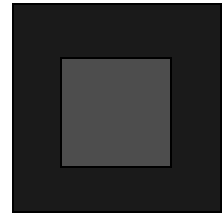


AVS/Express Spatial Data Interface Release 1.1 Release Notes



This document contains the release notes for Release 1.1 of the AVS/Express Spatial Data Interface (SDI), the initial release of this product. For the current release, the release notes include only the following:

- ◆ Known limitations of the Spatial Data Interface
- ◆ Known limitations of the Spatial Data Interface Documentation
- ◆ Known limitations of AVS/Express that may affect the Spatial Data Interface

Known Limitations of the Spatial Data Interface

This section lists and describes known limitations of SDI, Release 1.1. The descriptions include workarounds, if available, to help you use the SDI effectively. In this section, SDE and SDO refer to ESRI's Spatial Database Engine and the Oracle7 Spatial Data Option, respectively.

Note: This section does not document spatial engine and database limitations, though it may describe SDI problems that result from those limitations. For information on a spatial engine or database limitation, see the documentation for the spatial engine or database.

Cannot connect to the database after loading data

On occasion, loading data into a database with the ReadNetCDF module can prevent you from connecting to your database via SDI. In particular, this problem may occur with the Save DTED Demo data-loading application, with which you load data used in the example applications.

Workaround: Shut down and restart your SDI version of AVS/Express. You can then connect to the database.

Cannot use Line entity from Continuous sketch as part of spatial filter

When you run the Spatial Query Demo example application, trying to use a line to select an area as part of a spatial query returns an error. (Using a line to select an area involves selecting a line in the Continuous Sketch module, then dragging with the right mouse button in the Data Viewer to draw a line.) The following error is returned:

```
--- Error detected in: module: SDI_Load_Cell_Set ---  
Unsupported Express Cell Type Line  
-----  
--- Error detected in: module: SDI_Shape_XP ---  
Error loading cell set
```

Workaround: Use a polyline instead of a line to select an area as part of a spatial query.



Connection data loaded from environment is not saved as part of Connect object

In the Connect macro, if you insert connection parameter values by clicking on the Load Defaults button, selecting Object -> Save Objects does not save the values in a file. However, if you type the values into the user interface, selecting Object -> Save Objects *does* save the values.

Cannot select first hotel inserted into Route 66 Demo

In the Route 66 Demo example application, you cannot select the first hotel that you insert into the hotels table. This problem occurs regardless of whether you insert one hotel or multiple hotels in the table.

A corollary is that because you cannot select the first hotel inserted, you also cannot delete it. (You delete hotels by pressing the Delete button in the Edit Hotels module.) If you try to delete the first hotel, SDI returns the following error:

```
--- Error detected in: module: combine_mesh_data ---  
Invalid field: mesh dimensions and size of data do not match  
-----
```

This problem occurs regardless of the order in which you delete rows in this table. Also, deleting and rebuilding the hotels table does not solve the problem.

Doing more than one insert during the same session of Route 66 demo inserts the data from the previous insert twice

Doing multiple inserts during a single session of Route 66 incorrectly inserts data. For each successive insert, clicking the Save Hotels button in the Save Features module inserts both the data from the current insert and the data from the previous insert. For example:

1. Insert a hotel and click Save Hotels.
2. In SQL, enter the following to get the number of rows in the table:

```
select count(*) from hotels;
```
3. Modify some of the data you inserted in step 2.
4. Insert another hotel and click Save Hotels.
5. In SQL, enter the following to get the number of rows in the table:

```
select count(*) from hotels;
```

The count increases by two instead of by one.

6. Check the data values in the inserted rows. They show that the row inserted in step 2 was also inserted in step 5, along with the new row.

If you perform a third insert, Save Hotels inserts the two rows inserted in the second insert along with the new row.

Workaround: After you insert a hotel, clear the buffer by pressing the Clear Buffer button in the Continuous Sketch module.



SDI installation on supported Sun platforms handles some libraries incorrectly

SDI installation on Sun Solaris 2.5 platforms does not handle the `libsdi.a` and `libsdi.so` libraries correctly.

Workaround: If you are installing the SDI for use with the *SDE only*, insert the following Step 2.5 between Steps 2 and 3 in the section *Installing and Configuring the SDI for SDE Only* of the SDI Installation Guide:

2.5. In the directory `sdiproj/lib/s2`, modify the installed libraries `libsdi.a` and `libsdi.so` as follows:

- a. Create a backup copy of the library `libsdi.a` named `libsdi.a.bak`.
- b. Rename the library `libsdi.so` to `libsdi.so.bak`.
- c. Perform the following UNIX archive file member deletion:

```
ar -d libsdi.a sdo_driver.o
```

If you are installing the SDI for use with the *SDO only*, insert the following Step 2.5 between Steps 2 and 3 in the section *Installing and Configuring the SDI for SDO Only* of the SDI Installation Guide:

2.5. In the directory `sdiproj/lib/s2`, modify the installed libraries `libsdi.a` and `libsdi.so` as follows:

- a. Create a backup copy of the library `libsdi.a` named `libsdi.a.bak`.
- b. Rename the library `libsdi.so` to `libsdi.so.bak`.
- c. Perform the following UNIX archive file member deletion:

```
ar -d libsdi.a sde_driver.o
```

Known Limitations of the Spatial Data Interface Documentation

This section lists and describes known limitations of the SDI documentation.

The SDI manual does not describe how SDI handles fetched null column data

An SDI application performs fetch operations using the SDI fetch modules: `SDI_Fetch`, `SDI_Fetch_Field`, and `SDI_Fetch_Shape`. During a fetch operation on a database table, SDI may fetch null column data, which it flags in predefined ways that users can control. Specifically, users control the values returned by the fetch modules by supplying appropriate values in the null data fields. See the descriptions of these modules to determine the appropriate type of value for a particular field.



Known Limitations of AVS/Express R4.0

The current release of SDI requires AVS/Express, Release 4.0. This section lists and describes known limitations of AVS/Express R4.0 that may affect the operation of the Spatial Data Interface. The descriptions include workarounds, if available, to help you use the SDI effectively.

OpenGL does not support concave polygons in 2D view

Concave polygons do not display correctly when rendered in a 2D view using OpenGL. OpenGL does not render concave shapes in a 2D viewer. Instead, concave edges in the polygons in the mesh are rendered as straight lines.

For example, if you view any of the SDI example applications that display the states table in OpenGL, you will see distortions in the shape of some states. If you change to the software renderer in AVS/Express or use a 3D viewer, the states display correctly.

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