Liens :

<http://catiadoc.free.fr/online/xomugpst_C2/xomugpstxm0103.htm>

<http://yvonet.florent.free.fr/SERVEUR/COURS%20CATIA/CATIA%20Mechanical/ASM_A/Student/EDU_CAT_EN_ASM_AF_V5R19_toprint.pdf>

**COE Administrator**

Use Root context in assembly

May 5, 2005 12:06 PM

As from about R10 a option called **use root context in assembly** has been in the Part section of Tools Options.  
  
I am led to believe if this function is off the assembly constraints are rembered at the parent ie sub-product level. If it is left on the assmebly constraints are remebered at the highest level within the structure. Which can remove some assembly constraint conflicts  
  
Does anybody know anything about this or any other implications this setting has?

**Jim Strawn**

Use Root context in assembly

May 5, 2005 03:16 PM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=11464#p11470))

You are correct, with this option OFF CATIA defines the Context as the Lowest Common Product to which your Source and Target belong. The problem comes when you try to link to additional parts that tie into a different level of the product. Generally, it is best to link to the Top Level Product in your assemblies.

**COE Administrator**

Use Root context in assembly

May 6, 2005 07:06 AM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=11464#p11470))

so from what you are saying KEEP it on. I always thought if it was off it stopped alot of Assembly Design conflicts.  
  
If it is on could you give me an example of the benefit

**Jim Strawn**

Use Root context in assembly

May 6, 2005 10:46 AM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=11464#p11470))

Whether you have it ON or OFF, you need to take care when creating Contextual Links. They should really be planned out before you start, or you will get into much trouble. While it may seem like a good idea to start linking this part to that part to another part, you will rapidly get yourself into a very large tangle of these links.  
  
The way we have started using them, we have several "Control" parts that contain the common geometry for the assembly. Each of these elements is Published, and we have turned on the option to "Link only to Published Elements". Each and every part that contains contextual links are linked to these "Control" parts, and only to those parts (although they can be linked to several of them at the same time). This there is a clear understanding as to what the source of the links are, and we don't run into any Circular References (Part A links to Part B, which links to Part C, which links back to Part A).  
  
We also tell the users that, if they are creating Contextual Links, to always open their assembly from the Top Product. We have the Root Contex option turned On. We then always know what the Context is for the links, and don't have to search to find it (which can be tricky in a VPM world).  
  
That, at least, is the theory. In actual fact, of course, our Links are all over the board. Determining the Context of a part can be very difficult. When loaded from VPM, Edit Links tells us the COID/COMPID of the Context Assembly. It does not tell us the Part Number of that assembly. At R13, if you issue a Load command from here, your links are completely wiped out, and you need to discard the assembly and re-load. A real pain.

**COE Administrator**

Use Root context in assembly

May 6, 2005 11:09 AM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=11464#p11470))

We are using a skeleton approach where and when possible and the users are told to reference published elements only, although we do not force the use published elements option only. We have found that if we design in context with the Product open and then try to open a part on its own or we try and open a part in the context of another assembly we are for ever re-defining the contextual links. which is very annoying after the second time.  
  
If your users are forced to open the top level Product every time does this not have an impact on the hardware.  
  
I am currently involved with Engine Design in V5 and wherever possible we try not to load the whole engine because of the strain on the machines.  
  
this is why we have now started using the CCP approach or spec driven (as per DS)  
  
Anyway have you ever found the root context option solves any of the contextual link problems or not because I suppose if you open the product at its highest level they should never occur.  
  
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Switching on/off "root context" option

February 22, 2007 03:30 AM

Hello all,

Does anybody knows what is exactly the impact of switching off the "use root context in assembly" during the design process?

This option was by default used this way, but because of the implementation of a new VPDM, we had to de-activate it. Apparently, it won't change anything since our links will always be kept at the same level in the tree (only 2 levels), but by experience, I've seen a few times that the models that have been started with the option switched-on were comptletly corrupted after the de-activation of this option. So I was wondering what was hidden this option.

So if, anybody knows, It would be really appreciated.

Regards,

Marc

**Jim Strawn**

RE: Switching on/off "root context" option

February 27, 2007 09:25 AM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=15742#p15748))

When creating Contextual Links, this option controls the "Context" of your links. With it ON, the highest level in the tree is always taken as the "Context" assembly. With it OFF, CATIA will calculate the lowest common assembly level, and that will be defined as the "Context" assembly. This works fine if all of your links in that assembly are at the same level (or a lower level). But as soon as you try to link to a part in another branch of the tree, one that has a higher common product, CATIA will error out and tell you that you are in the wrong context to create that link.  
  
I'm not sure why CATIA ever gave us this option, as it can be very confusing to someone who doesn't understand links very well.

Contextual Links

October 14, 2005 04:13 PM

Hello,  
  
To do contextual links, do i active or not the settings "Use Root as Context" in Infrastrcuture Part settings ? What are the impacts if i use either the active setting or inactive one ?  
Thank you  
  
Best regards  
Drz

**David Siebenaler**

Contextual Links

October 14, 2005 05:20 PM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=12454#p12460))

When Use Root Context in Assembly is selected, the top node, the root, of the CATProduct is the context of external links regardless of the location of the child or the parent in the specification of the CATProduct.  
  
Without Use Root Context in Assembly selected, the context of external links is the lowest possible product node of the CATProduct. This is determined by the location of the child and the parent. So, if your parent is directly below the root product, the context of the child part will be the top node, the root, of the CATProduct, regardless of where the child is located in the CATProduct’s specification tree.

**COE Administrator**

Contextual Links

October 15, 2005 03:53 AM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=12454#p12460))

Hello,  
  
Ok. I understang your answer. Nevertheless, I am looking for the different restrictions in the both cases : either with "Root as context" or without "Root as Context". For exemple, I think it is impossible to open a sub assembly (with a contextual link) alone if the root is the context (thus no co design in the case of a complex CATProduct).  
Do you this king of information ?  
  
Thank you.  
  
Drz

**David Siebenaler**

Contextual Links

October 17, 2005 02:00 PM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=12454#p12460))

The key is the behavior. The when not using the option Use Root Context in Assembly, CATIA will establish the lowest product level possible as the context of the child CATPart. This is determined by the location of the child and the parent.  
  
If you want to be able to open a sub-assembly with all of its instances in context then you’ll need to have any and all common parents instanced into each applicable sub-assembly. This can result in a lot of duplicate instances under the top CATProduct.  
  
There are a lot of things to consider and weigh  
Are you using common parents – skeletons and loft?  
Size of product, assembly, and sub-assembly?  
Distribution of work – how many people are working on the product/assemblies?  
  
There isn’t a single answer. You need to find the right balance for you situation/team. Trying to maintain an as built product structure and contextual design can be difficult to impossible. I have seen situations where there are “Design” assemblies for System runs where the instances are in context and product structure assemblies structured to represent the as built product.  
  
Again, there isn’t a single answer. The requirements and process for a toaster will be different than a commercial airplane. Define your requirements, consider your options and find the right balance  
  
Do I do this kind of work? I generally work in an ENOVIA V5 LCA environment. LCA provides a virtual context. Meaning, the ENOVIA product is the context.

August 25, 2003 10:12 PM

I have a question in /tools/options/Part Infrastructure/General.  
  
What does "Use root context in assembly" mean?  
I cannot understand the function.  
  
Help me!  
  
Author: David

**COE Administrator**

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August 26, 2003 10:23 AM (in response to [COE Administrator](http://www.coe.org/p/fo/et/thread=6857#p6863))

There are 2 primary kinds of links within CATIA V5. The first, and easiest to understand is the one that happens when you use COPY/PASTE SPECIAL, AS RESULT WITH LINK. This one doesn't care anything about product structure. It is simply a link between two parts.  
  
The second is the Contextual Link. This is the link that is created when you select geometry from other models while you are working in a Product (and you have turned Create Link on under Tools Options). This link includes not only the information about what Part the reference geometry belongs to, but also what the active assembly was when you created it, and what the Instance was of both the source and target parts. In order to make any modifications to Parts with Contextual Links, you must read them in the same Context in which the links were created.  
  
The "Context" of a contextual link is the Product to which the link belongs. Parts may only contain a single "Context" for all of it's contextual links. Prior to R10, the "Context" of all of these links was the top level assembly (Root Product) that was read up when the link was created. If you leave this option on in R10 and up, then this is the Context that you will recieve. If you turn this option off, then the Context will be the highest assembly that both parts are common to.  
  
This can be handy if your root product is an Aircraft Assembly, but the parts that you are working on are all in the Wing. Then your Context might be the Wing Installation, regardless. Thus, you can make modifications whether you are in the Wing Instl, or the Aircraft Assembly. This can also be dangerous i