# < Repository > < Components >

## 15 SC + 2 SC + 1 SC

### SC\_Ball\_1\_N, SC\_Ball\_1\_S, SC\_Ball\_1\_C

### SC\_Ball\_2\_N, SC\_Ball\_2\_S, SC\_Ball\_2\_C

### SC\_Ball\_3\_N, SC\_Ball\_3\_S, SC\_Ball\_3\_C

### SC\_Field\_1\_N, SC\_Field\_1\_C

### SC\_Field\_2\_N, SC\_Field\_2\_C

### SC\_Field\_3\_N, SC\_Field\_3\_C

### SC\_Btn\_Reset, SC\_Btn\_Exit, Container

## 6 CC + 2 CC

### CC\_Ball\_1, CC\_Ball\_2, CC\_Ball\_3

### CC\_Field\_1, CC\_Field\_2, CC\_Field\_3

### CC\_Balls, CC\_Fields

<?xml version='1.0' encoding='UTF-8'?>

<!DOCTYPE Repository [

<!ELEMENT Repository (Simple\_Component\*, Complex\_Component\*)+ >

<!ELEMENT Simple\_Component (Visual\_Appearance+) >

<!ATTLIST Simple\_Component

Name CDATA #REQUIRED

Visible (true | false) #REQUIRED

Active (true | false) #REQUIRED >

<!ELEMENT Visual\_Appearance (Graphic\* | Text\* | Enumeration\*)\* >

<!ELEMENT Graphic ((Rectangle | Line | Circle | Ellipse | Polygon)?, LineStyle?, LineTickness?, LineColor?, FillColor?, Position?, Size?, Data?) >

<!ELEMENT Rectangle (Coordinate, Coordinate) >

<!ELEMENT Line (Coordinate, Coordinate) >

<!ELEMENT Circle (Coordinate, Radius) >

<!ELEMENT Radius (#PCDATA) >

<!ELEMENT Ellipse (Coordinate, Coordinate, StartAngle, EndAngle) >

<!ELEMENT StartAngle (#PCDATA) >

<!ELEMENT EndAngle (#PCDATA) >

<!ELEMENT Polygon (Coordinate, Coordinate, Coordinate+) >

<!ELEMENT Coordinate (Px, Py) >

<!ELEMENT Px (#PCDATA) >

<!ELEMENT Py (#PCDATA) >

<!ELEMENT LineStyle EMPTY >

<!ATTLIST LineStyle

Style (continuous | discontinuous) #REQUIRED >

<!ELEMENT LineTickness (#PCDATA) >

<!ELEMENT LineColor (#PCDATA) >

<!ELEMENT FillColor (#PCDATA) >

<!ELEMENT Position (Fixed | Relative) >

<!ELEMENT Fixed (Coordinate) >

<!ELEMENT Relative (OpCRel?, Coordinate) >

<!ELEMENT OpCRel (Centered | (Justifyed, Justifyed?)) >

<!ELEMENT Centered EMPTY >

<!ATTLIST Centered

Type (horizontal | vertical | both) #REQUIRED >

<!ELEMENT Justifyed (#PCDATA) >

<!ATTLIST Justifyed

Type (left | right | top | bottom) #REQUIRED >

<!ATTLIST Graphic

InfI (true | false) #IMPLIED

InfO (true | false) #IMPLIED >

<!ELEMENT Text (Txt, Font, FontSize, FontColor, FontStyle, Position, Size) >

<!ELEMENT Txt (#PCDATA) >

<!ELEMENT Font (#PCDATA) >

<!ELEMENT FontSize (#PCDATA) >

<!ELEMENT FontColor (#PCDATA) >

<!ELEMENT FontStyle (#PCDATA) >

<!ELEMENT Size (ValueX, ValueY) >

<!ATTLIST Size

Type (fixed | relative) #REQUIRED >

<!ELEMENT ValueX (#PCDATA) >

<!ELEMENT ValueY (#PCDATA) >

<!ATTLIST Text

Name CDATA #REQUIRED

Visible (true | false) #REQUIRED

Active (true | false) #REQUIRED >

<!ELEMENT Enumeration (File, Size) >

<!ELEMENT File (#PCDATA) >

<!ELEMENT Data (Type?) >

<!ELEMENT Type (#PCDATA) >

<!ATTLIST Type

Longitude CDATA #IMPLIED

InfRank CDATA #IMPLIED

SupRank CDATA #IMPLIED

Decimal CDATA #IMPLIED >

<!ELEMENT Complex\_Component (Composition, CC\_States?, External\_Events?) >

<!ATTLIST Complex\_Component Name CDATA #REQUIRED >

<!ELEMENT Composition (SC?, CC?)+ >

<!ELEMENT SC (#PCDATA)>

<!ELEMENT CC (#PCDATA)>

<!ELEMENT CC\_States (CC\_State\*) >

<!ELEMENT CC\_State (Status+, Dialog\_State?) >

<!ATTLIST CC\_State

ID CDATA #REQUIRED

Visible (true | false) #REQUIRED

Active (true | false) #REQUIRED >

<!ELEMENT Status (SC\*, CC\*)+ >

<!ATTLIST SC

Name CDATA #IMPLIED

Visible (true | false) #IMPLIED

Active (true | false) #IMPLIED >

<!ATTLIST CC

Name CDATA #IMPLIED

Visible (true | false) #IMPLIED

Active (true | false) #IMPLIED >

<!ELEMENT External\_Events (Delegate\_Events?, Delegate\_Actions?) >

<!ELEMENT Dialog\_State (Self\_Evt\*) >

<!ELEMENT Self\_Evt (Preconditions?) >

<!ATTLIST Self\_Evt

ID CDATA #REQUIRED

Event CDATA #REQUIRED

Component CDATA #REQUIRED

Ini\_State CDATA #REQUIRED

End\_State CDATA #REQUIRED >

<!ELEMENT Delegate\_Events (Trigger\_DE+) >

<!ELEMENT Trigger\_DE (#PCDATA)>

<!ATTLIST Trigger\_DE

ID CDATA #REQUIRED

Component CDATA #IMPLIED

Ini\_State CDATA #REQUIRED

End\_State CDATA #REQUIRED >

<!ELEMENT Delegate\_Actions (Trigger\_DA+) >

<!ELEMENT Trigger\_DA (#PCDATA) >

<!ATTLIST Trigger\_DA

ID CDATA #REQUIRED

SELF\_STATE CDATA #REQUIRED

TO CDATA #REQUIRED

Trigger\_DE\_ID CDATA #REQUIRED >

<!ELEMENT Preconditions (Pre\_Cond\*) >

<!ELEMENT Pre\_Cond (#PCDATA) >

<!ATTLIST Pre\_Cond

Component CDATA #REQUIRED

State CDATA #REQUIRED >

]>

<Repository>

## Simple Components < SC\_Ball\_1\_N > < SC\_Ball\_1\_S > < SC\_Ball\_1\_C >

<Simple\_Component Name="SC\_Ball\_1\_N" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Foot\_Ball\_N\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Ball\_1\_S" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Foot\_Ball\_S\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Ball\_1\_C" Visible="false" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Foot\_Ball\_C\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

## Simple Components < SC\_Ball\_2\_N > < SC\_Ball\_2\_S > < SC\_Ball\_2\_C >

<Simple\_Component Name="SC\_Ball\_2\_N" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Basket\_Ball\_N\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Ball\_2\_S" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Basket\_Ball\_S\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Ball\_2\_C" Visible="false" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Basket\_Ball\_C\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

## Simple Components < SC\_Ball\_3\_N > < SC\_Ball\_3\_S > < SC\_Ball\_3\_C >

<Simple\_Component Name="SC\_Ball\_3\_N" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Golf\_Ball\_N\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Ball\_3\_S" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Golf\_Ball\_S\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Ball\_3\_C" Visible="false" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Golf\_Ball\_C\_70x70.png</File>

<Size Type="fixed">

<ValueX>70</ValueX>

<ValueY>70</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

## Simple Components < SC\_Field\_1\_N > < SC\_Field\_1\_C >

<Simple\_Component Name="SC\_Field\_1\_N" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Golf\_Field\_N\_132x96.png</File>

<Size Type="fixed">

<ValueX>132</ValueX>

<ValueY>96</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Field\_1\_C" Visible="false" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Golf\_Field\_C\_132x96.png</File>

<Size Type="fixed">

<ValueX>132</ValueX>

<ValueY>96</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

## Simple Components < SC\_Field\_2\_N > < SC\_Field\_2\_C >

<Simple\_Component Name="SC\_Field\_2\_N" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Foot\_Field\_N\_132x96.png</File>

<Size Type="fixed">

<ValueX>132</ValueX>

<ValueY>96</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Field\_2\_C" Visible="false" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Foot\_Field\_C\_132x96.png</File>

<Size Type="fixed">

<ValueX>132</ValueX>

<ValueY>96</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

## Simple Components < SC\_Field\_3\_N > < SC\_Field\_3\_C >

<Simple\_Component Name="SC\_Field\_3\_N" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Basket\_Field\_N\_132x96.png</File>

<Size Type="fixed">

<ValueX>132</ValueX>

<ValueY>96</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Field\_3\_C" Visible="false" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Basket\_Field\_C\_132x96.png</File>

<Size Type="fixed">

<ValueX>132</ValueX>

<ValueY>96</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

## Simple Components < SC\_Btn\_Reset > < SC\_Btn\_Exit >

<Simple\_Component Name="SC\_Btn\_Reset" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Btn\_Reset\_40x20.png</File>

<Size Type="fixed">

<ValueX>40</ValueX>

<ValueY>20</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

<Simple\_Component Name="SC\_Btn\_Exit" Visible="true" Active="true">

<Visual\_Appearance>

<Enumeration>

<File>Btn\_Exit\_40x20.png</File>

<Size Type="fixed">

<ValueX>40</ValueX>

<ValueY>20</ValueY>

</Size>

</Enumeration>

</Visual\_Appearance>

</Simple\_Component>

## Simple Component < Container >

<Simple\_Component Name="Container" Visible="true" Active="true">

<Visual\_Appearance>

<Graphic>

<Rectangle>

<Coordinate>

<Px>0</Px>

<Py>0</Py>

</Coordinate>

<Coordinate>

<Px>400</Px>

<Py>400</Py>

</Coordinate>

</Rectangle>

<LineStyle Style="continuous" />

<LineTickness>1</LineTickness>

<LineColor>000000</LineColor>

<FillColor>FFFFFF</FillColor>

<Size Type="fixed">

<ValueX>400</ValueX>

<ValueY>400</ValueY>

</Size>

</Graphic>

</Visual\_Appearance>

</Simple\_Component>

## Complex Component < CC\_Ball\_1 >

### Complex Component (containing only Simple Components)

This visual component has 3 possible visual states (one of them (Correct) is obtained after an event (TB\_3) be triggered from outside of this component (from other complex component)).

In maroon: are indicated 3 simple components used in this complex component.

In red: are indicated 2 self events.

In yellow/red: is indicated that is necessary to identify the event to trigger the self event (Event\_X).

In blue: is indicated a delegate event (to obtain the Correct state) received from other complex component (outside of this).

<Complex\_Component Name="CC\_Ball\_1">

<Composition>

<SC>SC\_Ball\_1\_N</SC>

<SC>SC\_Ball\_1\_S</SC>

<SC>SC\_Ball\_1\_C</SC>

</Composition>

<CC\_States>

<!-- Normal State of CC\_Ball\_1 -->

<CC\_State ID="0" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_1\_N" Visible="true" Active="true" />

<SC Name="SC\_Ball\_1\_S" Visible="false" Active="false" />

<SC Name="SC\_Ball\_1\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Ball\_1\_N **(TB\_1)** -->

<Self\_Evt ID="1" Event="Event\_X" Component="SC\_Ball\_1\_N" Ini\_State="0" End\_State="1" />

</Dialog\_State>

</CC\_State>

<!-- Selected state of CC\_Ball\_1 -->

<CC\_State ID="1" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_1\_N" Visible="false" Active="false" />

<SC Name="SC\_Ball\_1\_S" Visible="true" Active="true" />

<SC Name="SC\_Ball\_1\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Ball\_1\_S **(TB\_2)** -->

<Self\_Evt ID="2" Event="Event\_X" Component="SC\_Ball\_1\_S" Ini\_State="1" End\_State="0" />

</Dialog\_State>

</CC\_State>

<!-- Correct state of CC\_Ball\_1 -->

<CC\_State ID="2" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_1\_N" Visible="false" Active="false" />

<SC Name="SC\_Ball\_1\_S" Visible="false" Active="false" />

<SC Name="SC\_Ball\_1\_C" Visible="true" Active="false" />

</Status>

</CC\_State>

</CC\_States>

<External\_Events>

<Delegate\_Events>

<!-- Delegate Event (DE) received from external component (Field) **(TB\_3)** -->

<!-- if the CC\_Ball\_1 is in selected state -->

<Trigger\_DE ID="1" Ini\_State="1" End\_State="2" />

</Delegate\_Events>

</External\_Events>

</Complex\_Component>

## Complex Component < CC\_Ball\_2 >

### Complex Component (containing only Simple Components)

<Complex\_Component Name="CC\_Ball\_2">

<Composition>

<SC>SC\_Ball\_2\_N</SC>

<SC>SC\_Ball\_2\_S</SC>

<SC>SC\_Ball\_2\_C</SC>

</Composition>

<CC\_States>

<!-- Normal State of CC\_Ball\_2 -->

<CC\_State ID="0" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_2\_N" Visible="true" Active="true" />

<SC Name="SC\_Ball\_2\_S" Visible="false" Active="false" />

<SC Name="SC\_Ball\_2\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Ball\_2\_N **(TB\_1)** -->

<Self\_Evt ID="1" Event="Event\_X" Component="SC\_Ball\_2\_N" Ini\_State="0" End\_State="1" />

</Dialog\_State>

</CC\_State>

<!-- Selected state of CC\_Ball\_2 -->

<CC\_State ID="1" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_2\_N" Visible="false" Active="false" />

<SC Name="SC\_Ball\_2\_S" Visible="true" Active="true" />

<SC Name="SC\_Ball\_2\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Ball\_2\_S **(TB\_2)** -->

<Self\_Evt ID="2" Event="Event\_X" Component="SC\_Ball\_2\_S" Ini\_State="1" End\_State="0" />

</Dialog\_State>

</CC\_State>

<!-- Correct state of CC\_Ball\_2 -->

<CC\_State ID="2" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_2\_N" Visible="false" Active="false" />

<SC Name="SC\_Ball\_2\_S" Visible="false" Active="false" />

<SC Name="SC\_Ball\_2\_C" Visible="true" Active="false" />

</Status>

</CC\_State>

</CC\_States>

<External\_Events>

<Delegate\_Events>

<!-- Delegate Event (DE) received from external component (Field) **(TB\_3)** -->

<!-- if the CC\_Ball\_2 is in selected state -->

<Trigger\_DE ID="1" Ini\_State="1" End\_State="2" />

</Delegate\_Events>

</External\_Events>

</Complex\_Component>

## Complex Component < CC\_Ball\_3 >

### Complex Component (containing only Simple Components)

<Complex\_Component Name="CC\_Ball\_3">

<Composition>

<SC>SC\_Ball\_3\_N</SC>

<SC>SC\_Ball\_3\_S</SC>

<SC>SC\_Ball\_3\_C</SC>

</Composition>

<CC\_States>

<!-- Normal State of CC\_Ball\_3 -->

<CC\_State ID="0" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_3\_N" Visible="true" Active="true" />

<SC Name="SC\_Ball\_3\_S" Visible="false" Active="false" />

<SC Name="SC\_Ball\_3\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Ball\_3\_N **(TB\_1)** -->

<Self\_Evt ID="1" Event="Event\_X" Component="SC\_Ball\_3\_N" Ini\_State="0" End\_State="1" />

</Dialog\_State>

</CC\_State>

<!-- Selected state of CC\_Ball\_3 -->

<CC\_State ID="1" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_3\_N" Visible="false" Active="false" />

<SC Name="SC\_Ball\_3\_S" Visible="true" Active="true" />

<SC Name="SC\_Ball\_3\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Ball\_3\_S **(TB\_2)** -->

<Self\_Evt ID="2" Event="Event\_X" Component="SC\_Ball\_3\_S" Ini\_State="1" End\_State="0" />

</Dialog\_State>

</CC\_State>

<!-- Correct state of CC\_Ball\_3 -->

<CC\_State ID="2" Visible="true" Active="true">

<Status>

<SC Name="SC\_Ball\_3\_N" Visible="false" Active="false" />

<SC Name="SC\_Ball\_3\_S" Visible="false" Active="false" />

<SC Name="SC\_Ball\_3\_C" Visible="true" Active="false" />

</Status>

</CC\_State>

</CC\_States>

<External\_Events>

<Delegate\_Events>

<!-- Delegate Event (DE) received from external component (Field) **(TB\_3)** -->

<!-- if the CC\_Ball\_3 is in selected state -->

<Trigger\_DE ID="1" Ini\_State="1" End\_State="2" />

</Delegate\_Events>

</External\_Events>

</Complex\_Component>

## Complex Component < CC\_Field\_1 >

### Complex Component (containing only Simple Components)

This visual component has 2 possible visual states (after one of them (Correct) be obtained, an event over other complex component (outside of this) is triggered).

In maroon: are indicated 3 simple components used in this complex component.

In red: is indicated 1 self event.

In blue: is indicated a delegate event (to obtain the Correct state) received from other complex component (outside of this).

In yellow/red: is indicated that is necessary to identify the event to trigger the self event (Event\_X).

In yellow/red: is indicated that this component to be completed needs the identification of other component “Component\_X” and a state to be identified as the current state. If this state is the correct one, a delegate action “Trigger\_DA” will be triggered over the “Component\_X”.

<Complex\_Component Name="CC\_Field\_1">

<Composition>

<SC>SC\_Field\_1\_N</SC>

<SC>SC\_Field\_1\_C</SC>

</Composition>

<CC\_States>

<!-- Normal State of CC\_Field\_1 -->

<CC\_State ID="0" Visible="true" Active="true">

<Status>

<SC Name="SC\_Field\_1\_N" Visible="true" Active="true" />

<SC Name="SC\_Field\_1\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Field\_1\_N is produced if Component\_X is on -->

<!-- state X -->

<Self\_Evt ID="1" Event="Event\_X" Component="SC\_Field\_1\_N" Ini\_State="0" End\_State="1" >

<Preconditions>

<Pre\_Cond Component="Component\_X" State="X" />

</Preconditions>

</Self\_Evt>

</Dialog\_State>

</CC\_State>

<!-- Correct State of CC\_Field\_1 -->

<CC\_State ID="1" Visible="true" Active="false">

<Status>

<SC Name="SC\_Field\_1\_N" Visible="false" Active="false" />

<SC Name="SC\_Field\_1\_C" Visible="true" Active="false" />

</Status>

</CC\_State>

</CC\_States>

<External\_Events>

<Delegate\_Actions>

<!-- Pass from selected state to correct state and produces also an event -->

<!-- over Component\_X-->

<Trigger\_DA ID="1" SELF\_STATE="1" TO="Component\_X" Trigger\_DE\_ID="1" />

</Delegate\_Actions>

</External\_Events>

</Complex\_Component>

## Complex Component < CC\_Field\_2 >

### Complex Component (containing only Simple Components)

<Complex\_Component Name="CC\_Field\_2">

<Composition>

<SC>SC\_Field\_2\_N</SC>

<SC>SC\_Field\_2\_C</SC>

</Composition>

<CC\_States>

<!-- Normal State of CC\_Field\_2 -->

<CC\_State ID="0" Visible="true" Active="true">

<Status>

<SC Name="SC\_Field\_2\_N" Visible="true" Active="true" />

<SC Name="SC\_Field\_2\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Field\_2\_N is produced if Component\_X is on -->

<!-- state X -->

<Self\_Evt ID="1" Event="Event\_X" Component="SC\_Field\_2\_N" Ini\_State="0" End\_State="1" >

<Preconditions>

<Pre\_Cond Component="Component\_X" State="X" />

</Preconditions>

</Self\_Evt>

</Dialog\_State>

</CC\_State>

<!-- Correct State of CC\_Field\_2 -->

<CC\_State ID="1" Visible="true" Active="false">

<Status>

<SC Name="SC\_Field\_2\_N" Visible="false" Active="false" />

<SC Name="SC\_Field\_2\_C" Visible="true" Active="false" />

</Status>

</CC\_State>

</CC\_States>

<External\_Events>

<Delegate\_Actions>

<!-- Pass from selected state to correct state and produces also an event -->

<!-- over Component\_X-->

<Trigger\_DA ID="1" SELF\_STATE="1" TO="Component\_X" Trigger\_DE\_ID="1" />

</Delegate\_Actions>

</External\_Events>

</Complex\_Component>

## Complex Component < CC\_Field\_3 >

### Complex Component (containing only Simple Components)

<Complex\_Component Name="CC\_Field\_3">

<Composition>

<SC>SC\_Field\_3\_N</SC>

<SC>SC\_Field\_3\_C</SC>

</Composition>

<CC\_States>

<!-- Normal State of CC\_Field\_3 -->

<CC\_State ID="0" Visible="true" Active="true">

<Status>

<SC Name="SC\_Field\_3\_N" Visible="true" Active="true" />

<SC Name="SC\_Field\_3\_C" Visible="false" Active="false" />

</Status>

<Dialog\_State>

<!-- Self Event over SC\_Field\_3\_N is produced if Component\_X is on -->

<!-- state X -->

<Self\_Evt ID="1" Event="Event\_X" Component="SC\_Field\_3\_N" Ini\_State="0" End\_State="1" >

<Preconditions>

<Pre\_Cond Component="Component\_X" State="X" />

</Preconditions>

</Self\_Evt>

</Dialog\_State>

</CC\_State>

<!-- Correct State of CC\_Field\_3 -->

<CC\_State ID="1" Visible="true" Active="false">

<Status>

<SC Name="SC\_Field\_3\_N" Visible="false" Active="false" />

<SC Name="SC\_Field\_3\_C" Visible="true" Active="false" />

</Status>

</CC\_State>

</CC\_States>

<External\_Events>

<Delegate\_Actions>

<!-- Pass from selected state to correct state and produces also an event -->

<!-- over Component\_X-->

<Trigger\_DA ID="1" SELF\_STATE="1" TO="Component\_X" Trigger\_DE\_ID="1" />

</Delegate\_Actions>

</External\_Events>

</Complex\_Component>

## Complex Component < CC\_Balls >

### Complex Component (1 Simple Component and 3 Complex Components)

<Complex\_Component Name="CC\_Balls">

<Composition>

<SC>Container</SC>

<CC>CC\_Ball\_1</CC>

<CC>CC\_Ball\_2</CC>

<CC>CC\_Ball\_3</CC>

</Composition>

<External\_Events>

<Delegate\_Events>

<!-- Delegate Event (DE) received from external component **(TB\_3)** -->

<Trigger\_DE ID="1" Component="CC\_Ball\_1" Ini\_State="1" End\_State="2" />

<!-- Delegate Event (DE) received from external component **(TB\_3)** -->

<Trigger\_DE ID="2" Component="CC\_Ball\_2" Ini\_State="1" End\_State="2" />

<!-- Delegate Event (DE) received from external component **(TB\_3)** -->

<Trigger\_DE ID="3" Component="CC\_Ball\_3" Ini\_State="1" End\_State="2" />

</Delegate\_Events>

</External\_Events>

</Complex\_Component>

## Complex Component < CC\_Fields >

### Complex Component (1 Simple Component and 3 Complex Components)

<Complex\_Component Name="CC\_Fields">

<Composition>

<SC>Container</SC>

<CC>CC\_Field\_1</CC>

<CC>CC\_Field\_2</CC>

<CC>CC\_Field\_3</CC>

</Composition>

</Complex\_Component>

</Repository>