



# **602XML Form**

Technical Specification Manual

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## Introduction

Forms designed in 602XML Designer application are based on the part of the XSL specification, namely on the XSL:FO formatting language; this language specifies how the XML data (form source) should be presented on-screen, or in which graphical format they should be printed. The XSL:FO language format is fully compliant with the XML standard. Thus individual XSL:FO objects (blocks, tables etc.) are source of form files, together with object properties (that are defined using WYSIWYG approach during form design) that appear as elements and their attributes in the XML format of the form source code.

```
- <fo:root inheritance="1" root="x1" xmlns:fo="http://www.w3.org/1999/XSL/Format">
+ <fm:formparams propsaveallinternaldata="true" requiredversion="2.50" form-id="1952529922" creationdate="2008-05-09"
  xmlcore-version="2.58" publisher="United States, US, user certificate, Software602 Inc., Software602 a.s., Brandon
  Sturgeon, 4530" xmlns:fm="http://software602.cz/forms">
- <fo:layout-master-set>
- <fo:simple-page-master master-name="all" page-height="11.00in" page-width="8.50in" margin-top="0in" margin-bottom="0in"
  margin-left="0in" margin-right="0in">
  <fo:region-body margin-top="0in" background-image="url
```



Document1.ZFO - 602XML Form Filler

File Edit View Data Tools Help

100%

### MINOR CONTRACTED SERVICE INVOICE

(Not to exceed \$500)

**Note:** This form may only be used, if the subcontractor is a **California Resident**, and a U. S. Citizen or Permanent Resident Alien. (All others must complete a "Request for Independent Contractor" Form")

**All information (including the 'Hold Harmless Waiver & Release' and 'Sworn Affidavit' on page 2) must be completed before payment can be made!**  
Invoice will be returned if not complete!

Name:   
(As it appears on your Social Security Card)

Mailing Address:

City:  State: **CA** Zip:

Social Security Number (SSN):   
(As it appears on your Social Security Card)

I swear under penalty of perjury that the following is true and correct:  
**Please initial:**

I am a US Citizen.  
Or  
 I am a Permanent Resident Alien (Green Card).

I am a Resident of the State of California.  
 I am not an employee of The University Corporation nor California State University, Northridge.

**I hereby invoice The University Corporation for the services described as follows:**

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## Description of XSL:FO

A 602XML form is composed of the following:

- Formatting elements from the <http://www.w3.org/1999/XSL/Format> namespace (**fo**).
- Form elements from the <http://software602.cz/forms> namespace (**fm**).

Formatting of the form document is fully compliant with the "Extensible Stylesheet Language (XSL), version 1.0" specification, in accordance with W3C recommendation, as published on October 15th, 2001. The XSL-FO specification is further extended by a set of attributes that represent form elements developed by Software602.

## Formatting Elements (fo)

The following table lists elements from the <http://www.w3.org/1999/XSL/Format> namespace that can be used in the form document.

- fo:flow
- fo:basic-link
- fo:list-block
- fo:list-item
- fo:list-item-body
- fo:list-item-label
- fo:table
- fo:table-column
- fo:table-body
- fo:table-row
- fo:multi-switch
- fo:multi-case
- fo:multi-toggle
- fo:multi-properties
- fo:multi-property-set
- fo:table-cell
- fo:character
- fo:instream-foreign-object
- fo:inline
- fo:leader
- fo:page-number
- fo:block
- fo:block-container
- fo:root
- fo:page-sequence

Exact specification is accessible at: <http://www.w3.org/TR/2001/REC-xsl-20011015>

## Form Elements (fm)

The following table lists fm elements from the <http://software602.cz/forms> namespace.

Element	Description
fm:form-params	A form contains always one such element at the first child element position within the fo:root element. It contains basic information on a form.
fm:barcode	It appears at the first child element position within the fo:instream-foreign-object element. The element content is a text or number that is displayed within given form in barcode format. Element attributes bear more detailed information on symbology and other barcode parameters.
fm:internal-graphic	Appears at the first child element position within the fo:instream-foreign-object element. The element content are picture binary data that is inserted into the form; these data are coded using the base64 coding.
fm:enum	An element containing all list entries stored within given form.
fm:list	An element indicating list box entries.
fm:condlist	An element indicating conditional list box entries.
fm:listitem	An item of List Box Entries
fm:template	An element containing transformations.
fm:help	An element containing help.
fm:formsettings	An element combining form properties, which will take effect during filling-in in the 602XML Filler application (e.g. toolbar appearance, permitted actions etc.)
fm:model	An element containing form data model.
fm:instance	This element contains form data record.
fm:bind	An element defining data binding, which is bound to data item from the data record.

In comparison with Extensible Stylesheet Language (XSL) version 1.0 specification mentioned above, a form document can contain following exceptions:

- the fo:page-sequence element contains at the most two fo:static-content elements (containing header, footer);
- the fo:static-content, fo:flow, fo:block-container elements can directly contain both text and inline elements;
- the fo:table-cell, fo:list-item-label, fo:list-item-body elements can be empty, they can directly contain both text and arbitrary block elements or inline elements;
- the fo:table elements have always the table-layout='fixed' attribute set.

## Attribute Overview

These attributes assume values according to the XSL:FO format specification.

- background
- background-color
- baseline-shift
- border
- border-after-color
- border-after-style
- border-after-width
- border-before-color
- border-before-style
- border-before-color
- border-bottom
- border-before-color
- border-bottom-style
- border-bottom-width
- border-color
- border-end-color
- border-end-style
- border-end-width
- border-left
- border-left-color
- border-left-style
- border-left-width
- border-right
- border-right-color
- border-right-style
- border-right-width
- border-start-color
- border-start-style
- border-start-width
- border-style
- border-top
- border-top-color
- border-top-style
- border-top-width
- border-width
- bottom
- break-before
- character
- color
- column-width
- active-state
- auto-restore
- case-name
- case-title
- clip
- content-height
- content-width
- display
- display-align
- extent
- external-destination
- flow-name
- font-family
- font-size
- font-style
- font-variant
- font-weight
- height
- id
- internal-destination
- language
- leader-alignment
- leader-length
- leader-pattern
- leader-pattern-width
- left
- linefeed-treatment
- line-height
- margin
- margin-bottom
- margin-left
- margin-right
- margin-top
- master-name
- master-reference
- Number-columns-repeated
- number-columns-spanned
- number-rows-spanned
- odd-or-even
- overflow
- padding
- padding-after
- padding-before
- padding-bottom
- padding-end
- padding-left
- padding-right
- padding-start
- padding-top
- page-break-after
- page-break-before
- page-break-inside
- page-height
- page-position
- page-width
- position
- provisional-distance-between-starts
- provisional-label-separation
- reference-orientation
- ref-id
- region-name
- rendering-intent
- right
- rule-style
- rule-thickness
- size
- space-after
- space-before
- space-end
- space-start
- span
- src
- start-indent
- starting-state
- switch-to
- table-layout
- text-align
- text-decoration
- text-transform
- top
- vertical-align
- visibility
- white-space
- white-space-collapse
- white-space-treatment
- width
- list-style
- list-style-type
- list-style-position
- lang

Learn more at <http://www.w3.org/TR/2001/REC-xsl-20011015>

## Attributes for Form Element Extension

The following table contains a list of attributes that extend the XSL-FO specification (<http://www.w3.org/1999/XSL/Format>). Form extensions are developed by Software602.

Attribute Name	Pertains to element	Type	Function	Value
form602repe	fo:block, fo:inline, fo:table-row	xsd:QName	Data document element name; it contains the content of form fields in the form section.	
form602	fo:block, fo:inline, fo:table-cell	xsd:QName	Data document element name; it contains form text field content.	
form602chkbx	fo:character	xsd:QName	Data document element name; it contains form check box content.	
form602radio	fo:character	xsd:QName	Data document element name; it contains form radio button content.	
form602list	fo:block, fo:inline, fo:table-cell	xsd:QName	Data document element name; it contains form list selected item content.	
form602indexlist	fo:block, fo:inline, fo:table-cell	xsd:QName	Data document element name; it contains selected item content from the form indexed list.	
form602date	fo:block, fo:inline, fo:table-cell	xsd:QName	Data document element name; it contains a date selected in the date entry field.	
form602number	fo:block, fo:inline, fo:table-cell	xsd:QName	Data document element name; it contains numerical content of the form number field.	
form602time	fo:block, fo:inline, fo:table-cell	xsd:QName	Data document element name; it contains time selected in the form time picker.	
form602format	fo:block, fo:inline, fo:table-cell, for which is set one of the following attributes form602date, form602time, form602number	xsd:string	Format for displayed date, time or number at specific form fields.	
form602state	Fo:character, which have	xsd:NMTOKEN	Indicates the	checked

	<b>simultaneously the <code>form602chkbx</code> or <code>form602radio</code> attribute</b>		checked state of a checkbox or of a form radio button.	
<code>form602on</code>	<b>fo:character, which have simultaneously the <code>form602chkbx</code> or <code>form602radio</code> attribute</b>	<code>xsd:string</code>	It contains data value of the check box or form radio button in the checked state.	
<code>form602off</code>	<b>fo:character, which have simultaneously the <code>form602chkbx</code> attribute</b>	<code>xsd:string</code>	It contains data value of the check box in the unchecked state.	
<code>form602datevalue</code>	<b>fo:block, fo:inline, fo:table-cell, which have simultaneously the <code>form602date</code> attribute</b>	<code>xsd:date</code>	It contains date value selected in the date picker field.	
<code>form602timevalue</code>	<b>fo:block, fo:inline, fo:table-cell, which have simultaneously the <code>form602time</code> attribute</b>	<code>xsd:time</code>	It contains data value selected in the time picker field.	
<code>form602lo</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	It enables edit field at the drop-down list.	
<code>form602romsg</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	Error message user listing at the read-only field.	
<code>form602badcharmsg</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	Error message user listing due to invalid character insertion.	
<code>form602maxchars</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:int</code>	Maximum number of characters in the text field.	
<code>form602help</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:QName</code>	Name of the context help tab	
<code>form602chars</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	Characters permitted in the text field	
<code>form602ct</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	Form control type	
<code>form602bind</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:QName</code>	It defines data binding, to which the form control is bound.	
<code>form602bindref</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:QName</code>	It defines data binding, which the form element is referencing.	
<code>form602trdata</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	It enables an automatic conversion of text field value – the first letter is uppercase.	True
<code>form602tooltip</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	Form control help	
<code>form602extern</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	It extends non-form object properties.	
<code>form602reference</code>	<b>fo:block, fo:inline, fo:table-cell</b>	<code>xsd:string</code>	It defines a reference point for	

			action currently taken.	
form602btnclick	fo:block, fo:inline, fo:table-cell	xsd:string	It defines action that should be taken if the button is pressed.	
form602onclick	fo:block, fo:inline, fo:table-cell	xsd:string	It defines action that should be taken if a value is entered into the form control.	
form602longfield	fo:block, fo:inline, fo:table-cell	xsd:string	It will enable a special editing field in the work pane for given form control.	Show
form602uchvbind	fo:block, fo:inline, fo:table-cell	xsd:string	It defines an auxiliary data binding where the form control is bound.	
form602uchtext	fo:block, fo:inline, fo:table-cell, which have simultaneously the form602uchvbind attribute	xsd:string	It defines text displayed at the user intervention selection option for the field with auxiliary data binding.	
form602uchtextdefault	fo:block, fo:inline, fo:table-cell, which have simultaneously the form602uchvbind attribute	xsd:string	It defines text displayed at the default action selection option for the field with auxiliary data binding.	

## Attributes of fm Elements

This table contains a list of attributes from the <http://software602.cz/forms> namespace.

Attribute Name	Pertains to element	Type	Function	Value
form-id	fm:formparams	xsd:base64Binary	check sum	mandatory
Lockstate	fm:formparams	xsd:string	Form locking	locked
Symbology	fm:barcode	xsd:NMTOKEN	Barcode symbology name	mandatory
Comment	fm:barcode	xsd:string	Text comment displayed over or under the barcode	
narrow-bar-width	fm:barcode	xsd:string	Bar width within the barcode	
barcode-height	fm:barcode	xsd:string	Barcode height	
narrow-to-wide-ratio	fm:barcode	xsd:string	Bar width ratio within the barcode	

orientation	fm:barcode	xsd:string	Barcode orientation	
text-color	fm:barcode	xsd:string	Color of displayed barcode associated text	
display-text	fm:barcode	xsd:string	Show barcode associated text	not, ontop
comment-on-bottom	fm:barcode	xsd:boolean	Show comment under barcode	true
bearer-bars	fm:barcode	xsd:boolean	Show frame around barcode	true
bar-width-reduction	fm:barcode	xsd:string	Bar width reduction ratio within the barcode	
quiet-zones	fm:barcode	xsd:boolean	Show empty area before and after the barcode	true
code39-full-ascii	fm:barcode	xsd:boolean		true
code39-hibc	fm:barcode	xsd:boolean	Use HIBC version for barcode of Code 39 symbology	true
Booklan	fm:barcode	xsd:boolean	Use for barcode symbology BookLan instead of EAN 8 or EAN 13	true
eanucc128	fm:barcode	xsd:boolean	Use for barcode symbology EAN/UCC instead of Code 128	true
display-start-stop-chars	fm:barcode	xsd:boolean	Display the leading and trailing text characters as * character in symbology Code 39.	true
optional-checkdigit	fm:barcode	xsd:boolean	Add one additional error control character into the barcode.	true
optional-checkdigit2	fm:barcode	xsd:boolean	Add two additional error control characters into the barcode.	true
display-check-digit	fm:barcode	xsd:boolean	Display error control characters in the barcode associated text.	true
auto-font-scaling	fm:barcode	xsd:boolean	Adjust automatically barcode associated text size.	true
adjust-to-printer-dpi	fm:barcode	xsd:boolean	Optimize barcode	true

			for pre-set printer resolution.	
imghsh	fm:internal-graphic	xsd:base64Binary	Binary data check sum of the displayed picture	In case when data are located directly in this element
imghshref	fm:internal-graphic	xsd:base64Binary	Binary data check sum of the displayed picture	In case when data are located in another fm:internal-graphic element
Id	fm:bind, fm:submit	xsd:string	Unambiguous identifier	string
Nodeset	fm:bind	xsd:string	XPath of data item for which a data binding is created	XPath
Calculate	fm:bind	xsd:string	A formula by which the binding value is calculated	String
Constraint	fm:bind	xsd:string	Expression defining whether the binding value is correct	String
Required	fm:bind	xsd:string	Expression defining whether the binding value is required	String
Relevant	fm:bind	xsd:string	Expression defining whether the binding value will be interpreted into the data record	String
ReadOnly	fm:bind	xsd:string	Expression defining whether the binding value is read-only	String
Constraintcomment	fm:bind	xsd:string	An error message for the case of data binding invalid value	String
Type	fm:bind	xsd:string	Data type of binding value.	String
Depends	fm:bind	xsd:string	A list of bindings upon which this value is dependent functionally	String
Method	fm:submit	xsd:string	Method that will be used for data submit	String
Validate	fm:submit	xsd:string	Perform	String

			validation on submit	
Cutnamespaces	fm:submit	xsd:string	Remove namespaces on data submit	String
Action	fm:submit	xsd:string		String
Sign	fm:submit	xsd:string	Attached electronic signature required	String
Signalgorithm	fm:submit	xsd:string	Electronic signature format	String
govtalk	fm:submit	xsd:string	Module implementing electronic submit	String

## References

Extensible Stylesheet Language (XSL)

Version 1.0

W3C Recommendation 15 October 2001

<http://www.w3.org/TR/2001/REC-xsl-20011015>