printme

September 30, 2024

[1]:
```python
from casadi import *
```

[2]:
```python
a = SX.sym("a")
b = SX.sym("b")
```

[3]:
```python
c = a+b
c = c.printme(13)
```

[4]:
```python
d = c**2
```

[5]:
```python
print(d)
```

```
sq(printme((a+b),13))
```

[6]:
```python
f = Function("f", [a,b],[d])
```

When the graph is evaluated, a printout of c will occur (if you have set WITH_PRINTME to ON in CMakeCache.txt) Printout reads '|> 13: 7' 13 is an identifier of choice, 7 is the numerical value

of c

```
[7]: f(4,3)
```

|> 13 : 7.0000000000000000e+00

[7]: DM(49)

```
[8]: dd_da = jacobian(d, a)
     J = Function('J', [a,b], [dd_da])
```

The first derivative still depends on c Printout reads '|> 13: 11'

```
[9]: J(2,9)
```

|> 13 : 1.1000000000000000e+01

[9]: DM(22)

```
[10]: d2d_da2 = jacobian(dd_da, a)
      J = Function('J', [a,b], [d2d_da2])
```

second derivative doesn't, so we don't get a printout

```
[11]: J(2,9)
```

[11]: DM(2)