

DZ_SDOTXT

- Build ID: 8
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Utilities for the conversion and inspection of Oracle Spatial objects as text.

Generally there are few reasons for you to want to manifest Oracle Spatial objects as SQL text. So you should only be using this code if you need to generate an example for an OTN posting or Oracle SR, or if you are exchanging a very modest amount of data with a colleague who has limited access to Oracle. Overwhelmingly the proper way to exchange Oracle data is via datapump.

See the DZ_TESTDATA project as an example of what this module can do.

Summary

DZ_SDOTXT

FUNCTIONS

<code>dz_sdotxt_main.sdo2sql</code>	Utility to convert an Oracle Spatial object into text format.
<code>dz_sdotxt_main.sdo2sql_nvl</code>	Utility to convert an Oracle Spatial object into text format with an NVL option to return a given output when input is NULL.
<code>dz_sdotxt_main.blob2sql</code>	Utility to convert a blob into textual hex usable as a right side assignment in SQL or PLSQL.
<code>dz_sdotxt_main.blob2plsql</code>	Utility to convert a blob into textual hex usable as a series of DBMS_LOB statements which can be then be combined and used as a bind variable in PLSQL dynamic SQL statements.
<code>dz_sdotxt_main.dump_string_endpoints</code>	Utility to convert to text the ordinates of the endpoints of a given linestring.
<code>dz_sdotxt_main.dump_string_endpoints</code>	Utility to convert to text the ordinates of the endpoints of two linestrings.
<code>dz_sdotxt_main.dump_sdo_subelements</code>	Utility to convert to text the component objects of a geometry collection.
<code>dz_sdotxt_main.dump_single_point_ordinate</code>	Utility to extract a given ordinate from within a MDSYS.SDO_GEOMETRY.
<code>dz_sdotxt_main.dump_mbr</code>	Utility to convert to text the MBR surrounding a given geometry object.
<code>dz_sdotxt_main.label_ordinates</code>	Utility to converts all vertices in a geometry into a pipelined flow of points labelled by vertice number.
<code>dz_sdotxt_main.label_measures</code>	Utility to converts all vertices in a geometry into a pipelined flow of points labelled by LRS measure value.
<code>dz_sdotxt_main.break_2499</code>	Utility to take a very long sdo text representation and add linefeeds to meet the sqlplus 2499 character length restrictions.

FUNCTIONS

`dz_sdotxt_main.sdo2sql`

Utility to convert an Oracle Spatial object into text format.

Parameters

<code>p_input</code>	object to convert to text format
<code>p_2d_flag</code>	optional TRUE/FALSE flag to remove any third or fourth dimensions on geometries before text conversion.
<code>p_output_srid</code>	optional srid to transform geometries to before text conversion.
<code>p_pretty_print</code>	optional pretty print indent value

Returns

CLOB text value representing an Oracle Spatial object.

Notes

- Input objects may include MDSYS.SDO_GEOMETRY, MDSYS.SDO_GEOMETRY_ARRAY, MDSYS.SDO_POINT_TYPE, MDSYS.SDO_ELEM_INFO_ARRAY, MDSYS.SDO_ORDINATE_ARRAY, MDSYS.SDO_GEORASTER, MDSYS.SDO_RASTER and MDSYS.SDO_DIM_ARRAY.
- Note that Oracle is not PostgreSQL or other database systems where large objects can be comfortably dumped to text. Attempting to dump a 300,000 vertice geometry is going to fail, attempting to dump a 70 gig raster rdt table is going to fail, attempting to feed more than a few meg of generated text data back through sqlplus is also going to fail. These utilities are provided for very modest purposes primarily to inspect the details of small example spatial objects or package up one or two smaller sized objects for transport via text to a collaborator. In all situations the use of Oracle datapump to import and export spatial data is the way to go.

dz_sdotxt_main.sdo2sql_nvl

Utility to convert an Oracle Spatial object into text format with an NVL option to return a given output when input is NULL.

Parameters

p_input	MDSYS.SDO_GEOMETRY to convert to text format.
p_is_null	value to return if input object is NULL.
p_2d_flag	optional TRUE/FALSE flag to remove any third or fourth dimensions on geometry before text conversion.
p_output_srid	optional srid to transform geometry to before text conversion.
p_pretty_print	optional pretty print indent value

Returns

CLOB text value representing an Oracle Spatial object.

dz_sdotxt_main.blob2sql

Utility to convert a blob into textual hex usable as a right side assignment in SQL or PLSQL. In order to use the results in SQL this is greatly limited to 4000 characters and in PLSQL to 32676 characters which when dumping a BLOB is pretty limiting. Use blob2plsql for a more scaleable work-around.

Parameters

p_input	BLOB to convert to sql text.
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Returns

CLOB result.

dz_sdotxt_main.blob2plsql

Utility to convert a blob into textual hex usable as a series of DBMS_LOB statements which can be then be combined and used as a bind variable in PLSQL dynamic SQL statements.

Parameters

p_input	BLOB to convert to sql text.
p_lob_name	the lob variable name in the statements, default is dz_lob. Use different names if you are dumping multiple blobs.
p_delim_value	the delimiter to place at the end of each statement, the default is a line feed to make sqlplus happy. Set to NULL if you want no linefeeds.

Returns

CLOB result.

dz_sdotxt_main.dump_string_endpoints

Utility to convert to text the ordinates of the endpoints of a given linestring.

Parameters

p_input MDSYS.SDO_GEOMETRY to convert endpoints to ordinates as text.

Returns

VARCHAR2 text value showing the ordinates of the endpoints of a linestring.

dz_sdotxt_main.dump_string_endpoints

Utility to convert to text the ordinates of the endpoints of two linestrings.

Parameters

p_input_1 MDSYS.SDO_GEOMETRY convert endpoints to ordinates as text.

p_input_2 MDSYS.SDO_GEOMETRY convert endpoints to ordinates as text.

Returns

VARCHAR2 text value showing the ordinates of the endpoints of two linestrings.

dz_sdotxt_main.dump_sdo_subelements

Utility to convert to text the component objects of a geometry collection.

Parameters

p_input MDSYS.SDO_GEOMETRY collection to convert to text as individual objects.

Returns

CLOB text value of the individual components.

dz_sdotxt_main.dump_single_point_ordinate

Utility to extract a given ordinate from within a MDSYS.SDO_GEOMETRY.

Parameters

p_input MDSYS.SDO_GEOMETRY from which to extract a given ordinate.

p_vertice_type Either X, Y, Z or M.

p_vertice_position vertice position in the geometry, default is 1.

Returns

NUMBER value of the ordinate.

dz_sdotxt_main.dump_mbr

Utility to convert to text the MBR surrounding a given geometry object.

Parameters

p_input MDSYS.SDO_GEOMETRY to which derive the MBR to dump to text.

Returns

VARCHAR2 text value of the converted MBR.

dz_sdotxt_main.label_ordinates

Utility to converts all vertices in a geometry into a pipelined flow of points labelled by vertice number.

Parameters

p_input MDSYS.SDO_GEOMETRY to convert to labeled points.

Returns

PIPELINED table of dz_sdotxt_labeled objects.

dz_sdotxt_main.label_measures

Utility to converts all vertices in a geometry into a pipelined flow of points labelled by LRS measure value.

Parameters

p_input MDSYS.SDO_GEOMETRY to convert to labeled points.

Returns

PIPELINED table of dz_sdotxt_labeled objects.

dz_sdotxt_main.break_2499

Utility to take a very long sdo text representation and add linefeeds to meet the sqlplus 2499 character length restrictions.

Parameters

p_input	CLOB of sdo object representation.
p_delim_character	delimiter to add to input, default is linefeed chr(10).
p_break_character	character upon which to add a delimiter, default is comma.
p_break_point	character count near which to add delimiters, default is sqlplus 2499 limit.

Returns

CLOB with breaking characters added after commas.