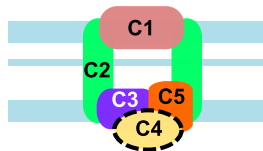
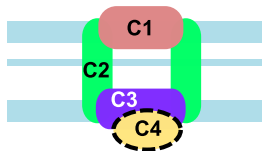


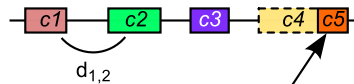
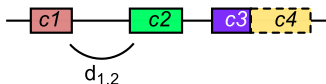
## system A

## system B

Macromolecular  
system



Genomic context



system B-specific

quorum rules

co-localization rules

system A	system B
C1	C1
C2	C2
C3	C3
(C4)	(C4)
<del>C5</del>	C5
$d_{i,j} < D_A$	$d_{i,j} < D_B$

System description

A.xml

```
<system inter_gene_max_space="DA" min_genes_required="n">
  <gene name="c1" presence="mandatory"/>
  <gene name="c2" presence="mandatory"/>
  <gene name="c3" presence="mandatory"/>
  <gene name="c4" presence="allowed"/>
  <gene name="c5" presence="forbidden" system_ref="B"/>
</system>
```

B.xml

```
<system inter_gene_max_space="DB">
  <gene name="c1" presence="mandatory"/>
  <gene name="c2" presence="mandatory"/>
  <gene name="c3" presence="mandatory"/>
  <gene name="c4" presence="allowed"/>
  <gene name="c5" presence="mandatory"/>
</system>
```