printme

April 18, 2023

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

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

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

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

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

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

[6]:
```
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)