

PROGRAMMING GUIDE

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Contents

1	Getting started	5
1.1	How to compile druid	5
2	Velocity bindings	7
2.1	Main objects	7
2.2	Er Views objects	12
2.3	Datatypes objects	12
2.4	Generic objects	13

Chapter 1

Getting started

1.1 How to compile druid

Druid uses the ant tool (<http://www.apache.org>) to build the jars. Inside the build directory is located the ant BUILD.XML file. By default, this script uses jikes (<http://ibm.com/research/jikes>) which is much faster than javac. If you don't have jikes installed you have to comment out the line :

```
<property name="build.compiler" value="jikes" />
```

inside the build file. When you are ready ,go inside the build directory and type **ant** to build druid.

Chapter 2

Velocity bindings

2.1 Main objects

Here are the attribs you can access from most of the objects:

<i>AbstractNode</i>		
isDatabase	bool	true if the object is a database
isFolder	bool	true if the object is a folder
isTable	bool	true if the object is a table
isField	bool	true if the object is a field
isProcedure	bool	true if the object is a procedure
isFunction	bool	true if the object is a function
isSequence	bool	true if the object is a sequence
isNotes	bool	true if the object is a note
name	string	the name of the object, as it compares in the project tree
htmlName	string	same as above, but converted into html
descr	string	the description of the object, as it compares in the docs tab
xmlDescr	string	same as above, but converted into xml
htmlDescr	string	same as above, but converted into html
children	AbstractNode collection	all children of this object (if any)
parent	object	the parent of this object
file	string	the object name converted to be used as a filename
depth	int	the depth of the object in the tree
nCNamePart	string	same as name, but all non XML characters are converted to " _ "

Now follow the objects you have access to:

Database		(extends Folder)
preSql	string	the sql code in the "pre sql" tab
htmlPreSql	string	same as above, but converted into html
postSql	string	the sql code in the "post sql" tab
htmlPostSql	string	same as above, but converted into html
version	string	the last revision. version field
build	string	the database build
isUsingTS	bool	true if tablespaces are used
tablespaces	Tablespace collection	the database tablespaces
revisions	Revision collection	the database revisions
fieldAttribs	FieldAttrib collection	the database field attribs
dataTypes	DataTypes object	the root node of datatypes
erViews	ErView collection	the database E/R views

Note that the database object have access to all properties of the folder object.

Folder		(extends AbstractNode)
allChildren	generic collection	all children (and sub children) of this folder
allFolders	Folder collection	all folders (and sub folders) contained in this folder
allTables	Table collection	all tables contained in this folder
allFields	Field collection	all table fields contained in this folder
allViews	View collection	all views contained in this folder
allProcedures	Procedure collection	all procedures contained in this folder
allFunctions	Function collection	all functions contained in this folder
allSequences	Sequence collection	all sequences contained in this folder
allNotes	Notes collection	all notes contained in this folder
allSortedChildren	AbstractNode collection	all children contained in this folder (sorted by name)

Table		(extends AbstractNode)
preSql	string	the sql code in the "pre sql" tab
htmlPreSql	string	same as above, but converted into html
postSql	string	the sql code in the "post sql" tab
htmlPostSql	string	same as above, but converted into html
fields	Field collection	all fields of this table
referringTables	Table collection	return all tables that have a foreign key to this table
referringFields	Field collection	return all fields that have a foreign key to this table
triggers	Trigger collection	all triggers of this table
vars	TableVar collection	all vars of this table
rules	TableRule collection	all rules of this table
tablespace	string	tablespace name (if any) this table belongs to
htmlTablespace	string	same as above, but converted into html

Field <i>(extends AbstractNode)</i>		
type	string	the data-type specified for the field
sqlType	string	the equivalent sql-type used to create the field
isPrimaryKey	bool	true if this field is used for the primary key
isNotNull	bool	true if this field cannot be null
isUnique	bool	true if this field doesn't allow duplicates
isForeignKey	bool	true if this field is a foreign key to another table/field
foreignTable	table	if the field is a foreignKey, return the referenced table
foreignField	field	if the field is a foreignKey, return the referenced field
onUpdateAction	string	a string like "CASCADE", "NO ACTION"...
onDeleteAction	string	a string like "CASCADE", "NO ACTION"...
fieldAttribVal	FieldAttribVal object	Accepts a FieldAttrib object and returns its value object

FieldAttribVal		
isBool	bool	true if the value is boolean
isString	bool	true if the value is a string
isInt	bool	true if the value is an int
value	string	the attrib's value in string form

View / Procedure / Function <i>(extends AbstractNode)</i>		
code	string	the sql code as it compares in the "sql" tab
xmlCode	string	same as above, but converted into xml
htmlCode	string	same as above, but converted into html

TableRule <i>(extends AbstractNode)</i>		
isInUse	bool	
rule	string	
htmlRule	string	

<i>Trigger</i> (extends <i>AbstractNode</i>)		
when	string	
htmlWhen	string	
code	string	
htmlCode	string	
isOnInsert	bool	
isOnUpdate	bool	
isOnDelete	bool	
isActiveBefore	bool	
isActiveAfter	bool	
isActiveInsteadOf	bool	
isForEachStatem	bool	
isForEachRow	bool	
activString	string	
forEachString	string	
activEvent	string	

<i>Sequence</i> (extends <i>AbstractNode</i>)		
increment	string	
minValue	string	
maxValue	string	
start	string	
cache	string	
isCycleSet	bool	
isOrderSet	bool	

<i>Notes</i> (extends <i>AbstractNode</i>)		
isInfo	bool	
isAlert	bool	
isDanger	bool	

TableVar		
name	string	
xmlName	string	
htmlName	string	
value	string	
xmlValue	string	
htmlValue	string	
descr	string	
xmlDescr	string	
htmlDescr	string	
isTypeBool	bool	
isTypeString	bool	
isTypeInt	bool	
isTypeLong	bool	
isTypeChar	bool	
isTypeFloat	bool	
isTypeDouble	bool	

Revision		
version	string	
date	string	
descr	string	
htmlDescr	string	

FieldAttrib		
name	string	
htmlName	string	
sqlName	string	
id	int	
isTypeBool	bool	
isTypeString	bool	
isTypeInt	bool	
isScopeField	bool	
isScopeTable	bool	
isScopeIndex	bool	
isScopeUIIndex	bool	
isScopeCustom	bool	
descr	string	
htmlDescr	string	
useInDataDict	bool	
useInSummary	bool	

2.2 Er Views objects

ErView (extends *AbstractNode*)

<i>ErEntity</i> (extends <i>AbstractNode</i>)		
tables	Table collection	
x	int	
y	int	
width	int	
height	int	

2.3 Datatypes objects

<i>AbstractType</i> (extends <i>AbstractNode</i>)		
domain	string	
htmlDomain	string	

<i>DataTypes</i> (extends <i>AbstractType</i>)		
constFolder	ConstFolder collection	
varFolder	VarFolder collection	

ConstFolder (extends *AbstractType*)

VarFolder (extends *AbstractType*)

<i>ConstDataType</i> (extends <i>AbstractType</i>)		
ddEquiv	string	

<i>ConstAlias</i> (extends <i>AbstractType</i>)		
ddEquiv	string	

VarDataType (extends *AbstractType*)

<i>VarAlias</i> (extends <i>AbstractType</i>)		
size	string	
ddEquiv	string	

2.4 Generic objects

When the velocity engine is started, some usefull objects are added for comodity. These are:

<i>Sys</i>		
date	string	current date (like <i>day</i> + <i>time</i>)
day	string	current day (like "2003-07-12")
time	string	current time (like "12:24:33")

<i>Html</i>		
spaces	string	takes an int and generates several <i>&nbsp;</i> ;
encode	string	encode a string into html, converting <,>,&,'",à,è...
makeGood	string	used for tables. An empty string is converted into a <i>&nbsp;</i> ;

<i>Util</i>		
addClass(context, class)	-	loads a java class and adds it to velocity with name context

<i>JUtil</i>		
attribute(string)	string	first char of string to lowercase
method(string)	string	first char of string to uppercase
getter(string)	string	returns <i>get</i> +method(string)
setter(string)	string	return <i>set</i> +method(string)