

PES/VJC: Fix for AN 9999 Limits

Dealing with unresponsive Genies above AN 9999 in PES 4.1 and PES 4.2

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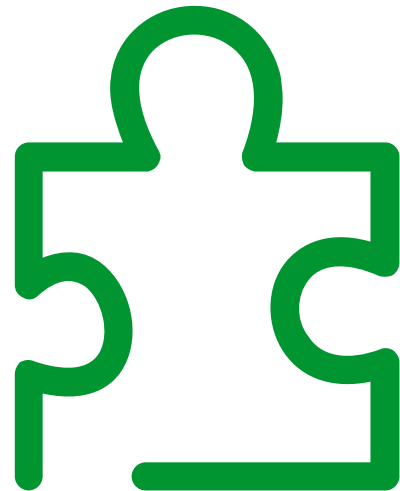
PlantStruxure Competency Center (China) | PlantStruxure Consultant



How to use this Guide?

> Pay attention to the Icons

- > Each have its own directives for you to follow.



Action

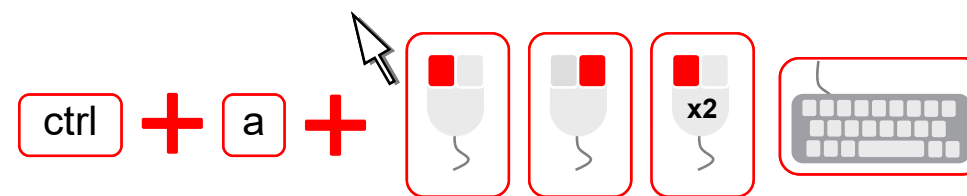
Whenever you see these wordings, means something you have to perform by yourself.

Step by Step

Whenever you see these wordings, the course is guiding you through a step by step sequence. This allows you to follow easily a sequence of actions in order to achieve a certain objective.



Normally found together with Step by Step slides, these arrows with numbers within shows the sequence in which you should follow.



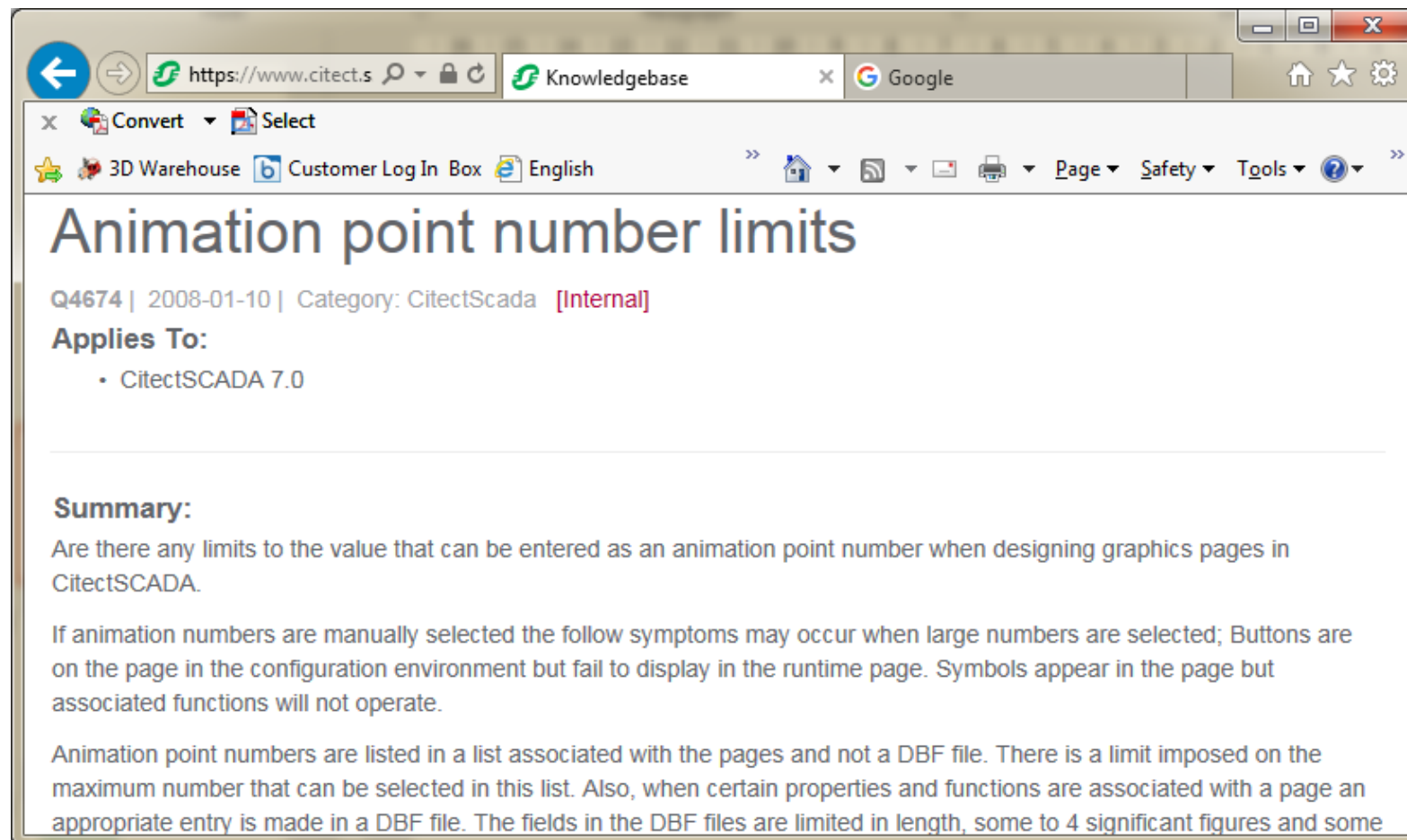
Icons like these show which mouse buttons or key sequence or key entry you should execute.

Prerequisite

You are well familiar with PES.
You are an advance user of VJC and understands all VJC terminology herein.

Issue

- > This issue had actually been highlighted in an internal **KB Q4674** article at **Citect Support**. **PES** projects are often large and encounters the problem documented below:

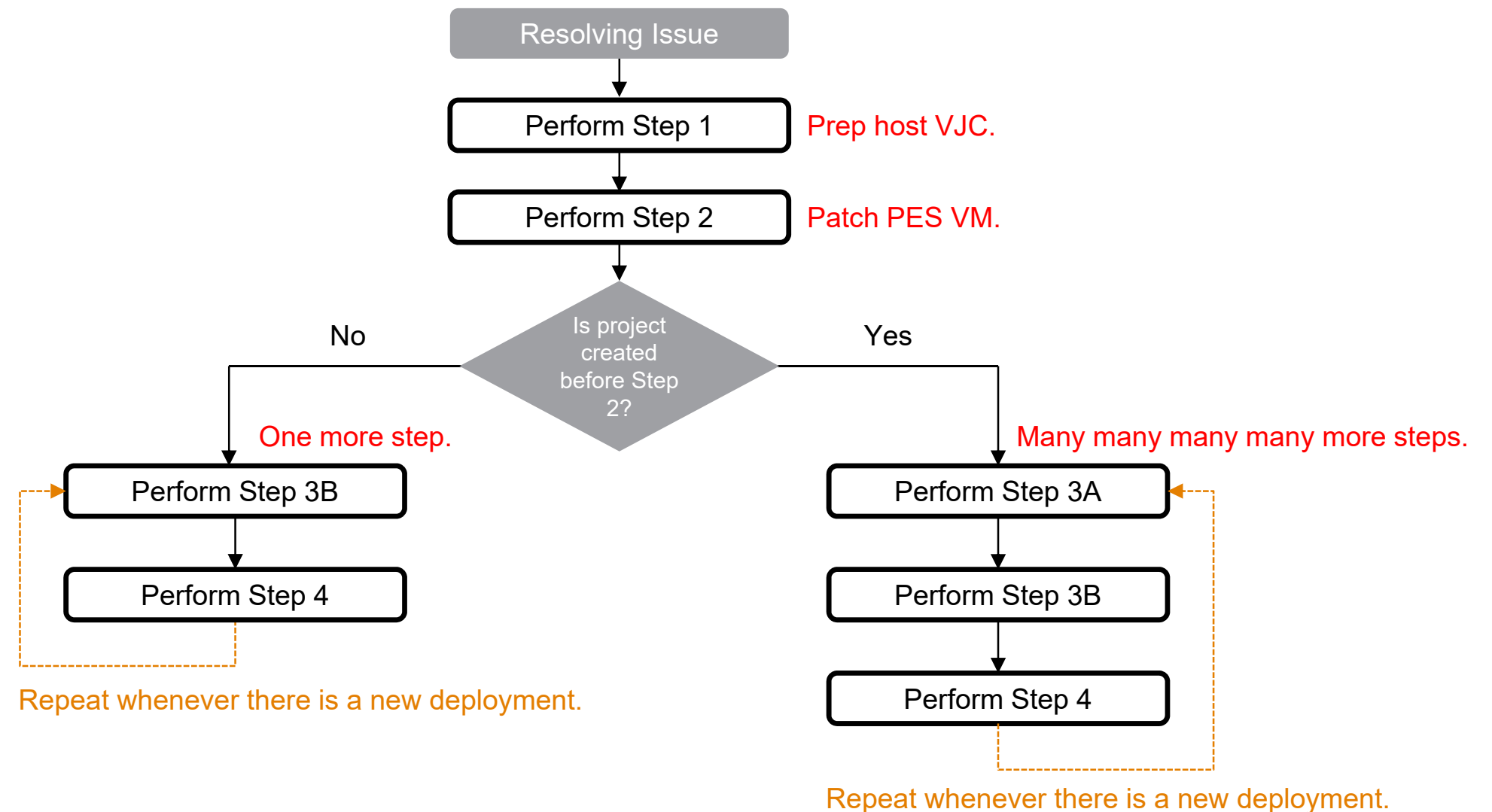


From **PES**' perspective, this means pages with very large number of objects encounters some GPL instances on screen not being responsive at runtime, in other words, unresponsive Genies.

Actually this applies to all animation objects that are responsive, meaning those set with **Input > Touch** or **Input > Keyboard Entry** commands.

Remedy

- > There are 2 methods to resolve this issue depending on situation. One method is applied if you have created a **Supervision** project before **Patch PES VM**, other is you have created the **Supervision** project in **PES** after **Patch PES VM**.
- > Both methods involves **Steps 1** and **2** targeting **Vijeo Citect** to be carried out before you can run the project without problems.



Step 1

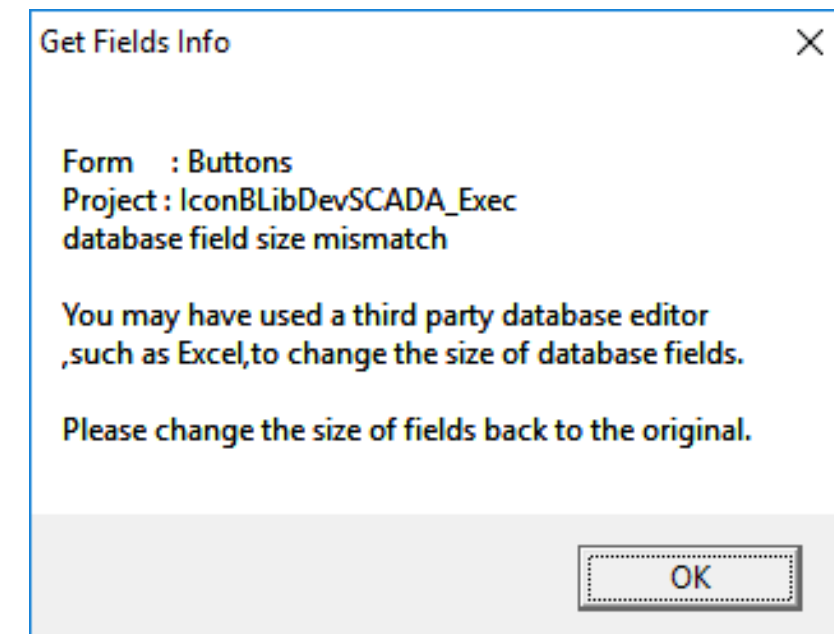
Prep Host VJC

Prep Host VJC

Empty out host VJC's Projects

- > This change once done, affects all projects under **Vijeo Citect**.
- > When any of the project is restored into another machine, you will see the following message. There is no way to roll back the change once done.

Explanation

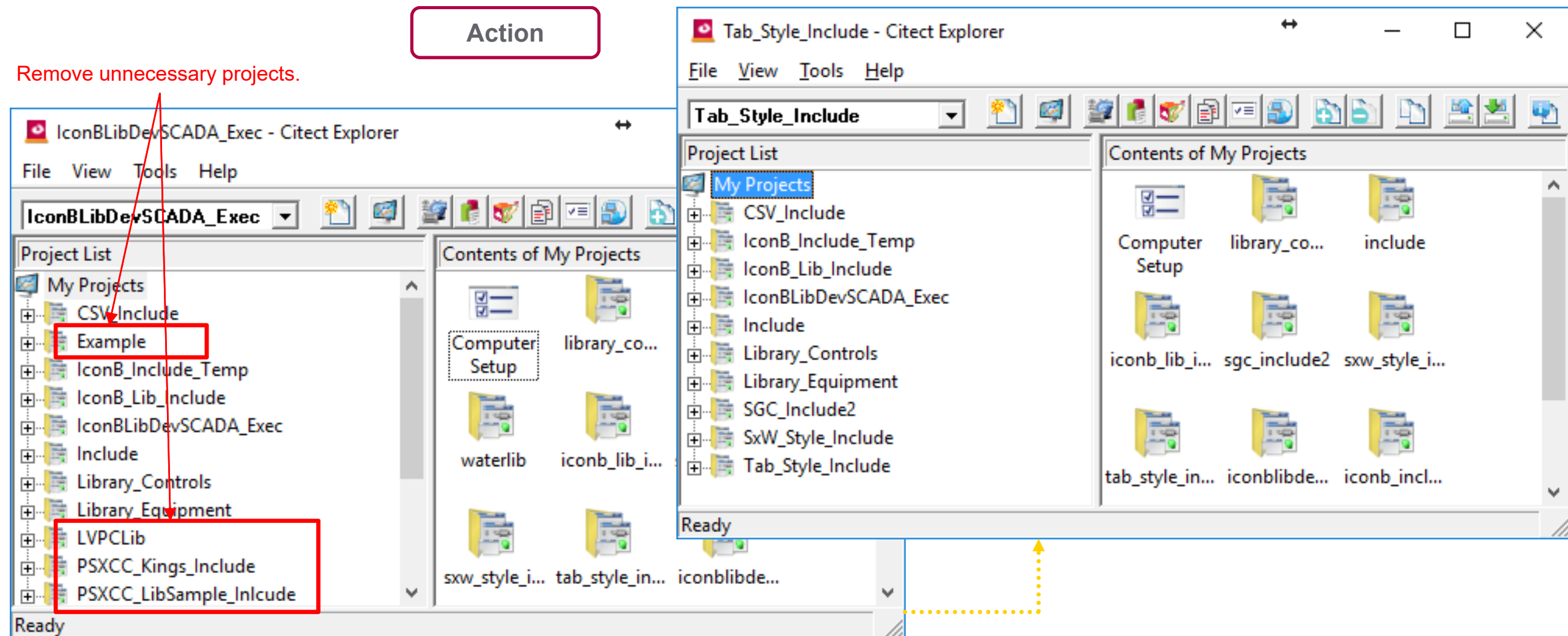


- > Therefore, you must remove all projects that you intend to keep “normal” in your **VJC** installation.

Prep Host VJC

Empty out host VJC's Projects

- > First things first. Start **VJC** and backup or remove all projects that are not to undergo this transformation.

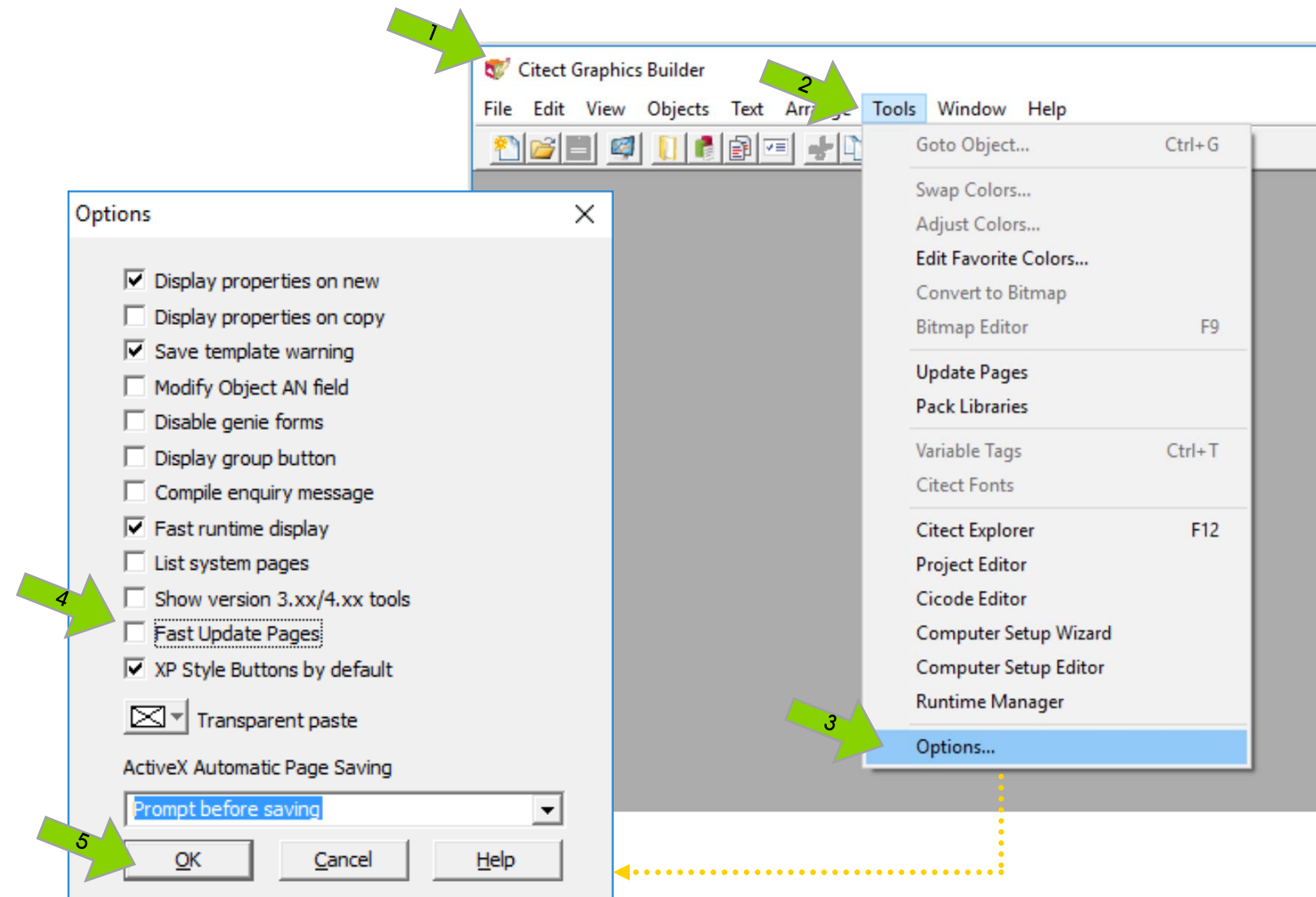


Prep Host VJC

Configure Compile Settings

> Uncheck **Fast Update Pages** in **Citect Graphics Builder**.

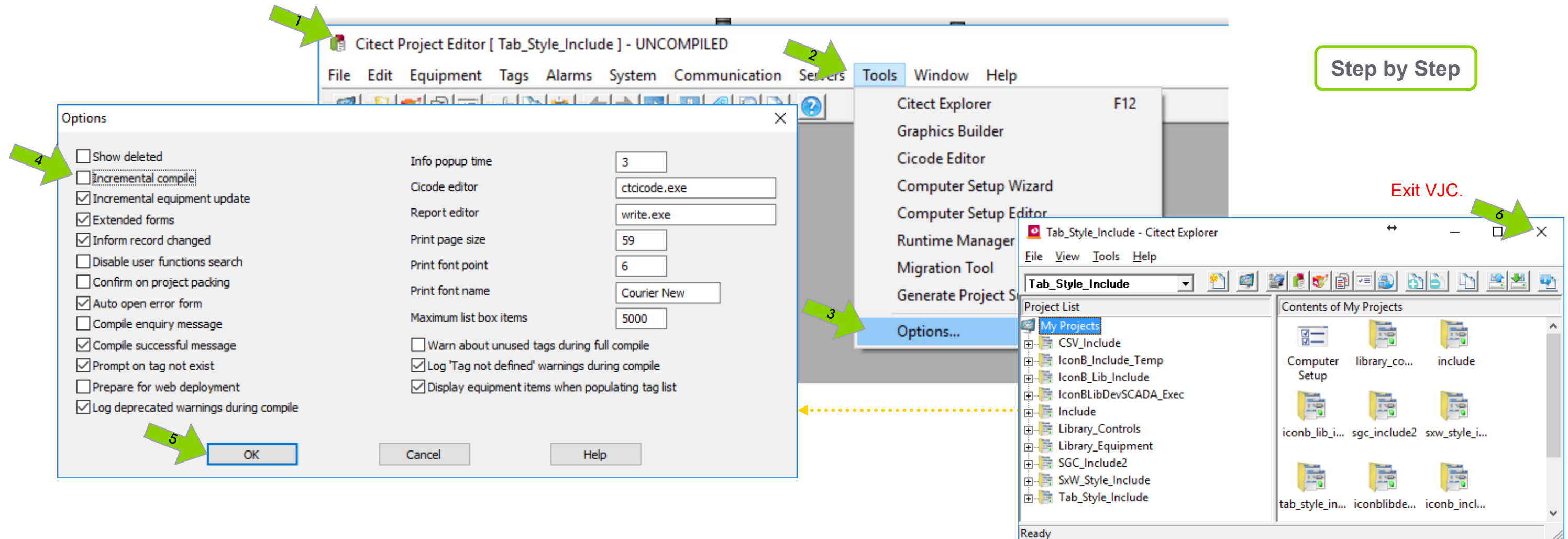
Step by Step



Prep Host VJC

Configure Compile Settings

> Uncheck **Incremental compile** in **Citect Project Editor**. Exit **VJC**.

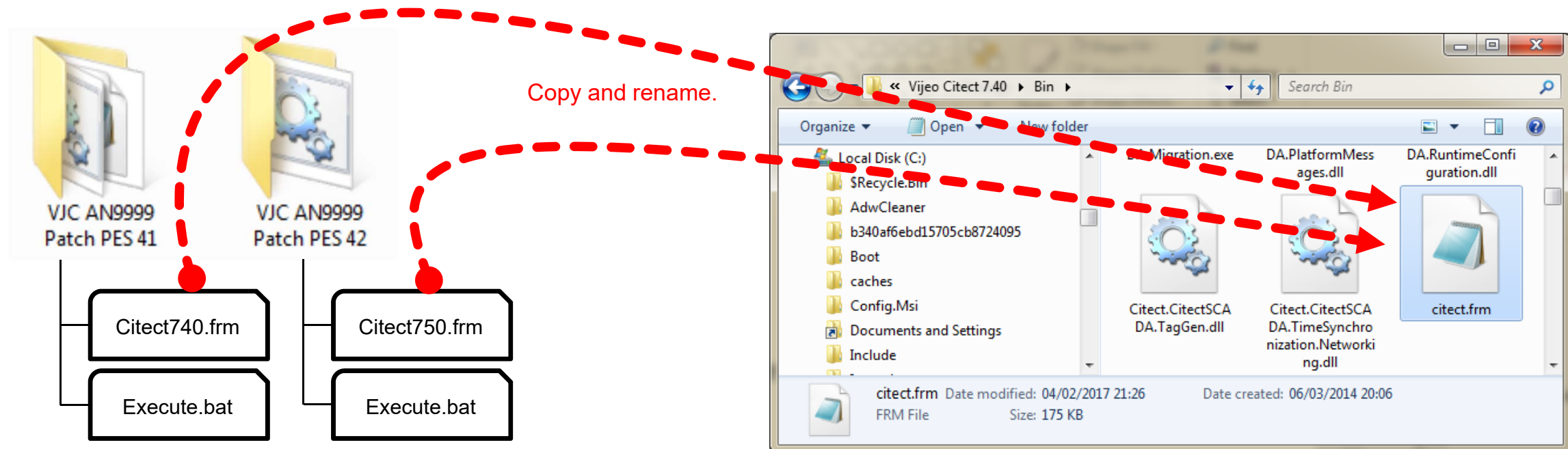


Prep Host VJC

Replace Citect.frm

Action

- > Depending on your version of VJC, replace C:\Program Files (x86)\Schneider Electric\Vijeo Citect 7.xx\Bin\citect.frm with the correct version of citect7xx.frm.
- > The patches are targeted specifically at VJC 740 SP1 and VJC 750 SP1 only. If you are trying to resolve a VJC that is not of these versions mentioned, you may need to carry out the procedure to edit citect.frm yourself.
- > Refer to next section for what has been edited in the citect7xx.frm file.



Step 2

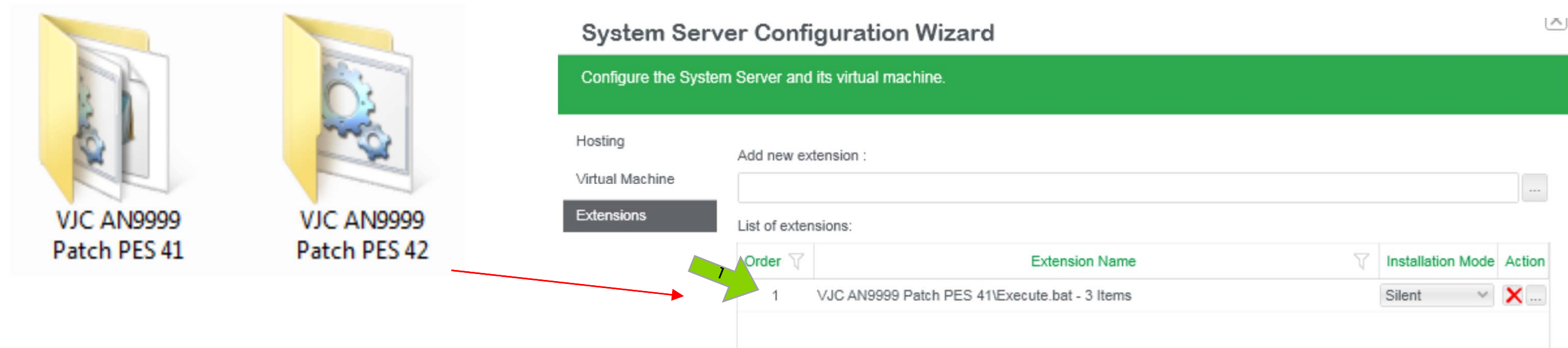
Patch PES VM.

- > Automatically replace Citect.frm within PES' VM with Extension feature.

Patch PES VM Procedures

Action

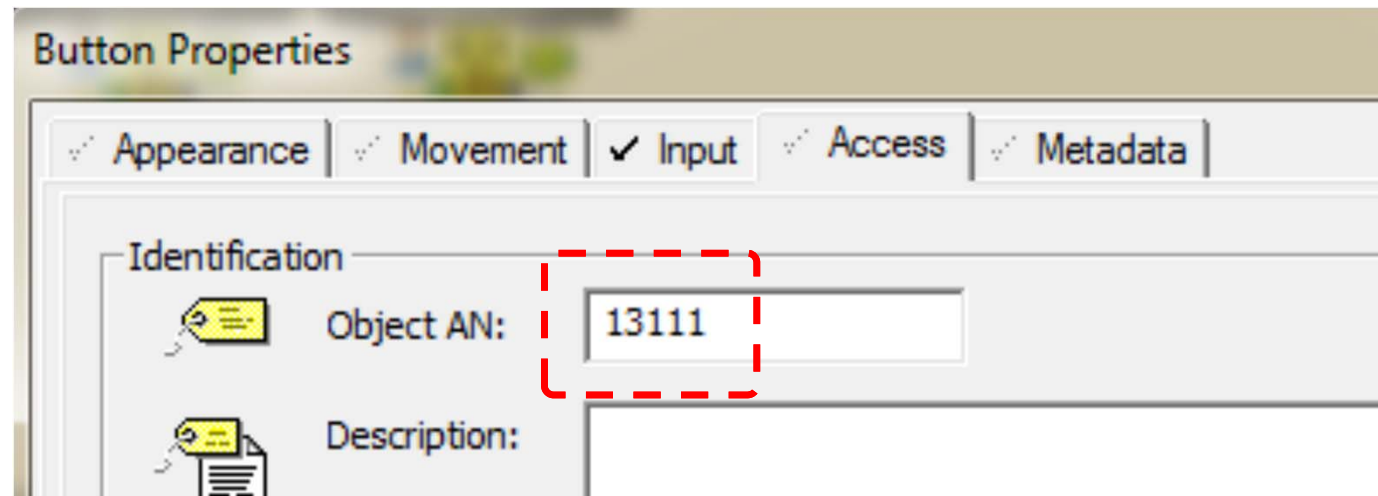
- > Depending on your version of PES, add this to the Extension of PES using the Configuration Wizard.
- > Take note this helps the situation a lot when the Supervision project has not been created in PES yet. However, if the Supervision project had already been created, then this step does little, except to resolve issues in future new Supervision projects.



Patch PES VM

Background

- > **AN** for responsive objects (such as buttons) cannot cope with **AN** greater than 9999.



Explanation

- > It was concluded that in **VJC 80 / 2016**, this problem will be fixed. **AN** will extend from 4 to 6 digits. As for current versions of **VJC**, the only way to address this is to manually edit a file called **citect.frm** located in the **BIN** directory.

Patch PES VM

Background

- > The patch replaces **citect.frm** with a copy that had been edited. What was edited? All strings **"AN"**, 4 were replaced with **"AN"**, 6.
- > The patch is targeted specifically at **VJC 740 SP1** and **VJC 750 SP1** only.
If you are trying to resolve a **VJC** project that is not of these versions in **PES**, you may need to carry out the procedure to extract **citect.frm** from your **VJC** install and edit the file yourself. Then rebuild **Execute.bat** to call on your own **citect.frm**.
- > **citect.frm** can be opened with **Notepad**.

Explanation

```
Page Name      ^VAN      ^VExpression      ^VFont Name
"{1           }{2      }{3           }{4

FORM "Text", "Text", "pgtext", INDEX, KEY "PAGE", "Pages", "NAME

1:  "PAGE", 64, readonly;
2:  "AN", 6, readwrite_foreign, not_searchable;
3:  "VAR_A", 254, readwrite_foreign, "Variable Tags|Lc
4:  "VAR_B", 254, readwrite_foreign, "Variable Tags|Lc
5:  "VAR_C", 254, readwrite_foreign, "Variable Tags|Lc
6:  "STR000", 32, readwrite_foreign;
7:  "STR001", 32, readwrite_foreign;
8:  "STR010", 32, readwrite_foreign;
9:  "STR011", 32, readwrite_foreign;
10: "STR100", 32, readwrite_foreign;
```

Step 3A

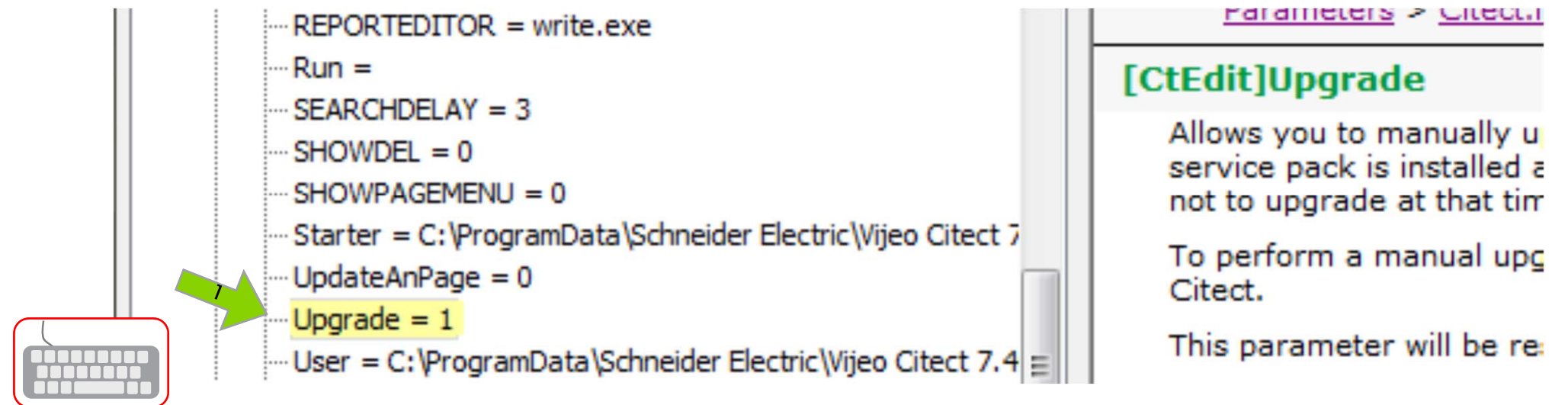
Upgrade all projects.

- > This step is necessary when supervision project had already been created in PES before you realised you need to Patch PES VM (Step 2).
- > If however, the Supervision project in PES is created after you had Patch PES VM right from the start of a fresh PES install, then go on to Step 3B skipping 3A.

Upgrade All Projects Procedures

- > Perform engineering as per normal in **PES**. Deploy the **Supervision** project. Then do the following:
1. Open the project in **Citect Explorer**.
 2. Open **Computer Setup Editor**.
 3. Add/Edit section **[CtEdit]Upgrade=1**.
 4. Save and restart **VJC**.
 5. Perform the **Step 3B**.

Action



Step 3B

Pack and update pages.

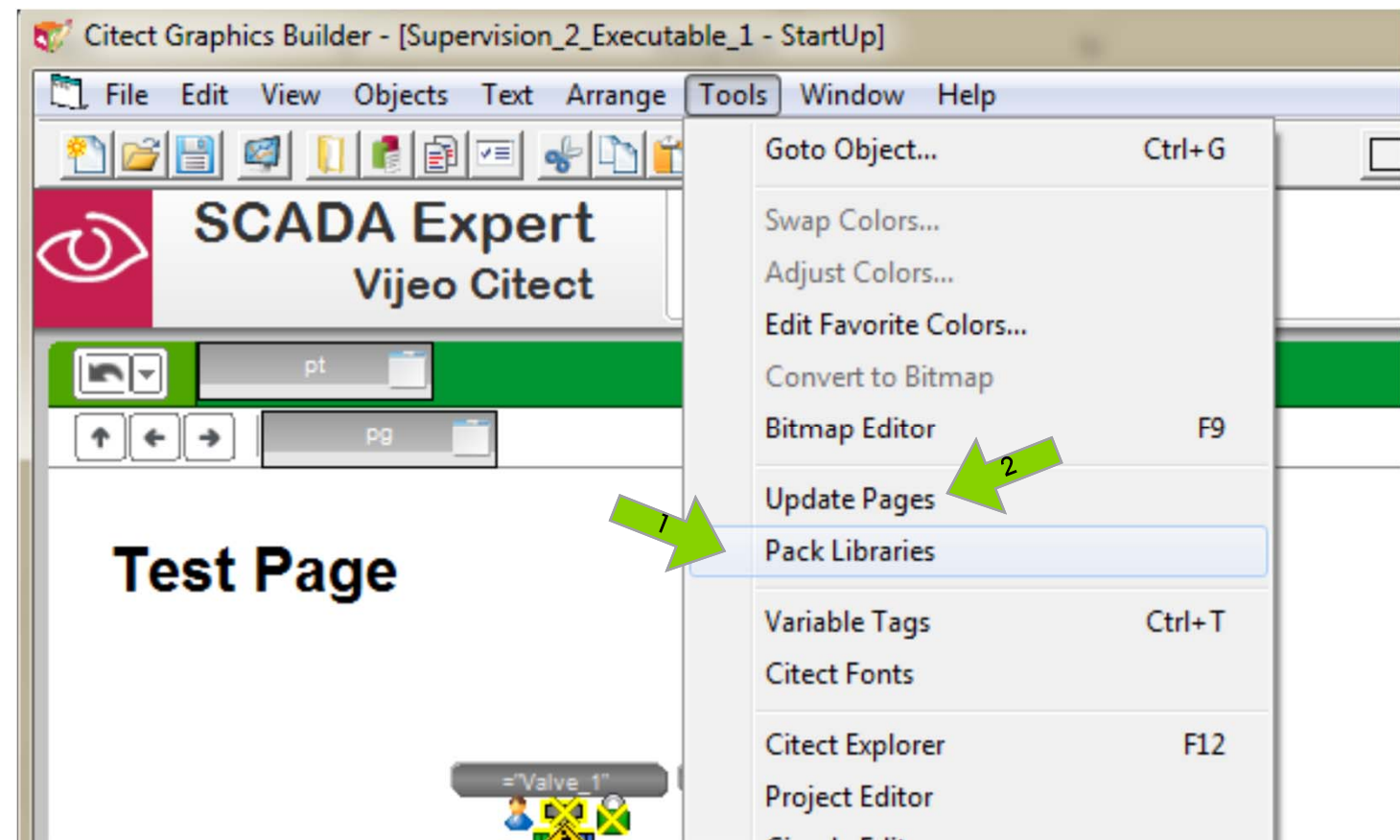
- > Perform this step straightaway and move on to Step 4 if you had already Patch PES VM (Step2) before the Supervision Project was created.

Pack and Update Pages Procedures

> Perform the following before running the project:

1. Open the project in **Citect Explorer**.
2. Go to **Graphics Builder**.
3. Perform **Pack Libraries** (no need for any page to be opened.)
4. Perform **Update Pages**.
5. **Compile**.
6. **Run** (assuming you had already done computer setup wizard.)
7. Go to **Step 4** to see if that step is necessary.

Action



Step 4

AN injection for special situation.

Necessary only if you have the
problem mentioned! Check first!!

AN Already Exceeded 9999

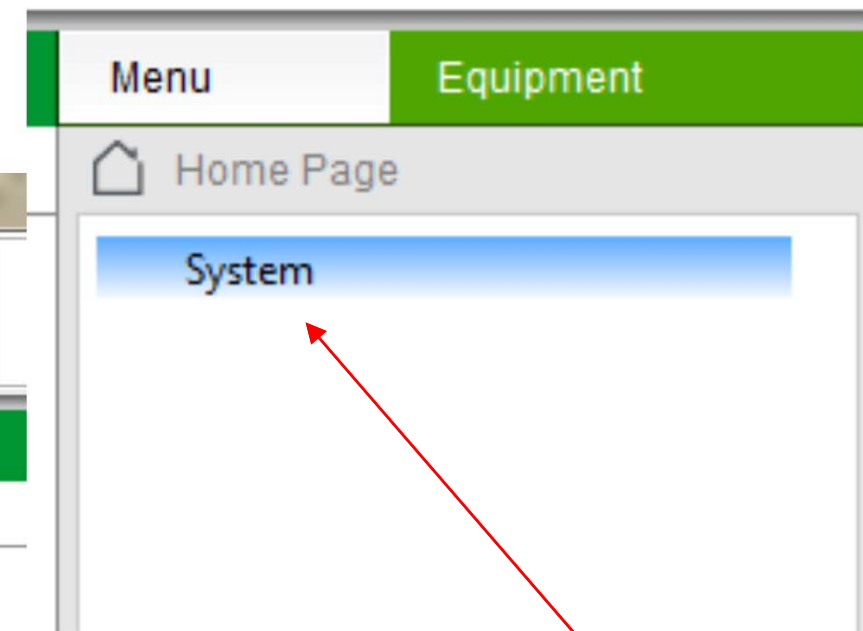
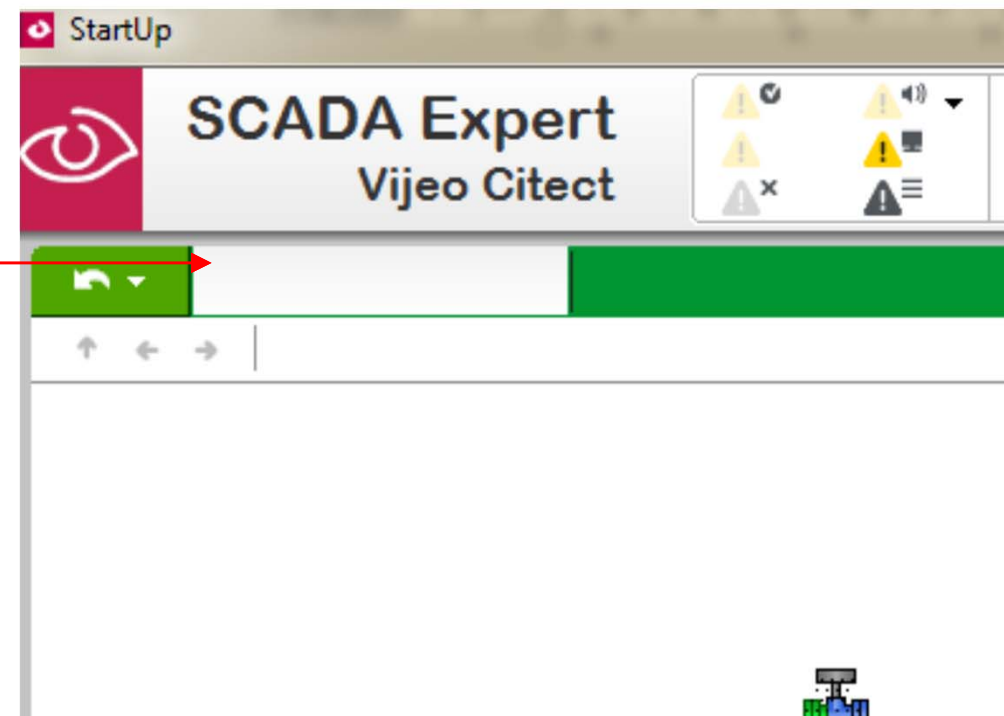
Checking

Necessary only if you have the problem mentioned! Check first!!

- > Both **Steps 3A** and **3B** although can resolve the so called “**unresponsive Genies**” issue, may still leave one pending issue. Carry out this step only if you encounter the problem.
- Menu items does not appear in correct location.
 - Menu items when expanded appears “corrupted”.
 - Menu items when clicked calls on other menu’s **CiCode**.
 - Page title not shown.

Missing.

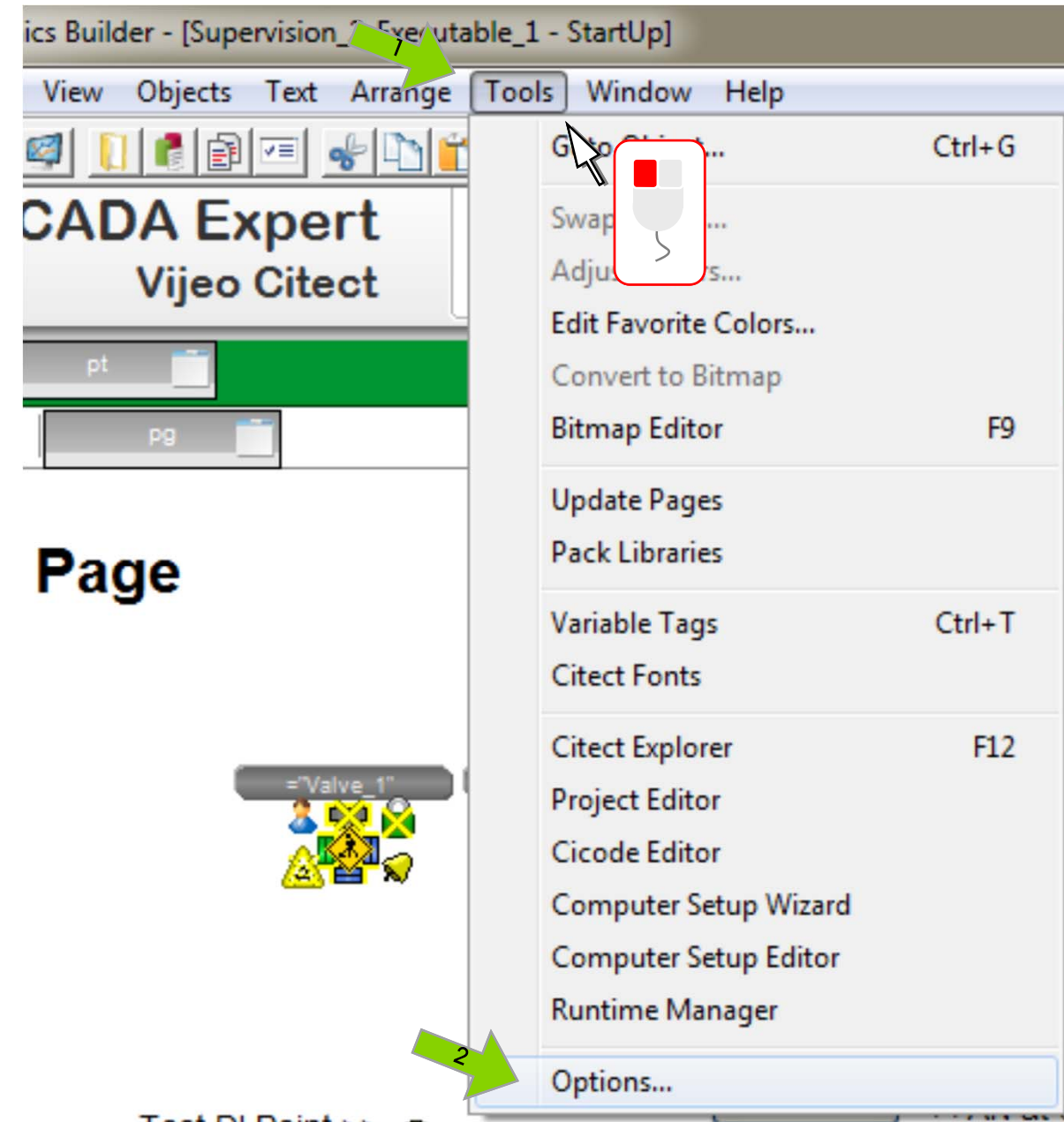
Explanation



AN Already Exceeded 9999 Procedures

- > Open the page that has the corruption issue in **Graphics Builder**.
- > Go to **Options**.

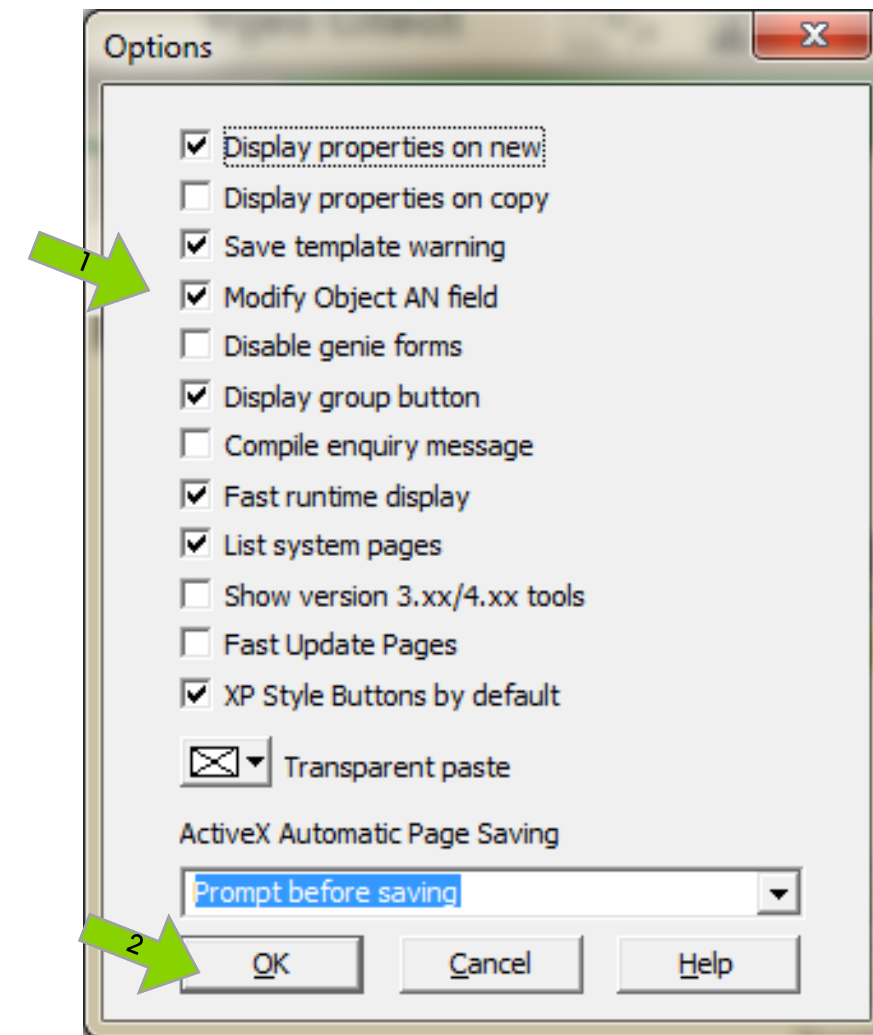
Step by Step



AN Already Exceeded 9999 Procedures

- > Check **Modify Object AN field** if it is not checked.
- > Then close this.

Step by Step

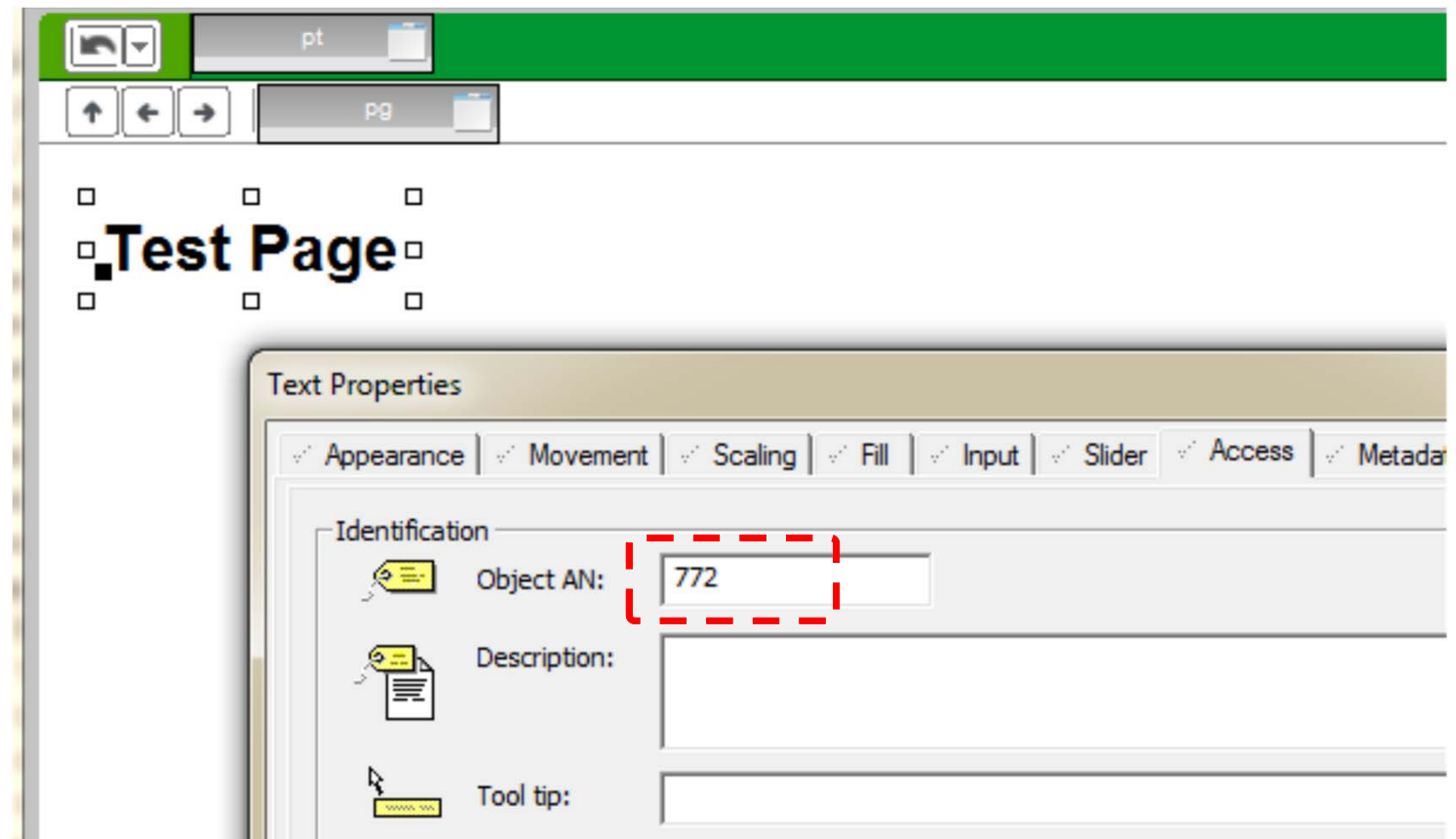


AN Already Exceeded 9999

Procedures

- > Back to the opened page.
- > Find a static object that has **AN < 1000**. The easy items could be those titles or other text you had placed on the page earlier.
- > Take note of this number.

Action

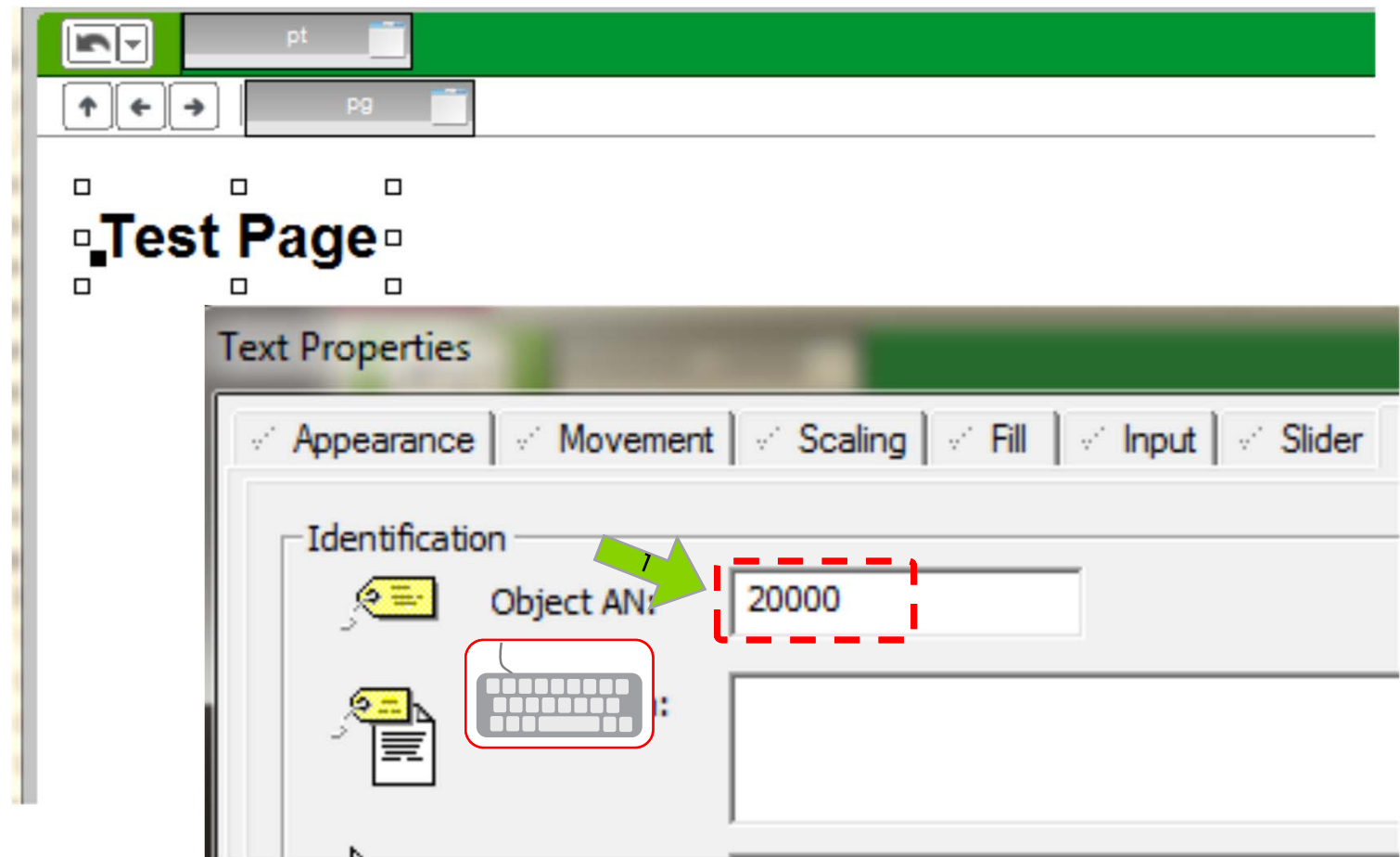


AN Already Exceeded 9999

Procedures

- > Change this **AN** to something that is high and is not already taken up by the system. In this example we use **20000**. (Make sure you are really sure no object has taken AN 20000 or there will be unpredictable results).

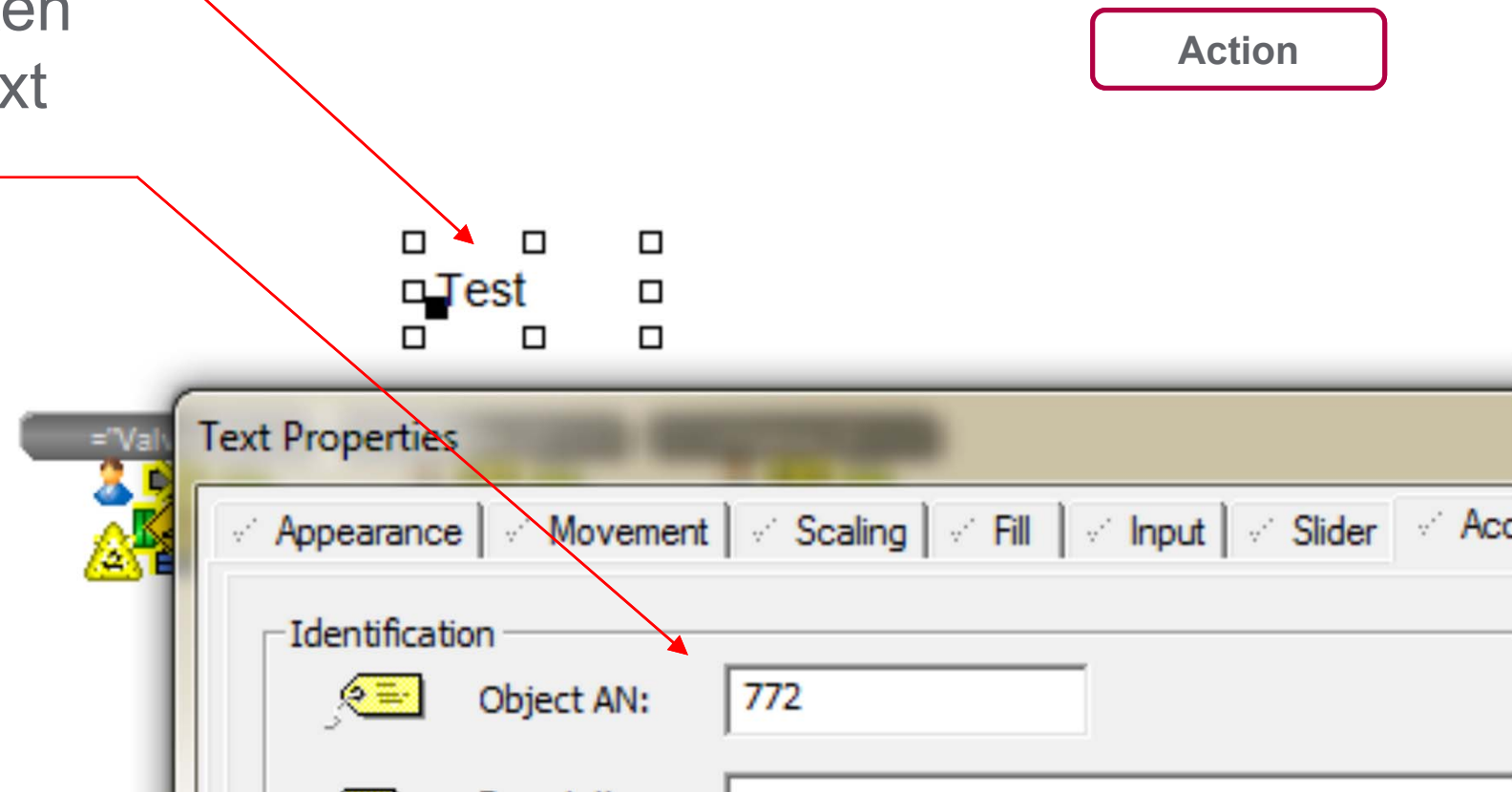
Action



AN Already Exceeded 9999

Procedures

- > Anywhere on the page, add one more static object. This could be something really discrete, is just for resolving issue and does not serve any operational purpose. In this example, we placed a text object.
- > Observe the **AN**. It should have taken up the recycled **AN 772** from the text object just now.
- > If it does not, it is ok, means there are actually still gaps in **AN < 9999** which have not been taken up yet. Just make sure this new object's **AN < 1000** will do.
- > **Compile** and **Run** the project.



Make the most of your energySM