 Map
 End



ITWinFix   ITFixWindowClass

W    WINDOW('Test window'),AT(,,256,159),SYSTEM,GRAY,RESIZE
       PROMPT('Move the window partially outside of a montior and click the "Fix
Window" button' &|
         ' on hit Ctrl-F'),AT(7,14,218,19),USE(?Prompt1),FONT('Arial',9,,FONT:
bold)
       BUTTON('Fix Window'),AT(102,64,45,14),USE(?Button1),KEY(CtrlF)
     END
 Code

 Open(W)
 SetPosition(0,-20,-10)
 Display
 Accept
   Case Field()
```

```
   Of ?Button1
     Case Event()
     Of EVENT:Accepted
        ITWinFix.FixWindowXYPos
     End
   End
 End
 Close(W)
```

The project file looks like this:

```
--
#noedit
#system win32
#model clarion dll
#pragma debug(vid=>full)
#pragma optimize(cpu=>386)
#pragma define(_ITFixWinDllMode_=>0)
#pragma define(_ITFixWinLinkMode_=>1)
#compile "HCProject.clw"
#link "HCProject.exe"
```

1.2.3.2   **Example applications**

There are 3 example application included with the Icetips Window Fixer.

PeoABC.app - this is a simple ABC application with the Window Fixer applied.

PeoLeg.app - this is a simple Clarion (Legacy) application with the Window Fixer applied.

HCProject.prj - this is a simple hand coded project with the Window Fixer added.

Index

- # -

#pragma define   20

- _ -

ITFixWinDllMode   20
ITFixWinLinkMode   20

- A -

ABC   2, 15, 18, 21
ABC application   15
Accept   20
Appframe   15
Appframe procedure   15
Appframe windows   18
Appframes   2
Application   18
Auto-hide   18

- B -

Base dll   18
Byte   18

- C -

Case   20
Clarion   2, 15, 18, 21
Class   18
Class name   11
Class reference   18
Client area   18
Client coordinates   18
Close   20
Code   20

- D -

Decimal   18

Desktop coordinates   2
Display   20

- E -

Email   8
Event   20
Example applications   20
Examples   20
Exclude Procedures   11
Exported   18
Exporting dll   18

- F -

FALSE   18
Field   20
FixWindowXYPos   18
Force pulling windows to nearest monitor   11

- G -

Generate No Code   11
Global extension   11
Global extension template   11

- H -

Hand coded project   20, 21
Handcoded projects   20
HCProject.prj   21
Help and support   20
Highest percentage   18

- I -

Icetips Support   8
Icetips Utilities   15
Include   20
INI class   15
INI manager   15
INIClass   15
Initial release   8
ITINIClass   15

- L -

Legacy   2, 15, 18, 21
License Agreement   3

- M -

Map   20
Maximized   15
MDI   2
MDI windows   18
Monitor   15, 18
Monitors   2, 11, 18
Multi DLL   18
Multiple monitors   2, 18

- N -

Nearest monitor   11, 18
Non-MDI   2
Non-MDI windows   18

- O -

ONCE   20

- P -

Partially outside   18
PeoABC.app   21
PeoLeg.app   21
Percent   11
Percentage   18
Primary monitor   15, 18
Procedure   18
Program   20
Pull windows when percent outside is > than   11

- S -

Save and Restore Window Location   18
Screen coordinates   18
SetPosition   20
ShowAllWindow   18

ShowMinPercent   18
Support   11, 20
Support tab   8

- T -

Taskbar   18
Templates   2, 18
Too tall   18
Too wide   18
TRUE   18

- U -

Upper left corner   18
User Reference   3
Using the template   11

- V -

Version History   8
Virtual screen   2, 11, 18
Visibility percent   18

- W -

Window   18
Window Fixer   2, 11
Window rectangle   18

- X -

X Position   18

- Y -

Y Position   18