```
1    A inst A1
2    A send C
3    B send A
4    A recv B
5    A inst A2
6    A send D
7    B inst B1
8    C inst C1
9    C inst C2
10   C recv A
11   C inst C3
12   C send B
13   B recv C
14   B inst B2
15   D inst D1
16   D recv A
17   D send A
18   A recv D
19   A inst A3
20   D inst D2
21   D send B
22   B recv D
```