```
D: |a> |b> |c> |d> (c1) (c2) [O1] [O2] [U]
M: a=[1;0]; b=[0;1];
M: c1=0.8; c2=0.6;
  |a>
  |b>
  |c> = c1 |a> + c2|b>
  |d> = c2 |a> -  c1|b>
  <c|d>
  <c|c>
 |c><c| a>
  <c|c>
 (|c><c|)| a>
  (|c><c|)|b>
 |c><c|
 <c|a>
 O1=|c><c|
 O2=|d><d|
 O2|a>
 (O1+O2)|a>
D:  [U]
M: U=eye(2)
D: [sig2]
M: sig2=[0 1;1 0]
M: U=eye(2)
D: [sig2]
M: sig2=[0 1;1 0]
exp(i sig2)
cos(1) U + i sin(1) sig2 - exp(i sig2) % errors in older version; O.K. now
M: format short e
U cos(1) + i sig2 sin(1) - exp(i sig2)
O1 = |a><b| + |b><a|
```