

Moving from ArcView to ArcGIS



A Tale of Preparation and
The **FIVE** Golden Icons

As told by John Linehan

A Story...

Many moons ago in the time of punch cards, there was a great darkness in the world and the users cried out...We have a map and we have data, who will join these for us?

In the land of oranges and avocado's, a voice was heard "I will!" and Jack told of a great Arc which rode on the binary flows of Unix and with this arc, the data was combined with the map. The light rose and all was well in the world.

Users were happy and time moved on into the age of desktops. Meanwhile a great emperor arose in the dark and misty north that decried onto the world..."You shall use Windows!" and the users cried out "But, How shall we see our maps that Jack built?"

Jack spoke out and said “I shall build a new Arc that will ride the wave of Windows and it shall be named...**ARCVIEW**” The Users rejoiced and all was well in the world once more...

Jack gave the users ArcView and said unto them that ArcView is controlled by five powerful icons... **VIEWS, TABLES, CHARTS, LAYOUTS and SCRIPTS.**

The users built vast and beautiful maps and were happy.

Time wore on... In the misty north, the great emperor sought more power and declared that “All programs that use Windows shall run like Windows!” and the users were dismayed.

The Users joined together in great conventions and created a “LIST” for Jack, of their needs to make maps that run like Windows and have many more wonderful tools.

Jack accepted the LIST and created a new more powerful Arc that ran like Windows with a vast treasure chest of wonderful tools to create maps never seen before. Jack gave the users **ArcGIS** and they were ecstatic.

As the users began working with the powerful
ArcGIS there arose a small voice from the
multitudes that asked:

“Where are the five Icons of Power for my old
maps still need them?”

A silence arose. Then... carried on the wind
from the west came the faint words...

"Ah, yes, Um, Well, Ah...let's think about this
and Prepare first."

Brain Cell Activity...

Apr's now called MXD's
View's are now Data Frames
Layouts... only one at a time
Charts...nope.
Tables...Well, maybe...nah!
Scripts...Forget about it!
Confusion...Yep!
OK...now to Start...

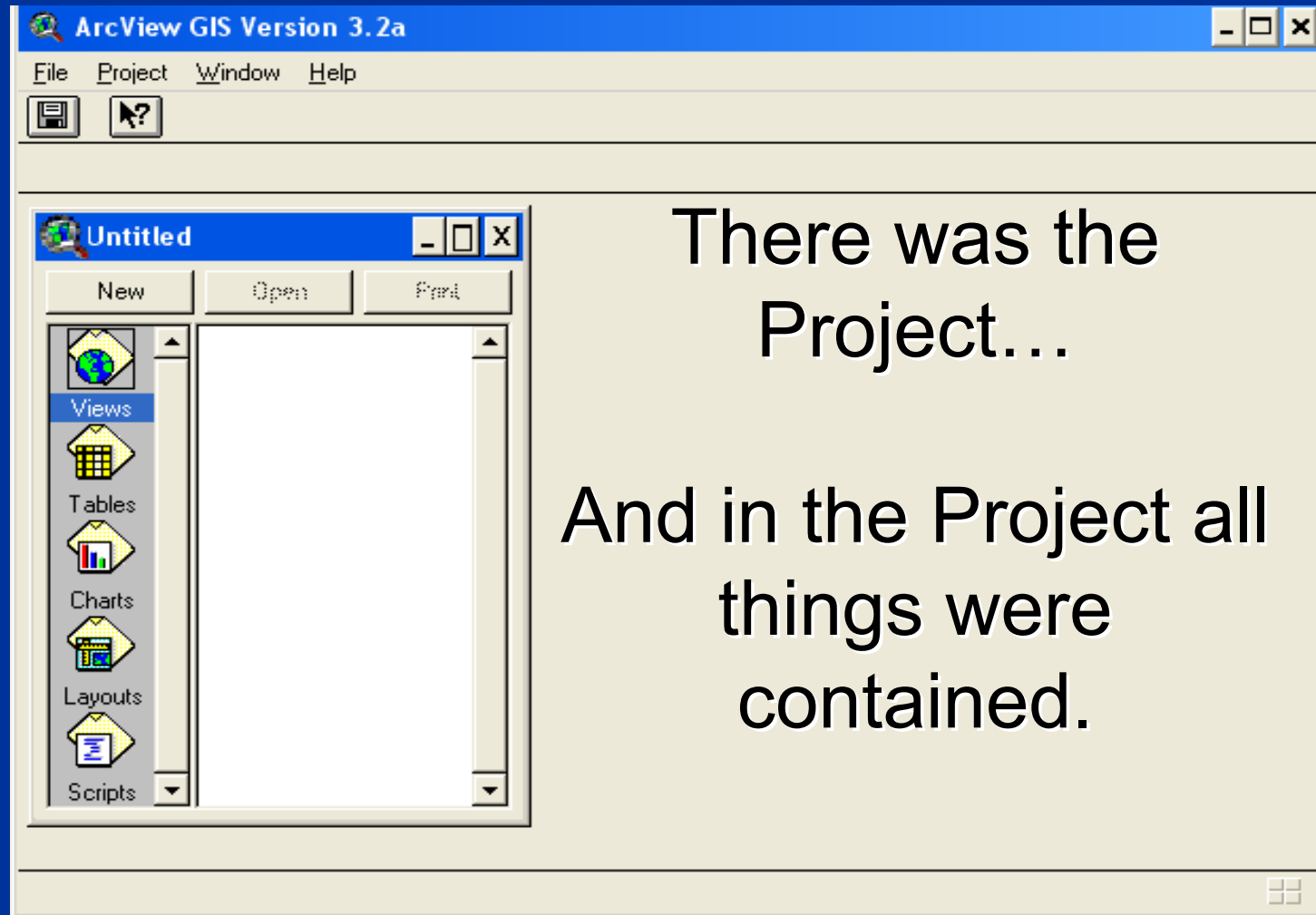


Migrating Methods

Migrating ArcView to ArcGIS entails a thorough examination of the existing project, including the data sources, presentation, and tools used.

Now...to begin the process...

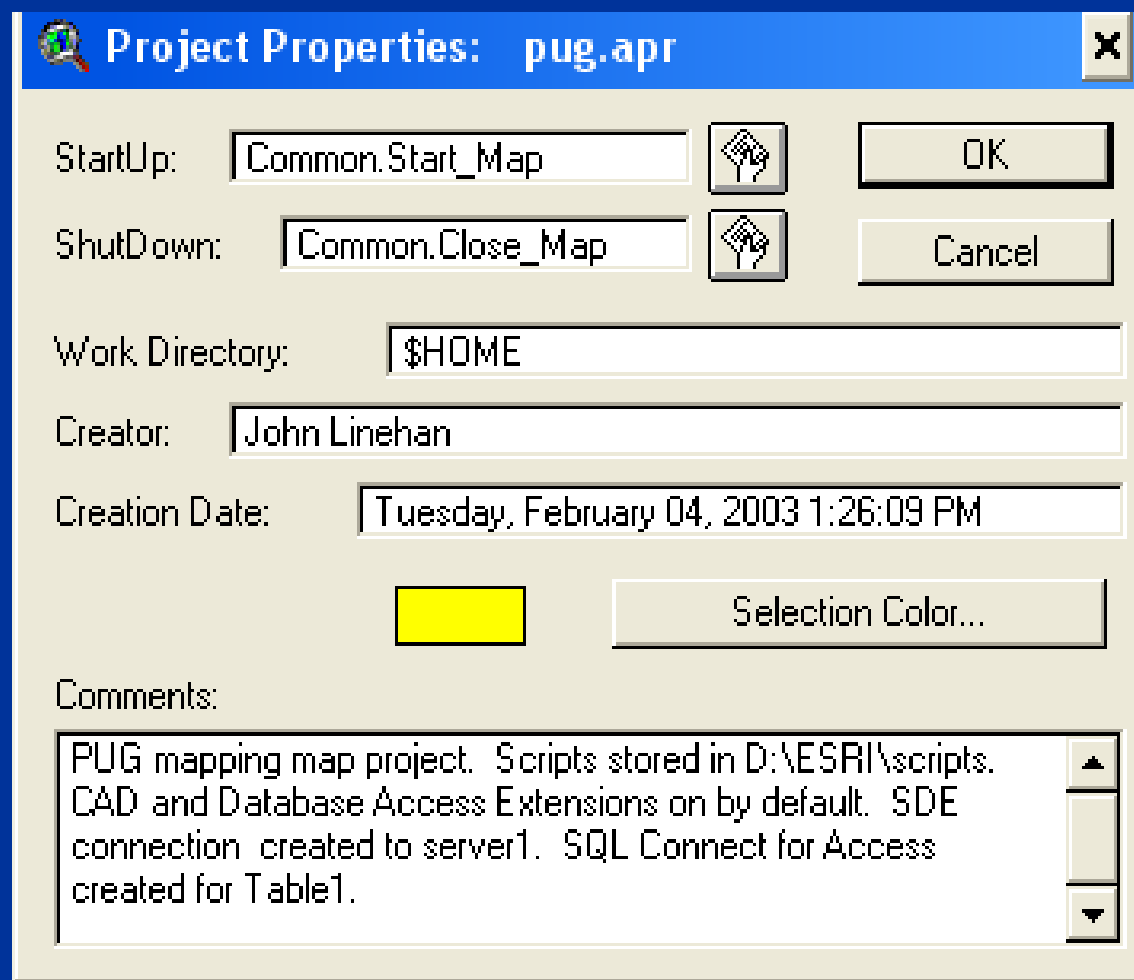
In the Beginning...



There was the
Project...

And in the Project all
things were
contained.

Project Properties



Project Properties: pug.apr

StartUp: Common.Start_Map

ShutDown: Common.Close_Map

Work Directory: \$HOME

Creator: John Linehan

Creation Date: Tuesday, February 04, 2003 1:26:09 PM

Selection Color...

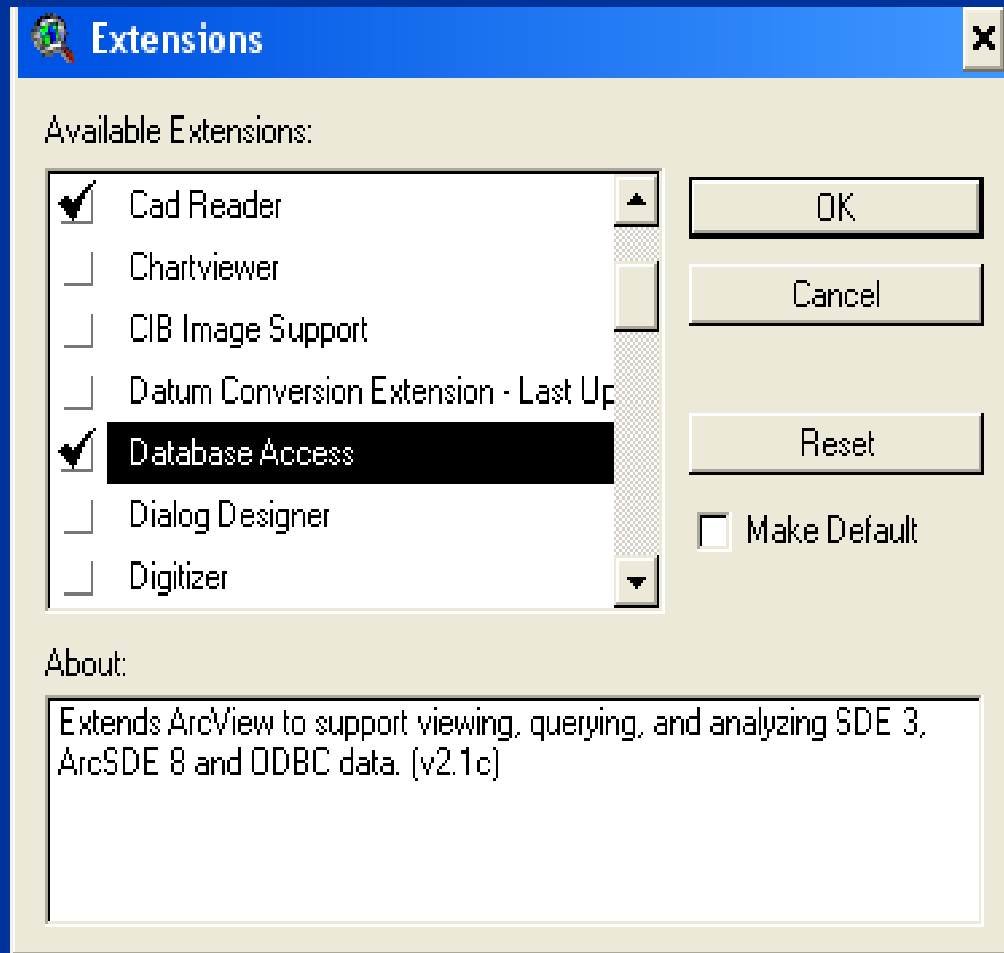
Comments:

PUG mapping map project. Scripts stored in D:\ESRI\scripts. CAD and Database Access Extensions on by default. SDE connection created to server1. SQL Connect for Access created for Table1.

Look for startup and shutdown scripts and other information that may affect the basic properties of the project.

Locate the scripts and determine if they can be emulated in ArcGIS or have to be re-coded.

Check for EXTENSIONS



Which are active (black checkmarks) and which are Dependent (White Checkmarks).

Which are supplied by vendors, ESRI, or in-house coded.

And Now...

The Golden Icons of ArcView



Views



Tables



Charts



Layouts



Scripts

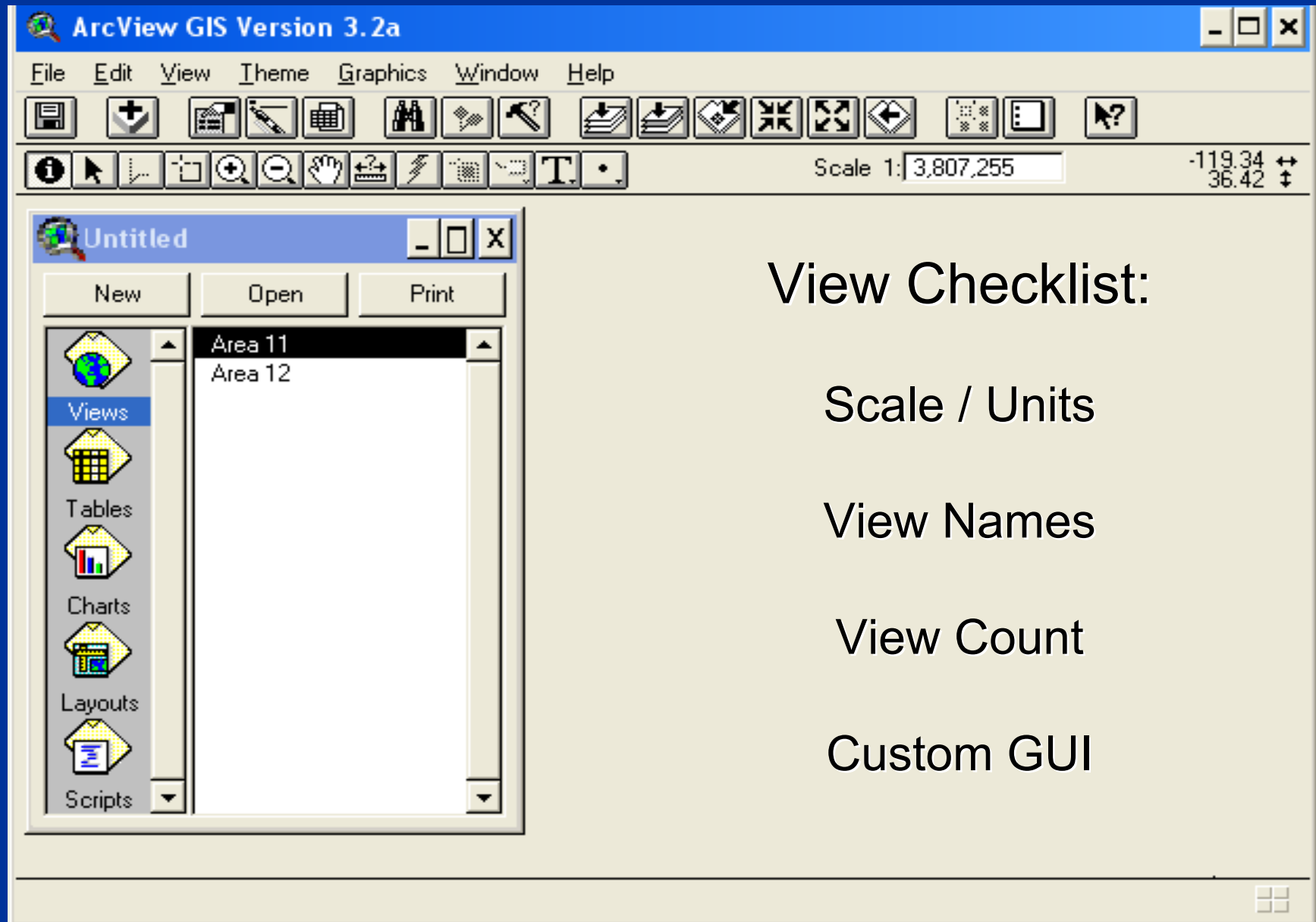
The VIEW Icon



Migrating VIEWS

Views are imported as data frames. Several views may be imported to a single ArcMAP project.

Projection information is preserved
AOI and Background colors are lost.



The screenshot shows a 'View Properties' dialog box with the following fields and controls:

- Name:** Zone 11
- Creation Date:** Monday, February 10, 2003 9:18:56 AM
- Creator:** John Linehan
- Map Units:** meters (dropdown menu)
- Distance Units:** meters (dropdown menu)
- Projection:** Transverse Mercator
- Buttons:** Projection..., Area Of Interest...
- Background Color:** (color selection icon) Select Color...
- Comments:** Zone 11 Area, generic display.
- Buttons:** OK, Cancel

View Properties

Name

Projection: Datum
Name
Custom?

Map Units

Distance Units

Migrated THEMES

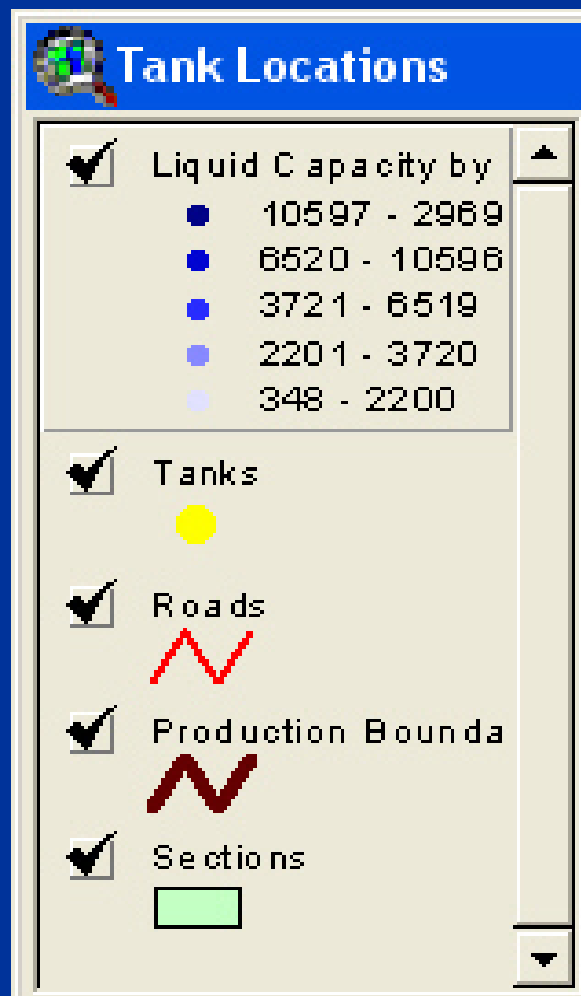
Themes become Layers.

Text Labels, Geocoding, Display scale, and Hotlinks are lost.

Extension Dependent Themes are not migrated.

Dynamic Segmented and XY themes are not migrated (yet).

Theme Properties



Check for:

Display Name

Symbology

Source

Order

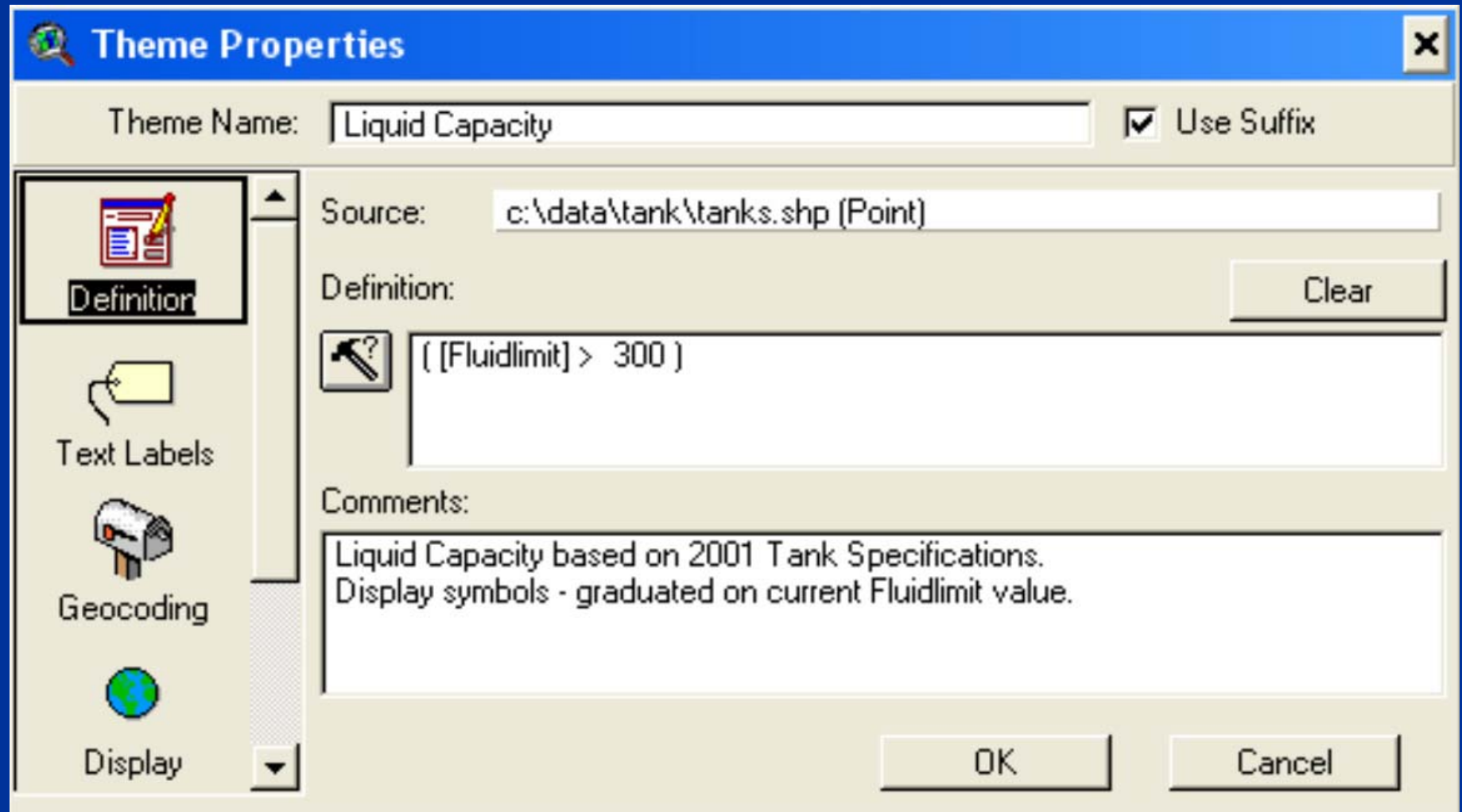
Display Scale



Geospatial
Integration
Services

Copyright 2003

Shapefile Theme


The image shows a 'Theme Properties' dialog box with a blue title bar. It contains fields for 'Theme Name' (Liquid Capacity), 'Source' (c:\data\tank\tanks.shp (Point)), and 'Definition' ([Fluidlimit] > 300). There is a 'Use Suffix' checkbox and a 'Clear' button. A left sidebar has icons for 'Definition', 'Text Labels', 'Geocoding', and 'Display'. A 'Comments' section at the bottom contains text about 2001 Tank Specifications.


Theme Properties


Theme Name: ☒ Use Suffix


Source:

Definition:

 Definition

 Text Labels

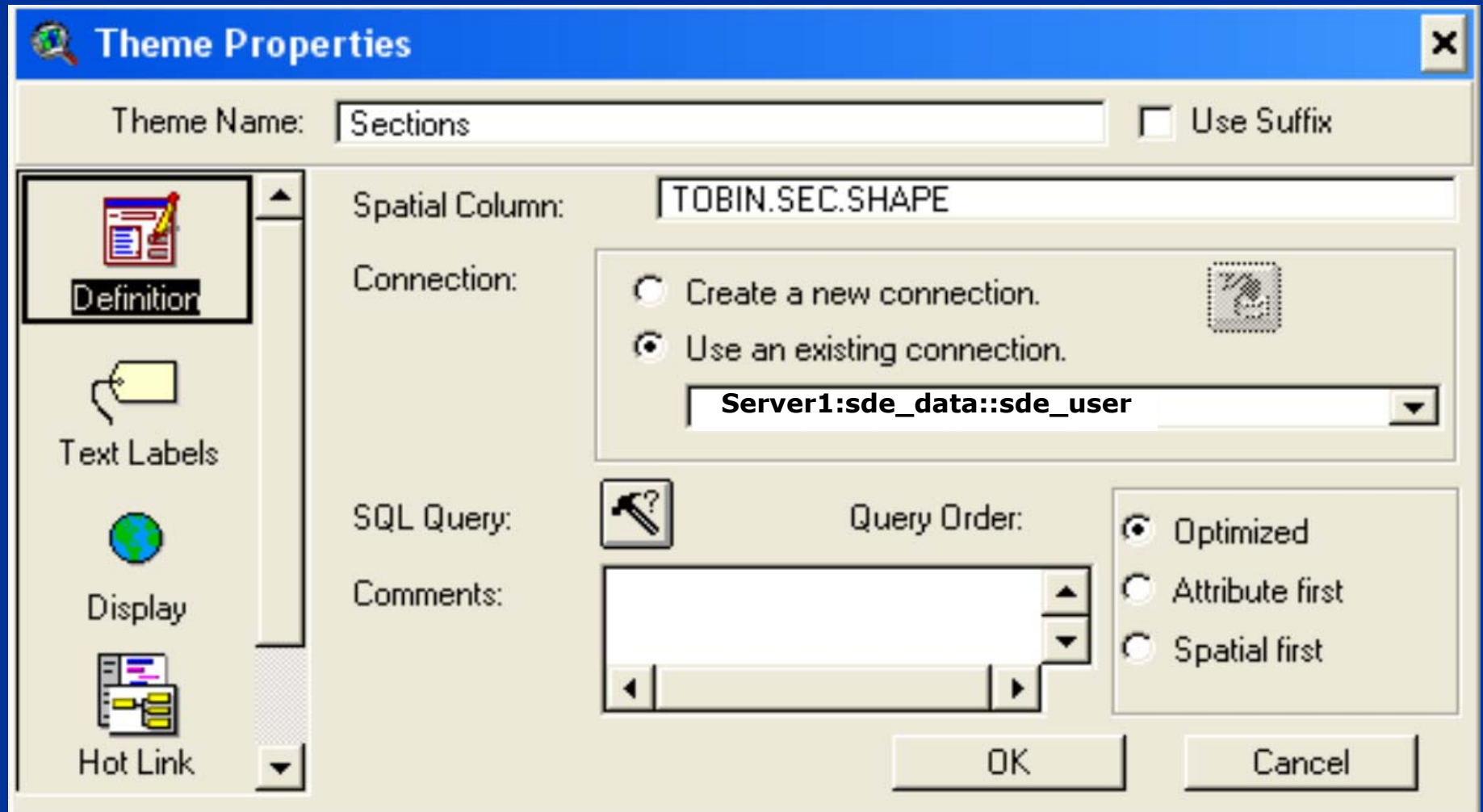
 Geocoding

 Display

Comments:

Liquid Capacity based on 2001 Tank Specifications.
Display symbols - graduated on current Fluidlimit value.

SDE Theme

The image shows a 'Theme Properties' dialog box with a blue title bar. On the left is a vertical sidebar with four icons: a document with a pencil (Definition), a tag (Text Labels), a globe (Display), and a document with a link (Hot Link). The 'Definition' icon is selected. The main area contains fields for 'Theme Name' (Sections), 'Spatial Column' (TOBIN.SEC.SHAPE), 'Connection' (Use an existing connection, Server1:sde_data::sde_user), 'SQL Query' (with a help icon), 'Comments' (with a text area), 'Query Order' (Optimized), and 'Use Suffix' (unchecked). 'OK' and 'Cancel' buttons are at the bottom right.

Theme Properties


Theme Name: ☐ Use Suffix

Definition

Spatial Column:

Connection:

- ☐ Create a new connection.
- ☒ Use an existing connection.

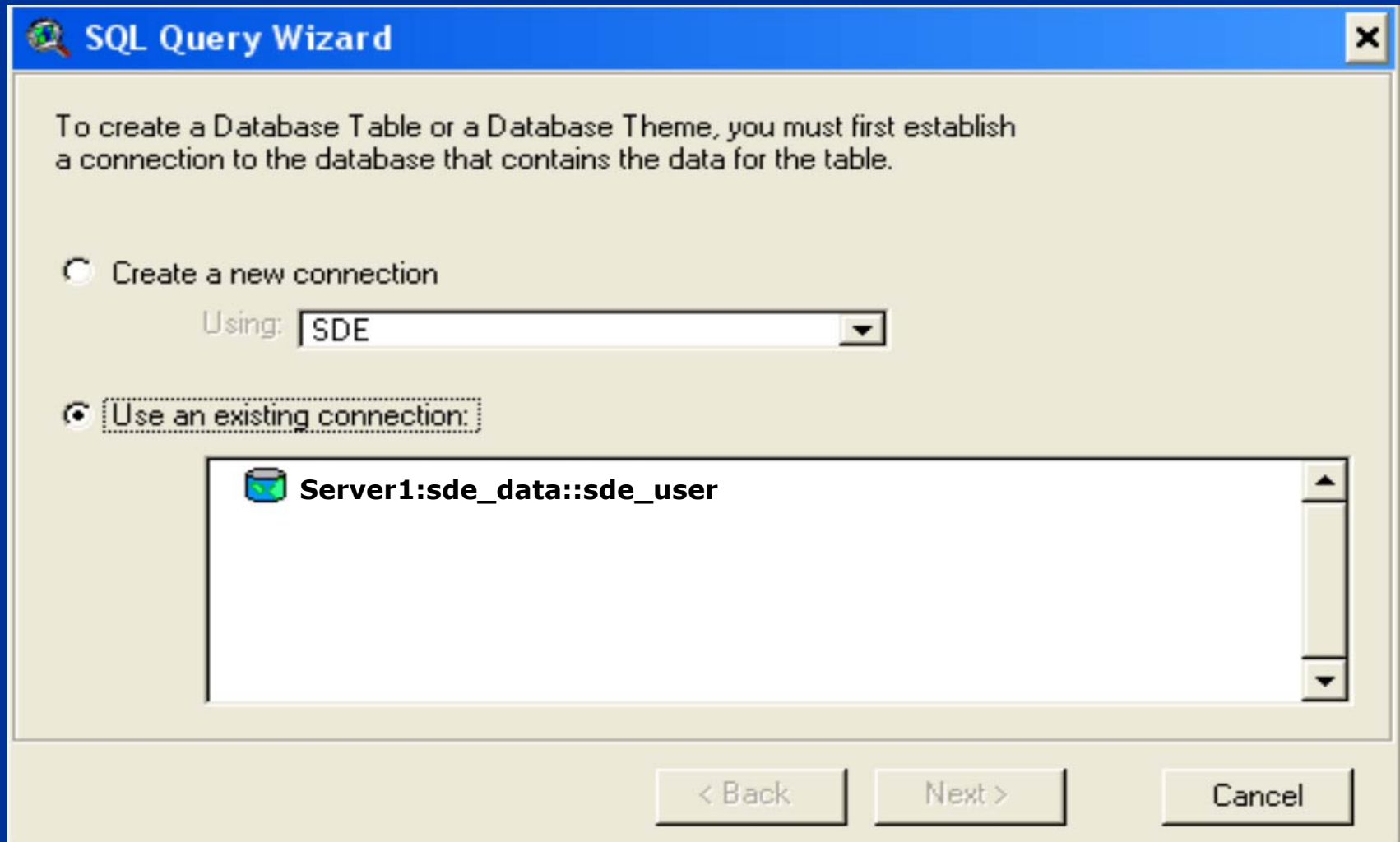
SQL Query: 

Comments:

Query Order:

- ☒ Optimized
- ☐ Attribute first
- ☐ Spatial first

SDE Connections




SQL Query Wizard

To create a Database Table or a Database Theme, you must first establish a connection to the database that contains the data for the table.

☐ Create a new connection

Using:

☒ Use an existing connection:

 **Server1:sde_data::sde_user**

< Back Next > Cancel

XY Themes

Theme Properties

Theme Name: ☐ Use Suffix

Definition

Source:

Definition:

Comments:

Display Scales

Theme Properties

Theme Name: ☐ Use Suffix

Editing

Display

Hot Link

Locking

Minimum Scale: 1:

Maximum Scale: 1:

OK Cancel

Label Properties

Theme Properties

Theme Name: ☒ Use Suffix

Definition

Text Labels

Geocoding

Display

Label Field:

Position of text relative to label point:

Text Text Text

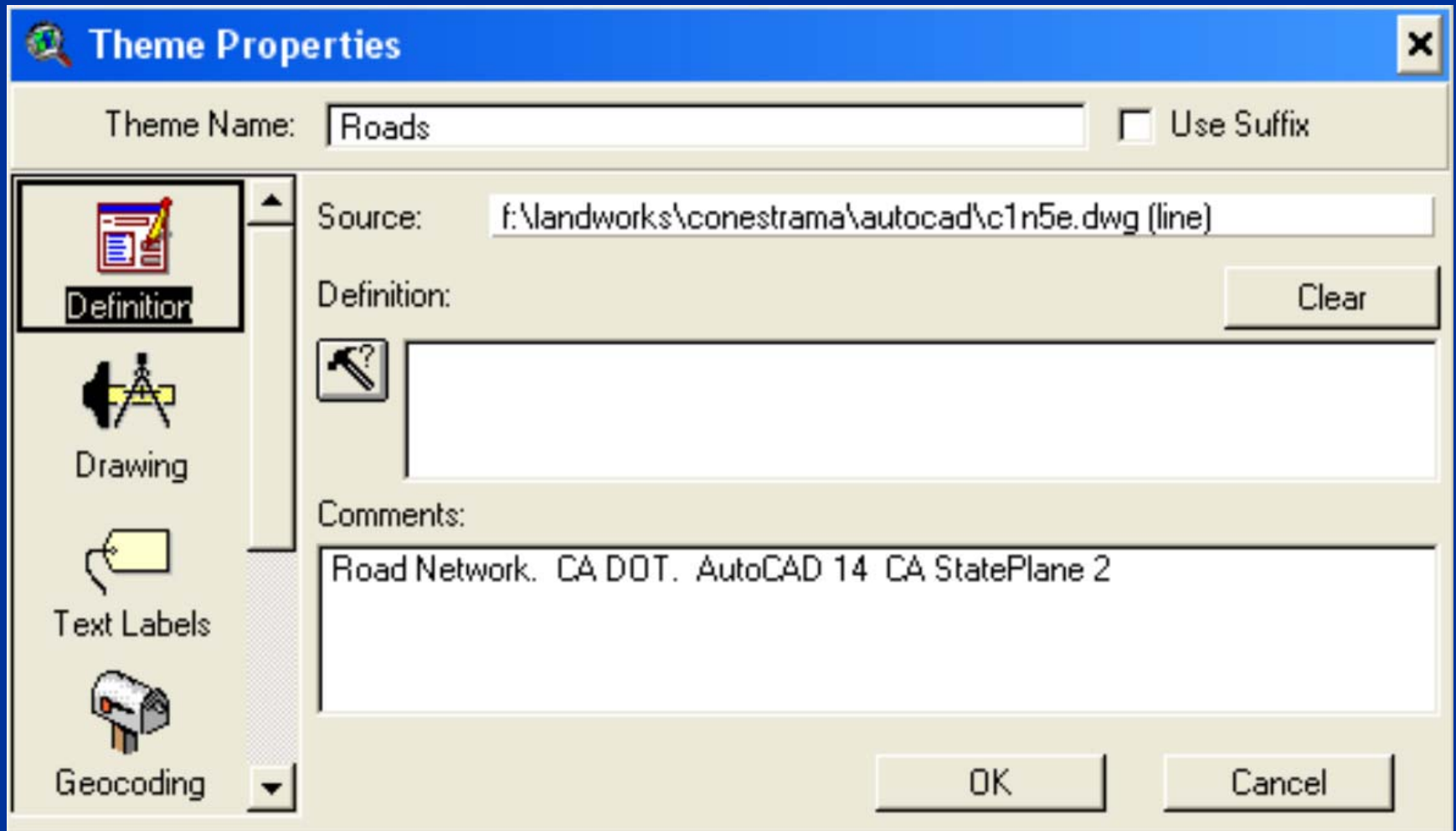
Text **Text** Text

Text Text Text

☒ Scale Labels

OK Cancel

CAD Themes


The image shows a 'Theme Properties' dialog box with a blue title bar and a close button. It contains several input fields and a sidebar with icons for different theme components.

Theme Properties

Theme Name: ☐ Use Suffix





Source:

Definition:



Comments:

Sidebar:

-  **Definition**
-  Drawing
-  Text Labels
-  Geocoding



CAD Layer Properties

Theme Properties

Theme Name: ☐ Use Suffix

Layers:

- canals
- class3
- class4
- experations_aug_03
- experations_feb_03
- experations_jan_03
- experations_jul_03
- experations_mar_03
- h_full

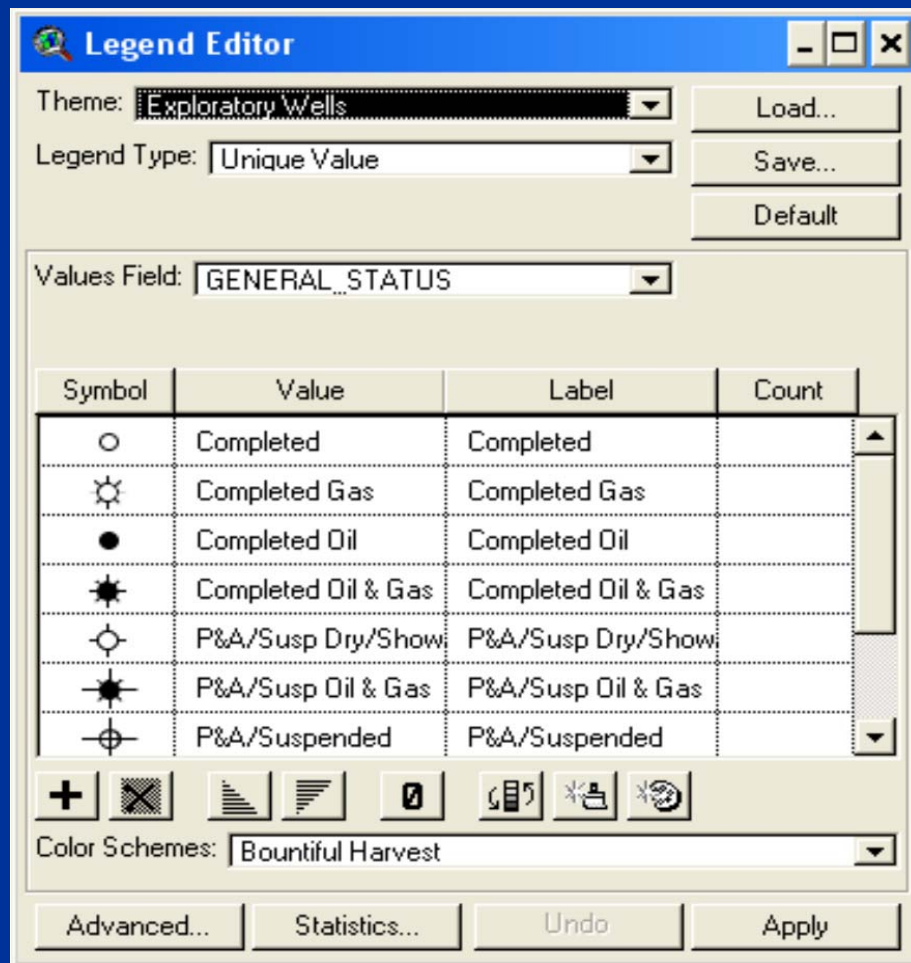
Transformation

☐ World File:

☒ None

☒ Enable Blocks

Theme Symbolology

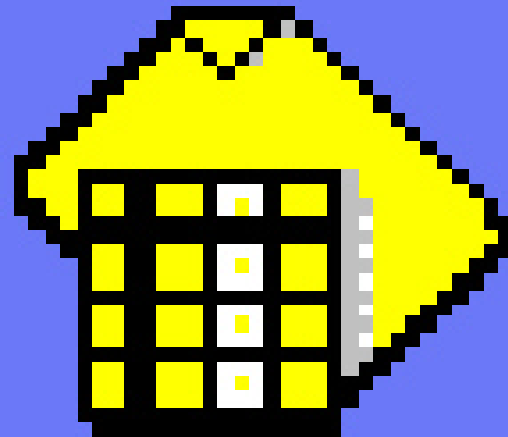


Locate AVL file
If exists

If not, create
Theme legend
AVL
file of
specialized
symbols
and colors



The TABLES Icon



Tables

Migrating TABLES

Tables do not migrate well.

They need to be “re-created” in the new project.

Table Documents and Reports do not migrate.

Joins and Links need to be
re-established.

ODBC connections are lost.

However...

Migrating TABLES

DBF, TXT, and Attribute tables do carry over.
Only the Links and Joins are lost.

XY and Event Tables carry over. The themes created from these tables are lost.

Crystal Reports will need to be re-built.

ODBC connections can be rebuilt for Access and Excel etc.

Field 'Nick-names' are lost.

Migrating Tables



Look at the Table list
In the project And determine Which
are
“Non-theme” Tables.

(Stand-alone, Summary,
ODBC, etc.)

Analyze these for connections, joins
or links, and other
Qualities.

Hint: ODBC Tables do not allow Editing.

ArcView GIS Version 3.2a

File Edit **Table** Field Window Help

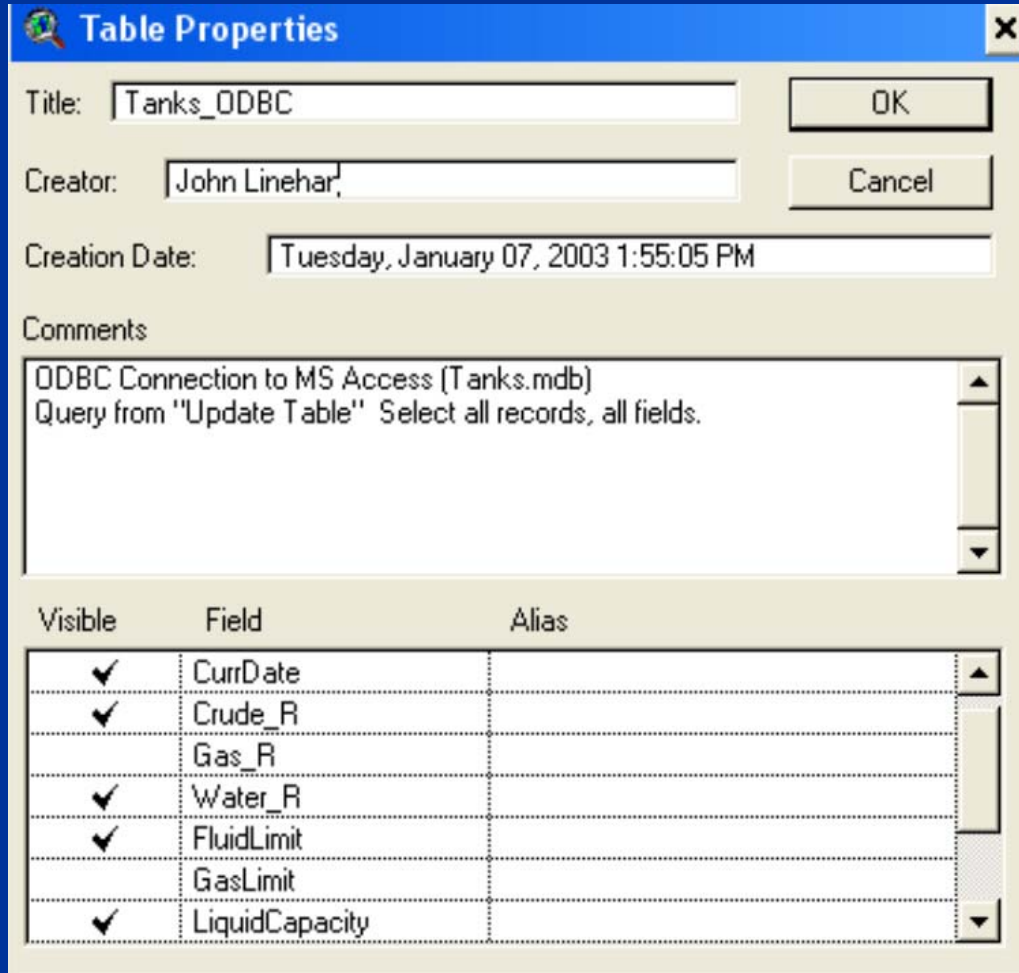
Properties...
Chart...
Start Editing
Save Edits
Save Edits As...
Find... Ctrl+F
Query... Ctrl+Q
Promote
Join Ctrl+J
Remove All Joins
Link
Remove All Links
Refresh

New
Views
Tables
Charts
Layouts
Scripts

Tanks_ODBC

Tank_ID	CumDate	Crude_R	Gas_R
1-12GSOZ	2003-02-10 00:00:00	511	
1-18SOZ	2003-02-10 00:00:00	101	
1-1GSOZ	2003-02-10 00:00:00	387	
1-24ZSTV	2003-02-10 00:00:00	311	56
1-25RSTV	2003-02-10 00:00:00	570	84
1-26RSTV	2003-02-10 00:00:00	333	106
1-31SSTV	2003-02-10 00:00:00	49	68
1-33RSTV	2003-02-10 00:00:00	240	49
1-33SSOZ	2003-02-10 00:00:00	1196	1
1-34RSTV	2003-02-10 00:00:00	356	38
1-34SSOZ	2003-02-10 00:00:00	176	
2-27RSTV	2003-02-10 00:00:00	772.0000	
2-29RSTV	2003-02-10 00:00:00	980.0000	
2-29SSOZ	2003-02-10 00:00:00	2307.0000	
2-2GSOZ	2003-02-10 00:00:00	5110.0000	
2-30RSTV	2003-02-10 00:00:00	3194.0000	
2-30SSOZ	2003-02-10 00:00:00	2510.0000	

Migrating TABLES

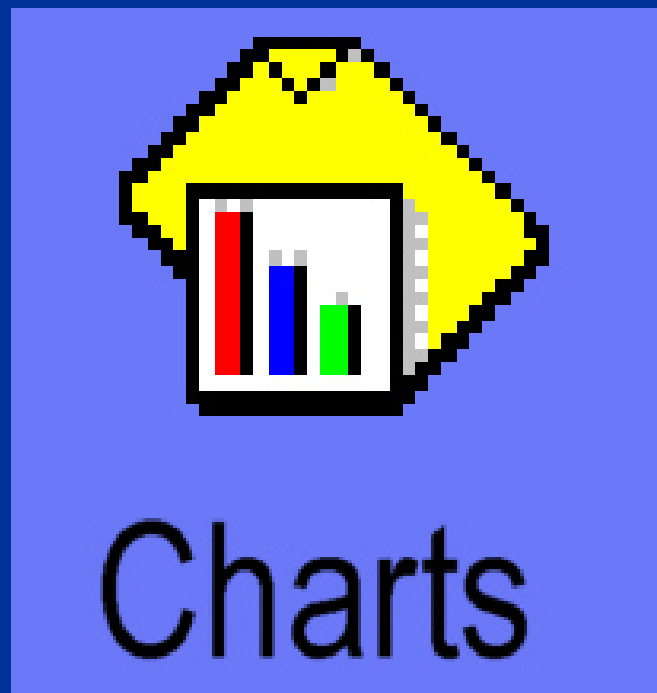


Visible	Field	Alias
✓	CurrDate	
✓	Crude_R	
	Gas_R	
✓	Water_R	
✓	FluidLimit	
	GasLimit	
✓	LiquidCapacity	

Look for Alias
names
And for
Fields that
Are not
Visible.

Non-visible
Fields may
Not export
As with CAD
Tables.

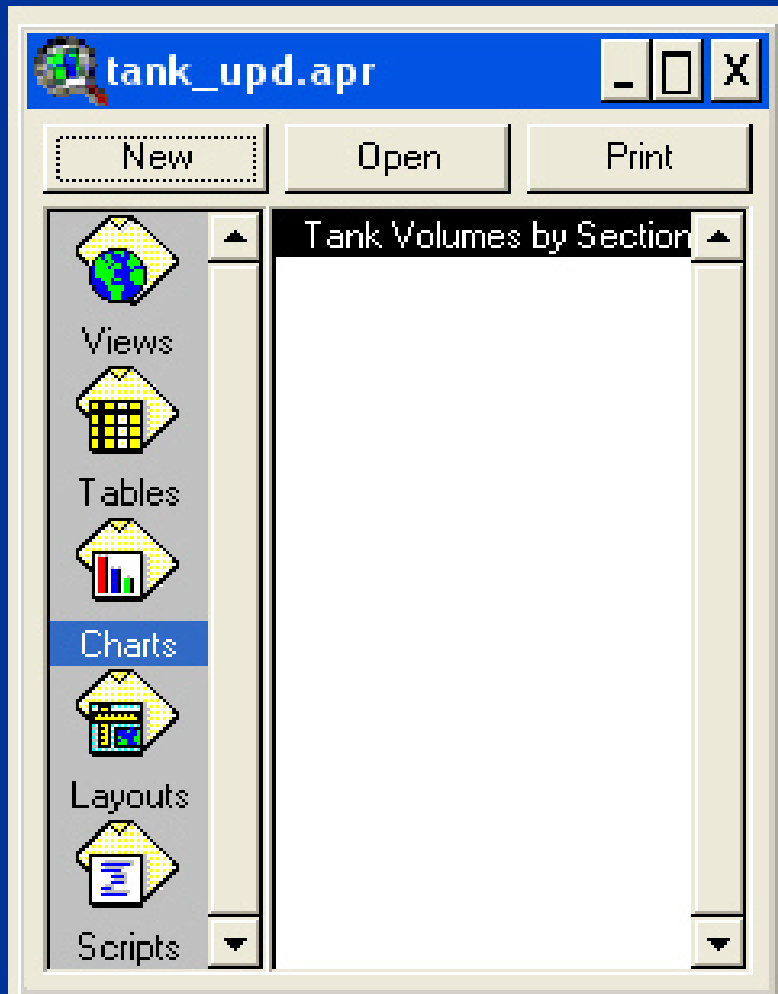
The CHARTS Icon



Migrating CHARTS

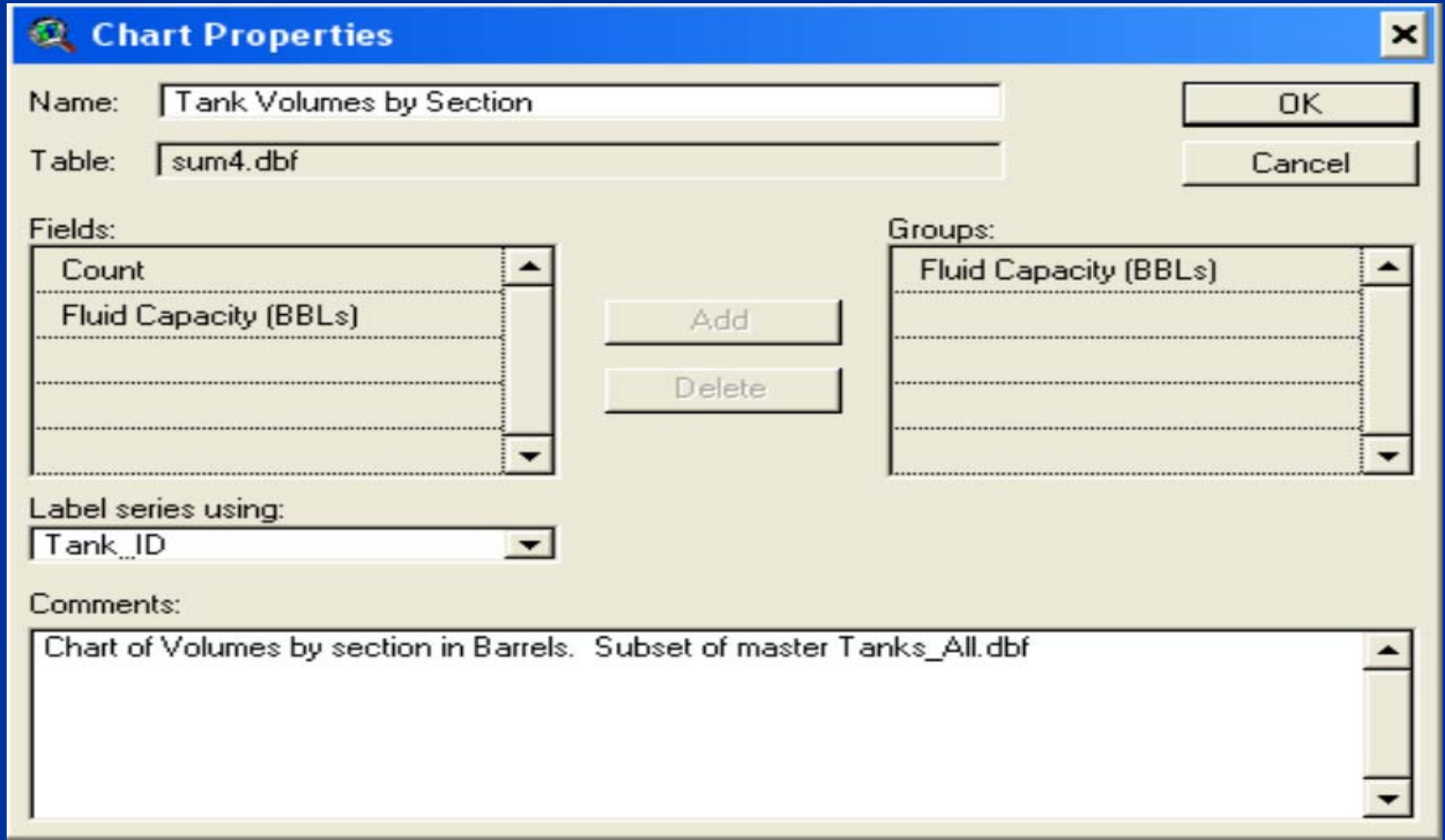
Not much to do here...nothing Migrates. All has to be rebuilt.

Migrating CHARTS



Study the
existing charts
in the project
and determine
the values used
for each axis
And their
source table.

Migrating CHARTS



The image shows a 'Chart Properties' dialog box with a blue title bar and a close button (X) in the top right corner. The dialog is divided into several sections. At the top, there are two text input fields: 'Name:' containing 'Tank Volumes by Section' and 'Table:' containing 'sum4.dbf'. To the right of these fields are two buttons: 'OK' and 'Cancel'. Below the 'Name:' field is a 'Fields:' section with a list box containing 'Count' and 'Fluid Capacity (BBLs)'. To the right of this list box are two buttons: 'Add' and 'Delete'. To the right of the 'Add' and 'Delete' buttons is a 'Groups:' section with a list box containing 'Fluid Capacity (BBLs)'. Below the 'Fields:' and 'Groups:' sections is a 'Label series using:' section with a dropdown menu showing 'Tank_ID'. At the bottom is a 'Comments:' section with a text area containing the text 'Chart of Volumes by section in Barrels. Subset of master Tanks_All.dbf'.

Chart Properties

Name: Tank Volumes by Section

Table: sum4.dbf

Fields:

- Count
- Fluid Capacity (BBLs)

Groups:

- Fluid Capacity (BBLs)

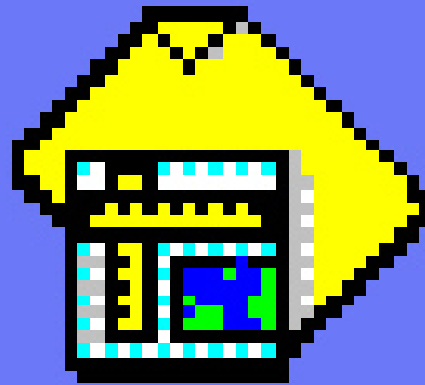
Label series using:

Tank_ID

Comments:

Chart of Volumes by section in Barrels. Subset of master Tanks_All.dbf

The LAYOUTS Icon



Layouts

Migrating LAYOUTS

Only one Layout per project may be migrated.

If you have several layouts, consider creating several new ArcGIS project files.

When migrating a layout, the associated Views in that layout are automatically selected.

Migrating LAYOUTS

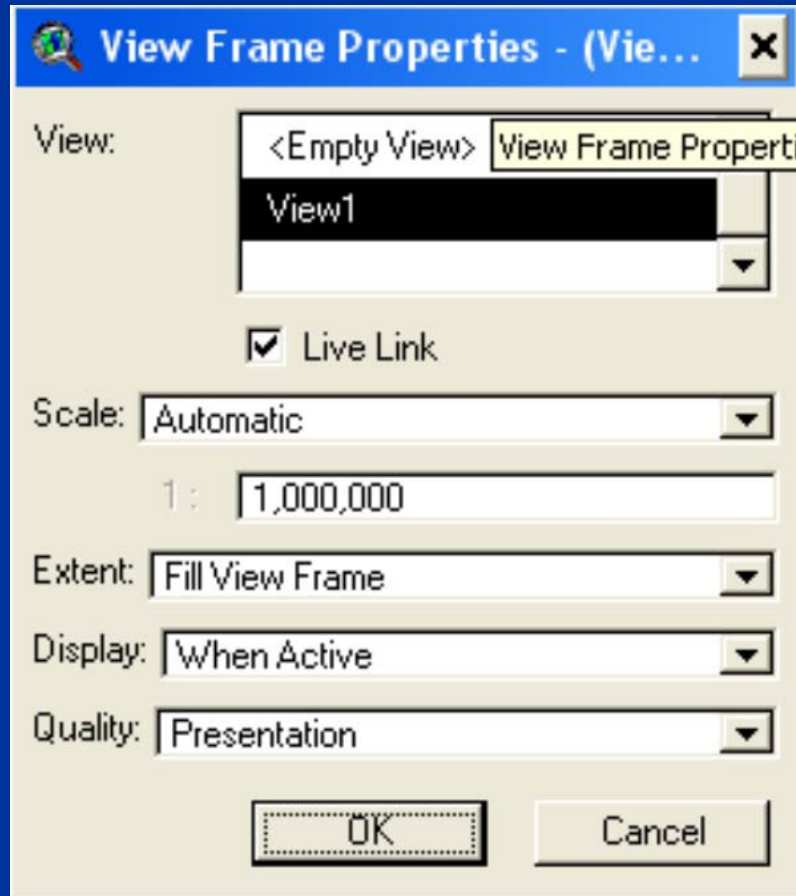
Layout Legends will migrate as Graphic Elements.

North Arrows and Scale Bars will migrate, but will change in appearance.

Inset Maps will migrate as new Data Frames.

Grids, Tables, Charts in a layout will not migrate.

Migrating LAYOUTS



Which View is linked?

Scale:
Automatic will
make new map
scale same as View

Preserve View
will make new map
equal fixed view scale

Migrating LAYOUTS

Images – migrate with World file parameters. Colors may be adjusted.

Graphics – artwork will migrate. Some color shifting

Text – may have font changed and location

Migrating LAYOUTS

Scale Bar – will look different, may have different classes

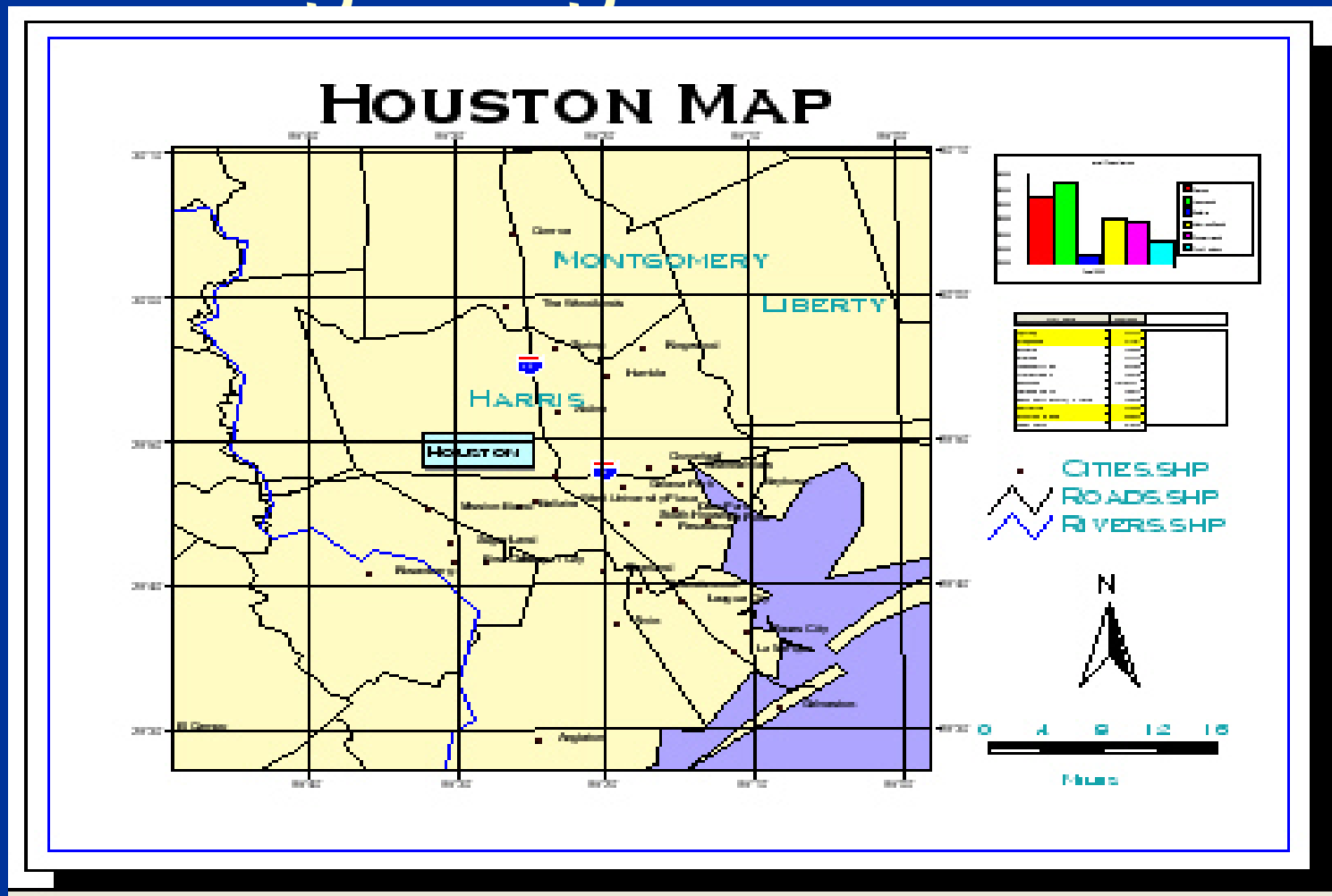
North Arrow – will be different symbol

Annotation – most likely will not migrate.
Should be re-created.

Migrating LAYOUTS

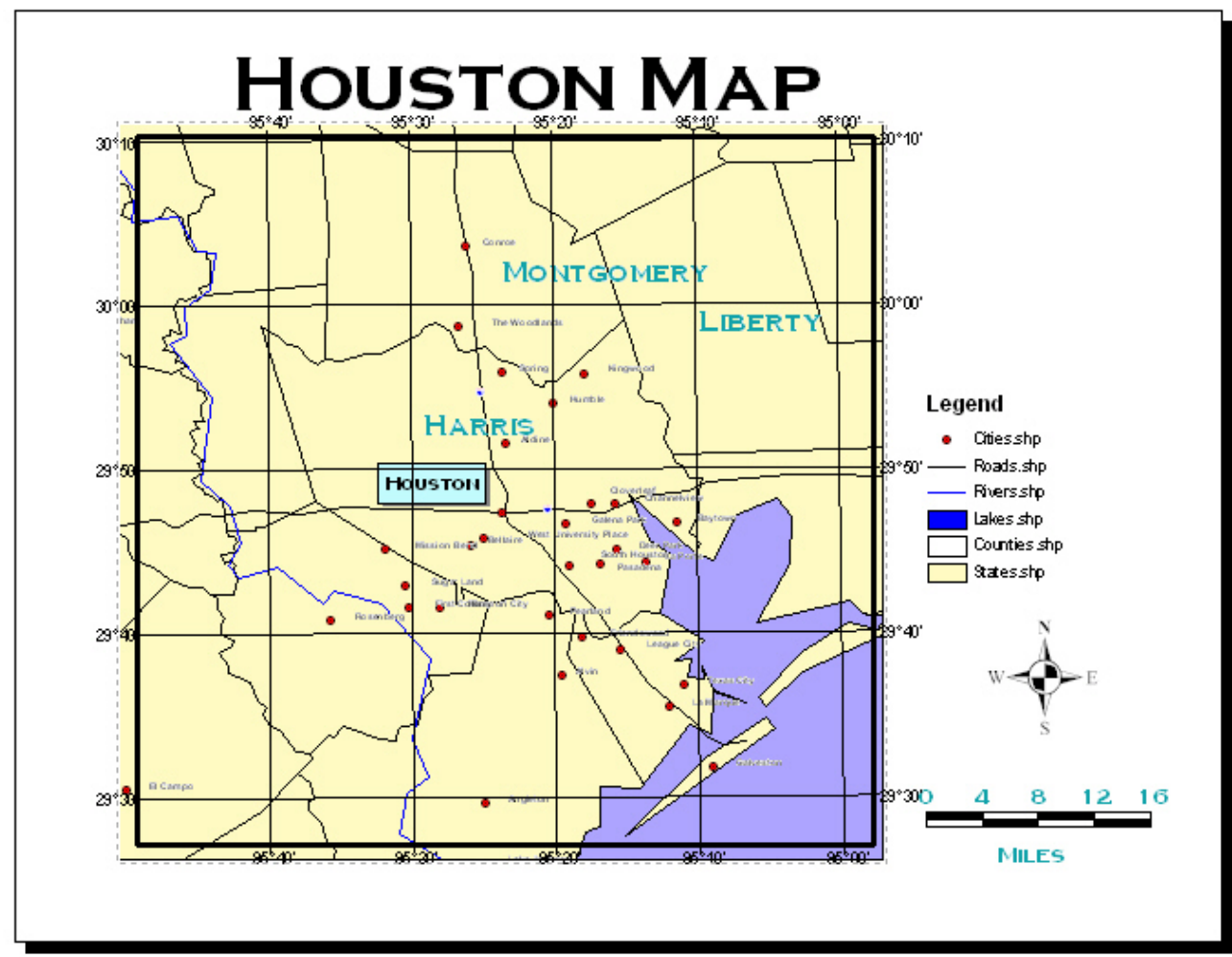
Marginalia – Grids, background colors, borders and additional marginal text may not migrate. Coordinate Grids will need to be re-built.

Migrating LAYOUTS



ArcView 3.2 Layout

Migrating LAYOUTS



Chart?

Table?

Legend?

Arrow?

Scale?

Grid?

ArcGIS 8.2 Layout



Geospatial
Integration
Services

Copyright 2003

The Scripts Icon



Migrating SCRIPTS

All scripts , macros, and extensions written in AVENUE will not migrate.

Users or support staff will have to recode all scripts from Avenue to be .COM or .NET compliant (VBA, Visual Studio, Delphi, etc) with ArcOBJECTS.

Migrating SCRIPTS

Many Avenue scripts were written to perform a specific task not in the core ArcView application.

ArcGIS has an extensive array of minor utilities and macros that may render many Avenue scripts obsolete.

Check before you code.

Et Finis

ArcGIS is a Powerful
Suite of GIS tools.
Migrating from the
old ArcView 3.2
platform will take
some time and preparation,
but the
results are well
Worth it.

