Version 5.0.0

Documentation for neoHort:)-…

neo
H*yper*
O*bject*
R*eport*
T*ranslator*

1. Overview of the product.
2. Installation and use (after version 1.2.14 you can use JSP as template generator in direct mode).
3. Types of connectors needed for relations between web container (java based) and XML Based script.
4. Overview list of tags.

Compatibility with **iText 5.0.* ONLY** – for previous version of iText need use the versions of **neoHort 1.*.***

1. Overview of the product.

Presented product is WEB integrated application, based on **iText** library (one product created by Bruno Lowagie and Paulo Soares) + **JexcelApi** (by andyk@andykhan.freeserve.co.uk) and permit:

a) to design complex layout of PDF & XLS report/document ;

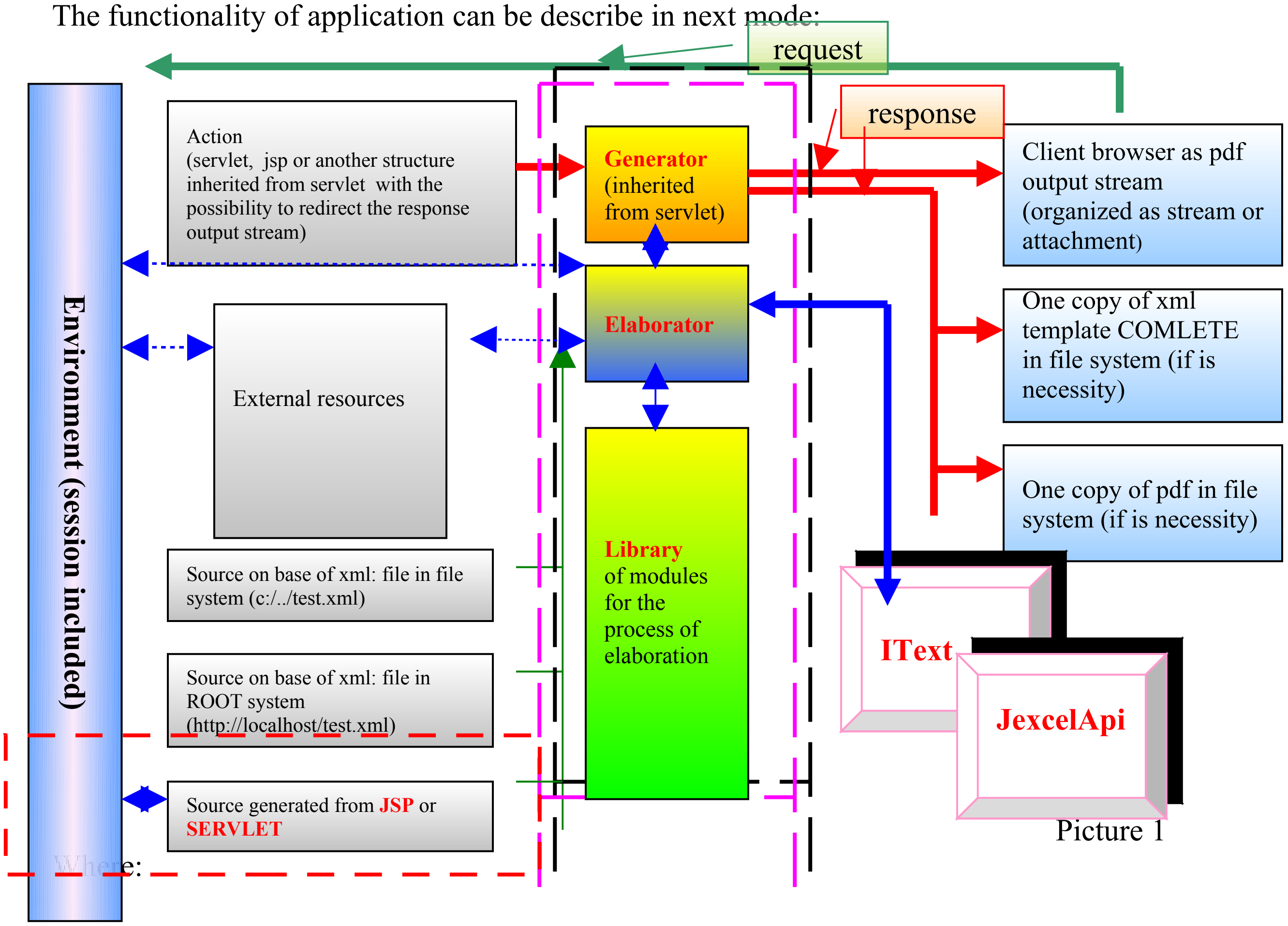
b) to organize (in native and simple mode) various relations between your project (obligate: based on Java Web Application environment) and XML based template contained layout of the report - through session container.

The concept of organization is like of the process of MVC (model-view-container) technology (ex. Struts and another simile architecture), where

- View is presented as PDF canvas
- Model – java object, contained business logic, prepared before start of process (is related with Request Session and is presented into XML source of report as <session>/ <application> beans)
- Container – <neoHort> Generator/Elaborator, responsible for process of elaboration.

As result – presented application can be interpreted as services between YOUR business logic prepared into YOUR project and <neoHort> reports realized and View.

The functionality of application can be describe in next mode:


request
response
Environment (session included)
Action
(servlet, jsp or another structure inherited from servlet with the possibility to redirect the response output stream)
Generator
(inherited from servlet)
Elaborator
External resources
Library
of modules for the process of elaboration
Source on base of xml: file in file system (c:/../test.xml)
Source on base of xml: file in ROOT system (http://localhost/test.xml)
Source generated from JSP or SERVLET
Client browser as pdf output stream (organized as stream or attachment)
One copy of xml template COMLETE in file system (if is necessity)
One copy of pdf in file system (if is necessity)
IText
JexcelApi

Picture 1

Where:

- ⇢ FUNCTIONALITY Relations between modules of generation – elaboration - content server - external container
- → Request of resources (from file/external containers)
- ⇉ Communications between client-server (the way of elaboration)

In general – project contains three principal parts:

- **Generator** – this part is responsible for communications between client and application content (realized as [Servlet])
- **Elaborator** – is responsible for analyze the xml-source of report and, after this, communication with tag-interpretation **library** for execution the scenario of generation the final product.
- Tag-interpretation **library**: interprets the content of tags from xml-source, realize direct communication with iText pdf library (base level) for generate and integrate pdf's element into the report.
- Tag-interpretation **library**: interprets the content of tags from xml-source, realize direct communication with JaxelAPI xls library (base level) for generate and integrate xls's element into the report.
-

I can't pretend to name this application – NEW project, as for me – is only **new mode** for optimize time of development for ANOTHER application which need one external report service (must use PDF or XLS documents as report's content).

Process of generation.

The process of generation **begins** from the **Generator.**

1)Normal way (all version):

In technical - **Generator** – is the simple instance of the [Servlet java object], created for simplification the access to <neoHort> project. For example: for start the process of creation is enough to **insert** the next part of code into HTML source of your application:

<script>
window.open(“**http://localhost:port/neoHort/report_creator?$source=.../.../test.xml“);**
when **neohort.universal.output.creator_iHort** was mapped as **report_creator** in web.xml
or
window.open(“**http://localhost:port/neoHort/neohort.universal.output.creator_iHort?$source=**
.../.../test.xml“);
</script>

Parameters of input can be:
$source - path for xml-source template (request GET);
$log – name of log stub if you want to use different of application’s (request GET);
$source_stream – if you don’t want to use the template but the direct xml text - $source_stream is content of xml (request POST or request attribute);

2)Another way (version 1.2.14 and later):

You can create new report from SIMPLE *.JSP file (this file must generate xml-template as result of its elaboration).
 Example of use: http://localhost/neoHort/log_view.jsp?**ReportProvider=neoHort**
The parameter **ReportPrivider** is obligated.
In begin **is necessity to map** into your WEB.XML the next filter [**filter_jsp**] (included into neoHort package)

```
      <filter>
      <filter-name>filter_jsp</filter-name>
      <display-name>filter_jsp</display-name>
      <description></description>
      <filter-class>neohort.service.filter.filter_jsp</filter-class>
      </filter>
      <filter-mapping>
      <filter-name>filter_jsp</filter-name>
      <url-pattern>*.jsp</url-pattern>
      </filter-mapping> )
```

As advantage – you have the possibility to utilize the Java structures into jsp in natural mode.
You can use as generator of xml-template NOT ONLY jsp file – but first must add to section of filter mapping another url pattern
`<url-pattern> your_servlet</url-pattern>`

3)Use as integrated service (version 1.2.14 and later):

neoHort generator can be included into the another Java-procedure as external service in next mode:
OUTPUTSTREAM = new iHort().transformXMLtoReport(**XML,OUTPUTSTREAM**);

Where
XML – String with xml source or InputStream with xml source.
OUTPUTSTREAM – OutputStream witch contain the result of generation (for example: response.getOutputSource())

For Step 2) and 3) is preferable NOT USE tag <INCLUDE> but prepare the xml-source in Java native mode (for Jsp- to use the native <JSP:INCLUDE> for example…)

The second part of the process chain is **Elaborator.** This part of application will been loaded after request of **Generator** and is responsible for planning and elaboration of the final parts of reports. During the process of analyze XML based source (in interpretative mode) will been loaded all necessary parts of **library** for generating and including into content any pdf ‘s or xls’s object, describing as <tag> in layout.

The last part - functionality of **library** – is base level of communication with iText library.

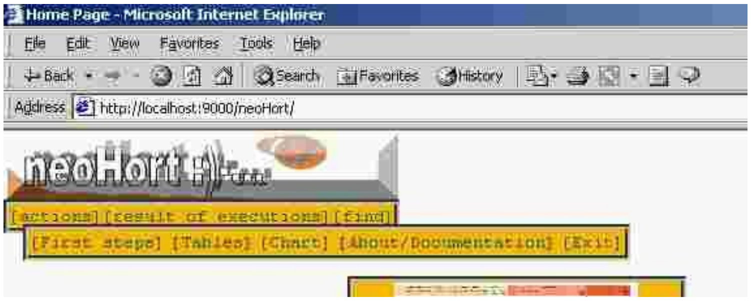
2. Installation and use.

The package of installation – **neoHort.ear**.
If the process of installation will finish correctly – as result will been created the folder [**neoHort**] contained [**JavaSource**] and [**WebContent**]. For start application (in test environment mode) you must create [Server object] related with neoHort.ear and launch it.
System Properties:

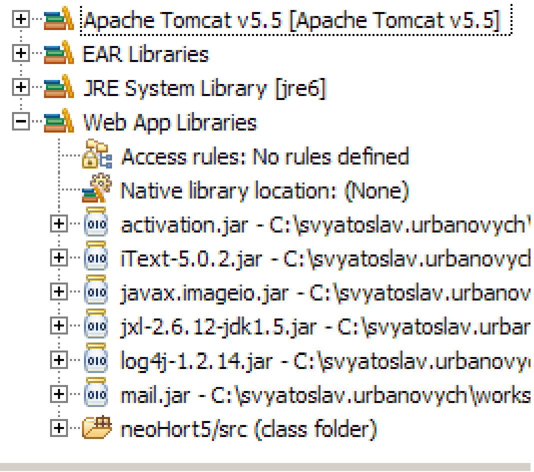
Into the server part of [SystemProperties] you can configure Log of application (as property):

- application.log.path (set path of log (ex: c :/Log/ directory Log must been created before) but isn't obligate.
- application.log.stub = neohort.stubs.stub_websession_log is DEFAULT, for attach another log-elaborator you must CREATE another application.log.stub .CLASS, add the mechanism of elaboration witch you prefer and set into System Properties on the place of application.log.stub.
- application.log.stub.level = DEBUG is DEFAULT value. You can use also: `INFO,WARN,ERROR,FATAL for minimize the size of log output.`

In the IE (or another browser) the address of start page will be http://localhost:port/neoHort/pages/ or http://localhost:port/neoHort/ (port – 9080 as default or another configured).
If you don't want to install this application as [IMPORT EAR] you **must map** in web.xml **neohort.universal.output.creator_iHort** servlet as **report_creator** and utilize as library **neoHort.jar** (in example's web application all requests for <neoHort> was realized through **report_creator).**


Home Page - Microsoft Internet Explorer
File
Edit
View
Favorites
Tools
Help
Back
Search
Favorites
History
Address
http://localhost:9000/neoHort/
neoHort :)-...
[actions] [result of executions] [find]
[First steps] [Tables] [Chart] [About/Documentation] [Exit]

All Libraries used for functionality of application:



```
⊞ Apache Tomcat v5.5 [Apache Tomcat v5.5]
⊞ EAR Libraries
⊞ JRE System Library [jre6]
⊟ Web App Libraries
    Access rules: No rules defined
    Native library location: (None)
  ⊞ activation.jar - C:\svyatoslav.urbanovych\
  ⊞ iText-5.0.2.jar - C:\svyatoslav.urbanovycl
  ⊞ javax.imageio.jar - C:\svyatoslav.urbanov
  ⊞ jxl-2.6.12-jdk1.5.jar - C:\svyatoslav.urbar
  ⊞ log4j-1.2.14.jar - C:\svyatoslav.urbanovy
  ⊞ mail.jar - C:\svyatoslav.urbanovych\works
  ⊞ neoHort5/src (class folder)
```

After the process of installation you will have the possibility to navigate into the application between:

[**First steps**] – simple guide demonstrate step by step the all process of building report (with XML's sources as examples).

[**Tables**] – examples of tables.

[**Chart**] –examples of charts.

[**About**/**Documentation**] – part of documentation.

For version 1.2.14 if you want use jsp files as template generator must be updated web.xml in next mode:

```
<filter>
<filter-name>filter_jsp</filter-name>
<display-name>filter_jsp</display-name>
<description></description>
<filter-class>neohort.service.filter.filter_jsp</filter-class>
</filter>
<filter-mapping>
<filter-name>filter_jsp</filter-name>
<url-pattern>*.jsp</url-pattern>
</filter-mapping> )
```

3. Type of connectors used for relations between web container (based on java) and [neoHort] project.

The important part of functionality of this application is **mechanism of keeping the relations** between the xml-scripts and the Java environment (in our case – web content). Before begin I want to say the pair of word about the methods of transformation xml's source to pdf's (xls's) layout. As first: any <tag> (described in iReport.dtd) is realized as one java class with the same name (lover case). This class contains all necessary mechanisms for realize transformation from plain text to pdf format (thanks iText library) & xls (thanks JExcelApi).
All tags in structural mode can be divided on three parts: **initial**, **logical** and **graphical** elements. Any report in general must have next structure:

```
<GENERAL>
        <INIT>
…
        </INIT>
        <DOCUMENT>
…
        </DOCUMENT>
</GENERAL>
```

Where in parts of <INIT>…</INIT> is possible to declare the specific objects <BEAN> witch presents any object inserted in session environment before start the process of report generation . As result you can map any kind of <bean> (request, session, application), created in you web application for realize your business logic, for pass to process of generation report. Another type of mapping object is generation variables into script language as <OBJECT_JAVA>. As result, when Elaborator founds this <tag> - will be created new Object java with the type and content declared into attributes of <tag>. The life of variables will finish with the finish of script, or with the creation another <OBJECT_JAVA> with the same ID (will be rewritten). The result of execution for any bean or another object java can be integrated into text of tags in next mode:

```
        <TABLE_CELL>
        %EXECUTEBEAN._hm(java.lang.String:'anykeyoftypestring').toString()%- finish
        </TABLE_CELL>
```

This is example of use the object HashMap with ID _hm
%EXECUTEBEAN and % - the symbols of start and finish of the directive. _hm – the name of variable.

Structure: - result will been integrated into the template as object of java's type (if is possible).
%EXECUTETAG.CONDITION_QUERY:Q0.RETURN.DATA_SYS%

1. **%** - symbols for start and finish any directive;
2. **EXECUTETAG** - specified word for execute the element defined as another tag;
2. **CONDITION_QUERY** - type of the tag;

3. **Q0** - identification (name) of element defined before as another tag;
4. **RETURN** - the specified word reserved as un directive to return back the value;
5. **DATA_SYS** - in our case – value of the column of query;

Structure: - the result will been integrated into the template as object of type String (if is possible)
%EXECUTETAG.CONDITION_FOR:F0.RETURN.SIZE%

1. **%** - symbols for start and finish any directive;
2. **EXECUTETAG** - specified word for execute the element defined as another tag;
2. **CONDITION_QUERY** - type of tag;
3. **F0** - identification (name) of element defined before as another tag;
4. **RETURN** - specified word reserved as un directive to return back the value;
5. **SIZE** - in our case – the current element in the cycle FOR;

Structure: - - the result will been integrated into the template as object of type String (if is possible) **%EXECUTEBEAN**.data_string.**toString()%**

1. **%** - symbols for start and finish one directive;
2. **EXECUTEBEAN** - - specified word for execute the element defined before as <BEAN > or <OBJECT_JAVA>;
3. data_string - identification (name) of element defined before <BEAN > or <OBJECT_JAVA>;
4. **toString()** - method for execute;

%EXECUTEBEAN.data_string.**Method(primitive type:1)%**

CORRECT

%EXECUTEBEAN.data_string.**Method(primitive type: [elem])%**

CORRECT

%EXECUTEBEAN.data_string.**Method(primitive type: [**
{EXECUTEBEAN.data_string.**Method(primitive type: [elem])}**
])%

CORRECT

1. **%** - symbols for start and finish one directive;
2. **EXECUTEBEAN** - specified word for execute the element defined before as <BEAN > or <OBJECT_JAVA>;
3. data_string - identification (name) of element defined before <BEAN or <OBJECT_JAVA>;
4. **Method** - the method for execute;

5. **1** - value of primitive type (int, short, long, double, float, char) or of types: **java.lang.String, java.math.BigDecimal**;
6. **[elem]** - name of parameter defined before as <BEAN > or <OBJECT_JAVA>;
7.**:** - separator between name of type and element (or value if is constant);

Structure: - the result will been integrated into the template as object of type String (if is possible)

```
%EXECUTEBEAN.vector_string.lastIndexOf (java.lang.Object:[elem]; int:0)%

%EXECUTEBEAN.vector_string.lastIndexOf (java.lang.Object:[
        EXECUTEBEAN.data_string.Method(primitive type:1)
]; int:
        {EXECUTEBEAN.data_string.Method(primitive type: [
                {EXECUTEBEAN.data_string.Method(tipo: [elem])}
        ])}
).toString()%
```

1. **%** - symbols for to show start and finish of directive;
2. **EXECUTEBEAN** - specified word for execute the element defined before as <BEAN > or <OBJECT_JAVA>;
3. data_string - identification (name) of the element defined before <BEAN or <OBJECT_JAVA>;
4. **lastIndexOf** - method for execute;
5. **(** and **)** - symbols for to show start and finish of array of the parameters witch will been used for method;
6. ; - separator between parameters;
7. **java.lang.Object** - name of the complex type;
8. **int** - name of the primitive type (int, short, long, double, float, char);
9. **[elem]** - name of parameter defined before as <BEAN > or <OBJECT_JAVA>;
10. **0** - value of primitive type (int, short, long, double, float, char) or of types: **java.lang.String, java.math.BigDecimal**;
11. **:** - separator between the name of type and the element (or value if is constant);

Tag <USEBEAN>

<USEBEAN ID=" s_d_f " METHOD=" applyPattern " PARAMETERS=" STRING:yyyy-MM-dd " SET=" recipient"/>

DEPRECATED

or

```
<USEBEAN ID="s_d_f" METHOD="applyPattern(STRING:yyyy-MM-dd)"
SET="recipient"/>                    CORRECT
```

1. s_d_f - identification (name) of the element defined before <BEAN or <OBJECT_JAVA>;
2. applyPattern______- name of the method for execute;
3. **(** and **)** - symbols for show start and finish of array of parameters witch will been used for the method;
4. ; - separator between parameters;
5. STRING - name of complex type;
6. **yyyy-MM-dd** - value of primitive type (int, short, long, double, float, char);
7. . **:** - separator between the name of type and the element (or value if is constant);
8. recipiente - identification (name) of the element witch will been initialised from the result

Tag <OBJECT_JAVA>

```
<OBJECT_JAVA ID="init" TYPE="it.bci.db.Initializer" CLASS=" it.bci.db.Initializer "
SOURCE="menu" METHOD="getIni"/>
```

or

```
<OBJECT_JAVA ID="data_string" TYPE="java.lang.String" CLASS="java.lang.String"
SOURCE="" METHOD=""/>
```

or

```
<OBJECT_JAVA ID="intg" TYPE="java.lang.Integer" CLASS="java.lang.Integer"
SOURCE="" METHOD="java.lang.Integer(int:1)"/>
```

1. init - identification (name) of the element;
2. it.bci.db.Initializer - type of element;
3. menu - identification (name) of the element defined before <BEAN or <OBJECT_JAVA> and witch is used as parent of the our element. If this attribute is blank – tag will be used as constructor.
4. getIni - method of parent for generate the element. If the attribute SOURCE is blank and for constructor have need the parameters – it will been put here in next mode: java.lang.Integer(int:1);

3.1. List of reserved variables.

SYSTEM:Included	Flag witch indicate this part of document is normal or included	Boolean
SYSTEM:Response	Http response	
SYSTEM:Request	Http request	
SYSTEM: Document_PageNumber	Current number of page	Integer
SYSTEM:Canvas	Canvas of element for document	Vector
SYSTEM:Session	Http session	
INCLUDE:Parameters	Equivalent of Request.getParameter but only for included parts of document	

4. Types of TAG: <TAG>

The structure, position and place of tag is described into **/chart/iReport.dtd** (or appendix 1).

- **initial**

GENERAL			
ID	Id of tag		No
TYPE_DOCUMENT	Type of creation	FIXED STREAM ATTACHMENT	No
SOURCE_DOCUMENT	if TYPE_DOCUMENT=”FIXED” – path of file on the disk		No
ORIENTATION	Orientation of the document	PORTRAIT LANDSCAPE	No
MARGINS	margins		No
LIB	Library used As default – pdf For excel - xls		No

Return:	
EXECUTETAG.GENERAL:[ID].getID	ID
EXECUTETAG.GENERAL:[ID].getTYPE_DOCUMENT	ID
EXECUTETAG.GENERAL:[ID].getSOURCE_DOCUMENT	ID
EXECUTETAG.GENERAL:[ID].getORIENTATION	ID
EXECUTETAG.GENERAL:[ID].getMARGINS	ID

```
<GENERAL
          TYPE_DOCUMENT="STREAM"
          ORIENTATION=”LANDSCAPE”
          MARGINS=”10,10,10,10”>
          ...
</GENERAL>
```

DOCUMENT – init of document			
ID	Identificator		No
TITLE	Metadata: TITLE of PDF Document		No
AUTHOR	Metadata: AUTHOR of PDF Document		No
SUBJECT	Metadata: SUBJECT of PDF Document		No
KEYWORDS	Metadata: KEYWORDS of PDF Document		No
CREATOR	Metadata: CREATOR of PDF Document		No
STYLE_ID	ID of STYLE		No

Return	
EXECUTETAG.DOCUMENT:[ID].getID	ID
EXECUTETAG.DOCUMENT:[ID].getSTYLE_ID	STYLE_ID

```
<DOCUMENT>
          ...
</DOCUMENT>
```

SHEET – init of excel sheet (only for excel) isn't obligate			
ID	Identificator		No
SHEET_NAME	Name of excel sheet		No
SHEET_NUMBER	Number of excel sheet		No

```
<SHEET>
          ...
</SHEET>
```

INIT – the block of declaration for the next types: bean, style, db_init			
ID	Id of tag		No

```
<INIT>
          ...
</INIT>
```

BEAN – make the relation with javabean from session			
ID	Nome del javabean		yes
TYPE	Javatype del bean		yes
CLASS	Javaclass del bean		yes
SCOPE	Tipo del BEAN	SESSION REQUEST	yes

Return:

EXECUTETAG.BEAN:[ID].getID	Name
EXECUTETAG.BEAN:[ID].getTYPE	TYPE
EXECUTETAG.BEAN:[ID].getCLASS	CLASS
EXECUTETAG.BEAN:[ID].getSCOPE	SCOPE
EXECUTETAG.BEAN:[ID].RETURN	<nothing>
EXECUTEBEAN. [ID].[sintasso_del_java]	

```
<BEAN
          ID="dates"
          TYPE="java.lang.String"
          CLASS="java.lang.String"
SCOPE="SESSION"/>
```

OBJECT_JAVA – for create un object Java			
ID	Name of object		Yes
TYPE	Type of java object		Yes
CLASS	Class of java object		Yes
SOURCE	The parent object of object_java		No
METHOD	The method for create the object java from **SOURCE**		No

Return:

EXECUTETAG.OBJECT_JAVA:[ID].getID	ID
EXECUTETAG.OBJECT_JAVA:[ID].getTYPE	TYPE
EXECUTETAG.OBJECT_JAVA:[ID].getCLASS	CLASS
EXECUTETAG.OBJECT_JAVA:[ID].getSOURCE	SOURCE
EXECUTETAG.OBJECT_JAVA:[ID].getMETHOD	METHOD

```
<OBJECT_JAVA
          ID="init"
          TYPE="it.bci.db.Initializer"
```

```
            CLASS="it.bci.db.Initializer"
            SOURCE="menu"
METHOD="getIni"/>
```

USEBEAN – for use un object as JavaBean of the current session or un object created from another object_java			
ID	Name of the object		Yes
METHOD	Method of the object wich will be used		Yes
PARAMETERS	The parameters of method		No
SET	The ID of the object set witch will get the result of operation		No

```
<USEBEAN
            ID="reports_P_D"
            METHOD="elementAt(int:%EXECUTETAG.CONDITION_FOR:F1.RETURN._%)" PARAMETERS=""
SET="element"/>
```

INIT_DB_CONNECTION – for open database connection			
ID	Name of the object		Yes
DB_DRIVER	Driver for create connection		Yes
DB_URL	DB url for connection		Yes
DB_USER	User name		No
DB_PASSWORD	Password		No

```
<INIT_DB_CONNECTION
            ID="connection1"
            DB_DRIVER="COM.ibm.db2.jdbc.net.DB2Driver"
            DB_URL="jdbc:DB2://localhost/MYDB"
            DB_USER="USER1"
            DB_PASSWORD=""
/>
```

- **logical**

CONDITION_FOR – define conditions for the cycle of type FOR

ID	identification		Yes
FOR_FIRSTCOUNTER	Index of start	[0]	Yes
FOR_LASTCOUNTER	Index of finish		Yes
FOR_STEPCOUNTER	Step	[1]	No

Return

EXECUTETAG.CONDITION_FOR:[ID].getID	ID
EXECUTETAG.CONDITION_FOR:[ID].getFOR_FIRSTCOUNTER	FOR_FIRSTCOUNTER
EXECUTETAG.CONDITION_FOR:[ID].getFOR_LASTCOUNTER	FOR_LASTCOUNTER
EXECUTETAG.CONDITION_FOR:[ID].getFOR_STEPCOUNTER	FOR_STEPCOUNTER
EXECUTETAG.CONDITION_FOR:[ID].RETURN	Current index
EXECUTETAG.CONDITION_FOR:[ID].RETURN.INDEX	Current index
EXECUTETAG.CONDITION_FOR:[ID].RETURN.SIZE	= FOR_LASTCOUNTER

```
<CONDITION_FOR
        ID="C_F0"
        FOR_FIRSTCOUNTER="0"
        FOR_LASTCOUNTER="100"
FOR_STEPCOUNTER="1" />
```

CONDITION_IF – define condition

ID	identification		No
CONDITION	Index of start	Can be used = equal ! not equal < loss > more	Yes

```
<CONDITION_IF
        CONDITION="%EXECUTEBEAN.test_number.toString()%=0"
>
</CONDITION_IF>
```

```
<CONDITION_IF
        CONDITION="%EXECUTEBEAN.test_string.toString()%!'test'"
>
</CONDITION_IF>
```

CONDITION_QUERY – define condition query

ID	identification		No
Q_INIT	Name of <BEAN> or <OBJECT_JAVA> witch have the type java.sql.Connection . Must be initialize and open. Another way – use the tag <INIT_DB_CONNECTION> declared before.		Yes
Q_QUERY	Query for executed		Yes
Q_MAX_ELEMENT	The maximum limit of number of record in tesultSet		No

Return

EXECUTETAG. CONDITION_QUERY:[ID].getID	ID
EXECUTETAG. CONDITION_QUERY:[ID]. SYZE	Size of resultset

EXECUTETAG. CONDITION_QUERY:[ID].INDEX	Number of current element

```
<CONDITION_QUERY
ID=”query1”
Q_INIT="connection_DB2_first"
Q_QUERY=”SELECT NAME FROM EMPLOYERS WHERE CD_USER=’
=’%EXECUTEBEAN.test_user.toString()%’”
/>
```

CYCLE – the structure for organise un cycle			
ID	identificator		Yes
CONDITION_TYPE	Type of condition	CONDITION_FOR CONDITION_QUERY	Yes
CONDITION_ID	ID of condition		Yes

Return	
EXECUTETAG.CYCLE:[ID].getID	ID
EXECUTETAG.CYCLE:[ID].getCONDITION_TYPE	
EXECUTETAG.CYCLE:[ID].getCONDITION_ID	
EXECUTETAG.CYCLE:[ID].[all type decired for CONDITION_TYPE]	

```
        <CONDITION_QUERY
                ID="Q1"
                Q_INIT="init"
                Q_QUERY="select …"/>


        …
<CYCLE ID="C0"
        CONDITION_TYPE="CONDITION_QUERY"
        CONDITION_ID="Q1">


        …

</CYCLE>
```

- layout

The attributes of tag STYLE can be applicable for any another tag with attribute [STYLE_ID]

STYLE – for create un style for the tags where can be used attribute STYLE_ID			
ID	ID of tag		No
FONT	Font	[COURIER] HELVETICA TIMES_NEW_ROMAN SYMBOL ZAPFDINGBATS	No
FONT_SIZE	Dimention of font	[8]	No
FONT_TYPE	Type of font	[NORMAL] BOLD ITALIC BOLDITALIC STRIKETHRU UNDERLINE	No
FONT_ENCODED	Codepage of font (**use ONLY for tag [TEXT]**)	Cp1250 CP1252 CP1257	No
FONT_STYLE	Style of font		No
FONT_COLOR	Color of font	[BLACK] BLUE CYAN DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED WHITE YELLOW	No
FONT_COLOR_RGB	Color of font in RGB	Ex: 150,20,100	No
BACK_COLOR	Color of back	BLACK BLUE CYAN DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED [WHITE] YELLOW	No
BACK_COLOR_RGB	Color of back in RGB	Ex: 150,20,100	No
BAR_COLOR	Color of bar	BLACK BLUE CYAN	No

		DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED [WHITE] YELLOW	
BAR_COLOR_RGB	Color of bar in RGB	Ex: 150,20,100	No
BORDER_COLOR	Color of border	BLACK BLUE CYAN DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED [WHITE] YELLOW	No
BORDER_COLOR_RGB	Color of back in RGB	Ex: 150,20,100	No
BORDER_COLOR_TOP	Color of border Top	BLACK BLUE CYAN DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED [WHITE] YELLOW	No
BORDER_COLOR_TOP_RGB	Color of back in RGB Top	Ex: 150,20,100	No
BORDER_COLOR_BOTTOM	Color of border Bottom	BLACK BLUE CYAN DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED [WHITE] YELLOW	No
BORDER_COLOR_BOTTOM_RGB	Color of back in RGB Bottom	Ex: 150,20,100	No
BORDER_COLOR_LEFT	Color of border Left	BLACK BLUE	No

		CYAN DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED [WHITE] YELLOW	
BORDER_COLOR_LEFT_RGB	Color of back in RGB Left	Ex: 150,20,100	No
BORDER_COLOR_RIGHT	Color of border Right	BLACK BLUE CYAN DARKGRAY GRAY GREEN LIGHTGRAY MAGENTA ORANGE PINK RED [WHITE] YELLOW	No
BORDER_COLOR_RIGHT_RGB	Color of back in RGB Right	Ex: 150,20,100	No
BORDER_WIDTH	Width of the border		No
BORDER_WIDTH_TOP	Width of the border top		No
BORDER_WIDTH_BOTTOM	Width of the border bottom		No
BORDER_WIDTH_LEFT	Width of the border left		No
BORDER_WIDTH_RIGHT	Width of the border right		No
IMAGE_SOURCE	Source of the image (start from "/" if is related with ROOT)		Yes
IMAGE_LINK	WEB link		No
DIMENTION_H	Width		No
DIMENTION_V	Height		No
ABSOLUTE_X	Absolute left position on the page		No
ABSOLUTE_Y	Absolute top position of the page		No
TEXT_ROTATION_DEGREE	Angle of spin rotation for content. For pdf – any degrees For excel only: 0,45,90,270,315 degrees		No
BORDER	Border of the object	[0] nothing border 1 top 2 button 4 left 8 right 15 complete	No
FORMAT	Format of the object	NUMBER :format| DATE: format| ISNULL:value_if_0| NOTNULL:value_if_no_0| TRIM:|	No

		UPPERCASE:| LOWERCASE:| SUBSTRING: number_of_characters| REPLACE:[A--B]| (character A replace on the character B)	
PADDING	Padding		No
ALIGN	Align of text	[LEFT] RIGHT CENTER	No

```
<STYLE ID="Style1"
        FONT="HELVETICA"
        FONT_SIZE="10"
        FONT_TYPE="BOLD"
        PADDING="3"
ALIGN="CENTER"/>
```

COL_SPAN, ROW_SPAN is used ONLY for html_xls library

BARCODE – for create un object [BARCODE]

ID	Identification of tag		No
STYLE_ID	ID of style		No
BARCODE_TYPE	Type of barcode	CODABAR 39 39_EXTENDED 128 128_UCC 128_RAW EAN8 EAN13 INTERLEAVED POSTNET PLANET	yes
BARCODE_HEIGHT		[30]	No
CODE	Code of barcode		Yes

```
< BARCODE
        BARCODE_TYPE="128"
        BARCODE_HEIGHT="40"
        CODE="123456789"
        FONT_SIZE="8"
        BORDER="1"
        ALIGN="CENTER"
/>
```

BLOCK – create un block of text

ID	Identification of tag		No
STYLE_ID	ID of object STYLE		No

```
<BLOCK
        FONT="HELVETICA"
        FONT_SIZE="15"
        FONT_TYPE="NORMAL"
```

```
          FONT_COLOR="GREEN"
          ALIGN="CENTER">
          TEXT
</BLOCK>
```

DOCUMENT_HEADER – initial of header of the document			
ID	Id of tag		No
STYLE_ID	Id of Style		No

Return:	
EXECUTETAG.DOCUMENT_HEADER:[ID].getID	ID
EXECUTETAG.DOCUMENT_HEADER:[ID].getSTYLE_ID	STYLE_ID

```
<DOCUMENT_HEADER>
          ...
</DOCUMENT_HEADER>
```

IMAGE – for create un image			
ID	Id of tag		No
IMAGE_SOURCE	Related path of image (to start from “/” if relatet ROOT)		Yes

```
<IMAGE
          IMAGE_SOURCE="/images/_pdf_intesabci.jpg"
          DIMENTION_H="60"
          DIMENTION_V="60"
          ALIGN="CENTER"/>
```

TEXT – for create un text element			
ID	Id of tag		No
STYLE_ID	Id style		No
ISTEMPLATE	Flag	true [false]	No

```
<TEXT
          IMAGE_SOURCE="/images/_pdf_intesabci.jpg"
          ABSOLUTE_X="100"
          ABSOLUTE_Y="100"
>test </TEXT>
```

RECTANGLE – for create un text element			
ID	Id of tag		No
STYLE_ID	Id style		No
X_LEFT	Left x position		yes
X_RIGHT	Right x position		yes
Y_TOP	Top y position		yes
Y_BOTTOM	Bottom y position		yes

```
<RECTANGLE X_LEFT="30" Y_TOP="50" X_RIGHT="800" Y_BOTTOM="50"/>
```

LINK –object as Web Link			
ID	Id if tag		No
LINK	WEB link		Yes

```
<LINK
        LINK="http://temp01/ctp/home.jsp"
        FONT="HELVETICA"
        FONT_SIZE="10"
        FONT_TYPE="UNDERLINE"
        FONT_COLOR="BLUE"
        ALIGN="CENTER">
        CTP
</LINK>
```

PAGE_FOOTER – footer of the page

ID	ID of object		Yes
STYLE_ID	ID dell'oggetto STYLE		No
PAGE_N	Per fare vedere il numero della pagina	TRUE [FALSE]	No

```
<PAGE_FOOTER
        FONT="HELVETICA"
        FONT_SIZE="10"
        FONT_TYPE="BOLD"
        FONT_COLOR="RED"
        PAGE_N="true"
        ALIGN="RIGHT">
        Page
</PAGE_FOOTER>
```

PAGE_FOOTER_ – footer of the page (type 2)

ID	ID of object		Yes
STYLE_ID	ID dell'oggetto STYLE		No

```
<PAGE_FOOTER
        FONT="HELVETICA"
        FONT_SIZE="10"
        FONT_TYPE="BOLD"
        FONT_COLOR="RED"
        PAGE_N="true"
        ALIGN="RIGHT">
        Page
</PAGE_FOOTER>
```

PAGE_HEADER – the header of the page

ID	ID of tag		No
STYLE_ID	ID of style		No

```
<PAGE_HEADER>
        ...
</PAGE_HEADER>
```

PAGE_HEADER_ – the header of the page (type 2)

ID	ID of tag		No
STYLE_ID	ID of style		No

```
<PAGE_HEADER_>
        ...
</PAGE_HEADER_>
```

PAGEBREAK – for separate the pages

ID	ID of tag		No
ORIENTATION	Orientation of the next page	PORTRAIT LANDSCAPE	No
MARGINS	Margins of the next page		No

```
<PAGEBREAK/>
```

PARAGRAPH – for create un paragraph

ID	ID of tag		No
STYLE_ID	ID of style		No

```
<PARAGRAPH>
        ...
</PARAGRAPH>
```

PHRASE – for create un phrase

ID	ID of tag		No
STYLE_ID	ID of style		No

```
<PHRASE
        FONT_TYPE="STRIKETHRU"
        STYLE_ID="Stale1">
        Test
</PHRASE>
```

TABLE – for create un table

ID	ID of tag		No
COL	Number of column		Yes
COLLS_DIMENTION	Dimensions of the column (percents, separator ,)		Yes
STYLE_ID	ID of style		No

```
<TABLE
        COL="3"
        WIDTH=”70%”
        ALIGN=”RIGHT”
COLLS_DIMENTION="20,15,65">
```

TABLE_BLOCK – un structure for to have the possibility to integrate un table into the another table as un cell

ID	ID of tag		No
STYLE_ID	ID of style		No

```
<TABLE COL="2" COLLS_DIMENTION="30,70">
        <TABLE_ROW>
        …
                <TABLE_BLOCK>
                <TABLE COL="1" COLLS_DIMENTION="100">
        …
                </TABLE>
                </TABLE_BLOCK>
        …
        </TABLE_ROW>
</TABLE>
```

TABLE_CELL – for create un cell for table

ID	ID of tag		No
STYLE_ID	ID of style		No

```
<TABLE_CELL
        FONT="HELVETICA"
        FONT_SIZE="21"
        FONT_TYPE="BOLD"
        BORDER="0"
        ALIGN="CENTER">
        TEXT
</TABLE_CELL>
```

TABLE_ROW – for create un row of the table

ID	ID		No
STYLE_ID	ID of the style tag		No

```
<TABLE_ROW>
…
</TABLE_ROW>
```

Appendix #1.

```
<!ELEMENT GENERAL (INIT*, PAGE_FOOTER*, DOCUMENT+)*>
<!ELEMENT INIT (BEAN*, STYLE*, OBJECT_JAVA*, USEBEAN*, CONDITION_QUERY*, CONDITION_FOR*,
CONDITION_IF*, CYCLE*, INCLUDE*, INIT_DB_CONNECTION*)*>
<!ELEMENT DOCUMENT (DOCUMENT_HEADER?, PAGE_HEADER*, USEBEAN*, CONDITION_FOR*,
CONDITION_QUERY*, CONDITION_IF*, CYCLE*, INCLUDE*, TABLE*, BLOCK*, IMAGE*,TEXT*,
BARCODE*, CHART*, GOTO*, GOTO_DESTINATION*, ACTION*, PAGEBREAK*, LINK*, PARAGRAPH*,
PHRASE*, PAGEBREAK*, OBJECT_JAVA*, PAGE_FOOTER_*, DOCUMENT_FOOTER?)*>
<!ELEMENT CYCLE (USEBEAN*, CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*, CYCLE*,
INCLUDE*, DOCUMENT_HEADER?, PAGE_HEADER?, PAGE_FOOTER?, TABLE*, TABLE_ROW*, TABLE_CELL*,
BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, PAGEBREAK*, OBJECT_JAVA*, GOTO*,
GOTO_DESTINATION*, ACTION*, PAGEBREAK*, LINK*, PARAGRAPH*, PHRASE*)*>
<!ELEMENT CONDITION_IF (USEBEAN*, CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*,
CYCLE*, INCLUDE*, DOCUMENT_HEADER?, PAGE_HEADER?, PAGE_FOOTER?, TABLE*, TABLE_ROW*,
TABLE_CELL*, BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, PAGEBREAK*, OBJECT_JAVA*,
PARAGRAPH*, PHRASE*, GOTO*, GOTO_DESTINATION*, ACTION*, LINK*)*>
<!ELEMENT DOCUMENT_HEADER (USEBEAN*, CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*,
CYCLE*, INCLUDE*, TABLE*, BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, OBJECT_JAVA*,
PARAGRAPH*, PHRASE*, GOTO*, GOTO_DESTINATION*, ACTION*, LINK*)*>
<!ELEMENT PAGE_FOOTER (#PCDATA)>
<!ELEMENT DOCUMENT_FOOTER (USEBEAN*, CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*,
CYCLE*, INCLUDE*, TABLE*, BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, OBJECT_JAVA*,
PARAGRAPH*, PHRASE*, GOTO*, GOTO_DESTINATION*, ACTION*, LINK*)*>
<!ELEMENT PAGE_HEADER (USEBEAN*, CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*, CYCLE*,
INCLUDE*, TABLE*, BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, OBJECT_JAVA*, PARAGRAPH*,
PHRASE*, GOTO*, GOTO_DESTINATION*, ACTION*, LINK*)*>
<!ELEMENT PAGE_FOOTER_ (USEBEAN*, CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*,
CYCLE*, INCLUDE*, TABLE*, BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, OBJECT_JAVA*,
PARAGRAPH*, PHRASE*, GOTO*, GOTO_DESTINATION*, ACTION*, LINK*)*>
<!ELEMENT INIT_DB_CONNECTION (#PCDATA)>
<!ELEMENT TABLE (CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*, CYCLE*, INCLUDE*,
TABLE_ROW*)*>
<!ELEMENT TABLE_ROW (CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*, CYCLE*, INCLUDE*,
TABLE_CELL*, TABLE_BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, GOTO*, GOTO_DESTINATION*,
ACTION*, LINK*)*>
<!ELEMENT TABLE_BLOCK (CONDITION_FOR*, CONDITION_QUERY*, CONDITION_IF*, CYCLE*, INCLUDE*,
BLOCK*, IMAGE*,TEXT*, BARCODE*, CHART*, TABLE*)*>
<!ELEMENT TABLE_CELL (#PCDATA)>
<!ELEMENT BEAN (#PCDATA)>
<!ELEMENT OBJECT_JAVA (#PCDATA)>
<!ELEMENT BLOCK (#PCDATA)>
<!ELEMENT USEBEAN (#PCDATA)>
<!ELEMENT IMAGE (#PCDATA)>
<!ELEMENT TEXT (#PCDATA)>
<!ELEMENT BARCODE (#PCDATA)>
<!ELEMENT CHART (#PCDATA)>
<!ELEMENT LINK (#PCDATA)>
<!ELEMENT INCLUDE (#PCDATA)>
<!ELEMENT PHRASE (#PCDATA)>
<!ELEMENT PARAGRAPH (PHRASE*, GOTO*, GOTO_DESTINATION*, ACTION*, PAGEBREAK*, LINK*,
USEBEAN*, OBJECT_JAVA*)*>
<!ELEMENT STYLE (#PCDATA)>
<!ELEMENT PAGEBREAK (#PCDATA)>
<!ELEMENT CONDITION_FOR (#PCDATA)>
<!ELEMENT CONDITION_QUERY (#PCDATA)>
<!ELEMENT GOTO (#PCDATA)>
<!ELEMENT GOTO_DESTINATION (#PCDATA)>
<!ELEMENT ACTION (ACTION_GOPAGE*, ACTION_APPLICATION*, ACTION_JAVASCRIPT*, ACTION_FILE*)*>
<!ELEMENT ACTION_GOPAGE (#PCDATA)>
<!ELEMENT ACTION_APPLICATION (#PCDATA)>
<!ELEMENT ACTION_JAVASCRIPT (#PCDATA)>
<!ELEMENT ACTION_FILE (#PCDATA)>
<!ATTLIST GENERAL
        ID CDATA #IMPLIED
        TYPE_DOCUMENT (FIXED | STREAM | ATTACHMENT | fixed | stream | attachment) #IMPLIED
        SOURCE_DOCUMENT CDATA #IMPLIED
        SOURCE_BEFORE_FIXED CDATA #IMPLIED
        SOURCE_AFTER_FIXED CDATA #IMPLIED
        ORIENTATION (PORTRAIT | LANDSCAPE | portrait | landscape) #IMPLIED
        MARGINS CDATA #IMPLIED
        LIB CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST STYLE
        ID CDATA #IMPLIED
        LINK CDATA #IMPLIED
        FONT (COURIER | HELVETICA | TIMES_NEW_ROMAN | SYMBOL | ZAPFDINGBATS | courier |
helvetica | times_new_roman | symbol | zapfdingbats) #IMPLIED
        FONT_SIZE CDATA #IMPLIED
        FONT_TYPE (NORMAL | BOLD | ITALIC | BOLDITALIC | STRIKETHRU | UNDERLINE | normal |
bold | italic | boloditalic | strikethru | underline) #IMPLIED
        FONT_COLOR (BLACK | BLUE | CYAN | DARKGRAY | GRAY | GREEN | LIGHTGRAY | MAGENTA |
ORANGE | PINK | RED | WHITE | YELLOW | black | blue | cyan | darkGray | gray | green |
lightGray | magenta | orange | pink | red | white | yellow) #IMPLIED
        FONT_COLOR_RGB CDATA #IMPLIED
        FONT_STYLE (UNDERLINE | STRIKE) #IMPLIED
        BACK_COLOR (BLACK | BLUE | CYAN | DARKGRAY | GRAY | GREEN | LIGHTGRAY | MAGENTA |
ORANGE | PINK | RED | WHITE | YELLOW | black | blue | cyan | darkGray | gray | green |
lightGray | magenta | orange | pink | red | white | yellow) #IMPLIED
        BACK_COLOR_RGB CDATA #IMPLIED
        BORDER_COLOR (BLACK | BLUE | CYAN | DARKGRAY | GRAY | GREEN | LIGHTGRAY | MAGENTA
| ORANGE | PINK | RED | WHITE | YELLOW | black | blue | cyan | darkGray | gray | green |
lightGray | magenta | orange | pink | red | white | yellow) #IMPLIED
        BORDER_COLOR_RGB CDATA #IMPLIED
        BORDER_WIDTH CDATA #IMPLIED
        BAR_COLOR_RGB CDATA #IMPLIED
        BAR_COLOR (BLACK | BLUE | CYAN | DARKGRAY | GRAY | GREEN | LIGHTGRAY | MAGENTA |
ORANGE | PINK | RED | WHITE | YELLOW | black | blue | cyan | darkGray | gray | green |
lightGray | magenta | orange | pink | red | white | yellow) #IMPLIED
        IMAGE_SOURCE CDATA #IMPLIED
        IMAGE_LINK CDATA #IMPLIED
        DIMENTION_H CDATA #IMPLIED
        DIMENTION_V CDATA #IMPLIED
        BORDER CDATA #IMPLIED
        FORMAT CDATA #IMPLIED
        PADDING CDATA #IMPLIED
        ALIGN (LEFT | RIGHT | CENTER | left | right | center) #IMPLIED
        TEXT_ALIGN_H CDATA #IMPLIED
        TEXT_ALIGN_V CDATA #IMPLIED
        COL_SPAN CDATA #IMPLIED
        ROW_SPAN CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST CYCLE
        ID CDATA #IMPLIED
        CONDITION_TYPE CDATA #IMPLIED
        CONDITION_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "11"
>
<!ATTLIST DOCUMENT
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST DOCUMENT_HEADER
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST DOCUMENT_FOOTER
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST PAGE_HEADER
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
```

```
>
<!ATTLIST PAGEBREAK
        ID CDATA #IMPLIED
        ORIENTATION (PORTRAIT | LANDSCAPE | portrait | landscape) #IMPLIED
        MARGINS CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST PAGE_FOOTER
        ID CDATA #IMPLIED
        PAGE_N CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST PAGE_FOOTER_
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST INIT_DB_CONNECTION
        ID CDATA #IMPLIED
        DB_USER CDATA #IMPLIED
        DB_PASSWORD CDATA #IMPLIED
        DB_DRIVER CDATA #IMPLIED
        DB_URL CDATA #IMPLIED
        SYSATTR CDATA #FIXED "21"
>
<!ATTLIST INIT
        ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST TABLE
        ID CDATA #IMPLIED
        COL CDATA #IMPLIED
        ROW CDATA #IMPLIED
        COLLS_DIMENTION CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST TABLE_ROW
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST TABLE_BLOCK
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST TABLE_CELL
        ID CDATA #IMPLIED
        FORMAT CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST BEAN
        ID CDATA #IMPLIED
        TYPE CDATA #IMPLIED
        CLASS CDATA #IMPLIED
        SCOPE CDATA #IMPLIED
        SYSATTR CDATA #FIXED "30"
>
<!ATTLIST OBJECT_JAVA
        ID CDATA #IMPLIED
        TYPE CDATA #IMPLIED
        CLASS CDATA #IMPLIED
        SOURCE CDATA #IMPLIED
        METHOD CDATA #IMPLIED
        SYSATTR CDATA #FIXED "30"
>
<!ATTLIST BLOCK
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST USEBEAN
        ID CDATA #IMPLIED
        METHOD CDATA #IMPLIED
        PARAMETERS CDATA #IMPLIED
        SET CDATA #IMPLIED
        SYSATTR CDATA #FIXED "31"
>
<!ATTLIST BARCODE
        ID CDATA #IMPLIED
        BARCODE_TYPE (CODABAR | 39 | 39_EXTENDED | 128 | 128_UCC | 128_RAW | EAN8 | EAN13
| INTERLEAVED | POSTNET | PLANET) #IMPLIED
        BARCODE_HEIGHT CDATA #IMPLIED
        CODE CDATA #IMPLIED
        TEXT_ALIGN_H (LEFT | RIGHT | CENTER | left | right | center) #IMPLIED
        TEXT_ALIGN_V CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST CHART
        ID CDATA #IMPLIED
        CHART_TYPE CDATA #IMPLIED
        CHART_DATA_X CDATA #IMPLIED
        FORMAT_CHART_INPUT_DATA CDATA #IMPLIED
        CHART_DATA_Y CDATA #IMPLIED
        CHART_DATA_Z CDATA #IMPLIED
        FORMAT_SCALE_XYZ CDATA #IMPLIED
        SHOW_SCALE_XYZ CDATA #IMPLIED
        GR_SCALE_XYZ CDATA #IMPLIED
        FONT_SCALE_XYZ CDATA #IMPLIED
        FONT_SCALE_SIZE_XYZ CDATA #IMPLIED
        FONT_SCALE_COLOR_XYZ CDATA #IMPLIED
        LABEL_TOP CDATA #IMPLIED
        GR_LABEL_XYZ CDATA #IMPLIED
        ALIGN_LABEL_TOP (LEFT | RIGHT | CENTER | left | right | center) #IMPLIED
        FONT_LABEL_TOP (Courier | Courier-Bold | Courier-Oblique | Courier-BoldOblique |
Helvetica | Helvetica-Oblique | Helvetica-Bold | Helvetica-BoldOblique | Symbol | Times-
Roman | Times-Bold | Times-Italic | Times-BoldItalic | ZapfDingbats) #IMPLIED
        FONT_LABEL_SIZE_TOP CDATA #IMPLIED
        FONT_LABEL_COLOR_TOP (BLACK | BLUE | CYAN | DARKGRAY | GRAY | GREEN | LIGHTGRAY |
MAGENTA | ORANGE | PINK | RED | WHITE | YELLOW | black | blue | cyan | darkGray | gray |
green | lightGray | magenta | orange | pink | red | white | yellow) #IMPLIED
        LABEL_X CDATA #IMPLIED
        LABEL_Y CDATA #IMPLIED
        LABEL_Z CDATA #IMPLIED
        ALIGN_LABEL_XYZ CDATA #IMPLIED
        MAXELEMENT_LABEL_XYZ CDATA #IMPLIED
        FONT_LABEL_XYZ CDATA #IMPLIED
        FONT_LABEL_SIZE_XYZ CDATA #IMPLIED
        FONT_LABEL_COLOR_XYZ CDATA #IMPLIED
        BACKGRAUND_COLOR (BLACK | BLUE | CYAN | DARKGRAY | GRAY | GREEN | LIGHTGRAY |
MAGENTA | ORANGE | PINK | RED | WHITE | YELLOW | black | blue | cyan | darkGray | gray |
green | lightGray | magenta | orange | pink | red | white | yellow) #IMPLIED
        ELEMENT_COLOR_3D CDATA #IMPLIED
        DIMENTION_H CDATA #IMPLIED
        DIMENTION_V CDATA #IMPLIED
        BORDER CDATA #IMPLIED
        PADDING CDATA #IMPLIED
        ALIGN (LEFT | RIGHT | CENTER | left | right | center) #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST TEXT
        ID CDATA #IMPLIED
        ISTEMPLATED (TRUE | FALSE | true | false) #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST IMAGE
        ID CDATA #IMPLIED
        IMAGE_SOURCE CDATA #IMPLIED
        IMAGE_LINK CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST TEXT
        ID CDATA #IMPLIED
        ABSOLUTE_X CDATA #IMPLIED
        ABSOLUTE_Y CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST LINK
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST GOTO
        ID CDATA #IMPLIED
        REFERENCE CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST GOTO_DESTINATION
        ID CDATA #IMPLIED
        ID_REFERENCE CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST INCLUDE
        ID CDATA #IMPLIED
        LINK CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST PHRASE
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST PARAGRAPH
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "01"
>
<!ATTLIST CONDITION_FOR
        ID CDATA #IMPLIED
        FOR_FIRSTCOUNTER CDATA #IMPLIED
        FOR_LASTCOUNTER CDATA #IMPLIED
        FOR_STEPCOUNTER CDATA #IMPLIED
        SYSATTR CDATA #FIXED "11"
>
<!ATTLIST CONDITION_QUERY
        ID CDATA #IMPLIED
        Q_INIT CDATA #IMPLIED
        Q_QUERY CDATA #IMPLIED
        Q_MAX_ELEMENT CDATA #IMPLIED
        SYSATTR CDATA #FIXED "11"
>
<!ATTLIST CONDITION_IF
        ID CDATA #IMPLIED
        CONDITION CDATA #IMPLIED
        SYSATTR CDATA #FIXED "11"
>
<!ATTLIST ACTION
        ID CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST ACTION_GOPAGE
        ID CDATA #IMPLIED
        ST_PAGE (FIRSTPAGE | PREVPAGE | NEXTPAGE | LASTPAGE | firstpage | lastpage |
nextpage | lastpage) #IMPLIED
```

```
        N_PAGE CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST ACTION_APPLICATION
        ID CDATA #IMPLIED
        APPLICATION CDATA #IMPLIED
        PARAMETERS CDATA #IMPLIED
        OPERATION CDATA #IMPLIED
        DEFAULTDIR CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST ACTION_JAVASCRIPT
        ID CDATA #IMPLIED
        JAVASCRIPT CDATA #IMPLIED
        UNICODE (TRUE | FALSE | true | false) #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
<!ATTLIST ACTION_FILE
        ID CDATA #IMPLIED
        TYPE (FILE | URL | file | url) #IMPLIED
        PARAMETER1 CDATA #IMPLIED
        PARAMETER2 CDATA #IMPLIED
        STYLE_ID CDATA #IMPLIED
        SYSATTR CDATA #FIXED "00"
>
```