

NVivo 7 Tutorial 3:

Managing data: Cases, Attributes and Sets

For most new researchers an early concern is to learn the ways data are recorded. One aspect of this process is to store the context and the sometimes complex information that you have to accompany the qualitative data sources you are gathering via discussions, interviews or field notes.

In NVivo, you can store such information as **Attributes** of your **cases**, that is, the sites or individuals you are studying.

In this tutorial you will learn how to

- make **case nodes** to gather all the material about a case, and create the relevant values of variables, such as gender = female;
- create **attributes** and store the **values** for cases in NVivo;
- import a table of attribute values;
- and “tidy” sources and nodes into **Sets**.

Chapter 3 of *Handling Qualitative Data* is about the importance of making good data records, storing the information about cases which may be essential for your analysis and managing the data records.

For more detail about Attributes and Sets, go to the online Help.

Thinking nodes and coding

Nodes are containers for categories in your project, ideas or topics you are interested in. They can store references to data segments about any topic or concept. So they do what for most researchers is a most basic task of all qualitative projects – bringing together the relevant data content for a question or reflection.

You gather data together by **coding** those segments at a node. You can then view and review all of the data coded at a node.

Nodes and coding are the subject of the next tutorials. Most of the coding you do at nodes will be interpretative – recording your interpretation of the selected data and gathering everything about a topic at a node.

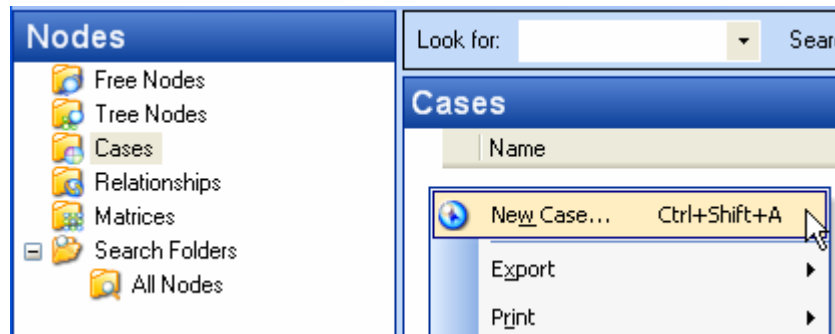
But nodes also have many important data management roles. They can hold all the answers to a particular question or store all the results of a query. And most obviously, they can hold all references to data about a case. In NVivo 7, any case for which you wish to record attributes is given a Case node.



In the previous tutorial, when you imported documents, an option was to **Code sources at cases**. If you are importing documents (e.g. interviews) that represent cases for which you want to store information, you simply select that option and the whole document will be coded at a case node with the same name.

Cases as data containers

In the Navigation Window, the second folder is for **Nodes**. This has five folders for different sorts of nodes. One of these is for **Cases**. In that folder, you can make new items. A new case will be represented by a node.



Sometimes, a case is represented by all of and only one document (for example in a project where interviews were conducted just once with each person). But this is unusual in qualitative research. More often, you have material about a case from bits of many sources, (a joint interview with a colleague, field notes on a meeting, bits of a focus group). To gather all that material about the case, you code it at a **Case Node**. Then you can see it all together and ask questions about it. You can also store information about the attributes of that case – e.g. this is a female, unemployed. Then, when you wish to find what unemployed females said about an issue, NVivo can locate all of the data coded at cases for which gender (attribute) = female (value).

To design cases for your project

For your own project, ask, “**What is a Case in this project?**” Try these ways to the answer:

- What is the project *about*?
- What *places or institutions or individuals* are you asking about?
- What classifications are relevant? What sort of information do you want to store, and what cases have that information?

Almost always these questions focus the study. If you are comparing schools, according to their socio-economic status and staffing profiles, *schools* are cases for this study. Code all the material about each school at its case node, and store there its attributes. Now you will be able to ask the comparative questions. (Did staff of working class schools have different attitudes to discipline?)

As you build more data about a school, you can code it at the relevant case node. The attributes recorded for that node will automatically apply to the new material.



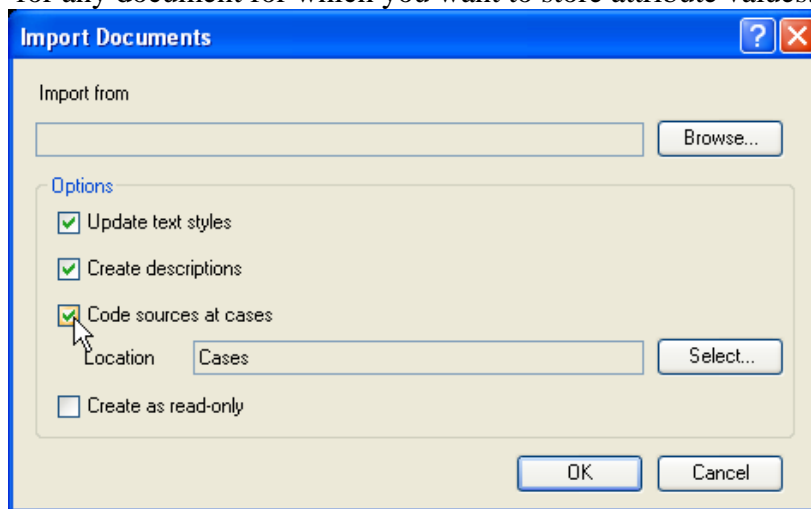
You can arrange cases in sub-groups, each under a more general case node. (A good design in the Sample Project would be to make case nodes for “Focus Group Participants” and “Interviewees”. And perhaps to have another node for cases of “Companies” working with volunteers.)

1. Bringing more data into your NVivo Project

To start this tutorial, prepare at least two more data documents, each of which represents a case, for example transcripts of interviews, each with one person. If you have no such data records yet, create documents from other sources, like website descriptions of relevant people.

To import documents and create case nodes for them

1. Import more documents into your NVivo project, following the instructions in the previous tutorial.
2. At the Import Source(s) window, click the option to **Code sources at cases** for any document for which you want to store attribute values.



(If you want to put these new nodes under case nodes for each type of case, click **Select** and select the node, e.g. “Interviewees”, “Focus Group participants”, “Companies”).

3. Click Browse to locate and import the source(s). In the **Navigation Window**, they appear in the **Documents List View**.
4. Go to **Nodes** and click on **Cases**. You have a new case node for each document (with the same name as that document). Click on a case node to see, in the **Detail View** what is coded there. You have coded at that node the entire document.

Now that you have a Case node, you need not restrict the material on this case to just one document. When you later get more data about that case, you can code that data at the Case node. But for now, the task is to store information about the attributes of that case.



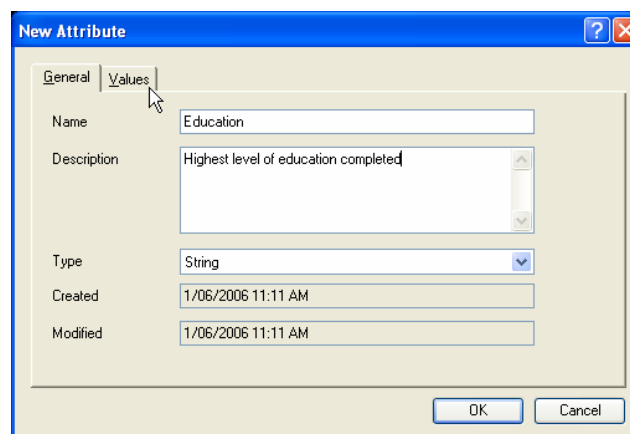
Note how often **Attributes** appear in the menus and dialogs. If you store information about the attributes of cases, this information will be useable in all **Queries**, “Find” processes and **Reports**.

2. Using attributes and values

If you know the attributes your respondents or sites will have (that is, the information you'll want to store about them), you can create them all now, with their values. But there is no need to – attributes and values can be created as needed. You can individually create attributes and allocate the appropriate values in NVivo. Or, if you have substantial amounts of this type of information (e.g. in an SPSS or Excel file) it can be imported as a table.

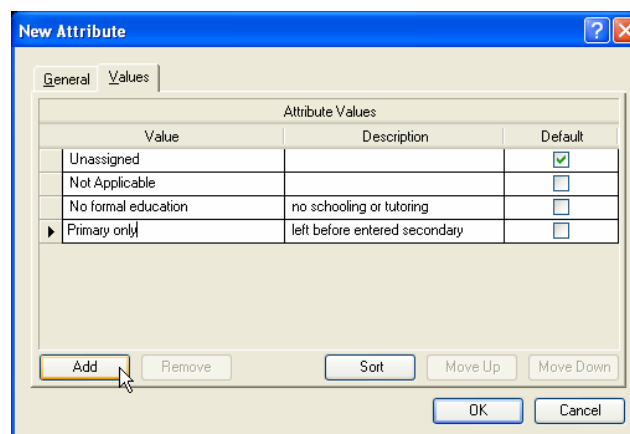
To create attributes and values

1. In the **Navigation Window**, select **Classifications>Attributes**. Right click in the **List View**. From the **Project** menu, (or the Context menu, or the New button) select **New Attribute**. The New Attribute dialog box is displayed.
2. Type in the **name** and, *unless it is absolutely obvious what you are recording*, a **description** of this attribute.
3. Select the attribute **Type** (string, number or date) from the drop-down list.
4. Click the **Values** tab to define the values for the attribute.



The screenshot shows the 'New Attribute' dialog box with the 'General' tab selected. The 'Name' field is 'Education', the 'Description' is 'Highest level of education completed', and the 'Type' is 'String'. The 'Created' and 'Modified' dates are both '1/06/2006 11:11 AM'. There are 'OK' and 'Cancel' buttons at the bottom right.

5. To add each new value, click the **Add** button and enter value name and optionally description.
6. Check the **Default** checkbox to specify which value will be allocated to new cases as a default (unassigned is usual.)



The screenshot shows the 'New Attribute' dialog box with the 'Values' tab selected. It displays a table of attribute values:

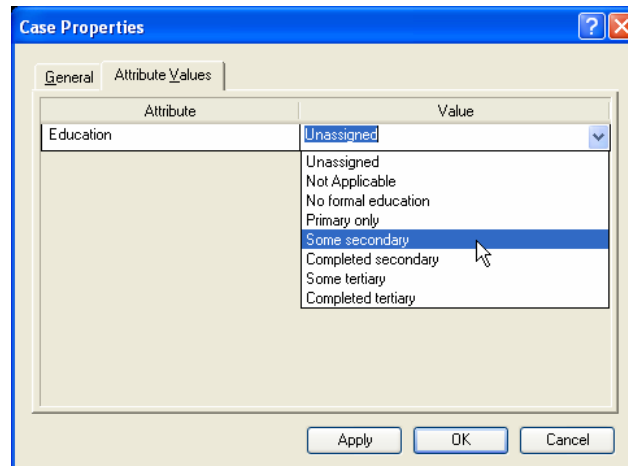
Value	Description	Default
Unassigned		<input checked="" type="checkbox"/>
Not Applicable		<input type="checkbox"/>
No formal education	no schooling or tutoring	<input type="checkbox"/>
Primary only	left before entered secondary	<input type="checkbox"/>

At the bottom, there are buttons for 'Add', 'Remove', 'Sort', 'Move Up', and 'Move Down'. The 'Add' button is highlighted with a mouse cursor. There are also 'OK' and 'Cancel' buttons at the bottom right.

To assign Attribute Values to Cases

If you know the information about an individual case, you can easily store it, or at any stage change it.

1. In **List View**, select the required case. From the **Project** menu or right mouse context menu, click **Case Properties**.
2. Click the **Attribute Values** tab and from the drop down menu for each attribute, choose the relevant value. Click **OK**.



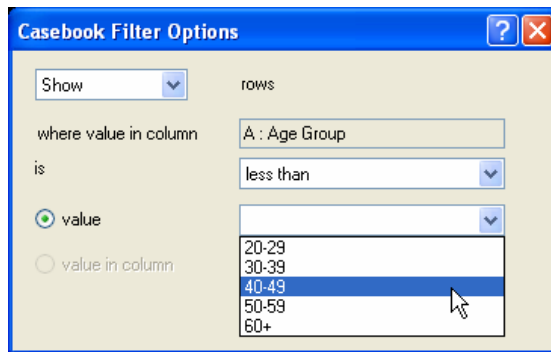
To view and use the Casebook

Information about attributes is best displayed in a table. NVivo shows the **Cases** you create, and their **values** for each **attribute**, in a table called a **Casebook**. You can view the Casebook, import a table to it or export from it the information stored so far.

1. From the **Tools** menu, select **Casebook>Open Casebook**.
2. The Casebook appears in the **Detail View**. It may look very small if you have only one case with only one attribute! But as your data builds up it will fill up. The Casebook for the sample project looks like this. You can print it.

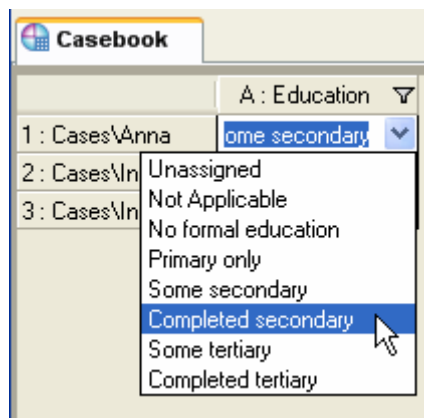
	A : Age Group	B : Country	C : Current pai...	D : Currently v...	E : Education	F : Ever done ...	G : Gender
1 : Cases\Anna	20-29	Aust	Student	Yes	Tertiary	Yes	Female
2 : Cases\Annette	40-49	US	None	Unassigned	Secondary	Yes	Female
3 : Cases\Annie	20-29	US	None	Unassigned	Tertiary	Yes	Female
4 : Cases\Bernade...	60+	Aust	Retired	Yes	Secondary	Yes	Female
5 : Cases\Elaine	30-39	US	Guest Services	No	Secondary	No	Female
6 : Cases\Grace	20-29	Aust	Marketing	No	Tertiary	Yes	Female
7 : Cases\Maie	30-39	US	Teacher	No	Tertiary	Yes	Female
8 : Cases\Mary	60+	Aust	Retired	No	Secondary	Yes	Female
9 : Cases\Olivia	50-59	US	Nurse	Unassigned	Secondary	Yes	Female
10 : Cases\Phoebe	30-39	Aust	Teacher	Yes	Tertiary	Yes	Female
11 : Cases\Roberta	30-39	US	Waitress	No	Secondary	No	Female
12 : Cases\Rosa	40-49	US	Teacher	Unassigned	Tertiary	Yes	Female
13 : Cases\Stepha...	20-29	US	None	No	Tertiary	No	Female
14 : Cases\Dan	60+	US	Retired	Unassigned	Primary	Yes	Male
15 : Cases\Fredric	30-39	Aust	Management Con	Yes	Tertiary	Yes	Male
16 : Cases\George	60+	US	Retired	Unassigned	Secondary	Yes	Male
17 : Cases\Jin	20-29	US	Bus Driver	Unassigned	Secondary	Yes	Male
18 : Cases\Jose	30-39	US	Teacher	Unassigned	Unassigned	Yes	Male
19 : Cases\Ken	60+	Aust	Retired	No	Secondary	Yes	Male
20 : Cases\Nick	30-39	Aust	IT	No	Tertiary	Yes	Male
21 : Cases\Raul	30-39	US	Insurance	No	Tertiary	No	Male
22 : Cases\Sunil	20-29	Aust	Software Consult	Unassigned	Tertiary	Yes	Male

3. Using the filter icons, you can change which rows appear. For example, to see only the under 40's in your sample, filter on the column "age group":

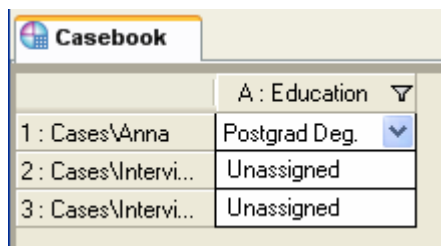



4. Case characteristics can be changed, when you get more information, or perhaps the circumstances of people are altered. At any stage, you can alter the value shown for any attribute of a case.

To alter it to an existing value, select from the drop down list.



To create a new value for a case, select the value in that cell and edit it – if, for example, Anna just graduated!



 Note that long names of attributes and values will be shortened in the Casebook - for efficiency, keep them as short as possible.

3. Importing attributes and values

You can import information to a casebook from any program that handles tables (a spreadsheet, data base, statistics package, or just a table you make in MSWord.)

An attribute table can be created “outside” NVivo and imported. You can create it by exporting attributes from a statistics package or spreadsheet. Or you can type up the table in spreadsheet or word processor software. If you have a lot of attributes and documents, this is more efficient than creating them in NVivo.

Please check the Help files for more detailed advice on the formatting of tables and the format selected for import

To create a table for import to a casebook

1. Type a small table in any program that will create a table (e.g. Word or Excel), with the names of your cases down the side. The top left corner cell can be blank, or have any word in it (such as Schools or Interviewees).



Make sure that the case names are the same as the names of case nodes in the NVivo project that you want to give these attributes to. If a case name is not recognized, NVivo will optionally create a new case node for it. If you don't yet have those case nodes in your project, this may be what you want to do (it's a quick way of creating case nodes). But if you have them slightly different, you'll get a lot of nodes!

2. Type names of attributes as the headings of the columns. (Keep them brief.)
3. Type into this table the names of the values for each case, under each attribute. If the attribute isn't applicable, leave the cell blank.

You will have a table that looks something like this (start small for a first try).

	Gender	Age	Income
Interview 1	Female	Under 20	None
Interview 2	Male	20-30	Middle

4. Save that table in your table-making software, selecting the options for cells to be tab-separated, and the “encoding” to be **Unicode Text (*.txt)**.

If you prepared your table in Word, check that there are no blank lines above or below the table, then on the top menu go to **Table>Select>Table**, then **Table>Convert>Table to Text** and choose **Tabs** for separation.

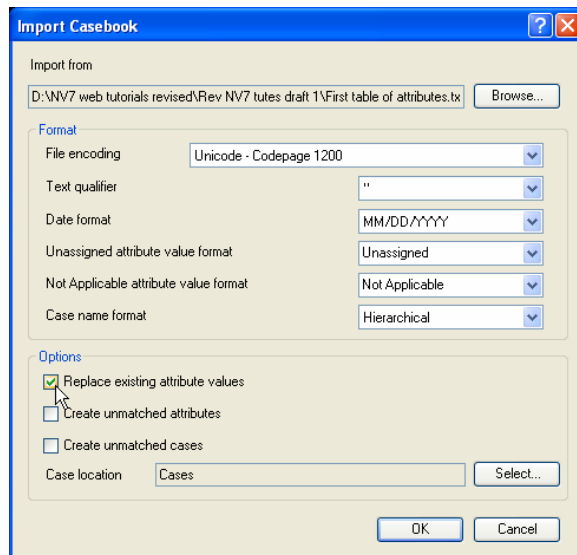
Now select **File>Save As** and from **Save As Type** and **Plain Text (*.txt)**. When you close the window, Word asks you to specify **File Conversion**. Unclick the **Windows (Default)** and instead choose **Other Encoding** and scroll down to select **Unicode**. This matches the default setting for importing Casebooks into NVivo

*Or: if you leave the File Conversion at Windows (Default), the table will import so long as you change the **File encoding** setting in NVivo to US-ASCII.*

5. Save it somewhere you will find it again!

To import a table into your Casebook

1. If you are unsure what you are importing, find and open the file you saved as plain text. It looks a lot less tidy than in its table format. But it has the same content as the table you saved. The cells are marked by tabs rather than neat lines. This is the version that NVivo can import.
2. In your NVivo Project, choose **Tools>Import Casebook**.



3. Click **Browse** to locate your tab separated table.
4. Check that the **File encoding** setting is correct for the table you saved.
5. Check the **Options**. You can ask NVivo to
 - overwrite existing values
 - create any attributes or cases your project doesn't contain.

6. Click **OK**. Now open the Casebook and check what you've done.



If the values didn't appear as specified in the table you imported, it's probably because you created those attributes prior to import, giving default values (usually not applicable) to the cases. If you didn't ask to overwrite existing values, these will remain.

4. Using Sets

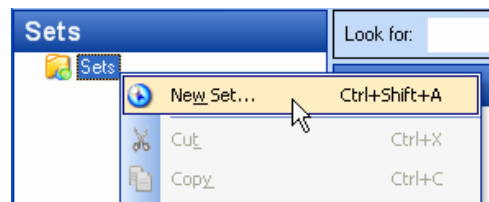
This tutorial finishes with the simplest way of managing your data records in NVivo, by grouping sources and/or nodes in **Sets**.

Whilst Sets are very easily made and used, they are also very effective quick ways to gather data in groups and ways into the most subtle and powerful searching processes (see Chapter 8).

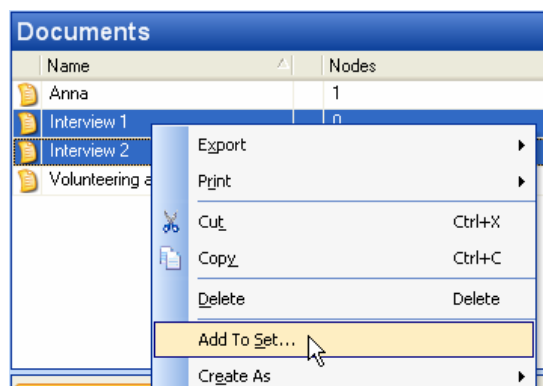
To make a Set

There are many ways to create a set in NVivo and add items to it. Whichever you use, what is added is a shortcut to the items you select.

1. To make a new, empty Set, click in the Sets folder in the Navigation Window, click on **Sets**.
2. Select (from the Project menu or Context menu or the New button) **New Set**.



3. Or, to make a new set with items in it, or add items to an existing set, go to the **List View** for those items (either sources or nodes) and select them. Then from the right mouse Context menu select or **Add to Set** or **Create As Set**.



4. Check the contents of a set by clicking on it in the Sets folder; the sources or nodes you put in it will show in the List View. Note, the icons are different – these are shortcuts to the item. So you can put a source or a node in any number of different sets.



5. As a final exercise for this tutorial, think of useful ways you could group your documents and nodes for your project's purposes. In the example above, the researcher created a set for all coded sources – a useful way of checking whether coding is proceeding as planned.

For most qualitative projects, a useful set is of documents and/or nodes coding content that will contribute to your “log trail”, your growing account of the project and how it is conducted. Visit the final chapter of *Handling Qualitative Data* to read about the task of doing a “stock take” of your writings about the project. This will be much easier if there's a pointer to each relevant document in a set called “Log trail documents”.

This concludes NVivo 7 Tutorial 3.

Got to Chapter 3 of [Handling Qualitative Data](#) for advice on any of these research processes.

You now have a project with data documents and information about their context, and have started managing those records in sets. Time to back up.

In the next tutorial, you'll learn skills for discovery and handling of the ideas that come from the data.