



## **Leidraad VISI-systematiek versie 1.4**

<b>Bijlage 7</b> <b>Richtlijn voor 'Successor'</b>
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### **Normatief**

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## 1 Rules for 'Successor'

For a correct interpretation of all the possibilities of a successor certain rules need to be followed. First the do's and don't's are presented, followed by some examples.

### 1.1 *A successor has always the SAME ROLE*

If 'B' is a successor of 'A' then 'B' must have the SAME role as 'A'.

### 1.2 *A successor can NEVER be changed*

If 'A' has a successor 'B' then 'B' will ALWAYS be the successor of 'A'. Later on 'C' cannot be the successor of 'A', but can become the successor of 'B'.

### 1.3 *NO LOOP of successors*

If 'B' is a successor of 'A' then 'A' cannot be a successor of 'B'.

### 1.4 *A successor of a successor is allowed*

At first 'B' is a successor of 'A'. But after some time 'B' can also have a successor. Theoretically such a chain of successors can be unlimited, but it can never become a loop.

Keep in mind that following situation can occur:

- (1) 'A' starts transaction T1;
- (2) 'B' becomes a successor of 'A';
- (3) 'B' replies and sends a messages in transaction T1;
- (4) 'B' starts transaction T2;
- (5) 'C' becomes a successor of 'B';
- (6) 'C' replies and sends messages in transaction T1 and T2.

Maybe later on 'D' will become a successor of 'C' then 'D' will be responsible for T1 and T2 (if T1 and T2 are not finished). 'A' cannot be the successor of 'C'.

### 1.5 *A successor of several persons (in role)*

'B' can become the successor of several persons (in role). In this case 'B' will be responsible for all open transactions of all predecessors.

### 1.6 *A predecessor can NOT start a transaction*

A PersonInRole with a successor (=predecessor) is not an active member of the project and therefore cannot start a new transaction.

### 1.7 *A PersonInRole with a successor can NOT send a message*

A PersonInRole with a successor (=predecessor) is not an active member of the project and therefore cannot send a message.



## 1.8 An initiator and executor of a transaction will NEVER change

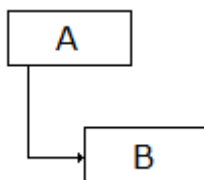
For example 'A' starts a new transaction T1 and sends a message to 'B'. The VISI xml-message will contain 'A' as the initiator and 'B' as the executor.

When 'C' becomes the successor of 'B' and replies on behalf of 'B'. The VISI xml-message will contain 'A' as the initiator and 'B' as the executor. 'C' is also included, but only as the successor of 'B'.

## 2 Examples

### 2.1 Example 1

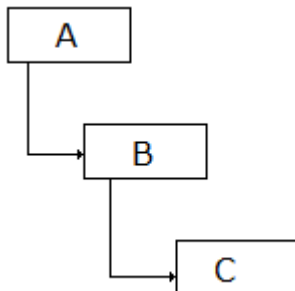
Most simple case is when 'B' is a successor of 'A'. It can be displayed like this:



The following notation is used to show that 'B' is a successor of 'A':

$A \rightarrow B$

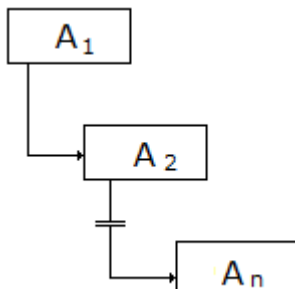
'B' also can have a successor and the diagram will look like this:



This can be written like:

$A \rightarrow B \rightarrow C$

In common case the "successor-predecessor" diagram can be displayed like:



Or:

$A_1 \rightarrow A_2 \rightarrow \dots \rightarrow A_n$

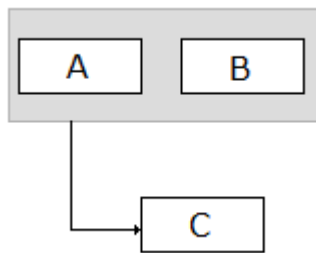
Where:

$A_1 \neq A_2 \neq \dots \neq A_n$



## 2.2 Example 2

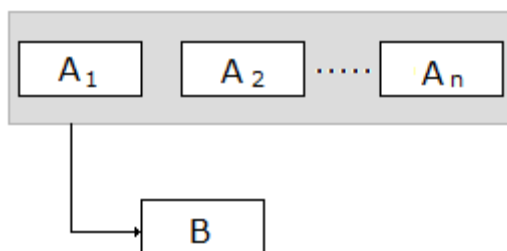
'C' can become the successor of several persons (in role). In a diagram:



Or:

$(A; B) \rightarrow C$

In common case the "successor-predecessor" diagram can be displayed like:



Or:

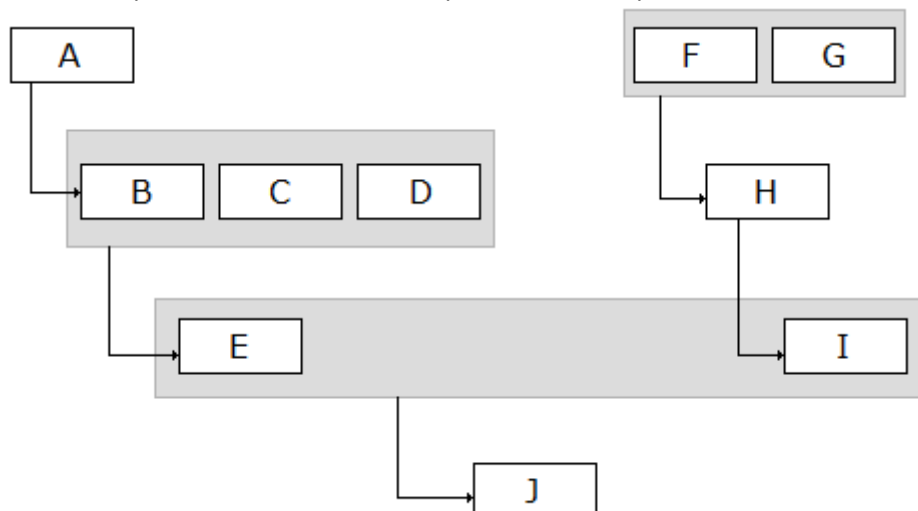
$(A_1; A_2; \dots; A_n) \rightarrow B$

Where:

$A_1 \neq A_2 \neq \dots \neq A_n$

## 2.3 Example 3

A final example which shows how complex "successor-predecessor" relations can be:



Or:

$((A \rightarrow B; C; D) \rightarrow E; (F; G) \rightarrow H \rightarrow I) \rightarrow J$

In this example 'J' is responsible for all open transaction of 'A', 'B', ..., 'I'.

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