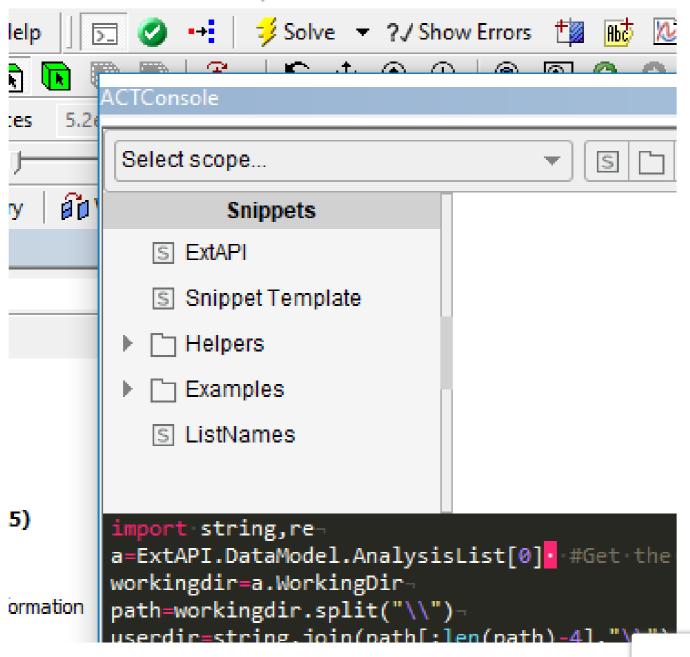
Privacy - Terms

PADT, Inc. – The Blog

WE MAKE INNOVATION WORK

[ANSYS Mechanical Enterprise]

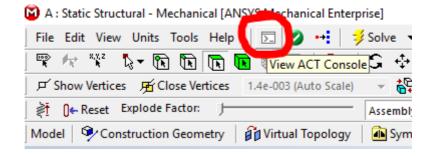


ANSYS ACT Console Snippets

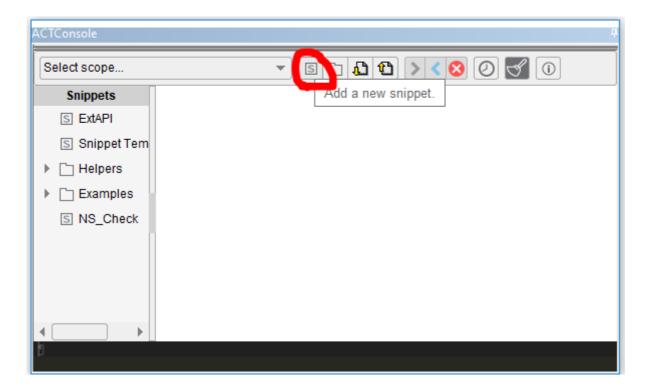
So this is just a quick post to point out a handy feature in ANSYS Workbench, the ACT Console. There are times when you want some functionality in Mechanical that just is not yet there. In this example, a customer wanted the ability to get a text list of all the Named Selections in his model. A quick Python script does just that.

```
import string, re
a=ExtAPI.DataModel.AnalysisList[0] #Get the first Analysis if multiple
workingdir=a.WorkingDir
path=workingdir.split("\\\")
#Put the output file in the "user files" directory for the project.
userdir=string.join(path[:len(path)-4],"\\\")+"\\\user files"
#Use the name of the system in case the snippet is
#used on multiple independent systems in the project.
system_name=re.sub(" "," ",a.Name)
model = ExtAPI.DataModel.Project.Model
nsels = model.NamedSelections
                                                #Get the list of Named Se
if nsels:
             #Do this if there are any Named Selections
     f=open("%s\\\\%s named selections checked.txt"%(userdir,system named)
     for child in nsels.Children:
        f.write("%s\n"%child.Name)
     f.close()
```

So to use a piece of Python code, like this, we use the ACT Console in Mechanical. To access the ACT Console in Mechanical 17.0, or later, just hit this icon in the toolbar.



The Console allows you to type, or paste, text directly into the black command line at the bottom. But if we are going to reuse this code, then the use of Snippets is the way to go. In R17.0 they were called 'Bookmarks', but they worked the same way.

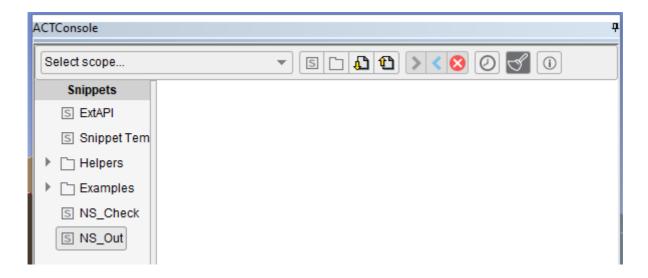


When you add a Snippet, a new window allows you to name the snippet and type in, or paste in, your code.

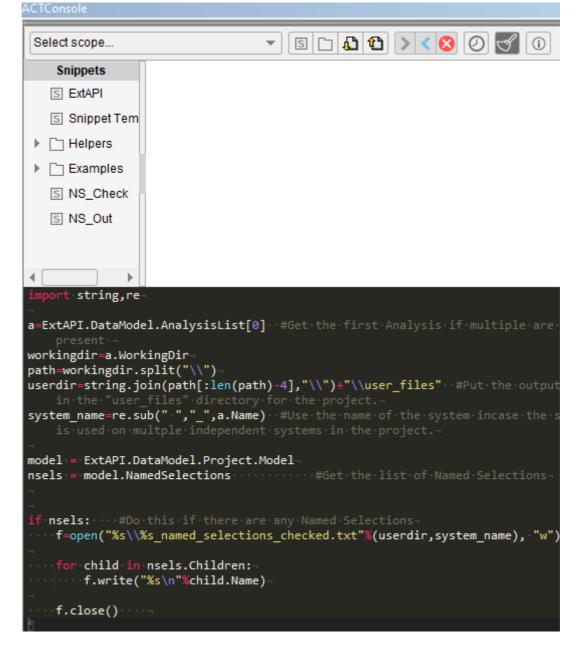
```
Snippet Properties
                                                                                ×
Caption:
      NS_Out
Value:
        import string, re-
    3 a=ExtAPI.DataModel.AnalysisList[0] · #Get · the · first · Analysis · if
    4 workingdir=a.WorkingDir
    5 path=workingdir.split("\\\\")
    6 userdir=string.join(path[:len(path)-4],"\\\"
             )+"\\\user_files"··#Put·the·output·file·in·the
        "user_files"·directory·for·the·project.¬

system_name=re.sub("·","_",a.Name)··#Use·the·name·of·the·
system·incase·the·snippet·is·used·on·multple·independent·
    9 model = ExtAPI.DataModel.Project.Model-
   10 nsels = model.NamedSelections-
   13 * if nsels: ... #Do this if there are any Named Selections
             f=open("%s\\\\%s named selections checked.txt"%(userdir
                  ,system_name), "w")
             for child in nsels.Children:
                 -f.write("%s\n"%child.Name)
             f.close()
                                                                Apply
                                                                         Cancel
```

When you hit Apply, your named snippet is added to the list



From then on, to use the snippet you just click on it, and hit 'Enter'. The text is basically, repasted into the command window, so you can set any variables needed prior to higher your snippet.



The snippets are persistent and remain in the console, so they are available for all new projects. Using snippets is a great way to reduce time for repetitive tasks, without having to create a full blown ACT extension.

Happy coding!



Related

Using Command Snippets in Solution (And a cool new ACT Extension to make life easier)
March 12, 2019
In "The Focus"

The 10 Coolest New Features in R15 of ANSYS Mechanical December 3, 2013
In "The Focus"

Starting ANSYS Products From the Command Line
February 29, 2012
In "The Focus"

You must log in to post a comment.

< Phoenix Business Journal: Making a statement about who you are in a digital, shared world</p>

All Things ANSYS EP001: Topological Optimization and other additions in ANSYS 18 >

Contact PADT 1-800-293-PADT & info@padtinc.com

~	_	Α.			
•	-	Δ	w		н
_	-	$\overline{}$	1	•	

Search

Q

LINKS

PADT Website

Contact PADT

PADTMarket.com

Manage PADT Subscriptions

SUBSCRIBE TO OUR BLOG

Enter your email address to subscribe to this blog and receive notifications of new posts by email.

Join 1,804 other subscribers

Email	Ac	ldr	ess
-------	----	-----	-----

UPCOMMING EVENTS

01/19/2022 - 01/21/2022 Arizona Photonics Days

04/04/2022 - 04/07/2022 37th Space Symposium Arizona Space Industry Booth

04/12/2022 - 04/14/2022 D&M West | MD&M West

3D PRINTING GLOSSARY



INTRODUCTION TO THE ANSYS PARAMETRIC DESIGN LANGUAGE



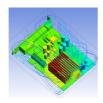
Learn APDL with this workshop based book written by PADT's Technical Support Team. The new and improved Second Edition contains additional chapters on APDL Math and APDL in ANSYS Mechanical.

More...

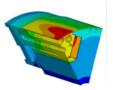
SIMULATION SERVICES

PADT's simulation engineers are true experts in virtual prototyping. Trust the people you come to for ANSYS expertise to handle your simulation outsourcing needs.

Structural, Thermal, Fluid, Electromagnetic, and Systems.







LOOKING FOR ANSYS TRAINING?



Let the people who write "The Focus" train you and your team. Check out our **schedule** or **contact us** to set up a class at your place or something custom.

PODCAST: ALL THINGS ANSYS





RSS SUBSCRIBE:
RECENT POSTS:
Surprise – 2021 Turned out to Be a Lot Like 2020
All Things Ansys 102: Electronics Reliability Updates in Ansys 2021 R2
Simulating an Electro-Permanent Magnet (EPM) using Ansys Maxwell
Ansys Pro - Premium - Enterprise Electronics Licensing Adjustments
All Things Ansys 101: Additive & Structural Optimization Updates in Ansys 2021 R2
CATEGORIES
Additive Manufacturing
Ansys
ANSYS Discovery
ANSYS Energy Innovation Campaign
ANSYS R 18
Carbon
Education
Events

Privacy - Terms

Flownex

Fun

Contact PADT 1-800-293-PADT & info@padtinc.com ⊠

THINKING ABOUT A BLOG FOR YOUR COMPANY?



Where do you start? How do you keep it going? Where do I get ideas for posts? Should I use humor?

These questions and many others are answered in the book that was inspired by the success of PADT's blog:

Better Blogging for your Business

Available now as a Kindle book or softcover on Amazon.

PADT EMAIL

Manage how PADT Emails You

Want to receive Emails from PADT? Please select any of the basic topics below to tell us what you are interested in. We promise to keep it simple sharing news, opportunities, and useful information. You can come back and change your settings whenever you need to.

^c Email
State/Province
Company
Email Lists
PADT Additive & Advanced Manufacturing Email List
☐ PADT General Information Email List
☐ PADT Product Development and Testing Email List
☐ PADT Simulation Email List
By submitting this form, you are consenting to receive marketing emails from: Phoenix Analysis and Design Technologies, 7755 S. Research Dr., Suite 110, Tempe, AZ, 85284, US, http://www.padtinc.com. You can revoke your consent to receive emails at any time by using the SafeUnsubscribe® link, found at the bottom of every email. Emails are serviced by Constant Contact.
Sign Up!

Contact PADT 1-800-293-PADT & info@padtinc.com ⊠

SEARCH

		Search

LINKS

PADT Website

Contact PADT

PADTMarket.com

Manage PADT Subscriptions

ANSYS STARTUP PROGRAM

LOOKING FOR ANSYS TRAINING?



Let the people who write
"The Focus" train you
and your team. Check
out our **schedule** or **contact us** to set up a
class at your place or
something custom.

TRYING TO FIND A COMPUTER BUILT FOR SIMULATION?



Workstations, Servers, and Clusters designed by PADT specifically for

simulation users.

Learn More

INTRODUCTION TO THE ANSYS PARAMETRIC DESIGN LANGUAGE



Learn APDL with this workshop based book written by PADT's Technical Support Team. The new and improved Second Edition contains additional chapters on APDL Math and APDL in ANSYS Mechanical.

Now available on Kindle as well as paperback

More...

RECENT POSTS

Surprise – 2021 Turned out to Be a Lot Like 2020

All Things Ansys 102: Electronics Reliability Updates in Ansys 2021 R2

Simulating an Electro-Permanent Magnet (EPM) using Ansys Maxwell

Ansys Pro - Premium - Enterprise Electronics Licensing Adjustments

All Things Ansys 101: Additive & Structural Optimization Updates in Ansys 2021 R2

CATEGORIES

Additive Manufacturing	
Ansys	
ANSYS Discovery	
ANSYS Energy Innovation Campaign	
ANSYS R 18	
Carbon	
Education	
Events	
Flownex	
Fun	
Getting To Know PADT	
News	
Nimbix	
PADT Medical	
PADT Startup Spotlight	
Podcast	
Product Development	
Publications	
Startups	
Stratasys	
Stratasys Marketing	
The Focus	
Uncategorized	Privacy - Terms

Connect with PADT

© 2021 PADT, Inc. – The Blog • Privacy Policy for the PADT Blog • Powered by WordPress • Theme: Gillian



ü