AceGen - Getting started - table of contents

double-click the cells on the right to “Open/Close Group” and see the content of each step and a link to the notebook
use search function to e.g. find steps working with “tensor” or using the “deformation gradient”

```
SetDirectory[NotebookDirectory[]];
ShowStepLinkAndContent[] := (
   (* Get the name of the Step folder from the previous section cell *)
   path = StringJoin[NotebookRead[PreviousCell[]][[1, 1]]];
   path = StringReplace[path, "\"" → ""];
   (* Search for notebook file in path,
   but exclude variants that start with "_" *)
   path_file = First[Complement[FileNames["*.nb", path], FileNames["_*.nb", path]]];
   Print[Hyperlink[path_file]];
   Print[
    First[NotebookImport[path_file, "Abstract" → "Text"], "no content available"]]
  );
```

"Step001_Basics"

In[ ]:=
```
ShowStepLinkAndContent[]
```

Step001_Basics /AceGen -InCalcOut .nb

content :
- basic usage of AceGen
- compute scalar output y based on input x and derivative dy/dx
- scalars
- input/output
- SMSInitialize
- SMSModule
- SMSReal
- SMSD
- SMSExport
- SMSPrintMessage
- SMSWrite

"Step002_SetDelayed"

In[ ]:= **ShowStepLinkAndContent []**

Step002_SetDelayed /AceGen -SetDelayed .nb

no content available

"Step020_SMSIf_Conditions"

In[ ]:= **ShowStepLinkAndContent []**

Step020_SMSIf _Conditions /AceGen -SMSIf .nb

content :

- basic usage of SMSIf for conditions
- compute scalar output y based on input x and derivative dy/dx
- scalars
- input/output
- SMSIf , SMSElse , SMSEndIf
- SMSInitialize
- SMSModule
- SMSReal
- SMSD
- SMSExport
- SMSPrintMessage
- SMSWrite

"Step101_MaterialModel-linearElastic"

In[ ]:= **ShowStepLinkAndContent []**

Step101_MaterialModel -linearElastic /AceGen -LinearElasticity .nb

content :

- linear elastic material model
- input is deformation gradient as 3x3 matrix
- output is stress as 6x1 vector and stress -strain tangent
- tensor /vector
- input/output
- SMSFreeze
- Symmetric
- SMSInitialize
- SMSModule
- SMSReal
- SMSD
- SMSExport
- SMSPrintMessage
- SMSWrite