

Reactor 初期検討

```
In [1]: from ReactorDB import ReactorDB
        from Reaction import *
```

基本動作確認

まずはReactor DBに接続接続

```
In [2]: reactor = ReactorDB("reactorTest")
```

次に、登場人物のユーザ登録を行う。

(一郎、二郎、三郎、四郎、五郎、花子)

```
In [3]: reactor.addUser('ichiro', 'pass')
        reactor.addUser('jiro', 'pass')
        reactor.addUser('saburo', 'pass')
        reactor.addUser('shiro', 'pass')
        reactor.addUser('goro', 'pass')
        reactor.addUser('hanako', 'pass')
```

```
Out[3]: ObjectId('54da355a0661212c263ccc70')
```

ログインしてユーザIDを取得

```
In [4]: ichiro = reactor.checkUser('ichiro', 'pass')
        jiro = reactor.checkUser('jiro', 'pass')
        saburo = reactor.checkUser('saburo', 'pass')
        shiro = reactor.checkUser('shiro', 'pass')
        goro = reactor.checkUser('goro', 'pass')
        hanako = reactor.checkUser('hanako', 'pass')
```

ではまず、SeedとなるReactionを作成。

太郎君が「今日いい天気だね、どう思う？」と議題を提出。

```
In [5]: a = reactor.addReaction( Reaction(  
    { '_id' : None,  
      'time' : None,  
      'author_id' : ichiro,  
      'author_name' : None,  
      'target_id' : None,  
      'reactionFactor' : 0.0,  
      'comment' : "It's fine today, don't you think so?",  
      'evaluation' : EVAL_NEUT,  
  
      'strReactionIdList' : " })))
```

Start adding reaction : None(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (None:0.00)

BCC start!

update RF : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:0.00)

Cherry score.

temp reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:1.20)

No target anymore.

BCC done

add complete : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:1.20)

次郎くんがすかさず同意する。

```
In [6]: b = reactor.addReaction(Reaction(
        { '_id' : None,
          'time' : None,
          'author_id' : jiro,
          'author_name' : None,
          'target_id' : a,
          'reactionFactor' : 0.0,
          'comment' : "Year, good weather",
          'evaluation' : EVAL_PROS,
          'strReactionIdList' : " })))
```

Start adding reaction : None(54da355a0661212c263ccc6c) > "Year, good weather" @ 2015/02/11 01:44:11 (None:0.00)

BCC start!

update RF : jiro(54da355a0661212c263ccc6c) > "Year, good weather" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc72:0.00)

Cherry score.

temp reaction : jiro(54da355a0661212c263ccc6c) > "Year, good weather" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc72:1.44)

target reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:1.20)

new reaction id list : [ObjectId('54da355b0661212c263ccc72')]

update RF : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:1.20)

temp reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:3.27)

No target anymore.

BCC done

add complete : jiro(54da355a0661212c263ccc6c) > "Year, good weather" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc72:1.44)

```
In [7]: print reactor.getReaction(a).strFormat()
        print reactor.getReaction(b).strFormat()
```

ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:3.27)

jiro(54da355a0661212c263ccc6c) > "Year, good weather" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc72:1.44)

引用を受けた太郎くんのRF : Reaction Factorが次郎君より高い。

今度は三郎君が異議を唱える。

```
In [8]: c = reactor.addReaction(Reaction(
        { '_id' : None,
          'time' : None,
          'author_id' : saburo,
          'author_name' : None,
          'target_id' : a,
          'reactionFactor' : 0.0,
          'comment' : "I don't think so",
          'evaluation' : EVAL_CONS,
          'strReactionIdList' : " })))
```

Start adding reaction : None(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:11 (None:0.00)

BCC start!

update RF : saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc73:0.00)

Cherry score.

temp reaction : saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc73:1.44)

target reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:3.27)

new reaction id list : [ObjectId('54da355b0661212c263ccc72'), ObjectId('54da355b0661212c263ccc73')]

update RF : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:3.27)

temp reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:5.35)

No target anymore.

BCC done

add complete : saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc73:1.44)

分からない、という四郎君がしゃしゃり出てくる。

```
In [9]: d = reactor.addReaction(Reaction(
        { '_id' : None,
          'time' : None,
          'author_id' : shiro,
          'author_name' : None,
          'target_id' : a,
          'reactionFactor' : 0.0,
          'comment' : "I don't know, coz I'm inside whole day",
          'evaluation' : EVAL_NEUT,
          'strReactionIdList' : " })
print reactor.getReaction(a).strFormat()
print reactor.getReaction(d).strFormat()
```

```
Start adding reaction : None(54da355a0661212c263ccc6e) > "I don't know, coz I'
m inside whole day" @ 2015/02/11 01:44:11 (None:0.00)
BCC start!
update RF : shiro(54da355a0661212c263ccc6e) > "I don't know, coz I'm inside wh
ole day" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc74:0.00)
Cherry score.
temp reaction : shiro(54da355a0661212c263ccc6e) > "I don't know, coz I'm inside
whole day" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc74:1.20)
target reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you
think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:5.35)
new reaction id list : [ObjectId('54da355b0661212c263ccc72'), ObjectId('54da355
b0661212c263ccc73'), ObjectId('54da355b0661212c263ccc74')]
update RF : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think
so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:5.35)
temp reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you t
hink so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:6.79)
No target anymore.
BCC done
add complete : shiro(54da355a0661212c263ccc6e) > "I don't know, coz I'm inside
whole day" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc74:1.20)
ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 201
5/02/11 01:44:11 (54da355b0661212c263ccc71:6.79)
shiro(54da355a0661212c263ccc6e) > "I don't know, coz I'm inside whole day" @ 2
015/02/11 01:44:11 (54da355b0661212c263ccc74:1.20)
```

反対意見でも、分からないという意見でも、太郎君のSeedのReaction Factorはぐんぐん上昇。

寡黙な五郎君が黙って太郎くんに反対する。

```
In [16]: e = reactor.addReaction(Reaction(
        { '_id' : None,
          'time' : None,
          'author_id' : goro,
          'author_name' : None,
          'target_id' : a,
          'reactionFactor' : 0.0,
          'comment' : "",
          'evaluation' : EVAL_CONS,
          'strReactionIdList' : " })
print reactor.getReaction(a).strFormat()
print reactor.getReaction(e).strFormat()
```

```
Start adding reaction : None(54da355a0661212c263ccc6f) > "" @ 2015/02/11 0
1:49:25 (None:0.00)
BCC start!
update RF : goro(54da355a0661212c263ccc6f) > "" @ 2015/02/11 01:49:25 (54
da36950661212c263ccc77:0.00)
Cherry score.
temp reaction : goro(54da355a0661212c263ccc6f) > "" @ 2015/02/11 01:49:25
(54da36950661212c263ccc77:1.20)
target reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you
think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:13.29)
new reaction id list : [ObjectId('54da355b0661212c263ccc72'), ObjectId('54da355
b0661212c263ccc73'), ObjectId('54da355b0661212c263ccc74'), ObjectId('54da
355b0661212c263ccc75'), ObjectId('54da355b0661212c263ccc73'), ObjectId('5
4da36950661212c263ccc77')]
update RF : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think
so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:13.29)
temp reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you t
hink so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:14.73)
No target anymore.
BCC done
add complete : goro(54da355a0661212c263ccc6f) > "" @ 2015/02/11 01:49:25
(54da36950661212c263ccc77:1.20)
ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 201
5/02/11 01:44:11 (54da355b0661212c263ccc71:14.73)
goro(54da355a0661212c263ccc6f) > "" @ 2015/02/11 01:49:25 (54da3695066
1212c263ccc77:1.20)
```

五郎君の無言の異議でも太郎くんのReaction Factorは上昇しているのがわかる。

太郎君の発言に対するReaction Listを列举してみる。

```
In [17]: for r_id in reactor.getReaction(a).reactionIdList:
        print reactor.getReaction(r_id).strFormat()

jiro(54da355a0661212c263ccc6c) > "Year, good weather" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc72:1.44)
saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc73:3.51)
shiro(54da355a0661212c263ccc6e) > "I don't know, coz I'm inside whole day" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc74:1.20)
goro(54da355a0661212c263ccc6f) > "" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc75:1.20)
saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc73:3.51)
goro(54da355a0661212c263ccc6f) > "" @ 2015/02/11 01:49:25 (54da36950661212c263ccc77:1.20)
```

多階層Reaction

こんどは、異議を唱えた三郎君に花子さんが同調する。

```
In [18]: f = reactor.addReaction(Reaction(
        { '_id' : None,
          'time' : None,
          'author_id' : hanako,
          'author_name' : None,
          'target_id' : c,
          'reactionFactor' : 0.0,
          'comment' : "Me too. It's cloudy today.",
          'evaluation' : EVAL_PROS,
          'strReactionIdList' : " })
        print reactor.getReaction(a).strFormat()
        print reactor.getReaction(c).strFormat()
        print reactor.getReaction(f).strFormat()
```

```

Start adding reaction : None(54da355a0661212c263ccc70) > "Me too. It's cloudy
today." @ 2015/02/11 01:49:30 (None:0.00)
BCC start!
update RF : hanako(54da355a0661212c263ccc70) > "Me too. It's cloudy today." @
2015/02/11 01:49:30 (54da369a0661212c263ccc78:0.00)
Cherry score.
temp reaction : hanako(54da355a0661212c263ccc70) > "Me too. It's cloudy today
." @ 2015/02/11 01:49:30 (54da369a0661212c263ccc78:1.44)
target reaction : saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 201
5/02/11 01:44:11 (54da355b0661212c263ccc73:3.51)
new reaction id list : [ObjectId('54da355b0661212c263ccc76'), ObjectId('54da369
a0661212c263ccc78')]
update RF : saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02
/11 01:44:11 (54da355b0661212c263ccc73:3.51)
temp reaction : saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015
/02/11 01:44:11 (54da355b0661212c263ccc73:5.59)
target reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you
think so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:14.73)
new reaction id list : [ObjectId('54da355b0661212c263ccc72'), ObjectId('54da355
b0661212c263ccc73'), ObjectId('54da355b0661212c263ccc74'), ObjectId('54da
355b0661212c263ccc75'), ObjectId('54da355b0661212c263ccc73'), ObjectId('5
4da36950661212c263ccc77'), ObjectId('54da355b0661212c263ccc73')]
update RF : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think
so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:14.73)
temp reaction : ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you t
hink so?" @ 2015/02/11 01:44:11 (54da355b0661212c263ccc71:22.77)
No target anymore.
BCC done
add complete : hanako(54da355a0661212c263ccc70) > "Me too. It's cloudy today
." @ 2015/02/11 01:49:30 (54da369a0661212c263ccc78:1.44)
ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 201
5/02/11 01:44:11 (54da355b0661212c263ccc71:22.77)
saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:1
1 (54da355b0661212c263ccc73:5.59)
hanako(54da355a0661212c263ccc70) > "Me too. It's cloudy today." @ 2015/02/
11 01:49:30 (54da369a0661212c263ccc78:1.44)

```

花子さんが同意したことで、太郎君、三郎君のRFも上昇している。

Reaction Chain

花子さんの発言をさかのぼり、太郎君→三郎君→花子さんの発言を全て表示してみる。

```
In [19]: chain = reactor.getReactionChain( reactor.getReaction(f) )
```

```
In [20]: for r in reversed(chain):
          print r.strFormat()
```

```

ichiro(54da355a0661212c263ccc6b) > "It's fine today, don't you think so?" @ 201
5/02/11 01:44:11 (54da355b0661212c263ccc71:22.77)
saburo(54da355a0661212c263ccc6d) > "I don't think so" @ 2015/02/11 01:44:1
1 (54da355b0661212c263ccc73:5.59)
hanako(54da355a0661212c263ccc70) > "Me too. It's cloudy today." @ 2015/02/
11 01:49:30 (54da369a0661212c263ccc78:1.44)

```


