

XCIDATADEF - Data Definition

With an XCIDATADEF control, you can define data structures that are exchanged between a page and its adapter, but which are not visually represented on the page. Examples are Natural control variables, which can be assigned to controls on a page after they have been defined in an XCIDATADEF control. They are not visually represented on the page, but can be evaluated by the application to control the modification status of the page and its controls.

The XCIDATADEF control allows the definition of scalar variables, structures, arrays, structures of arrays and arrays of structures. When an adapter is generated from a page that contains one or more XCIDATADEF controls, corresponding Natural data structures are generated into the parameter data area of the adapter.

The following topics are covered below:

- Example
- Properties

Example

The following example shows several field controls and a grid control. It uses XCIDATADEF controls to define control variables and assigns these in various ways to the fields and grid elements of the page.

The screenshot shows a window titled "Control Variable Samples" with two sections. The first section, "Simple Field With Control Variable", contains two text input fields: "First Name:" and "Last Name:". The second section, "Grid With Control Variables", contains a table with four columns: "ID", "Last Name", and "First Name". The table has four rows, with the first row containing the values "1", "", and "" respectively.

The XML layout definition is:

```
<?xml version="1.0" encoding="UTF-8"?>
<natpage hotkeys="13;onEnter" natsource="CTRCV-A" natsinglebyte="true" natcv="cv-page"
  xmlns:njx="http://www.softwareag.com/njx/njxMapConverter">
  <titlebar name="Control Variable Samples">
  </titlebar>
  <pagebody takefullheight="true">
    <rowarea name="Simple Field With Control Variable">
      <itr>
        <label name="First Name:" width="80">
```

```

        </label>
        <field valueprop="firstname" width="200" njx:natcv="cv-firstname">
        </field>
        <hdist width="50">
        </hdist>
    </itr>
    <itr>
        <label name="Last Name:" width="80">
        </label>
        <field valueprop="lastname" width="200" njx:natcv="cv-lastname">
        </field>
    </itr>
</rowarea>
<rowarea name="Grid With Control Variables">
    <rowtablearea2 griddataprop="persons" rowcount="4" width="100%">
        <tr>
            <gridcolheader width="30" propref="selected">
            </gridcolheader>
            <gridcolheader name="ID" width="25%" propref="id">
            </gridcolheader>
            <gridcolheader name="Last Name" width="40%" propref="last">
            </gridcolheader>
            <gridcolheader name="First Name" width="35%" propref="first">
            </gridcolheader>
        </tr>
        <repeat>
            <str valueprop="selected">
                <selector valueprop="selected" singleselect="true">
                </selector>
                <field valueprop="id" width="25%" noborder="true"
                    transparentbackground="true">
                </field>
                <field valueprop="last" width="40%" noborder="true"
                    transparentbackground="true" njx:natcv="persons(*).cv-last">
                </field>
                <xcidatadef dataprop="cv-last" datatype="C">
                </xcidatadef>
                <field valueprop="first" width="35%" noborder="true"
                    transparentbackground="true" njx:natcv="cv-first(*)">
                </field>
            </str>
        </repeat>
    </rowtablearea2>
</rowarea>
<rowarea name="Description" height="100%">
    <itr takefullwidth="true" height="100%">
        <subpage valueprop="infopagename" height="100%" width="100%">
        </subpage>
    </itr>
</rowarea>
</pagebody>
<statusbar withdistance="false">
</statusbar>
<xcidatadef dataprop="cv-page" datatype="C">
</xcidatadef>
<xcidatadef dataprop="cv-firstname" datatype="C">
</xcidatadef>
<xcidatadef dataprop="cv-lastname" datatype="C">
</xcidatadef>
<xcidatadef dataprop="cv-first" datatype="C" array="true">
</xcidatadef>
</natpage>

```

The above example shows various ways in which control variables can be defined and assigned to controls:

- `cv-page` is a scalar control variable that is assigned to the page as a whole. In the application, it reflects the modification status of the entire page.
- `cv-firstname` and `cv-lastname` are scalar control variables that are assigned to the FIELD controls `firstname` and `lastname`. They reflect the modification status of the respective controls.
- `cv-last` is a control variable that is defined as an element of the grid `persons`. Consequently, it is implicitly an array and is assigned to the element `last` as `persons(*) .cv-last`. Each occurrence of `persons(*) .cv-last` reflects the modification status of the corresponding occurrence of `persons.last`.
- `cv-first` is an array of control variables that is defined outside the grid `persons`. Consequently, it is assigned to the element `first` as `cv-first(*)`. Each occurrence of `cv-first(*)` reflects the modification status of the corresponding occurrence of `persons.first`. Note the difference to the previous case: because `cv-first(*)` is defined outside the grid `persons`, it is not automatically resized together with `persons.first`. Resizing `cv-first(*)` appropriately is in the responsibility of the application program.

The corresponding adapter code looks as follows:

```

DEFINE DATA PARAMETER
/*( PARAMETER
1 CV-FIRST (C/1:*)
1 CV-FIRSTNAME (C)
1 CV-LASTNAME (C)
1 CV-PAGE (C)
1 FIRSTNAME (A) DYNAMIC
1 INFOPAGENAME (A) DYNAMIC
1 LASTNAME (A) DYNAMIC
1 PERSONS (1:*)
2 CV-LAST (C)
2 FIRST (A) DYNAMIC
2 ID (A) DYNAMIC
2 LAST (A) DYNAMIC
2 SELECTED (L)
/*) END-PARAMETER
END-DEFINE
...
/*( PROCESS PAGE
PROCESS PAGE (CV=CV-PAGE) U'/njxdemos/ctrlcontrolvar' WITH
PARAMETERS
NAME U'firstname'
VALUE FIRSTNAME (CV=CV-FIRSTNAME)
NAME U'infopagename'
VALUE INFOPAGENAME
NAME U'lastname'
VALUE LASTNAME (CV=CV-LASTNAME)
NAME U'persons(*).first'
VALUE PERSONS.FIRST(*) (CV=CV-FIRST(*))
NAME U'persons(*).id'
VALUE PERSONS.ID(*)
NAME U'persons(*).last'
VALUE PERSONS.LAST(*) (CV=PERSONS.CV-LAST(*))
NAME U'persons(*).selected'

```

```

VALUE PERSONS.SELECTED(*) (EM='false'/'true')
END-PARAMETERS
/ *) END-PROCESS
...

```

The example code is contained in the library SYSEXNJX as program CTRCV-P.

Properties

Basic			
dataprop	The XCIDATADEF control allows to create data structures for the processing side that are created in addition to data structures that are created by the normal controls. The DATAPROP represents the name of the data element that provides the content of the control.	Optional	
datatype	Data type of the data element. One of the list of valid values. Using the reserved word "type" you can nest multiple XCIDATADEF structures.	Optional	type xs:string xs:int xs:float xs:decimal xs:double xs:date xs:dateTime xs:time xs:byte xs:short ----- N n.n P n.n string n C
array	If set to true, the XCIDATADEF will be an array.	Optional	true false