

Creating a New Project

To start a new project, follow the steps:

1. Select **New Project** from the **File** menu. A **Save** warning of a previous project may appear. If no project is active, ignore the message and press **No**.
2. A new Display Window appears with black background color.
3. Select **Save Project** from the **File** menu.
4. When the **Save Project As** dialog box appears, specify the name and location of the project.

Now you are ready to start the first step of building a 3D geological model, which is *Data Import* as explained in the next section.

Main Steps to Building a New Static Model

When starting a new project, **Petrel** organizes the input data in the **Input** pane. The following steps are required to build a 3D geological model of a petroleum reservoir:

1. Data Import
2. Input Data Editing
3. Well Correlation
4. Fault Modeling
5. Pillar Gridding
6. Vertical Layering
7. Geometrical Property Modeling
8. Upscaling in the Vertical Direction-Well Logs Upscaling
9. Facies Modeling
10. Petrophysical Modeling
11. Defining Fluid Contacts
12. Volume calculations

Data Import

The following table displays the different types of input data required for Petrel along with their formats and types.

Data	Format	Type
1. Well Data		
a. Well Headers	Well heads (*.*)	Well
b. Well Deviations	Well Path/deviation (ASCII) (*.*)	Well
c. Well Logs	Well Logs (LAS 3.0) (*.las)	Well
2. Well Tops	Petrel Well Tops (ASCII) (*.*)	Well Tops
3. 3D Seismic Data	General lines/points (ASCII) (*.*)	Lines
4. Fault Data		
a. Fault Polygons	Zmap+ lines (ASCII) (*.*)	Lines
b. Fault Sticks	Zmap+ lines (ASCII) (*.*)	Lines
5. Isochore Data	Zmap+ grid (ASCII) (*.*)	Surface

1. Well Data

Wells and well data (trajectory and associated logs) can be exported from Petrel in the following formats:

- Well heads, ASCII (well positions).
- Deviation file, ASCII (trace).
- LAS 3.0 file with well logs (logs).

Import Well Data

Petrel handles two types of well data: well tops (points) and well trajectories with or without logs. When importing well data in the supported well formats, Petrel automatically saves the data in appropriate folders and sub-folders in the panes in Petrel. The general workflow for importing well data into Petrel is:

1. Import of well heads.
2. Insert well path/deviation data.
3. Add logs to the wells.

Well data includes three categories of data as will be discussed next:

1. Well Headers (Well Location Map)

Petrel has a format for reading well head information (multiple well positions). This can be used to apply collar coordinates and KB values for all wells simultaneously before importing deviation data and well logs. This is a simple format and the user can define in which column the different data types will be located. The data includes Well Name, X-Cord, Y-Cord, Kelly Bushing (KB), Top Depth, Bottom Depth, and Symbol of each well as shown in Fig. 4.1.

```
# Petrel well head
VERSION 1
BEGIN HEADER
Name
UWI
Well symbol
Surface X
Surface Y
KB
TD (MD)
Cost
Spud date
Operator
TWT auto
Max zone
END HEADER
"A10" "" 3 456979.06 6782712.41 0 2247 -999 "NULL" "" -1452.01 -999
"A15" "" 3 456645.06 6781579.73 0 1988 -999 "NULL" "" -1704.90 -999
"B8" "" 3 457746.94 6787092.61 0 2206 -999 "NULL" "" -1782.88 -999
"A16" "" 3 456510.41 6784012.02 0 2053 -999 "NULL" "" -1710.53 -999
"B9" "" 3 456727.66 6785559.45 0 2990 -999 "NULL" "" -1653.38 -999
"C2" "" 15 454635.00 6787607.12 0 2284 -999 "NULL" "" -1825.00 -999
"C4" "" 15 454640.19 6786210.63 0 2298 -999 "NULL" "" -1728.14 -999
```

Fig. 4.1: The well headers data file open in a Notepad window

Well attribute description

- *** Well Symbol** - The type of well. This attribute is a label for the well symbol (discrete attribute).
- *** Surface X** - The X location (in project units) of the well at the well head (continuous).
- *** Surface Y** - The Y location (in project units) of the well at the well head (continuous attribute).
- *** Kelly Bushing (KB)** - The Z value (in project units) of the Kelly Bushing (continuous attribute).
- *** TD (TVD)** - The vertical depth value (in project units) of the last point in the well (continuous attribute).
- *** TD (MD)** - The measured depth value (in project units) of the last point in the well (continuous attribute).
- **UWI** - The Unique well identifier (string attribute).
- **Max Inc** - The value of the highest inclination from vertical (in project units) in the well path (continuous).
- **Cost** - The cost of the well (string).
- **Spud Date** - The date the well was spudded (date attribute).
- **Operator** - The name of the organization operating the well.

The attributes preceded by an asterisk (*) are required fields, the other attributes are non-mandatory and can be ignored if desired.

How to import a well head file

The import dialog for well header files allows the import of an unrestricted amount of attributes for each well. Attributes can be of several types including *string*, *continuous*, *discrete* and *date*.

1. Go to the **Insert** pull down menu and select **New Well Folder**.
2. Right-click on **Wells Folder**, then select **Import (on Selection)...**
3. Select Well Heads (*.*) as files of type and click **Open**.

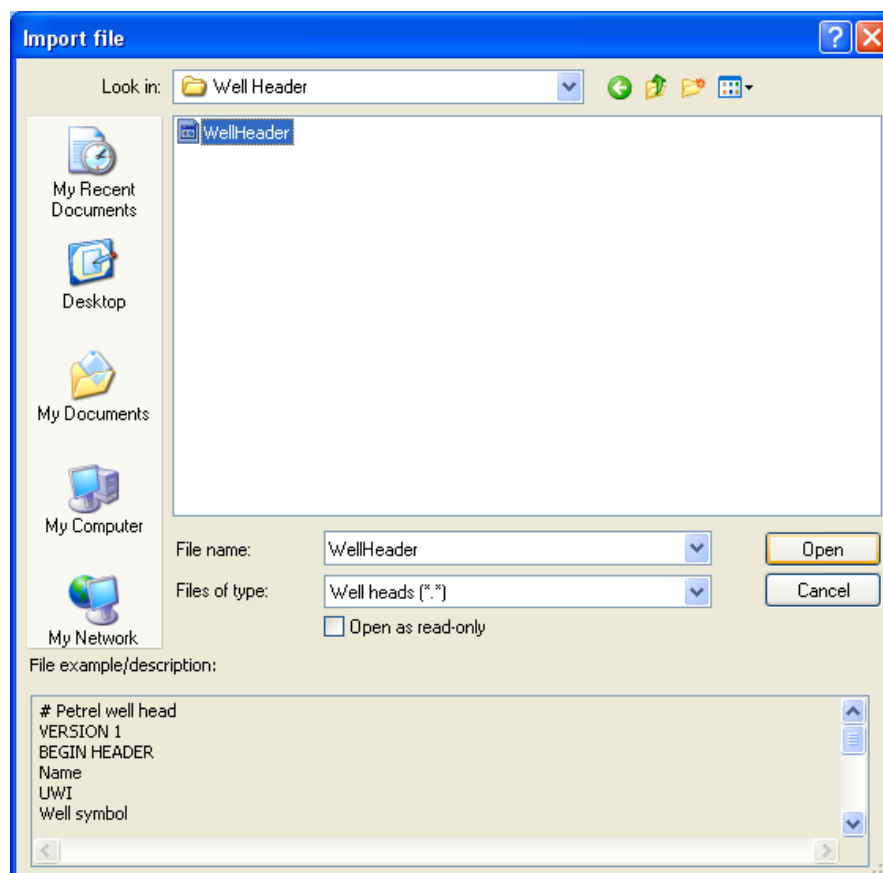


Fig. 4.2: The Import File form

4. Click **OK for all**.

Import well head: WellHeader

Column #	2	3	4	5	6
Attribute	UWI	Well symbol	Surface X	Surface Y	KB
Attribute name	UWI	Well symbol	Surface X	Surface Y	KB
Attribute type	Text	Discrete	Continuous	Continuous	Continu
Unit			meter	meter	mete

Undefined value:

Depth _____

Time _____

Date _____

☒ Use current window's settings

☐ Custom date format:

Header info (first 30 lines):

Line 1: # Petrel well head

Line 2: VERSION 1

☒ OK for all ☐ OK ☐ Cancel

Fig. 4.3: The Import Well Heads form

To display the wells in a 3D window, make sure that a 3D window is active. The check to the left of the **Wells** folder toggles the display of the wells in the 3D window. Once you check the **Wells** folder, the wells will be displayed as vertical sticks in the 3D window as shown in Fig. 4.4.

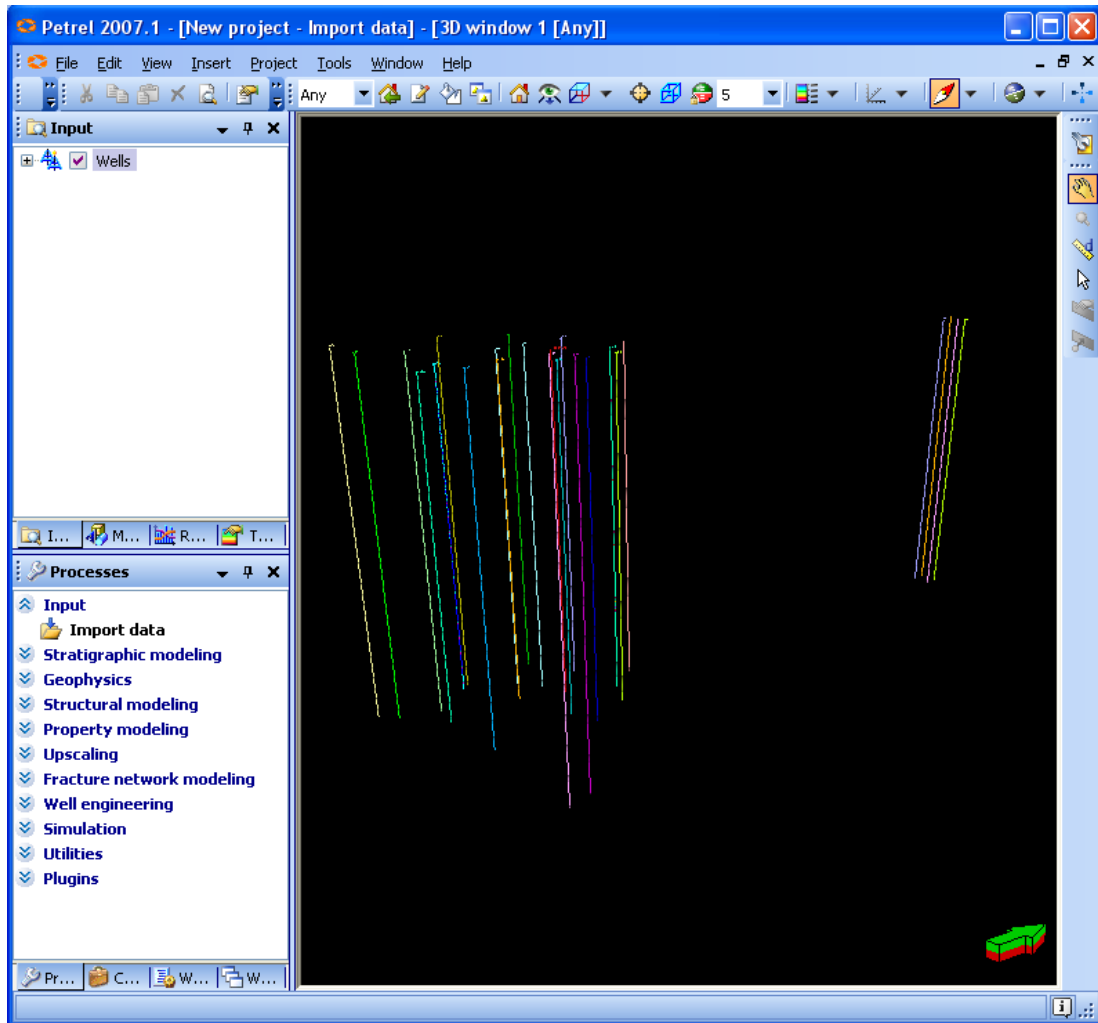


Fig. 4.4: The wells displayed in a 3D window

The settings of the wells may be changed by:

1. Right-clicking on the **Wells** folder and selecting **Settings...**
2. The **Settings for Wells** form appears as shown in Fig.4.5. Make sure that the **Style** tab is active.
3. On the **Path** tab, change the **Pipe width** to a number different than the default number; say **100**.

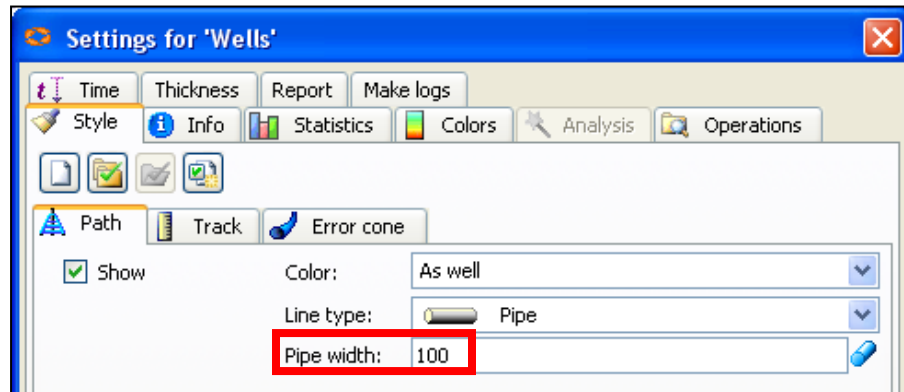


Fig. 4.5: The Settings for 'Wells' form on **Path** tab

The settings of the well attribute may be changed by:

1. Right-click on the **Wells attribute** and selecting **Settings...**

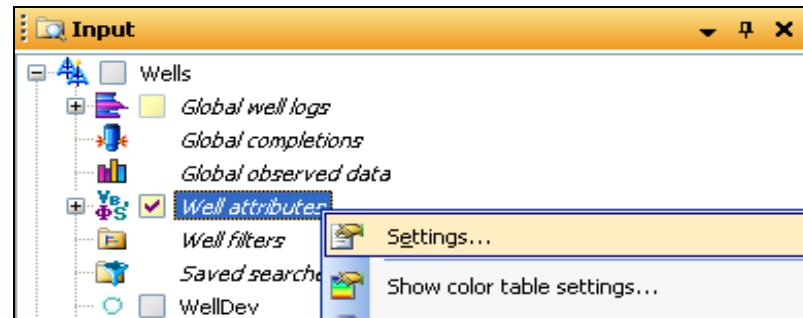


Fig. 4.6: Settings of Well attribute

2. Now click the **Symbols** tab, change the **Font size** to a number different than the default number: say **400**. Similarly, change the **Symbol size** to a number different than the default number; say **300**,

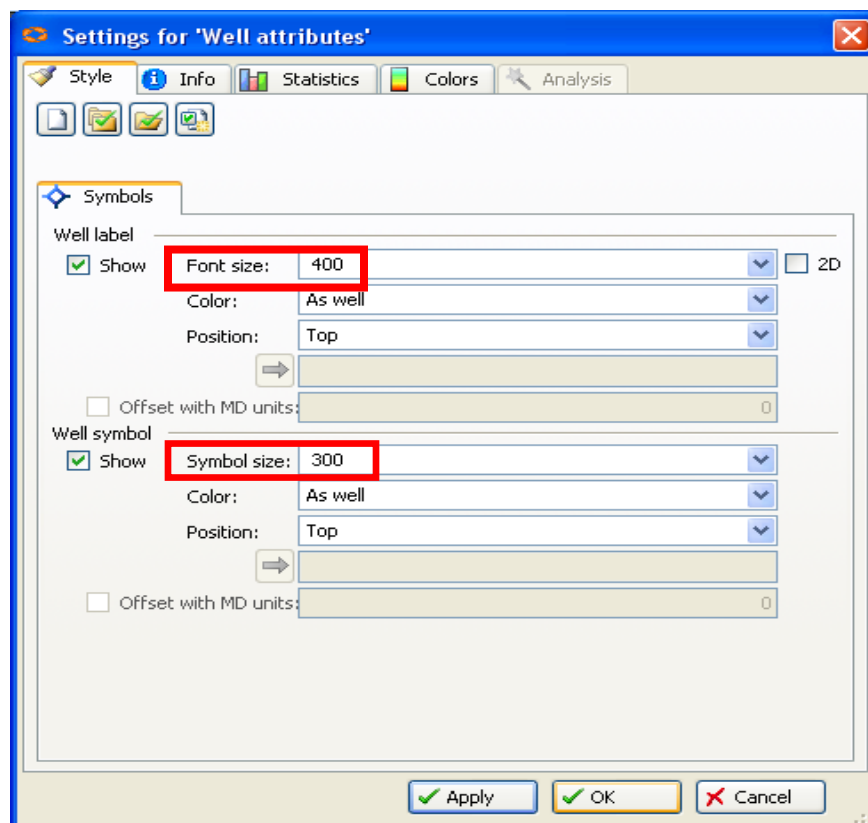


Fig. 4.7: The Settings for Well Attribute Form

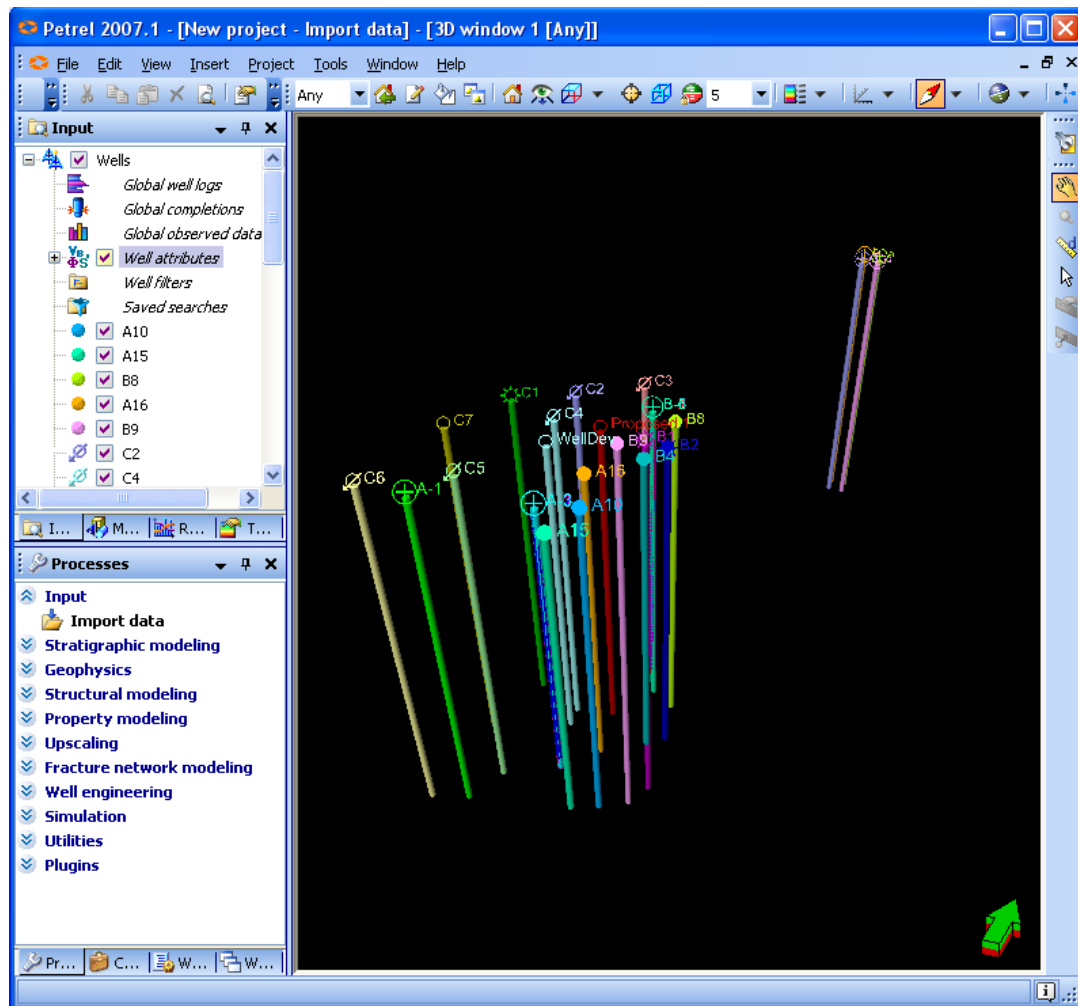


Fig.4.8: The wells displayed in a 3D window after changing the Settings

Now play with it to get yourself familiar to using this functionality in Petrel.

Note:

If we try to change the data of well headers, for example delete "R" from "HEADER", Petrel cannot read the data.

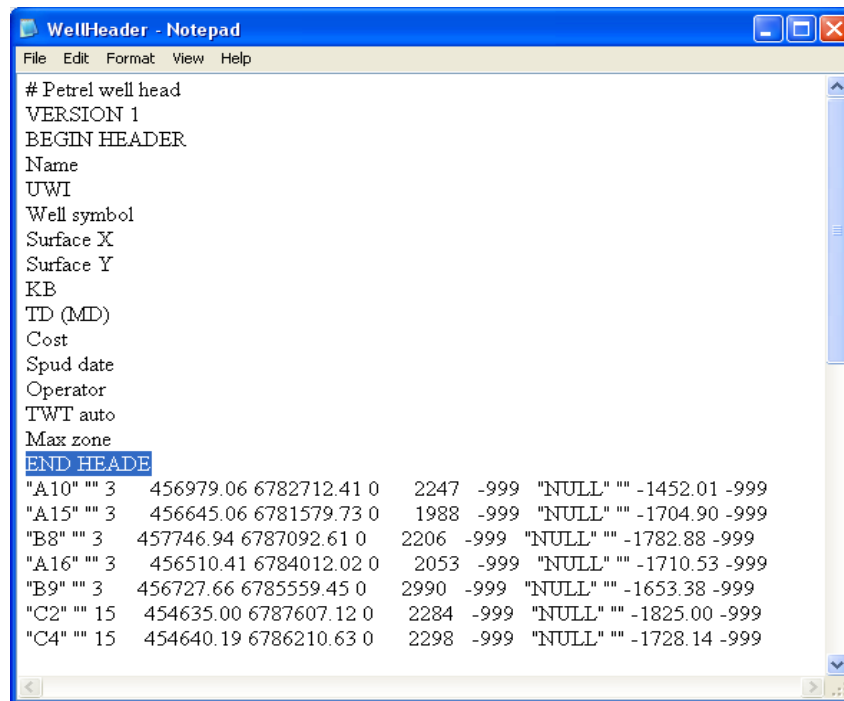


Fig4.9: Changing the well heads data file

To make Petrel read the data we must write **number of header lines**, in this case the number is "16".

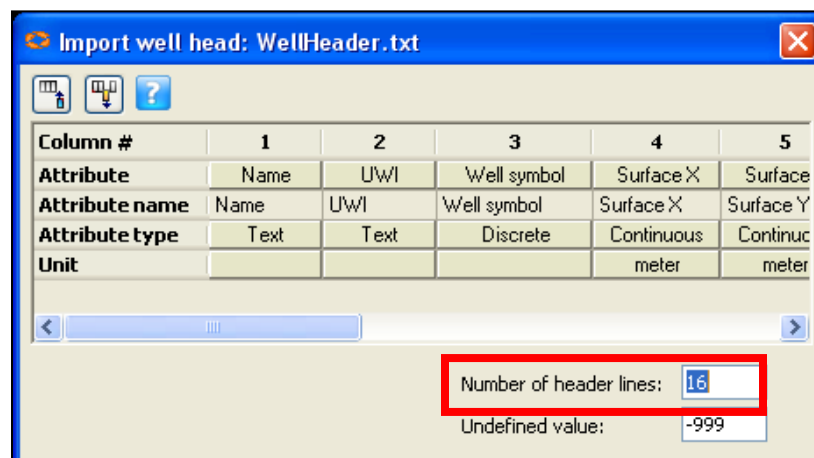


Fig4.10: The Import well heads form after change well header data

How to Insert a New well header

1. A new well can also be created by clicking with the right mouse button on the **well folder** or a sub folder inside the well folder, and select **Create New Well** from the pull down menu. Or use the **Insert** menu command and choose **New well**.
2. When creating a new well a dialog will appear as shown in Fig.4.11 asking for **name**, **coordinates**, **KB value** and **well symbol**. Trace and length of trace (vertical) may be defined. The input figures may be converted to project units if different. Enter desired information and click **OK**. These specifications may be changed later from the Settings window of the well or by using the Well Manager tool.

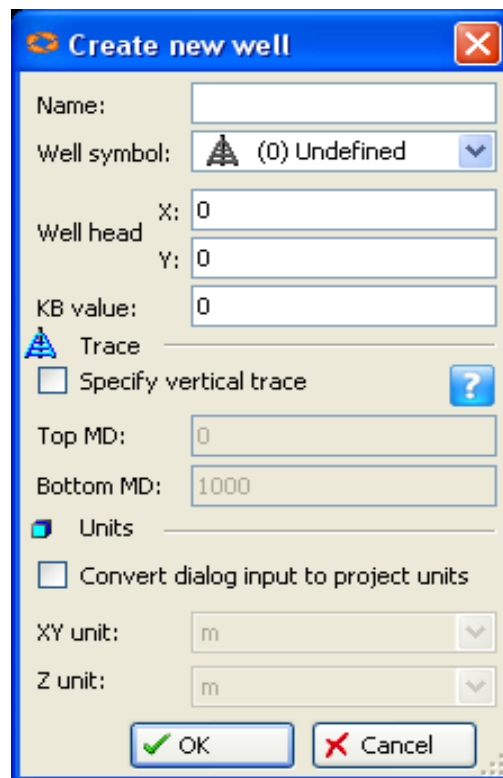


Fig. 4.11: The Create new well form

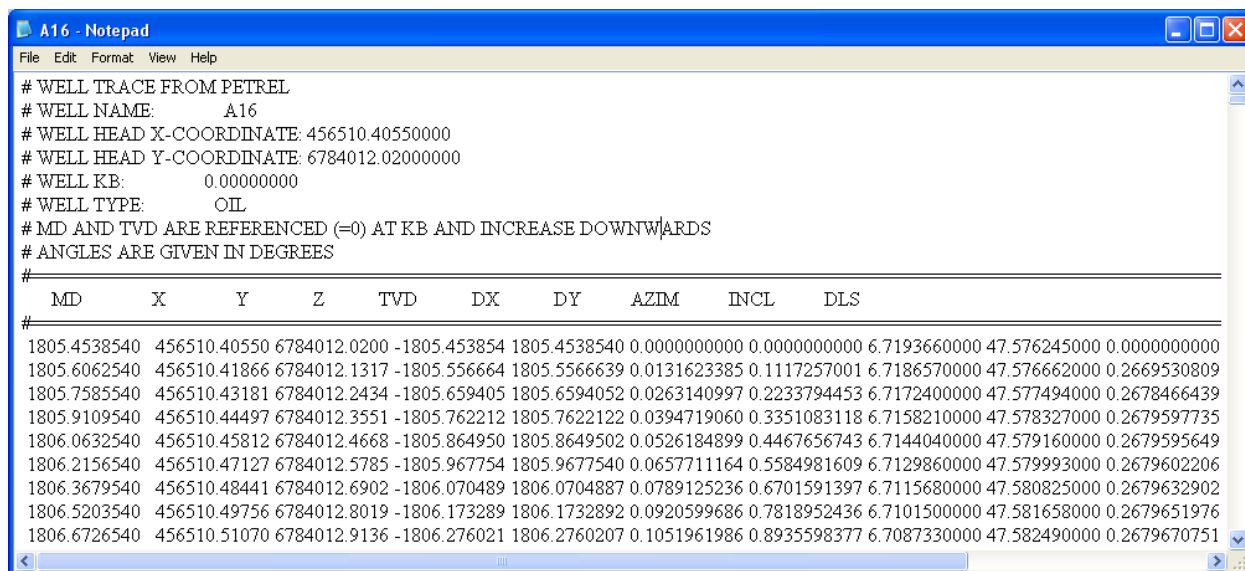
b. Well Path/Deviation

Import of well path/deviation data is the second step in the well import process. The deviation file can be imported well by well, for several wells together or for multiple wells in one file.

The deviation file should be in ASCII format with the data organized in columns. Data can be of several types:

- Measured depth, inclination, azimuth.
- True vertical depth, X-offset, Y-offset (MD optional).
- True vertical depth, X, Y (MD optional).
- X, Y, Z (MD optional).

The well's path is sliced into a number of points more enough to represent its deviation. For each point, the following data is needed: MD, X, Y, Z, TVD, DX, DY, AZIM, INCL, and DLS.



```
# WELL TRACE FROM PETREL
# WELL NAME:      A16
# WELL HEAD X-COORDINATE: 456510.40550000
# WELL HEAD Y-COORDINATE: 6784012.02000000
# WELL KB:        0.00000000
# WELL TYPE:      OIL
# MD AND TVD ARE REFERENCED (=0) AT KB AND INCREASE DOWNWARDS
# ANGLES ARE GIVEN IN DEGREES
```

MD	X	Y	Z	TVD	DX	DY	AZIM	INCL	DLS
1805.4538540	456510.40550	6784012.0200	-1805.453854	1805.4538540	0.0000000000	0.0000000000	6.7193660000	47.576245000	0.0000000000
1805.6062540	456510.41866	6784012.1317	-1805.556664	1805.5566639	0.0131623385	0.1117257001	6.7186570000	47.576662000	0.2669530809
1805.7585540	456510.43181	6784012.2434	-1805.659405	1805.6594052	0.0263140997	0.2233794453	6.7172400000	47.577494000	0.2678466439
1805.9109540	456510.44497	6784012.3551	-1805.762212	1805.7622122	0.0394719060	0.3351083118	6.7158210000	47.578327000	0.2679597735
1806.0632540	456510.45812	6784012.4668	-1805.864950	1805.8649502	0.0526184899	0.4467656743	6.7144040000	47.579160000	0.2679595649
1806.2156540	456510.47127	6784012.5785	-1805.967754	1805.9677540	0.0657711164	0.5584981609	6.7129860000	47.579993000	0.2679602206
1806.3679540	456510.48441	6784012.6902	-1806.070489	1806.0704887	0.0789125236	0.6701591397	6.7115680000	47.580825000	0.2679632902
1806.5203540	456510.49756	6784012.8019	-1806.173289	1806.1732892	0.0920599686	0.7818952436	6.7101500000	47.581658000	0.2679651976
1806.6726540	456510.51070	6784012.9136	-1806.276021	1806.2760207	0.1051961986	0.8935598377	6.7087330000	47.582490000	0.2679670751

Fig. 4.12: The well (A16) deviations data file open in a Notepad window

How to import a Well Deviations file

To insert well deviations to the project:

1. Right-click on the **Wells** folder, then select **Import (on Selection)....**
2. Select **Well path/deviation (ASCII)(*.*)** from the **Files of type** combo box. In the **File name** combo box, type ***.dev** and press **Open** for the deviation wells to be listed. Select all files, and then press **Open**. And Click **Ok**.

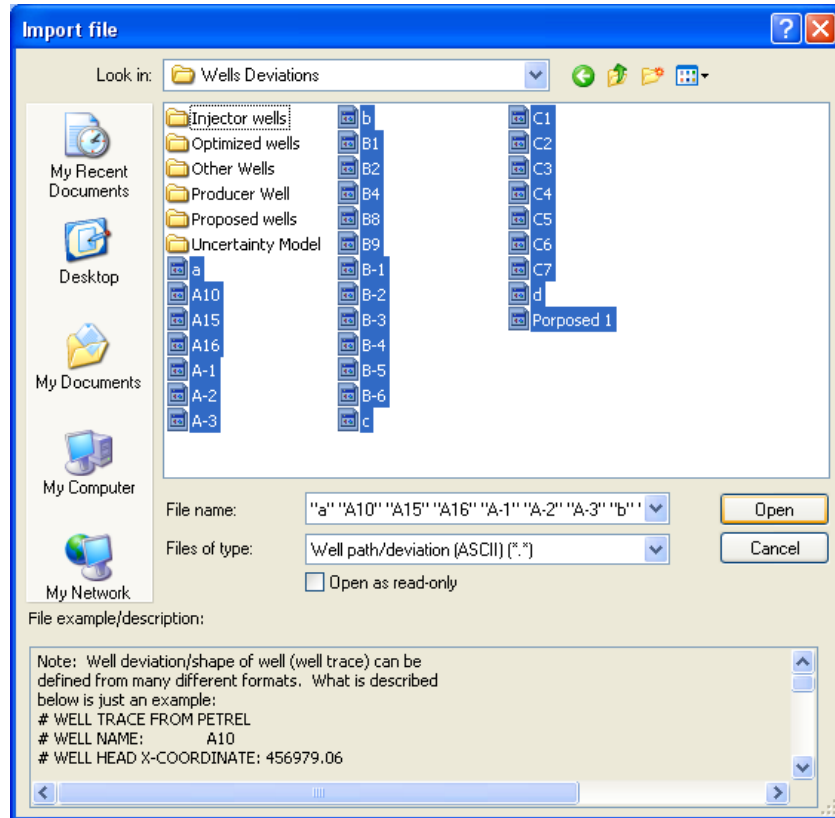
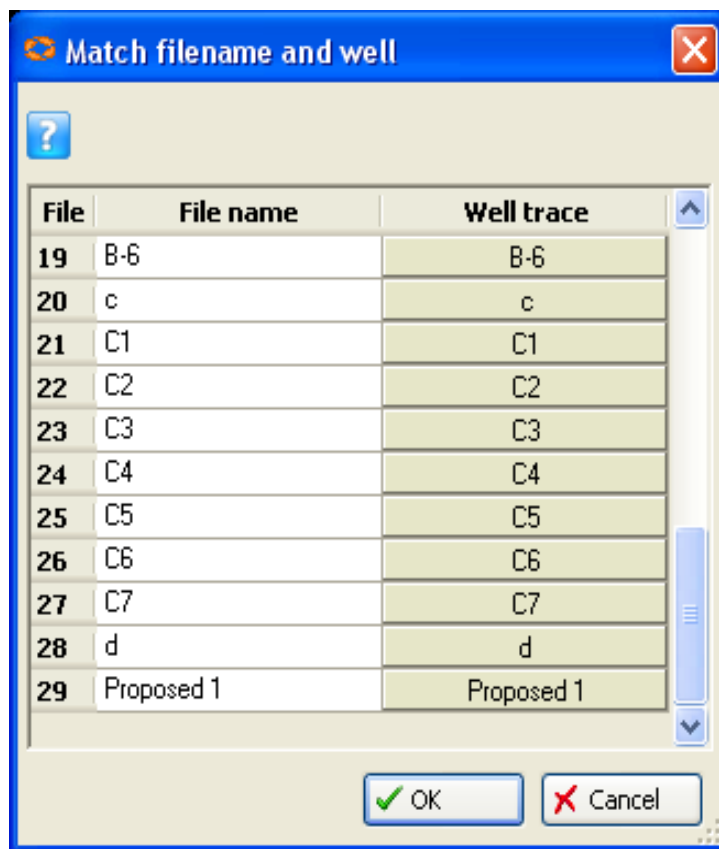


Fig. 4.13: The Import File form



The image shows a software dialog box titled "Match filename and well". It contains a table with three columns: "File", "File name", and "Well trace". The table lists 11 rows of data. At the bottom of the dialog are "OK" and "Cancel" buttons. A help icon (?) is located in the top left corner of the dialog area.

File	File name	Well trace
19	B-6	B-6
20	c	c
21	C1	C1
22	C2	C2
23	C3	C3
24	C4	C4
25	C5	C5
26	C6	C6
27	C7	C7
28	d	d
29	Proposed 1	Proposed 1

Fig. 4.14: The Match Filename and Well form

- When the **Import Well Path/Deviation** window pops up, click the **Input data** tab. Check the TVD, X, Y radio button and specify column numbers of the MD, X, Y, and TVD as shown in Fig. 4.15. Click **OK for all**. The wells with their deviations are displayed in the 3D Display Window as shown in Fig.4.16.

Import well path / deviation

Input data | Settings | Units

General hints: ?

Column input data

☒ MD, INCL, AZIM ? ☐ Linear smoothing

☐ TVD, DX, DY

☐ TVD, X, Y ?

☐ X, Y, Z

MD exists on file ☒ MD: 1 ? INCL: 9 AZIM: 8 TVD: 4

MD and TVD elevation reference

☒ Kelly bushing (KB)

☐ Mean sea level (MSL)

☐ Other: 0

Wrapping

☐ Lines wrapped

How many numbers per well point: 0 ?

Null value

☐ NULL value exists on file: -299.25

MD values

☒ Skip MD values equal to or smaller than previous MD.

Header info (first 200 lines): Proposed 1 -> Proposed 1

```

Line 1: # WELL TRACE FROM PETREL
Line 2: # WELL NAME: Prop
Line 3: # WELL HEAD X-COORDINATE: 4560
Line 4: # WELL HEAD Y-COORDINATE: 6780

```

OK for all OK Cancel

Fig. 4.15: The Import Well Path / Deviation form

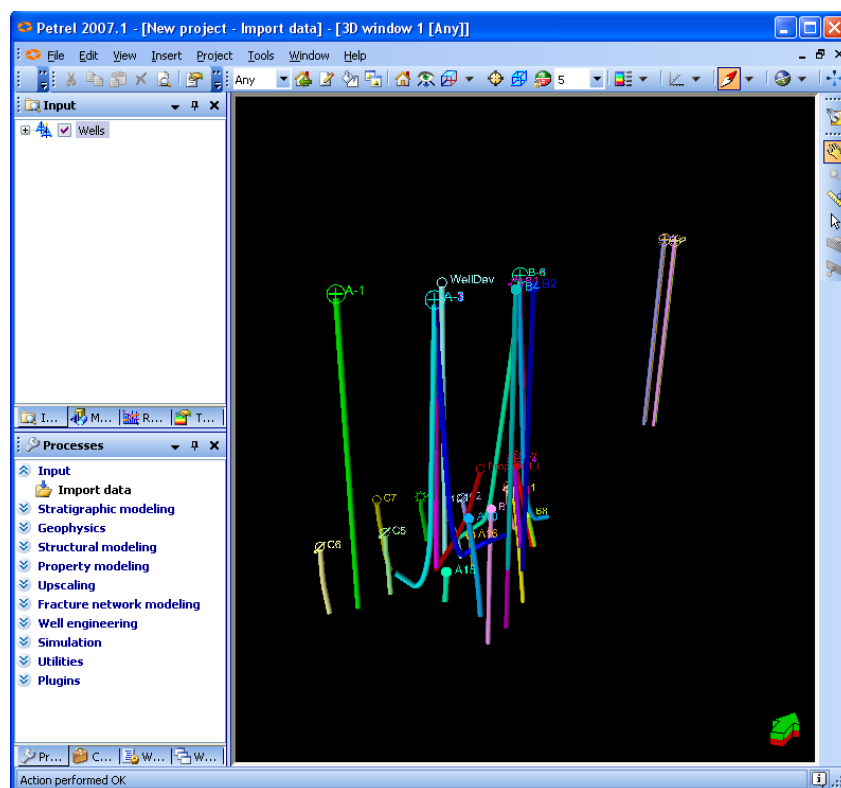


Fig. 4.16: The Wells with their deviations displayed in a 3D window

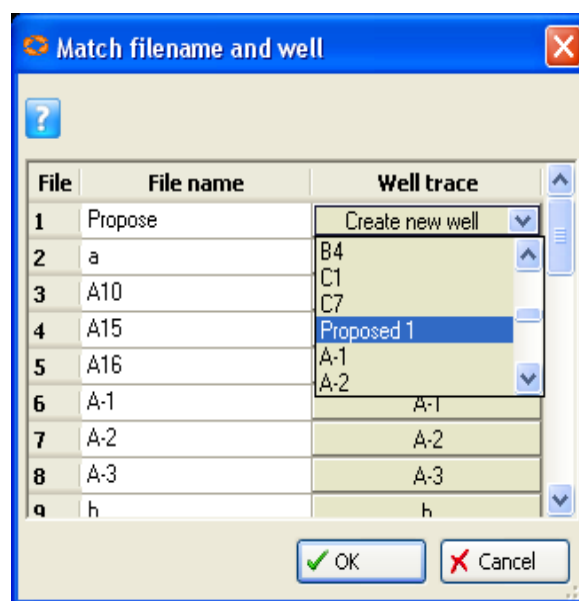


Fig4.17: window of well name changed

Note: If the name of well changed, for example rename (Proposed 1) to (Propose), it will shows new option (Create new well), then choose (Proposed 1).

The settings of the wells may be changed by:

1. Right-clicking on the **Wells** folder and selecting **Settings...**
2. From **Error cone** tab, activate **Show** and change the options. And press **Ok**.

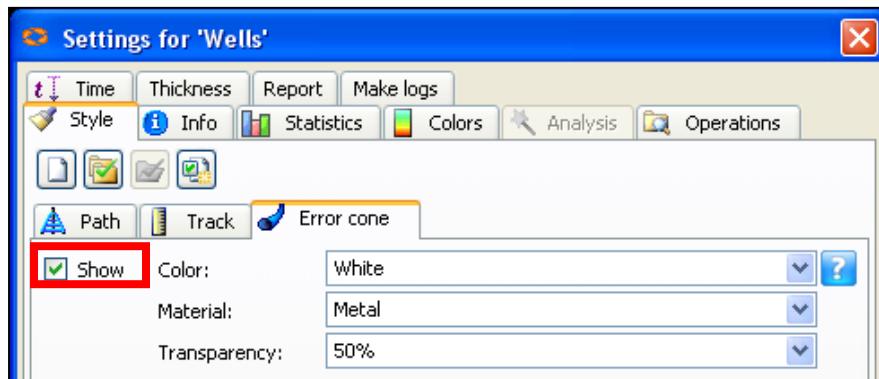


Fig. 4.18: The Settings for 'Wells' form on **error cone** tab

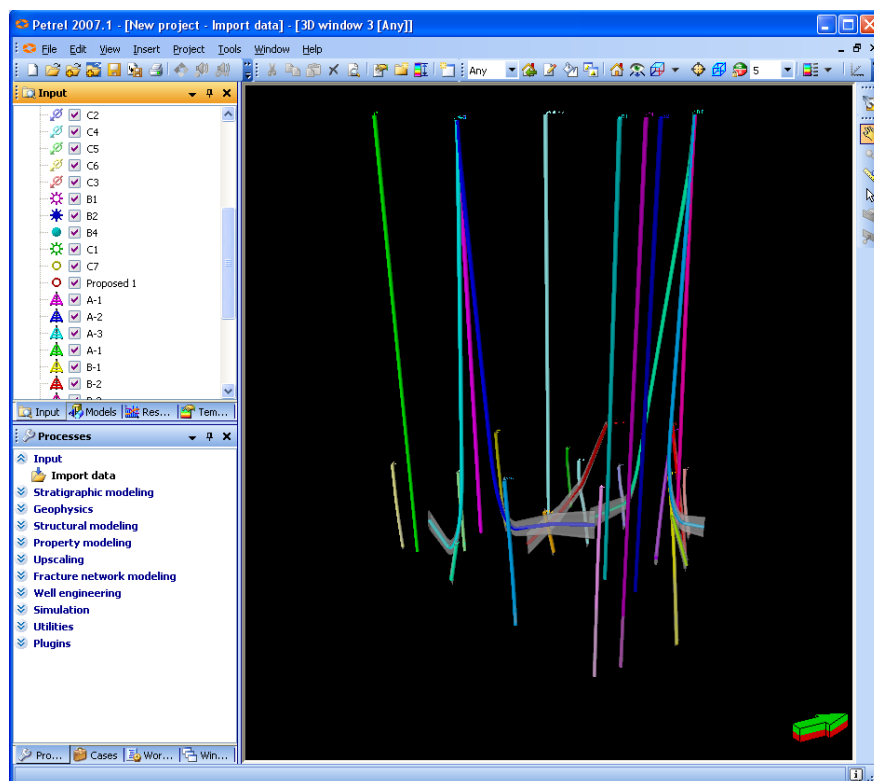


Fig. 4.19: The Wells shown with Error cone

c. Well Logs

The last piece of well data is well logs. Well logs are read into Petrel in a specific LAS format (both LAS 2.0/3.0 formats are currently supported) as shown in Fig. 4.20.

```

A15 - Notepad
File Edit Format View Help
# LAS format log file from PETREL
# Project units are specified as depth units
#
~Version information
VERS. 2.0:
WRAP. NO:
#
~Well
STRT.m 1808.8947000:
STOP.m 2084.3947000:
STEP.m 0.50000000:
NULL. -999.250000:
COMP. :COMPANY
WELL. A15 :WELL
FLD. :FIELD
LOC. :LOCATION
SRVC. :SERVICE COMPANY
DATE. Wednesday, August 19 2009 02:36:38 :DATE
PROV. :PROVINCE
UWI 6b5a07a9-695c-4340-b3b3-e5f24c61da85 :UNIQUE WELL ID
API :APINUMBER
#
~Curve
DEPT.m :DEPTH
Scaleloglinkedto'WellTops'/'B9'/'SSTVD'.m : Scale log linked to 'Well Tops'/'B9'/'SSTVD'
CALIPER.in :CALIPER
NG. :NG
Trueverticalthickness1.m : True vertical thickness 1
Truestratigraphicthickness1.m : True stratigraphic thickness 1
DCVelocitylog.m/s :DC Velocity log
DCTimeLog.ms :DC Time log
Time1.ms :Time 1
Zoneloglinkedto'WellTops'. : Zone log linked to 'Well Tops'
NetGross. :NetGross
Facies. :Facies
Fluvialfacies. :Fluvial facies
Timestratigraphy. :Timestratigraphy
Porosity.m3/m3 :Porosity
Gamma.gAPI :Gamma
Perm.mD :Perm
DEPTH.m :DEPTH
~Parameter
#
~Ascii
1808.8947000 1808.8946533 7.00000000000 -999.250000 1808.8609619 1808.8574219 -999.250000
1809.3947000 1809.2253418 7.00000000000 1.00000000000 1809.1622314 1809.1551514 -999.250000
1809.8947000 1809.5559082 7.00000000000 1.00000000000 1809.4632568 1809.4527588 2202.205322:
1810.3947000 1809.8865967 7.00000000000 1.00000000000 1809.7644043 1809.7502441 2202.2055664
  
```

Fig. 4.20: The LAS format log file from Petrel displayed in a Notepad window

How to import a well log file

To insert well log to the project:

1. Right-click on the **Wells** folder, then select **Import (on Selection)....**
2. Select **Well Log (LAS 3.0)(*.las)** from the **Files of type** combo box
Select all files, then press **Open** and Press **Ok**.

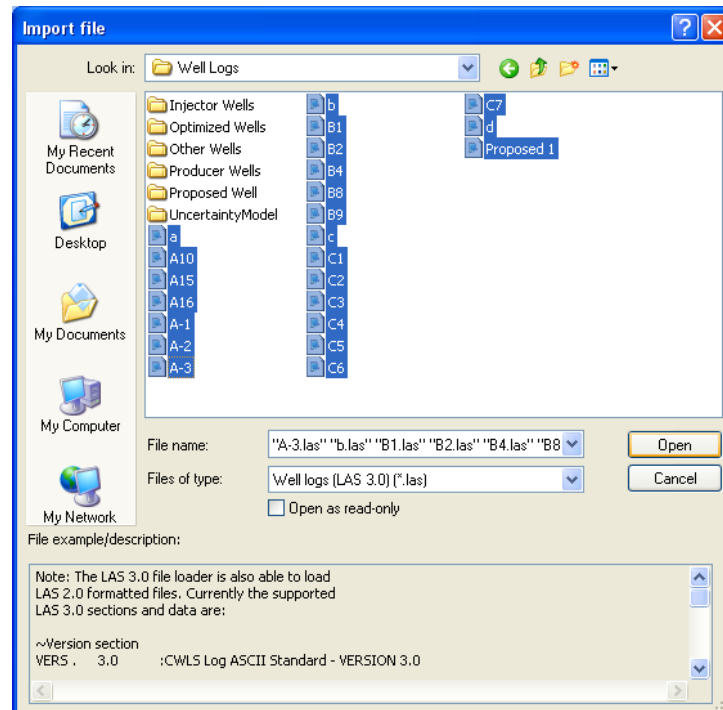


Fig. 4.21: The Import File form

3. You can choose which Log you want to display it, and **press OK for all**.

Import well logs

File path: C:\Documents and Settings\00002053\Desktop\BalfasMarghalaniBscProject\Petrel 2007 Data and Project\Data\Well Lo

Common start depth: 1470.0033 m Common stop depth: 3728.0576 m
 Min start depth: 1470.0032 m Max stop depth: 3728.0577 m
 Defined well log: Unselect all Undefined well log: Unselect all

Defined well log

Log	Load	Log name	Property template	Global well log	Unit (File)	Unit (Petrel)	Description
1	☒	CALIPER	Caliper	Create new	m	m	CALIPER

Undefined well log

Log	Load	Log name	Property template	Global well log	Unit (File)	Unit (Petrel)	Description
1	☒	DCTimelog	General	Create new	ms	ms	DC Time log
2	☒	DCVelocityI	General	Create new	m/s	m/s	DC Velocity log
3	☒	Time1	General	Create new	ms	ms	Time 1

OK for all OK Cancel

Fig. 4.22: The Import well logs form

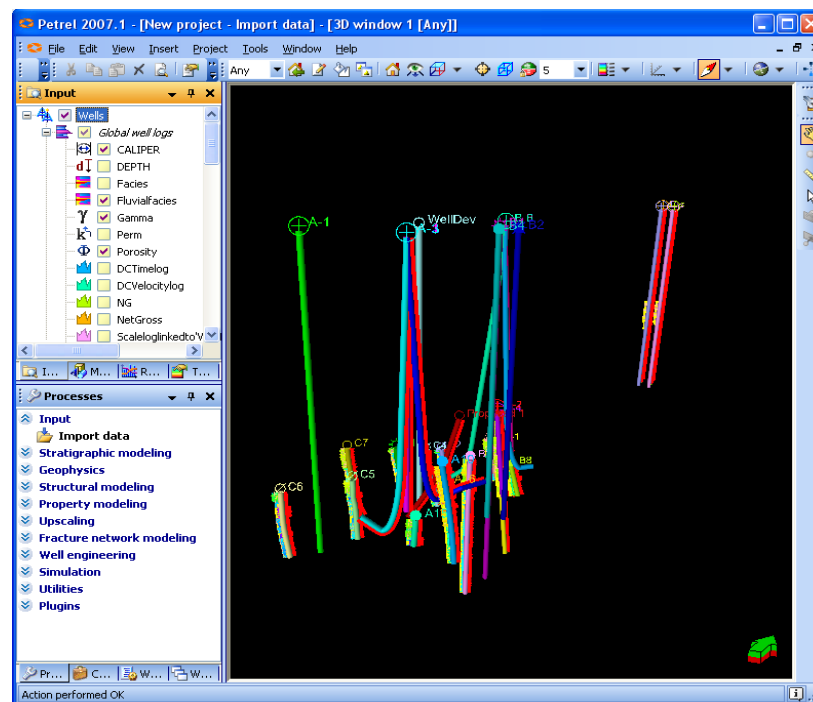


Fig. 4.23: Caliper, Fluvial facies, Gamma and Porosity logs displayed in a 3D window

Well Data Management

The well manager is a tool that collects all the information associated with each wellbore and presents it in a user-friendly spreadsheet format. Each well in the project is represented as a row, with all associated attributes listed as columns. Most of the fields are editable, allowing copy and paste actions from other spreadsheets.

How to use a Well Manager tool

1. Right-click on the **Wells** folder, then select **Well Manager ...**
2. Well manager will appear as shown in Fig.4.24. There is a Show button option is quite important as it will limit the amount of data shown at any time in the Well Manager. There is a **Show** button at the top of the manager which has drop-down menu of view options. The selected (checked) attributes will show in the Well Manager

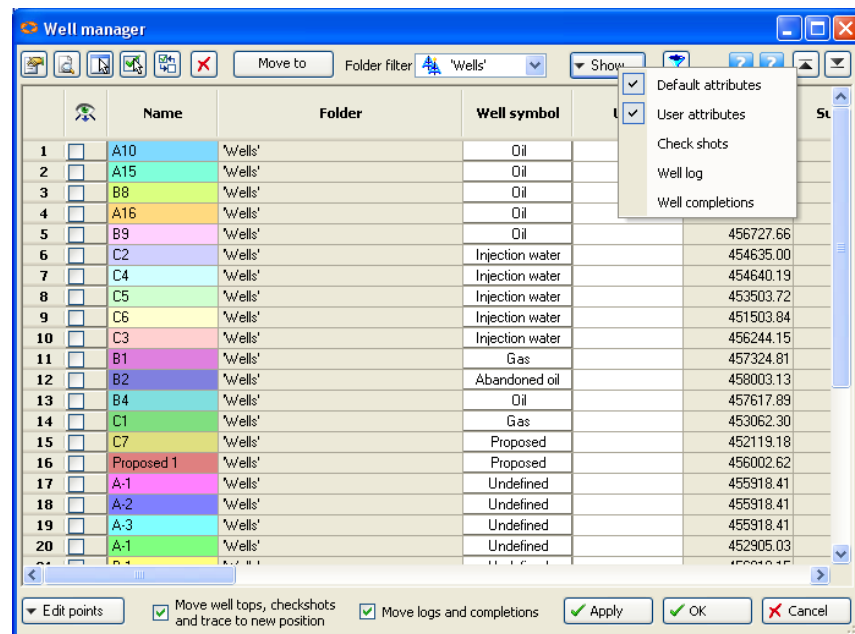
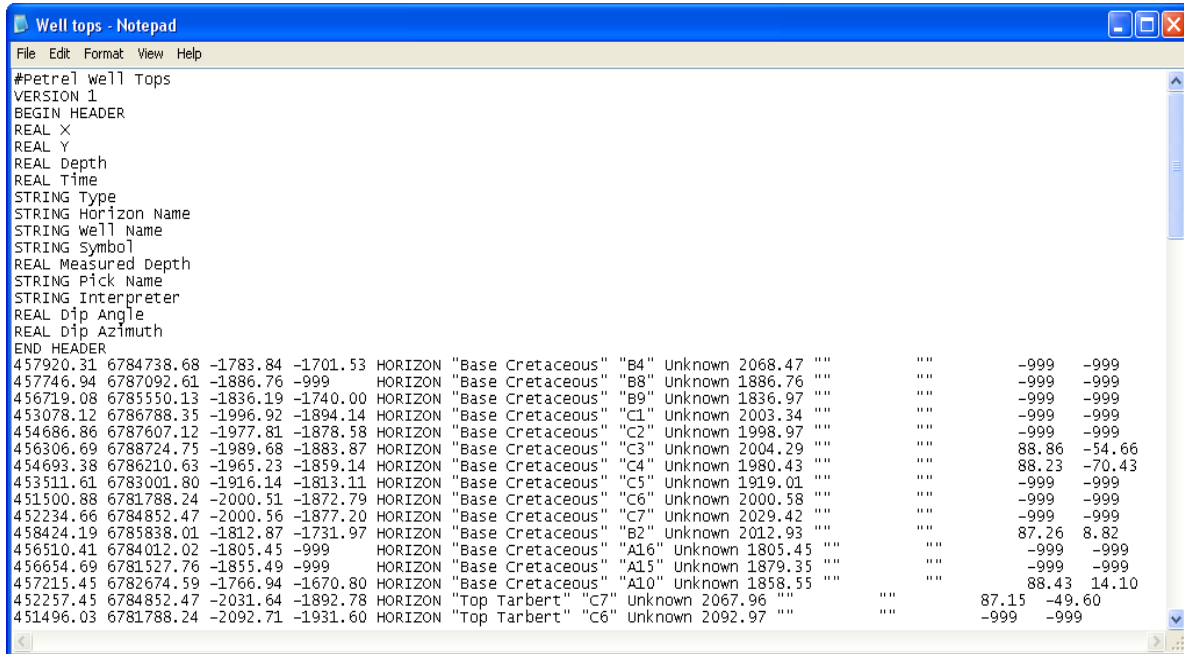


Fig. 4.24: Well manager form with Show button

2. Well Tops

Well tops are markers that define the crossing of a well with a horizon or a fault. The well tops data includes: X, Y, Depth, Time, Type, Horizon Name, Well Name, Symbol, Measured Depth, Pick Name, Interpreter, Dip Angle, and Dip Azimuth of each well as shown in Fig. 4.25.



```

Well tops - Notepad
File Edit Format View Help
#Petrel Well Tops
VERSION 1
BEGIN HEADER
REAL X
REAL Y
REAL Depth
REAL Time
STRING Type
STRING Horizon Name
STRING Well Name
STRING Symbol
REAL Measured Depth
STRING Pick Name
STRING Interpreter
REAL Dip Angle
REAL Dip Azimuth
END HEADER
457920.31 6784738.68 -1783.84 -1701.53 HORIZON "Base Cretaceous" "B4" Unknown 2068.47 "" "" -999 -999
457746.94 6787092.61 -1886.76 -999 HORIZON "Base Cretaceous" "B8" Unknown 1886.76 "" "" -999 -999
456719.08 6785550.13 -1836.19 -1740.00 HORIZON "Base Cretaceous" "B9" Unknown 1836.97 "" "" -999 -999
453078.12 6786788.35 -1996.92 -1894.14 HORIZON "Base Cretaceous" "C1" Unknown 2003.34 "" "" -999 -999
454686.86 6787607.12 -1977.81 -1878.58 HORIZON "Base Cretaceous" "C2" Unknown 1998.97 "" "" -999 -999
456306.69 6788724.75 -1989.68 -1883.87 HORIZON "Base Cretaceous" "C3" Unknown 2004.29 "" "" 88.86 -54.66
454693.38 6786210.63 -1965.23 -1859.14 HORIZON "Base Cretaceous" "C4" Unknown 1980.43 "" "" 88.23 -70.43
453511.61 6783001.80 -1916.14 -1813.11 HORIZON "Base Cretaceous" "C5" Unknown 1919.01 "" "" -999 -999
451500.88 6781788.24 -2000.51 -1872.79 HORIZON "Base Cretaceous" "C6" Unknown 2000.58 "" "" -999 -999
452234.66 6784852.47 -2000.56 -1877.20 HORIZON "Base Cretaceous" "C7" Unknown 2029.42 "" "" -999 -999
458424.19 6785838.01 -1812.87 -1731.97 HORIZON "Base Cretaceous" "B2" Unknown 2012.93 "" "" 87.26 8.82
456510.41 6784012.02 -1805.45 -999 HORIZON "Base Cretaceous" "A16" Unknown 1805.45 "" "" -999 -999
456654.69 6781527.76 -1855.49 -999 HORIZON "Base Cretaceous" "A15" Unknown 1879.35 "" "" -999 -999
457215.45 6782674.59 -1766.94 -1670.80 HORIZON "Base Cretaceous" "A10" Unknown 1858.55 "" "" 88.43 14.10
452257.45 6784852.47 -2031.64 -1892.78 HORIZON "Top Tarbert" "C7" Unknown 2067.96 "" "" 87.15 -49.60
451496.03 6781788.24 -2092.71 -1931.60 HORIZON "Top Tarbert" "C6" Unknown 2092.97 "" "" -999 -999

```

Fig. 4.25: Well tops data file open in a Notepad window

How to import a well Tops file

To insert well Tops to the project:

1. Click the **Insert** menu command and choose **New Well Tops**.
2. A new **Well Tops** folder will be added, then **Right-click** on this item, then **select Import (on Selection)....**
3. The **Import File** form appears as shown in Fig. 4.26. Select **Petrel Well Tops (ASCII) (*.*)** from the **Files of type** combo box.

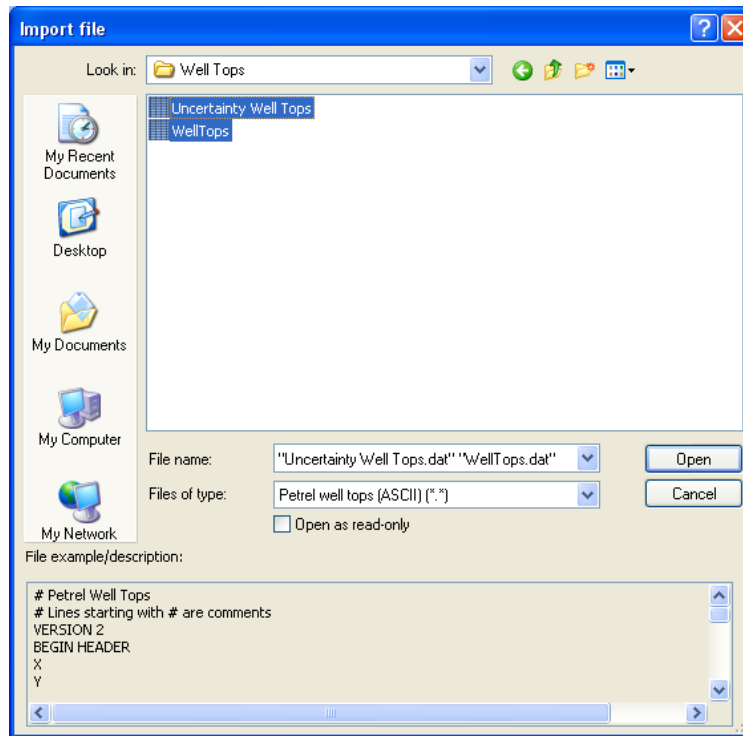


Fig. 4.26: The Import File form

4. Specify location and name of the well tops data file and press the **Open** button.
5. The **Import Petrel Well Tops: Well Tops** appears as shown in Fig. 4.27. Press **Ok for All** and then press **OK** to close the information window.

Import petrel well tops: WellTops.dat

Column #	1	2	3	4	5
Attribute	X	Y	Z	TWT picked	TWT auto
Attribute name	X	Y	Z	TWT picked	TWT auto
Attribute type	Continuou	Continuou	Continuou	Continuous	Continuous
Unit	meter	meter	meter	millisecond	millisecond

☐ Connect to trace: ☒ A10

☒ Well name:

 Undefined value:

Depth

☒ Negate Z values

Time

☐ Negate time values

Date

☒ Use current window's settings
☐ Custom date format:

Header info (first 30 lines):

```

Line 1: # Petrel Well Tops
Line 2: VERSION 2
  
```

Fig. 4.27: The Import Petrel Well Tops: Well Tops form

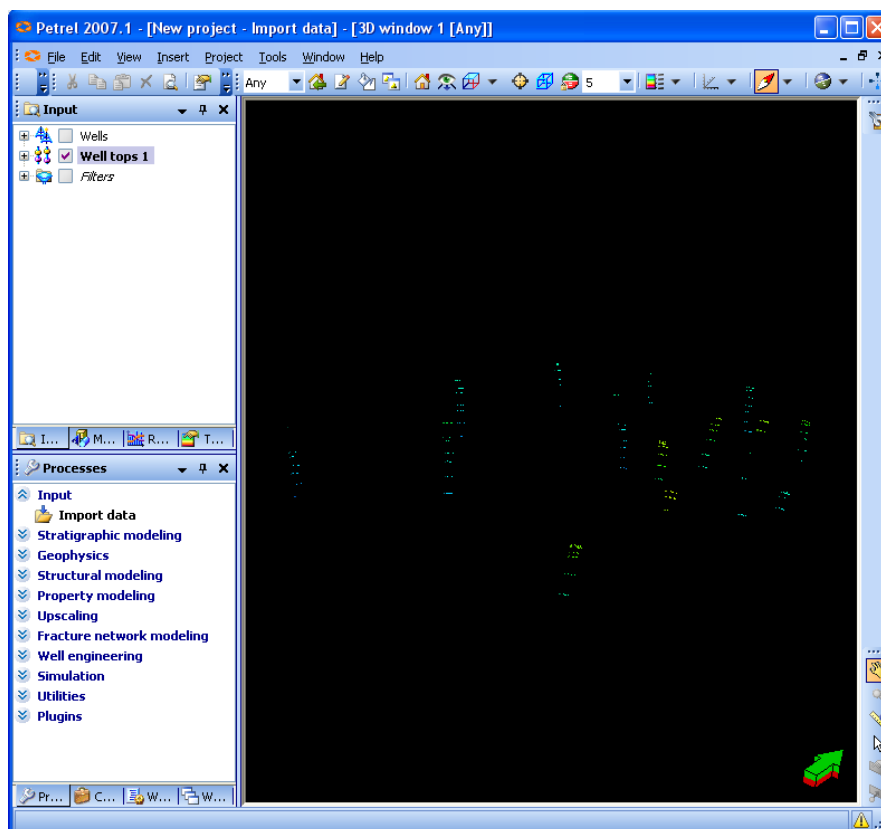
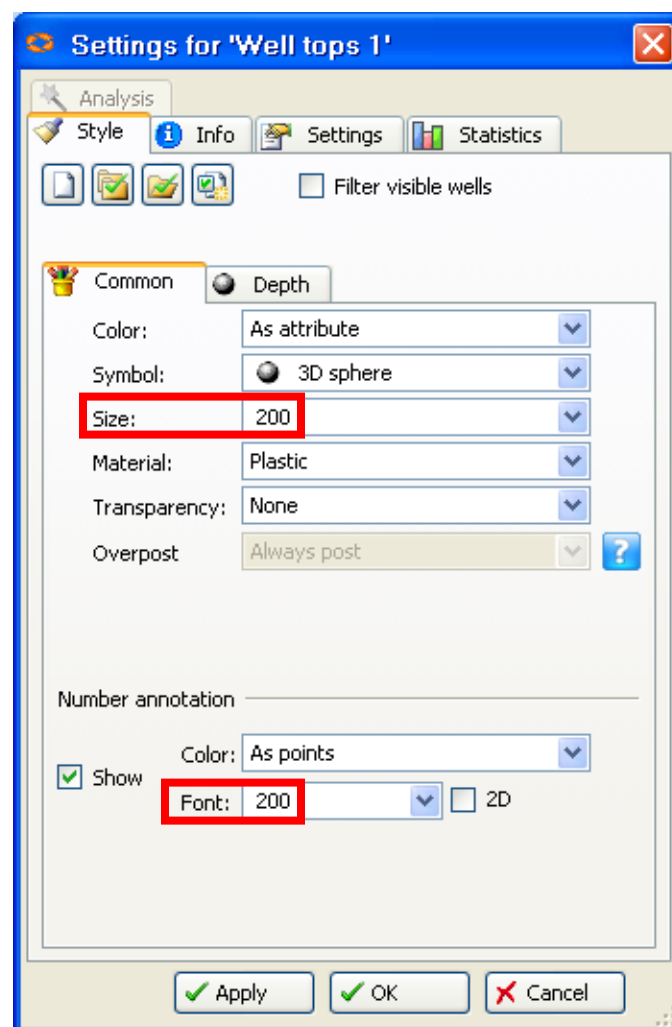


Fig. 4.28: Well Tops displayed in a 3D window

The settings of the wells may be changed by:

1. Right-clicking on the **Well tops** folder and selecting **Settings...**
2. The **Settings for Well tops** form appears as shown in Fig.4.29. Make sure that the **Style** tab is active.
3. On the **Common** tab, change the **Size** to a number different than the default number; say **200**.
4. On the **Number annotation**, change the **Font** to a number different than the default number; say **200**.

**Fig.4.29:**Setting for well tops 1

Now, as an exercise, hide the well logs and display well tops. Well tops might not be shown clearly, you may need to change the settings of the well tops as you did before in the well headers. Again, try to familiarize yourself to playing with other factors because things will get harder as you proceed. If you set the settings for well tops correctly, you are supposed to get something like Fig. 4.30 for well tops.

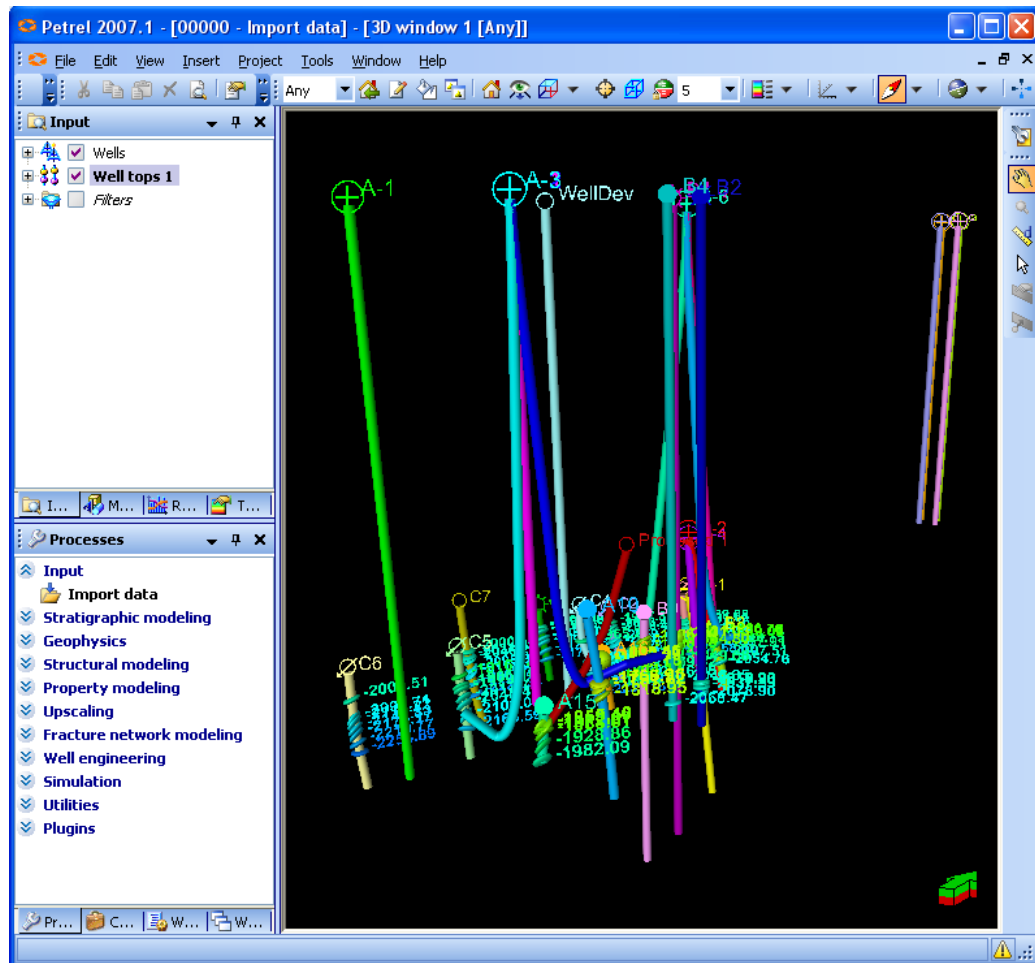
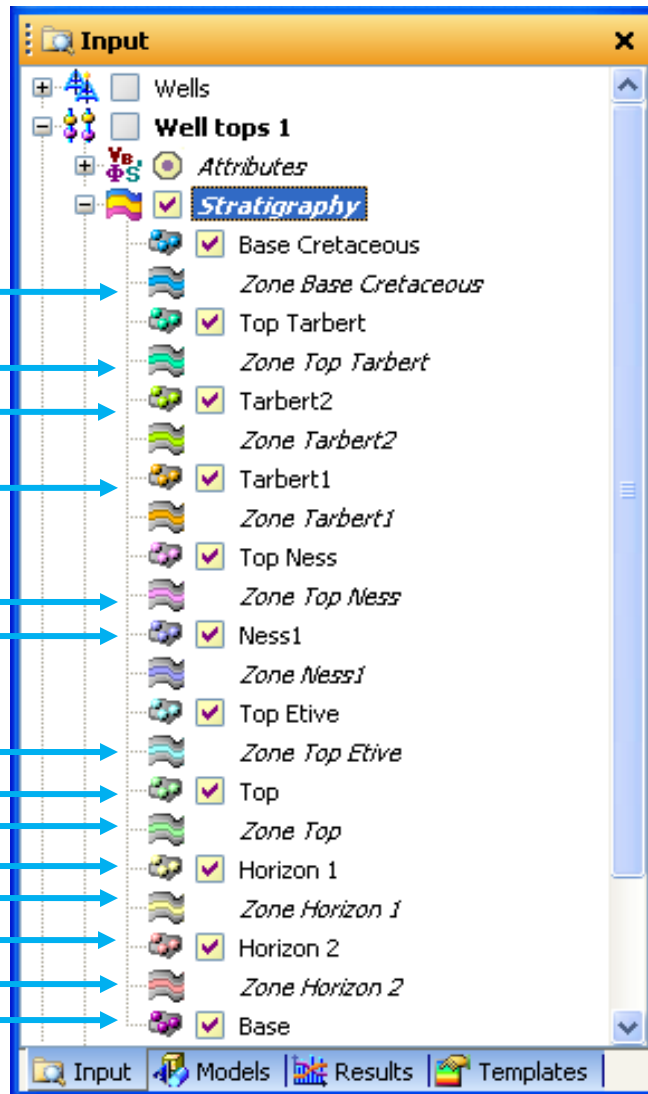


Fig. 4.30: Well Tops displayed after changing the Settings

Now, we will organize the Well tops by following the steps:



1. Rename

From **Zone Base Cretaceous** to **Zone 1**

2. Rename

From **Zone Top Tarbert** to **Tarbert**

3. Dropping

Drag **Tarbert2** to **Tarbert**

4. Dropping

Drag **Tarbert1** to **Tarbert**

5. Rename

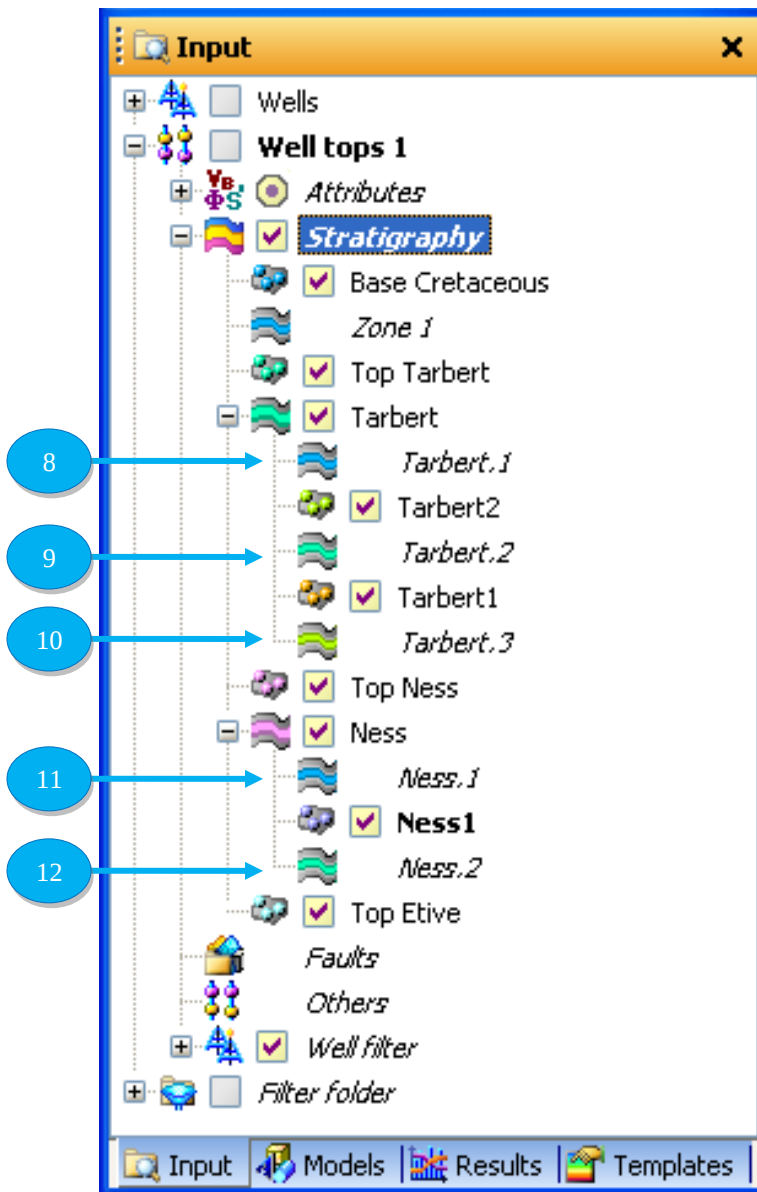
From **Zone Top Ness** to **Ness**

6. Dropping

Drag **Ness1** to **Ness**

7. Delete

Delete all the remain zones & horizons

**8. Rename**

From **Tarbert.1** to **T3**

9. Rename

From **Tarbert.2** to **T2**

10. Rename

From **Tarbert.3** to **T1**

11. Rename

From **Ness.1** to **N2**

12. Rename

From **Ness.2** to **N1**

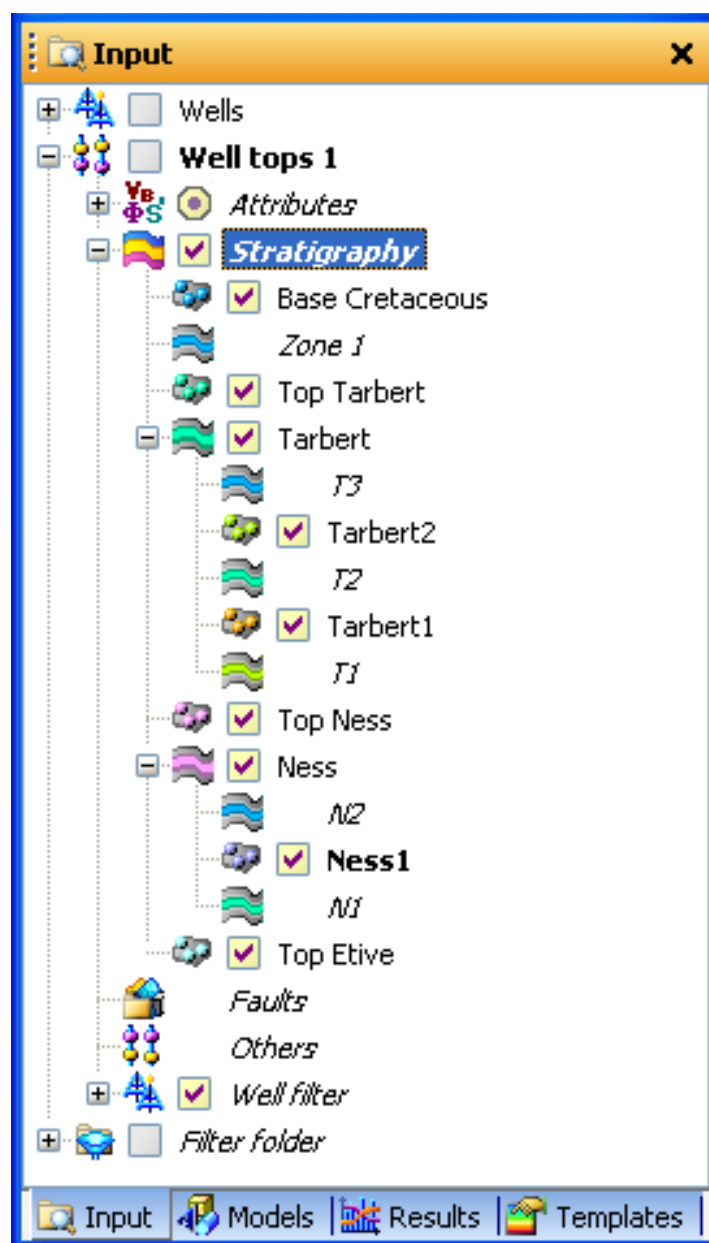


Fig.4.31: Well tops after organization

The other settings of the wells may be changed by:

1. Right-clicking on the one of the wells, let say (**A10**).
2. The **Settings for “A10”** form appears as shown in Fig.4.32.
3. On the **Info** tab, choose the option from **Well symbol**.

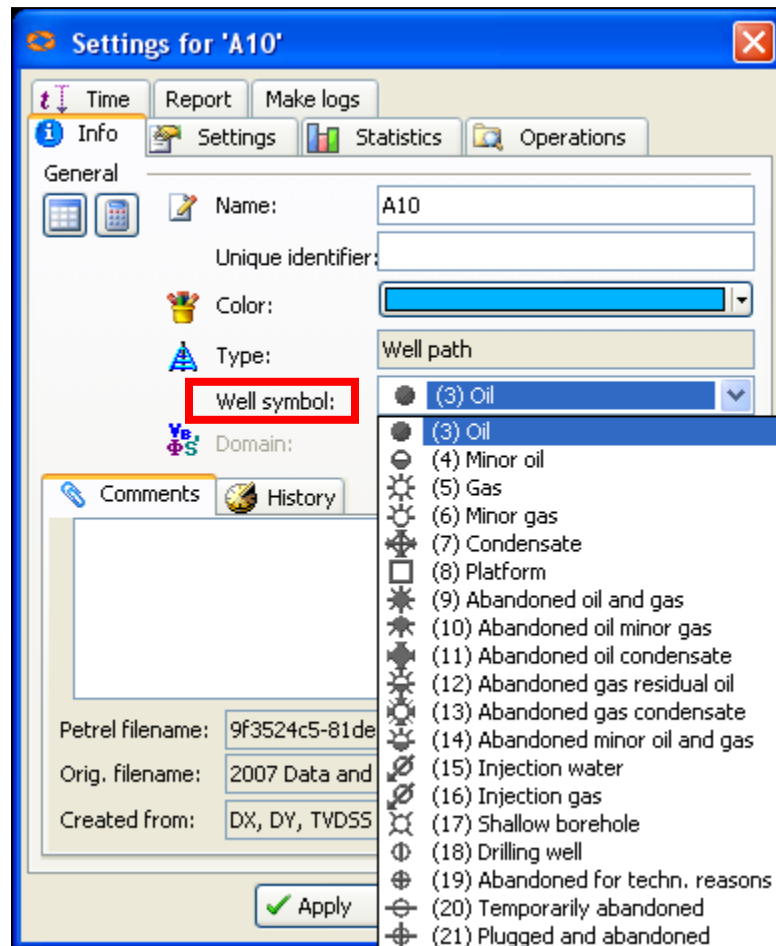
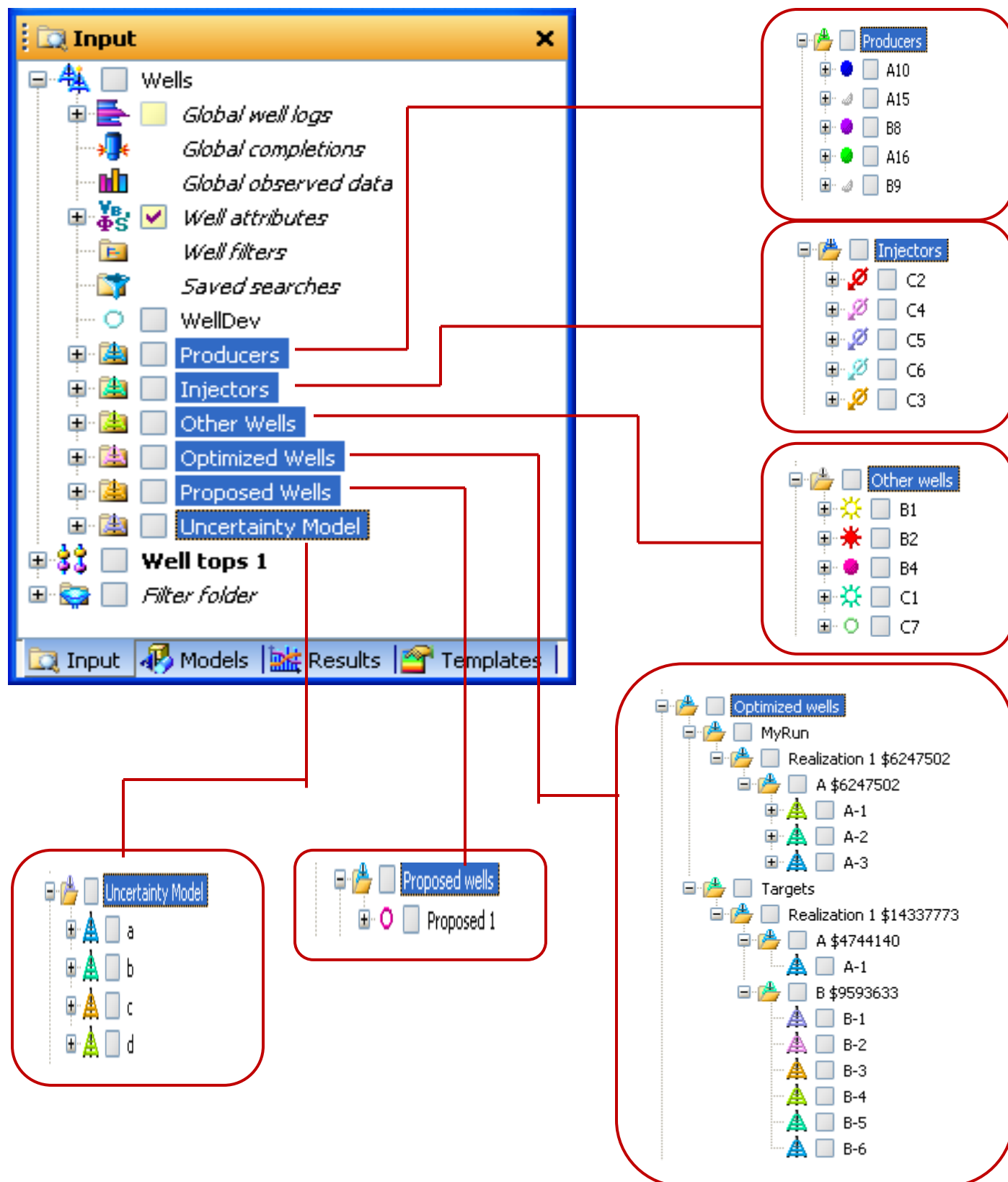


Fig 4.32: Setting for “A10”

Now, for more organization well will put the wells in separate folders:



Unit System

The units set here are used to determine the default units for the project. Changing the **Unit system** will change the units for all of the property templates to match the appropriate system.

Units are only used for a limited number of activities in Petrel, depth conversion, volume calculations and simulations.

How to change the unit system of project

1. Click the **Project** menu command and choose **Project settings...**
2. From **Units and coordinates** tab, choose your option from unit system as shown in Fig.4.33

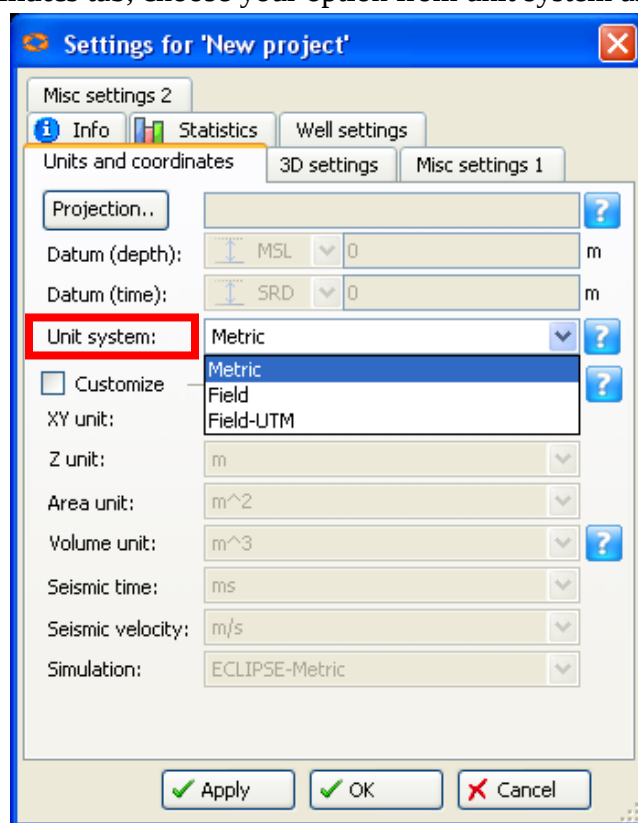


Fig.4.33: Settings for “New project”

Export Data

Petrel can export data in many different format types and is continuously updated to handle new formats as users request them.

Different format types are available for the export of different types of data. When exporting an item, Petrel lists all the available format types.

The format types Petrel supports are briefly described in Data Types, and these formats are described in detail in Appendix 1 – Formats.

Note that all items in Petrel can be exported in Petrel binary format.

To export data from the project, follow the steps:

1. For example, Right click on **Surface (Time)** folder and choose **Export** option as shown in Fig.4.34.

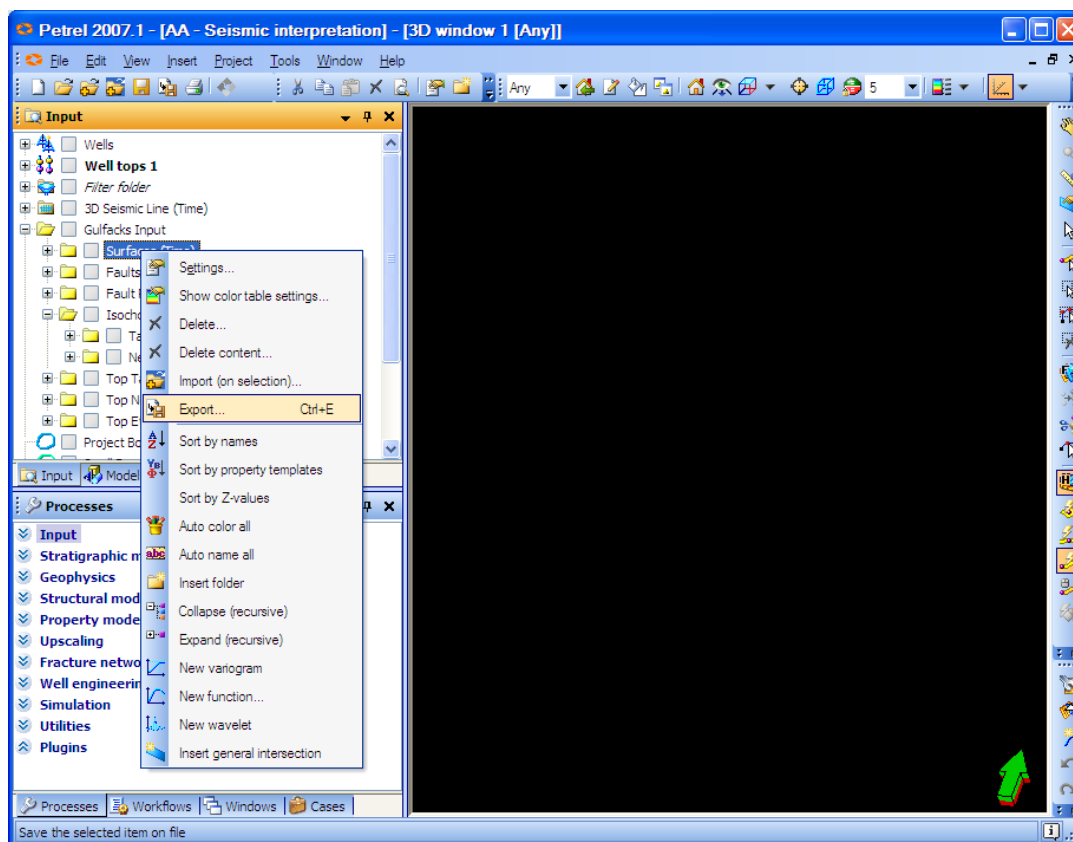


Fig.4.34: 3D window with **Export** drop-down menu