Coupling: OptiY – RecurDyn

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Interface **ASCII-File**
Experiment **OptiY\CAE Integration\RecurDyn\Test.opy**

Generate ASCII-Files in RecurDyn
In the model "suspension.rdyn", all parameters have to be defined and checked in as *Parametric Values*. Then export all parametric values to the ASCII-file (here: DP.rpv)

```
!==== RecurDyn Parametric Value ============
A_x = -4.5
A_y = 425.
A_z = -129.
B_x = -4.
```

In the generated RecurDyn Design Parameter file (DP.rdp), input the name of the parametric values file (here DP.rpv):

```
!===== RecurDyn Design Parameter ================
!--------- Main System ----------------------------------------------------
#MAIN_SYSTEM
,NAME = Model1
,PARAMETRIC_VALUE = DP.rpv
```

The scenario file (here DP.rss) for simulation containing kind of integration and simulation time has to be generated manually:

```
INT/IMG, HMAX = 0.01, ERR = 0.005, NDA = 0.8, KMAX = 2
SIM/DYN, END = 18, STEP = 18
STOP
```

The *Performance Index* has to be defined in the RecurDyn model for optimization. In the analysis setting, the performance index has to be export to the RPI-file as results files after simulation (here. suspension.RPI)

```
!==== RecurDyn Performance Index ===============
!------------------------------ Model1 -----------------------------------
NAME =Min_Yaw
,VALUE=-0.28276
```

Setting in OptiY
The generated ASCII-Files are embedded in OptiY as Input- and Output-File. Extern Script (DOS-Batch) starting the simulation contains following code:

"C:\Program Files\FunctionBay, Inc\RecurDyn V7 R1\Bin\recurdyn.exe" "suspension.rdyn" /rdp DP.rdp /rss DP.rss

The path and the name of your specific files should be correct for your computer.