

## Frogans Slide Description Language - 2.0

### Status

Destined to the developer community, this document specifies version 2.0 of the FSDL and replaces and renders obsolete any previous specifications concerning the FSDL. This document is released for public comments before its final publication.

Comments on this document are requested and may be made by email at the address: [fsdl@frogans.com](mailto:fsdl@frogans.com).

### Abstract

This document serves as a reference guide for the markup language called the Frogans Slide Description Language (FSDL) which is used for developing frogans.

The frogans are a means for end-users to consult content on the Internet. Frogans are independent from, but compatible with, other existing applications such as WWW, Newsgroup, E-mail, and IRC.

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### Developer License

The free use of the FSDL as markup language for developing frogans is subject to the terms and conditions of the 'FSDL Developer License Agreement' (<http://www.frogans.com/en/legal/fsdl.php>).

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## 1. Introduction

The Frogans Slide Description Language (FSDL) is a complete markup language exclusively dedicated to the development of frogans.

Frogans is a hyperlink-based, distributed information system on the Internet which was created by STG Interactive to provide the Internet community with a very simple mean of publishing and consulting content. Frogans are known for their unique and creative format which is easy to use, light and does not compete with open applications on the end-user's screen. Each frogans can contain an unlimited number of pages (slides) which are developed using the FSDL.

Any creative and eye-catching format may attract an end-user's attention once. However, as for all information systems, the way the end-user interacts with the content (access, classify, share, etc.) relies on the way that content is addressed.

To create greater affinity between the editor's content and the end-user, each frogans is identified by a frogans address whose format is short, easy to remember, universal, extensible and can be targeted.

The FSDL eliminates barriers for developers in working with enhanced graphics and hyperlinks, by providing a clear and comprehensible structure for the code which is closely related to the slide's layout.

FSDL documents can be produced dynamically on the server to update or personalize the frogans automatically for the end-user.

As it supports all reading directions for written languages and is ISO 10646 compliant (Unicode), the FSDL actively helps to promote the compatible exchange of information over the Internet.

This document specifies version 2.0 of the FSDL. Future versions presenting additional features of this markup language will be released with higher version numbers, following input from the frogans developer community.

## 2. Terms

### end-user

A person using the Frogans Player software to consult frogans on the Internet.

### end-user's system

A computer or device connected to the Internet which is able to display frogans.

### frogans

Sets of uniquely shaped slides, which can be visualized on the Internet. Frogans can be published from anywhere in the world, in any language, through a frogans address.

### frogans address

A frogans address is an Internet address which serves to reference a frogans. It is made up of the prefix 'frogans\*' followed by one or more signs chosen by its editor.

### frogans directory

The frogans directory is a server directory which contains the frogans (FSDL documents and resources). Its location on the Internet is transmitted through the frogans address.

### Frogans Player

A free downloadable software, published by STG Interactive, that lets end-users browse and navigate frogans on the Internet.

### frogans slide

A frogans slide is comparable to a page on the World Wide Web. Once developed with the FSDL, the slides are grouped together to make up a frogans. The number of slides in a frogans is unlimited.

### FSDL document

A sequence of characters organized physically as a set of entities and logically into a hierarchy of elements, which conforms to the FSDL specifications.

### 3. FSDL Document Structure

The file name of a FSDL document must have the extension '.fSDL' or '.fSD'. If the FSDL document is delivered dynamically by the server hosting the frogans, file name extensions such as '.php' or '.asp' may also be used.

The format used to encode the FSDL document must be either UTF-8 (RFC 2279) or UTF-16 (RFC 2781) of ISO 10646.

All element names and their attributes are always written in uppercase in the FSDL document. Attribute values are always delimited by single or double quotation marks.

All elements contained in the FSDL document must have an end tag. For example:

```
<SETTEXT ...attributes...>
  <LINE>line of text</LINE>
</SETTEXT>
```

Empty elements must either have an end tag or the start tag must end with />. For example:

```
<SHAPE ...attributes...></SHAPE> can also be written
<SHAPE ...attributes... />
```

The FSDL document may contain comments using the common syntax <!-- this is a comment -->.

#### 4. Starting and ending the FSDL document - FROGANS element

The FROGANS element defines the beginning and the end of the FSDL document. It is a root element as it contains all other elements necessary to define the frogans slide:

- Resource management elements are SETIMAGE, SETPIXELS, PIX, SETDRAW, FONT, SETTEXT, LINE, SETCOPY, PROCESS and FILTER,
- Layout elements are SHAPE, CONTENT, MASK and SHADOW,
- Linking and navigation elements are BUTTON, NEXT, REDIRECT and SESSION.

The attributes associated with the FROGANS element are:

##### VERSION - Required

The version of the specifications to which the FSDL document conforms. Value is uppercase.

- \* "FSDL2.0" : FSDL specifications version 2.0

##### ENCODING - Required

The format used to encode the FSDL document. Values are uppercase.

- \* "UTF-8" specifies the transformation format UTF-8
- \* "UTF-16" specifies the transformation format UTF-16

##### COLOR - Optional

The background color of the slide. Is an uppercase, six-digit hexadecimal number prefixed by a hash mark (each color component is represented by two digits, in the order of red, green, blue).

The default value is "#FFFFFF" (white).

Examples of accepted values:

```
COLOR="#FFFFFF" (white)
COLOR="#000000" (black)
COLOR="#C0C0C0" (silver)
COLOR="#808080" (gray)
COLOR="#800000" (maroon)
COLOR="#FF0000" (red)
COLOR="#800080" (purple)
COLOR="#FF00FF" (fuchsia)
COLOR="#008000" (green)
COLOR="#00FF00" (lime)
```

```
COLOR="#808000" (olive)
COLOR="#FFFF00" (yellow)
COLOR="#0000FF" (blue)
COLOR="#008080" (teal)
COLOR="#00FFFF" (aqua)
```

Examples of refused values:

```
COLOR=" "
COLOR="FF0000"
COLOR="#ff0000"
COLOR="#FF000"
COLOR="#F00"
COLOR="red"
```

#### OUTLINE - Optional

Indicates if the outer edges of the slide are outlined. Values are uppercase.

The default value is "ON" (edges are outlined).

- \* "ON" specifies edges are outlined
- \* "OFF" specifies edges are not outlined

## 5. Setting Image Resources - SETIMAGE element

The SETIMAGE element designs an image resource which can be used to contribute to the shape of the slide (see 11. SHAPE element), or to fill an area within the slide (see 12. CONTENT element).

The SETIMAGE element is placed between the start and end tags of the FROGANS element.

A single image resource can be reused many times within the same slide.

The format used to encode the image file must be either JPEG, PNG or GIF (if GIF file is animated, only the first frame is displayed).

The image file is limited to 320 pixels width by 240 pixels height in order to minimize the loading and processing time of image resources on the end-user's system.

If different image resources have identical FILE attributes in the FSDL document, the specified image file is loaded only once by the Frogans Player.

The attributes associated with the SETIMAGE element are:

### RESID - Required

The unique identifier of the image resource for the slide. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples of accepted values:

```
RESID="fool"  
RESID="foo2"  
RESID="foo_1"
```

Examples of refused values:

```
RESID=""  
RESID="foo-1"  
RESID="foo/1"  
RESID="foo.1"  
RESID="foo 1"  
RESID="fool, foo2"
```

### ASPECT - Optional

The way the image resource occupies the areas of its associated SHAPE or CONTENT elements (defined by their SIZE attributes). Values are always uppercase.



The default value is "BASE".

- \* "BASE" specifies that the whole image resource is displayed in its original proportions to occupy the largest part of the area. Can be combined with ADJUST attribute to pan the image resource
- \* "SPREAD" specifies that the image resource is spread out to completely occupy the area. Does not preserve the original proportions of the image resource
- \* "ECHO" specifies that the whole image resource is displayed in its original proportions to occupy the largest part of the area, and is then duplicated to occupy the remaining parts. Can be combined with ADJUST attribute to pan the image resource
- \* "ZOOM" specifies that a part of the image resource is displayed in its original proportions to completely occupy the area. Can be combined with ADJUST attribute to pan the image resource

ADJUST - Optional, applicable only for certain ASPECT values

To adjust the positioning of the image resource through a left to right or top to bottom pan effect. Is a whole decimal number between -100 to 100.

The default value is "0" (centered).

Is not applicable if ASPECT="SPREAD".

Examples of accepted values:

ADJUST="0" (centered)

ADJUST="-100" (far left or top position)

ADJUST="100" (far right or bottom position)

ADJUST="33" (one third of the position to the right or bottom of center)

ADJUST="+100"

Examples of refused values:

ADJUST=""

ADJUST="- 100"

ADJUST="33.3"

ADJUST="200"

TRANSP - Optional

The uniform transparency of the image resource. If the image file, specified in the FILE attribute, contains zones which are already transparent (such as certain GIF or PNG image files),

transparency is added to the existing. Is an uppercase, two-digit hexadecimal number prefixed by a hash mark.

The default value is "#00" (no effect).

Examples of accepted values:

```
TRANSP="#00" (no effect)
TRANSP="#80" (add semi transparent effect)
TRANSP="#FF" (add full transparent effect)
```

Examples of refused values:

```
TRANSP=""
TRANSP="FF"
TRANSP="#ff"
TRANSP="#F"
```

#### FILE - Required

The file name of the image in the frogans directory. Is a case sensitive string of alphanumeric characters including underscore, dash, dot and slash (/). Spaces and backslashes (\) are not accepted. The string must contain between 1 and 128 characters.

The file name always starts with a slash (/).

If the image is located in a sub-directory of the frogans directory, the file name must contain the relative path between the frogans directory and the sub-directory.

Examples of accepted values:

```
FILE="/pic1.jpg"
FILE="/pic-1.jpg"
FILE="/pic_1.jpg"
FILE="/subdir/pic1.jpg"
FILE="/pic1.png"
FILE="/pic1.gif"
FILE="/pic1"
```

Examples of refused values:

```
FILE=""
FILE="pic1.jpg"
FILE="subdir/pic1.jpg"
FILE="/pic1.jpg?option=2"
FILE="/pic1.jpg?option=2&language=Swedish"
FILE="/subdir/"
FILE="/subdir//pic1.jpg"
FILE="/subdir\pic1.jpg"
FILE="../pic1.jpg"
FILE="frogans*GateName/pic1.jpg"
FILE="http://SpecificDomainName.com/pic1.jpg"
```

## CACHE - Optional

Indicates if the image file must be temporarily saved in or removed from a cache directory on the end-user's system. All image files are automatically removed from the cache directory when the end-user closes the frogans or after 24 hours. Values are uppercase.

The default value is "OFF".

- \* "OFF" specifies image file must not be saved or must be removed from the cache directory
- \* "ON" specifies image file must be saved in the cache directory, in order to avoid the repeated loading of the same image file for other slides in the frogans

## 6. Setting Pixels Resources - SETPIXELS and PIX elements

The SETPIXELS element designs a resource made up of pixels which can be used to contribute to the shape of the slide (see 11. SHAPE element), or to fill an area within the slide (see 12. CONTENT element).

The SETPIXELS element is placed between the start and end tags of the FROGANS element.

A single pixels resource can be reused many times within the same slide.

The size of a pixels resource is 1 to 16 pixels in width and 1 to 16 pixels in height. A pixels resource can be used to handle color gradients, masks and other effects, without loading an image file (see 5. SETIMAGE element).

The pixels are regrouped line by line between the start and end tags of PIX elements.

All PIX elements are placed between the start and end tags of the SETPIXELS element.

The pixels in each line are organized from left to right without spaces. Each pixel is specified by an uppercase hexadecimal number prefixed by a hash mark. The format for the hexadecimal number depends on the type of pixels resource to be used (BITMAP attribute).

Example:

```
<SETPIXELS ...attributes... WIDTH="3" HEIGHT="2" BITMAP="RGBA">
  <PIX>#FF000080#00FF00FF#0000FFFF</PIX>
  <PIX>#00FF00FF#0000FF80#FF000000</PIX>
</SETPIXELS>
```

The SETPIXELS element can contain between 1 and 16 PIX elements. Each PIX element can contain between 1 and 16 pixels.

There are no attributes associated with the PIX element.

The attributes associated with the SETPIXELS element are:

RESID - Required

The unique identifier of the pixels resource for the slide. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

**WIDTH - Required**

The width of the pixels resource in number of pixels. Is a whole decimal number between 1 and 16.

Examples of accepted values:

WIDTH="1" (minimum width)

WIDTH="16" (maximum width)

WIDTH="8" (average width)

Examples of refused values:

WIDTH=" "

WIDTH="+1"

WIDTH="8.5"

WIDTH="20"

**HEIGHT - Required**

The height of the pixels resource in number of pixels. Is a whole decimal number between 1 and 16.

Examples of accepted values:

HEIGHT="1" (minimum height)

HEIGHT="16" (maximum height)

HEIGHT="8" (average height)

Examples of refused values:

HEIGHT=" "

HEIGHT="+1"

HEIGHT="8.5"

HEIGHT="20"

**BITMAP - Required**

Denotes the type of pixels resource to be used. Values are always uppercase.

When using "RGBA", "A" or "YA", a pixel is fully transparent if its alpha component is "00".

- \* "RGB" specifies a color bitmap. Each pixel is represented by #RRGGBB where RR, GG and BB are the two-digit hexadecimal numbers for the red, green and blue components
- \* "RGBA" specifies a color bitmap with an alpha channel (transparency). Each pixel is represented by #RRGGBBAA where RR, GG, BB and AA are the two-digit hexadecimal numbers for the red, green, blue and alpha components
- \* "A" specifies a single color bitmap with an alpha channel (transparency). Each pixel is represented by #AA where AA

is the two-digit hexadecimal number for the alpha component. The color of the pixels is specified in the COLOR attribute

- \* "Y" specifies a grayscale bitmap. Each pixel is represented by #YY where YY is the two-digit hexadecimal number for the gray component
- \* "YA" specifies a grayscale bitmap with an alpha channel (transparency). Each pixel is represented by #YYAA where YY and AA are the two-digit hexadecimal numbers for the gray and alpha components

COLOR - Optional, applicable only if BITMAP="A"

The uniform color of the pixels resource. Is an uppercase, six-digit hexadecimal number prefixed by a hash mark (each color component is represented by two digits, in the order of red, green, blue).

The default value is "#0000FF" (blue).

Examples: see 4. FROGANS element

TRANSP - Optional

The uniform transparency of the pixels resource. If transparency has already been specified for the pixels resource (BITMAP="RGBA", "A" and "YA"), additional transparency is uniformly applied to all of the pixels. Is an uppercase, two-digit hexadecimal number prefixed by a hash mark.

The default value is "#00" (no effect).

Examples: see 5. SETIMAGE element

## 7. Setting Draw Resources - SETDRAW element

The SETDRAW element designs a graphic resource which can be used to contribute to the shape of the slide (see 11. SHAPE element), or to fill an area within the slide (see 12. CONTENT element).

The SETDRAW element is placed between the start and end tags of the FROGANS element.

A single graphic resource can be reused many times within the same slide.

The attributes associated with the SETDRAW element are:

### RESID - Required

The unique identifier of the graphic resource for the slide. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

### FORM - Required

Denotes the form of the graphic resource. Values are always uppercase.

- \* "RECT-P" specifies a rectangular perimeter
- \* "RECT-A" specifies a rectangular area
- \* "RREC-P" specifies a rounded rectangular perimeter
- \* "RREC-A" specifies a rounded rectangular area
- \* "ELLI-P" specifies an elliptical perimeter
- \* "ELLI-A" specifies an elliptical area
- \* "POLY-P" specifies a polygonal line
- \* "POLY-A" specifies a polygonal area
- \* "POLX-A" specifies an alternating polygonal area (for complex polygons with crisscrossing coordinates)

### PARAMS - Required, applicable only for certain FORM values

The parameters of the form. Is a coma-separated list of whole decimal numbers between 1 and 100, without spaces.

Is not applicable if FORM="RECT-A" and FORM="ELLI-A".

- If FORM="RECT-P" : Thickness of the line which designates the rectangular perimeter. Only one number is used in the value.

Example:  
PARAMS="20"

- If FORM="RREC-P" : Thickness of the line which designates the rounded rectangular perimeter and the relative width and height of the ellipse defined for its corners. Only three numbers are used in the value.

Example:  
PARAMS="20,50,50"

- If FORM="RREC-A" : Relative width and height of the ellipse defined for the corners of the rounded rectangular area. Only two numbers are used in the value.

Example:  
PARAMS="50,50"

- If FORM="ELLI-P" : Thickness of the line which designates the elliptical perimeter. Only one number is used in the value.

Example:  
PARAMS="20"

- If FORM="POLY-P" : Thickness of the line which designates the polygonal line and the X,Y coordinates of its points. At least two different points must be specified. The coordinates 1,1 is top-left. To close the polygon, the first X,Y coordinates must be repeated at the end of the value. A maximum of 256 X,Y coordinates is possible.

Examples:  
PARAMS="20,1,100,50,50,75,75,100,1" (chart graphic line)  
PARAMS="20,50,1,100,100,1,50,50,1" (triangle)

- If FORM="POLY-A": The X,Y coordinates of the points of the polygonal area. At least three different points must be specified. The coordinates 1,1 is top-left. A maximum of 256 X,Y coordinates is possible.

Examples:  
PARAMS="50,1,100,100,1,50" (triangular area)  
PARAMS="50,1,75,100,1,30,100,30,25,100" (star shaped area)

- If FORM="POLX-A": The X,Y coordinates of the points of the alternating polygonal area. At least three different points



must be specified. The coordinates 1,1 is top-left. A maximum of 256 X,Y coordinates is possible.

Example:

PARAMS="50,1,75,100,1,30,100,30,25,100" (star shaped area)

#### COLOR - Optional

The uniform color of the form. Is an uppercase, six-digit hexadecimal number prefixed by a hash mark (each color component is represented by two digits, in the order of red, green, blue).

The default value is "#0000FF" (blue).

Examples: see 4. FROGANS element

#### TRANSP - Optional

The uniform transparency of the form. Is an uppercase, two-digit hexadecimal number prefixed by a hash mark.

The default transparency is "#00" (no effect).

Examples: see 5. SETIMAGE element

#### ANTIALIAS - Optional

Indicates if an antialiasing effect is applied on the form to smooth its borders. Values are uppercase.

The default value is "ON" (effect is activated).

\* "ON" specifies effect is activated

\* "OFF" specifies effect is disabled

## 8. Managing Text Resources

To set a text resource, one or more fonts must be defined in the FSDL document using FONT elements.

### 8.1. Defining Fonts - FONT element

The FONT element designs a font which can be used in the context of a text resource (see 8.2. SETTEXT and LINE elements).

The FONT element is placed between the start and end tags of the FROGANS element.

A single font can be reused many times for different text resources within the same slide.

The attributes associated with the FONT element are:

#### FONTID - Required

The unique identifier of the font for the slide. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples of accepted values:

```
FONTID="foo1"  
FONTID="foo2"  
FONTID="foo_1"
```

Examples of refused values:

```
FONTID=""  
FONTID="foo-1"  
FONTID="foo/1"  
FONTID="foo.1"  
FONTID="foo 1"  
FONTID="foo1, foo2"
```

#### NAME - Optional

The name of the font used to display the text characters in the slide. Is a coma-separated list of three possible font names, which takes into account non-recognition of a font by the end-user's system.

A font name is a non-case sensitive string of alphanumeric characters including dash and space. The string must contain between 1 and 31 characters.

The end-user's system will display the first available font on the list. If none is available, a substitute font will be

displayed.

The default value is "Arial".

Examples of accepted values:

NAME="Arial"

NAME="Verdana"

NAME="Times New Roman"

NAME="Arial,Verdana"

NAME="Arial, Verdana"

NAME="Arial, Verdana, Times New Roman"

Examples of refused values:

NAME="Arial,"

NAME="Arial,,Verdana"

NAME="Arial+Verdana"

#### STYLE - Optional

The style of the font used to display the characters of the text. Is a coma separated list of up to four uppercase letters which can be used individually or in combination, without spaces, in any order.

The default style is "" (no style).

\* "B" specifies bold style

\* "I" specifies italic style

\* "U" specifies underline style

\* "S" specifies strike style

Examples of accepted values:

STYLE="" (no style)

STYLE="B" (bold style)

STYLE="B,I" (bold + italic styles)

STYLE="I,B" (bold + italic styles)

STYLE="B,I,U,S" (bold + italic + underline + strike styles)

Examples of refused values:

STYLE="b"

STYLE="BB"

STYLE="B, I"

STYLE="BI"

STYLE="B I"

STYLE="B,,I"

STYLE="B,I,"

STYLE="B,I,A"

**SPACING - Optional**

The spacing between each character of the text. Is a whole decimal number between -100 and 100.

The default value is "0" (no space).

Examples of accepted values:  
SPACING="0" (no space)  
SPACING="100" (maximum space)  
SPACING="33" (one third of the maximum space)  
SPACING="-100" (fully superimposed)  
SPACING="+100"

Examples of refused values:  
SPACING=""  
SPACING="- 100"  
SPACING="33.3"  
SPACING="200"

**COLOR - Optional**

The uniform color of the font. Is an uppercase, six-digit hexadecimal number prefixed by a hash mark (each color component is represented by two digits, in the order of red, green, blue).

The default value is "#0000FF" (blue).

Examples: see 4. FROGANS element

**TRANSP - Optional**

The uniform transparency of the font. Is an uppercase, two-digit hexadecimal number prefixed by a hash mark.

The default value is "#00" (no effect).

Examples: see 5. SETIMAGE element

**ANTIALIAS - Optional**

Indicates if an antialiasing effect is applied to smooth the contours of the font. Values are uppercase.

The default value is "ON" (effect is activated).

- \* "ON" specifies effect is activated
- \* "OFF" specifies effect is disabled

## 8.2. Setting Text Resources - SETTEXT and LINE elements

The SETTEXT element designs a text resource which can be used to contribute to the shape of the slide (see 11. SHAPE element), or to fill an area within the slide (see 12. CONTENT element).

The SETTEXT element is placed between the start and end tags of the FROGANS element.

A single text resource can be reused many times within the same slide.

The text characters are regrouped line by line between the start and end tags of LINE elements.

All LINE elements are placed between the start and end tags of the SETTEXT element.

Example:

```
<SETTEXT ...attributes...>
  <LINE>This is a line of text</LINE>
  <LINE>This is a second line of text</LINE>
</SETTEXT>
```

The SETTEXT element can contain up to 16 different lines of text. Each LINE element can contain up to 48 text characters.

The text characters can be displayed horizontally or vertically, to be read from left to right (LTR), right to left (RTL), top to bottom (TTB) or bottom to top (BTT), using the FORMAT attribute of the SETTEXT element.

The font used to display the text characters (see 8.1. FONT element) is specified in the FONTID attribute of the SETTEXT element.

Each LINE element can have a different font (FONTID attribute of the LINE element) and can reverse the direction of the text when it is displayed (REVDIR attribute of the LINE element).

To use different fonts and text directions in a single line of text, up to 8 LINE elements can be joined together (JOIN attribute of the LINE element).

Example:

```
<SETTEXT ...attributes...>
  <LINE>This is a line of text</LINE>
  <LINE JOIN="ON" FONTID="red_bold">This is</LINE>
  <LINE JOIN="ON" REVDIR="ON">dnoces a</LINE>
  <LINE FONTID="blue2">line of text</LINE>
</SETTEXT>
```

The text characters are ISO 10646. They must be encoded using UTF-8 or UTF-16 (see 4. ENCODING attribute of the FROGANS element).

Numeric character references can be used with the syntax: `&#D;` or `&#xH;` (or `&#XH;`) where D is the decimal value, and H the uppercase hexadecimal value of the character in ISO 10646.

Examples:

`&#78;` or `&#078;` (letter N)  
`&#x4E;` or `&#x004E;` (letter N)

Recognized character entity references are:

<code>&amp;lt;</code>	less than sign (<)	( <code>&amp;#x003C;</code> )
<code>&amp;gt;</code>	greater than sign (>)	( <code>&amp;#x003E;</code> )
<code>&amp;quot;</code>	double quote sign (")	( <code>&amp;#x0022;</code> )
<code>&amp;amp;</code>	ampersand (&)	( <code>&amp;#x0026;</code> )
<code>&amp;apos;</code>	apostrophe (')	( <code>&amp;#x0027;</code> )
<code>&amp;copy;</code>	copyright sign	( <code>&amp;#x00A9;</code> )
<code>&amp;reg;</code>	registered trademark	( <code>&amp;#x00AE;</code> )
<code>&amp;num;</code>	number sign (#)	( <code>&amp;#x0023;</code> )
<code>&amp;dollar;</code>	dollar sign (\$)	( <code>&amp;#x0024;</code> )
<code>&amp;euro;</code>	euro sign	( <code>&amp;#x20AC;</code> )
<code>&amp;nbsp;</code>	non-breaking space	( <code>&amp;#x00A0;</code> )

Character entity references are non-case sensitive.

The following text characters are automatically replaced by the space character (`&#x0020;`): horizontal tabulation (`&#x0009;`), carriage return (`&#x000D;`), line feed (`&#x000A;`), form feed (`&#x000C;`) and zero-width space (`&#x200B;`).

Any combination of two or more values denoting a space will result in a single space. Spaces immediately following or preceding the LINE element tags are not taken into account. Non-breaking spaces can be used to place succeeding spaces anywhere in a line of text.

The attributes associated with the SETTEXT element are:

RESID - Required

The unique identifier of the text resource for the slide. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

**FORMAT - Required**

The format of the text resource. Values are always uppercase.

- \* "H-TTB-LTR" specifies that the characters must be displayed horizontally, in rows organized from top to bottom, reading left to right
- \* "H-TTB-RTL" specifies that the characters must be displayed horizontally, in rows organized from top to bottom, reading right to left
- \* "H-BTT-LTR" specifies that the characters must be displayed horizontally, in rows organized from bottom to top, reading left to right
- \* "H-BTT-RTL" specifies that the characters must be displayed horizontally, in rows organized from bottom to top, reading right to left
- \* "V-LTR-TTB" specifies that the characters must be displayed vertically, in columns organized from left to right, reading top to bottom
- \* "V-LTR-BTT" specifies that the characters must be displayed vertically, in columns organized from left to right, reading bottom to top
- \* "V-RTL-TTB" specifies that the characters must be displayed vertically, in columns organized from right to left, reading top to bottom
- \* "V-RTL-BTT" specifies that the characters must be displayed vertically, in columns organized from right to left, reading bottom to top

**FONTID - Required**

The unique identifier of the default font to be used to display the text resource. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 8.1. FONT element

**STRETCH - Optional**

Pushes the text resource to completely occupy the areas of its associated SHAPE or CONTENT elements (defined by their SIZE attributes). Must be set to "OFF" in order to preserve the original proportions of the font. Values are uppercase.

The default value is "OFF" (no stretch).

- \* "OFF" specifies no stretch
- \* "ON" specifies stretch

HALIGN - Optional, applicable only if STRETCH="OFF"

The horizontal alignment of the text lines (rows or columns).  
Values are uppercase.

The default value is "LEFT" (align left).

- \* "LEFT" specifies align left
- \* "RIGHT" specifies align right
- \* "CENTER" specifies align center
- \* "JUSTIFY" specifies align justified

VALIGN - Optional, applicable only if STRETCH="OFF"

The vertical alignment of the text lines (rows or columns).  
Values are uppercase.

The default value is "TOP" (align top).

- \* "TOP" specifies align top
- \* "BOTTOM" specifies align bottom
- \* "MIDDLE" specifies align middle
- \* "JUSTIFY" specifies align justified

SPACING - Optional

The spacing between each line of the text. Is a whole decimal  
number between -100 and 100.

The default value is "0" (no space).

Examples: see 8.1. FONT element

The attributes associated with the LINE element are:

FONTID - Optional

The unique identifier of the font to be used to display the  
text characters placed between the start and end tags of the



LINE element. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

The default value is specified in the FONTID attribute of the SETTEXT element which contains the LINE element.

Examples: see 8.1. FONT element

#### REVDIR - Optional

Reverses the direction of the text characters placed between the start and end tags of the LINE element. The initial direction is specified in the FORMAT attribute of the SETTEXT element which contains the LINE element. Values are uppercase.

The default value is "OFF" (no effect)

\* "OFF" specifies no effect

\* "ON" specifies direction is reversed

#### JOIN - Optional

Indicates if the LINE element must be joined with the following LINE element to display a single line of text with different fonts or text directions. Values are uppercase.

The default value is "OFF" (no effect).

\* "OFF" specifies no effect

\* "ON" specifies line to be joined

#### SPACING - Optional

The spacing between the line and the line that follows it. Is a whole decimal number between -100 and 100.

The default value is specified in the SPACING attribute of the SETTEXT element which contains the LINE element.

If the line is made up of joined LINE elements (JOIN attribute), the value of the first LINE element is used.

Examples: see 8.1. FONT element

## 9. Setting Duplicated Resources - SETCOPY element

The SETCOPY element initializes a resource by copying an existing resource to it (image, graphic, pixels or text).

The SETCOPY element is placed between the start and end tags of the FROGANS element.

The new resource has the identical attribute values of the original resource and retains the processes already applied on the original (see 10. PROCESS and FILTER elements). Additional processes can be applied on the new resource.

The attributes associated with the SETCOPY element are:

### RESID - Required

The unique identifier of the new resource for the slide. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

### SOURCE - Required

The unique identifier of the original resource for the slide. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples of accepted values:

```
SOURCE="foo1"  
SOURCE="foo2"  
SOURCE="foo_1"
```

Examples of refused values:

```
SOURCE=""  
SOURCE="foo-1"  
SOURCE="foo/1"  
SOURCE="foo.1"  
SOURCE="foo 1"  
SOURCE="foo1, foo2"
```

## 10. Pre-processing of Resources - PROCESS and FILTER elements

The PROCESS element defines a series of processes to be applied on a resource (image, graphic, pixels or text), before it is used in the SHAPE and CONTENT elements.

The PROCESS element is placed between the start and end tags of the FROGANS element.

Up to 16 different processes can be applied on the same resource using successive FILTER elements. The first FILTER element represents the first process to be applied, and so on.

All FILTER elements are placed between the start and end tags of the PROCESS element.

Example:

```
<PROCESS RESID="fool" >
  <FILTER CUE="LIGHT" LEVEL="-25" />
  <FILTER CUE="CONTRAST" LEVEL="50" />
  <FILTER CUE="ADDCOLOR" LEVEL="25" COLOR="#FF0000" />
</PROCESS>
```

To reuse the same resource in the slide, but each with different processes, the original resource must be duplicated using the SETCOPY element before applying processes on the copies. By treating the original resource, all copies will be affected.

The only attribute associated with the PROCESS element is:

RESID - Required

The unique identifier of the resource to be processed. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

The attributes associated with the FILTER element are:

CUE - Required

Denotes the filter used to process the resource. Values are always uppercase.

\* "LIGHT" specifies a filter which modifies the brightness of the resource (affects RGB components)

\* "CONTRAST" specifies a filter which modifies the contrast of the resource (affects RGB components)

- \* "SATURATION" specifies a filter which modifies the color saturation of the resource (affects RGB components)
- \* "HUE" specifies a filter which modifies the color hue of the resource (affects RGB components)
- \* "SOLARIZE" specifies a filter which applies color solarization to the resource (affects RGB components)
- \* "ADDCOLOR" specifies a filter which adds or subtracts a certain color uniformly to/from the resource (affects RGB components)
- \* "MIXCOLOR" specifies a filter which blends a certain color uniformly with the resource (affects RGB components)
- \* "NEGATIVE" specifies a filter which applies a negative effect to the resource (affects RGB components)
- \* "ADDTRANS" specifies a filter which adds or subtracts a uniform transparency to/from the resource (affects A component)
- \* "REVERSE" specifies a filter which reverses the transparency of the resource (affects A component)
- \* "LUMAKEY" specifies a filter which gives transparency to areas of the resource whose luminance is of a certain value (affects A component)
- \* "CHROMAKEY" specifies a filter which gives transparency to areas of the resource whose color is of a certain value (affects A component)
- \* "LUMATOALPHA" specifies a filter which transfers the luminance of the resource to its alpha/transparency channel (affects A component)
- \* "ALPHATOLUMA" specifies a filter which transfers the alpha/transparency channel of the resource to its luminance (affects RGB components)

LEVEL - Optional, applicable only for certain CUE values

The level of the process to be applied on the resource.

Is not applicable if CUE="NEGATIVE", "REVERSE", "LUMATOALPHA" and "ALPHATOLUMA".

The default value is "0" (no effect).

- If CUE="LIGHT", "CONTRAST", "SATURATION", "ADDCOLOR" and "ADDTRANS" : Is a whole decimal number between -100 and 100.

Examples of accepted values:

LEVEL="0" (no effect)  
LEVEL="100" (maximum positive effect)  
LEVEL="33" (one third of the maximum positive effect)  
LEVEL="-100" (maximum negative effect)  
LEVEL="+33"

Examples of refused values:

LEVEL=""  
LEVEL="- 100"  
LEVEL="33.3"  
LEVEL="200"

- If CUE="HUE" : Is a whole decimal number representing degrees between 0 and 359.

Examples of accepted values:

LEVEL="0" (no effect)  
LEVEL="180"  
LEVEL="33"  
LEVEL="+33"

Examples of refused values:

LEVEL=""  
LEVEL="33.3"  
LEVEL="500"  
LEVEL="-33"

- If CUE="MIXCOLOR" and "SOLARIZE" : Is a whole decimal number between 0 and 100.

Examples of accepted values:

LEVEL="0" (no effect)  
LEVEL="100" (maximum effect)  
LEVEL="33" (one third of the maximum effect)  
LEVEL="+33"

Examples of refused values:

LEVEL=""  
LEVEL="33.3"  
LEVEL="200"  
LEVEL="-33"

- If CUE="LUMAKEY" and "CHROMAKEY" : Is a whole decimal number representing the tolerance between 0 and 100.

Examples of accepted values:

LEVEL="0" (no tolerance)

```
LEVEL="100" (maximum tolerance)
LEVEL="33" (one third of the maximum tolerance)
LEVEL="+33"
```

Examples of refused values:

```
LEVEL=""
LEVEL="33.3"
LEVEL="200"
LEVEL="-33"
```

COLOR - Optional, applicable only for certain CUE values

The color to be used in the process. Is an uppercase, six-digit hexadecimal number prefixed by a hash mark (each color component is represented by two digits, in the order of red, green, blue).

The default value is "#000000" (black).

Is not applicable if CUE="LIGHT", "CONTRAST", "SATURATION", "HUE", "SOLARIZE", "NEGATIVE", "ADDTRANS", "REVERSE", "LUMATOALPHA" and "ALPHATOLUMA".

- If CUE="ADDCOLOR", "MIXCOLOR", "CHROMAKEY": Is the color used by the filter.
- If CUE="LUMAKEY": Is the color whose luminance is used by the filter (a gray value can be specified, such as "#A0A0A0").

Examples: see 4. FROGANS element

## 11. Defining the Shape of the Slide - SHAPE element

The SHAPE element defines a specific shape, which contributes to the overall shape of the slide, by using an existing resource (image, graphic, pixels or text).

The SHAPE element is placed between the start and end tags of the FROGANS element.

Up to 64 different SHAPE elements can be combined successively to define complex shapes (COMBINE attribute).

The slide layout is conducted on a grid which is used for positioning and sizing specified shapes. The grid uses vector units of measurement, which are the same for both horizontal and vertical axes. For example, an elliptical area whose width and height are identical on the grid will appear as a circle.

The origin of the grid is left-top (coordinate 0,0).

The size of the grid is 800 units width by 600 units height which corresponds to a 4 by 3 ratio.

If no SHAPE element is found in the FSDL document, or if the shape (can be a combined shape) is less than 25% of the grid area, the default shape of the slide is a rounded rectangle.

The attributes associated with the SHAPE element are:

RESID - Required

The unique identifier of the resource to be used in specifying the shape. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

POS - Required

The position of the specified shape on the grid. Is a coma-separated list of two whole decimal numbers, without spaces, representing its X,Y coordinates. The X coordinate is a number between 0 and 799 and the Y coordinate is a number between 0 and 599.

Examples of accepted values:  
POS="400,300" (center of the grid)  
POS="0,0" (left-top of the grid)  
POS="799,599" (right-bottom of the grid)

Examples of refused values:

```
POS=""  
POS="+400,300"  
POS="800,600"  
POS="400, 300"  
POS="400"  
POS="400.5,300"  
POS="-200,300"
```

#### ALIGN - Optional

The alignments of the specified shape in relation to its position on the grid. Is a coma-separated list of two constants without spaces, representing its horizontal and vertical alignments. The horizontal alignment can be left, center or right. The vertical alignment can be top, middle or bottom.

The horizontal alignment always precedes the vertical alignment.

Values are always uppercase.

The default value is "CENTER,MIDDLE" (center and middle align).

- \* "LEFT, TOP" specifies left and top align
- \* "LEFT, MIDDLE" specifies left and middle align
- \* "LEFT, BOTTOM" specifies left and bottom align
- \* "CENTER, TOP" specifies center and top align
- \* "CENTER, MIDDLE" specifies center and middle align
- \* "CENTER, BOTTOM" specifies center and bottom align
- \* "RIGHT, TOP" specifies right and top align
- \* "RIGHT, MIDDLE" specifies right and middle align
- \* "RIGHT, BOTTOM" specifies right and bottom align

#### SIZE - Required

The size of the specified shape on the grid. Is a coma-separated list of two whole decimal numbers, without spaces, representing its width and height. The width is a number between 1 and 800 and the height is a number between 1 and 600.

Examples of accepted values:

```
SIZE="80,40"  
SIZE="100,200"
```



Examples of refused values:

```
SIZE=""
SIZE="+80,40"
SIZE="80, 40"
SIZE="0,40"
SIZE="80"
SIZE="80.5,40"
```

#### ANGLE - Optional

The clockwise rotation angle of the specified shape on the grid. The rotation axis corresponds to the position of the specified shape on the grid.

Is a whole decimal number representing degrees between -180 and 180.

The default value is "0" (no rotation).

Examples of accepted values:

```
ANGLE="0" (no rotation)
ANGLE="90" (90 degree rotation)
ANGLE="-45" (-45 degree rotation)
ANGLE="+90"
```

Examples of refused values:

```
ANGLE=""
ANGLE="- 45"
ANGLE="33.3"
ANGLE="270"
```

#### FLIP - Optional

Flips the specified shape on the grid. Values are always uppercase.

The default value is "OFF" (the shape is not flipped).

- \* "OFF" specifies that the shape is not flipped
- \* "ON" specifies that the shape is to be flipped along its horizontal and vertical dimensions
- \* "XDIR" specifies that the shape is to be flipped along its horizontal dimension
- \* "YDIR" specifies that the shape is to be flipped along its vertical dimension

**THRESHOLD** - Optional

The transparency threshold over which areas of the resource are considered to be fully transparent in defining the shape. Is an uppercase, two-digit hexadecimal number prefixed by a hash mark.

The default value is "#80" (half transparency).

Examples of accepted values:

THRESHOLD="#80" (half transparency)

THRESHOLD="#00" (no transparency)

THRESHOLD="#FF" (full transparency)

Examples of refused values:

THRESHOLD=" "

THRESHOLD="FF"

THRESHOLD="#ff"

THRESHOLD="#F"

**COMBINE** - Optional

The mode used to combine the specified shape with preceding SHAPE elements in the FSDL document.

Has no effect on the first SHAPE element in the FSDL document.

Values are always uppercase.

The default value is "OR" (union of the specified shape to the existing).

- \* "OR" specifies the union of the specified shape to the existing
- \* "AND" specifies the intersection of the specified shape with the existing
- \* "DIFF" specifies the subtraction of the specified shape from the existing
- \* "XOR" specifies the union of the specified shape to the existing, less the intersection of the specified shape with the existing

## 12. Defining the Content of the Slide - CONTENT element

The CONTENT element defines a content to be displayed on the slide by using an existing resource (image, graphic, pixels or text).

The CONTENT element is placed between the start and end tags of the FROGANS element or between the start and end tags of the BUTTON element.

Up to 128 different CONTENT elements can be used to create complex content.

Specified contents are displayed within the slide, one on top of the other, in the order that their CONTENT elements appear in the FSDL document.

The slide layout is conducted on a grid which is used for positioning and sizing specified content. The grid uses vector units of measurement, which are the same for both horizontal and vertical axes. For example, an elliptical area whose width and height are identical on the grid will appear as a circle.

The origin of the grid is left-top (coordinate 0,0).

The size of the grid is 800 units width by 600 units height which corresponds to a 4 by 3 ratio.

To enhance the specified content, optional elements can be placed between the start and end tags of the CONTENT element. See 13. MASK and SHADOW elements.

The attributes associated with the CONTENT element are:

### RESID - Required

The unique identifier of the resource to be used in specifying the content. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

### POS - Required

The position of the specified content on the grid. Is a coma-separated list of two whole decimal numbers, without spaces, representing its X,Y coordinates. The X coordinate is a number between 0 and 799 and the Y coordinate is a number between 0 and 599.

Examples: see 11. SHAPE element

#### ALIGN - Optional

The alignments of the specified content in relation to its position on the grid. Is a coma-separated list of two constants without spaces, representing its horizontal and vertical alignments. The horizontal alignment can be left, center or right. The vertical alignment can be top, middle or bottom.

The horizontal alignment always precedes the vertical alignment.

Values are always uppercase.

The default value is "CENTER,MIDDLE" (center and middle align).

Value list: see 11. SHAPE element

#### SIZE - Required

The size of the specified content on the grid. Is a coma-separated list of two whole decimal numbers, without spaces, representing its width and height. The width is a number between 1 and 800 and the height is a number between 1 and 600.

Examples: see 11. SHAPE element

#### ANGLE - Optional

The clockwise rotation angle of the specified content on the grid. The rotation axis corresponds to the position of the specified content on the grid.

Is a whole decimal number representing degrees between -180 and 180.

The default value is "0" (no rotation).

Examples: see 11. SHAPE element

#### FLIP - Optional

Flips the specified content on the grid. Values are always uppercase.

The default value is "OFF" (the content is not flipped).

\* "OFF" specifies that the content is not flipped

\* "ON" specifies that the content is to be flipped along its horizontal and vertical dimensions

- \* "XDIR" specifies that the content is to be flipped along its horizontal dimension
- \* "YDIR" specifies that the content is to be flipped along its vertical dimension

#### REPEAT - Optional

The mode used to repeat the content in the slide. Values are always uppercase.

The default value is "OFF" (the content is not repeated).

- \* "OFF" specifies that the content is not repeated
- \* "ON" specifies that the content is to be repeated along its horizontal and vertical dimensions throughout the slide
- \* "XDIR" specifies that the content is to be repeated along its horizontal dimension
- \* "YDIR" specifies that the content is to be repeated along its vertical dimension

#### VISIBLE - Optional, applicable only if the CONTENT element is contained in a BUTTON element

The conditions under which the content is visible in the button, in relation to the mouse cursor position on the slide. Values are always uppercase.

The default value is "ALWAYS" (the content is displayed at all times).

- \* "ALWAYS" specifies that the content is displayed at all times
- \* "MOUSEOVER" specifies that the content is displayed only if the mouse cursor passes over the button
- \* "MOUSEAWAY" specifies that the content is displayed only if the mouse cursor is not on the button

#### THRESHOLD - Optional

The transparency threshold over which areas of the content are not reactive to the mouse cursor.

Is applicable whether or not the CONTENT element is contained in a BUTTON element.

Is an uppercase, two-digit hexadecimal number prefixed by a hash mark.

The default value is "#80" (half transparency).

Examples: see 11. SHAPE element

#### LEAPOUT - Optional

The conditions under which the content is displayed depending on the size of the slide on the screen. Values are always uppercase.

If the CONTENT element is contained in a BUTTON element, the default value is "LARGE". Otherwise, it is "ANYSIZE".

- \* "ANYSIZE" specifies that the content is displayed in all sizes of the slide on the screen
- \* "SMALL" specifies that the content is displayed only when the slide on the screen is smaller than one quarter of its largest size
- \* "LARGE" specifies that the content is displayed only when the slide on the screen is larger than one quarter of its largest size

### 13. Enhancing the Content of the Slide

To enhance a content to be displayed on the slide, MASK and SHADOW elements can be defined and placed between the start and end tags of the CONTENT element.

#### 13.1. Applying Masks - MASK element

The MASK element defines a mask which is applied to a content on the slide. The mask is defined by using an existing resource (image, graphic, pixels or text) whose transparency is added to the transparency of the content.

Up to eight different masks can be combined together to make a single mask using successive MASK elements (COMBINE attribute). The masks are combined in the order that their MASK elements appear in the FSDL document.

All MASK elements are placed between the start and end tags of the CONTENT element.

Example:

```
<CONTENT ...attributes...>
  <MASK ...attributes... />
  <MASK ...attributes... />
</CONTENT>
```

The specified mask is positioned on the same grid used for the CONTENT element. See 12. CONTENT element.

The attributes associated with the MASK element are:

RESID - Required

The unique identifier of the resource to be used in specifying the mask. Is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must contain between 1 and 16 characters.

Examples: see 5. SETIMAGE element

RPOS - Optional

The position of the specified mask, relative to the content's placement, on the grid. Is a coma-separated list of two whole decimal numbers, without spaces, representing the X,Y relative coordinates of the center of the mask.

The origin (coordinate 0,0) is the center of the content.

The X relative coordinate is a number between -399 and 400 and the Y relative coordinate is a number between -299 and 300.

The default value is "0,0" (same position as content).

Examples of accepted values:

RPOS="0,0" (same position as content)  
RPOS="20,20" (bottom-right of the content)  
RPOS="-20,-20" (top-left of the content)  
RPOS="+20,20"

Examples of refused values:

RPOS=""  
RPOS="- 20,-20"  
RPOS="20, 20"  
RPOS="20"  
RPOS="20.5,20"

#### RSIZE - Optional

The size of the specified mask, relative to the content's size, on the grid. Is a coma-separated list of two whole decimal numbers, without spaces, representing its relative width and height. The size of the mask is always equal to or smaller than the content size.

The relative width is a number between 1 and 100 and the relative height is a number between 1 and 100.

The default value is "100,100" (same size as content).

Examples of accepted values:

RSIZE="100,100" (same size as content)  
RSIZE="50,100" (half width, same height of content size)  
RSIZE="50,50" (half width, half height of content size)

Examples of refused values:

RSIZE=""  
RSIZE="+100,100"  
RSIZE="200,100"  
RSIZE="-50,100"  
RSIZE="100, 100"  
RSIZE="100"  
RSIZE="50.5,100"

#### ANGLE - Optional

The clockwise rotation angle of the specified mask, relative to the content's rotation angle, on the grid. The rotation axis corresponds to the center of the specified mask.



Is a whole decimal number representing degrees between -180 and 180.

The default value is "0" (no rotation).

Examples: see 11. SHAPE element

#### FLIP - Optional

Flips the specified mask on the grid. Values are always uppercase.

The default value is "OFF" (the mask is not flipped).

- \* "OFF" specifies that the mask is not flipped
- \* "ON" specifies that the mask is to be flipped along its horizontal and vertical dimensions
- \* "XDIR" specifies that the mask is to be flipped along its horizontal dimension
- \* "YDIR" specifies that the mask is to be flipped along its vertical dimension

#### COMBINE - Optional

The mode used to combine the specified mask with preceding MASK elements placed between the start and end tags of the CONTENT element.

Has no effect on the first MASK element.

Values are always uppercase.

The default value is "OR" (union of the specified mask to the existing).

- \* "OR" specifies the union of the specified mask to the existing
- \* "AND" specifies the intersection of the specified mask with the existing
- \* "DIFF" specifies the subtraction of the specified mask from the existing
- \* "XOR" specifies the union of the specified mask to the existing, less the intersection of the specified mask with the existing

### 13.2. Adding Shadows - SHADOW element

The SHADOW element defines a shadow which is applied to a content. A shadow is either displayed next to the content on the slide (outer shadow) or inside the content area (inner shadow).

Up to four different outer shadows and four different inner shadows can be added to the same content using successive SHADOW elements.

Both outer and inner shadows are displayed, one on top of the other, in the order that their SHADOW elements appear in the FSDL document.

All SHADOW elements are placed between the start and end tags of the CONTENT element.

Example:

```
<CONTENT ...attributes...>
  <SHADOW ...attributes... />
  <SHADOW ...attributes... />
</CONTENT>
```

The specified shadow is positioned on the same grid used for the CONTENT element. See 12. CONTENT element.

Outer shadows are not reactive to the mouse cursor.

The attributes associated with the SHADOW element are:

RELIEF - Mandatory

Denotes the type of shadow to be applied to the content. Values are always uppercase.

The default value is "OUTER" (outer shadow).

- \* "OUTER" specifies an outer shadow

- \* "INNER" specifies an inner shadow

RPOS - Optional

The position of the specified shadow, relative to the content's placement, on the grid. Is a coma-separated list of two whole decimal numbers, without spaces, representing the X,Y relative coordinates of the center of the shadow.

The origin (coordinate 0,0) is the center of the content.

The X relative coordinate is a number between -399 and 400 and the Y relative coordinate is a number between -299 and 300.

The default value is "20,20" (bottom-right of the content).

Examples: see 13.1. MASK element

#### BLUR - Optional

The mode used to display the specified shadow in the slide. Values are always uppercase.

The default value is "ON" (shadow is blurred).

- \* "ON" specifies that shadow is blurred
- \* "OFF" specifies that shadow is not blurred
- \* "XDIR" specifies that shadow is blurred along its horizontal dimension
- \* "YDIR" specifies that shadow is blurred along its vertical dimension

#### BLEVEL - Optional, applicable only for certain BLUR values

The level of the blur effect to be applied on the shadow. Is a whole decimal number between 1 and 100.

The default value is "10" (one tenth of the maximum effect).

Is not applicable if BLUR="OFF".

Examples of accepted values:  
BLEVEL="10" (one tenth of the maximum effect)  
BLEVEL="1" (minimum effect)  
BLEVEL="100" (maximum effect)  
BLEVEL="33" (one third of the maximum effect)

Examples of refused values:  
BLEVEL=""  
BLEVEL="+33"  
BLEVEL="33.3"  
BLEVEL="0"  
BLEVEL="200"  
BLEVEL="-33"

#### COLOR - Optional

The color of the specified shadow. Is an uppercase, six-digit hexadecimal number prefixed by a hash mark (each color component is represented by two digits, in the order of red, green, blue).

The default value is "#000000" (black).

Examples: see 4. FROGANS element

TRANSP - Optional

The transparency to be added to the specified shadow. Is an uppercase, two-digit hexadecimal number prefixed by a hash mark.

The default value is "#00" (no effect).

Examples: see 5. SETIMAGE element

#### 14. Linking and Navigation - BUTTON element

The BUTTON element defines a button on the slide which is made up of one or more specified contents.

The BUTTON element is placed between the start and end tags of the FROGANS element.

Multiple contents can be combined to create complex roll-over buttons.

The CONTENT elements which define the specified contents are placed between the start and end tags of the BUTTON element.

Example:

```
<BUTTON ...attributes...>
  <CONTENT ...attributes... />
  <CONTENT ...attributes... />
</BUTTON>
```

The VISIBLE attribute of each CONTENT element indicates how the content in the button is displayed in relation to the mouse cursor position on the slide. See 12. CONTENT element.

Only CONTENT elements can be placed between the start and end tags of the BUTTON element.

A button on the slide always takes priority over any button which may be displayed under it.

The attributes associated with the BUTTON element are:

GOTO - Required

Denotes the type of button to be used. Values are always uppercase.

- \* "SLIDE" specifies a button which leads to another slide in the same frogans
- \* "FROGANS" specifies a button which opens another frogans (default slide)
- \* "PIC" specifies a button which opens a viewer to display an image loaded from the World Wide Web
- \* "WEB" specifies a button which opens the end-user's default browser to display a World Wide Web document
- \* "EMAIL" specifies a button which opens the end-user's default mailer to send an email

FILE - Required, applicable only if GOTO="SLIDE"

The file name of the FSDL document in the frogans directory. Is a case sensitive string of alphanumeric characters including underscore, dash, dot and slash (/). Spaces and backslashes (\) are not accepted. The string must contain between 1 and 128 characters.

The file name always starts with a slash (/).

If the FSDL document is located in a sub-directory of the frogans directory, the file name must contain the relative path between the frogans directory and the sub-directory.

Examples of accepted values:

```
FILE="/slide2.fsd1"  
FILE="/slide2.fsd"  
FILE="/slide-2.fsd1"  
FILE="/slide_2.fsd1"  
FILE="/subdir/slide2.fsd1"  
FILE="/slide2.php"  
FILE="/slide2.asp"  
FILE="/slide2"
```

Examples of refused values:

```
FILE=""  
FILE="slide2.fsd1"  
FILE="subdir/slide2.fsd1"  
FILE="/slide2.fsd1?option=2"  
FILE="/slide2.fsd1?option=2&language=Swedish"  
FILE="/subdir/"  
FILE="/subdir//slide2.fsd1"  
FILE="/subdir\slide2.fsd1"  
FILE="../slide2.fsd1"  
FILE="frogans*GateName/slide2.fsd1"  
FILE="http://SpecificDomainName.com/slide2.fsd1"
```

DATA - Optional, applicable only if GOTO="SLIDE"

Additional data that can be sent to the server hosting the frogans, at the time of the request for the FSDL document by the Frogans Player.

Is a case sensitive, coma separated list of items in the 'name=value' format. A maximum of 32 items is accepted in the list.

The default value is "" (no data).

'name' is a case sensitive string of alphanumeric characters including underscore, without any spaces. The string must

contain between 1 and 16 characters. The following strings of non-case sensitive characters are reserved and cannot be used: 'session', 'certificate', 'login', 'password'.

'value' is a case sensitive string of alphanumeric characters including underscore, dash and percent sign, without any spaces. The string must contain between 1 and 128 characters.

Examples of accepted values:

```
DATA="" (no data)
DATA="option=2"
DATA="option=2,language=Swedish"
DATA="option=2,language=Swedish,First_Name=Laura"
DATA="referer=http%3A%2F%2Fwww%2ESpecificDomainName%2Ecom"
```

Examples of refused values:

```
DATA="?option=2"
DATA="option=2&language=Swedish"
DATA="slide2.fSDL?option=2"
DATA="session=abc123"
DATA="referer=http://www.SpecificDomainName.com"
```

ADDRESS - Required, applicable only if GOTO="FROGANS"

The address of another frogans. Is a registered frogans address whose format is defined on frogans.com.

Examples of accepted values:

```
ADDRESS="frogans*GateName"
ADDRESS="frogans*GateName.Extension"
```

Examples of refused values:

```
ADDRESS=""
ADDRESS="frogans*"
ADDRESS="GateName"
ADDRESS="GateName.Extension"
ADDRESS="*GateName"
ADDRESS="frogans * GateName"
ADDRESS="frogans*GateName . Extension"
ADDRESS="frogans*GateName/subdir/"
ADDRESS="http://www.SpecificDomainName.com"
ADDRESS="http://www.SpecificDomainName.com/subdir/"
```

SESSID - Optional, applicable only if GOTO="FROGANS"

The session identifier sent to the server hosting the other frogans when opening its default slide. Is a case sensitive string of alphanumeric characters including underscore, dash and percent sign, without any spaces. The string can contain up to 2048 characters.

The default value is "" (no session identifier).

The following non-case sensitive session identifiers are reserved and cannot be used: "UNSPECIFIED", "REFUSED".

Examples: see 16. SESSION element

URL - Required, applicable only for certain GOTO values

The URL of a document on the World Wide Web.

Is not applicable if GOTO="SLIDE", "FROGANS" and "EMAIL".

- If GOTO="PIC" : Is the URL of an image in Jpeg, Png or Gif formats.
- If GOTO="WEB" : Is the URL of any WWW document (html page, image, mp3, video, etc.).

Examples of accepted values:

```
URL="http://www.SpecificDomainName.com"  
URL="http://www.SpecificDomainName.com/"  
URL="http://www.SpecificDomainName.com/page.htm"  
URL="http://www.SpecificDomainName.com/pic1.jpg"  
URL="http://www.SpecificDomainName.com/music.mp3"  
URL="http://www.SpecificDomainName.com/video.asx"  
URL="http://www.SpecificDomainName.com/video.rm"  
URL="http://1.2.3.4/"  
URL="https://www.SpecificDomainName.com"
```

Examples of refused values:

```
URL=""  
URL="www.SpecificDomainName.com"  
URL="mailto:Name@SpecificDomainName.com"  
URL="Name@SpecificDomainName.com"  
URL="rtsp://www.SpecificDomainName.com/video.rm"  
URL="frogans*GateName"
```

EMAIL - Required, applicable only if GOTO="EMAIL"

The email address.

Examples of accepted values:

```
EMAIL="Name@SpecificDomainName.com"
```

Examples of refused values:

```
EMAIL=""  
EMAIL="Name@SpecificDomainName.com,  
Name2@SpecificDomainName.com"  
EMAIL="mailto:Name@SpecificDomainName.com"  
EMAIL="Name@SpecificDomainName.com?subject=Hello"
```



```
EMAIL="http://www.SpecificDomainName.com"  
EMAIL="frogans*GateName"
```

SUBJECT - Optional, applicable only if GOTO="EMAIL"

The subject of the email. Is a case sensitive string of up to 32 alphanumeric characters, including spaces and characters ".-' ,\_(!\*:;"

The default value is "" (no subject).

Examples of accepted values:

```
SUBJECT="" (no subject)
```

```
SUBJECT="Hello"
```

```
SUBJECT="Hello, :-)"
```

```
SUBJECT="Hello 19."
```

Examples of refused values:

```
SUBJECT="Date & Time"
```

```
SUBJECT="Name@SpecificDomainName.com"
```

```
SUBJECT="Name@SpecificDomainName.com?subject=Hello"
```

## 15. Auto-Refresh and Slide Show - NEXT element

The NEXT element defines another slide in the same frogans to be loaded and displayed automatically.

The NEXT element is placed between the start and end tags of the FROGANS element.

The NEXT element is optional. Only one NEXT element can be used in the FSDL document.

The next slide is displayed after a delay, plus the time necessary to load the slide file and its images resources. Loading times will vary according to network capacity between the server hosting the frogans and the end-user.

If the end-user clicks on a button leading to another slide in the same frogans before the delay has expired or before the next slide is fully loaded, the procedure is cancelled. If the end-user closes the Frogans Player all frogans navigation is stopped.

The attributes associated with the NEXT element are:

### DELAY - Required

The period of time until the next slide begins to load. Is a whole decimal number representing seconds between 5 and 86400.

Examples of accepted values:  
DELAY="5" (minimum delay, 5 seconds)  
DELAY="86400" (maximum delay, 24 hours)  
DELAY="60" (60 seconds delay)

Examples of refused values:  
DELAY=""  
DELAY="0"  
DELAY="3"

### FILE - Required

The file name of the FSDL document in the frogans directory representing the next slide. Is a case sensitive string of alphanumeric characters including underscore, dash, dot and slash (/). Spaces and backslashes (\) are not accepted. The string must contain between 1 and 128 characters.

The file name always starts with a slash (/).

If the FSDL document is located in a sub-directory of the frogans directory, the file name must contain the relative path between the frogans directory and the sub-directory.

Examples: see 14. BUTTON element

DATA - Optional

Additional data that can be sent to the server hosting the frogans, at the time of the request for the FSDL document by the Frogans Player.

See 14. DATA attribute of the BUTTON element.

The default value is "" (no data).

## 16. Redirecting to Another Slide - REDIRECT element

The REDIRECT element indicates that another slide in the same frogans must be loaded and displayed automatically without delay.

The FSDL document containing the REDIRECT element will not result in a displayed slide, even if it contains resource and layout elements.

The REDIRECT element is placed between the start and end tags of the FROGANS element.

The REDIRECT element is optional. Only one REDIRECT element can be used in the FSDL document.

A session can be maintained with a redirect (see 17. SESSION element).

The attributes associated with the REDIRECT element are:

### FILE - Required

The file name of the FSDL document in the frogans directory. Is a case sensitive string of alphanumeric characters including underscore, dash, dot and slash (/). Spaces and backslashes (\) are not accepted. The string must contain between 1 and 128 characters.

The file name always starts with a slash (/).

If the FSDL document is located in a sub-directory of the frogans directory, the file name must contain the relative path between the frogans directory and the sub-directory.

Examples: see 14. BUTTON element

### DATA - Optional

Additional data that can be sent to the server hosting the frogans, at the time of the request for the FSDL document by the Frogans Player.

See 14. DATA attribute of the BUTTON element.

The default value is "" (no data).

## 17. Creating and Maintaining Sessions - SESSION element

The SESSION element defines a session identifier for the slide.

The SESSION element is placed between the start and end tags of the FROGANS element.

The SESSION element is optional. Only one SESSION element can be used in the FSDL document.

The session identifier is sent to the server hosting the frogans by the Frogans Player, at the time of the request for FSDL documents representing other slides in the frogans (files are defined in the FILE attribute of the BUTTON, NEXT and REDIRECT elements).

If the end-user refuses sessions, the session identifier sent by the Frogans Player to the server hosting the frogans is always "REFUSED".

If the end-user accepts sessions, the session identifier sent by the Frogans Player to the server hosting the frogans is the value of the SESSID attribute. If there is no SESSION element in the FSDL document or if the SESSID attribute is "", the session identifier sent by the Frogans Player to the server is "UNSPECIFIED".

Additional data may also be sent to the server at the time of the request (DATA attribute of the BUTTON, NEXT and REDIRECT elements).

The session identifier can be changed from slide to slide by the server hosting the frogans in order to update the information contained within the session identifier.

In order to maintain a session when the end-user navigates from slide to slide, it is necessary to place the SESSION element in each slide of the frogans. The session ends when no SESSION element is found in the FSDL document.

When the end-user opens the frogans (default slide), a session identifier can be sent to the server hosting the frogans, by the Frogans Player:

- if the end-user returns to the frogans after having saved its session identifier (RETURN attribute of the SESSION element)
- if the end-user opens the frogans via the slide of another frogans (SESSID attribute of the BUTTON element)
- if the end-user opens the frogans via a web link containing a session parameter (see specifications on frogans.com)

The SESSION element is activated by setting the frogans address parameters in 'my account' on frogans.com.

The attributes associated with the SESSION element are:

SESSIONID - Optional

The session identifier for the slide. Is a case sensitive string of alphanumeric characters including underscore, dash and percent sign, without any spaces. The string can contain up to 2048 characters.

The default value is "" (no session identifier).

The following non-case sensitive session identifiers are reserved and cannot be used: "UNSPECIFIED", "REFUSED".

Examples of accepted values:

SESSIONID="" (no session identifier)

SESSIONID="abc\_ABC-123"

SESSIONID="abc%3AABC%20123"

Examples of refused values:

SESSIONID="abc/123"

SESSIONID="abc ABC"

SESSIONID="abc?123"

SESSIONID="abc=123"

SESSIONID="abc#123"

SESSIONID="abc:123"

SESSIONID="abc.123"

SESSIONID="UNSPECIFIED"

RETURN - Optional

Indicates if the end-user can save the session identifier and use it when reopening the frogans (default slide). If the server hosting the frogans changes the session identifier from slide to slide, the last identifier received from the server is saved. Values are uppercase.

The default value is "OFF".

\* "OFF" specifies that the end-user cannot save the session identifier

\* "ON" specifies that the end-user can save the session identifier and use it when reopening the frogans