



ToolBook XML Format

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Introduction

In ToolBook, it is possible to represent a Book using XML. This creates opportunities to convert content in other formats, without recreating all of the objects and functionality in native format. Developers can now create tools, such as SumTotal's PowerPoint Plug-in, which convert from an initial format into ToolBook XML format. This XML can then be opened by ToolBook.

This document describes the basics of XML, XAML, and ToolBook XML (which is based on XML and XAML concepts). It describes how various objects in ToolBook are represented using XML elements and attributes. It also contains several examples of ToolBook XML files to help you get started. Those familiar with XML and XAML may want to jump ahead to the section "ToolBook XML and its Folder Structure".

Why XML? Why ToolBook XML?

XML (or Extensible Markup Language) is being increasingly used world-wide. With its clear, simple syntax, it is easy to read by humans and XML processors as well. There are many factors that have contributed to the ever-increasing popularity of XML. A few of these are listed below:

1. XML (or Extensible Markup Language) allows applications to communicate:
 - An application can create an XML file and another application can be used to read it
 - An application can save data to an XML file and another application can be used to modify it
2. XML can be read and edited by you:
 - An application can save data to an XML file and you may alter it

ToolBook XML uses the basics of XML and XAML to define data. Here are a few features of ToolBook XML:

1. ToolBook XML enables you to define ToolBook content, without having to use the ToolBook binary file format!
 - Your application can define a ToolBook book
 - ToolBook will read your XML file as long as you follow the basic rules of XML

How are XML and HTML Similar?

XML resembles HTML in a few key aspects, but differs in a few others.

XML is similar to HTML in the following aspects:

- XML contains elements (tags) and attributes, just like HTML. In fact, XHTML is one example of XML.
- It uses combinations of paired (or container) elements, e.g. <Book> </Book>, and unpaired elements, e.g. <Image />
- Well-formed XML never has an opening paired element without a matching closing element, and it never has overlapping pairs of elements.
- All whitespace (spaces, tabs, new lines) is ignored by XML readers. So you can format XML neatly.

XML differs from HTML in the following aspects:

- HTML's elements may look like the following: <HTML>, <HEAD>, <BODY>, <A>, ...
- XML's elements may look like ...absolutely anything! It all depends on the designer of the XML format.

Introduction to General XML Concepts

XML is a set of rules for building markup languages. It enables you to create your own elements by designing customized markup language for your own use. Markup language refers to information added to a document that enhances its meaning by identifying its parts and how they relate to each other. The main advantage of XML over HTML is that in HTML, all HTML elements you can use are pre-defined, whereas in XML, you can create your own markup language by defining your own tags.

An XML document is a basic unit of information and has to be well-formed. This means that it must contain one or more elements, and one element - the main element or the root element - must contain all other elements. Each element within another element must be nested correctly through the use of appropriate tags. Note that an XML document is not the same as a XML file. An XML document can exist in one file or in many files. XML uses markup to integrate the contents of different files to create a single document.

Let us look at some basic rules for markup in XML.

XML Declaration

This is a simple statement at the beginning of any XML document that says that it is an XML document and lists the version of XML being used. This is meant as an XML processing instruction to an XML processor that the document is marked up in XML.

Here's an example of an XML declaration:

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
```

You can set the following three properties in an XML declaration:

1. **version:** This is the XML version. Currently there is only one version, so the version number would always be 1.0. This is a required property if you include an XML declaration in your XML document.
2. **encoding:** This defines the character encoding used in the document such as UTF-8, an 8 bit condensed version of Unicode. This property is optional.
3. **standalone:** This tells the XML processor if there are other external files that need to be loaded. If the document does not refer to any external files, the value is set to "yes". This property is optional.

All XML declarations start with <? And end with?>. The XML declaration is located outside the root element or main element in an XML document.

Elements

XML documents are made up of XML elements. As is the case in HTML, XML elements are created using tags. They can contain plain text or other elements or both text and elements, and are characterized by the presence of opening and closing tags. There can be elements within elements, text within elements, and even empty elements. In each XML document, there is only one top-level element. Let us look at each characteristic of elements briefly.

Opening and closing tags

In XML, each element has an opening tag and a closing tag, as is the case with HTML. The only exception is in the case of elements that are defined to be empty – these consist of only one tag. You will look at empty elements in a later section.

A sample from an XML document is given below. The main element Document is defined within the following opening and closing tags as shown:

```
<Document>
</Document>
```

The closing tag has a "/" after the "<", as is the case with HTML.

Note that element names are case-sensitive and can't contain spaces. You can use any name for a tag, as long as the name starts with a letter or an underscore (_), and as long as the following characters consist of letters, digits, underscores, dots or hyphens.

There are two thumb rules to remember about tags:

1. The end tag must come after the start tag
2. An element's start and end tags must both be located within the same parent.

A single root element

Each well-formed XML document must have one root element (the <Document> element in the above example) and all other elements must be enclosed within the root element. In other words, the contents of an element are contained within the opening and closing tags as shown in the sample XML below.

```
<Document>
  <Greeting>
    Welcome!
  </Greeting>
</Document>
```

In the above example, the main element is <Document> and it contains another element <Greetings> within it.

Elements within elements, text within elements

An element can contain plain text (rather than other elements), or both text and elements.

Let us look at the following sample XML again:

```
<Document>
  <Greeting>
    Welcome!
  </Greeting>
</Document>
```

Notice that the main or root element is <Document> and within it, there is another element <Greeting>. The element <Greeting> in turn contains the following text "Welcome!"

Here's another sample:

```
<Document>
  <Greeting>
    Welcome!
  </Greeting>
  <Message>
    Explore the exciting world of XML.
  </Message>
</Document>
```

The above example contains two elements <Greeting> and <Message> within the main or root <Document>.

Empty elements

An element is called an "empty" element if it has only one tag.

Here's an example of an empty element:

```
<Button></Button>
```

This can be shortened to:

```
<Button/>
```

The "/" before the ">" indicates that this is an empty element, and there is no closing tag. For example, if the element <Message> in the example you looked at was empty, it would have looked like this in an XML document:

```
<Message Text="Explore the exciting world of XML."/>
```

Note that though an element can be 'empty', it can still have attributes. 'Empty' is just a way of describing the structure of an XML file (an element is an "empty" element if it doesn't contain child elements or text), but an empty element can be just as "complete" as a non-empty element. In other words, "Empty" doesn't imply that the element has no value. It's just an XML terminology to refer to an element that doesn't have any contents. We will look at attributes in the next section.

Attributes

Each element has attributes. An attribute is used to describe details about an element or define a property of an element. An attribute is always defined in the opening tag. Attributes in XML are quite similar to attributes in HTML – they are name-value pairs that let you specify additional data in starting and empty tags. An attribute consists of a property name, an equals sign and a value. Let's look at an example:

```
<Document
  size ="9000, 6000"
/>
```

In the snippet below, an attribute is used within an empty element:

```
<Message Text="Explore the exciting world of XML."/>
```

So Text is an attribute of the Message element, and has the following value "Explore the exciting world of XML". Attribute names are case-sensitive and can't contain spaces. An element can have any number of attributes, but no two attributes can have the same name.

You can use one attribute to hold all values. For instance if you are describing a main element called team:

```
<team persons="Tim Tam Tom">
```

Or you can use multiple attributes:

```
<team person1="Tim" person2="Tam" person3="Tom">
```

Or even use multiple elements:

```
<team>
  <person>Tim</person>
  <person>Tam</person>
  <person>Tom</person>
</team>
```

Namespaces

XML is designed so that different people can define XML elements, and these XML elements from different people could potentially be used in the same XML file. So what happens when the XML elements defined by you get mixed up with someone else's XML elements? When you want to include elements or attributes from different XML document types into the same XML file? How will an XML processor know which element is being referenced at a given point? To avoid naming conflicts, XML has the feature of namespaces.

Here's an example to illustrate this.

Microsoft uses XAML (which is Microsoft's version of XML) to define the User Interface in Vista. As part of that, Microsoft has defined a Button element to represent a button. Now a button in ToolBook

is very different from the button that is defined by Microsoft's Button element. However, the name of the element happens to be 'Button' in both cases. If you were to define both Button elements (the element as defined by Microsoft and the element as defined by ToolBook) in the same XML file, you would end up with name conflicts. The namespace feature of XML ensures that there is no ambiguity and that elements defined in XML have a unique identity.

A namespace can essentially be any string as long as no one else is using the same namespace. For example, you could use the namespace "urn:sumtotalsystems:toolbook.tbkx" - no other company is going to use that namespace, and no other product (other than ToolBook) within SumTotal is going to use it.

Once you have defined the namespace, you need a way in the XML file of indicating that a particular element belongs to a particular namespace (to differentiate between the ToolBook Button element and Microsoft's Button element, for example). To do this, you can prefix each element with its namespace. But that would result in XML that is lengthy and awkwardly-worded, so XML lets you define a prefix that you can use to indicate that a given element belongs to a given namespace. You will look at this in detail shortly.

Consider this sample XML (a hypothetical example, not a real one):

```
<tbkx:Page xmlns:tbkx="urn:sumtotalsystems:toolbook.tbkx"
xmlns:wpf="http://schemas.microsoft.com/winfx/2006/xaml/presentation">
  <tbkx:Button/>
  <wpf:Button/>
</tbkx:Page>
```

In the above example, two namespaces (xmlns means "xml namespace") are defined on the Page element - The first is "urn:sumtotalsystems:toolbook.tbkx" and the second is <http://schemas.microsoft.com/winfx/2006/xaml/presentation>

Those two namespace attributes (the two with "xmlns") on the page element are called "namespace declarations", and they are treated differently from other attributes (that is, they do not define a property of the element like other attributes do – rather they only describe what namespaces are being used).

Let us look at the syntax of a namespace declaration. The declaration is an attribute inside an element. A namespace declaration starts with the keyword xmlns, followed by a colon, a namespace prefix, an equals sign, and finally a URL in quotes.

```
<tbkx:Page xmlns:tbkx="urn:sumtotalsystems:toolbook.tbkx"
```

As seen above, the value of the xmlns: attribute is a URL, usually belonging to the organization that owns the namespace. URLs are used as namespaces because they tend to be unique to a company. However, the URL is not a link to anything, just a way of indicating a namespace.

Now for a closer look at the two Button elements in the sample xml. When we say "xmlns:tbkxl =..." we're saying that elements that have a "tbkx:" prefix are in the "urn:sumtotalsystems:toolbook.tbkx" namespace. So the first Button element is in the "urn:sumtotalsystems:toolbook.tbkx" namespace, and the second Button element is in the "http://schemas.microsoft.com/winfx/2006/xaml/presentation" namespace. So while they're both "Button" elements, they're different elements. Any XML processor would treat them as different elements, as if they had completely different names. You'd probably never actually use those two particular elements in the same XML file, but if you were to, then namespaces ensure the unique identity of each.

A namespace declaration applies to the element that contains it, and all its child elements. A child element may have its own namespace declaration, which could potentially override its parent element's namespace declaration.

If the majority of elements in an XML file are likely to belong to the same namespace, for better readability, you may not want to put a prefix in front of all of them, but use the concept of a "default namespace".

Let's revisit the above example, but change it slightly to the following:

```
<Page xmlns="urn:sumtotalsystems:toolbox.tbkx"
xmlns:wpf="http://schemas.microsoft.com/winfx/2006/xaml/presentation">
    <Button/>
    <wpf:Button/>
</Page>
```

If you notice, instead of specifying the prefix for the namespace, "xmlns:tbkx=..." it merely says "xmlns=..."

If you have a namespace declaration without specifying a prefix (as is the case with this example), then you are defining the Default Namespace. Any element that does not have a prefix will belong to this namespace.

From the point of view of how they should be interpreted by an XML processor, the following two XML files are identical:

```
<tbkx:Page xmlns:tbkx="urn:sumtotalsystems:toolbox.tbkx"
xmlns:wpf="http://schemas.microsoft.com/winfx/2006/xaml/presentation">
    <tbkx:Button/>
    <wpf:Button/>
</tbkx: Page>
```

And

```
<Page xmlns="urn:sumtotalsystems:toolbox.tbkx"
xmlns:wpf="http://schemas.microsoft.com/winfx/2006/xaml/presentation">
    <Button/>
    <wpf:Button/>
</Page>
```

They're identical because, when it comes to MEANING, it's the namespace that matters, not the prefix you use. In both examples, we have a Page element and a Button element in the "urn:sumtotalsystems:toolbox.tbkx" namespace and a Button element in the "http://schemas.microsoft.com/winfx/2006/xaml/presentation" namespace.

Consider the following example:

```
<Foo xmlns="namespace-one">
    <Bar xmlns="namespace-two"/>
</Foo>
```

In the example above, the Foo element is in the "namespace-one" namespace (as it has defined that as its default namespace, and it is not using a prefix), but the Bar element has overridden the default namespace for itself and any child elements it might have (which it doesn't in this example) to be "namespace-two".

Or this example:

```
<Foo xmlns="namespace-one">
    <Bar xmlns="namespace-two"/>
    <Bar/>
</Foo>
```

In this example, the first "Bar" element is in the "namespace-two" namespace, but the second "Bar" element is in the "namespace-one" namespace. This is because a namespace defined on an element only applies to THAT element and its CHILDREN. The second Bar element is NOT a child of the first Bar element (rather, it is a child of the Foo element), and so it takes on the default namespace defined by the Foo element.

Introduction to General XAML concepts

XAML (Extensible Application Markup Language) is a XML-based format that Microsoft has created. It is specifically geared toward user interface design and is on its way to becoming an industry standard for representing user interfaces. Basically, XAML defines a way to use XML to define an object model (which is what we're defining for ToolBook - objects with properties and child objects). While it does have many features in common with XML, some concepts are unique to XAML. One of these is the concept of "property elements". This is an XAML concept, which says that there are object elements and property elements, and that a property can be specified using either an attribute or a property element. ToolBook XML is a combination of XML and XAML concepts.

Defining Objects and Properties

In XAML, properties can usually be expressed as attributes. However, for some properties of an object element, it is not possible to define attributes. This might be because the object or information required to define the property cannot be expressed as a simple string. In such cases, a different syntax known as property element syntax can be used. Property element syntax sets the referenced property of the containing element with the content of the tag. The syntax for the property element itself is `<TypeName.Property>`. After specifying content in the property element, you must close the property element with a closing tag (with the tag `</TypeName.Property>`). For properties that can be defined as both attribute and property elements, it is preferable to define it as an attribute.

Here is an example that shows that the same properties of a button can be set through attributes as well as through property elements. Let us look at how the properties can be set through attributes first.

```
<Button Background="Black" Foreground="Red" Content="This is a magic button" />
```

Now, let us look at how the same information can be defined through using property elements.

```
<Button>
  <Button.Background>
    <SolidColorBrush Color="Black" />
  </Button.Background>
  <Button.Foreground>
    <SolidColorBrush Color="Red" />
  </Button.Foreground>
  <Button.Content>
    This is a magic button
  </Button.Content>
</Button>
```

If we were to look at the above example as XML, `<Button.Background>` would be a child element, with no other implied relationship to the Button element. In XAML, `<Button.Background>` directly implies that Background is a property of Button, being set by the contents of the property element. ToolBook XML makes extensive use of the property element for defining properties. For details, refer to the section on *Defining Objects and Properties in ToolBook*.

ToolBook XML and its Folder Structure

ToolBook XML consists of a series of XML files and supporting resources. There are two ways you can define a ToolBook book using XML:

1. As a set of files in a folder, or organized into a folder structure containing all of the required XML files and supporting resources
2. As a zipped archive (a compressed .tbkx file) containing XML files and supporting resources.

The contents of the zip file are the same as the contents of the main directory in the uncompressed directory structure. The zipped archive offers improved portability. To uncompress a ToolBook XML book, rename it to a zip file and open it using Windows Explorer or any zip program.

The starting point for the XML representation is the Book.xml file. All other files are referenced from within this file. No particular folder organization is enforced.

A sample folder structure of an uncompressed ToolBook XML file is shown in the screenshot below.

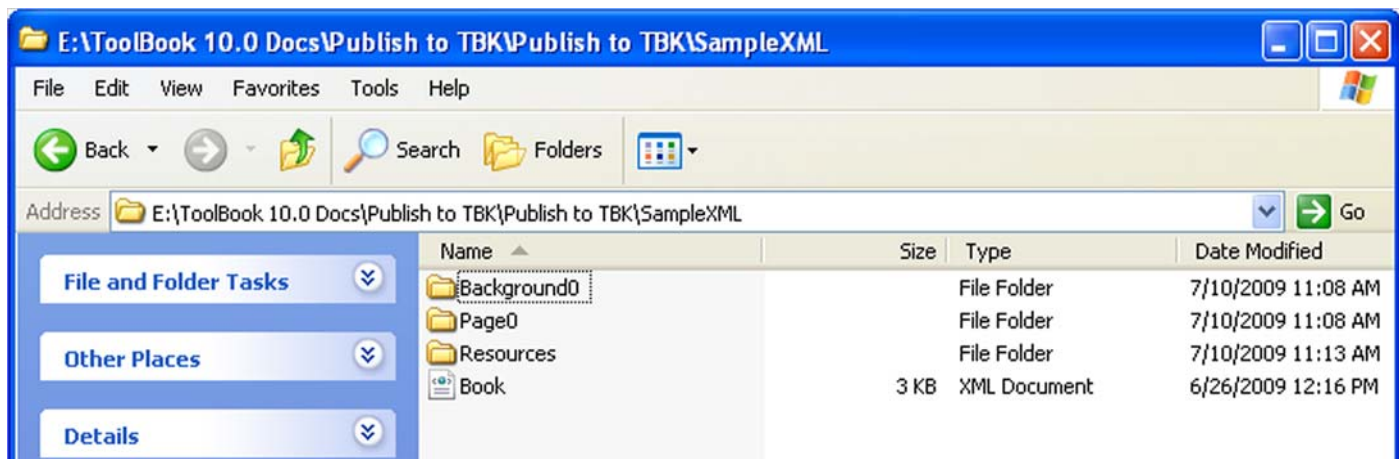


Figure 1: A sample folder structure of an uncompressed ToolBook XML book

You will look at this example directory structure in detail after you get acquainted with the various XML files and supporting resources that are present in this directory.

Types of ToolBook XML Files

There are two kinds of files in a ToolBook XML tree:

1. XML files—these are the actual descriptions of the book, pages, and backgrounds used in the book. There are three kinds of ToolBook XML files:
 - 1) Book.xml – one per book
 - 2) Background.xml – one for every background
 - 3) Page.xml – one for every page
2. Resource files—bitmaps, Shared Scripts, Icon files, Font files, and Menu files in the book

The Book.xml file is saved in the root folder of the directory. The page.xml and background.xml are saved in their own subfolders. Resource files such as Bitmaps, SharedScripts, and Icon resources are saved in a subfolder called Resources. Other resources, such as script files for pages and backgrounds and objects they contain, and source image files for graphics are stored within the page's directory, and not in the Book's directory.

Please note that the directory structure in the above example is not required or mandatory. It only happens to be the default directory structure that is used for the purpose of creating the examples of XML in this article.

The only requirement of the directory structure is that book.xml must be in the root directory. Book.xml specifies the location of all page and background XML files, and source files for resources, and the page and background XML files specify the location of any external files they use (these external files must be within the book's XML directory structure).

The Book.xml file

The Book element is the root element of Book.xml and there is only one for each ToolBook book. The Book.xml file defines properties of the book, references the page and background XML files, and references the resources and viewers in the book. In the next few sections, you will look at a few samples of Book.xml and learn how user properties are defined in ToolBook XML.

Given below is the simplest example of a Book.xml file:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<Book
  xmlns="urn:sumtotalsystems:toolbook.tbkx"
/>
```

Let's take a closer look at the syntax:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
```

This is a required line that tells the importer various bits of information about the following XML.

```
<Book
```

This is the beginning of the Book element. Everything within the <Book...> tag and the </Book> tag are properties of the book. In this case, there are none.

```
xmlns="urn:sumtotalsystems:toolbook.tbkx"
```

This is the default namespace definition indicating that the "<Book>" tag belongs to the namespace "urn:sumtotalsystems:toolbook.tbkx". If, for some reason, someone wanted to add another element in the file called "Book," but wanted it to mean something else, they could add it to a different namespace by entering "xmlns=myNameSpace." Then there would be two different elements called Book, which could be distinguished from each other by specifying the desired namespace.

By default, the following namespaces are also available (these are not included in the above example, because they are not strictly necessary):

```
xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
```

Sets "x" equal to another namespace. You will see in some examples an "x:Array" element - that is an element that is defined as part of Microsoft's XAML specification.

```
xmlns:sys="clr-namespace:System;assembly=mscorlib"
```

Sets "sys" equal to another namespace. It defines some standard .NET elements, which are mainly used for data types that match standard .NET data types ("sys:String" for text strings, for example).

In addition, there is another namespace for elements related to Actions in the Actions Editor, which uses the "ae" (for "Actions Editor") namespace. The actions editor namespace can be removed and made a part of the main namespace, without any change in meaning. It is represented as follows:

```
xmlns:ae="urn:sumtotalsystems:toolbook.tbkx.actions"
```

Suppose we wanted to specify a book property, Size, and set it equal to "12000, 9000" page units; the Book.xml would read as follows:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<Book
```

```

    Size="12000, 9000"
    xmlns="urn:sumtotalsystems:toolbook.tbkx"
  </Book>

```

Size is an attribute in the XML file that corresponds directly to the Size property of a ToolBook book. Note that the data is in page units, and is stored as a string containing a comma separating two numbers in XML.

Let us look at another sample XML:

```

<Book
  HotwordColor="240,50,100"
  HotwordStyle="underline"
  Size="9000,6000"
  xmlns="urn:sumtotalsystems:toolbook.tbkx"
  xmlns:ae="urn:sumtotalsystems:toolbook.tbkx.actions"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
  xmlns:sys="clr-namespace:System;assembly=mscorlib">
</Book>

```

In the sample Book.xml shown, in addition to the attribute of size, the main element Book has the following ToolBook Book properties defined in it: default Hotword properties of color and style. These predefined, built-in properties in ToolBook are defined in ToolBook XML as the attributes HotwordColor, and HotwordStyle, along with their corresponding values. For example, the default color of hotwords in the book is defined in the Book element as the attribute HotwordColor, with the value 240, 50,100.

Properties in ToolBook can also be defined by using property elements. The next section gives you an overview of defining property and object elements.

Defining Objects and Properties in ToolBook

Unlike XML, XAML (and hence ToolBook XML) can define properties as attributes or as property elements.

Consider the example below:

```

<Book
  HotwordColor="240,50,100"
  HotwordStyle="underline"
  Size="9000, 6000"
</Book>

```

The book property of the default color of Hotwords that is currently defined as the attribute HotwordColor, *could* also be defined as a property element.

In which case, the XML would look like this:

```

<Book HotwordStyle="underline" Size="9000, 6000">
  <Book.HotwordColor>240, 50,100</Book.HotwordColor>
</Book>

```

However, because the HotwordColor can be represented as a simple string, there is never any reason to use a property element, as it is much simpler to use an attribute.

Technically, in XAML, both the examples below have identical meaning:

```
<Book HotwordColor="240, 50,100" HotwordStyle="underline" Size="9000,
6000">
</Book>
```

And

```
<Book HotwordStyle="underline" Size="9000, 6000">
    <Book.HotwordColor>240, 50,100</Book.HotwordColor>
</Book>
```

Looking at the examples as XAML, you would say that both the "HotwordColor" attribute in the first example and the "Book.HotwordColor" element in the second example are defining a property of the book called "HotwordColor". As mentioned earlier, property elements are a concept specific to XAML.

Note that if you were looking at the above examples as XML, and not as XAML, then you would say that the Book element in the first example has an attribute called "HotwordColor" and the Book element in the second example contains a child element called "Book.HotwordColor".

Let us look at other property elements defined in the sample Book.xml shown below. Notice that the contents of the Book.xml include the various Property elements used in the book (elements that define property values) and Object elements (elements that define objects). Property elements in the example below are Book.Resources, Book.Viewers, Book.Pages, and Book.Backgrounds. Book, Bitmap, Page etc are examples of Object elements.

```
<Book HotwordColor="240,50,100" HotwordStyle="underline" Size="9000,6000">
  <Book.Resources>
    <Bitmap IdNumber="100" Source="Bitmap100.png"/>
    <Bitmap IdNumber="101" Source="Bitmap101.png"/>
  </Book.Resources>
  <Book.Viewers>
    <Viewer IdNumber="0"/>
  </Book.Viewers>
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
  </Book.Pages>
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0" Source="Background0\Background.xml"/>
  </Book.Backgrounds>
</Book>
```

The element Book.Resources is a property element that contains an element for each resource and clip in the book. In the above example, it has two object elements contained in it. Each of these object elements corresponds to an object in ToolBook and is defined by two attributes, name and value.

```
<Book.Resources>
  <Bitmap IdNumber="100" Source="Bitmap100.png"/>
  <Bitmap IdNumber="101" Source="Bitmap101.png"/>
</Book.Resources>
```

The two bitmaps in the above example, though empty, do have attributes in that they each define a particular bitmap in the book. The attributes for the two Bitmaps are IdNumber and Source, with corresponding values for each. Both these attributes are required; however, the attributes UseChromaKey, KeyColor, and Name are optional. In this example we are not defining the optional attributes.

In the case of a bitmap resource, it can be completely defined with attributes, so it has no need of any child elements. In the example above, the bitmap resource is defined in the Book.xml and can be used throughout the book. You will look at where this resource is actually being used when you look at a sample Page.xml in the Page.xml section.

Defining User Properties

Because properties specified by a user can be called nearly anything by the user, they cannot be represented in ToolBook XML as attributes, as is the case with most built-in properties. Instead, they are represented through the UserProperty element along with specific attributes (Name and Value). All user properties are defined within the property element <Book.UserProperties>.

Here's an example:

```
<Book.UserProperties>
  <UserProperty Name="ASYM_DeploymentMethod" Value="HTML"/>
</Book.UserProperties>
```

Book.UserProperties are properties that are not built into ToolBook, but are specified by the user (for example, question answers on a question object) and stored as user properties. The UserProperties property contains a UserProperty element for each of the book's user properties. In the example above, the property specified by the user (deployment method DHTML) is stored as a user property in the attribute ASYM_DeploymentMethod. The element UserProperty has the attribute of deployment method defined, along with its value (Name="ASYM_DeploymentMethod" Value="HTML").

Another example of user properties is the widgets (catalog objects) in ToolBook. These widgets make extensive use of user properties - the logic for these objects is written in OpenScript, and properties specified by the user (for example, question answers on a question object) are stored as user properties.

Examples of other Elements in the Book.xml

Here's a sample XML defining a viewer in a book:

```
<Book.Viewers>
  <Viewer IdNumber="0" Caption="Lesson One" AutoSize="true"
    BorderStyle="thickframe="/>
</Book.Viewers>
```

Here's a sample XML for defining the pages in the ToolBook Book. The element Book.Pages lists the pages associated in the book. The PageLocator element has a Source attribute which is understood by ToolBook to point to the XML file defining the Page. In the example below, there is only one page defined.

```
<Book.Pages>
  <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
</Book.Pages>
```

Similarly, the backgrounds contained in a book are listed in the Book.xml by the element Book.background. The BackgroundLocator element has a Source attribute which is understood by ToolBook to point to the XML file defining the background.

Reading a Sample Book.xml Document

Here's another sample Book.xml that represents a ToolBook book with the various elements contained in it.

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
- <Book SharedScript="" BuildCacheFile="never" CacheFileType="minimal" Caption="" CDMediaPath=""
  CustomColors="0,25.125,0 240,37.625,33.3125 240,50,49.8125 240,62.5625,100
  120,37.625,33.3125 180,37.625,33.3125 210,50,49.8125 220,62.5625,100 120,50,49.8125
  150,50,49.8125 180,50,49.8125 200,62.5625,100 120,62.5625,100 140,62.5625,100
  160,62.5625,100 180,62.5625,100 0,37.625,0 60,37.625,33.3125 240,62.5625,32.9375
  240,75.125,100 0,37.625,33.3125 300,37.625,33.3125 270,50,49.8125 260,62.5625,100
  90,50,49.8125 120,62.5625,32.9375 180,62.5625,32.9375 210,75.125,100 100,62.5625,100
  120,75.125,100 150,75.125,100 180,75.125,100 0,87.8125,0 60,50,49.8125 60,62.5625,32.9375
  240,87.4375,100 0,50,49.8125 330,50,49.8125 300,50,49.8125 280,62.5625,100 30,50,49.8125
  0,62.5625,32.9375 300,62.5625,32.9375 270,75.125,100 80,62.5625,100 90,75.125,100
  120,87.4375,100 180,87.4375,100 0,94.125,0 60,62.5625,100 60,75.125,100 60,87.4375,100
  0,62.5625,100 340,62.5625,100 320,62.5625,100 300,62.5625,100 20,62.5625,100
  0,75.125,100 330,75.125,100 300,75.125,100 40,62.5625,100 30,75.125,100 0,87.4375,100
  300,87.4375,100" Footer="" HDMediaPath=""<BookPath>" Header="" HotwordColor="0,50,100"
  HotwordStyle="color" Icon="" KeepMenuBar="false" MinorVersionNumber="0" OpenReadOnly="false"
  Palette="" SaveOnClose="System" Size="11745,8085" SolidColorsEnabled="true"
  xmlns="urn:sumtotalsystems:toolbook.tbkx"
  xmlns:ae="urn:sumtotalsystems:toolbook.tbkx.actions"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml" xmlns:sys="clr-
  namespace:System;assembly=mscorlib">
+ <Book.UserProperties>
+ <Book.Resources>
+ <Book.Viewers>
+ <Book.Pages>
+ <Book.Backgrounds>
</Book>
```

This XML above can be read as follows.

The version of XML used is 1.0, the encoding is UTF-8, and this XML document refers to external files so the standalone value is set to "No".

The main element in the XML document is a Book and it contains the following attributes among others: SharedScript, CustomColors, HotwordColor, HotwordStyle, Icon, and Size. It also contains four namespaces, two defined by SumTotal and two by Microsoft.

As in the earlier example of namespaces, the general ToolBook XML namespace ("urn:sumtotalsystems:toolbook.tbkx"), is set as the default namespace. There is another namespace for elements related to Actions in the Actions Editor, which uses the "ae" (for "Actions Editor") namespace.

The following property elements are listed: Book.UserProperties, Book.Resources, Book.Viewers, Book.Pages, and Book.Backgrounds, each defining particular properties of the book. Note that the Book.UserProperties defines properties set by the user.

Once you are familiar with the syntax of ToolBook XML, you can manually create ToolBook XML that can be imported into ToolBook. The last section in this article shows you how to create an XML representation of a very basic ToolBook book. When creating XML, it helps to validate it against the ToolBook XML schema for a ToolBook book.

The Page.xml File

The Page.xml is located in the folder called Page within the root directory. Here is a sample of the simplest type of Page.xml:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<Page>
</Page>
```

Given below is another sample Page.xml file, which is a representation of one of the pages in a ToolBook book, along with some attributes:

```
<Page
  IdNumber="0"
  Background="background id 0"
  xmlns="urn:sumtotalsystems:toolbox.tbkx"
  xmlns:ae="urn:sumtotalsystems:toolbox.tbkx.actions"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
  xmlns:sys="clr-namespace:System;assembly=mscorlib">
</Page>
```

Examples of other attributes and values of the Page element include:

1. Name="Introduction"
2. SkipNavigation="false"
3. SharedScript="sharedscript id 10"

Here's a detailed look at the Page.xml of another ToolBook XML file:

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
- <Page IdNumber="0" Name="" SharedScript="" PageNumber="1" Background="Background id 0"
  DefaultAllowDrop="false" SkipNavigation="false" StoreImage="false"
  xmlns="urn:sumtotalsystems:toolbox.tbkx"
  xmlns:ae="urn:sumtotalsystems:toolbox.tbkx.actions"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml" xmlns:sys="clr-
  namespace:System;assembly=mscorlib">
+ <Page.Objects>
</Page>
```

The Page element above has the following attributes: IdNumber, Name, SharedScript, PageNumber, Background, DefaultAllowDrop, SkipNavigation, and StoreImage, each with its corresponding value.

Notice that this page has another element called Page.Objects contained in it. Here's a screenshot of a detailed view.

```

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
- <Page IdNumber="0" Name="" SharedScript="" PageNumber="1" Background="Background id 0"
  DefaultAllowDrop="false" SkipNavigation="false" StoreImage="false"
  xmlns="urn:sumtotalsystems:toolbook.tbkx" xmlns:ae="urn:sumtotalsystems:toolbook.tbkx.actions"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml" xmlns:sys="clr-
  namespace:System;assembly=mscorlib">
- <Page.Objects>
+ <Field IdNumber="1" Name="Rectangle" SharedScript="" Activated="true" Baselines="false"
  BorderStyle="rectangle" Bounds="555,2730,3480,3405" DefaultAllowDrag="false"
  DefaultAllowDrop="false" DragImage="" DrawDirect="false" DrawTextDirect="false" Enabled="true"
  FieldType="wordWrap" FontFace="Arial" FontSize="8" FontStyle="regular" Indents="0,0,0" Layer="1"
  NoDropImage="" RgbFill="255,255,255" RgbStroke="0,0,0" Scroll="0" SelectedTextlines="" Spacing="1"
  TabSpacing="720" TabType="left" Text="Text Text Text" TextAlignment="left" Transparent="false"
  UseWindowsColors="false" Visible="true">
+ <Button IdNumber="2" Name="Reusable Graphic" SharedScript="sharedscript id 100" BorderStyle="none"
  Bounds="1845,4725,9480,5790" Caption="" CaptionPosition="center" Checked="false" CheckedGraphic=""
  DefaultAllowDrop="false" DefaultAllowDrag="false" DisabledGraphic="" DragImage="" DrawDirect="false"
  Enabled="true" ExcludeTab="true" FontFace="Arial" FontSize="8" FontStyle="regular" Highlight="false"
  Invert="false" InvertGraphic="" Layer="2" NoDropImage="" NormalGraphic="bitmap id 101"
  RgbFill="255,255,255" RgbStroke="0,0,0" StretchGraphic="true" Transparent="true"
  UseWindowsColors="false" Visible="true">
</Page.Objects>
</Page>

```

The XML lists two page objects, Field and Button. Here's a detailed look at some of the attributes of each object.

The element Field has the following attributes among others:

Name	Value
IdNumber	1
Name	Rectangle
BorderStyle	rectangle
Bounds	555,2730,3480,3405
FontFace	Arial
FontSize	8
FontStyle	regular

The user defined properties for the field are defined in the element Field.UserProperties.

```

- <Field.UserProperties>
  <UserProperty Name="INFO_AdvancedStepsText" Value="1 Double-click in the field. A
  text-insertion cursor appears. 2 Enter your text." />
  <UserProperty Name="INFO_BasicStepsText" Value="1 Double-click in the field. A text-
  insertion cursor appears. 2 Enter your text." />
  <UserProperty Name="INFO_Description" Value="If you plan on exporting your
  application as a series of Web pages (DHTML), use this text field to display text
  that looks the same as in ToolBook." />
  <UserProperty Name="CatalogThumbnailObject" Value="~Rectangle" />
  <UserProperty Name="ASYMI_AutoSize" Value="FALSE" />
  <UserProperty Name="ASYM_WID_Deployment" Value="3" />
  <UserProperty Name="ASYM_WID_ID" Value="354" />
</Field.UserProperties>
</Field>

```

The element Button has the following attributes among others:

Name	Value
IdNumber	2
Name	Reusable Graphic
BorderStyle	none
Bounds	1845,4725,9480,5790
NormalGraphic	bitmap id 100
FontSize	8
FontStyle	regular

As is evident from the attributes above, the element button in the XML indicates a Reusable Graphic placeholder object on a page. A graphic (bitmap id 100) has been associated to this Reusable Graphic placeholder.

The user defined properties for the button are defined in the element Button.UserProperties.

Here's the XML representation of a page in ToolBook that has an Image and an Auto-Sizing field grouped together, with a hyperlink set at the group level.

```
<Page.Objects>
  <Group IdNumber="0"
    Hyperlink="Jump http://www.google.com"
    Name="Hyperlink ImageAndText 1">
    <Image IdNumber="1" Bounds="3435,3390,8430,5640" Source="bitmap id 100"/>
    <EnhancedField IdNumber="2" Bounds="3435,3390,8430,5640"
      FontFace="Arial" FontSize="22" FontStyle="Bold"
      RgbFill="255,255,255" RgbStroke="0,0,0"
      Text="Google" TextAlignment="center"
      Transparent="true"/>
    </Group>
    <Image IdNumber="3" Bounds="4400,4244,7320,4337" Source="bitmap id 101"/>
  </Page.Objects>
```

Note that in the example above, the Image element is "using" the resource defined in the Book.xml. Source, in this case, is referring to a bitmap resource defined by Id number, name, and the source file, in the Book element.

Each page is located in its own sub-folder. So you will have as many Page sub-folders as the number of pages in your ToolBook book. Each of these folders will be named after the PageNumber property of the Page element in the Page's XML file. The Pages property contains a PageReference element for each page in the book. Each PageReference element identifies the Page.xml file that defines that page. The order of pages in a book is implied by the order of PageReference elements in the Pages collection, but can be overridden by the PageNumber property of the Page element in the page's Page.xml file. You will look at the PageReference element in detail in the last section on *Creating an XML Representation of a ToolBook File*.

The Background.xml File

The Background.xml file is in a similar format to the Page.xml, but with Background as the root element. It is located in the sub-folder Background in the root directory.

Here's a sample Background.xml.

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
- <Background IdNumber="0" Name="" SharedScript="" Backdrop="" BackdropStyle="none" Pattern="solidFill"
  RgbFill="255,255,255" RgbStroke="0,0,0" Size="0,0" StoreImage="false" UseDialogColor="false"
  UseWindowsColors="false" xmlns="urn:sumtotalsystems:toolbook.tbkx"
  xmlns:ae="urn:sumtotalsystems:toolbook.tbkx.actions"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml" xmlns:sys="clr-
  namespace:System;assembly=mscorlib">
+ <Background.UserProperties>
</Background>
```

As is the case with pages, you will have as many sub-folders as the number of backgrounds used in your book.

Creating an XML Representation of a ToolBook file

This tutorial consists of a set of examples of XML. Each example builds upon the previous one and the relevant XML samples for these are available under the Samples folder of the ToolBook installation folder on your hard drive. The first example demonstrates how to represent a blank book in ToolBook XML. Subsequent examples show how to modify a book property, add pages and backgrounds, and how to add and modify objects on the page. The XML samples can be inserted into ToolBook via the File -> Open XML menu command.

Each sample XML snippet can be found under ...\\Program Files\\ToolBook\\ ToolBook 10\\Samples\\XML.

Representing a Blank Book

ToolBook XML is comprised of three main file types: Book, Page, and Background. All three are used to represent a blank book. The Book.xml file is the starting point for the XML representation. This file references all other files in the XML representation. It defines properties for the book, and references child objects, such as Pages and Backgrounds.

For the examples in this tutorial:

1. Files that make up ToolBook XML are placed in certain specific locations relative to each other and have specific names.
2. The above file layout will be used to define certain properties of the final imported ToolBook.

Note: Although this tutorial follows the convention of naming Page and Background folders appended with a page or background number, this is not strictly necessary.

Here are a few details about ToolBook XML files and their folder structure:

1. The book's main file is always called 'Book.xml' and resides in a folder whose name will be given to the final imported ToolBook.
2. Each of the book's backgrounds and pages is represented by its own XML file; you cannot represent an XML ToolBook by a single XML file.
3. The XML file for a page is always called 'Page.xml' and is located in a separate subfolder underneath the book's main folder. The names of the subfolders start with 'Page0' (for the book's first page) and for each of the book's following pages, the number at the end of the

subfolder name is incremented (i.e. the folder name for the book's second page will be 'Page1', for the third, 'Page2', and so on).

4. The XML file for a background is always called 'Background.xml' and is located in a separate subfolder underneath the book's main folder. The names of these subfolders start with 'Background0' (for the book's first background) and the number at the end of the name is incremented for each of the book's following backgrounds (i.e. the folder name for an additional background in the book will be 'Background1', and so on).

Sample XML Files:

01Blank Book\Book.xml

01Blank Book\Page0\Page.xml

01Blank Book\Background0\Background.xml

You will find the sample XML files from this section of the tutorial in the '01Blank Book' folder. If you use ToolBook's 'Open XML Book...' command to open the 'Book.xml' file in the above folder, the XML importer in ToolBook will create a new book called '01Blank Book.tbk' in the same folder where the '01Blank Book' folder exists.

ToolBook XML for the Sample Files:

The XML files for a basic (blank) book are given below:

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
  </Book.Pages>
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
</Book>
```

File: Page0\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

File: Background0\Background.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Let's take a closer look at some of these snippets of XML.

```
<?xml version="1.0" encoding="UTF-8"?>
```

The above line simply alerts the XML importer that the following text is XML version 1.0, using UTF-8 encoding.

There's a later version of XML (1.1), but for this tutorial we'll use version 1.0 (because it is very common). Also 'UTF-8' specifies that a certain method of encoding characters is used, in this case, it means a variation of 'Unicode' (which specifies how to encode characters from many different languages, allowing a single file to contain text from different languages).

Important: Please use only characters from languages that ToolBook is known to support in your ToolBook XML files.

Let's take a detailed look at the following lines of XML from the samples above.

```
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx">
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

These lines declare the 'Root' element for each of the files (There can be only one 'Root' element for a given XML file) Notice that each root element ('Book', 'Page' & 'Background') has the same 'attribute' ('xmlns="urn:sumtotalsystems:toolbook.tbkx"]'). This means that the root element belongs to the XML Namespace (xmlns) called "urn:sumtotalsystems:toolbook.tbkx." This is the default namespace for ToolBook XML files. Elements (tags) borrowed from other XML standards will have (or belong to) a different name space. For example, the XML importer also uses tags from XAML, which belong to the 'http://schemas.microsoft.com/winfx/2006/xaml' namespace. Namespaces prevent naming conflicts that could occur as a result of accidentally using tags that have different meanings but the same name. For example, the 'Book' tag has a common name and could be used more than once in different contexts.

Changing a Book Property

ToolBook assumes default values for properties, unless property values are specified within the XML file. This example builds upon the previous example by specifying the "Size" property of the book.

From File: Book.xml

```
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520"/>
```

Properties are placed between the < and > tags of each element definition. In this case, the Size property of a book is a list of two numbers, represented as a string in XML. Details on how each ToolBook property is represented in XML can be found in the Reference Section.

Note: Please read the ToolBook help or see the Reference Section before setting properties. For example, 'Size' in this case uses ToolBook's coordinate system, not screen pixels!

Sample XML Files:

- 02Change Book Property \Book.xml
- 02Change Book Property \Page0\Page.xml
- 02Change Book Property \Background0\Background.xml

You will find the sample XML files from this section of the tutorial in the '02Change Book Property' folder.

ToolBook XML for the Sample Files:

The XML files for a basic (blank) book, with the size property specified, are given below. The XML parts mentioned in this section are highlighted.

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
  </Book.Pages>
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
</Book>
```

File: Page0\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

File: Background0\Background.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Representing a Background

Backgrounds and pages are considered child objects of the book, rather than properties. Therefore, they are defined within XML by placing them between the opening <Book> tag and the closing </Book> tag:

From File: Book.xml

```
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Backgrounds>
    <BackgroundLocator Source="Background0\Background.xml"/>
  </Book.Backgrounds>
</Book>
```

Here is a detailed look at the various elements in the above example:

Book.Backgrounds: This is a sub-element of the book, consisting of a list of BackgroundLocator elements.

BackgroundLocator: This element is used to point to the XML file that defines the background. It uses a "Source" attribute.

Source: This attribute of the BackgroundLocator element is a string which specifies the path and filename of the XML file that defines the background.

In this file, look for a subelement of the Book called 'Backgrounds'. It is referenced using dot notation (Book.Backgrounds). Book.Backgrounds consists of a list of BackgroundLocator tags; each BackgroundLocator element contains an attribute called "Source." This points to the XML file (which can be located anywhere) that defines the background.

From File: Background0\Background.xml

```
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx" />
```

Here is a detailed look at the various elements in the above example:

Background: This is the 'Root' element of this file, and in this example, defines a single background in the book.

IdNumber: This attribute of the BackgroundLocator element is a number. However, in ToolBook XML, backgrounds are numbered starting from 0, so the 'IdNumber' for the second background is '1'.

Sample XML Files:

03Backgrounds\Book.xml

03Backgrounds\Page0\Page.xml

03Backgrounds\Background0\Background.xml

You will find the sample XML files from this section of the tutorial in the '03Backgrounds' folder.

ToolBook XML for the Sample Files:

Given below are the XML files for a basic book, with the size property specified, and with one background defined. The XML parts mentioned in this section are highlighted.

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
  </Book.Pages>
</Book>
```

File: Page0\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

From File: Background0\Background.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```


Representing a Page

Backgrounds and pages are considered child objects of the book, rather than properties. Therefore, they are defined within XML by placing the between the opening <Book> tag and the closing </Book> tag:

From File: Book.xml

```
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
  </Book.Pages>
</Book>
```

Here is a detailed look at the various elements in the above example:

Book.Pages: This is a sub-element of the book, consisting of a list of 'PageLocator' elements.

PageLocator: This element is used to point to the XML file that defines the Page. It uses an "IdNumber" and a "Source" attribute.

IdNumber: This attribute of the PageLocator element is a number that indicates the page number of the page. However, in ToolBook XML, pages are numbered starting from 0, so the 'IdNumber' for the second page will be '1'.

Source: This attribute of the PageLocator element is a string which specifies the path and filename of the XML file that defines the page.

In this file, look for a sub element of the Book called 'Pages'. It is referenced using dot notation (Book.Pages). Book.Pages consists of a list of 'PageLocator' tags; each PageLocator element contains an attribute called 'Source'. This points to the XML file (which can be located anywhere) that defines the page.

File: Page0\Page.xml

```
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Here is a detailed look at the various elements in the above example:

Page: This is the 'Root' element of the Page.xml file and defines a single page in the book.

Background: This attribute of the PageLocator element is a string that refers to the page's background. It is actually a snippet of ToolBook's Object Script, so it must be defined as shown, it must start with "Background Id" and end with the reference to the background's ID number.

IdNumber: This attribute of the PageLocator element is a number. However, in ToolBook XML, pages are numbered starting from 0, so the 'IdNumber' for the second page will be '1'.

Sample XML Files:

04Pages\Book.xml

04Pages\Page0\Page.xml

04Pages\Background0\Background.xml

You will find the sample XML files from this section of the tutorial in the '04Pages' folder.

ToolBook XML for the Sample Files:

Given below are the XML files for a basic book, with the size property specified, and a background and page defined. The XML parts mentioned in this section are highlighted.

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
  </Book.Pages>
</Book>
```

File: Page0\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

From File: Background0\Background.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Adding a Page

To add a new page to the XML that makes up a book, a new 'PageLocator' element must be added to the main 'Book.xml' file and a new 'Page.xml' file must be added to the correct directory.

From File: Book.xml

```
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
    <PageLocator IdNumber="1" Source="Page1\Page.xml"/>
  </Book.Pages>
</Book>
```

Here is a detailed look at the various elements in the above example:

Book.Pages: Notice that a new 'PageLocator' element has been added to the list within 'Book.Pages'. There is one 'PageLocator' element for each page in the book.

PageLocator: This element is used to point to the XML file that defines the Page. It uses an "IdNumber" and a "Source" attribute.

IdNumber: This attribute of the PageLocator element is a number which is the page number of the page. Since this element represents the second page of the book in this example, the 'IdNumber' is '1'.

Source: This attribute of the PageLocator element is a string which specifies the path and filename of the XML file that defines the page. (Notice that the XML file for the second page is in a different directory than that for the first page.)

New File: Page1\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="1"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

This file is similar to the 'Page.xml' file for the first page, except that the 'IdNumber' property is now '1', indicating that this is the second page. Also note that the 'Background' property hasn't changed, as this page uses the same background specified earlier.

ToolBook XML for the Sample Files:

Given below are the XML files for a basic book, with the size property specified, and a background and two pages defined. The XML parts mentioned in this section are highlighted.

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
    <PageLocator IdNumber="1" Source="Page1\Page.xml"/>
  </Book.Pages>
</Book>
```

File: Page0\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

File: Page1\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="1"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

File: Background0\Background.xml

```
<?xml version="1.0" encoding="utf-8" ?>
```

```
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Adding a Text Field Object to a Page

For this tutorial, we'll add a text field to the first page, containing the text, "Hello World".

To add a new object to the XML that makes up a page, the element that makes up the object must be added to the page's 'Page.Objects' element.

```
From File: Page0\Page.xml
```

```
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <EnhancedField AutoSize="false" Bounds="100, 100, 1000, 1000"
IdNumber="0" Text="Hello World"/>
  </Page.Objects>
</Page>
```

Here is a detailed look at the various elements in the above example:

Page.Objects: A sub-element of the page, consisting of a list of objects (including graphics) that will be placed on the current page. Please note that the order of adding them is important! Objects will be added to the page in exactly the same order as they are listed (top to bottom) within 'Page.Objects'.

AutoSize: This attribute of the 'EnhancedField' element is for specifying whether the field should auto adjust its size to fit its contents.

IdNumber: This attribute of the 'EnhancedField' is a number representing this object's ID number. Each object on a page has a unique ID number. However, in ToolBook XML, objects are numbered starting from 0, so the 'IdNumber' for the second object added will be '1'.

Bounds: This attribute of the 'EnhancedField' element defines the outer bounds of the field. It is a list of four numbers separated by commas. It defines the 'Top, Left, Bottom, Right' bounds, in that order.

Text: This attribute of the 'EnhancedField' element is the text which will appear in the field.

```
Sample XML Files:
```

```
06Add Text\Book.xml
06Add Text\Page0\Page.xml
06Add Text\Page1\Page.xml
06Add Text\Background0\Background.xml
```

You will find the sample XML files from this section of the tutorial in the '06 Add Text' folder.

```
ToolBook XML for the Sample Files:
```

Given below are the XML files for a basic book, with the size property specified, a background and two pages defined, and a text object defined on the first page. The XML parts mentioned in this section are highlighted.

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
    <PageLocator IdNumber="1" Source="Page1\Page.xml"/>
  </Book.Pages>
</Book>
```

File: Page0\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <EnhancedField AutoSize="false" Bounds="100,100,1000,1000"
IdNumber="0" Text="Hello World"/>
  </Page.Objects>
</Page>
```

File: Page1\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="1"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

File: Background0\Background.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Adding an Image to a Page

For this tutorial, we'll add an image (the ToolBook logo in black and white) to the second page.

To add an image to the XML that makes up a book, a new 'Bitmap' element must be added to the main 'Book.xml' file and a new object must be added to the 'Page.xml' file for the page where the image will be located.

From File: Book.xml

```
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Resources>
    <Bitmap IdNumber="100" Source="Bitmap100.png"/>
  </Book.Resources>
</Book>
```

Here is a detailed look at the various elements in the above example:

Book.Resources: A sub-element of the book, consisting of a list of 'Bitmap' elements (and other resource elements).

IdNumber: This attribute of the 'Bitmap' element is a number which is used to uniquely identify the image among all images in the book. It is recommended that numbering for images start at '100'.

Source: This attribute of the 'Bitmap' element is a string which specifies the path and filename of the image.

To add a new object to the XML that makes up a page, the element that makes up the object must be added to the page's 'Page.Objects' element.

From File: Page1\Page.xml

```
<Page Background="Background Id 0" IdNumber="1"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <Image Bounds="10,10,428,460" IdNumber="0" Source="bitmap id 100"
/>
  </Page.Objects>
</Page>
```

Here is a detailed look at the various elements in the above example:

Page.Objects: A sub-element of the page, consisting of a list of objects (including graphics) that will be placed on the current page. Please note that the order of adding them is important! Objects will be added to the page in *exactly* the same order as they are listed (top to bottom) within 'Page.Objects'.

Bounds: This attribute of the 'Image' element defines the outer bounds of the field. It is a list of four numbers separated by commas. It defines the 'Top, Left, Bottom, Right' bounds in that order.

IdNumber: This attribute of the 'Image' is a number representing this object's ID number. Each object on a page has a unique ID number. However, in ToolBook XML, objects are numbered starting from 0, so the 'IdNumber' for the second object added will be '1'.

Source: This attribute of the PageLocator element is a string that refers to the image's source bitmap. It is actually a snippet of ToolBook's Object Script, so it *must* be defined as shown, it must start with "bitmap id" and end with the referred to bitmap's ID number.

From File: Book.xml

```
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Resources>
    <Bitmap IdNumber="100" Source="Bitmap100.png"/>
  </Book.Resources>
</Book>
```

From File: Page1\Page.xml

```
<Page Background="Background Id 0" IdNumber="1"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <Image Bounds="10,10,428,460" IdNumber="0" Source="bitmap id 100"
/>
  </Page.Objects>
</Page>
```

Sample XML Files:

- 07Add Image\Book.xml
- 07Add Image\Bitmap100.png
- 07Add Image\Page0\Page.xml
- 07Add Image\Page1\Page.xml
- 07Add Image\Background0\Background.xml

You will find the sample XML files from this section of the tutorial in the '07 Add Image' folder.

ToolBook XML for the Sample Files:

Given below are the XML files for a basic book, with the size property specified, a background and two pages defined, a text object defined on the first page, and an image defined on the second page. The XML parts mentioned in this section are highlighted.

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Resources>
    <Bitmap IdNumber="100" Source="Bitmap100.png"/>
  </Book.Resources>
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
    <PageLocator IdNumber="1" Source="Page1\Page.xml"/>
  </Book.Pages>
</Book>
```

```
</Book.Pages>
</Book>
```

```
File: Page0\Page.xml
```

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <EnhancedField AutoSize="false" Bounds="100,100,1000,1000"
IdNumber="0" Text="Hello World"/>
  </Page.Objects>
</Page>
```

```
File: Page1\Page.xml
```

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="1"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <Image Bounds="10, 10,428,460" IdNumber="0" Source="bitmap id 100"
/>
  </Page.Objects>
</Page>
```

```
File: Background0\Background.xml
```

```
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Conclusion

You now have a basic understanding of how ToolBook books are represented using ToolBook XML. Armed with this knowledge, you can use other sections of this document to represent virtually any book that can be created via the ToolBook user interface. Having the ToolBook XML format available also gives you a powerful tool to convert learning content from any format, into ToolBook.

Appendix

In addition to the examples you looked at earlier, the samples folder also contains ToolBook XML for a minimal ToolBook book and for a ToolBook book called Demo.

Note: If you want to look at an example of a complex ToolBook course represented as XML, please look at the Bank Two example which is included in the Samples folder.

Minimal Book

Here's the XML representation of the minimal ToolBook Book, in the samples folder:

```
File: Book.xml
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
  </Book.Pages>
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
</Book>
```

```
File: Page0\Page.xml
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

```
File: Background0\Background.xml
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

Demo Book

Here's the XML representation of the sample ToolBook Book named Demo, in the samples folder:

File: Book.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Book xmlns="urn:sumtotalsystems:toolbook.tbkx" Size="15360,11520">
  <Book.Resources>
    <Bitmap IdNumber="100" Source="Bitmap100.png"/>
  </Book.Resources>
  <Book.Backgrounds>
    <BackgroundLocator IdNumber="0"/>
  </Book.Backgrounds>
  <Book.Pages>
    <PageLocator IdNumber="0" Source="Page0\Page.xml"/>
    <PageLocator IdNumber="1" Source="Page1\Page.xml"/>
  </Book.Pages>
</Book>
```

File: Page0\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="0"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <EnhancedField AutoSize="false" Bounds="100,100,1000,1000"
IdNumber="0" Text="Hello World"/>
  </Page.Objects>
</Page>
```

File: Page1\Page.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Page Background="Background Id 0" IdNumber="1"
xmlns="urn:sumtotalsystems:toolbook.tbkx">
  <Page.Objects>
    <Image Bounds="10,10,428,460" IdNumber="0" Source="bitmap id 100"
/>
  </Page.Objects>
</Page>
```

File: Background0\Background.xml

```
<?xml version="1.0" encoding="utf-8" ?>
<Background IdNumber="0" xmlns="urn:sumtotalsystems:toolbook.tbkx"/>
```

References

You can refer to the following ToolBook schemas to see how properties in ToolBook are represented in XML. Full information on how each ToolBook property is represented in XML can be found in the How-To Documents page in the Resources section of <http://www.toolbook.com>.

Schema SumTotal.ToolBook.XML.Book.xsd

schema **SumTotal.ToolBook.XML.Book.xsd**
 element form default: **qualified**
 targetNamespace: **urn:sumtotalsystems:toolbook.tbkx**

Elements Complex types

[Bitmap](#)
[Book](#)

[Resource](#)

[Book.Backgrounds](#)

[Book.Pages](#)

[Book.Resources](#)

[Book.UserProperties](#)

[Book.Viewers](#)

[Clip](#)

[Cursor](#)

[Font](#)

[Icon](#)

[Menubar](#)

[SharedScript](#)

[Viewer](#)

[Viewer.UserProperties](#)

element **Bitmap**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of Resource					
properties	content complex					
used by	element Book.Resources					
attributes	Name IDNumber	Type ResourceID	Use required	Default	Fixed	annotation documentation Icon resource ID number
	Name	ObjectName				documentation Icon resource ID name
	Source	xs:string	required			documentation Icon resource filename
	KeyColor	RGBColor	optional	255,255,255		documentation Specifies what color in the bitmap will be treated as transparent.
	UseChromaKey	boolean	optional	false		documentation Specifies that

		portions of the bitmap will be transparent.
annotation	documentation Bitmap resource element	

attribute **Bitmap/@KeyColor**

type	RGBColor
properties	isRef 0 default 255,255,255 use optional
annotation	documentation Specifies what color in the bitmap will be treated as transparent.

attribute **Bitmap/@UseChromaKey**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies that portions of the bitmap will be transparent.

element **Book**

namespace	urn:sumtotalsystems:toolbook.tbkx					
properties	content complex					
children	Book.UserProperties Book.Resources Book.Viewers Book.Pages Book.Backgrounds					
attributes	Name SharedScript	Type SharedScriptResource	Use optional	Default sharedscript "Vishal Singh "	Fixed	annotation documentation A script that is stored as a resource in the book but which does not belong to any individual object. documentation A book property that specifies the amount of data saved to a cache file used by a CD-ROM application. You can get or set this property. documentation A book property that specifies the CD-ROM directories in which ToolBook searches for external media referenced by clips.
	CacheFileType	derived by: xs:token	optional	minimal		
	CDMediaPath	xs:string	optional			

CustomColors	derived by: xs:string	optional		documentation A book property that specifies the 64 colors of the Color Tray.
HDMediaPath	xs:string	optional		documentation A book property that specifies the hard disk directories in which ToolBook searches for external media referenced by clips.
Header	derived by: xs:string	optional		documentation A book property that specifies the contents of the header to be printed on each sheet of a report or a page when Print Report or Print Pages is chosen from the File menu.
HotwordColor	HLSColor	optional	0,50,100	documentation A book property that specifies the default color for hotwords.
HotwordStyle	derived by: xs:token	optional	color	documentation A book property that specifies the style for all hotwords within a book.
MinorVersionNumber	derived by: xs:short	optional	0	documentation A book property that specifies the fourth number of the book's file version.
Palette	PaletteResource	optional		documentation Predefined sets of colors that can be imported and edited in ToolBook.
SaveOnClose	derived by: xs:token	optional	system	documentation A book property that specifies how and when changes are saved when the user exits the book.
Size	Size	optional	8640,5760	documentation Book Width, Height
SolidColorsEnabled	boolean	optional	true	documentation

	<p>KeepMenuBar boolean optional false</p> <p>OpenReadOnly boolean optional false</p> <p>BuildCacheFile derived by: xs:token optional never</p> <p>Footer derived by: xs:string optional</p> <p>Script String32</p>	<p>A property of a book or picture object that specifies whether objects in the book are displayed using solid object colors or dithered object colors. documentation</p> <p>A property of the book that specifies how ToolBook manages the Main window's Reader-level menu bar during navigation from one book to another. documentation</p> <p>Specifies if the book is opened for read only mode. documentation</p> <p>A book property that specifies whether a CD-ROM application uses a cache file. documentation</p> <p>A book property that specifies the contents of a footer to be printed on each sheet of a report. documentation</p> <p>Script of the book</p>
annotation	documentation	Book element. This is the root element to start writing XML for ToolBook

attribute **Book/@SharedScript**

type	SharedScriptResource
properties	isRef 0 default sharedscript "Vishal Singh" use optional
facets	<p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+[i][Dd]s+d{3,5}</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"s\w{s}{1,30}\w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"w\w{s}{1,30}\s"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"w\w{s}{1,30}\w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;s\w{s}{1,30}\w&quot;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;w\w{s}{1,30}\s&quot;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;w\w{s}{1,30}\w&quot;</p>
annotation	documentation A script that is stored as a resource in the book but which does not belong to any individual object.

attribute Book/@CacheFileType

type	restriction of xs:token
properties	isRef 0 default minimal use optional
facets	pattern [Mm][li][Nn][li][Mm][Aa][Ll] pattern [Pp][Rr][Ee][Ff][Ee][Rr][Rr][Ee][Dd] pattern [Ee][Xx][Tt][Ee][Nn][Dd][Ee][Dd]
annotation	documentation A book property that specifies the amount of data saved to a cache file used by a CD-ROM application. You can get or set this property.

attribute Book/@CDMediaPath

type	xs:string
properties	isRef 0 use optional
annotation	documentation A book property that specifies the CD-ROM directories in which ToolBook searches for external media referenced by clips.

attribute Book/@CustomColors

type	restriction of xs:string
properties	isRef 0 use optional
facets	pattern (\d{1,3}\.*(\d*),\d{1,3}\.*(\d*),\d{1,3}\.*(\d*)
)[63](\d{1,3}\.*(\d*),\d{1,3}\.*(\d*),\d{1,3}\.*(\d*))
annotation	documentation A book property that specifies the 64 colors of the Color Tray.

attribute Book/@HDMediaPath

type	xs:string
properties	isRef 0 use optional
annotation	documentation A book property that specifies the hard disk directories in which ToolBook searches for external media referenced by clips.

attribute Book/@Header

type	restriction of xs:string
properties	isRef 0 use optional
facets	maxLength 32767
annotation	documentation A book property that specifies the contents of the header to be printed on each sheet of a report or a page when Print Report or Print Pages is chosen from the File menu.

attribute Book/@HotwordColor

type	HLSColor
properties	isRef 0 default 0,50,100 use optional

facets	pattern <code>\d{1,3}\.*(\d*),\d{1,3}\.*(\d*),\d{1,3}\.*(\d*)</code>
annotation	documentation A book property that specifies the default color for hotwords.

attribute **Book/@HotwordStyle**

type	restriction of xs:token
properties	isRef 0 default color use optional
facets	pattern <code>[Cc][Oo][Ll][Oo][Rr]</code> pattern <code>[Ff][Rr][Aa][Mm][Ee]</code> pattern <code>[Nn][Oo][Nn][Ee]</code> pattern <code>[Uu][Nn][Dd][Ee][Rr][Ll][Ii][Nn][Ee]</code> pattern <code>[Dd][Oo][Tt][Tt][Ee][Dd]</code>
annotation	documentation A book property that specifies the style for all hotwords within a book.

attribute **Book/@MinorVersionNumber**

type	restriction of xs:short
properties	isRef 0 default 0 use optional
facets	minInclusive 0
annotation	documentation A book property that specifies the fourth number of the book's file version.

attribute **Book/@Palette**

type	PaletteResource
properties	isRef 0 use optional
facets	pattern <code>[Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+[Ii][Dd]\s+\d{3,5}</code> pattern <code>[Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"s\w\s{1,30}\w"</code> pattern <code>[Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"w\w\s{1,30}\s"</code> pattern <code>[Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"w\w\s{1,30}\w"</code> pattern <code>[Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"&quot;s\w\s{1,30}\w&quot;</code> pattern <code>[Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"&quot;w\w\s{1,30}\s&quot;</code> pattern <code>[Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"&quot;w\w\s{1,30}\w&quot;</code>
annotation	documentation Predefined sets of colors that can be imported and edited in ToolBook.

attribute **Book/@SaveOnClose**

type	restriction of xs:token
properties	isRef 0 default system use optional
facets	pattern <code>[Ss][Yy][Ss][Tt][Ee][Mm]</code> pattern <code>[Yy][Ee][Ss]</code> pattern <code>[Nn][Oo]</code> pattern <code>[Aa][Ss][Kk]</code>
annotation	documentation A book property that specifies how and when changes are saved when the user exits the book.

attribute **Book/@Size**

type	Size
------	----------------------

properties	isRef 0 default 8640,5760 use optional
facets	pattern \d{1,5},\d{1,5}
annotation	documentation Book Width, Height

attribute **Book/@SolidColorsEnabled**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation A property of a book or picture object that specifies whether objects in the book are displayed using solid object colors or dithered object colors.

attribute **Book/@KeepMenuBar**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A property of the book that specifies how ToolBook manages the Main window's Reader-level menu bar during navigation from one book to another.

attribute **Book/@OpenReadOnly**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies if the book is opened for read only mode.

attribute **Book/@BuildCacheFile**

type	restriction of xs:token
properties	isRef 0 default never use optional
facets	pattern [Nn][Ee][Vv][Ee][Rr] pattern [Tt][Ee][Mm][Pp][Oo][Rr][Aa][Rr][Yy] pattern [Pp][Ee][Rr][Mm][Aa][Nn][Ee][Nn][Tt]
annotation	documentation A book property that specifies whether a CD-ROM application uses a cache file.

attribute **Book/@Footer**

type	restriction of xs:string
properties	isRef 0 use optional
facets	maxLength 32767
annotation	documentation A book property that specifies the contents of a footer to be printed on each sheet of a report.

attribute **Book/@Script**

type	String32
properties	isRef 0
facets	minLength 0 maxLength 65535
annotation	documentation Script of the book

element **Book.Backgrounds**

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	content complex
children	BackgroundLocator
used by	element Book
annotation	documentation Backgrounds associated with the book

element **Book.Backgrounds/BackgroundLocator**

namespace	urn:sumtotalsystems:toolbook.tbkx					
properties	isRef 0 minOcc 1 maxOcc unbounded content complex					
attributes	Name IDNumber	Type ObjectID	Use	Default	Fixed	annotation documentation A unique id number for the background
	Source	xs:string				documentation Location of the xml file corresponding to the background

attribute **Book.Backgrounds/BackgroundLocator/@IDNumber**

type	ObjectID
properties	isRef 0
facets	minInclusive 0
annotation	documentation A unique id number for the background

attribute **Book.Backgrounds/BackgroundLocator/@Source**

type	xs:string
properties	isRef 0
annotation	documentation Location of the xml file corresponding to the background

element **Book.Pages**

namespace	urn:sumtotalsystems:toolbook.tbkx
-----------	-----------------------------------

properties	content complex
children	PageLocator
used by	element Book
annotation	documentation Pages associated with the book

element **Book.Pages/PageLocator**

namespace	urn:sumtotalsystems:toolbook.tbkx							
properties	isRef	0	minOcc	1	maxOcc	unbounded	content	complex
attributes	Name	Type	Use	Default	Fixed	annotation		
	IDNumber	ObjectID				documentation A unique id number for the page		
	Source	xs:string				documentation Location of the xml file corresponding to the page		
annotation	documentation The PageLocator element defines a page contained within a book							

attribute **Book.Pages/PageLocator/@IDNumber**

type	ObjectID
properties	isRef 0
facets	minInclusive 0
annotation	documentation A unique id number for the page

attribute **Book.Pages/PageLocator/@Source**

type	xs:string
properties	isRef 0
annotation	documentation Location of the xml file corresponding to the page

element **Book.Resources**

namespace	urn:sumtotalsystems:toolbook.tbkx	
properties	content complex	
children	Bitmap Menuubar SharedScript Cursor Font Icon Clip	
used by	element Book	
annotation	documentation Book resources	

element **Book.UserProperties**

namespace	urn:sumtotalsystems:toolbook.tbkx
-----------	-----------------------------------

properties	content complex
children	UserProperty
used by	element Book
annotation	documentation User defined properties

element Book.Viewers

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	content complex
children	Viewer
used by	element Book
annotation	documentation Viewers associated with the book

element Clip

namespace	urn:sumtotalsystems:toolbox.tbkx																								
type	Resource																								
properties	content complex																								
used by	element Book.Resources																								
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annotation	documentation Clip resource element																								

element Cursor

namespace	urn:sumtotalsystems:toolbox.tbkx																								
type	Resource																								
properties	content complex																								
used by	element Book.Resources																								
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annotation	documentation Cursor resource element																								

element Font

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	Resource					
properties	content complex					
used by	element Book.Resources					
attributes	Name IDNumber	Type ResourceID	Use required	Default	Fixed	annotation documentation Icon resource ID number
	Name	ObjectName				documentation Icon resource ID name
	Source	xs:string	required			documentation Icon resource filename
annotation	documentation Font resource element					

element Icon

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	Resource					
properties	content complex					
used by	element Book.Resources					
attributes	Name IDNumber	Type ResourceID	Use required	Default	Fixed	annotation documentation Icon resource ID number
	Name	ObjectName				documentation Icon resource ID name
	Source	xs:string	required			documentation Icon resource filename
annotation	documentation Icon resource element					

element Menubar

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of Resource					
properties	content complex					
used by	element Book.Resources					
attributes	Name IDNumber	Type ResourceID	Use required	Default	Fixed	annotation documentation Icon resource ID number
	Name	ObjectName				documentation Icon resource ID name
	Source	xs:string	required			documentation Icon resource filename
annotation	documentation Book resource element: Menubar					

element **SharedScript**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	Resource					
properties	content complex					
used by	element Book.Resources					
attributes	Name IDNumber	Type ResourceID	Use required	Default	Fixed	annotation documentation Icon resource ID number
	Name	ObjectName				documentation Icon resource ID name
	Source	xs:string	required			documentation Icon resource filename
annotation	documentation SharedScript resource element					

element **Viewer**

namespace	urn:sumtotalsystems:toolbook.tbkx					
properties	content complex					
children	Viewer.UserProperties					
used by	element Book.Viewers					
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Viewer ID.
	Name	ObjectName	optional			documentation Viewer name.
	SharedScript	xs:string	optional			documentation Specifies the shared script of the viewer.
	AlwaysOnTop	boolean	optional	false		documentation A persistent property of a viewer that specifies whether a viewer appears on top of all other windows on the desktop when it is shown.
	AuthorStatusBar	boolean	optional	false		documentation A persistent property of a viewer that specifies whether the status bar is visible at Author level in the viewer when it is first opened.
	AutoSize	boolean	optional	true		documentation A persistent property of a viewer that specifies whether a viewer is automatically resized to its current page when the viewer is shown or its

BorderStyle	derived by: xs:token	optional	thickFrame	currentPage property changes. documentation Specifies the border style of the viewer. Available options are dialogFrame, none, shadowed, thickFrame, or thinFrame; the default is thickFrame.
Caption	derived by: xs:string	optional		documentation Text shown in the viewers titlebar
CaptionBar	derived by: xs:token	optional	normal	documentation Specifies the type of the caption bar. Can be none, normal, or thin; the default is normal.
CenterClient	boolean	optional	true	documentation A persistent property of a viewer that specifies whether a viewer's client window is centered within the frame of the viewer when the viewer is larger than necessary to fully display the page.
DefaultClientSize	ClientSize	optional	sizetopage	documentation A persistent property of a viewer that specifies the default size of the viewer's client window in page units.
DefaultPage	xs:string	optional		documentation persistent property of a viewer that specifies the page that is displayed in the viewer when it is opened.
DefaultPosition	ViewerPosition	optional	none	documentation A persistent property of a viewer that specifies the default position of the viewer when it is opened.
DefaultState	derived by: xs:token	optional	none	documentation A persistent property of a viewer that specifies the initial state of the viewer when it is opened.
DefaultType	derived by: xs:token	optional	popup	documentation A persistent property of a

	HideOnReader	boolean	optional	false	viewer that specifies the default type of the viewer when it is opened. documentation A persistent viewer property that specifies whether a viewer is hidden on the transition from author level to reader level.
	Icon	xs:string	optional		documentation Specified the icon to be displayed in the caption bar
	ImageBuffers	derived by: xs:integer	optional	0	documentation A persistent property of a viewer that specifies the number of image buffers that ToolBook allocates to a viewer when it displays a page. (An image buffer is a memory bitmap into which ToolBook pre-draws a page's objects.)
	MaximumSize	MinMaxSize	optional	none	documentation A persistent property of a viewer that specifies the viewer's maximum allowable size in pixels.
	MenuBar	MenuBarResource	optional		documentation A persistent property of a viewer that specifies the menu bar resource assigned to the viewer.
	MinimumSize	MinMaxSize	optional	none	documentation A persistent property of a viewer that specifies the viewer's minimum allowable size in pixels.
	ReaderStatusBar	boolean	optional	false	documentation A persistent property of a viewer that specifies whether the status bar is visible at Reader level in the viewer when it is first opened.
	RgbMat	RGBColor	optional	128,128,128	documentation A persistent

	Style	derived by: xs:string	optional	scrolling, maxBox, minBox, sysMenu	property of a viewer that specifies the color used by ToolBook to fill any exposed sections of the viewer's client area. documentation A persistent property of a viewer that specifies a list of style options that define the elements included in the frame of a viewer. Elements include the minimize box, maximize box, Control menu, and scroll bars; the list can contain one or more style options maxBox, minBox, scrolling, or sysMenu; the default is scrolling, maxBox, minBox, sysMenu.
	Tile	derived by: xs:token	optional	none	documentation A persistent property of a viewer that specifies the position of a palette or child window relative to its parent window's client window. The Main window is the parent window of built-in ToolBook palettes.
	UseWindowsColors	boolean	optional	false	documentation A property of draw objects, graphic objects, backgrounds, and a persistent property of viewers that specifies whether an object is drawn in Windows colors defined in the Display section of the Windows Control Panel (CONTROL.EXE). Windows stores these color settings in the WIN.INI file.
	AutoClose	boolean	optional	false	documentation A persistent property of a viewer that specifies if a

	<p>AutoShow boolean optional false</p> <p>RevertFocus boolean optional false</p> <p>Script String32</p>	<p>viewer is closed as the result of a single mouse click or key press at Reader level documentation</p> <p>A persistent property of a viewer that specifies whether a viewer is automatically opened and shown when its book is opened in the Main window documentation</p> <p>A persistent property of a viewer that specifies whether the viewer keeps the focus. If true, the viewer that receives the focus will revert the focus to the previous viewer when the system returns to an idle state documentation</p> <p>Script of the Viewer</p>
annotation	documentation Viewer element	

attribute **Viewer/@IDNumber**

type	ObjectID
properties	isRef 0 use required
facets	minInclusive 0
annotation	documentation Viewer ID.

attribute **Viewer/@Name**

type	ObjectName
properties	isRef 0 use optional
facets	minLength 0 maxLength 32
annotation	documentation Viewer name.

attribute **Viewer/@SharedScript**

type	xs:string
properties	isRef 0 use optional
annotation	documentation Specifies the shared script of the viewer.

attribute **Viewer/@AlwaysOnTop**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A persistent property of a viewer that specifies whether a viewer appears on top of all other windows on the desktop when it is shown.

attribute **Viewer/@AuthorStatusBar**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A persistent property of a viewer that specifies whether the status bar is visible at Author level in the viewer when it is first opened.

attribute **Viewer/@AutoSize**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation A persistent property of a viewer that specifies whether a viewer is automatically resized to its current page when the viewer is shown or its currentPage property changes.

attribute **Viewer/@BorderStyle**

type	restriction of xs:token
properties	isRef 0 default thickFrame use optional
facets	pattern [Tt][Hh][Ii][Cc][Kk][Ff][Rr][Aa][Mm][Ee] pattern [Dd][Ll][Aa][Ll][Oo][Gg][Ff][Rr][Aa][Mm][Ee] pattern [Nn][Oo][Nn][Ee] pattern [Ss][Hh][Aa][Dd][Oo][Ww][Ee][Dd] pattern [Tt][Hh][Ii][Nn][Ff][Rr][Aa][Mm][Ee]
annotation	documentation Specifies the border style of the viewer. Available options are dialogFrame, none, shadowed, thickFrame, or thinFrame; the default is thickFrame.

attribute **Viewer/@Caption**

type	restriction of xs:string
properties	isRef 0 use optional
facets	maxLength 78
annotation	documentation Text shown in the viewers titlebar

attribute **Viewer/@CaptionBar**

type	restriction of xs:token
properties	isRef 0 default normal

	use optional
facets	pattern [Nn][Oo][Nn][Ee] pattern [Nn][Oo][Rr][Mm][Aa][Ll] pattern [Tt][Hh][Ii][Nn]
annotation	documentation Specifies the type of the caption bar. Can be none, normal, or thin; the default is normal.

attribute **Viewer/@CenterClient**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation A persistent property of a viewer that specifies whether a viewer's client window is centered within the frame of the viewer when the viewer is larger than necessary to fully display the page.

attribute **Viewer/@DefaultClientSize**

type	ClientSize
properties	isRef 0 default sizetopage use optional
annotation	documentation A persistent property of a viewer that specifies the default size of the viewer's client window in page units.

attribute **Viewer/@DefaultPage**

type	xs:string
properties	isRef 0 use optional
annotation	documentation persistent property of a viewer that specifies the page that is displayed in the viewer when it is opened.

attribute **Viewer/@DefaultPosition**

type	ViewerPosition
properties	isRef 0 default none use optional
annotation	documentation A persistent property of a viewer that specifies the default position of the viewer when it is opened.

attribute **Viewer/@DefaultState**

type	restriction of xs:token
properties	isRef 0 default none use optional
facets	pattern [Nn][Oo][Rr][Mm][Aa][Ll] pattern [Mm][Aa][Xx][Ii][Mm][Ii][Zz][Ee][Dd] pattern [Mm][Ii][Nn][Ii][Mm][Ii][Zz][Ee][Dd] pattern [Ll][Oo][Cc][Kk][Mm][Ii][Nn][Ii][Mm][Ii][Zz][Ee][Dd] pattern [Nn][Oo][Nn][Ee]
annotation	documentation A persistent property of a viewer that specifies the initial state of the viewer when it is opened.

attribute **Viewer/@DefaultType**

type	restriction of xs:token
properties	isRef 0 default popup use optional
facets	pattern [Pp][Oo][Pp][Uu][Pp] pattern [Cc][Hh][Ii][Ll][Dd]
annotation	documentation A persistent property of a viewer that specifies the default type of the viewer when it is opened.

attribute **Viewer/@HideOnReader**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A persistent viewer property that specifies whether a viewer is hidden on the transition from author level to reader level.

attribute **Viewer/@Icon**

type	xs:string
properties	isRef 0 use optional
annotation	documentation Specified the icon to be displayed in the caption bar

attribute **Viewer/@ImageBuffers**

type	restriction of xs:integer
properties	isRef 0 default 0 use optional
facets	minInclusive 0 maxInclusive 2
annotation	documentation A persistent property of a viewer that specifies the number of image buffers that ToolBook allocates to a viewer when it displays a page. (An image buffer is a memory bitmap into which ToolBook pre-draws a page's objects.)

attribute **Viewer/@MaximumSize**

type	MinMaxSize
properties	isRef 0 default none use optional
annotation	documentation A persistent property of a viewer that specifies the viewer's maximum allowable size in pixels.

attribute **Viewer/@MenuBar**

type	MenuBarResource
properties	isRef 0 use optional
facets	pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+[Ii][Dd]\s+\d{3,5} pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s" pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+\s{\1,30}\s"

	pattern <code>[Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+&quot;\w[\w\s]{1,30}\w&quot;</code> ;
annotation	documentation A persistent property of a viewer that specifies the menu bar resource assigned to the viewer.

attribute **Viewer/@MinimumSize**

type	MinMaxSize
properties	isRef 0 default none use optional
annotation	documentation A persistent property of a viewer that specifies the viewer's minimum allowable size in pixels.

attribute **Viewer/@ReaderStatusBar**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A persistent property of a viewer that specifies whether the status bar is visible at Reader level in the viewer when it is first opened.

attribute **Viewer/@RgbMat**

type	RGBColor
properties	isRef 0 default 128,128,128 use optional
annotation	documentation A persistent property of a viewer that specifies the color used by ToolBook to fill any exposed sections of the viewer's client area.

attribute **Viewer/@Style**

type	restriction of xs:string
properties	isRef 0 default scrolling, maxBox, minBox, sysMenu use optional
facets	pattern <code>\s*(([Ss][Cc][Rr][Oo][Ll][Ll][Ii][Nn][Gg]) ([Mm][Aa][Xx][Bb][Oo][Xx]) ([Mm][Ii][Nn][Bb][Oo][Xx]) ([Ss][Yy][Ss][Mm][Ee][Nn][Uu]))(\s*,\s*(([Ss][Cc][Rr][Oo][Ll][Ll][Ii][Nn][Gg]) ([Mm][Aa][Xx][Bb][Oo][Xx]) ([Mm][Ii][Nn][Bb][Oo][Xx]) ([Ss][Yy][Ss][Mm][Ee][Nn][Uu]))){1,3}</code>
annotation	documentation A persistent property of a viewer that specifies a list of style options that define the elements included in the frame of a viewer. Elements include the minimize box, maximize box, Control menu, and scroll bars; the list can contain one or more style options maxBox, minBox, scrolling, or sysMenu; the default is scrolling, maxBox, minBox, sysMenu.

attribute **Viewer/@Tile**

type	restriction of xs:token
properties	isRef 0 default none use optional
facets	pattern <code>[Nn][Oo][Nn][Ee]</code> pattern <code>[Tt][Oo][Pp]</code> pattern <code>[Bb][Oo][Tt][Tt][Oo][Mm]</code> pattern <code>[Ll][Ee][Ff][Tt]</code> pattern <code>[Rr][Ii][Gg][Hh][Tt]</code>
annotation	documentation A persistent property of a viewer that specifies the position of a palette or child window relative to its parent window's client window. The Main window is the parent window of built-in ToolBook palettes.

attribute Viewer/@UseWindowsColors

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A property of draw objects, graphic objects, backgrounds, and a persistent property of viewers that specifies whether an object is drawn in Windows colors defined in the Display section of the Windows Control Panel (CONTROL.EXE). Windows stores these color settings in the WIN.INI file.

attribute Viewer/@AutoClose

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A persistent property of a viewer that specifies if a viewer is closed as the result of a single mouse click or key press at Reader level

attribute Viewer/@AutoShow

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A persistent property of a viewer that specifies whether a viewer is automatically opened and shown when its book is opened in the Main window

attribute Viewer/@RevertFocus

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A persistent property of a viewer that specifies whether the viewer keeps the focus. If true, the viewer that receives the focus will revert the focus to the previous viewer when the system returns to an idle state

attribute Viewer/@Script

type	String32
properties	isRef 0
facets	minLength 0 maxLength 65535
annotation	documentation Script of the Viewer

element Viewer.UserProperties

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	content complex
children	UserProperty

used by	element Viewer
annotation	documentation User defined properties of the viewer

complexType Resource

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of Object					
properties	base	Object				
	abstract	true				
used by	elements	Bitmap Clip Cursor Font Icon MenuBar SharedScript				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ResourceID	required			documentation Icon resource ID number
	Name	ObjectName				documentation Icon resource ID name
	Source	xs:string	required			documentation Icon resource filename
annotation	documentation Abstract class for resource elements, derived from Object class					

attribute Resource/@IDNumber

type	ResourceID
properties	isRef 0 use required
facets	minInclusive 100
annotation	documentation Icon resource ID number

attribute Resource/@Name

type	ObjectName
properties	isRef 0
facets	minLength 0 maxLength 32
annotation	documentation Icon resource ID name

attribute Resource/@Source

type	xs:string
properties	isRef 0 use required
annotation	documentation Icon resource filename

Schema SumTotal.ToolBook.XML.Background.xsd

schema location: **SumTotal.ToolBook.XML.Background.xsd**
 element form default: **qualified**
 targetNamespace: **urn:sumtotalsystems:toolbox.tbkx**

Elements

[Background](#)
[Background.Objects](#)
[Background.UserProperties](#)

element **Background**

namespace	urn:sumtotalsystems:toolbox.tbkx					
properties	content complex					
children	Background.UserProperties Background.Objects					
attributes	Name	Type	Use	Default	Fixed	annotation
	UseWindowsColors	boolean	optional	false		documentation Specifies whether the background is drawn using Windows colors
	UseDialogColor	boolean	optional	false		
	Size	Size	optional	0,0		documentation Specifies the page sizes for that background. If the background's size property is set to 0,0, the book's size property is used for the pages of the background.
	SharedScript	SharedScriptResource	optional			documentation The SharedScript property of a background is a reference to a SharedScript resource, and defines the shared script used if any, by the background
	RgbStroke	RGBColor	optional	0,0,0		documentation Specifies the stroke color as an RGB value.
	RgbFill	RGBColor	optional	255,255,255		documentation Specifies the fill color as an RGB value
	Pattern	Pattern	optional	solidFill		documentation The Pattern property specifies a pattern for the background, using the

	Name	ObjectName	optional		background's RgbStroke and RgbFill colors documentation The Name property specifies an object's name with a max length of 32 chars
	IDNumber	ObjectID	required		documentation IDNumber property specifies the unique id number of the background
	BackdropStyle	derived by: xs:token	optional	none	documentation The BackdropStyle property specifies how the Backdrop graphic, if specified, is applied. It supports the following values: none No tiling at all. center Position the backdrop in the center of the background. stretch Stretch the bitmap to fill the background. tiled Tile to fill the background beginning at the upper left. tileCenter Like "tiled" except that top/bottom rows and left/right columns are shifted so all is centered. checkeredOne Checkerboard tiling with the upper left corner containing a bitmap. checkeredTwo Checkerboard tiling with the upper left corner showing

	<p>Backdrop BitmapResource optional</p> <p>Script String32</p>	<p>the background fillColor and/or pattern.</p> <p>checkeredThree Like "checkeredOne" except that top/bottom rows and left/right columns are shifted so that all is centered.</p> <p>checkeredFour Like "checkeredTwo" except that top/bottom rows and left/right columns are shifted so that all is centered</p> <p>documentation The Backdrop property specifies a Bitmap resource to use as the background's backdrop documentation Script of the background</p>
annotation	documentation The Background element defines the properties of a background and all the objects on it	

attribute **Background/@UseWindowsColors**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies whether the background is drawn using Windows colors

attribute **Background/@UseDialogColor**

type	boolean
properties	isRef 0 default false use optional

attribute **Background/@Size**

type	Size
properties	isRef 0 default 0,0 use optional
facets	pattern \d{1,5},\d{1,5}
annotation	documentation Specifies the page sizes for that background. If the background's size property is set to 0,0, the book's size property is used for the pages of the background.

attribute **Background/@SharedScript**

type	SharedScriptResource
properties	isRef 0 use optional
facets	<p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+[Ii][Dd]s+d{3,5}</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"s[w\s]{1,30}w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"w[w\s]{1,30}s"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"w[w\s]{1,30}w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;s[w\s]{1,30}w&quot;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;w[w\s]{1,30}s&quot;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;w[w\s]{1,30}w&quot;</p>
annotation	documentation The SharedScript property of a background is a reference to a SharedScript resource, and defines the shared script used if any, by the background

attribute **Background/@RgbStroke**

type	RGBColor
properties	isRef 0 default 0,0,0 use optional
annotation	documentation Specifies the stroke color as an RGB value.

attribute **Background/@RgbFill**

type	RGBColor
properties	isRef 0 default 255,255,255 use optional
annotation	documentation Specifies the fill color as an RGB value

attribute **Background/@Pattern**

type	Pattern
properties	isRef 0 default solidFill use optional
annotation	documentation The Pattern property specifies a pattern for the background, using the background's RgbStroke and RgbFill colors

attribute **Background/@Name**

type	ObjectName
properties	isRef 0 use optional
facets	minLength 0 maxLength 32
annotation	documentation The Name property specifies an object's name with a max length of 32 chars

attribute **Background/@IDNumber**

type	ObjectID
properties	isRef 0 use required

facets	minInclusive 0
annotation	documentation IDNumber property specifies the unique id number of the background

attribute **Background/@BackdropStyle**

type	restriction of xs:token
properties	isRef 0 default none use optional
facets	<p>pattern [Nn][Oo][Nn][Ee]</p> <p>pattern [Cc][Ee][Nn][Tt][Ee][Rr]</p> <p>pattern [Ss][Tt][Rr][Ee][Tt][Cc][Hh]</p> <p>pattern [Tt][Ii][Ll][Ee][Dd]</p> <p>pattern [Tt][Ii][Ll][Ee][Cc][Ee][Nn][Tt][Ee][Rr]</p> <p>pattern [Cc][Hh][Ee][Cc][Kk][Ee][Rr][Ee][Dd][Oo][Nn][Ee]</p> <p>pattern [Cc][Hh][Ee][Cc][Kk][Ee][Rr][Ee][Dd][Tt][Ww][Oo]</p> <p>pattern [Cc][Hh][Ee][Cc][Kk][Ee][Rr][Ee][Dd][Tt][Hh][Rr][Ee][Ee]</p> <p>pattern [Cc][Hh][Ee][Cc][Kk][Ee][Rr][Ee][Dd][Ff][Oo][Uu][Rr]</p>
annotation	<p>documentation</p> <p>The BackdropStyle property specifies how the Backdrop graphic, if specified, is applied. It supports the following values:</p> <p>none No tiling at all.</p> <p>center Position the backdrop in the center of the background.</p> <p>stretch Stretch the bitmap to fill the background.</p> <p>tiled Tile to fill the background beginning at the upper left.</p> <p>tileCenter Like "tiled" except that top/bottom rows and left/right columns are shifted so all is centered.</p> <p>checkeredOne Checkerboard tiling with the upper left corner containing a bitmap.</p> <p>checkeredTwo Checkerboard tiling with the upper left corner showing the background fillColor and/or pattern.</p> <p>checkeredThree Like "checkeredOne" except that top/bottom rows and left/right columns are shifted so that all is centered.</p> <p>checkeredFour Like "checkeredTwo" except that top/bottom rows and left/right columns are shifted so that all is centered</p>

attribute **Background/@Backdrop**

type	BitmapResource
properties	isRef 0 use optional
facets	<p>pattern [Bb][Ii][Tt][Mm][Aa][Pp]\s+[Ii][Dd]\s+\d{3,5}</p> <p>pattern [Bb][Ii][Tt][Mm][Aa][Pp]\s+"s[\w\s]{1,30}\w"</p> <p>pattern [Bb][Ii][Tt][Mm][Aa][Pp]\s+"w[\w\s]{1,30}\s"</p> <p>pattern [Bb][Ii][Tt][Mm][Aa][Pp]\s+"w[\w\s]{1,30}\w"</p> <p>pattern [Bb][Ii][Tt][Mm][Aa][Pp]\s+"&quot;[\w\s]{1,30}\w&quot;</p> <p>pattern [Bb][Ii][Tt][Mm][Aa][Pp]\s+"&quot;[\w\s]{1,30}\s&quot;</p> <p>pattern [Bb][Ii][Tt][Mm][Aa][Pp]\s+"&quot;[\w\s]{1,30}\w&quot;</p>
annotation	<p>documentation</p> <p>The Backdrop property specifies a Bitmap resource to use as the background's backdrop</p>

attribute **Background/@Script**

type	String32
properties	isRef 0
facets	minLength 0 maxLength 65535
annotation	documentation Script of the background

element **Background.Objects**

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	content complex
children	Image AngledLine Arc Button ComboBox Curve Ellipse EnhancedField Field Group IrregularPloygon Line PaintObject Picture Pie Polygon Rectangle RoundedRectangle Stage UniversalMediaPlayer
used by	element Background
annotation	documentation Objects contained within a background

element **Background.UserProperties**

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	content complex
children	UserProperty
used by	element Background
annotation	documentation User defined properties of the background

Schema SumTotal.ToolBook.XML.Page.xsd

schema location: **SumTotal.ToolBook.XML.Page.xsd**
 element form default: **qualified**
 targetNamespace: **urn:sumtotalsystems:toolbox.tbkx**

Elements

[Page](#)

[Page.Objects](#)

[Page.UserProperties](#)

element Page

namespace	urn:sumtotalsystems:toolbox.tbkx					
properties	content complex					
children	Page.UserProperties Page.Objects					
attributes	Name	Type	Use	Default	Fixed	annotation
	SkipNavigation	boolean	optional	false		documentation Specifies whether the page is included in normal page navigation at Reader level
	SharedScript	SharedScriptResource	optional			documentation Reference to shared script resource of the page
	Name	ObjectName	optional			documentation Specifies the name of the page with a max char length of 32
	IDNumber	ObjectID	required			documentation A unique ID number of the page
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	Background	BackgroundReference	required			documentation Reference to the background of the page
	Script	String32				documentation Script of the page
annotation	documentation The Page element defines the properties of a page and all the objects on it					

attribute **Page/@SkipNavigation**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies whether the page is included in normal page navigation at Reader level

attribute **Page/@SharedScript**

type	SharedScriptResource
properties	isRef 0 use optional
facets	pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+[Ii][Dd]s+d{3,5} pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"\s{1,30}\w" pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"\w{1,30}\s" pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"\w{1,30}\w" pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+""\s{1,30}\w" pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+""\w{1,30}\s" pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+""\w{1,30}\w"
annotation	documentation Reference to shared script resource of the page

attribute **Page/@Name**

type	ObjectName
properties	isRef 0 use optional
facets	minLength 0 maxLength 32
annotation	documentation Specifies the name of the page with a max char length of 32

attribute **Page/@IDNumber**

type	ObjectID
properties	isRef 0 use required
facets	minInclusive 0
annotation	documentation A unique ID number of the page

attribute **Page/@DefaultAllowDrop**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation

attribute **Page/@Background**

type	BackgroundReference
properties	isRef 0 use required
facets	pattern [Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]s+[Ii][Dd]s+d{1,5} pattern [Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]s+"\s{1,30}\w" pattern [Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]s+"\w{1,30}\s" pattern [Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]s+"\w{1,30}\w"

	pattern [Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+&quot;\s[\w\s]{1,30}\w&quot; ; pattern [Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+&quot;\w[\w\s]{1,30}\s&quot; ; pattern [Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+&quot;\w[\w\s]{1,30}\w&quot; ;
annotation	documentation Reference to the background of the page

attribute **Page/@Script**

type	String32
properties	isRef 0
facets	minLength 0 maxLength 65535
annotation	documentation Script of the page

element **Page.Objects**

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	content complex
children	Image AngledLine Arc Button ComboBox Curve Ellipse EnhancedField Field Group IrregularPloygon Line PaintObject Picture Pie Polygon Rectangle RoundedRectangle Stage UniversalMediaPlayer
used by	element Page
annotation	documentation Objects of the page

element **Page.UserProperties**

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	content complex
children	UserProperty
used by	element Page
annotation	documentation User defined properties

Schema SumTotal.ToolBook.XML.Objects.xsd

schema location: **SumTotal.ToolBook.XML.Objects.xsd**
 element form default: **qualified**
 targetNamespace: **urn:sumtotalsystems:toolbook.tbkx**

Elements	Complex types
AngledLine	DrawObject
Arc	EnhancedFieldClass
Button	FieldClass
Button.UserProperties	GraphicObject
ComboBox	LineObject
Curve	Object
Ellipse	TextObject
EnhancedField	ToolBookObject
EnhancedField.UserProperties	VectorObject
Field	
Field.UserProperties	
Group	
Group.Objects	
Group.UserProperties	
Hotword	
Hyperlink	
Image	
Image.UserProperties	
IrregularPloygon	
Line	
PaintObject	
Picture	
Pie	
Polygon	
Rectangle	
RoundedRectangle	
Stage	
UniversalMediaPlayer	
UniversalMediaPlayer.UserProperties	

element **AngledLine**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of LineObject					
properties	content	complex				
	abstract	false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the

SharedScript	SharedScriptResource	optional		object documentation SharedScript resource assigned to the object
Script	String32			documentation Script of the object
DefaultAllowDrag	boolean	optional	false	documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
DefaultAllowDrop	boolean	optional	false	documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn

	Visible	boolean	optional	true	using Windows colors documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
	Vertices	xs:string	optional		documentation A property of draw objects that specifies the locations of an object's vertices
	LineEndSize	LineEndSize	optional	sysLineEndSize	documentation A property of a line, angled line, arc, or curve that specifies the size of the line ends for that object
	LineEndStyle	LineEndStyle		sysLineEndStyle	documentation A property of a line, angled line, arc, or curve that specifies a line end style for the line ends of that object
annotation	documentation AngledLine element defines a ToolBook angledLine object				

element Arc

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of LineObject					
properties	content	complex				
	abstract	false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the

Name	ObjectName	optional		object documentation String name of the object
SharedScript	SharedScriptResource	optional		object documentation SharedScript resource assigned to the object
Script	String32			documentation Script of the object
DefaultAllowDrag	boolean	optional	false	documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
DefaultAllowDrop	boolean	optional	false	documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent

	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
	Vertices	xs:string	optional		documentation A property of draw objects that specifies the locations of an object's vertices
	LineEndSize	LineEndSize	optional	sysLineEndSize	documentation A property of a line, angled line, arc, or curve that specifies the size of the line ends for that object
	LineEndStyle	LineEndStyle		sysLineEndStyle	documentation A property of a line, angled line, arc, or curve that specifies a line end style for the line ends of that object
annotation	documentation Arc element defines a ToolBook arc object				

element **Button**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of TextObject					
properties	content	complex				
	abstract	false				
children	Hyperlink Button.UserProperties					
used by	element	Group.Objects				
attributes	Name	Type	Use	Default	Fixed	annotation

IDNumber	ObjectID	required		documentation Unique ID number assigned to the object
Name	ObjectName	optional		documentation String name of the object
SharedScript	SharedScriptResource	optional		documentation SharedScript resource assigned to the object
Script	String32			documentation Script of the object
DefaultAllowDrag	boolean	optional	false	documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
DefaultAllowDrop	boolean	optional	false	documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that

	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	FontFace	xs:string	optional	sysFontFace	documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text
	FontSize	FontSizeData	optional	sysFontSize	documentation A button, combo box, field, or record field property that specifies the point size of button labels and combo box, field, or record field text. One point equals 1/72 of an inch
	FontStyle	xs:string	optional	sysFontStyle	documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text
	BorderStyle	derived by: xs:token	optional	pushButton	documentation Specifies the button's border style which could one of: checkBox, checkBox3D, commandButton, label, none, pushButton, radioButton, radioButton3D, rectangle, rounded, shadowed or toolbarButton; the default is pushButton
	Caption	derived by: xs:string	optional	&	documentation Specifies the text to be shown as the object's title

CaptionPosition	derived by: xs:token	optional	auto	documentation A button property that specifies the position of a button's caption relative to its graphic
Checked	boolean	optional	false	documentation A button property that specifies whether a check box is checked or a radio button is selected
CheckedGraphic	GraphicResource	optional	null	documentation Specifies the graphic attached to a check box or radio button when it is checked or selected.
DisabledGraphic	GraphicResource	optional	null	documentation Specifies the graphic displayed in a button when it is disabled.
Enabled	boolean	optional	true	documentation Specifies whether the button can receive the focus or mouse event messages at Reader level
ExcludeTab	boolean	optional	false	documentation A button property that specifies whether a button can receive the focus as a result of keyboard actions, mouse clicks, or script statements at Reader level
Highlight	boolean	optional	true	documentation A button property that specifies whether the button flashes briefly when it is clicked. Setting the highlight property to true is the same as checking the Highlight option in the Button Properties dialog box
Invert	boolean	optional	false	documentation A button property that specifies whether a button appears inverted (pressed). If invert is true, a button appears in its highlighted state
InvertGraphic	GraphicResource	optional	null	documentation Specifies the graphic attached to a button object when a user clicks an enabled button and the

	NormalGraphic GraphicResource optional null	buttonDown message is sent. documentation Specifies the graphic attached to a button object when its working state is normal. The normal graphic appears when a button is enabled but not being used
	StretchGraphic boolean optional false	documentation Specifies whether a bitmap graphic is stretched to fill the entire graphic area of a button.
annotation	documentation Button element. Defines a Button object (including check boxes and radio buttons).	

attribute **Button/@BorderStyle**

type	restriction of xs:token
properties	isRef 0 default pushButton use optional
facets	pattern [Pp][Uu][Ss][Hh][Bb][Uu][Tt][Oo][Nn] pattern [Cc][Hh][Ee][Cc][Kk][Bb][Oo][Xx] pattern [Cc][Hh][Ee][Cc][Kk][Bb][Oo][Xx]3[Dd] pattern [Cc][Oo][Mm][Mm][Aa][Nn][Dd][Bb][Uu][Tt][Tt][Oo][Nn] pattern [Ll][Aa][Bb][Ee][Ll] pattern [Nn][Oo][Nn][Ee] pattern [Rr][Aa][Dd][Ii][Oo][Bb][Uu][Tt][Tt][Oo][Nn] pattern [Rr][Aa][Dd][Ii][Oo][Bb][Uu][Tt][Tt][Oo][Nn]3[Dd] pattern [Rr][Ee][Cc][Tt][Aa][Nn][Gg][Ll][Ee] pattern [Rr][Oo][Uu][Nn][Dd][Ee][Dd] pattern [Ss][Hh][Aa][Dd][Oo][Ww][Ee][Dd] pattern [Tt][Oo][Oo][Ll][Bb][Aa][Rr][Bb][Uu][Tt][Tt][Oo][Nn]
annotation	documentation Specifies the button's border style which could one of: checkBox, checkBox3D, commandButton, label, none, pushButton, radioButton, radioButton3D, rectangle, rounded, shadowed or toolbarButton; the default is pushButton

attribute **Button/@Caption**

type	restriction of xs:string
properties	isRef 0 default & use optional
facets	maxLength 255
annotation	documentation Specifies the text to be shown as the object's title

attribute **Button/@CaptionPosition**

type	restriction of xs:token
properties	isRef 0 default auto use optional
facets	pattern [Aa][Uu][Tt][Oo] pattern [Bb][Oo][Tt][Tt][Oo][Mm] pattern [Cc][Ee][Nn][Tt][Ee][Rr] pattern [Ll][Ee][Ff][Tt] pattern [Rr][Ii][Gg][Hh][Tt] pattern [Tt][Oo][Pp]

annotation	documentation A button property that specifies the position of a button's caption relative to its graphic
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attribute **Button/@Checked**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A button property that specifies whether a check box is checked or a radio button is selected

attribute **Button/@CheckedGraphic**

type	GraphicResource
properties	isRef 0 default null use optional
annotation	documentation Specifies the graphic attached to a check box or radio button when it is checked or selected.

attribute **Button/@DisabledGraphic**

type	GraphicResource
properties	isRef 0 default null use optional
annotation	documentation Specifies the graphic displayed in a button when it is disabled.

attribute **Button/@Enabled**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation Specifies whether the button can receive the focus or mouse event messages at Reader level

attribute **Button/@ExcludeTab**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A button property that specifies whether a button can receive the focus as a result of keyboard actions, mouse clicks, or script statements at Reader level

attribute **Button/@Highlight**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation A button property that specifies whether the button flashes briefly when it is clicked. Setting the highlight property to true is the same as checking the Highlight option in the Button Properties dialog box

attribute **Button/@Invert**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A button property that specifies whether a button appears inverted (pressed). If invert is true, a button appears in its highlighted state

attribute **Button/@InvertGraphic**

type	GraphicResource
properties	isRef 0 default null use optional
annotation	documentation Specifies the graphic attached to a button object when a user clicks an enabled button and the buttonDown message is sent.

attribute **Button/@NormalGraphic**

type	GraphicResource
properties	isRef 0 default null use optional
annotation	documentation Specifies the graphic attached to a button object when its working state is normal. The normal graphic appears when a button is enabled but not being used

attribute **Button/@StretchGraphic**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies whether a bitmap graphic is stretched to fill the entire graphic area of a button.

element **Button.UserProperties**

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	content complex
children	UserProperty
used by	element Button
annotation	documentation User defined properties of a button

element **ComboBox**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	extension of TextObject
properties	content complex
children	Hyperlink

used by	element Group.Objects					
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill		documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke		documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent		documentation

	UseWindowsColors	boolean	optional	false	A property of draw objects and graphic objects that specifies whether an object is transparent documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	FontFace	xs:string	optional	sysFontFace	documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text
	FontSize	FontSizeData	optional	sysFontSize	documentation A button, combo box, field, or record field property that specifies the point size of button labels and combo box, field, or record field text. One point equals 1/72 of an inch
	FontStyle	xs:string	optional	sysFontStyle	documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text
	BorderStyle	derived by: xs:token	optional	rectangle	documentation Specifies the border style of the combo box
	DropDownItems	xs:string	optional		documentation The DropDownItems property specifies the contents of a combobox's drop-down list box
	Editable	boolean	optional	false	documentation The Editable property specifies whether the user can type in a combobox's edit

	Enabled	boolean	optional	true	field at Reader level documentation The Enabled property specifies whether the combobox is active and will receive mouse event messages at reader level
	LineCount	xs:positiveInteger	optional	5	documentation The LineCount property specifies how many lines of text are displayed in the drop-down list box
	Scrollable	boolean	optional	false	documentation The Scrollable property specifies whether a combobox's drop-down list box has a scroll bar
	SelectedItem	xs:positiveInteger	optional		documentation The SelectedItem property specifies which item is selected in a combobox's drop-down list box, using a one-based, numeric index to indicate position
	SortItems	boolean	optional	false	documentation The SortItems property specifies whether the items in a combobox's drop-down list are sorted alphanumerically at Reader level
	Text	xs:string	optional		documentation The Text property specifies the text displayed in a combobox's text field
annotation	documentation ComboBox element derived from TextObject class defines a ComboBox object				

attribute **ComboBox/@BorderStyle**

type	restriction of xs:token
properties	isRef 0 default rectangle use optional
facets	pattern [Rr][Ee][Cc][Tt][Aa][Nn][Gg][Ll][Ee] pattern [Rr][Aa][Ii][Ss][Ee][Dd] pattern [Ii][Nn][Ss][Ee][Tt]
annotation	documentation Specifies the border style of the combo box

attribute **ComboBox/@DropDownItems**

type	xs:string
properties	isRef 0

	use optional
annotation	documentation The DropDownItems property specifies the contents of a combobox's drop-down list box

attribute **ComboBox/@Editable**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The Editable property specifies whether the user can type in a combobox's edit field at Reader level

attribute **ComboBox/@Enabled**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation The Enabled property specifies whether the combobox is active and will receive mouse event messages at reader level

attribute **ComboBox/@LineCount**

type	xs:positiveInteger
properties	isRef 0 default 5 use optional
annotation	documentation The LineCount property specifies how many lines of text are displayed in the drop-down list box

attribute **ComboBox/@Scrollable**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The Scrollable property specifies whether a combobox's drop-down list box has a scroll bar

attribute **ComboBox/@SelectedItem**

type	xs:positiveInteger
properties	isRef 0 use optional
annotation	documentation The SelectedItem property specifies which item is selected in a combobox's drop-down list box, using a one-based, numeric index to indicate position

attribute **ComboBox/@SortItems**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The SortItems property specifies whether the items in a combobox's drop-down list are sorted alphanumerically at Reader level

attribute **ComboBox/@Text**

type	xs:string
properties	isRef 0 use optional
annotation	documentation The Text property specifies the text displayed in a combobox's text field

element **Curve**

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of LineObject					
properties	content abstract	complex false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null		documentation

					<p>A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation</p> <p>documentation</p> <p>Specifies the fill color for the object as an RGB value</p> <p>documentation</p> <p>Specifies the object's stroke color as an RGB value</p> <p>documentation</p> <p>A property of draw objects and graphic objects that specifies whether an object is transparent</p> <p>documentation</p> <p>Specifies whether the object is drawn using Windows colors</p> <p>documentation</p> <p>Property of the object that specifies whether its shown onscreen</p> <p>documentation</p> <p>The Hyperlink property defines a hyperlink on an object</p> <p>documentation</p> <p>Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book</p> <p>documentation</p> <p>A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points</p> <p>documentation</p> <p>A draw object property that specifies the current fill pattern of selected draw objects</p> <p>documentation</p> <p>A property of draw objects that specifies the locations of an object's vertices</p> <p>documentation</p> <p>A property of a line,</p>
	RgbFill	RGBColor	optional	sysRGBFill	
	RgbStroke	RGBColor	optional	sysRGBStroke	
	Transparent	Transparency		sysTransparent	
	UseWindowsColors	boolean	optional	false	
	Visible	boolean	optional	true	
	Hyperlink	xs:string	optional		
	Bounds	Bounds	required		
	LineStyle	LineStyle	optional	sysLineStyle	
	Pattern	Pattern	optional	sysPattern	
	Vertices	xs:string	optional		
	LineEndSize	LineEndSize	optional	sysLineEndSize	

	LineEndStyle LineEndStyle sysLineEndStyle	angled line, arc, or curve that specifies the size of the line ends for that object documentation A property of a line, angled line, arc, or curve that specifies a line end style for the line ends of that object
annotation	documentation Curve element defines a ToolBook curve object	

element **Ellipse**

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of DrawObject					
properties	content abstract	complex false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to

	NoDropImage	GraphicResource	optional	null	flicker if they are moved documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
annotation	documentation Ellipse element derived from DrawObject class				

element **EnhancedField**

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of EnhancedFieldClass					
properties	content complex					
children	Hyperlink EnhancedField.UserProperties EnhancedField.Objects					
used by	element Group.Objects					
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation

RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
FontFace	xs:string	optional	sysFontFace	documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text
FontSize	FontSizeData	optional	sysFontSize	documentation A button, combo box, field, or record field property that specifies the point size of button labels and combo box, field, or record field text. One point equals 1/72 of an inch
FontStyle	xs:string	optional	sysFontStyle	documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text
Activated	boolean	optional	false	documentation A field property that specifies whether a field or record field can be edited, or whether it can receive mouse event messages at

Baselines	boolean	optional	false	Reader level documentation Specifies whether text baselines in a field are visible
BorderStyle	derived by: xs:token	optional	rectangle	documentation Specifies the field's border style which could one of: inset, none, raised, rectangle, scrolling, or shadowed; the default is rectangle.
DrawTextDirect	boolean	optional	false	documentation Specifies the method for drawing text in a field. Set this property to true to improve a field's or record field's scrolling speed.
Enabled	boolean	optional	true	documentation Specifies whether the object can receive the focus or mouse event messages at Reader level.
FieldType	derived by: xs:token	optional	wordWrap	documentation A field property that specifies basic wordwrap style and selection behaviors
Indents	FieldIndent	optional	0,0,0	documentation A list of 3 non-negative numbers in page units that specifies the width of margin indents.
Spacing	derived by: xs:token	optional	1	documentation Specifies the spacing for the field's text. Can be one of 1, 1.5 or 2. Default is 1.
TabSpacing	xs:positiveInteger	optional	720	documentation Specifies the tab stop settings for the field
TabType	derived by: xs:token	optional	left	documentation Specifies whether 'left' or 'decimal' tabs are used in the field. Default is left
Text	derived by: xs:string	optional		documentation Text content of the field
TextAlignment	derived by: xs:token	optional	left	documentation Specifies the alignment of text in the field : left, right, justify or center
AutoSize	boolean	optional	false	documentation Specifies whether the field can autosize to its contents
AutoBorder	boolean	optional	false	documentation Specifies whether the border of the object is hidden in reader mode. When TRUE, the border is

	SubstituteTokens boolean optional false	hidden. The property applies to the object.
annotation	documentation EnhancedField element is an instance of the EnhancedField class derived from FieldClass. It is an extension of the regular Field object, to support automatic border, automatic sizing and token substitution (used by SmartStyles). In ToolBook, it results in an "Auto-Sizing Text Field".	

element **EnhancedField/EnhancedField.Objects**

namespace	urn:sumtotalsystems:toolbook.tbkx	
properties	isRef 0 minOcc 0 maxOcc 1 content complex	
children	Hotword	
annotation	documentation Collection of objects that the enhanced field can contain. So far it can have only Hotword objects.	

element **EnhancedField.UserProperties**

namespace	urn:sumtotalsystems:toolbook.tbkx	
properties	content complex	
children	UserProperty	
used by	element EnhancedField	
annotation	documentation User defined properties of the enhanced field	

element **Field**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of FieldClass					
properties	content complex					
children	Hyperlink Field.UserProperties Field.Objects					
used by	element Group.Objects					
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an

	DragImage	GraphicResource	optional		object's default behavior when the cursor enters its bounds during a drag-and-drop operation documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to

FontFace	xs:string	optional	sysFontFace	the top left corner of the book documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text
FontSize	FontSizeData	optional	sysFontSize	documentation A button, combo box, field, or record field property that specifies the point size of button labels and combo box, field, or record field text. One point equals 1/72 of an inch
FontStyle	xs:string	optional	sysFontStyle	documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text
Activated	boolean	optional	false	documentation A field property that specifies whether a field or record field can be edited, or whether it can receive mouse event messages at Reader level
Baselines	boolean	optional	false	documentation Specifies whether text baselines in a field are visible
BorderStyle	derived by: xs:token	optional	rectangle	documentation Specifies the field's border style which could one of: inset, none, raised, rectangle, scrolling, or shadowed; the default is rectangle.
DrawTextDirect	boolean	optional	false	documentation Specifies the method for drawing text in a field. Set this property to true to improve a field's or record field's scrolling speed.
Enabled	boolean	optional	true	documentation Specifies whether the object can receive the focus or mouse event messages at Reader level.
FieldType	derived by: xs:token	optional	wordWrap	documentation A field property that specifies basic wordwrap style and selection behaviors
Indents	FieldIndent	optional	0,0,0	documentation

	<p>Spacing derived by: xs:token optional 1</p> <p>TabSpacing xs:positiveInteger optional 720</p> <p>TabType derived by: xs:token optional left</p> <p>Text derived by: xs:string optional</p> <p>TextAlignment derived by: xs:token optional left</p>	<p>A list of 3 non-negative numbers in page units that specifies the width of margin indents.</p> <p>documentation Specifies the spacing for the field's text. Can be one of 1,1,5 or 2. Default is 1.</p> <p>documentation Specifies the tab stop settings for the field</p> <p>documentation Specifies whether 'left' or 'decimal' tabs are used in the field. Default is left</p> <p>documentation Text content of the field</p> <p>documentation Specifies the alignment of text in the field : left, right, justify or center</p>
annotation	documentation Field element is an instance of the FieldClass derived from TextObject. Defines a simple text field element	

element **Field/Field.Objects**

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	Hotword
annotation	documentation Collection of objects that the field can contain. So far it can have only Hotword objects.

element **Field.UserProperties**

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	content complex
children	UserProperty
used by	element Field
annotation	documentation User defined properties of the field

element **Group**

namespace	urn:sumtotalsystems:toolbox.tbkx
type	extension of GraphicObject
properties	content complex
children	Hyperlink Group.Objects Group.UserProperties
used by	element Group.Objects
attributes	Name Type Use Default Fixed annotation

IDNumber	ObjectID	required		documentation Unique ID number assigned to the object
Name	ObjectName	optional		documentation String name of the object
SharedScript	SharedScriptResource	optional		documentation SharedScript resource assigned to the object
Script	String32			documentation Script of the object
DefaultAllowDrag	boolean	optional	false	documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
DefaultAllowDrop	boolean	optional	false	documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that

	<p>RgbFill RGBColor optional sysRGBFill</p> <p>RgbStroke RGBColor optional sysRGBStroke</p> <p>Transparent Transparency sysTransparent</p> <p>UseWindowsColors boolean optional false</p> <p>Visible boolean optional true</p> <p>Hyperlink xs:string optional</p> <p>AutoRadioButtons boolean optional true</p>	<p>does not accept drops during a drag-and-drop operation</p> <p>documentation</p> <p>Specifies the fill color for the object as an RGB value</p> <p>documentation</p> <p>Specifies the object's stroke color as an RGB value</p> <p>documentation</p> <p>A property of draw objects and graphic objects that specifies whether an object is transparent</p> <p>documentation</p> <p>Specifies whether the object is drawn using Windows colors</p> <p>documentation</p> <p>Property of the object that specifies whether its shown onscreen</p> <p>documentation</p> <p>The Hyperlink property defines a hyperlink on an object</p> <p>documentation</p> <p>A group property that specifies whether a group of radio buttons uses automatic selection behavior; when one button is selected, ToolBook automatically deselects the other radio buttons in the group.</p>
annotation	documentation	The Group element defines a Group object, which is a collection of objects on a Page or Background

attribute **Group/@AutoRadioButtons**

type	boolean
properties	isRef 0 default true

	use optional
annotation	documentation A group property that specifies whether a group of radio buttons uses automatic selection behavior; when one button is selected, ToolBook automatically deselects the other radio buttons in the group.

element **Group.Objects**

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	content complex
children	Image AngledLine Arc Button ComboBox Curve Ellipse EnhancedField Field Group IrregularPloygon Line PaintObject Picture Pie Polygon Rectangle RoundedRectangle Stage UniversalMediaPlayer
used by	element Group
annotation	documentation Objects contained in a group

element **Group.UserProperties**

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	content complex
children	UserProperty
used by	element Group
annotation	documentation User defined properties of the group

element **Hotword**

namespace	urn:sumtotalsystems:toolbook.tbkx																																				
type	extension of ToolBookObject																																				
properties	content complex																																				
children	Hyperlink																																				
used by	elements EnhancedField/EnhancedField.Objects Field/Field.Objects																																				
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>IDNumber</td> <td>ObjectID</td> <td>required</td> <td></td> <td></td> <td>documentation Unique ID number assigned to the object</td> </tr> <tr> <td>Name</td> <td>ObjectName</td> <td>optional</td> <td></td> <td></td> <td>documentation String name of the object</td> </tr> <tr> <td>SharedScript</td> <td>SharedScriptResource</td> <td>optional</td> <td></td> <td></td> <td>documentation SharedScript resource assigned to the object</td> </tr> <tr> <td>Script</td> <td>String32</td> <td></td> <td></td> <td></td> <td>documentation Script of the object</td> </tr> <tr> <td>DefaultAllowDrag</td> <td>boolean</td> <td>optional</td> <td>false</td> <td></td> <td>documentation Specifies the hotword's default drag-and-drop behavior when the user clicks it at Reader level</td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object	Name	ObjectName	optional			documentation String name of the object	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object	Script	String32				documentation Script of the object	DefaultAllowDrag	boolean	optional	false		documentation Specifies the hotword's default drag-and-drop behavior when the user clicks it at Reader level
Name	Type	Use	Default	Fixed	annotation																																
IDNumber	ObjectID	required			documentation Unique ID number assigned to the object																																
Name	ObjectName	optional			documentation String name of the object																																
SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object																																
Script	String32				documentation Script of the object																																
DefaultAllowDrag	boolean	optional	false		documentation Specifies the hotword's default drag-and-drop behavior when the user clicks it at Reader level																																

DefaultAllowDrop	boolean	optional	false	documentation Specifies the hotword's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
Highlight	boolean	optional	true	documentation A hotword property that specifies whether the hotword flashes briefly when it is clicked. Setting the highlight property to true is the same as checking the Highlight option in the Hotword Properties dialog box
Hyperlink	xs:string	optional		documentation The property defines a hyperlink on the hotword
HotwordStyle	derived by: xs:token	optional	bookDefault	documentation A hotword property that specifies the style for individual hotwords
Invert	boolean	optional	false	documentation A hotword property that specifies whether the color of a hotword is reversed. If invert is true, hotword appears in its highlighted state
NoDropImage	GraphicResource	optional		documentation A hotword property that specifies the image that is displayed as the cursor when a source object is dragged over a hotword that

		does not accept drops during a drag-and-drop operation
annotation	documentation Defines a ToolBook Hotword object. Derived from the ToolBookObject class	

attribute **Hotword/@DefaultAllowDrag**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies the hotword's default drag-and-drop behavior when the user clicks it at Reader level

attribute **Hotword/@DefaultAllowDrop**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies the hotword's default behavior when the cursor enters its bounds during a drag-and-drop operation

attribute **Hotword/@DragImage**

type	GraphicResource
properties	isRef 0 use optional
annotation	documentation The image displayed as the cursor during a drag-and-drop operation

attribute **Hotword/@Highlight**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation A hotword property that specifies whether the hotword flashes briefly when it is clicked. Setting the highlight property to true is the same as checking the Highlight option in the Hotword Properties dialog box

attribute **Hotword/@Hyperlink**

type	xs:string
properties	isRef 0 use optional
annotation	documentation The property defines a hyperlink on the hotword

attribute **Hotword/@HotwordStyle**

type	restriction of xs:token
properties	isRef 0 default bookDefault use optional
facets	pattern [Cc][Oo][Ll][Oo][Rr]

	pattern [Ff][Rr][Aa][Mm][Ee] pattern [Nn][Oo][Nn][Ee] pattern [Uu][Nn][Dd][Ee][Rr][Ll][Ii][Nn][Ee] pattern [Dd][Oo][Tt][Tt][Ee][Dd] pattern [Bb][Oo][Oo][Kk][Dd][Ee][Ff][Aa][Uu][Ll][Tt]
annotation	documentation A hotword property that specifies the style for individual hotwords

attribute **Hotword/@Invert**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A hotword property that specifies whether the color of a hotword is reversed. If invert is true, hotword appears in its highlighted state

attribute **Hotword/@NoDropImage**

type	GraphicResource
properties	isRef 0 use optional
annotation	documentation A hotword property that specifies the image that is displayed as the cursor when a source object is dragged over a hotword that does not accept drops during a drag-and-drop operation

element **Hyperlink**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of Object					
properties	content complex					
children	Hyperlink.Target					
used by	elements	Hotword Image				
	complexType	GraphicObject				
attributes	Name	Type	Use	Default	Fixed	annotation
	LinkType	derived by: xs:token	optional	Jump		documentation The LinkType property specifies whether navigation should occur in the current window ("Jump") or in a popup window ("Popup").
	Style	derived by: xs:token	optional	ShadowAutoClose		documentation If LinkType is "Popup", the Style property defines the style of the popup window. Otherwise the Style property is ignored.
	Target					documentation The Target property identifies the

	Transition xs:string optional	destination of the hyperlink documentation If LinkType is "Jump", the Transition property specifies a transition to use. Otherwise the Transition property is ignored
annotation	documentation Defines hyperlink element for objects that support hyperlinks	

attribute Hyperlink/@LinkType

type	restriction of xs:token
properties	isRef 0 default Jump use optional
facets	pattern [Jj][Uu][Mm][Pp] pattern [Pp][Oo][Pp][Uu][Pp]
annotation	documentation The LinkType property specifies whether navigation should occur in the current window ("Jump") or in a popup window ("Popup").

attribute Hyperlink/@Style

type	restriction of xs:token
properties	isRef 0 default ShadowAutoClose use optional
facets	pattern [Ss][Hh][Aa][Dd][Oo][Ww] pattern [Ss][Hh][Aa][Dd][Oo][Ww][Aa][Uu][Tt][Oo][Cc][Ll][Oo][Ss][Ee] pattern [Tt][Hh][Ii][Cc][Kk][Ff][Rr][Aa][Mm][Ee] pattern [Tt][Hh][Ii][Nn][Ff][Rr][Aa][Mm][Ee] pattern [Dd][Ii][Aa][Ll][Oo][Gg][Ff][Rr][Aa][Mm][Ee]
annotation	documentation If LinkType is "Popup", the Style property defines the style of the popup window. Otherwise the Style property is ignored

attribute Hyperlink/@Target

properties	isRef 0
annotation	documentation The Target property identifies the destination of the hyperlink

attribute Hyperlink/@Transition

type	xs:string
properties	isRef 0 use optional
annotation	documentation If LinkType is "Jump", the Transition property specifies a transition to use. Otherwise the Transition property is ignored

element Hyperlink/Hyperlink.Target

namespace	urn:sumtotalsystems:toolbook.tbkx
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properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	HyperlinkTarget
annotation	documentation The Target property identifies the destination of the hyperlink

element [Hyperlink/Hyperlink.Target/HyperlinkTarget](#)

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of Object					
properties	isRef 0 content complex					
attributes	Name	Type	Use	Default	Fixed	annotation
	TargetReference	xs:string				documentation The TargetReference property defines a specific object to navigate to for a HyperlinkTarget object. Currently, the target object must be a page
	TargetRelative	derived by: xs:token	optional			documentation The TargetRelative property defines relative page navigation for a HyperlinkTarget object
	TargetURI	xs:string	optional			documentation The TargetURI property defines the target of a HyperlinkTarget object as a URI. Currently the following formats are accepted: "#relative" Where relative is one of NextPage, PreviousPage, FirstPage, LastPage, Back "?PageName=pagename" Where pagename is the name of a page in the current book. "?PageID=pageid" Where pageid is the ID number of a page in the current book. "url" Where url is an absolute or relative URL (any value that doesn't match one of the above values is treated as a URL)
annotation	documentation Defines a target property of a Hyperlink element					

attribute [Hyperlink/Hyperlink.Target/HyperlinkTarget/@TargetReference](#)

type	xs:string
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properties	isRef 0
annotation	documentation The TargetReference property defines a specific object to navigate to for a HyperlinkTarget object. Currently, the target object must be a page

attribute **Hyperlink/Hyperlink.Target/HyperlinkTarget/@TargetRelative**

type	restriction of xs:token
properties	isRef 0 use optional
facets	<p>pattern [Nn][Ee][Xx][Tt][Pp][Aa][Gg][Ee]</p> <p>pattern [Pp][Rr][Ee][Vv][Ii][Oo][Uu][Ss][Pp][Aa][Gg][Ee]</p> <p>pattern [Ff][Ii][Rr][Ss][Tt][Pp][Aa][Gg][Ee]</p> <p>pattern [Ll][Aa][Ss][Tt][Pp][Aa][Gg][Ee]</p> <p>pattern [Bb][Aa][Cc][Kk]</p>
annotation	documentation The TargetRelative property defines relative page navigation for a HyperlinkTarget object

attribute **Hyperlink/Hyperlink.Target/HyperlinkTarget/@TargetURI**

type	xs:string
properties	isRef 0 use optional
annotation	<p>documentation The TargetURI property defines the target of a HyperlinkTarget object as a URI. Currently the following formats are accepted:</p> <p>"#relative" Where relative is one of NextPage, PreviousPage, FirstPage, LastPage, Back</p> <p>"?PageName=pagename" Where pagename is the name of a page in the current book.</p> <p>"?PageID=pageid" Where pageid is the ID number of a page in the current book.</p> <p>"url" Where url is an absolute or relative URL (any value that doesn't match one of the above values is treated as a URL)</p>

element **Image**

namespace	urn:sumtotalsystems:toolbox.tbkx					
properties	content complex					
children	Image.UserProperties Hyperlink					
used by	element Group.Objects					
attributes	Name	Type	Use	Default	Fixed	annotation
	Name	ObjectName				documentation Name of the image element
	IDNumber	ObjectID				documentation Unique identification number of the image element
	Hyperlink	xs:string				documentation A string that describes what the image hyperlinks to
	Bounds	Bounds				documentation

	Source BitmapResource Script String32 Layer xs:integer	Rectangular bounds of the image element documentation Bitmap resource reference documentation Script of the image object documentation z-order of the image
annotation	documentation Image element	

attribute Image/@Name

type	ObjectName
properties	isRef 0
facets	minLength 0 maxLength 32
annotation	documentation Name of the image element

attribute Image/@IDNumber

type	ObjectID
properties	isRef 0
facets	minInclusive 0
annotation	documentation Unique identification number of the image element

attribute Image/@Hyperlink

type	xs:string
properties	isRef 0
annotation	documentation A string that describes what the image hyperlinks to

attribute Image/@Bounds

type	Bounds
properties	isRef 0
facets	pattern <code>-\?d{1,5},-\?d{1,5},-\?d{1,5},-\?d{1,5}</code>
annotation	documentation Rectangular bounds of the image element

attribute Image/@Source

type	BitmapResource
properties	isRef 0
facets	pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+[Ii][Dd]\s+\d{3,5}</code> pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"[w\w\s]{1,30}\w"</code> pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"[w\w\s]{1,30}\s"</code> pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"[w\w\s]{1,30}\w"</code>

	pattern <code>[Bb][li][Tt][Mm][Aa][Pp]\s+&quot;\s{1,30}\w&quot;</code> ; pattern <code>[Bb][li][Tt][Mm][Aa][Pp]\s+&quot;\w{1,30}\s&quot;</code> ; pattern <code>[Bb][li][Tt][Mm][Aa][Pp]\s+&quot;\w{1,30}\w&quot;</code> ;
annotation	documentation Bitmap resource reference

attribute **Image/@Script**

type	String32
properties	isRef 0
facets	minLength 0 maxLength 65535
annotation	documentation Script of the image object

attribute **Image/@Layer**

type	xs:integer
properties	isRef 0
annotation	documentation z-order of the image

element **Image.UserProperties**

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	content complex
children	UserProperty
used by	element Image
annotation	documentation User defined properties of the image

element **IrregularPloygon**

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of VectorObject					
properties	content complex	abstract false				
children	Hyperlink					
used by	element Group.Objects					
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name Name	ObjectName ObjectName	optional			documentation String name of the object
	SharedScript SharedScript	SharedScriptResource SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script Script	String32 String32				documentation Script of the object
	DefaultAllowDrag DefaultAllowDrag	boolean boolean	optional	false		documentation Specifies the object's default drag-and-drop

	DefaultAllowDrop	boolean	optional	false	behavior when the user clicks it at Reader level documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an

	Bounds	Bounds	required		object documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
	Vertices	xs:string	optional		documentation A property of draw objects that specifies the locations of an object's vertices
annotation	documentation IrregularPolygon element defines a ToolBook irregularPolygon object				

element Line

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of LineObject					
properties	content abstract	complex false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop

DragImage	GraphicResource	optional		operation documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that

	Pattern	Pattern	optional	sysPattern	documentation specifies the width of borders around graphic objects or the line width for draw objects with open end points documentation A draw object property that specifies the current fill pattern of selected draw objects
	Vertices	xs:string	optional		documentation A property of draw objects that specifies the locations of an object's vertices
	LineEndSize	LineEndSize	optional	sysLineEndSize	documentation A property of a line, angled line, arc, or curve that specifies the size of the line ends for that object
	LineEndStyle	LineEndStyle		sysLineEndStyle	documentation A property of a line, angled line, arc, or curve that specifies a line end style for the line ends of that object
annotation	documentation Line element defines a ToolBook line object				

element **PaintObject**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of DrawObject					
properties	content abstract	complex false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the

	DragImage	GraphicResource	optional		<p>documentation</p> <p>cursor enters its bounds during a drag-and-drop operation</p> <p>The image displayed as the cursor during a drag-and-drop operation</p>
	DrawDirect	boolean	optional	false	<p>documentation</p> <p>Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved</p>
	NoDropImage	GraphicResource	optional	null	<p>documentation</p> <p>A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation</p>
	RgbFill	RGBColor	optional	sysRGBFill	<p>documentation</p> <p>Specifies the fill color for the object as an RGB value</p>
	RgbStroke	RGBColor	optional	sysRGBStroke	<p>documentation</p> <p>Specifies the object's stroke color as an RGB value</p>
	Transparent	Transparency		sysTransparent	<p>documentation</p> <p>A property of draw objects and graphic objects that specifies whether an object is transparent</p>
	UseWindowsColors	boolean	optional	false	<p>documentation</p> <p>Specifies whether the object is drawn using Windows colors</p>
	Visible	boolean	optional	true	<p>documentation</p> <p>Property of the object that specifies whether its shown onscreen</p>
	Hyperlink	xs:string	optional		<p>documentation</p> <p>The Hyperlink property defines a hyperlink on an object</p>
	Bounds	Bounds	required		<p>documentation</p> <p>Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book</p>

	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
	Source	xs:string	required		documentation The Source property identifies the source file for the paintObject, within the book's XML directory structure. The property's value should include the file name, and a path (if necessary) relative to the XML file of the Page that contains the paintObject
annotation	documentation The PaintObject element defines a ToolBook paintObject and derives from the DrawObject class				

attribute **PaintObject/@Source**

type	xs:string
properties	isRef 0 use required
annotation	documentation The Source property identifies the source file for the paintObject, within the book's XML directory structure. The property's value should include the file name, and a path (if necessary) relative to the XML file of the Page that contains the paintObject

element **Picture**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of DrawObject					
properties	content abstract	complex false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object

Script	String32				documentation Script of the object
DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill		documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke		documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent		documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false		documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true		documentation Property of the object that specifies

	Hyperlink	xs:string	optional		whether its shown onscreen documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
	Source	xs:string	required		documentation The Source property identifies the source file for the picture object, within the book's XML directory structure. The property's value should include the file name, and a path (if necessary) relative to the XML file of the Page that contains the picture object
annotation	documentation The Picture element defines a ToolBook picture object				

attribute **Picture/@Source**

type	xs:string
properties	isRef 0 use required
annotation	documentation The Source property identifies the source file for the picture object, within the book's XML directory structure. The property's value should include the file name, and a path (if necessary) relative to the XML file of the Page that contains the picture object

element **Pie**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	extension of VectorObject
properties	content complex abstract false
children	Hyperlink
used by	element Group.Objects

attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill		documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke		documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent		documentation A property of draw objects and graphic

	<p>UseWindowsColors boolean optional false</p> <p>Visible boolean optional true</p> <p>Hyperlink xs:string optional</p> <p>Bounds Bounds required</p> <p>LineStyle LineStyle optional sysLineStyle</p> <p>Pattern Pattern optional sysPattern</p> <p>Vertices xs:string optional</p>	<p>objects that specifies whether an object is transparent</p> <p>documentation Specifies whether the object is drawn using Windows colors</p> <p>documentation Property of the object that specifies whether its shown onscreen</p> <p>documentation The Hyperlink property defines a hyperlink on an object</p> <p>documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book</p> <p>documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points</p> <p>documentation A draw object property that specifies the current fill pattern of selected draw objects</p> <p>documentation A property of draw objects that specifies the locations of an object's vertices</p>
annotation	documentation Pie element defines a ToolBook Pie object	

element Polygon

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of VectorObject					
properties	content	complex				
	abstract	false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript

Script	String32				resource assigned to the object documentation
DefaultAllowDrag	boolean	optional	false		Script of the object documentation
DefaultAllowDrop	boolean	optional	false		Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level documentation
DragImage	GraphicResource	optional			Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation documentation
DrawDirect	boolean	optional	false		The image displayed as the cursor during a drag-and-drop operation documentation
NoDropImage	GraphicResource	optional	null		Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved documentation
RgbFill	RGBColor	optional	sysRGBFill		A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation documentation
RgbStroke	RGBColor	optional	sysRGBStroke		Specifies the fill color for the object as an RGB value documentation
Transparent	Transparency		sysTransparent		Specifies the object's stroke color as an RGB value documentation
UseWindowsColors	boolean	optional	false		A property of draw objects and graphic objects that specifies whether an object is transparent documentation
Visible	boolean	optional	true		Specifies whether the object is drawn using Windows colors documentation

	Hyperlink	xs:string	optional		Property of the object that specifies whether its shown onscreen documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
	Vertices	xs:string	optional		documentation A property of draw objects that specifies the locations of an object's vertices
annotation	documentation Polygon element defines a ToolBook Polygon object				

element **Rectangle**

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of DrawObject					
properties	content abstract	complex false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at

DefaultAllowDrop	boolean	optional	false	Reader level documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
Bounds	Bounds	required		documentation

	<p>LineStyle LineStyle optional sysLineStyle</p> <p>Pattern Pattern optional sysPattern</p>	<p>Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points documentation A draw object property that specifies the current fill pattern of selected draw objects</p>
annotation	documentation Rectangle element defines a ToolBook Rectangle object	

element **RoundedRectangle**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of DrawObject					
properties	content	complex				
	abstract	false				
children	Hyperlink					
used by	element	Group.Objects				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation

	NoDropImage	GraphicResource	optional	null	Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object

		property that specifies the current fill pattern of selected draw objects
annotation	documentation RoundedRectangle element defines a ToolBook RoundedRectangle object	

element Stage

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of GraphicObject					
properties	content abstract	complex false				
children	Hyperlink					
used by	element Group.Objects					
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword

					property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation documentation
RgbFill	RGBColor	optional	sysRGBFill		documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke		documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent		documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false		documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true		documentation Property of the object that specifies whether its shown onscreen
Hyperlink	xs:string	optional			documentation The Hyperlink property defines a hyperlink on an object
Bounds	Bounds	required			documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
BorderWidth	xs:positiveInteger	optional	45		documentation Specifies the width of the stage frame border
InnerBevelWidth	xs:positiveInteger	optional	15		documentation The InnerBevelWidth property specifies the width of the inner 3D bevel of a stage's frame in page units
MediaSize	derived by: xs:string	optional			documentation The MediaSize property specifies the default size of a stage's media display area in page units.
OuterBevelWidth	xs:positiveInteger	optional	15		documentation The OuterBevelWidth property specifies the width of the outer 3D bevel of a stage's frame in page units

	Outline	boolean	optional	false	documentation The Outline property specifies whether a thin, black outline is drawn around a stage's frame
	PostEffect	xs:string	optional		documentation The PostEffect property specifies the transition effect that occurs just after a stage's media finishes playing
	PreEffect	xs:string	optional		documentation The PreEffect property specifies the transition effect that occurs just before a stage's media starts playing
	ReaderVisible	boolean	optional	true	documentation The ReaderVisible property specifies whether a stage is visible at Reader level
	RoundedCorners	boolean	optional	false	documentation The RoundedCorners property specifies whether a stage's outline has rounded corners. If false, the outline is drawn as a regular rectangle
	StageAnchor	derived by: xs:token	optional	center	documentation The StageAnchor property specifies the anchor position of a stage that stretches to fit the media it displays (if its stageSizing property is set to "stretchStage"), or how media is positioned inside a stage
	StageSizing	derived by: xs:token	optional	centerMedia	documentation A stage property that specifies how ToolBook resolves differences in size between the stage's display area and media to be played.
annotation	documentation Stage element defines a ToolBook stage element				

attribute **Stage/@Bounds**

type	Bounds
properties	isRef 0 use required
facets	pattern <code>-\d{1,5},-\d{1,5},-\d{1,5},-\d{1,5}</code>
annotation	documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book

attribute **Stage/@BorderWidth**

type	xs:positiveInteger
properties	isRef 0 default 45 use optional
annotation	documentation Specifies the width of the stage frame border

attribute **Stage/@InnerBevelWidth**

type	xs:positiveInteger
properties	isRef 0 default 15 use optional
annotation	documentation The InnerBevelWidth property specifies the width of the inner 3D bevel of a stage's frame in page units

attribute **Stage/@MediaSize**

type	restriction of xs:string
properties	isRef 0 use optional
facets	pattern <code>\s*d{1,5}\s*,\s*d{1,5}</code>
annotation	documentation The MediaSize property specifies the default size of a stage's media display area in page units.

attribute **Stage/@OuterBevelWidth**

type	xs:positiveInteger
properties	isRef 0 default 15 use optional
annotation	documentation The OuterBevelWidth property specifies the width of the outer 3D bevel of a stage's frame in page units

attribute **Stage/@Outline**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The Outline property specifies whether a thin, black outline is drawn around a stage's frame

attribute **Stage/@PostEffect**

type	xs:string
properties	isRef 0 use optional
annotation	documentation The PostEffect property specifies the transition effect that occurs just after a stage's media finishes playing

attribute **Stage/@PreEffect**

type	xs:string
properties	isRef 0 use optional
annotation	documentation The PreEffect property specifies the transition effect that occurs just before a stage's media starts playing

attribute **Stage/@ReaderVisible**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation The ReaderVisible property specifies whether a stage is visible at Reader level

attribute **Stage/@RoundedCorners**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The RoundedCorners property specifies whether a stage's outline has rounded corners. If false, the outline is drawn as a regular rectangle

attribute **Stage/@StageAnchor**

type	restriction of xs:token
properties	isRef 0 default center use optional
facets	pattern [Bb][Oo][Tt][Tt][Oo][Mm][Ll][Ee][Ff][Tt] pattern [Bb][Oo][Tt][Tt][Oo][Mm][Rr][Ii][Gg][Hh][Tt] pattern [Cc][Ee][Nn][Tt][Ee][Rr] pattern [Tt][Oo][Pp][Ll][Ee][Ff][Tt] pattern [Tt][Oo][Pp][Rr][Ii][Gg][Hh][Tt]
annotation	documentation The StageAnchor property specifies the anchor position of a stage that stretches to fit the media it displays (if its stageSizing property is set to "stretchStage"), or how media is positioned inside a stage

attribute **Stage/@StageSizing**

type	restriction of xs:token
properties	isRef 0 default centerMedia use optional
facets	pattern [Cc][Ee][Nn][Tt][Ee][Rr][Mm][Ee][Dd][Ii][Aa] pattern [Cc][Ll][Ii][Pp][Mm][Ee][Dd][Ii][Aa] pattern [Ss][Tt][Rr][Ee][Tt][Cc][Hh][Mm][Ee][Dd][Ii][Aa] pattern [Ss][Tt][Rr][Ee][Tt][Cc][Hh][Ss][Tt][Aa][Gg][Ee]
annotation	documentation A stage property that specifies how ToolBook resolves differences in size between the stage's display area and media to be played.

element **UniversalMediaPlayer**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	extension of GraphicObject

properties	content complex					
children	Hyperlink UniversalMediaPlayer.UserProperties TimeMarkers					
used by	element Group.Objects					
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill		documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke		documentation

Transparent	Transparency			sysTransparent	Specifies the object's stroke color as an RGB value documentation A property of draw objects and graphic objects that specifies whether an object is transparent documentation
UseWindowsColors	boolean	optional	false		documentation Specifies whether the object is drawn using Windows colors documentation
Visible	boolean	optional	true		documentation Property of the object that specifies whether its shown onscreen documentation
Hyperlink	xs:string	optional			documentation The Hyperlink property defines a hyperlink on an object documentation
Bounds	Bounds	required			documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book documentation
AutoPlay	boolean	optional	false		documentation The AutoPlay property specifies whether or not the media should play automatically on enter page documentation
HideAtReader	boolean	optional	false		documentation The HideAtReader property specifies whether or not the player should be hidden at reader level documentation
MediaPlayer	derived by: xs:string	optional			documentation If specified, the MediaPlayer property overrides the default media player for the specified media file documentation
RestrictPlayerList	boolean	optional	true		documentation If RestrictPlayerList is true, the Universal Media Player's property dialog will only list players (on the Advanced tab) that support the specified media file. If this property is true and the MediaPlayer property is set, it must specify a player that supports the specified media file documentation
ShowControls	boolean	optional	true		documentation The ShowControls property specifies

	<p>ShowVideo boolean optional true</p> <p>Source xs:string optional</p> <p>TimeMarkerType derived by: xs:token optional specific</p> <p>TimeMarkerPeriod xs:positiveInteger optional 1000</p> <p>UseTimeMarkers boolean optional false</p>	<p>whether or not to show the media player's controls. Note that it may not be changeable for all media players documentation</p> <p>The ShowVideo property specifies whether or not to show the media player's video region. Note that it may not be changeable for all media players documentation</p> <p>The Source property identifies the source media file. It will typically be a file name without a path (for portability), in which case the Universal Media Player searches the book's media paths for the file. It can also be a fully qualified path.</p> <p>documentation</p> <p>The TimeMarkerType property specifies whether the Universal Media Player should use specific or periodic time markers. When using specific time markers, the TimeMarkers property defines those time markers. When using periodic time markers, the TimeMarkerPeriod property defines the period.</p> <p>documentation</p> <p>If TimeMarkerType is "periodic", the TimeMarkerPeriod property specifies the time period in milliseconds</p> <p>documentation</p> <p>The UseTimeMarkers property specifies whether or not the Universal Media Player should generate time marker events.</p>
annotation	<p>documentation</p> <p>The UniversalMediaPlayer element provides a way to easily include a Universal Media Player object in a book without having to define all its properties and scripts.</p>	

attribute UniversalMediaPlayer/@Bounds

type	Bounds
properties	isRef 0 use required
facets	pattern <code>-?\d{1,5},-?\d{1,5},-?\d{1,5},-?\d{1,5}</code>
annotation	documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book

attribute UniversalMediaPlayer/@AutoPlay

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The AutoPlay property specifies whether or not the media should play automatically on enter page

attribute UniversalMediaPlayer/@HideAtReader

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The HideAtReader property specifies whether or not the player should be hidden at reader level

attribute UniversalMediaPlayer/@MediaPlayer

type	restriction of <code>xs:string</code>
properties	isRef 0 use optional
facets	pattern <code>[Ww][li][Nn][Dd][Oo][Ww][Ss]\s[Mm][Ee][Dd][li][Aa]\s[Pp][Ll][Aa][Yy][Ee][Rr]</code> pattern <code>[Ff][Ll][Aa][Ss][Hh]\s[Pp][Ll][Aa][Yy][Ee][Rr]</code> pattern <code>[Qq][Uu][li][Cc][Kk][Tt][li][Mm][Ee]\s[Pp][Ll][Aa][Yy][Ee][Rr]</code>
annotation	documentation If specified, the MediaPlayer property overrides the default media player for the specified media file

attribute UniversalMediaPlayer/@RestrictPlayerList

type	boolean
properties	isRef 0 default true use optional
annotation	documentation If RestrictPlayerList is true, the Universal Media Player's property dialog will only list players (on the Advanced tab) that support the specified media file. If this property is true and the MediaPlayer property is set, it must specify a player that supports the specified media file

attribute UniversalMediaPlayer/@ShowControls

type	boolean
properties	isRef 0 default true use optional
annotation	documentation The ShowControls property specifies whether or not to show the media player's controls. Note that it may not be changeable for all media players

attribute **UniversalMediaPlayer/@ShowVideo**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation The ShowVideo property specifies whether or not to show the media player's video region. Note that it may not be changeable for all media players

attribute **UniversalMediaPlayer/@Source**

type	xs:string
properties	isRef 0 use optional
annotation	documentation The Source property identifies the source media file. It will typically be a file name without a path (for portability), in which case the Universal Media Player searches the book's media paths for the file. It can also be a fully qualified path.

attribute **UniversalMediaPlayer/@TimeMarkerType**

type	restriction of xs:token
properties	isRef 0 default specific use optional
facets	pattern [Ss][Pp][Ee][Cc][Ii][Ff][Ii][Cc] pattern [Pp][Ee][Rr][Ii][Oo][Dd][Ii][Cc]
annotation	documentation The TimeMarkerType property specifies whether the Universal Media Player should use specific or periodic time markers. When using specific time markers, the TimeMarkers property defines those time markers. When using periodic time markers, the TimeMarkerPeriod property defines the period.

attribute **UniversalMediaPlayer/@TimeMarkerPeriod**

type	xs:positiveInteger
properties	isRef 0 default 1000 use optional
annotation	documentation If TimeMarkerType is "periodic", the TimeMarkerPeriod property specifies the time period in milliseconds

attribute **UniversalMediaPlayer/@UseTimeMarkers**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation The UseTimeMarkers property specifies whether or not the Universal Media Player should generate time marker events.

element UniversalMediaPlayer/TimeMarkers

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	isRef 0 minOcc 0 maxOcc 1 content complex
children	TimeMarker
annotation	documentation TimeMarkers element is simple a collection of TimeMarker elements

element UniversalMediaPlayer/TimeMarkers/TimeMarker

namespace	urn:sumtotalsystems:toolbox.tbkx					
properties	isRef 0 minOcc 0 maxOcc unbounded content complex					
attributes	Name	Type	Use	Default	Fixed	annotation
	Comment	xs:string	optional			documentation The Comment property defines a comment or short description for a Universal Media Player time marker. In ToolBook, the comment will display in the list of time markers in the Universal Media Player's property dialog
	Position	xs:positiveInteger	required			documentation The Position property of a TimeMarker element specifies the position of the time marker, in milliseconds. In other words, it specifies at what point through an item of media the corresponding time marker event will fire

attribute UniversalMediaPlayer/TimeMarkers/TimeMarker/@Comment

type	xs:string
properties	isRef 0 use optional
annotation	documentation The Comment property defines a comment or short description for a Universal Media Player time marker. In ToolBook, the comment will display in the list of time markers in the Universal Media Player's property dialog

attribute **UniversalMediaPlayer/TimeMarkers/TimeMarker/@Position**

type	xs:positiveInteger
properties	isRef 0 use required
annotation	documentation The Position property of a TimeMarker element specifies the position of the time marker, in milliseconds. In other words, it specifies at what point through an item of media the corresponding time marker event will fire

element **UniversalMediaPlayer.UserProperties**

namespace	urn:sumtotalsystems:toolbox.tbkx
properties	content complex
children	UserProperty
used by	element UniversalMediaPlayer
annotation	documentation User defined properties of the universal media player

complexType **DrawObject**

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of GraphicObject					
properties	base GraphicObject abstract true					
children	Hyperlink					
used by	elements complexType	Ellipse PaintObject Picture Rectangle RoundedRectangle VectorObject				
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop

DrawDirect	boolean	optional	false	operation documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points

	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
annotation	documentation Abstract class derived from ToolBookObject. Base class for ToolBook "draw" objects (shapes). This is an abstract class, which means there is no corresponding DrawObject element that can be used in a ToolBook XML file. Rather, this class defines functionality that is common to its derived classes				

attribute **DrawObject/@Bounds**

type	Bounds
properties	isRef 0 use required
facets	pattern <code>-?\d{1,5},-?\d{1,5},-?\d{1,5},-?\d{1,5}</code>
annotation	documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book

attribute **DrawObject/@LineStyle**

type	LineStyle
properties	isRef 0 default sysLineStyle use optional
annotation	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points

attribute **DrawObject/@Pattern**

type	Pattern
properties	isRef 0 default sysPattern use optional
annotation	documentation A draw object property that specifies the current fill pattern of selected draw objects

complexType **EnhancedFieldClass**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of FieldClass					
properties	base	FieldClass				
	abstract	false				
children	Hyperlink					
used by	element	EnhancedField				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object

Script	String32				documentation Script of the object
DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill		documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke		documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency			sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false		documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true		documentation Property of the object that specifies

Hyperlink	xs:string	optional		whether its shown onscreen documentation The Hyperlink property defines a hyperlink on an object
Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
FontFace	xs:string	optional	sysFontFace	documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text
FontSize	FontSizeData	optional	sysFontSize	documentation A button, combo box, field, or record field property that specifies the point size of button labels and combo box, field, or record field text. One point equals 1/72 of an inch
FontStyle	xs:string	optional	sysFontStyle	documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text
Activated	boolean	optional	false	documentation A field property that specifies whether a field or record field can be edited, or whether it can receive mouse event messages at Reader level
Baselines	boolean	optional	false	documentation Specifies whether text baselines in a field are visible
BorderStyle	derived by: xs:token	optional	rectangle	documentation Specifies the field's border style which could one of: inset, none, raised, rectangle, scrolling, or shadowed; the default is rectangle.
DrawTextDirect	boolean	optional	false	documentation Specifies the method for drawing text in a field. Set this property to true to improve a field's or record field's scrolling speed.
Enabled	boolean	optional	true	documentation Specifies whether

	<p>FieldType derived by: xs:token optional wordWrap</p> <p>Indents FieldIndent optional 0,0,0</p> <p>Spacing derived by: xs:token optional 1</p> <p>TabSpacing xs:positiveInteger optional 720</p> <p>TabType derived by: xs:token optional left</p> <p>Text derived by: xs:string optional</p> <p>TextAlignment derived by: xs:token optional left</p> <p>AutoSize boolean optional false</p> <p>AutoBorder boolean optional false</p> <p>SubstituteTokens boolean optional false</p>	<p>the object can receive the focus or mouse event messages at Reader level.</p> <p>documentation A field property that specifies basic wordwrap style and selection behaviors</p> <p>documentation A list of 3 non-negative numbers in page units that specifies the width of margin indents.</p> <p>documentation Specifies the spacing for the field's text. Can be one of 1,1,5 or 2. Default is 1.</p> <p>documentation Specifies the tab stop settings for the field</p> <p>documentation Specifies whether 'left' or 'decimal' tabs are used in the field. Default is left</p> <p>documentation Text content of the field</p> <p>documentation Specifies the alignment of text in the field : left, right, justify or center</p> <p>documentation Specifies whether the field can autosize to its contents</p> <p>documentation Specifies whether the border of the object is hidden in reader mode. When TRUE, the border is hidden. The property applies to the object.</p>
annotation	documentation EnhancedField derived from FieldClass. It is an extension of the regular Field object, to support automatic border, automatic sizing and token substitution (used by SmartStyles). In ToolBook, it results in an "Auto-Sizing Text Field".	

attribute **EnhancedFieldClass/@AutoSize**

type	boolean
properties	<p>isRef 0</p> <p>default false</p> <p>use optional</p>
annotation	documentation Specifies whether the field can autosize to its contents

attribute **EnhancedFieldClass/@AutoBorder**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies whether the border of the object is hidden in reader mode. When TRUE, the border is hidden. The property applies to the object.

attribute **EnhancedFieldClass/@SubstituteTokens**

type	boolean
properties	isRef 0 default false use optional

complexType **FieldClass**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of TextObject					
properties	base	TextObject				
	abstract	false				
children	Hyperlink					
used by	element	Field				
	complexType	EnhancedFieldClass				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects

	NoDropImage	GraphicResource	optional	null	drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	FontFace	xs:string	optional	sysFontFace	documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text
	FontSize	FontSizeData	optional	sysFontSize	documentation A button, combo box, field, or record field property that specifies the point size of button labels and combo box,

	FontStyle	xs:string	optional	sysFontStyle	field, or record field text. One point equals 1/72 of an inch documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text
	Activated	boolean	optional	false	documentation A field property that specifies whether a field or record field can be edited, or whether it can receive mouse event messages at Reader level
	Baselines	boolean	optional	false	documentation Specifies whether text baselines in a field are visible
	BorderStyle	derived by: xs:token	optional	rectangle	documentation Specifies the field's border style which could one of: inset, none, raised, rectangle, scrolling, or shadowed; the default is rectangle.
	DrawTextDirect	boolean	optional	false	documentation Specifies the method for drawing text in a field. Set this property to true to improve a field's or record field's scrolling speed.
	Enabled	boolean	optional	true	documentation Specifies whether the object can receive the focus or mouse event messages at Reader level.
	FieldType	derived by: xs:token	optional	wordWrap	documentation A field property that specifies basic wordwrap style and selection behaviors
	Indents	FieldIndent	optional	0,0,0	documentation A list of 3 non-negative numbers in page units that specifies the width of margin indents.
	Spacing	derived by: xs:token	optional	1	documentation Specifies the spacing for the field's text. Can be one of 1,1,5 or 2. Default is 1.
	TabSpacing	xs:positiveInteger	optional	720	documentation Specifies the tab stop settings for the field
	TabType	derived by: xs:token	optional	left	documentation Specifies whether 'left' or 'decimal'

	<p>Text derived by: <code>xs:string</code> optional</p> <p>TextAlignment derived by: <code>xs:token</code> optional left</p>	<p>tabs are used in the field. Default is left</p> <p>documentation</p> <p>Text content of the field</p> <p>documentation</p> <p>Specifies the alignment of text in the field : left, right, justify or center</p>
annotation	documentation FieldClass derived from TextObject. Defines a simple text field element	

attribute **FieldClass/@Activated**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation A field property that specifies whether a field or record field can be edited, or whether it can receive mouse event messages at Reader level

attribute **FieldClass/@Baselines**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies whether text baselines in a field are visible

attribute **FieldClass/@BorderStyle**

type	restriction of <code>xs:token</code>
properties	isRef 0 default rectangle use optional
facets	<p>pattern <code>[Rr][Ee][Cc][Tt][Aa][Nn][Gg][Ll][Ee]</code></p> <p>pattern <code>[Ii][Nn][Ss][Ee][Tt]</code></p> <p>pattern <code>[Nn][Oo][Nn][Ee]</code></p> <p>pattern <code>[Rr][Aa][Ii][Ss][Ee][Dd]</code></p> <p>pattern <code>[Ss][Cc][Rr][Oo][Ll][Ll][Ii][Nn][Gg]</code></p> <p>pattern <code>[Ss][Hh][Aa][Dd][Oo][Ww][Ee][Dd]</code></p>
annotation	documentation Specifies the field's border style which could one of: inset, none, raised, rectangle, scrolling, or shadowed; the default is rectangle.

attribute **FieldClass/@DrawTextDirect**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies the method for drawing text in a field. Set this property to true to improve a field's or record field's scrolling speed.

attribute **FieldClass/@Enabled**

type	boolean
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properties	isRef 0 default true use optional
annotation	documentation Specifies whether the object can receive the focus or mouse event messages at Reader level.

attribute **FieldClass/@FieldType**

type	restriction of xs:token
properties	isRef 0 default wordWrap use optional
facets	pattern [Nn][Oo][Ww][Rr][Aa][Pp] pattern [Ss][Ii][Nn][Gg][Ll][Ee][Ll][Ii][Nn][Ee][Ww][Rr][Aa][Pp] pattern [Ww][Oo][Rr][Dd][Ww][Rr][Aa][Pp] pattern [Mm][Uu][Ll][Tt][Ii][Ss][Ee][Ll][Ee][Cc][Tt] pattern [Ss][Ii][Nn][Gg][Ll][Ee][Ss][Ee][Ll][Ee][Cc][Tt]
annotation	documentation A field property that specifies basic wordwrap style and selection behaviors

attribute **FieldClass/@Indents**

type	FieldIndent
properties	isRef 0 default 0,0,0 use optional
facets	pattern \d{1,5},\d{1,5},\d{1,5}
annotation	documentation A list of 3 non-negative numbers in page units that specifies the width of margin indents.

attribute **FieldClass/@Spacing**

type	restriction of xs:token
properties	isRef 0 default 1 use optional
facets	pattern 1 pattern 1.5 pattern 2
annotation	documentation Specifies the spacing for the field's text. Can be one of 1,1.5 or 2. Default is 1.

attribute **FieldClass/@TabSpacing**

type	xs:positiveInteger
properties	isRef 0 default 720 use optional
annotation	documentation Specifies the tab stop settings for the field

attribute **FieldClass/@TabType**

type	restriction of xs:token
properties	isRef 0 default left use optional
facets	pattern [Dd][Ee][Cc][Ii][Mm][Aa][Ll] pattern [Ll][Ee][Ff][Tt]
annotation	documentation Specifies whether 'left' or 'decimal' tabs are used in the field. Default is left

attribute **FieldClass/@Text**

type	restriction of xs:string
properties	isRef 0 use optional
facets	minLength 0 maxLength 32767
annotation	documentation Text content of the field

attribute **FieldClass/@TextAlignment**

type	restriction of xs:token
properties	isRef 0 default left use optional
facets	pattern [L][Ee][Ff][Tt] pattern [Rr][l][Gg][Hh][Tt] pattern [Jj][Uu][Ss][Tt][i][Ff][Yy] pattern [Cc][Ee][Nn][Tt][Ee][Rr]
annotation	documentation Specifies the alignment of text in the field : left, right, justify or center

complexType **GraphicObject**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of ToolBookObject					
properties	base ToolBookObject abstract true					
children	Hyperlink					
used by	elements Group Stage UniversalMediaPlayer complexType DrawObject TextObject					
attributes	Name IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag- and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when

	DragImage	GraphicResource	optional		the cursor enters its bounds during a drag-and-drop operation documentation The image displayed as the cursor during a drag-and-drop operation
	DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows

	Visible	boolean	optional	true	colors documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
annotation	documentation Abstract class derived from ToolBookObject. Base class for graphical objects. This is an abstract class, which means there is no corresponding GraphicObject element that can be used in a ToolBook XML file. Rather, this class defines functionality that is common to its derived classes				

attribute **GraphicObject/@DefaultAllowDrag**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level

attribute **GraphicObject/@DefaultAllowDrop**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation

attribute **GraphicObject/@DragImage**

type	GraphicResource
properties	isRef 0 use optional
annotation	documentation The image displayed as the cursor during a drag-and-drop operation

attribute **GraphicObject/@DrawDirect**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved

attribute **GraphicObject/@NoDropImage**

type	GraphicResource
properties	isRef 0 default null use optional

annotation	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
------------	--

attribute **GraphicObject/@RgbFill**

type	RGBColor
properties	isRef 0 default sysRGBFill use optional
annotation	documentation Specifies the fill color for the object as an RGB value

attribute **GraphicObject/@RgbStroke**

type	RGBColor
properties	isRef 0 default sysRGBStroke use optional
annotation	documentation Specifies the object's stroke color as an RGB value

attribute **GraphicObject/@Transparent**

type	Transparency
properties	isRef 0 default sysTransparent
annotation	documentation A property of draw objects and graphic objects that specifies whether an object is transparent

attribute **GraphicObject/@UseWindowsColors**

type	boolean
properties	isRef 0 default false use optional
annotation	documentation Specifies whether the object is drawn using Windows colors

attribute **GraphicObject/@Visible**

type	boolean
properties	isRef 0 default true use optional
annotation	documentation Property of the object that specifies whether its shown onscreen

attribute **GraphicObject/@Hyperlink**

type	xs:string
properties	isRef 0 use optional
annotation	documentation The Hyperlink property defines a hyperlink on an object

complexType **LineObject**

namespace	urn:sumtotalsystems:toolbook.tbkx					
type	extension of VectorObject					
properties	base	VectorObject				
	abstract	true				
children	Hyperlink					
used by	elements	AngledLine Arc Curve Line				
attributes	Name	Type	Use	Default	Fixed	annotation
	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object
	Name	ObjectName	optional			documentation String name of the object
	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	String32				documentation Script of the object
	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	GraphicResource	optional			documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false		documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved	
NoDropImage	GraphicResource	optional	null		documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation	

	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or the line width for draw objects with open end points
	Pattern	Pattern	optional	sysPattern	documentation A draw object property that specifies the current fill pattern of selected draw objects
	Vertices	xs:string	optional		documentation A property of draw objects that specifies the locations of an object's vertices
	LineEndSize	LineEndSize	optional	sysLineEndSize	documentation A property of a line, angled line, arc, or curve that specifies the size of the line ends for that object
	LineEndStyle	LineEndStyle		sysLineEndStyle	documentation A property of a line, angled line, arc, or curve that specifies a line end style for the line ends of that object
annotation	documentation Abstract class derived from VectorObject. Base class for line objects - that is, objects that have line ends. This is				

	an abstract class, which means there is no corresponding LineObject element that can be used in a ToolBook XML file. Rather, this class defines functionality that is common to its derived classes
--	---

attribute **LineObject/@LineEndSize**

type	LineEndSize
properties	isRef 0 default sysLineEndSize use optional
annotation	documentation A property of a line, angled line, arc, or curve that specifies the size of the line ends for that object

attribute **LineObject/@LineEndStyle**

type	LineEndStyle
properties	isRef 0 default sysLineEndStyle
annotation	documentation A property of a line, angled line, arc, or curve that specifies a line end style for the line ends of that object

complexType **Object**

namespace	urn:sumtotalsystems:toolbook.tbkx
properties	abstract true
used by	elements Hyperlink Hyperlink/Hyperlink.Target/HyperlinkTarget complexType Resource ToolBookObject
annotation	documentation Abstract base class for all graphic objects and some other internally used types. This is an abstract class, which means there is no corresponding Object element that can be used in a ToolBook XML file. Rather, this class defines functionality that is common to its derived classes

complexType **TextObject**

namespace	urn:sumtotalsystems:toolbook.tbkx																																				
type	extension of GraphicObject																																				
properties	base GraphicObject abstract true																																				
children	Hyperlink																																				
used by	elements Button ComboBox complexType FieldClass																																				
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>IDNumber</td> <td>ObjectID</td> <td>required</td> <td></td> <td></td> <td>documentation Unique ID number assigned to the object</td> </tr> <tr> <td>Name</td> <td>ObjectName</td> <td>optional</td> <td></td> <td></td> <td>documentation String name of the object</td> </tr> <tr> <td>SharedScript</td> <td>SharedScriptResource</td> <td>optional</td> <td></td> <td></td> <td>documentation SharedScript resource assigned to the object</td> </tr> <tr> <td>Script</td> <td>String32</td> <td></td> <td></td> <td></td> <td>documentation Script of the object</td> </tr> <tr> <td>DefaultAllowDrag</td> <td>boolean</td> <td>optional</td> <td>false</td> <td></td> <td>documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level</td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object	Name	ObjectName	optional			documentation String name of the object	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object	Script	String32				documentation Script of the object	DefaultAllowDrag	boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
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DefaultAllowDrop	boolean	optional	false	documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
DragImage	GraphicResource	optional		documentation The image displayed as the cursor during a drag-and-drop operation
DrawDirect	boolean	optional	false	documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
Bounds	Bounds	required		documentation Top,left,bottom,right

	<p>FontFace xs:string optional sysFontFace</p> <p>FontSize FontSizeData optional sysFontSize</p> <p>FontStyle xs:string optional sysFontStyle</p>	<p>co-ordinates of the object relative to the top left corner of the book</p> <p>documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text</p> <p>documentation A button, combo box, field, or record field property that specifies the point size of button labels and combo box, field, or record field text. One point equals 1/72 of an inch</p> <p>documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text</p>
annotation	documentation	<p>Abstract class TextObject derived from GraphicObject. The TextObject class defines properties that are common to objects that use fonts. This is an abstract class, which means there is no corresponding TextObject element that can be used in a ToolBook XML file. Rather, this class defines functionality that is common to its derived classes</p>

attribute **TextObject/@Bounds**

type	Bounds
properties	isRef 0 use required
facets	pattern <code>-\d{1,5},-\d{1,5},-\d{1,5},-\d{1,5}</code>
annotation	documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book

attribute **TextObject/@FontFace**

type	xs:string
properties	isRef 0 default sysFontFace use optional
annotation	documentation A button, combo box, field, or record field property that specifies the font for button labels and combo box, field, or record field text

attribute **TextObject/@FontSize**

type	FontSizeData
properties	isRef 0 default sysFontSize use optional
annotation	documentation

	A button, combo box, field, or record field property that specifies the point size of button labels and combo box, field, or record field text. One point equals 1/72 of an inch
--	--

attribute **TextObject/@FontStyle**

type	xs:string
properties	isRef 0 default sysFontStyle use optional
annotation	documentation A button, combo box, field, or record field property that specifies the font style of button labels and combo box, field, or record field text

complexType **ToolBookObject**

namespace	urn:sumtotalsystems:toolbook.tbkx																														
type	extension of Object																														
properties	base Object abstract true																														
used by	element Hotword complexType GraphicObject																														
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>annotation</th> </tr> </thead> <tbody> <tr> <td>IDNumber</td> <td>ObjectID</td> <td>required</td> <td></td> <td></td> <td>documentation Unique ID number assigned to the object</td> </tr> <tr> <td>Name</td> <td>ObjectName</td> <td>optional</td> <td></td> <td></td> <td>documentation String name of the object</td> </tr> <tr> <td>SharedScript</td> <td>SharedScriptResource</td> <td>optional</td> <td></td> <td></td> <td>documentation SharedScript resource assigned to the object</td> </tr> <tr> <td>Script</td> <td>String32</td> <td></td> <td></td> <td></td> <td>documentation Script of the object</td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	annotation	IDNumber	ObjectID	required			documentation Unique ID number assigned to the object	Name	ObjectName	optional			documentation String name of the object	SharedScript	SharedScriptResource	optional			documentation SharedScript resource assigned to the object	Script	String32				documentation Script of the object
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Script	String32				documentation Script of the object																										
annotation	documentation Abstract class derived from Object. This is an abstract class, which means there is no corresponding ToolBookObject element that can be used in a ToolBook XML file. Rather, this class defines functionality that is common to its derived classes																														

attribute **ToolBookObject/@IDNumber**

type	ObjectID
properties	isRef 0 use required
facets	minInclusive 0
annotation	documentation Unique ID number assigned to the object

attribute **ToolBookObject/@Name**

type	ObjectName
properties	isRef 0 use optional
facets	minLength 0 maxLength 32
annotation	documentation String name of the object

attribute **ToolBookObject/@SharedScript**

type	SharedScriptResource
properties	isRef 0 use optional
facets	<p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+[Ii][Dd]s+d{3,5}</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"s{1,30}w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"w{1,30}s"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"w{1,30}w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;s{1,30}w&quot;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;w{1,30}s&quot;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]s+"&quot;w{1,30}w&quot;</p>
annotation	documentation SharedScript resource assigned to the object

attribute **ToolBookObject/@Script**

type	String32
properties	isRef 0
facets	minLength 0 maxLength 65535
annotation	documentation Script of the object

complexType **VectorObject**

namespace	urn:sumtotalsystems:toolbox.tbkx					
type	extension of DrawObject					
properties	base DrawObject abstract true					
children	Hyperlink					
used by	elements IrregularPloygon Pie Polygon complexType LineObject					
attributes	IDNumber	Type ObjectID	Use required	Default	Fixed	annotation documentation Unique ID number assigned to the object
	Name	Type ObjectName	optional			documentation String name of the object
	SharedScript	Type SharedScriptResource	optional			documentation SharedScript resource assigned to the object
	Script	Type String32				documentation Script of the object
	DefaultAllowDrag	Type boolean	optional	false		documentation Specifies the object's default drag-and-drop behavior when the user clicks it at Reader level
	DefaultAllowDrop	Type boolean	optional	false		documentation Specifies an object's default behavior when the cursor enters its bounds during a drag-and-drop operation
	DragImage	Type GraphicResource	optional			documentation The image

	DrawDirect	boolean	optional	false	displayed as the cursor during a drag-and-drop operation documentation Specifies the method for drawing the screen image of an object. ToolBook can display objects drawn directly more quickly than objects drawn offscreen, but draw direct objects tend to flicker if they are moved
	NoDropImage	GraphicResource	optional	null	documentation A draw object, graphic object, group, or hotword property that specifies the image that is displayed as the cursor when a source object is dragged over an object that does not accept drops during a drag-and-drop operation
	RgbFill	RGBColor	optional	sysRGBFill	documentation Specifies the fill color for the object as an RGB value
	RgbStroke	RGBColor	optional	sysRGBStroke	documentation Specifies the object's stroke color as an RGB value
	Transparent	Transparency		sysTransparent	documentation A property of draw objects and graphic objects that specifies whether an object is transparent
	UseWindowsColors	boolean	optional	false	documentation Specifies whether the object is drawn using Windows colors
	Visible	boolean	optional	true	documentation Property of the object that specifies whether its shown onscreen
	Hyperlink	xs:string	optional		documentation The Hyperlink property defines a hyperlink on an object
	Bounds	Bounds	required		documentation Top,left,bottom,right co-ordinates of the object relative to the top left corner of the book
	LineStyle	LineStyle	optional	sysLineStyle	documentation A graphic object property that specifies the width of borders around graphic objects or

	<p>Pattern Pattern optional sysPattern</p> <p>Vertices xs:string optional</p>	<p>the line width for draw objects with open end points documentation A draw object property that specifies the current fill pattern of selected draw objects documentation A property of draw objects that specifies the locations of an object's vertices</p>
annotation	<p>documentation Abstract VectorObject class derived from DrawObject. Base class for "vector" type objects - that is, objects that use a Vertices property to define their details rather than a Bounds property. This is an abstract class, which means there is no corresponding VectorObject element that can be used in a ToolBook XML file. Rather, this class defines functionality that is common to its derived classes</p>	

attribute **VectorObject/@Vertices**

type	xs:string
properties	isRef 0 use optional
annotation	documentation A property of draw objects that specifies the locations of an object's vertices

Schema SumTotal.ToolBook.XML.UserProperty.xsd

schema location: **SumTotal.ToolBook.XML.UserProperty.xsd**
 element form default: **qualified**
 targetNamespace: **urn:sumtotalsystems:toolbox.tbkx**

Elements
[UserProperty](#)

element UserProperty

namespace	urn:sumtotalsystems:toolbox.tbkx					
properties	content complex					
children	x:Array					
used by	elements Book.UserProperties Button.UserProperties EnhancedField.UserProperties Field.UserProperties Group.UserProperties Image.UserProperties UniversalMediaPlayer.UserProperties Viewer.UserProperties					
attributes	Name	Type	Use	Default	Fixed	annotation
	Name	xs:string				documentation Property name
	Value	xs:string				documentation Property value
annotation	documentation Defines the entry inside a UserProperties property of an object.					

attribute UserProperty/@Name

type	xs:string
properties	isRef 0
annotation	documentation Property name

attribute UserProperty/@Value

type	xs:string
properties	isRef 0
annotation	documentation Property value

Schema SumTotal.ToolBook.XML.Actions.xsd

schema location: **SumTotal.ToolBook.XML.Actions.xsd**
 element form default: **qualified**
 targetNamespace: **urn:sumtotalsystems:toolbox.tbkx.actions**

Elements
[ExitAction](#)

element **ExitAction**

namespace	urn:sumtotalsystems:toolbook.tbkx.actions					
properties	content complex					
used by	element Array					
attributes	Name	Type	Use	Default	Fixed	annotation
	CmsNavigation	xs:string	optional			
	CmsCanResume	xs:string	optional			
	CmsAction	xs:string	optional			
annotation	documentation ExitAction element					

attribute **ExitAction/@CmsNavigation**

type	xs:string
properties	isRef 0 use optional

attribute **ExitAction/@CmsCanResume**

type	xs:string
properties	isRef 0 use optional

attribute **ExitAction/@CmsAction**

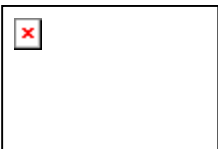
type	xs:string
properties	isRef 0 use optional

Schema SumTotal.ToolBook.XML.Types.xsd

schema location: **SumTotal.ToolBook.XML.Types.xsd**
 element form default: **qualified**
 targetNamespace: **urn:sumtotalsystems:toolbook.tbkx**


Elements	Simple types
Color	ArrayValue
PageReference	BackgroundReference
Point	BitmapResource
	boolean
	Bounds
	ClientSize
	CursorResource
	FieldIndent
	FontResource
	FontSizeData
	GraphicResource
	HLSColor
	IconResource
	LineEndSize
	LineEndStyle
	LineStyle
	MenuBarResource
	MinMaxSize
	ObjectID
	ObjectName
	PaletteResource
	Pattern
	ResourceID
	RGBColor
	SharedScriptResource
	Size
	String32
	Transparency
	ViewerPosition

element Color


diagram	
namespace	urn:sumtotalsystems:toolbook.tbkx
type	RGBColor
properties	content simple

annotation	documentation An element of type RGBColor
------------	--

element PageReference

diagram	
namespace	urn:sumtotalsystems:toolbox.tbkx
type	xs:string
properties	content simple
annotation	documentation A page reference element in the form of a string

element Point

diagram	
namespace	urn:sumtotalsystems:toolbox.tbkx
type	restriction of xs:string
properties	content simple
facets	pattern <code>\d{1,3},\d{1,3}</code>
annotation	documentation A Point element of the form x, y (where x and y are integers)

simpleType ArrayValue

namespace	urn:sumtotalsystems:toolbox.tbkx
type	union of (xs:integer , xs:token , HLSColor)
annotation	documentation Types used by the x:Array in this document

simpleType BackgroundReference

namespace	urn:sumtotalsystems:toolbox.tbkx
type	restriction of xs:string
facets	<p>pattern <code>[Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+[Ii][Dd]\s+\d{1,5}</code></p> <p>pattern <code>[Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+"s{\w\s}{1,30}\w"</code></p> <p>pattern <code>[Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+"\w{\w\s}{1,30}\s"</code></p> <p>pattern <code>[Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+"\w{\w\s}{1,30}\w"</code></p> <p>pattern <code>[Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+"&quot;\s{\w\s}{1,30}\w&quot;</code></p> <p>pattern <code>[Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+"&quot;\w{\w\s}{1,30}\s&quot;</code></p> <p>pattern <code>[Bb][Aa][Cc][Kk][Gg][Rr][Oo][Uu][Nn][Dd]\s+"&quot;\w{\w\s}{1,30}\w&quot;</code></p>
annotation	documentation A type used to specify a background reference in either of the two forms e.g. 'background id 234' OR 'background "backgroundNameXYZ"'. The name of the background should not exceed 32 characters and can have spaces

simpleType **BitmapResource**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
used by	simpleType GraphicResource
facets	<p>pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+[Ii][Dd]\s+\d{3,5}</code></p> <p>pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"\s[\w\s]{1,30}\w"</code></p> <p>pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"\w[\w\s]{1,30}\s"</code></p> <p>pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"\w[\w\s]{1,30}\w"</code></p> <p>pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"&quot;\s[\w\s]{1,30}\w&quot;</code></p> <p>pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"&quot;\w[\w\s]{1,30}\s&quot;</code></p> <p>pattern <code>[Bb][Ii][Tt][Mm][Aa][Pp]\s+"&quot;\w[\w\s]{1,30}\w&quot;</code></p>
annotation	<p>documentation</p> <p>A type used to specify a bitmap resource reference in either of the two forms e.g. 'bitmap id 234' OR 'bitmap "bitmapNameXYZ"'. The name of the bitmap resource should not exceed 32 characters and can have spaces</p>

simpleType **boolean**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	union of (xs:boolean , restriction of xs:token)
used by	simpleType Transparency
annotation	<p>documentation</p> <p>Allows us to type "true" "false" in a case insensitive manner for boolean type attributes</p>

simpleType **Bounds**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
facets	pattern <code>-?\d{1,5},-?\d{1,5},-?\d{1,5},-?\d{1,5}</code>
annotation	<p>documentation</p> <p>List of 4 comma separated integers of max 5 digits each, specifying an object's bounds</p>

simpleType **ClientSize**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	union of (restriction of xs:token , Size)
annotation	<p>documentation</p> <p>Type for the Viewer client size. Possibilities are 'sizeToPage', 'none' OR a comma separated list of two positive integers of max 5 digits each</p>

simpleType **CursorResource**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
used by	simpleType GraphicResource
facets	<p>pattern <code>[Cc][Uu][Rr][Ss][Oo][Rr]\s+[Ii][Dd]\s+\d{3,5}</code></p> <p>pattern <code>[Cc][Uu][Rr][Ss][Oo][Rr]\s+"\s[\w\s]{1,30}\w"</code></p> <p>pattern <code>[Cc][Uu][Rr][Ss][Oo][Rr]\s+"\w[\w\s]{1,30}\s"</code></p> <p>pattern <code>[Cc][Uu][Rr][Ss][Oo][Rr]\s+"\w[\w\s]{1,30}\w"</code></p> <p>pattern <code>[Cc][Uu][Rr][Ss][Oo][Rr]\s+"&quot;\s[\w\s]{1,30}\w&quot;</code></p> <p>pattern <code>[Cc][Uu][Rr][Ss][Oo][Rr]\s+"&quot;\w[\w\s]{1,30}\s&quot;</code></p> <p>pattern <code>[Cc][Uu][Rr][Ss][Oo][Rr]\s+"&quot;\w[\w\s]{1,30}\w&quot;</code></p>

annotation	documentation A type used to specify a cursor resource reference in either of the two forms e.g. 'cursor id 234' OR 'cursor "cursorNameXYZ"'. The name of the cursor resource should not exceed 32 characters and can have spaces
------------	--

simpleType **FieldIndent**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
facets	pattern \d{1,5},\d{1,5},\d{1,5}
annotation	documentation List of 3 numbers specifying the first line, the left margin, and the right margin indents. List of 3 positive comma separated integers of max 5 digits each

simpleType **FontResource**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
facets	pattern [Ff][Oo][Nn][Tt]\s+[Ii][Dd]\s+\d{3,5} pattern [Ff][Oo][Nn][Tt]\s+"s[\w\s]{1,30}\w" pattern [Ff][Oo][Nn][Tt]\s+"w[\w\s]{1,30}\s" pattern [Ff][Oo][Nn][Tt]\s+"w[\w\s]{1,30}\w" pattern [Ff][Oo][Nn][Tt]\s+""s[\w\s]{1,30}\w" pattern [Ff][Oo][Nn][Tt]\s+""w[\w\s]{1,30}\s" pattern [Ff][Oo][Nn][Tt]\s+""w[\w\s]{1,30}\w" pattern
annotation	documentation A type used to specify a font resource reference in either of the two forms e.g. 'font id 234' OR 'font "fontNameXYZ"'. The name of the font resource should not exceed 32 characters and can have spaces

simpleType **FontSizeData**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	union of (xs:positiveInteger , restriction of xs:token)
annotation	documentation A type used to specify the size of font used in various ToolBook objects. This can either be a positive integer or the string token 'sysFontSize'

simpleType **GraphicResource**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	union of (BitmapResource , CursorResource , IconResource , restriction of xs:token)
annotation	documentation Either of bitmap, cursor or icon resources

simpleType **HLSColor**

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:token
used by	simpleType ArrayValue
facets	pattern \d{1,3}\.*(\d*),\d{1,3}\.*(\d*),\d{1,3}\.*(\d*)
annotation	documentation Integer HLS color value : Hue, Luminance, Saturation. List of 3 comma separated real numbers with integer part not exceeding 3 digits

simpleType IconResource

namespace	urn:sumtotalsystems:toolbox.tbkx
type	restriction of xs:string
used by	simpleType GraphicResource
facets	<p>pattern [li][Cc][Oo][Nn]\s+[li][Dd]\s+d{3,5}</p> <p>pattern [li][Cc][Oo][Nn]\s+"\s{\w\s}{1,30}\w"</p> <p>pattern [li][Cc][Oo][Nn]\s+"\w{\w\s}{1,30}\s"</p> <p>pattern [li][Cc][Oo][Nn]\s+"\w{\w\s}{1,30}\w"</p> <p>pattern [li][Cc][Oo][Nn]\s+"&quot;\s{\w\s}{1,30}\w&quot;</p> <p>pattern [li][Cc][Oo][Nn]\s+"&quot;\w{\w\s}{1,30}\s&quot;</p> <p>pattern [li][Cc][Oo][Nn]\s+"&quot;\w{\w\s}{1,30}\w&quot;</p> <p>pattern</p>
annotation	<p>documentation</p> <p>A type used to specify a icon resource reference in either of the two forms e.g. 'icon id 234' OR 'icon "iconNameXYZ"'. The name of the icon resource should not exceed 32 characters and can have spaces</p>

simpleType LineEndSize

namespace	urn:sumtotalsystems:toolbox.tbkx
type	union of (restriction of xs:string , restriction of xs:token)
annotation	<p>documentation</p> <p>A type used to specify the size of line ends of a LineObject. This can be a positive integer from 1 to 9 or the string token 'sysLineEndSize'</p>

simpleType LineEndStyle

namespace	urn:sumtotalsystems:toolbox.tbkx
type	union of (restriction of xs:string , restriction of xs:token)
annotation	<p>documentation</p> <p>A type used to specify the style of line ends of a LineObject. A list of two of the following values: filledHead, filledTail, openHead, openTail, solidHead, solidTail, or none. The first value in the list specifies the style for the starting point of the line; the second value specifies the style for the end point of the line. It can also simply be sysLineEndStyle for default</p>

simpleType LineStyle

namespace	urn:sumtotalsystems:toolbox.tbkx
type	union of (restriction of xs:positiveInteger , restriction of xs:token)
annotation	<p>documentation</p> <p>A type used to specify the style for drawing lines in draw objects. This can either be a positive integer from 1 to 8 or one of the string tokens 'dashed', 'dotted', 'none', 'sysLineStyle'</p>

simpleType MenuBarResource

namespace	urn:sumtotalsystems:toolbox.tbkx
type	restriction of xs:string
facets	<p>pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+[li][Dd]\s+d{3,5}</p> <p>pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+"\s{\w\s}{1,30}\w"</p> <p>pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+"\w{\w\s}{1,30}\s"</p> <p>pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+"\w{\w\s}{1,30}\w"</p> <p>pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+"&quot;\s{\w\s}{1,30}\w&quot;</p> <p>pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+"&quot;\w{\w\s}{1,30}\s&quot;</p> <p>pattern [Mm][Ee][Nn][Uu][Bb][Aa][Rr]\s+"&quot;\w{\w\s}{1,30}\w&quot;</p> <p>pattern</p>

annotation	documentation A type used to specify a menubar resource reference in either of the two forms e.g. 'menubar id 234' OR 'menubar "menubarNameXYZ"'. The name of the menubar resource should not exceed 32 characters and can have spaces
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simpleType MinMaxSize

namespace	urn:sumtotalsystems:toolbook.tbkx
type	union of (restriction of xs:token , Size)
annotation	documentation Viewer size data. This can be 'none' or a list of two comma separated positive integers of max 5 digits each

simpleType ObjectID

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:short
facets	minInclusive 0
annotation	documentation A unique ID number associated with an object. Its a positive integer with a min value of 0 and max value of 32767

simpleType ObjectName

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
facets	minLength 0 maxLength 32
annotation	documentation A string of maxsize 32chars used for ToolBook object names

simpleType PaletteResource

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
facets	<p>pattern [Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+[Ii][Dd]\s+\d{3,5}</p> <p>pattern [Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"s\w\s{1,30}\w"</p> <p>pattern [Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"\w\w\s{1,30}\s"</p> <p>pattern [Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"w\w\s{1,30}\w"</p> <p>pattern [Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"&quot;\s\w\s{1,30}\w&quot;;</p> <p>pattern [Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"&quot;\w\w\s{1,30}\s&quot;;</p> <p>pattern [Pp][Aa][Ll][Ee][Tt][Tt][Ee]\s+"&quot;\w\w\s{1,30}\w&quot;;</p> <p>pattern</p>
annotation	documentation A type used to specify a resource reference to a palette in either of the two forms e.g. 'palette id 234' OR 'palette "paletteNameXYZ"'. The name of the palette should not exceed 32characters and can have spaces

simpleType Pattern

namespace	urn:sumtotalsystems:toolbook.tbkx
type	union of (restriction of xs:integer , restriction of xs:token)
annotation	documentation Tiling patterns available in ToolBook. This can be an integer from 1 to 128 OR from 253-255 OR a token value out of the following 'solidFille', 'solidStroke', 'none', 'sysPattern'

simpleType ResourceID

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:short
facets	minInclusive 100
annotation	documentation A unique ID number associated with a resource. its a positive integer with a min value of 100 and max value of 32767

simpleType RGBColor

namespace	urn:sumtotalsystems:toolbook.tbkx
type	union of (restriction of xs:string , restriction of xs:token)
used by	element Color
annotation	documentation Integer RGB color value : Red, Green, Blue. This can either be a list of 3 comma separated positive integers having max 5 digits each OR one of the following values 'black','blue','cyan','green','gray','magenta','red','white','yellow','lightgray','sysRGBStroke','sysRGBFill'

simpleType SharedScriptResource

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
facets	<p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]\s+[Ii][Dd]\s+d{3,5}</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]\s+"s[\w\s]{1,30}\w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]\s+"w[\w\s]{1,30}\s"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]\s+"w[\w\s]{1,30}\w"</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]\s+"&quot;s[\w\s]{1,30}\w&quot;;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]\s+"&quot;w[\w\s]{1,30}\s&quot;;</p> <p>pattern [Ss][Hh][Aa][Rr][Ee][Dd][Ss][Cc][Rr][Ii][Pp][Tt]\s+"&quot;w[\w\s]{1,30}\w&quot;;</p>
annotation	documentation A type used to specify a shared script resource reference in either of the two forms e.g. 'sharedScript id 234' OR 'sharedScript "scriptNameXYZ"'. The name of the script should not exceed 32characters and can have spaces

simpleType Size

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:token
used by	simpleTypes ClientSize MinMaxSize ViewerPosition
facets	pattern \d{1,5},\d{1,5}
annotation	documentation Generic size info as "width,height". A comma separated list of two integers having max 5 digits each

simpleType String32

namespace	urn:sumtotalsystems:toolbook.tbkx
type	restriction of xs:string
facets	<p>minLength 0</p> <p>maxLength 65535</p>
annotation	documentation A string type of maximum length of 65535 characters.

simpleType Transparency

namespace	urn:sumtotalsystems:toolbox.tbkx
type	union of (boolean , restriction of xs:token)
annotation	documentation A type used to specify if an object appears transparent. This can either be the user defined type boolean OR the string token 'sysTransparent'

simpleType ViewerPosition

namespace	urn:sumtotalsystems:toolbox.tbkx
type	union of (restriction of xs:token , Size)
annotation	documentation Viewer position data. This can either be the user defined type Size OR one of the following values 'none','center'

Schema SumTotal.ToolBook.XML.CLR.Types.xsd

schema location: **SumTotal.ToolBook.XML.CLR.Types.xsd**
 element form default: **qualified**
 targetNamespace: **clr-namespace:System;assembly=mscorlib**

Elements

[Boolean](#)

[Int16](#)

[Int32](#)

[Object](#)

[Single](#)

[String](#)

[UInt16](#)

[UInt32](#)

element **Boolean**

namespace	clr-namespace:System;assembly=mscorlib
type	tbk:boolean
properties	content simple
annotation	documentation A logical data type used to specify true of false

element **Int16**

namespace	clr-namespace:System;assembly=mscorlib
type	xs:short
properties	content simple
annotation	documentation A signed 16bit integer

element **Int32**

namespace	clr-namespace:System;assembly=mscorlib
type	xs:int
properties	content simple
annotation	documentation A signed 32bit integer

element **Object**

namespace	clr-namespace:System;assembly=mscorlib
annotation	documentation A CLR Object element

element **Single**

namespace	clr-namespace:System;assembly=mscorlib
type	xs:decimal

properties	content simple
annotation	documentation A decimal value element

element **String**

namespace	clr-namespace:System;assembly=mscorlib
annotation	documentation A string element

element **UInt16**

namespace	clr-namespace:System;assembly=mscorlib
type	xs:unsignedShort
properties	content simple
annotation	documentation An unsigned 16bit integer element

element **UInt32**

namespace	clr-namespace:System;assembly=mscorlib
type	xs:unsignedInt
properties	content simple
annotation	documentation An unsigned 32bit integer element

Schema SumTotal.ToolBook.XML.XAMLTags.xsd

schema location: **SumTotal.ToolBook.XML.XAMLTags.xsd**
 element form default: **qualified**
 targetNamespace: **http://schemas.microsoft.com/winfx/2006/xaml**

Elements

[Array](#)

element Array

namespace	http://schemas.microsoft.com/winfx/2006/xaml					
properties	content complex					
children	Array sys:Object ae:ExitAction sys:Boolean sys:Int16 sys:Int32 sys:Single sys:String sys:UInt16 sys:UInt32 tbkx:Color tbkx:PageReference tbkx:Point					
used by	elements	Array tbkx:UserProperty				
attributes	Name Type	Type derived by: xs:string	Use required	Default	Fixed	annotation documentation Array member type
annotation	documentation A generic array type whose members may be of type x:Array(another array) or of type Object.					

attribute Array/@Type

type	restriction of xs:string					
properties	isRef	0				
	use	required				
facets	enumeration	x:Array				
	enumeration	sys:Object				
	enumeration	ae:ExitAction				
	enumeration	sys:Boolean				
	enumeration	sys:Int16				
	enumeration	sys:Int32				
	enumeration	sys:Single				
	enumeration	sys:String				
	enumeration	sys:UInt16				
	enumeration	sys:UInt32				
	enumeration	tbkx:Color				
	enumeration	tbkx:PageReference				
	enumeration	tbkx:Point				
annotation	documentation Array member type					