



**Centre for Staff & Educational
Development (CSED)**

Discover your potential



Introduction to

NVivo

part 1

Introduction to NVivo 11

Version 1.0

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This document is produced by the **Centre for Staff and Educational Development** at UEA. It provides an introduction to the basic use of the qualitative data analysis software NVivo 11 for those who have some experience of using a Microsoft application such as Word, and who are familiar with a Windows environment. It is not a research methods course.

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1. Why Use NVivo?

CAQDAS and Qualitative Data

Most researchers are comfortable with the idea of analysing quantitative data on a computer; we are happy with numbers and there is plenty of software around for performing statistical analysis, for example SPSS. We may not be quite so sure about working with qualitative data; how can a computer help us with organising ideas and concepts and data captured from unstructured interviews or open questions in surveys?

NVivo is a package that falls into a category of software known as CAQDAS (Computer-Assisted Qualitative Data Analysis Software). Using such software makes qualitative data analysis easier - it can't analyse the data for us but it can assist us.

There are definite benefits in using a CAQDAS package for organising materials and your research ideas compared with doing it manually; being able to find things once the data mounts, cross referencing, identifying trends and patterns or connections, working directly with audio visual sources, even producing diagrams or 'models' showing relationships. All this can be done with a package such as NVivo.

NVivo 11

With an interface that reflects the current Microsoft standard where instead of having menus and toolbars you work with a tabbed ribbon, NVivo 11 will allow you to carry out qualitative data analysis of unstructured data. NVivo 11 has much greater functionality than previous versions. It handles virtually any data, including Word documents, PDFs, pictures, database tables, spreadsheets, audio files, videos (imported video files and YouTube content), social media data and web pages. NVivo 11 is available for the Mac.

For up-to-date information visit www.qsrinternational.com where you'll find lots of material including tutorials and videos.

Getting NVivo 11

At the time of writing, the UEA Schools listed below have made an up-front annual contribution to the site licence fee and copies of the software (including new versions/updates) may be installed free of further charge on an unlimited number of computers belonging to these Schools, or on computers personally owned by their staff or students. Participating Schools include AHP, DEV, DOS, EDU, ENV, MED, NSC, NBS, SWK, FTM, PSY and PSI. For instructions please go to <https://portal.uea.ac.uk/itservices/software/application-catalogue> which tells you how to install the software yourself on a UEA PC. For installing on a laptop ask at the IT Help Desk (ext 3169) or Staff Help Desk (ext 2345) or email it.helpdesk@uea.ac.uk.

2. Getting Started with NVivo Projects

Starting NVivo

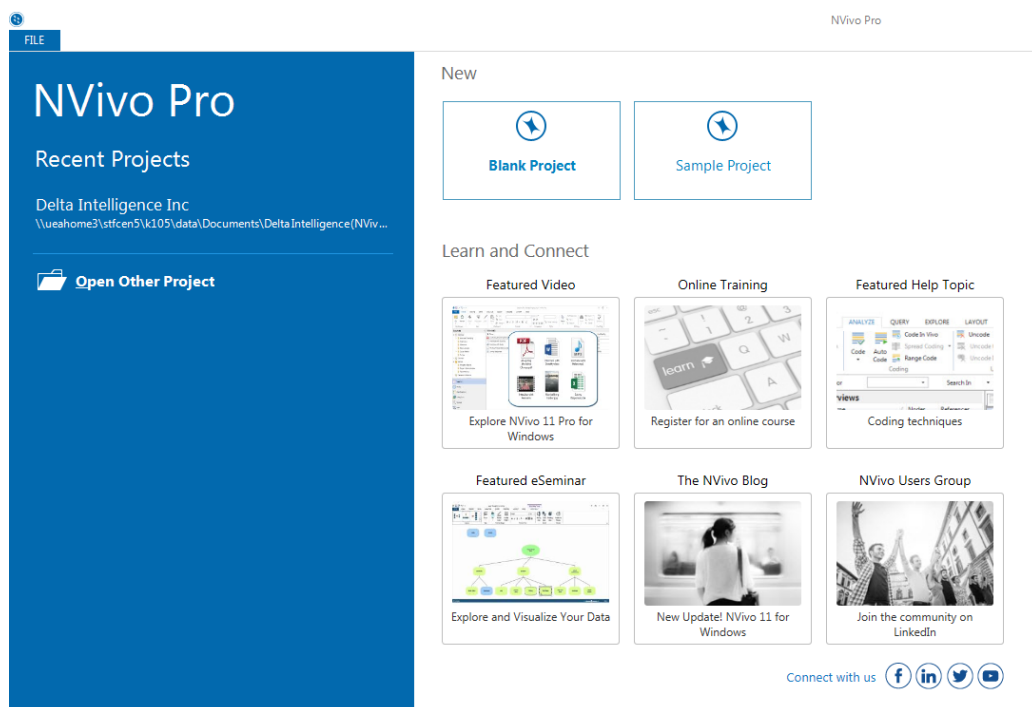
Double-click the **NVivo 11** shortcut icon
OR

Click on **Start, All Programs, UEA Research and Teaching Applications, QSR NVivo 11, NVivo 11**

(Note – the above path may vary slightly depending on the installation)



You will see the NVivo opening window:



All information for any particular research project is stored, naturally enough, as a Project, and you can see that Recent Projects are listed for ease of opening. There is an option to create a **Blank Project** and to **Open Other Project**.

Current versions of NVivo dispense with menus and instead we have a Microsoft-style ribbon with several tabs. We do still have a **FILE** tab containing the standard file management options and access to **Help**.

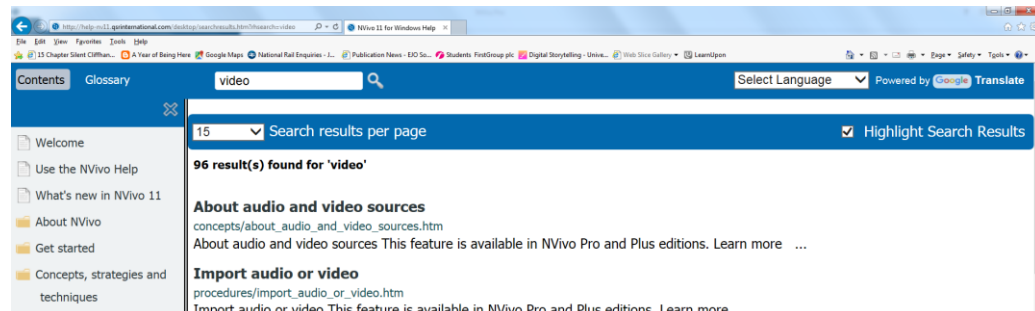
NVivo Help and Tutorials

NVivo has online help, tutorials, FAQs and a Getting Started Guide to explain the basics of the software and get you started on a project.

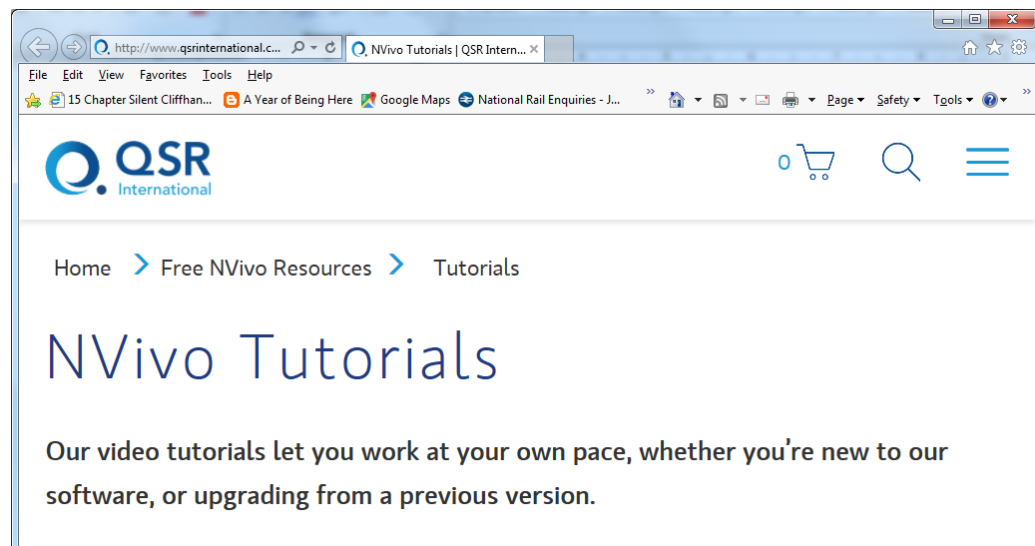
To access Help:

Click on **File tab, Help**

Here we clicked on **NVivo Help** (or **f1**), then typed 'video' in the search slot and pressed **Return**:

**To take a look at the available Tutorials:**

Click on **File tab, Help, NVivo Tutorials**



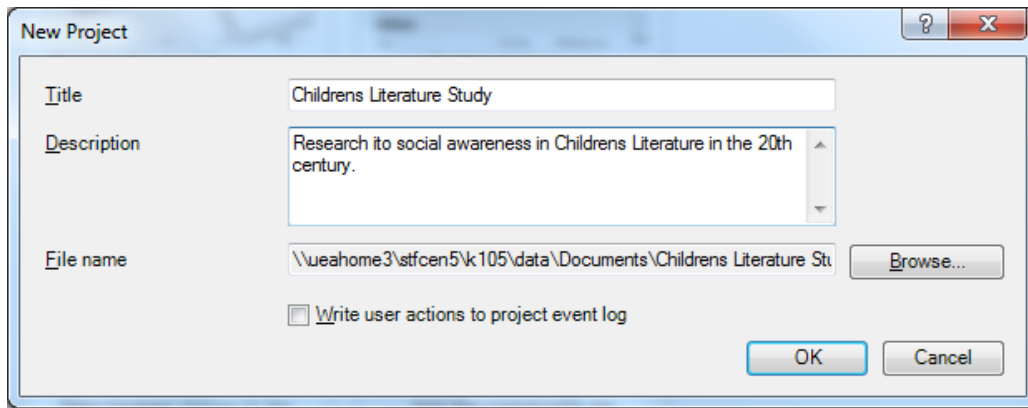
Scroll down to find the version of NVivo you require, ie **NVivo 11 for Windows** (NVivo 11 for Mac is available), click on **View Tutorials** and locate required topic

Creating a New Project

We will begin by creating a new NVivo project, so at the NVivo opening window...

Click on the **File tab, New**

You will see the New Project dialogue box and must give the project a name and (optionally) a description. Note that Project names cannot contain characters such as \ / : * ? " < > | and trailing spaces will be ignored.



You choose where the resultant files will be saved. The default location in this example is the **u:** drive (central filestore). It is not advisable to work across the network on an NVivo project because it can be huge, and if there is any loss of service your work may become corrupt. The **c:** drive (hard disk) is preferable and would be the choice if you were using your own laptop and travelling around a lot, especially when working in the field and wanting to capture and store data as you go. By all means back up your project to the **u:** drive (as this in turn is backed up regularly) but work locally, on an external storage device if you have to.

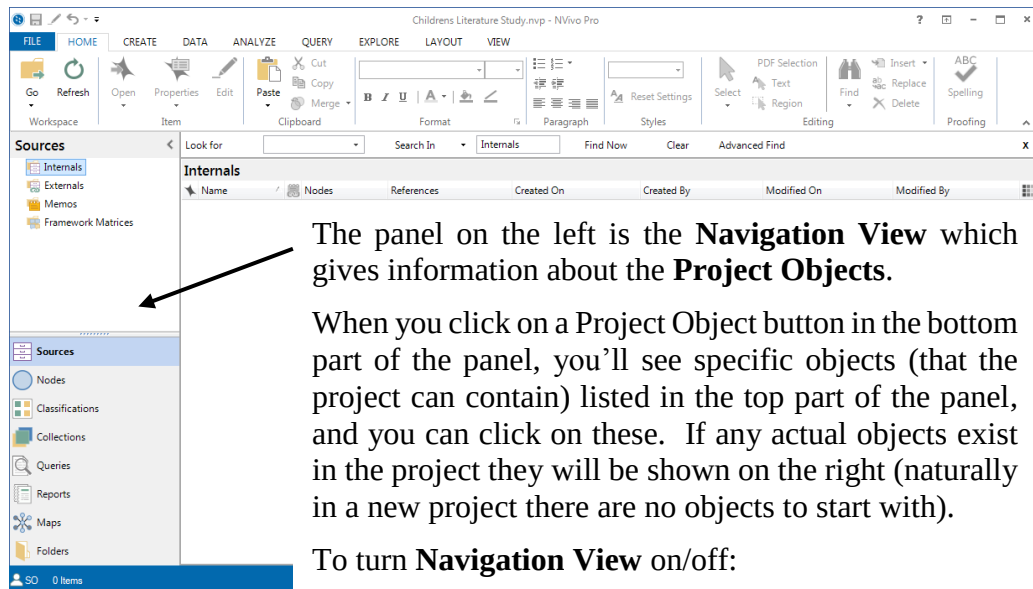
To change the file location:

Click on **Browse** button, navigate to preferred location and click on **Save**

NVivo will create an **nvp** file for each project (eg **Film Studies.nvp**) which contains everything associated with it, so this can easily be moved to another location and backed up whenever this is required.

Click **OK**

After a few moments a new project window will open with the project title displayed on the title bar. You can only open *one* project at a time, if you open or create another project the one previously on your screen will be closed.



We will use some of these objects later, but for now close the Project:

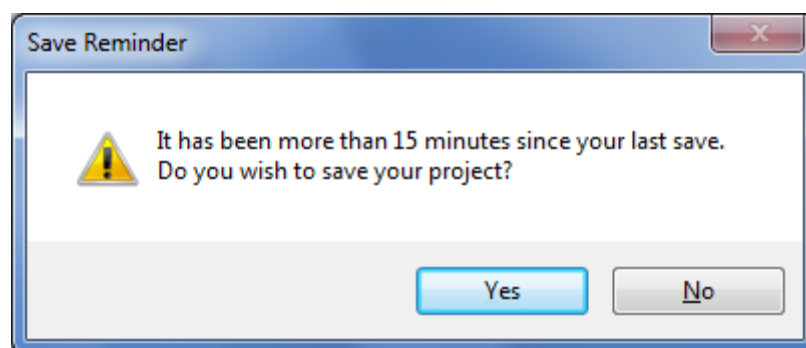
Click on **File Menu, Close**

Saving an NVivo Project

Saving is not automatic in NVivo - you must save the project regularly while you are working:

Click on **File Menu, Save**

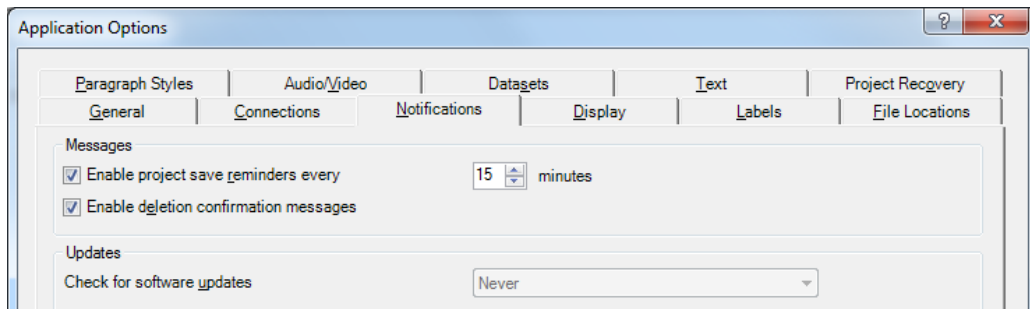
Otherwise a useful reminder will appear by default whenever you have not saved for longer than 15 minutes.



Click on **Yes** to save the project

It is sensible to leave this turned on, but if you want to examine the settings:

Click on **File tab, Options, Notifications Tab**



Click **OK** to close the dialogue box

Deleting an NVivo Project

You cannot delete a project from within NVivo. What you must do is use Windows Explorer to navigate to the location of the **.nvp** project files and delete the project as you would any other file.

Note that you can create a new project with the same name and location as an existing one, and opt to overwrite the original, thereby deleting it, but it would be very unlikely you could do this accidentally.

Opening an Existing NVivo Project

Start NVivo as explained earlier then to open a project:

Click on project name in **Recent Projects** list

OR

Click on **Open Other Project** at foot of list

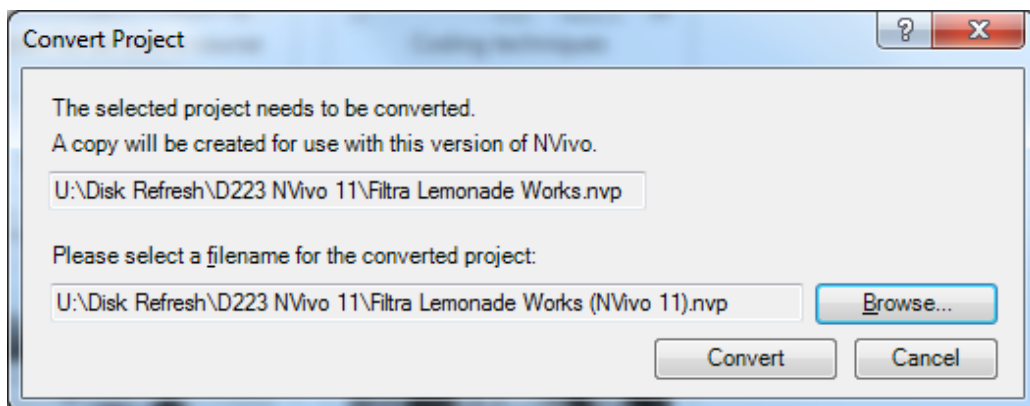
Locate and select the project file, click **Open**

OR

Click on **File Menu, Open, Browse**

Locate and select the project file, click **Open**

Any projects created with earlier versions of NVivo can all be opened with NVivo 11. You will be given the option to save a converted version of the project:



You must choose a location for the converted project (the original remains unchanged) and you can change the name. Notice here how the label **“(NVivo 11)”** has been added to the original filename – this means it could be saved in the

same location as the original and would not overwrite it. You can modify the name before clicking **Convert**. The converted version will be a slightly larger file than the original.

Backup Your Projects Regularly

Backing up your valuable research work is essential and should be done on a regular basis. With the earliest versions of NVivo there was a backing up procedure to follow, but since NVivo 7 the software creates a single **.nvp** file for each project, so it is simply a matter of making a copy of this file and placing this in a separate location, as you would with, say, a PowerPoint show or a Word document.

Closing a Project

To close down a project when you have finished the session or want to work on another project:

Click on **File tab, Close**

Exiting NVivo

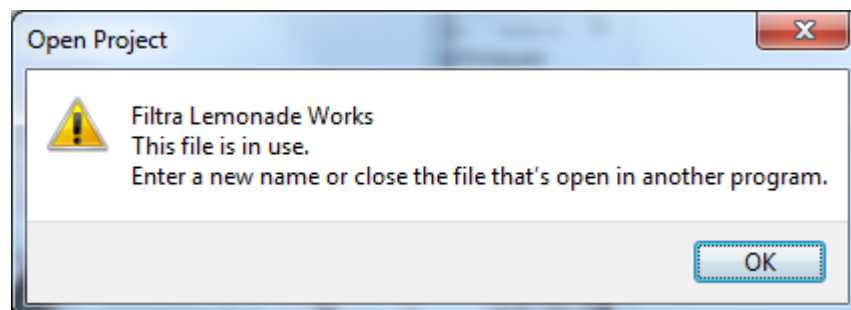
To exit from NVivo and close it down:

Click on cross at top right corner of window

If prompted, confirm that you *do* want to save any changes

Working with Others on a Project

More than one person can work on the same NVivo project provided they have access to it (ie using a shared drive or perhaps an external hard drive), though if the project is already in use by one person it cannot be opened by another at the same time and the following message will be displayed:



The contributions of separate users can be identified (see the information about Coding and Sub-stripes later in this book) and when querying it is possible to restrict searches to coding by a specific user.

3. Data Sources

Importing Your Data into NVivo

‘Sources’ is the term used to describe the data you will be working with in NVivo. This will fall into one of three categories; **Internals**, **Externals** or **Memos**.

Internals

These you will import, or even create in an NVivo project and they can include Documents (text such as interview transcripts, field notes, questionnaire responses), Video, Audio and Images.

Externals

These are stand-ins or proxies for primary research materials that cannot be imported such as Handwritten Documents, Books, Magazines, Rare or Delicate Manuscripts, Artefacts, Web Pages, PowerPoint presentations etc (although now of course you can include photographs in your NVivo projects). Sometimes you will record details of these items, and sometimes you will be able to link to them (eg to a web page or a file on your computer).

Memos

Usually these are text files that you import or create in NVivo that constitute secondary research materials, such as your observations and insights and general notes about your research. Links can be made from Memos to other objects in your project. You might find it useful to create a Research Diary as a Memo in which to record your thoughts.

Acceptable File Types with NVivo 11

Material to be imported must be in a format NVivo can handle, so you may have to do some work preparing or converting data into appropriate file types. A scanner will be useful, particularly one with optical character recognition facilities for obtaining long extracts from printed sources such as books.

NVivo 11 will allow you to import the following file types:

Documents	Plain text (txt), Rich Text Format (rtf), Microsoft Word documents with embedded objects such as tables or equations or images (doc or docx), and Portable Document Format (pdf).
Images	bmp, gif, jpg, jpeg, tif and tiff
Audio	mp3, wma, wav and m4a

Video	mpg, mpeg, mpe, mp4, wmv, avi, mov, qt, 3gp, mts and m2ts <i>If an individual audio or video file is under 20Mb it will be embedded in the project, otherwise a link will be made to it.</i>
Other	Datasets from Excel (xls,xlsx) or from Access table/view Bibliographical data from a package such as EndNote, Zotero or RefWorks: data in RIS format stored in text files (txt or ris) or data in EndNote XML format stored in an XML file (xml). OneNote notes using an NVivo Add-in. Evernote notes as a way of gathering data with smartphones and tablets. Web pages, facebook, Linkedin, Twitter data and YouTube content using NCapture, a web browser extension.
You can find lots of advice and information in NVivo Help if you search on “file formats” or similar.	

Working with Images, Audio and Video material will be dealt with in a separate training document.

Importing Internals

To import internals of any kind:

Click on **Data Tab**

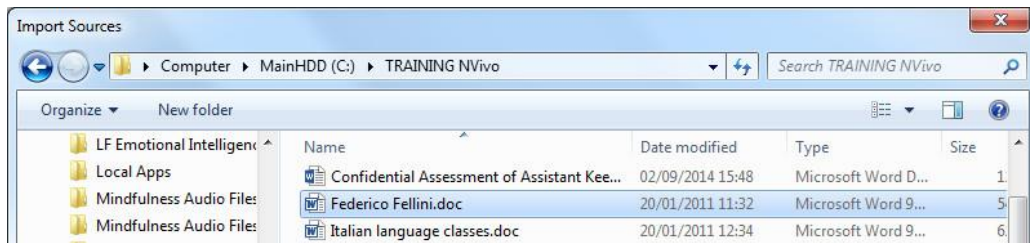


In our example we will import document files (**txt, rtf, doc, docx, pdf**), but it is the same for Audio, Video, Picture and Memo files.

Datasets are different and will be examined separately.

Click on **Documents button**

Note – click on Memos rather than Documents if you want to import document files directly as memos. They will be placed in the Memos folder. Memos are explained on Pg14.

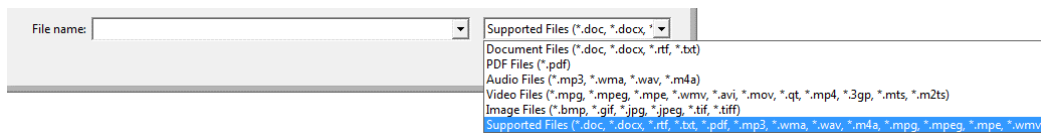


Click on the **Browse** button to locate the files

Hold **[Ctrl]** to select more than one file

You might want to set **Files of Type:** to **Supported Files** if you are importing several different kinds of file at the same time. To do this:

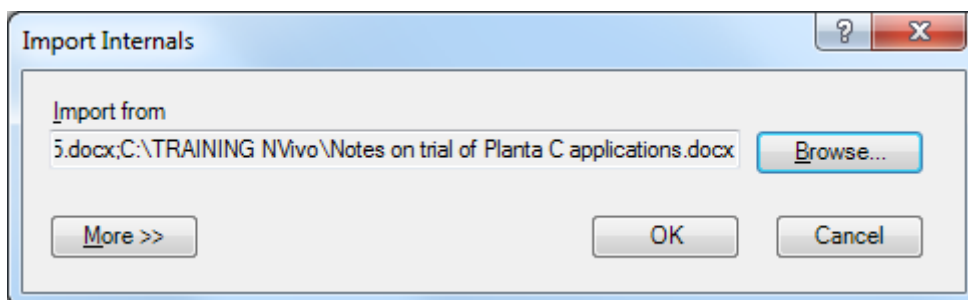
Click on the **down arrow** on the 'file type' button to the right of the **File name:** slot



Click on **Supported Files (*.doc, *.docx.....)**

Then when you have selected the files to import:

Click **Open**



Click **OK** to import the files

If importing a single file you will be given the option to change properties such as the Name or Description.



Click **OK**

The documents/internals are imported and are listed in NVivo:

Internals					
Name	Nodes	References	Created On	Created By	
Italy	0	0	27/09/2016 12:06	SO	
Monthly Bulletin for August 2015	0	0	27/09/2016 12:18	SO	
Notes on trial of Planta C applications	0	0	27/09/2016 12:18	SO	
statue	0	0	27/09/2016 12:26	SO	
talk	0	0	27/09/2016 12:26	SO	
brighton_eclectica_podcast	0	0	27/09/2016 12:27	SO	
Italy (2)	0	0	27/09/2016 12:28	SO	

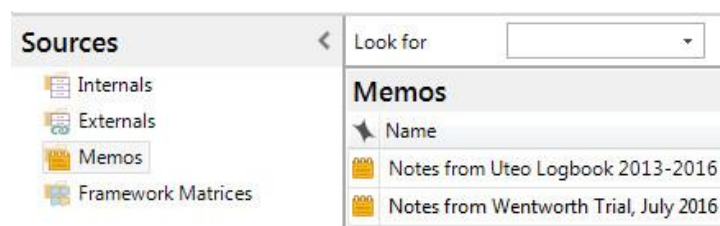
These are copies of the original files which are now part of the NVivo project (the original files are not affected at all). The icons indicate the type of file. If you import a file more than once, the separate copies are given a number eg (2).

The **Nodes** and **References** columns display zeros until we start working with these internals in NVivo.

Internals Versus Memos

As well as having Internals/Documents (ie data) in the project we can also have Memos. Memos are almost the same as internals but are stored in a different folder.

The idea of Memos is that they are generally *about* the research but do not themselves constitute primary data - for example, if we wanted to keep a research diary or project journal it should ideally be saved as a Memo. You will already appreciate the benefits of keeping such a record as you progress through any kind of research, and it is sensible to have the same sort of thing as part of your project in NVivo. It will provide you with somewhere to note when things happen, your ideas and thoughts as you work, and reminders of what you need to do, or what questions you need to ask, or ideas you should explore. It can prove invaluable during the research and later when you begin to write it up.



Examine the list of Sources on the left of the screen. When you display Sources the Internals are shown by default.

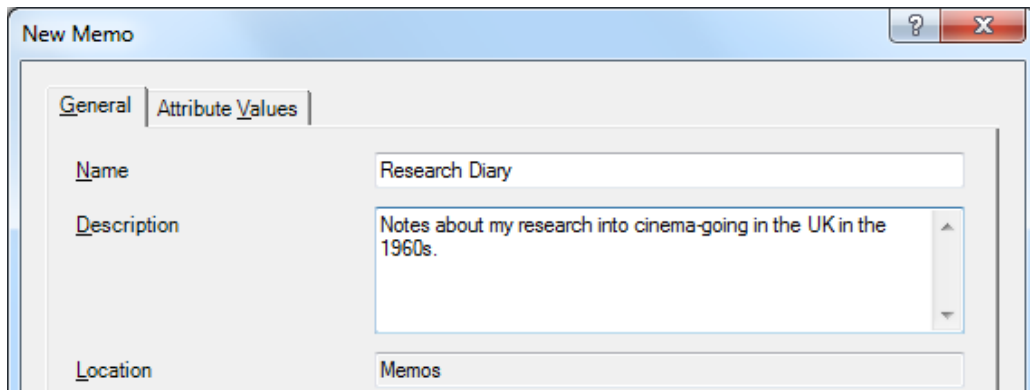
Click on **Memos** to see them

Click on **Internals** again

Creating a New Internal or a Memo

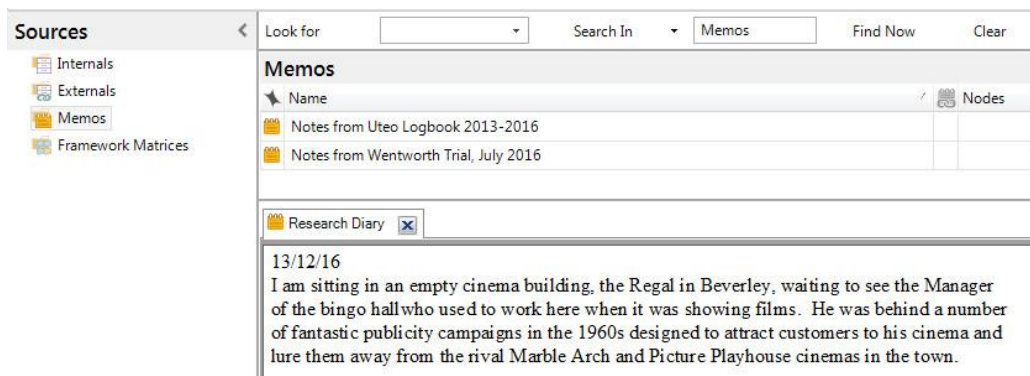
As well as importing documents you can create new internals (documents) or memos in NVivo. The method is the same whichever you are creating. This time we will create a new document:

Click on **Create Tab, Document** (or **Memo**)



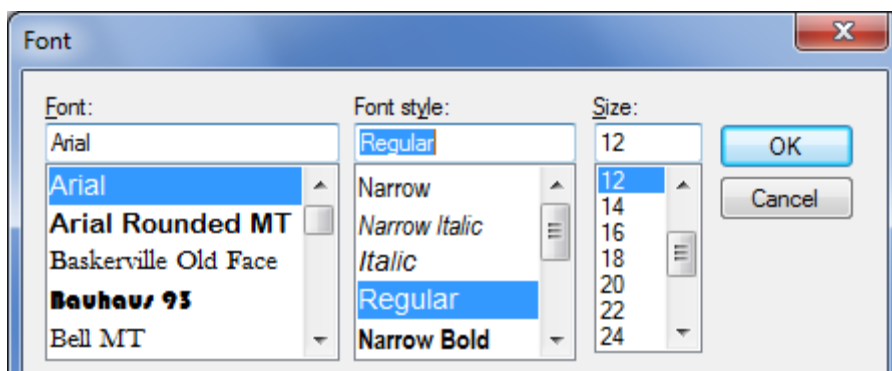
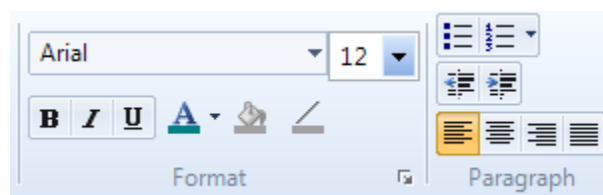
Give the document a name, eg **Research Diary** and (optionally) give a description, then click **OK**

The new document appears in a tabbed window to the *right* or *below* the list of internals and you can start working on it – you will find it behaves like a basic word processor. The name tab is useful for switching between several open sources (or other objects).



Standard text editing tools are found on the Home Tab.

For more options click on the small arrow to the right of the word 'Format' to launch the Font dialogue box:



To open an internal:

Click on **Sources** on the left, then on **Internals** to list them

Double-click on the document to be opened

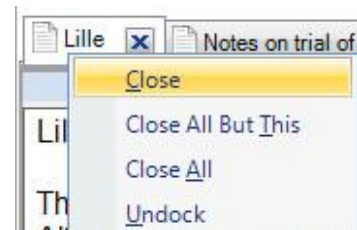
To edit the document click on **Click to edit** option

**To close an internal:**

Right-click on the name tab and on **Close**

OR

Click on the cross on the name tab

**To move an internal:**

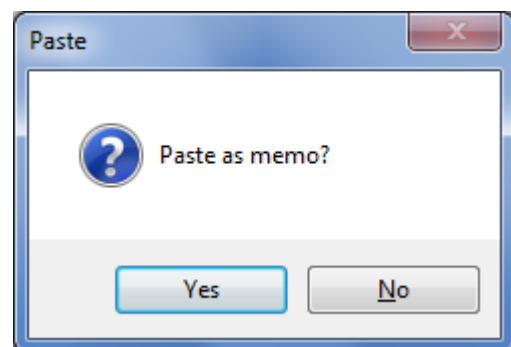
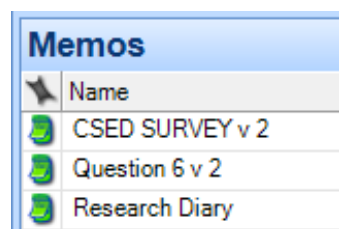
You can move the Research Diary (or any document) to the Memo folder to make it into a memo - simply cut and paste in the normal way:

In **Documents** list, right-click on the internal to be moved, and click on **Cut**

In the **Sources** list on the left right-click on **Memos**, then click on **Paste**

When asked "Paste as memo?" click on **Yes**

The internal is now a memo.

**Creating External**

You would create an External to represent and in many cases connect to data that you cannot import into NVivo. There are three types of External:

File Link This is where a file exists on your computer, such as a PowerPoint presentation or an Excel worksheet. A link can be made to this file in the project.

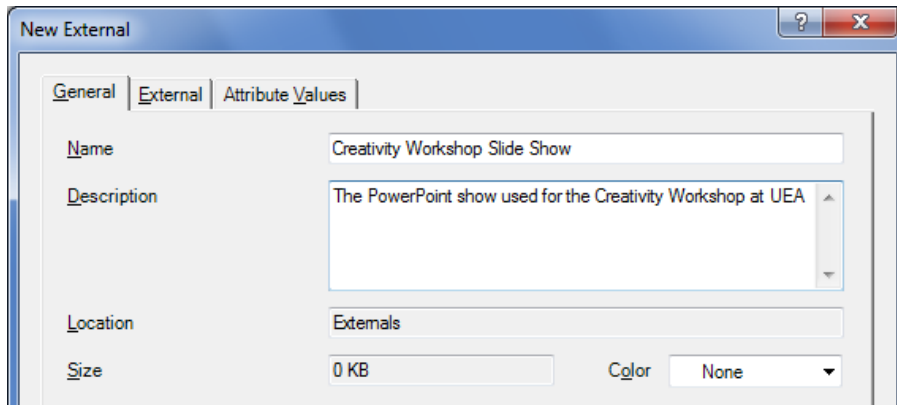
Web Link When you want to refer to a web page you can create a live link to it within the project.

Other This would be an item that is not stored on the computer such as a book, hand-written diary or an artefact. In the project you can indicate where this item is located and give some details about it.

Click on **Create Tab, External**

The **New External** dialogue box appears and you can describe the External. These instructions explain how to create all three types of External (**File Link**, **Web Link** and **Other**). In all cases...

Click on the **General** tab



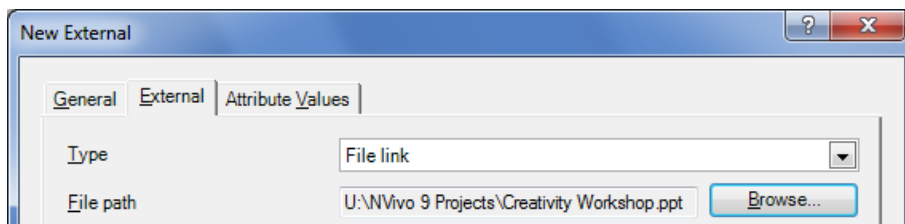
The screenshot shows the 'New External' dialog box with the 'General' tab selected. The 'Name' field is filled with 'Creativity Workshop Slide Show'. The 'Description' field contains the text 'The PowerPoint show used for the Creativity Workshop at UEA'. The 'Location' field is set to 'Externals'. The 'Size' field shows '0 KB'. The 'Color' dropdown menu is set to 'None'.

Give a **Name** and (optionally) a **Description**

Click on the **External** tab

To make this a File Link...

Click on the down arrow next to the **Type** slot and select **File link**



The screenshot shows the 'New External' dialog box with the 'External' tab selected. The 'Type' dropdown menu is set to 'File link'. The 'File path' field contains the text 'U:\NVivo 9 Projects\Creativity Workshop.ppt'. A 'Browse...' button is located to the right of the 'File path' field.

Click on the **Browse** button and locate and select the file you wish to link to, then click **Open**

To make this a Web Link...

Click on the down arrow next to the **Type** slot and select **Web link**



The screenshot shows the 'New External' dialog box with the 'External' tab selected. The 'Type' dropdown menu is set to 'Web link'. The 'URL path' field contains the text 'http://www.bbc.co.uk'. A 'Browse...' button is located to the right of the 'URL path' field.

Type or paste a valid web address in the **URL path** slot, eg **www.bbc.co.uk**

To make this an Other...

Click on the down arrow next to the **Type** slot and select **Other**

New External

General External Attribute Values

Type: Other

File path: Browse...

Location description: Row 5 Cabinet 12, Store A, Margate House, Eshlelton, Wilts

Contents: Video

Unit: Minute

Start range: 0 End range: 22

There is no link to be made but you need to give as much information as possible about the location and nature of this item. There are drop-down lists to help you, or you can type your own text in the slots.

If it is appropriate you can specify a unit and a numeric range so you can pinpoint where a particular bit of data is. So for audio or video you might give a unit of time and specify a range (in the example right we have taken “Minute” as our unit and said the range is 0-22 minutes, so we can indicate the action at certain points in this tooth extraction video example.

Tooth extraction short film 23-1

- Minute 0
- Minute 1
- Minute 2
- Minute 3
- Minute 4
- Minute 5

If the external was a document we might have “Page” as the unit.

In all cases, whichever External you have created, when you have finished...

Click **OK**

Externals are listed like internals or memos and you can type further detailed information in the text area associated with them, as shown below.

Sources

Look for: Search In: Externals

Externals

- test
- Tooth extraction short film 23-10-08
- Tooth extraction short film 23-1

Minute 0

Minute 1 - Patient looking nervous

Minute 2

Minute 3 - Dentist injects anaesthetic

Minute 4

Minute 5 - Patient twiddles fingers

To open an External in this way:

Double click on the name of the External in the list

Bear in mind that you are only looking at the descriptive text here, you have not actually opened the File Link or the Web Link.

To open an External file or website:

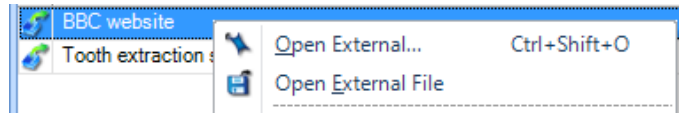
Right-click on the External and select **Open External File...**

If this is a Web Link the browser will be launched and the web page displayed. If it is a File Link the appropriate software will be launched (assuming the PC recognises the file type) and the file will be displayed.

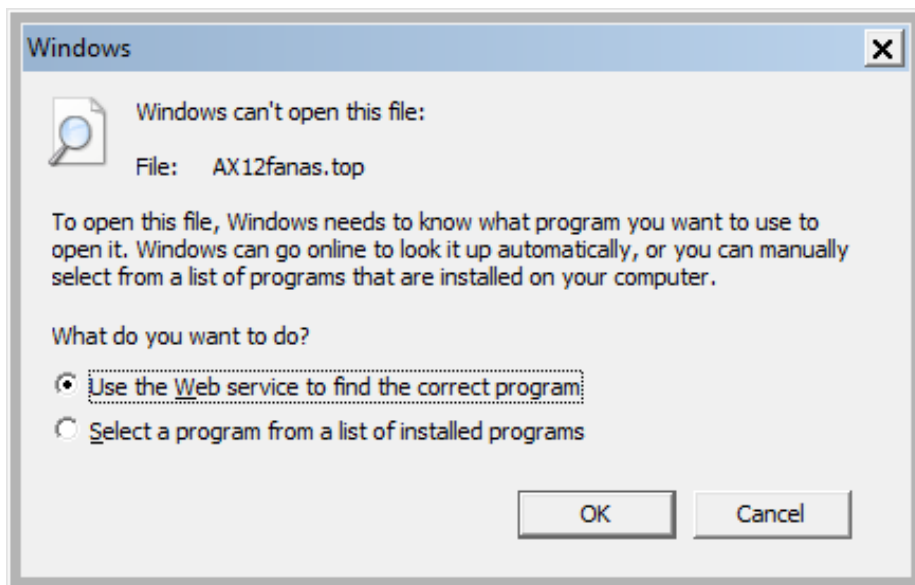
Just to be clear, when you right-click on an external name in the list; **Open External...** will

open the text window associated with the external

Open External File will open the actual external file or website



If you have linked to a file that cannot be opened (because you don't have the right software to do it) you will see the following error message:



Deleting an Internal, External or a Memo

In the **Sources** list click on **Internals**, **Externals** or **Memos** as appropriate

In the list right-click on the item to be deleted, then on **Delete**

Confirm that you do want to delete the item

5. Coding

Coding Internals

Having created (or imported) some internals, memos and initial nodes, the next step is to start coding the internals with the nodes. You may also create new nodes as you look through your data and new themes and ideas emerge.

Start by opening an internal (or it could be a memo). In Navigation view...

Click on **Sources** button on the left, then **Internals**

Double-click on the desired internal name

With the internal displayed you can now list the nodes you wish to code with.

Click on the **Nodes** button on the left

You may find it helpful to change the relative positions of Nodes and Internals - usually Internals are placed below Nodes, but you can have the Internals to the right:

Click on **View Tab, Detail View, Right**

	Amber	0	0	Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme. Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.
	George	0	0	
	Martha	0	0	
	Maurice	0	0	
	Tony	0	0	

To return to the original orientation:

Click on **View Tab, Detail View, Bottom**

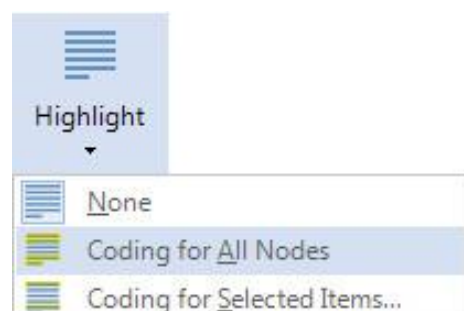
You can drag the dividing bar (between the Nodes and Internals) to show more (or less) of the internal if you need to.

There are several ways to code, though the ‘drag and drop’ method described below is probably the most convenient.

Highlighting Coding

Before starting to code it is sensible to turn on coding highlight, otherwise you will have no visible indication that you have coded document text.

Click on **View Tab, Highlight, Coding for All Nodes**



Now you will see which text has been coded, as shown below. Coding Stripes will give more information about coding and they are explained after the main coding methods.

The node/case can later be referred to by the shorter Nickname – this is useful if the original name is a particularly long one.

The **Aggregate coding from child nodes** option can be turned on for this node, and/or a **Color** can be assigned to the node (or source, user or attribute value):

Click in **Aggregate coding from child nodes** checkbox
Click on down arrow next to **Color** slot and click on a colour

Click **OK**

Nodes are displayed in a simple list, to see this:

Click on **Nodes** at lower left of the screen

Nodes						
Name	Sources	References	Created On	Created By	Modified On	
Financial Issues	0	0	17/12/201	K	17/12/2010 11:45	
Local Authority Intervention	0	0	17/12/201	K	17/12/2010 11:46	
Obstacles to Action	0	0	17/12/201	K	17/12/2010 11:46	
Stress	0	0	17/12/201	K	17/12/2010 11:45	

To the left of this list you will see different categories of node; **Nodes, Cases, Relationships and Node Matrices** (Cases is new in NVivo 11). Click on Cases to see a list.

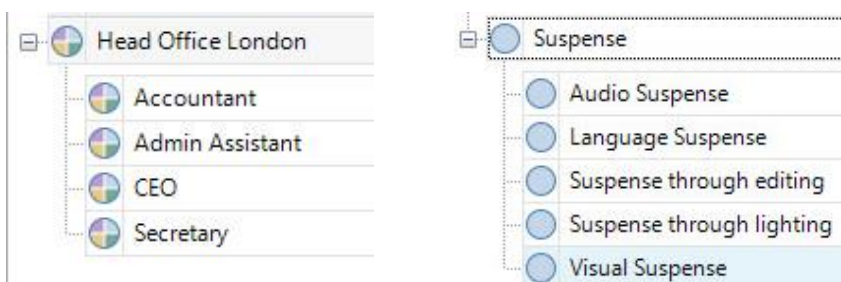
If you have assigned a Color this is shown to the right of the node:

Nodes						
Nodes	Cases	Relationships	Node Matrices			
Success	1	5	28/09/2016 12:	SO	28/09/201	SO

The use of Aggregation and Color are explained further when we deal with coding in the next section of this document.

Creating a Node or Case Tree Structure

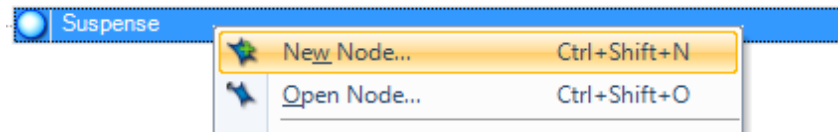
Some of your ideas and concepts (nodes) will conveniently fit into a tree structure, especially where there is a sense of hierarchy and particularly with cases. It is useful to use 'parent' and 'child' nodes or cases to more effectively organise people, places, events etc, or to group nodes into subtle gradations of meaning. For example...



On the left we have used a tree structure to group cases of interviewees under their workplace. On the right a Suspense node has been used to group nodes representing different ways suspense can be created in a film. Use plus (+) and minus (-) symbols on left of a parent to show/hide any child nodes.

To create a child node:

Create or identify the parent node, eg **Suspense**
Right-click on the parent node, then on **New Node**



In the **New Node** dialogue box describe the node in the usual way and click **OK**

The new node will now be a child of the 'Suspense' node.

To move a node to be under a parent:

Here the 'Suspense through lighting' node needs to be a child of the 'Suspense' node:

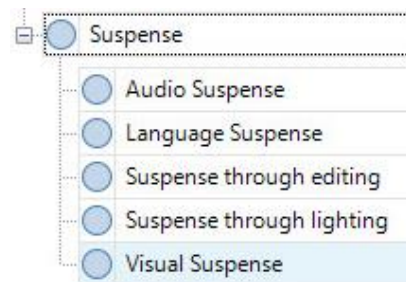
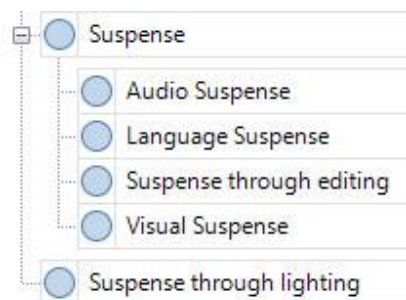
Drag the '**Suspense through lighting**' node and drop it onto the '**Suspense**' parent node

OR

Right-click on the node to move, then on **Cut**

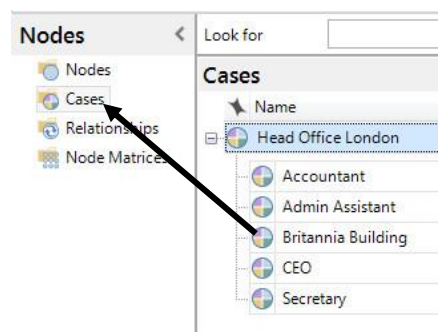
Right-click on the parent node, then on **Paste**

'Suspense through lighting' is now a child of 'Suspense'.

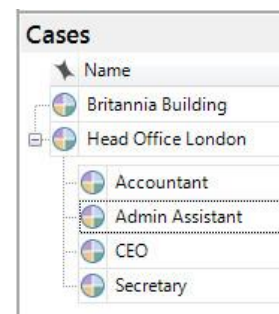


To move a child (node or case) up to top/root level:

Drag the child case onto the Cases folder on the left



You can see that **Britannia Building** needs to be moved to the top/root level. Dragging it onto the Cases folder achieves this.



Defining and Creating Relationships

Unlike basic nodes and cases, a Relationship Type must first be defined before you can use it to create a Relationship between two specific project items.

There is one default relationship type available (ie **Associated**) but you can define whatever relationships you need. Apart from providing a name, you must choose a direction for the relationship (there are three options):

Associative	Carmen <i>knows</i> Pedro	—————
One way	Gerry <i>employs</i> Karen	————→
Symmetrical	Margi <i>is married to</i> Dirk	←————→

To define a relationship:

Click on **Create Tab, Relationship Type**

Give a **Name** and an optional **Description**

From the drop-down list choose a **Direction**

Note the option to make this the **Default Relationship Type**, but you can do this at any time. The initial default is always **Associated**.

Click **OK**

The new Relationship Type is added to the list. To list the relationship types:

Classifications		Relationship Types		
		★ Default	Name	Direction
Source Classifications		✓	Associated	—————
Case Classifications			manages	————→
Relationship Types			is married to	←————→

Click on **Classifications** button on the left, then on **Relationship Types** at the top left

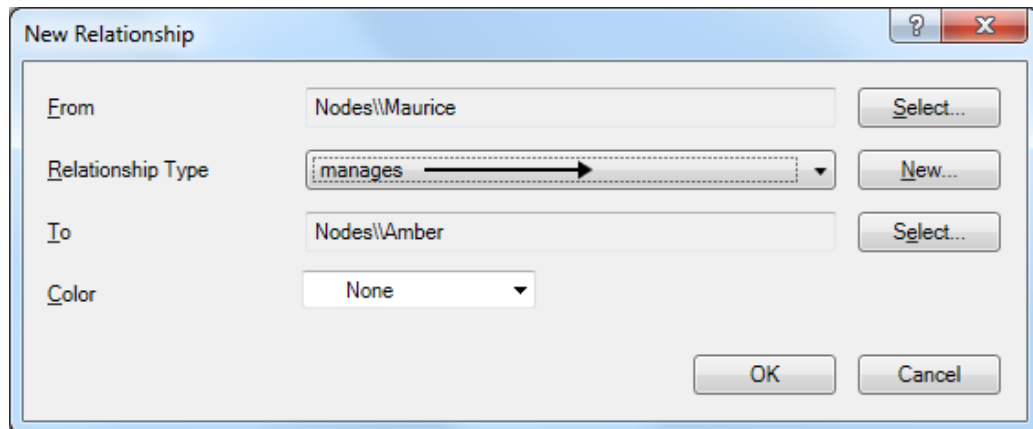
Note that the tick indicates the default Relationship Type. To make a different relationship type the default at this point:

Right click on the relationship type in the list, then on **Relationship Type Properties**

Click on the **Default Relationship Type** checkbox, **OK**

To create a specific relationship:

Click on **Create Tab, Relationship**



Click on button to right of Relationship Type and choose one from the list, eg **manages**

Click on **Select...** button next to **From** slot

Locate and select an object, click **OK**

Click on **Select...** button next to **To** slot

Locate and select an object, click **OK**

Assign a **Color** if appropriate (*explained later*)

Click **OK**

The new relationship is shown in the Relationships list (a subfolder of Nodes):

Relationships					
From Name	From Folder	Type	To Name	To Folder	Direction
Maurice	Nodes	manages	Amber	Nodes	→

This relationship can now be used for coding and in models - both are explained later.

Deleting, Renaming and Moving Nodes

Whilst viewing the nodes it is possible to manipulate them in various ways; deleting, renaming or moving them.

To delete a node:

Right-click on the node name

Click on **Delete**

Click **Yes** to confirm the deletion

Note that if you delete the node, any coding at this node in your documents will of course also be deleted.

To rename a node:

Click on the node to select it

Pause briefly then click again on the selected node

Edit the node name then click elsewhere

Any coding at this node in your documents is safe and will reflect the name change.

To move a node:

For nodes in a tree structure this was explained on Pg19, but you may want to move nodes between folders. It is basically a cut and paste operation.

Right-click on the node to be moved, click **Cut**

Go to the place (eg a folder) where you want to paste the node and right-click, click **Paste**

You may be asked to confirm the action.

In the next section we look at how to code a document using the nodes you have created.

5. Coding

Coding Internals

Having created (or imported) some internals, memos and initial nodes, the next step is to start coding the internals with the nodes. You may also create new nodes as you look through your data and new themes and ideas emerge.

Start by opening an internal (or it could be a memo). In Navigation view...

Click on **Sources** button on the left, then **Internals**

Double-click on the desired internal name

With the internal displayed you can now list the nodes you wish to code with.

Click on the **Nodes** button on the left

You may find it helpful to change the relative positions of Nodes and Internals - usually Internals are placed below Nodes, but you can have the Internals to the right:

Click on **View Tab, Detail View, Right**

	Amber	0	0	Themes and styles also help keep your document coordinated. When you click Design and choose a new Theme, the pictures, charts, and SmartArt graphics change to match your new theme. When you apply styles, your headings change to match the new theme. Save time in Word with new buttons that show up where you need them. To change the way a picture fits in your document, click it and a button for layout options appears next to it. When you work on a table, click where you want to add a row or a column, and then click the plus sign.
	George	0	0	
	Martha	0	0	
	Maurice	0	0	
	Tony	0	0	

To return to the original orientation:

Click on **View Tab, Detail View, Bottom**

You can drag the dividing bar (between the Nodes and Internals) to show more (or less) of the internal if you need to.

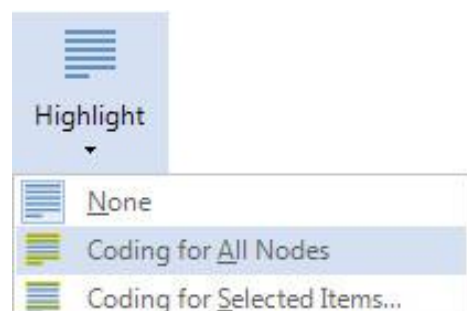
There are several ways to code, though the 'drag and drop' method described below is probably the most convenient.

Highlighting Coding

Before starting to code it is sensible to highlight, otherwise you will have no that you have coded document text.

Click on **View Tab, Highlight, Coding for All Nodes**

Now you will see which text has been coded, as shown below. Coding Stripes will give more information about coding and they are explained after the main coding methods.



The Countess died in 1244 in the Abbey of Marquette, leaving no heirs. The rule of Flanders and Hainaut thus fell to her sister, Marguerite of Flanders, then to Marguerite's brother, Guy de Dampierre. Lille fell under the rule of France from 1304 to 1369, after the battle of Mons-en-Pévèle. The county of Flanders fell to the Duchy of Burgundy next, after the 1369 marriage

Coding at a Node (Drag and Drop Method)

This is the easiest and quickest method.

Drag over the text to be coded

Antisocial Behaviour	1	1
Budgets	0	0
Postwar Drama	0	0
Transport	0	0

more rough and ready than the others. The kids in question are bit more working class than their predecessors with Fletcher-Cook also a touch on the androgynous side; they're not quite so clean-cut even if their adventure is. The youth of the seventies, as summed by a local bobby in one of the early scenes, are out there "vandalising, trespassing, pilfering" - a far cry from the best behaviour of the fifties kids or even the sixties schoolboys (although Moulder-Brown does accidentally smash a couple of windows). Interestingly, however, the mixed-gender, multi-ethnic

Place pointer on the selected text and drag it to the appropriate node in the list

You are not actually moving the text anywhere, so this feels a little odd, but it does result in the selected text being coded at the chosen node.

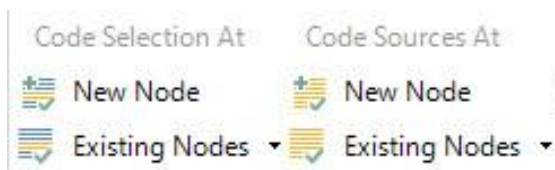
Coding at a Node (Ribbon Method)

This coding method is a bit slower but it allows greater flexibility – you can for example code a piece of text at several nodes with a single action, or code an entire source (ie internal or memo) at a node or nodes. Some of the options are explained here.

Drag over the text to be coded

Click on **Analyze Tab**

Look at these coding tools...



Code Selection At means you will code just the selected text.

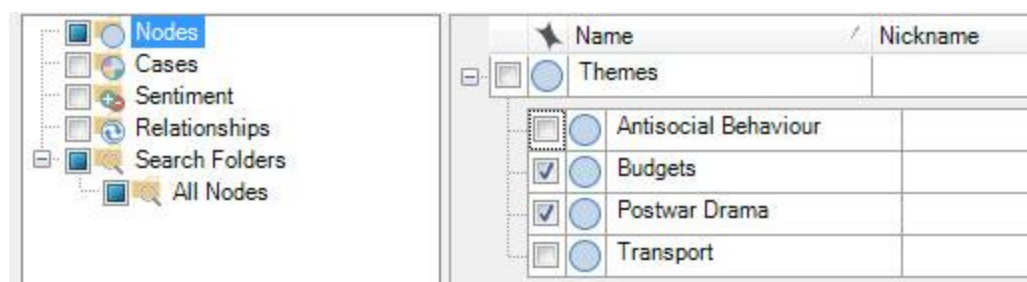
Code Sources At means you will code the entire source (ie document).

Existing Nodes will allow you to choose from the nodes you already have.

New Node is about creating a new node at the point of coding.

To code the selected text at existing nodes:

Under **Code Selection At** click on **Existing Nodes**



Click on **Nodes**, **Cases** or **Relationships** to see the list

Note, if you click on the checkbox to the left of these you will select all nodes or all relationships – not something you'd usually want to do.

Sentiment nodes are not covered in this course – refer to the NVivo help for an explanation.

Click on checkboxes to the left of specific node names to select them, eg **Budgets** and **Postwar Drama**

Click **OK**

To code an entire source at existing nodes:

Click in an open internal or on its name in the sources list

OR

Hold Ctrl and click on several internals in the sources list

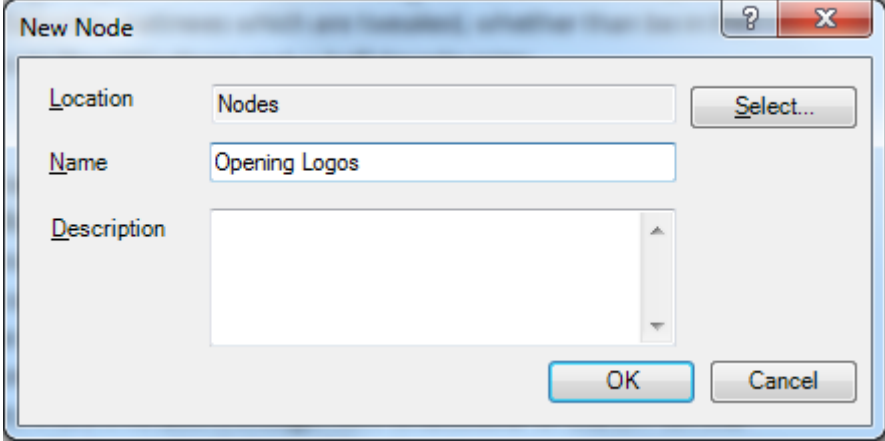
Under **Code Sources At** click on **Existing Nodes**

Select node(s) as before, then click **OK**

To create a new node when coding:

Select text in an internal, or select one or more internals

Under **Code Selection At** or **Code Sources At** click on **New Node**



The screenshot shows the 'New Node' dialog box. The 'Location' field is set to 'Nodes' and has a 'Select...' button next to it. The 'Name' field contains the text 'Opening Logos'. The 'Description' field is an empty text area. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Type a name for the new node and click **OK**

The new node is added to your node list and the internal(s) or selected text is coded at it.

Coding at a Node (Quick Coding Bar Method)

Another option is to code with the Quick Coding Bar which also lets you code at multiple nodes or create a new one.

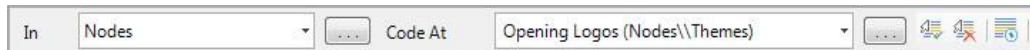
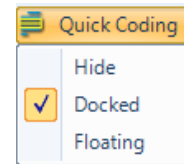
To turn on/off or change the Quick Coding Bar:

Click **View Tab, Quick Coding button**

Hide (to turn it off)

Docked (to show at foot of window)

Floating (for a bar you can move up or down the screen)



To code selected text:

Select the text, click on **In** slot to choose what to code at, eg **Nodes**, **Cases**, **Relationships** or **Nicknames**

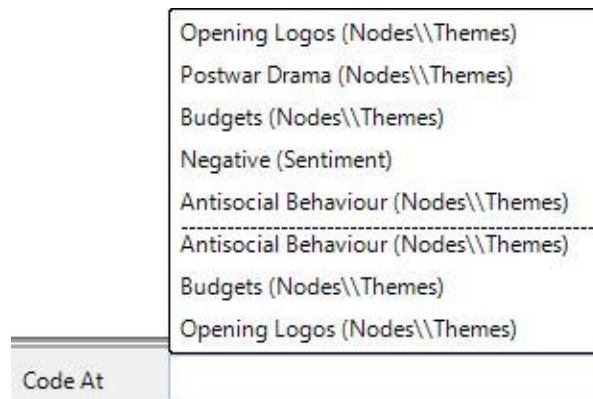
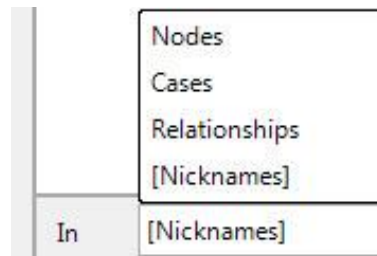
The setting is usually Nodes by default.

Click on down arrow at right of **Code At** slot

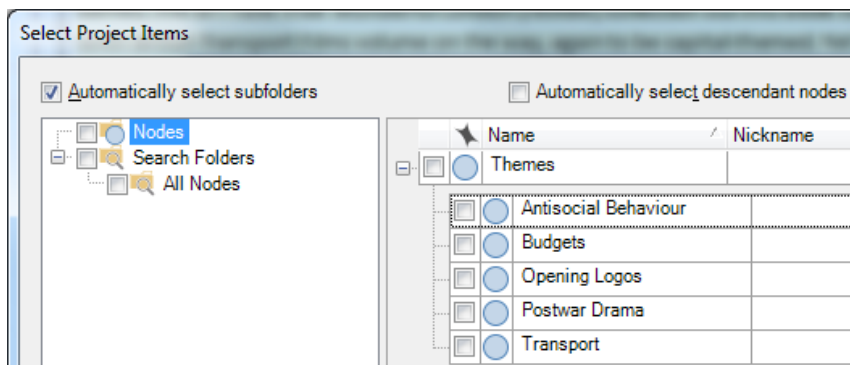
All nodes are displayed in a scrollable list. Nodes which have been used are shown above the line, and those unused are below the line. If no coding has taken place there will be no line.

Click on a node

If you want to code at more than one node...



Click on the button with three dots on it *to the right of the **Code At** slot*, then click on **Nodes** in left panel to see them if not already listed



Check the nodes you require, then click **OK**

You will see the name of the node or an indication of how many nodes you have chosen:



Click on the **green tick** button (just to right of button with three dots on it) to code the selected text

To create a new node when coding:

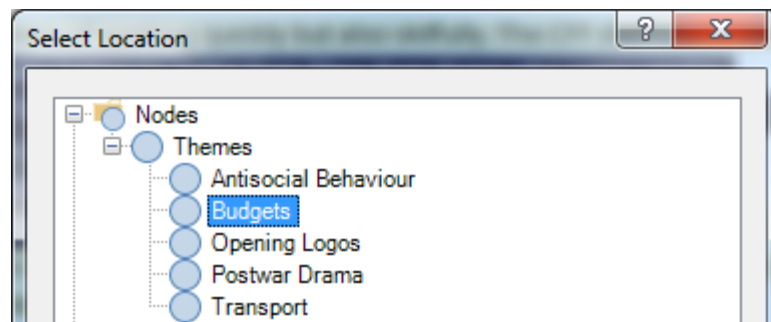
Select the text

Choose a location, eg **Nodes**

To specify an existing node as a parent so the new node will be a child of it...

Click on button with three dots to right of **In** slot

Click on **+** (plus sign) to expand the list of nodes, then click on one to be the parent, then click **OK**



Type the name of the new node in **Code At** slot



Click on the **green tick** button to create the new child node and code the selected text at it

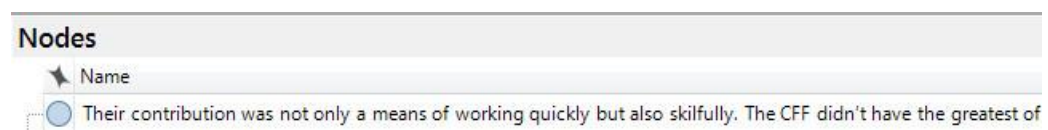
To create a new node using In Vivo:

Select the text

Click on **Code In Vivo** button



The new node is created. Unfortunately the name of it is taken from the text that was selected, so you will want to change it to something shorter.



Coding Stripes: Basics

To turn on coding stripes:

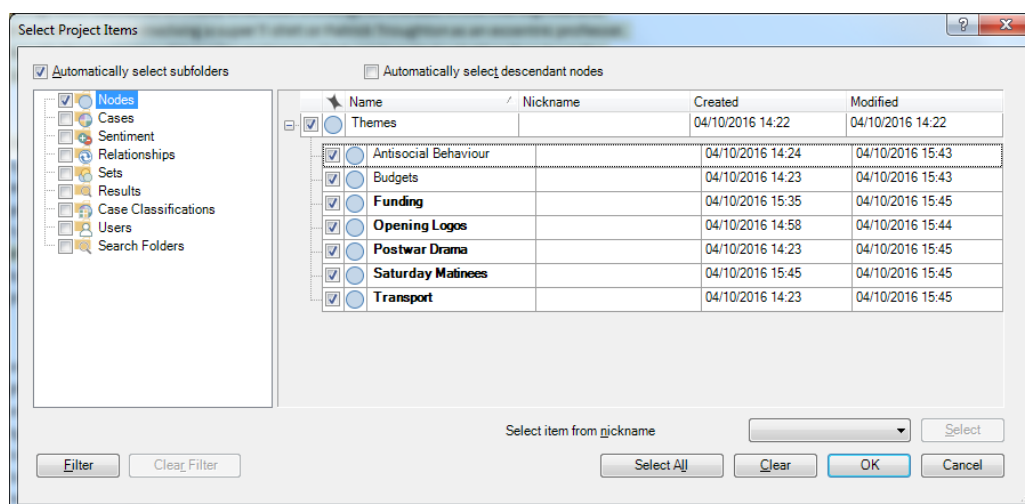
You can see an indication of all coding in an internal, and the density of the coding, by turning on the Coding Stripes. With the internal displayed:

Click in the internal

Click on **View Tab, Coding Stripes, Selected Items...**

Click on **Nodes** on the left to see the list, then on checkboxes next to the names of individual nodes

Click in checkbox to left of **Nodes** to select them all

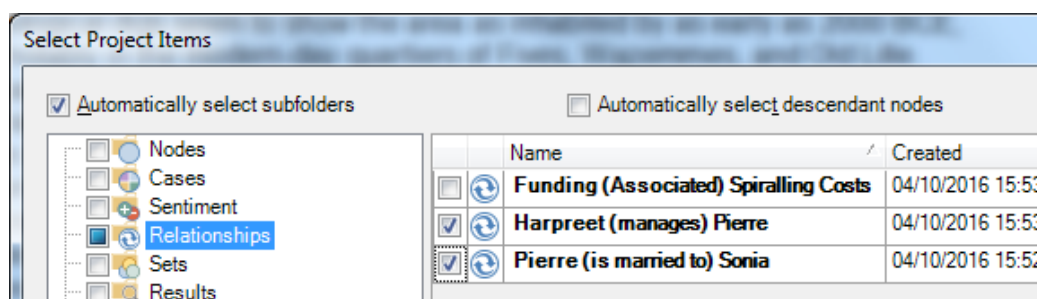


Note that nodes displayed in bold face (eg **Funding**, **Opening Logos**, **Postwar Drama** etc) have been used for coding in this external, while some nodes haven't.

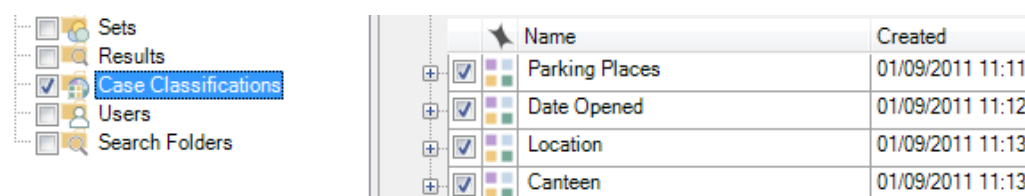
Relationships can be selected, they are also a type of node used for coding.

Click on **Relationships** on the left to see the list

Select relationships exactly as you did nodes

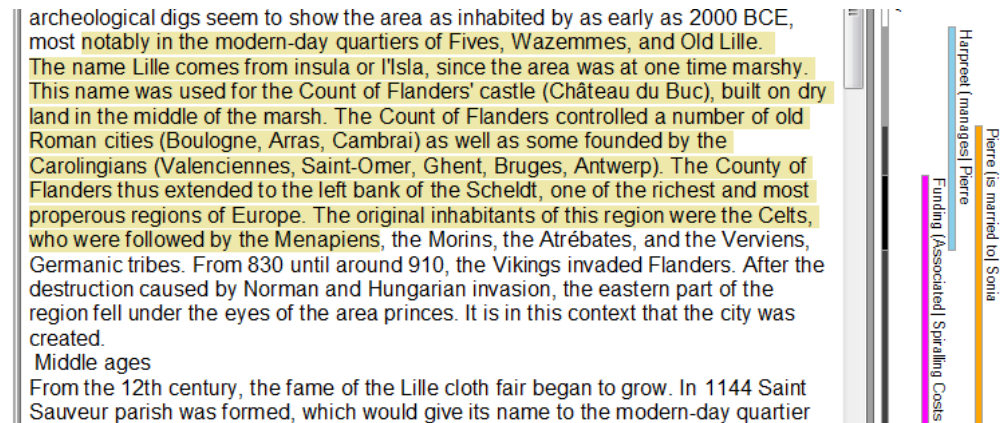


Node or Case Classifications can also be shown in Coding Stripes (we will be looking at these in a later section):



Click **OK**

The coding stripes for the selected nodes will be shown:



Notice that the labelled coding stripes appear down the right side of the internal. The actual colours normally have no meaning, they are just there to distinguish between different nodes, they will vary and are even repeated if lots of stripes are displayed (there are only 7 colours).

The Coding Density bar also appears to the left of the stripes - this shows the density of coding from nothing (white) to maximum (black) and is calculated based on all nodes coding the content, not just those you have chosen to display.

If any new nodes have been used for coding you will have to select these nodes too if you wish to see them displayed – the selection of stripes is not automatically updated.

To choose different stripes to display:

With NVivo 11 you have to turn stripes *off* before you can make a new selection.

Click on **View Tab, Coding Stripes, None, Coding Stripes, Selected Items...**

Make your choice and click **OK**

To control the number of coding stripes displayed:

By default you will only see 7 coding stripes for some coding stripe options, but you can increase this number up to 200.

Click on **File Menu, Options, Display Tab**

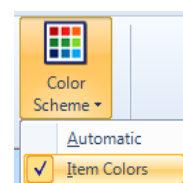
Set **Maximum number of stripes** to, for example, 20

Click **OK**

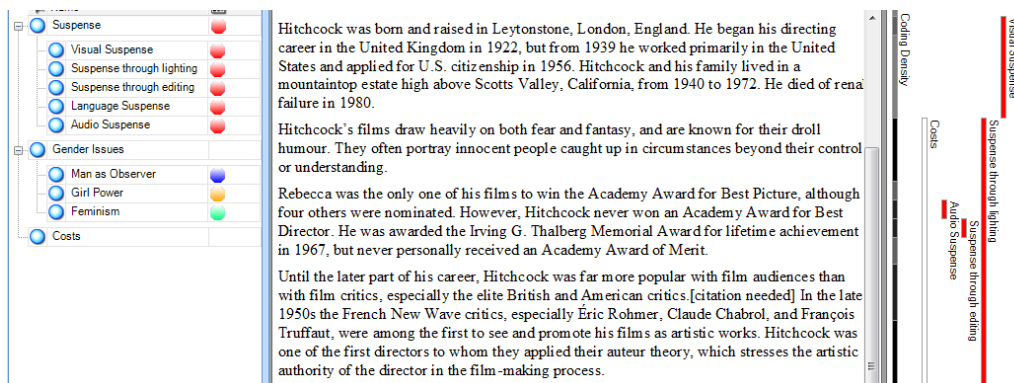
To show assigned colours in stripes:

By default random colours are automatically used in coding stripes, but if you assigned specific colours to nodes you can display coding stripes which use these colours.

Click **View Tab, Color Scheme, Item Colors**



In this example the text has been coded at several ‘Suspense’ nodes that were all assigned the colour red. This colour is used in the coding stripes for these nodes. Any nodes without an assigned colour (eg ‘Costs’) will display as white.



Remember to change the **Color Scheme** back to **Automatic** when you no longer want to see assigned colours.

To turn coding stripes off:

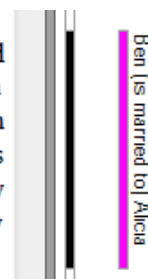
Click on **View Tab, Coding Stripes, None**

Coding Stripes: Relationships

Whilst coding at Relationships is the same process as for any other node, the meaning and purpose is slightly different. You are indicating that the selected text in an Internal or Memo is part of, or indicative of, a relationship between two project items.

For example, in an interview transcript we found the respondent’s thoughts about a married couple (Ben and Alicia) working together, so we coded this paragraph to the “**is married to**” relationship node which links the nodes for **Ben** and **Alicia**. Notice how this shows in the Coding Stripes.

was not about work - I overheard them saying they would
 den and although we are very short staffed it did not seem
 l both be away at the same time when they are both
 ry wrong that in this line of work you have married couples
 ses all sorts of problems, I don't see how they can possibly
 ork life. It should be stopped, nepotism is a bad idea in my



The relationship node shows as **Ben (is married to) Alicia**, so we can easily recognise it as a relationship. We could of course code text in any source at this node if, for example, Ben had been talking about working with his wife.

Coding Stripes: Other Options

Working directly with the displayed coding stripes, you have several options available.

Right-click on an appropriate coding stripe

Look at the menu (see right). Some of these options are explained in more detail later but are briefly stated here.

Highlight Coding

This will highlight just the coding at this node

Open Node...

This allows you to view all the passages coded at this node. See **Viewing the Coding for a Node** on Pg32.

Uncode

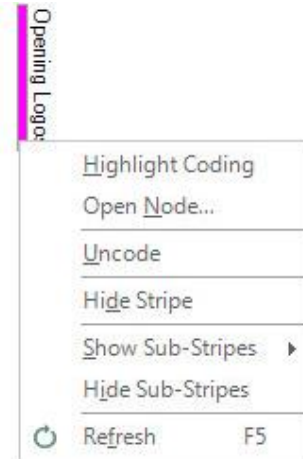
A quick and convenient way to remove this instance of coding (ie for just the text indicated by this portion of coding stripe). Other coding at this and any other node will not be affected. See more about Uncoding on Pg33.

Hide Stripe

This hides (does not delete) this coding stripe.

Show Sub-Stripes

Sub-stripes offer a second tier of information about the coding. For example, if several people are working on a project we can turn on a sub-stripe to show which parts of the coding are attributable to a particular user. In the example below we chose the user called STEVE.



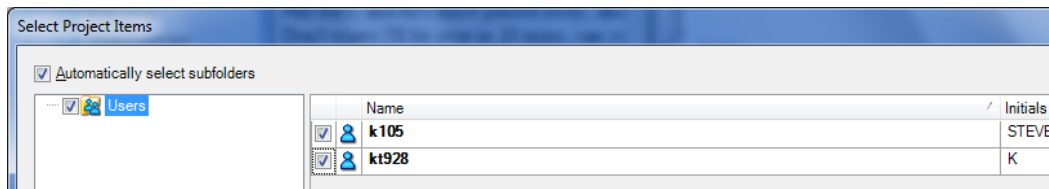
In addition to the original coding stripe for the node **'Good Treatment'**, we now see a sub-stripe showing which part of that coding was carried out by STEVE.

	Name	Initials
☒	George	GEORGE
☒	k105	STEVE
☒	Sophie	SOPHIE

To compare contributions by several users and see any consensus:

Click on **More Sub-Stripes...** to choose other users (if there are any)

Here we chose STEVE and K (technically these are the users' initials):



With sub-stripes turned on for both STEVE and K we can see an overlap between their respective coding of text at the node Good Treatment. (The image has been turned on its side for clarity.) The original coding stripe (at the bottom here) gives a suggestion of the density of coding for the node.



Hide Sub-Stripes

You can of course hide the sub-stripes:

Right-click on the original coding stripe, then on **Hide Sub-Stripes**

Refresh (F5)

This is a new option to refresh the display of coding stripes manually, but since currently selected stripes automatically update at various times (eg when you code text, or when you save the project) it is rarely used. Note that Refresh will not show coding stripes for a node that you have not already opted to display (see basic instructions starting on Pg28).

Note that you can display stripes to show other information such as attribute values. These are associated with Node Classifications and are explained later, here is just an

example to show how this information will be displayed. Here a node representing an individual has been put into a Node Classification called Focus Group Member, and for this classification we have set up Attributes to record members' Nationality, Gender and Date of Birth.

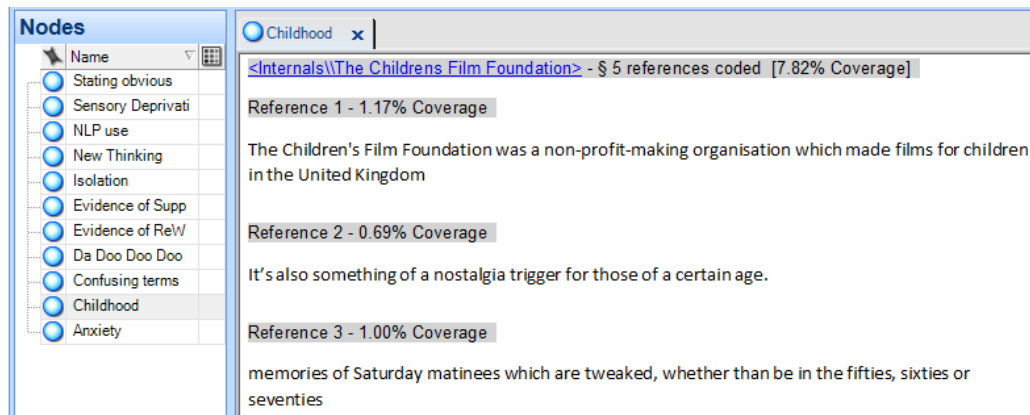
Focus Group Member:Nationality = French
Focus Group Member:Gender = Male
Focus Group Member:Date of Birth = 03/03/1977

Viewing the Coding for a Node

You can view all the passages (in all internals) coded at a particular node by opening the node rather like opening an internal. The focus here is on a *node* (ie an idea, concept, theme, theory etc) rather than on an internal/document.

List the nodes

Double-click on a node to open it, eg **Childhood**



All passages coded by this node in all internals/documents will be displayed. You can close the node as you would an internal.

Uncoding

At some point you may want to remove coding from text, or even remove all the coding associated with a particular node. There are several ways of uncoding and not all are shown here.

To remove one instance of coding in a document:

Ensure coding stripes are displayed

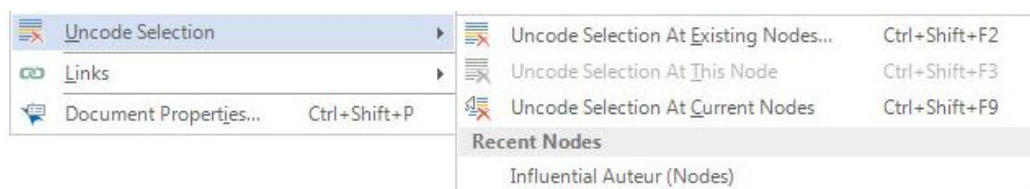
Right-click on the appropriate coding stripe for the specific coding at the node

Click on **Uncode**

To remove all instances of coding at specific nodes in a document:

Press **[Ctrl] & A** to select the entire document

Right-click in the document, then click on **Uncode Selection**, then depending on what you want to do...



To remove *all* coding at the *last node(s)* you used, in the selected area (ie the whole document), click on **Uncode Selection At Current Nodes...**

OR

To remove *all* coding at *specific* nodes, in the selected area, click on **Uncode Selection At Existing Nodes...**

Select the nodes for which you want to remove coding
Click **OK**

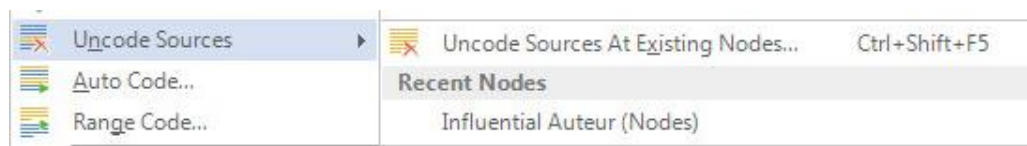
To remove all instances of coding at specific nodes in several documents:

In Navigation View click on **Sources** button

In Internals list hold down **[Ctrl]** and click to select documents to be uncoded

Internals		
Name	Nodes	References
A Study of Colours	12	23
A Study of Colours (2)	8	18
Circus Culture	2	4
Discover Trees	3	3
Learning	1	1

Right-click on one of the selected internals then click on **Uncode Sources**



Click on **Uncode Sources At Existing Nodes...**, select the nodes, and click **OK**

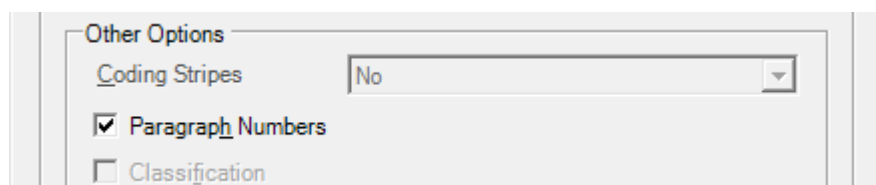
OR

Click on one of the **Recent Nodes** to remove all coding at this node in the selected sources

Coding by Paragraphs

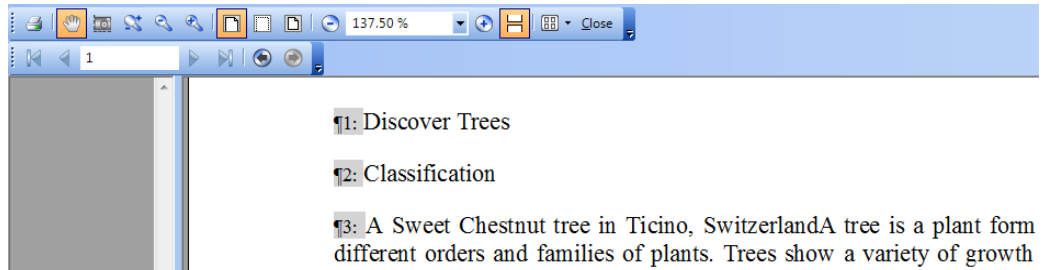
You can code one whole paragraph or a range of paragraphs at a node if you wish. This would be particularly useful if you wanted to code large sections of a document, or if paragraphs were particularly long. For this you need to know the numbers of the paragraphs (they are sequentially numbered starting at 1, with titles and blank lines also counting as paragraphs). Paragraph numbers can be seen if you Print-Preview the source document.

Open the source, then click on **File Menu, Print, Print Preview...**



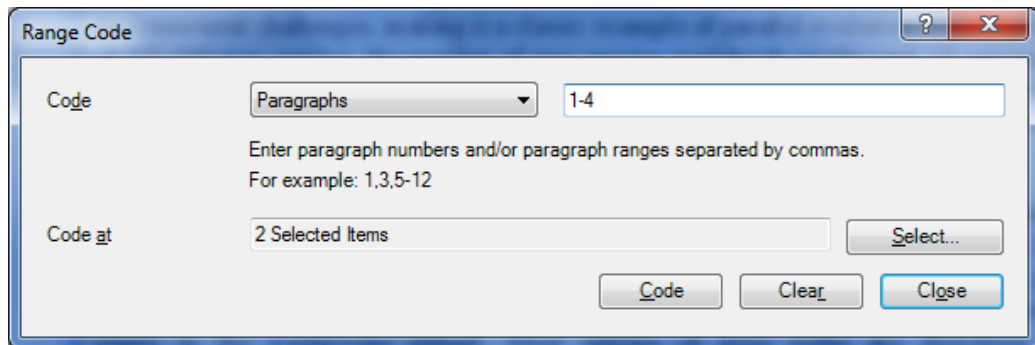
In the **Print Options** dialogue box turn on **Paragraph Numbers**, then click **OK**

The document is displayed as shown below, with paragraph numbers to the left of paragraphs. Note the numbers of the paragraphs to be coded.



To exit Print Preview click on **Close**

Click on **Analyze Tab, Range Code**



To the right of **Code** select **Paragraphs**, and in the slot indicate the paragraph numbers or range to be coded, eg **1-4** (paragraphs 1 to 4 inclusive)

Click on **Select** to choose nodes to code at

Select the node(s) and click **OK**

Click on **Code** then on **Close**

Coding by Headings Using Auto Code

Coding by headings is a real time-saver for certain kinds of source document where heading level styles have been applied consistently. It offers a quick way of creating nodes for questions in surveys or for participant names in interviews.

Documents to be coded must be transcribed and formatted in a very specific way. Here's how to prepare an interview transcript:

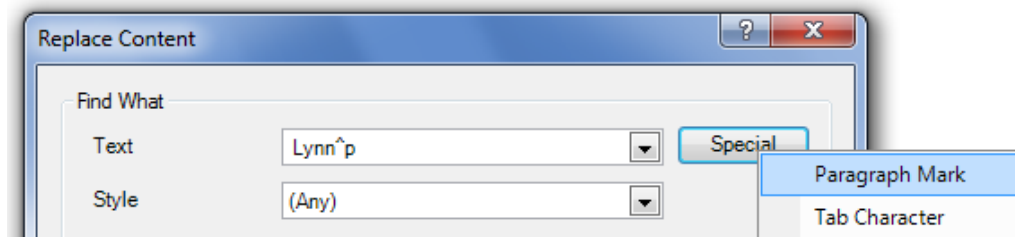
- Normal default text should be used throughout
- Type names of speakers and what they say on separate lines, pressing **[Return]** after each
- Names (or codes) of speakers should be absolutely consistent throughout and contain no punctuation

So a transcript should look a bit like this...

Interview with Norm and his wife¶
 Lynn¶
 Have you had any problems with services¶
 Norm¶
 Services, no not really. We used to have a transport problem, but we
 bought the bus last week. We had a car with a hoist but I couldn't

A heading style should be applied to just the speaker names throughout the document. This can easily be done in NVivo using the Replace tool.

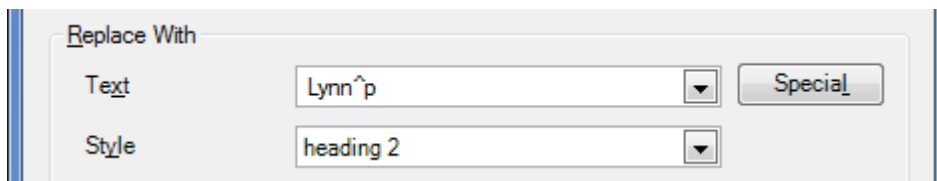
Click on **Home Tab, Replace...**



Under **Find What** in the **Text** slot, type a name, eg **Lynn**
 Click on **Special** button, **Paragraph Mark**

This places a ^p (paragraph) code after the name and ensures we will locate just the speakers' names followed by a carriage return (so if a speaker actually said "Lynn" this would not normally cause a problem).

Under **Replace With** in the **Text** slot, do the same, but in **Style** slot select a heading, eg **Heading 2**



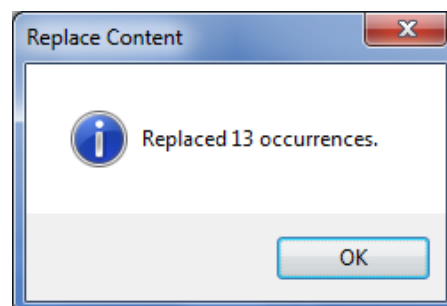
Click on the **Replace All** button

The change will be made and you will see a message confirming this.

Click **OK**

Carry out the same process for all other speaker names (often it's just an interviewer and interviewee).

If the speaker's name was followed by a comma then what they said, we would have to replace the comma with a paragraph mark to put the name and words spoken in separate paragraphs:



Find What

Text: Lynn, Style: (Any)

Replace With

Text: Lynn^p Style: Heading 2

Your transcript is now ready for autocoding and should look a bit like this...

Interview with Norm and his wife¶
Lynn¶
 Have you had any problems with services¶
Norm¶
 Services, no not really. We used to have a transport problem, but we bought the bus last week. We had a car with a hoist but I couldn't manage on my own and my wife needed help.¶
Lynn¶
 Have you always lived here¶

To auto code a document prepared in this way:

You need a new node to contain the child nodes that auto code will automatically create for the interviewer/interviewees names.

Create a node, eg **Speakers**

Open the internal or select it in the sources list (you can select several suitable internals)

Click on **Analyze Tab, Auto Code**

Auto Code Wizard - Step 1 of 2

Welcome to the Auto Code Wizard

Automatically code text sources at nodes based on paragraph styles or by paragraph number.

Code by

☒ Paragraph styles

☐ Paragraph

Available paragraph styles

Heading 1
 Heading 2
 Normal

>> <<

Selected paragraph styles

Ensure that **Code by** is set to **Paragraph Styles**

Click on the paragraph style used to format (and identify) speakers in the transcripts, eg **Heading 2**

Click on the double-right-arrow button to add the style to the right-hand column, then click **Next**

Set **Under** to **Existing Node**, then click on **Select** to the right of **Name**

Choose the node you created, eg **Speakers**, and click **OK**

Click **Finish**

The document is automatically coded using the text from the headings for node names as you can see from the text with coding stripes shown below:

If you examine the **Speakers** node you will see that it now has child nodes representing each person taking part in the interview.

Speakers		0	0
Lynn		1	13
Norm		1	14
Wife		1	4

Using these new nodes it is now possible to access, for example, all speeches attributable to Norm. This is very useful when it comes to querying. Note that you would still code these documents with other nodes to indicate themes, issues and ideas.

Merging Nodes

If you have accidentally coded text with two nodes and later realise that they both mean the same thing and you want everything coded by one of the two nodes, you can merge one node with the other. Here is how:

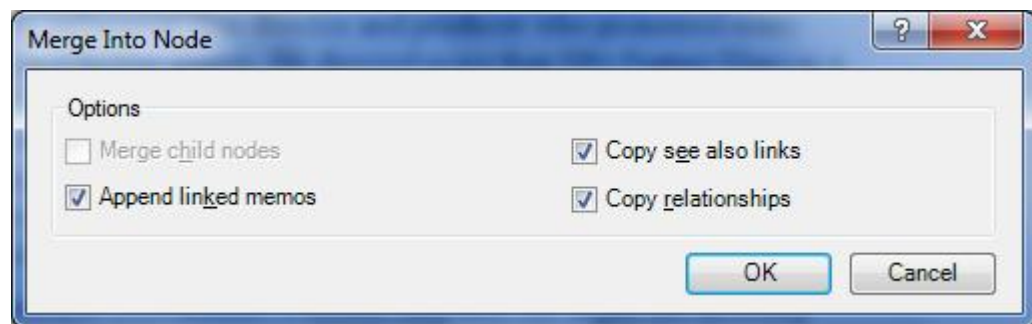
Suppose the two nodes are called **Stress at Work** and **Stress**, and that you want to merge **Stress at Work** with **Stress**:

Display the list of nodes

Right-click on the node to be merged, eg **Stress at Work**, then click on **Cut**

Right-click on the node to merge it with, eg **Stress**, and click on **Merge Into Selected Node**

The following dialogue box will appear. At this stage the checked options will not trouble you so simply accept these default settings.



Click **OK**

You will find that the **Stress at Work** node no longer exists and that text coded by it is now coded at the **Stress** node.

Coding Summary

You can see a quick summary of how project documents are coded:

Click on **Reports** in **Navigation View**

Double-click on a '**Coding Summary By Node Report**'

You may wish to filter the data to focus the report, otherwise there could be a lot of information in it.

Reports	
★	Name
	Coding Summary By Node Report
	Coding Summary By Source Report
	Node Classification Summary Report
	Node Structure Report
	Node Summary Report
	Project Summary Report
	Source Classification Summary Report
	Source Summary Report

Filter Options ? X

Do you want to filter the results?

To retrieve only data that meets particular criteria, select the check box for one or more filters below. You can select the comparison type, and then enter values or click the Select button to choose specific items.

	Field	Comparison	Values	
☒	Node.Hierarchical Name	In	Nodes\\Childhood,Nodes\\Anxiety,Nodes\\Iso	Select
☒	Coded Source.Coding Reference.	In	Steve Oldfield	Select
☐	Coded Source.Coding Reference.	Between		Select
☒	Node.Coded Source.Hierarchical N	In	Internals\\Research Diary,Internals\\The Child	Select

Click **OK**

This basic report will show the extent to which the nodes have been used to code internals in the current project. If you haven't filtered in any way there could be a lot of information in the report.

Coding Summary By Node takes each node in turn and shows the coding, while **Coding Summary By Source** takes each source in turn and shows the coding.

Coding Summary By Node						
Changing Childhood Experiences 1950-1980						
01/09/2014 16:00						
Aggregate	Classification	Coverage	Number Of Coding References	Reference Number	Coded By Initials	Modified On
Node						
Nodes\\Childhood						
Document						
Internals\\The Childrens Film Foundation						
No		0.0434	4			
				1	SO	01/09/2014 15:56
The Children's Film Foundation was a non-profit-making organisation which made films for children in the United Kingdom						
				2	SO	01/09/2014 15:56
It's also something of a nostalgia trigger for those of a certain age						

Note that the results from these quick reports are not saved. You can also create your own reports if you need something more specific.

Reports are described in a little more detail later.

6. Annotations and Links

Annotations and Links in NVivo

In NVivo you can have annotations and several kinds of links in your sources. As a starting point you may consider using some of these in your Project Journal or Research Diary. You can for instance have a link to other internals or to nodes, so that from your journal you can go immediately to the actual data you are referring to (an internal or memo, or parts of them that are coded at a node). Links can also be made to relevant web pages or to files of any kind, and annotations are useful where you want to provide thoughts or additional notes about something - they can be opened and viewed very easily.

Annotations

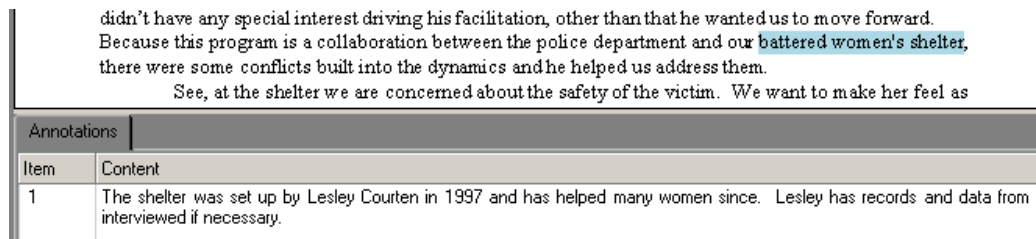
You may find it useful to annotate your sources with comments, it's a bit like scribbling notes to yourself in the margin.

To add an Annotation:

Select the required text, then right-click on it

Click on **Links, Annotation, New Annotation**

An Annotations panel appears below the main window with a numbered slot for the annotation to be typed:



didn't have any special interest driving his facilitation, other than that he wanted us to move forward. Because this program is a collaboration between the police department and our battered women's shelter, there were some conflicts built into the dynamics and he helped us address them. See, at the shelter we are concerned about the safety of the victim. We want to make her feel as

Item	Content
1	The shelter was set up by Lesley Courten in 1997 and has helped many women since. Lesley has records and data from interviewed if necessary.

Type the annotation and click back in the source

The text linking to the annotation is given a blue background.

To see or hide annotations:

Click on **View Tab, Annotations**

You can then read annotated text by clicking on the blue highlighted text and looking in the annotations panel.

To delete an annotation:

Right-click on the blue highlighted text

Click on **Links, Annotation, Delete Annotation, Yes**

Hyperlinks

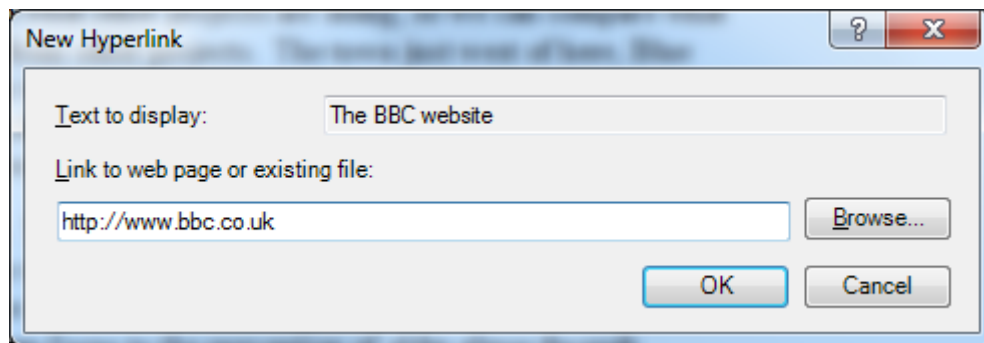
You can add a hyperlink to any internal, memo or external. This permits a link to a web page or to a local file.

To create a hyperlink:

Check you are in Edit mode (click on **Click to edit**)

Select the text to link from, then right-click on it

Click on **Links, Hyperlink, New Hyperlink...**



You can paste a url in the slot, or use the **Browse...** button to locate a local file you'd like to link to.

Click **OK**

The link appears blue and underlined.

To open a hyperlink:

Right-click on the hyperlink

Click on **Links, Hyperlink, Open Hyperlink**

The linked web page or file will be displayed (always assuming that your PC has software which can open the file).

To delete a hyperlink:

Right-click on the hyperlink

Click on **Links, Hyperlink, Delete Hyperlink, Yes**

Memo Links

Memos and how to create them, were explained earlier. You'll recall that memos are like internals but they are about the research rather than actually being primary data themselves, and they are stored in a Memo folder.

Your project items (internals, externals and nodes) can be linked to one memo only, and that memo cannot be linked to anything else. Memos cannot be linked to other memos. You could for instance link an interview transcript to a memo describing what happened at the interview.

You can create a memo link directly from within an open source or node, or from the list of sources or nodes, by right-clicking. You can opt to link to an existing memo or create a new memo when you make the link.

In **List View** right-click on the source name (internal, external or node), then click on **Memo Link**

To link to a new memo...

Click on **Link to New Memo...**

Type a name and description, then click **OK**

The new memo is open and you can type content.

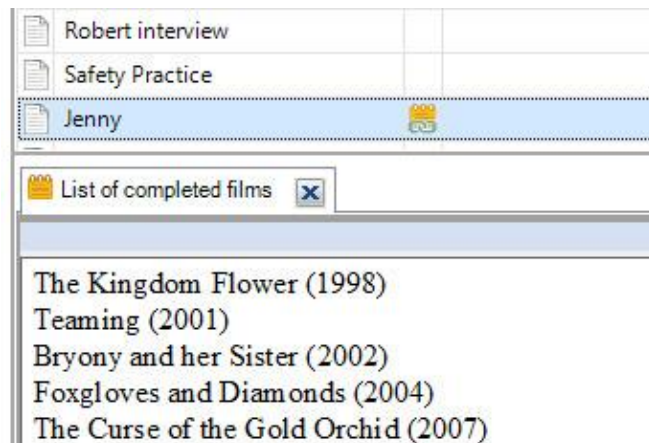
To link to an existing memo...

Click on **Link to Existing Memo...**

Click on a memo in the list, then on **OK**

If a memo is 'greyed out' then it has already been linked to and is unavailable.

You will see a symbol next to the object name indicating a memo link, and the existing or new blank memo will be open below the list:



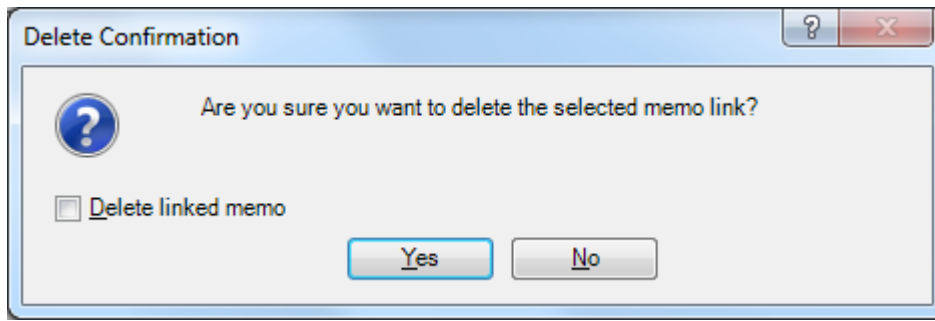
Once a document (or other source) has a link to a memo, it cannot be linked to another memo, and the memo cannot be linked to any other source.

To open a memo link:

In **List View** right-click on the source or node that has the memo link, click on **Memo Link, Open Linked Memo**

To delete a memo link:

In **List View** right-click on the source or node that has the memo link, click on **Memo Link, Delete Memo Link, Yes**



Note the option to delete the linked memo as well as the link.

‘See Also’ Links

‘See Also’ links are used as an indication of the connections between different items in your project. You can link to a whole item such as a document, or just to part of it.

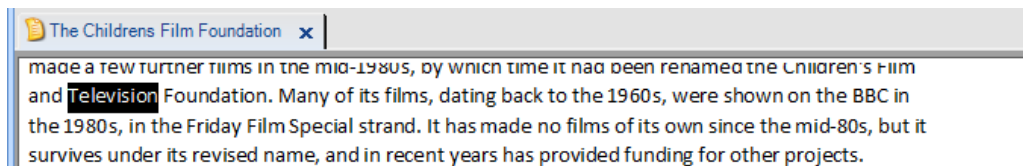
For example you could link a passage in a document called *Interview with Fred 29-06-2011* to...

- A paragraph in another document called *Housing in Britain*
- A memo about *Student Accommodation 2008*
- A node called *Student satisfaction*

You can include as many ‘See Also’ links as you wish in a source. If they are linked from selected text in a source you will see **red shading**.

To create a See Also link to an entire source or node:

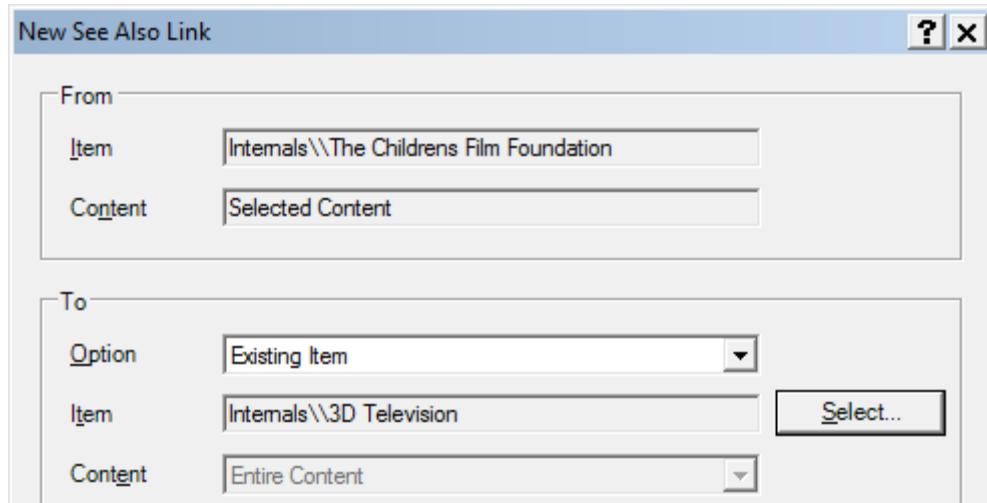
Open the source or node you want to link from



Select the text to link from then right-click on it

Click on **Links, See Also Link, New See Also Link...**

Select **Existing Item** in the **Option** slot



The 'New See Also Link' dialog box is divided into two main sections: 'From' and 'To'.

From Section:

- Item:** A text box containing 'Internals\\The Childrens Film Foundation'.
- Content:** A text box containing 'Selected Content'.

To Section:

- Option:** A dropdown menu currently set to 'Existing Item'.
- Item:** A text box containing 'Internals\\3D Television'. To its right is a 'Select...' button.
- Content:** A dropdown menu currently set to 'Entire Content'.

Click on the **Select** button

Select an item, eg an internal, and click **OK, OK**

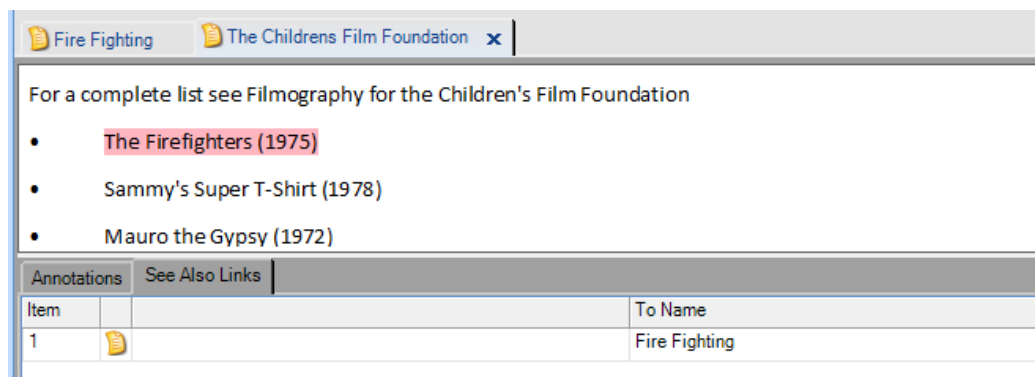
To create a See Also link to selected content in a source or node:

Open the source or node you want to link *to*, and select the relevant text

Right-click on it, then on **Copy**

Open the source or node you want to link *from*, and select the relevant text

Right-click on it, then on **Paste As See Also Link**



The screenshot shows a document viewer with two tabs: 'Fire Fighting' and 'The Childrens Film Foundation'. The 'The Childrens Film Foundation' tab is active, and the text 'The Firefighters (1975)' is highlighted in red. Below the document content, there is a table with two tabs: 'Annotations' and 'See Also Links'. The 'See Also Links' tab is active, showing a table with one row.

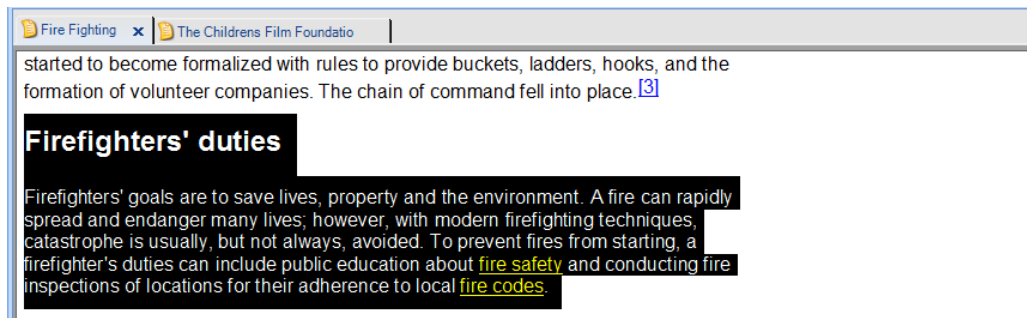
Item	To Name
1	Fire Fighting

In the example above the See Also Link is shown by text with red shading in the **The Childrens Film Foundation** document.

The source we are linking to, the **Fire Fighting** document, may be listed beneath. You can turn this view on or off:

Click on **View Tab, See Also Links**

If we follow the See Also Link we will see the selected text in the target source as shown here:

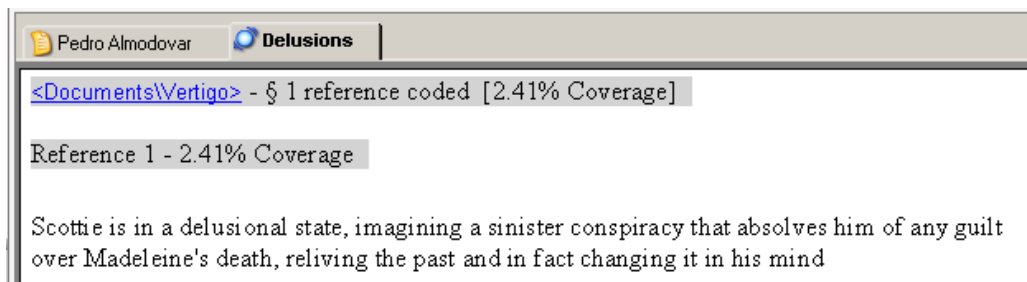


To view a See Also Link:

Right-click on the See Also Link red-shaded text

Click on **Links, Open to Item...**

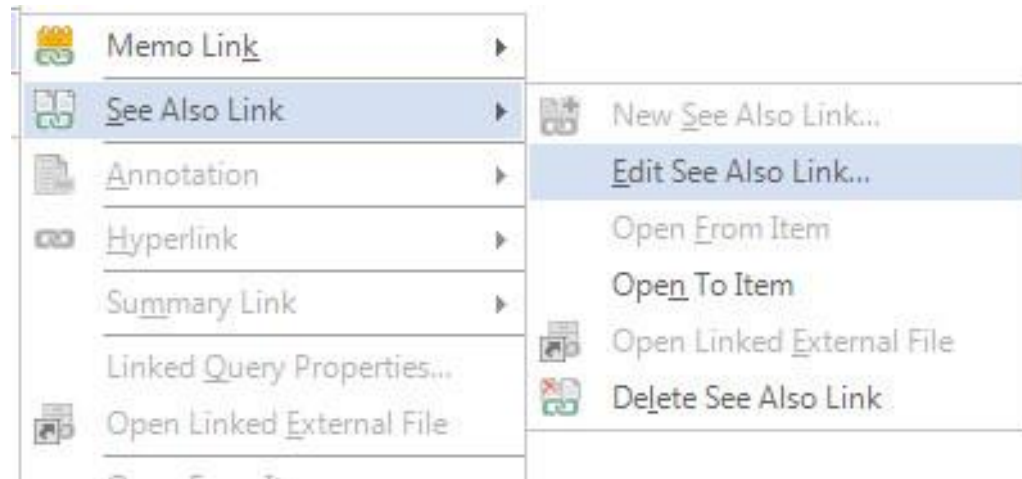
The destination of the link is opened and displayed. Here we have opted to view a 'See Also' link to a free node called **Delusions**:



To edit or delete a See Also Link:

Right-click on the See Also Link red-shaded text

Click on **Links, See Also Link**



To edit the link:

Click on **Edit See Also Link...**

Make any changes then click **OK**

To delete the link:

Click on **Delete See Also Link, Yes**

7. Sets

What are Sets?

When a project begins to develop, the numbers of sources (internals, memos, externals) and nodes will increase and you may wish to organise them by using sets. For example, you could group certain documents together for clarity (consider in the early stages having a set called **Coded Data** in which you can collect documents after you have coded them).

Note that in earlier versions of NVivo it was not possible to mix sources and nodes in the same set, but from version 7 onwards this is not a problem.

When you put a source item or node in a set the original remains where it is, you are just putting a short-cut in the set. This means that a document or node can appear in several sets, so can be organised in several ways, and you can remove an item from a set without removing it from the project. You may for example want to group all questionnaire responses, all male interviews, all teacher interviews, all documents connected with a particular institution etc. You basically create a set for whatever purpose then add things to it.

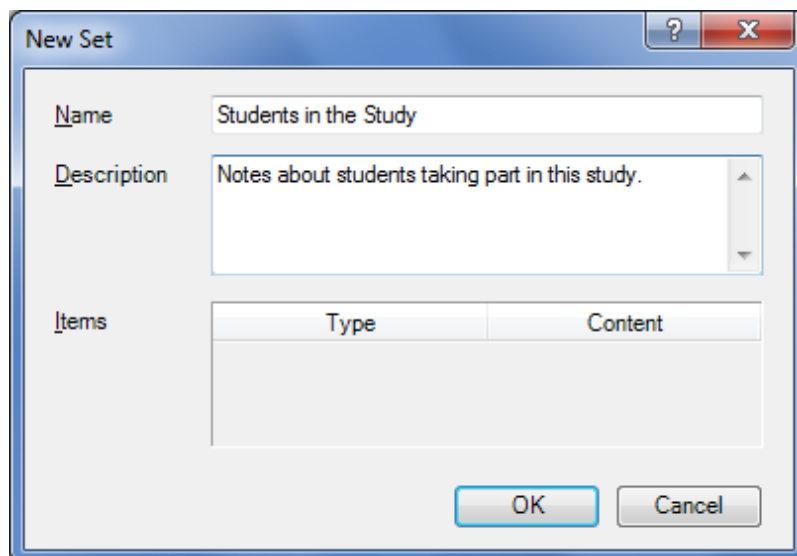
Creating a Set and Adding Items

You can create a new set then add certain project objects (nodes or sources) to it, or you can select items and then create a set containing them.

To create a new set:

Click on **Create Tab, Set**

Note that if you click on the down arrow you have a choice, but if you click on the Set button you will create a new set by default.



In the **New Set** dialogue box give a **Name** and **Description**

Leave the **Items** section for now, it summarises the contents of the set. We will return to this shortly.

Click **OK**

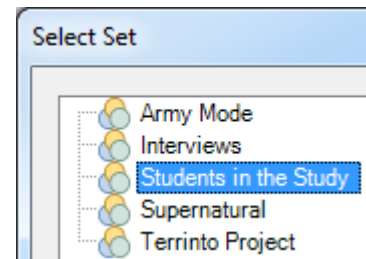
To put items into a set:

In Navigation View click on **Sources** or **Nodes**

Select items to be put into the set (hold **[Ctrl]** to select several)

Right-click on any of the selected items, then on **Add To Set**

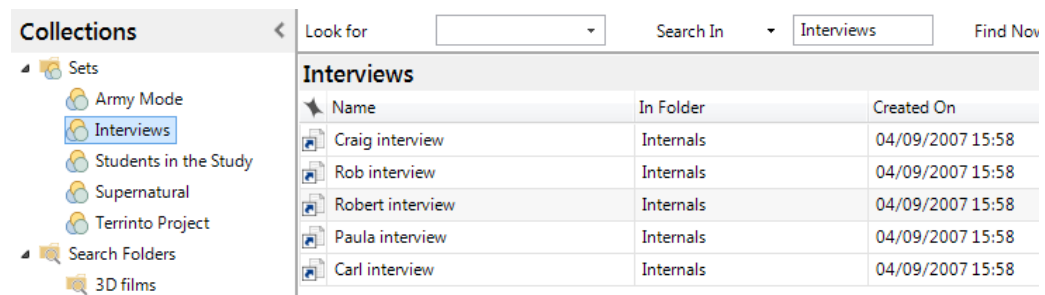
Select the required set and click **OK**



To view a set:

Click on **Collections** in **Navigation View**

Expand **Sets** if necessary, then click on a set



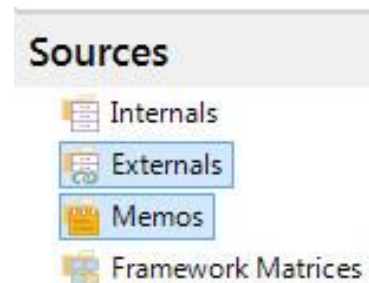
To copy the contents of a folder into a set:

In **Navigation View** click on **Sources** for example

Select the folders whose contents you wish to copy into a set (hold **[Ctrl]** to select several)

Note that this can only be done with folders containing sources or nodes.

Here we have selected the folders containing Externals and Memos (see right).



Folders this works with:

*Internals
Externals
Memos
Nodes
Relationships*

*Folders this **does not** work with:*

*Matrices
Queries
Results
Models
Memo Links*

Right-click on selected folders, then on **Add to Set**
 Select the required set and click **OK**

To create a set based on selected items:

In Navigation View click on **Sources** or **Nodes**

Select items to be put into a new set (hold **[Ctrl]** to select several)

Right-click on any selected item, then click on **Create, Create As Set...**

Type a **Name** and (optional) **Description** and click **OK**

A new set is created containing the selected items.

View or Edit a Set's Properties

Some useful information can be seen if you view a set's properties. In Navigation View with the sets listed...

Right-click on a set, then click on **Set Properties...**

You can at this point freely edit the set name or description, but a key thing to note is the summary of the set contents:

Items	Type	Content
	Document	10
	External	1
	Memo	2

Delete a Set or its Contents

It is quite safe to delete a set or anything in it. Since sets contain only short-cuts to items, the original items will not be deleted. You can also put the same item in several sets.

To delete an item from a set:

Right-click on the item in the set

Click on **Delete**, then on **Yes**

To delete a set:

In Navigation View, right-click on the set to be deleted

Click on **Delete**, then on **Yes**

8. Attributes

What are Attributes for?

Attributes allow you to record variable-based data that you'd normally find in quantitative and statistical analysis. These could be variables such as age, gender, temperature, cost, quantity etc. which have associated with them a set of values.

Some variables will have a very limited range of values; for instance we might record “Dog owner?” as ‘**Yes**’ or ‘**No**’. Other variables can have a wide or seemingly limitless set of values; cost could be anything from 1 penny to millions of pounds. Gender cannot adequately be restricted to ‘**Male**’ or ‘**Female**’ because we should be including options for those in transition, or undergoing gender reassignment, and for those who do not wish to be pigeon-holed, perhaps we’d have ‘**Prefer not to say**’ as an option, or we could invite individuals to say what value they’d like us to record for their gender (we can always record uncommon values under the umbrella term ‘**Other**’).

When creating an attribute we should of course give it a meaningful name, so if we were recording the age of those we interview we might simply name it ‘**Age at Interview**’ (note that an interviewee’s age will change, but their age at the time of the interview remains fixed).

Attributes offer us a way of linking qualitative and quantitative data where they share respondents or cases. So if we were examining the effects of certain kinds of school building on the learning of pupils, our NVivo project could include documents containing open responses from a survey of pupils' experiences and thoughts about their environment, and for each pupil we could use attributes recording quantitative data such as the marks they achieved in classroom work and exams. In fact we can create attributes to record the values of any variable that might have an influence on the data.

When querying (see later section) it is possible to use attribute values as a way of dividing data, eg seeing if opinion on a subject differs according to gender.

Identifying Cases

We normally associate attributes with cases and it is important to identify cases in your project. In a study of schools for instance, we might be looking at the experience of a number of teachers, so each teacher would be seen as a case. If a number of schools were involved, each school might also be a case.

If we have set up cases for individual buildings in a study, we might create attributes to record specific values about the buildings such as floor space, number of fire exits, location, number of floors, colour of walls, average temperature etc (this is primary data). If we have internals/documents that are transcriptions of interviews, we might for example create attributes to record interviewee's age (also primary data), date and location of interview and name of interviewer (these would be meta data, ie data about the data).

Attributes and NVivo 11

In NVivo 9 and 10 no distinction was made between different kinds of node, so potentially any node could make use of attributes. With NVivo 11 we now have a node *labelled* as ‘Case’ as well as nodes just labelled as ‘Node’. So if we do identify Cases in our project we need to represent them using Case nodes. In addition we can also associate attributes with our sources, so we might, for example, record a document’s author, country of origin, whether it is confidential, number of pages etc.

We have to *classify* a node or source if we want to use attributes with it. Below is a step by step process we can follow. These instructions focus on attributes used with Case Nodes, but the process is the same for Sources and there are some additional notes about using attributes with sources at the end of this section.

1. **Create Case Nodes to represent the cases**
Eg Jack, Phoebe, Building K, Procedure X
2. **Create Classifications for types of case (or source) in your study**
Eg Person, Place, Event, Process
3. **Create Attributes for the Classifications**
Eg Person might have attributes for Age at Interview, Nationality, Gender
4. **Classify the Case Nodes (or Sources)**
Eg the case node John could be classified as a Person
5. **Manage Attribute values**
You can view, record and edit attribute values at any time as the data becomes available to you

This process will now be explained using a simple example of a study about students’ experiences in their first year at University.

Step 1 – Creating Case Nodes to Represent the Cases

It should not be too difficult to identify obvious cases in your project. In our example students come from two universities, so we have set up a hierarchy of case nodes to represent these cases and to keep them organised. Both the students and the universities are cases.

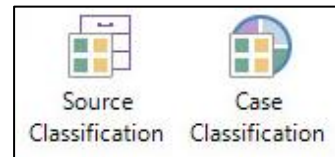
Cases				
	Name	Sources	References	Created On
[-]	University A		0	0 26/10/2016 15:53
	Drew		0	0 26/10/2016 15:54
	Karen		0	0 26/10/2016 15:54
[-]	University B		0	0 26/10/2016 15:53
	Kimberley		0	0 26/10/2016 15:54
	Taj		0	0 26/10/2016 15:54

Step 2 – Creating Classifications for Types of Case (or Source)

Some classifications are already set up in NVivo and can be selected for the project, but if they are not suitable you can create your own new ones.

Click on **Create Tab, Case (or Source) Classification** button

Give a **Name** and optional **Description**



 A screenshot of the 'New Classification' dialog box. It has a title bar with a question mark and a close button. Inside, the 'Create a new classification' radio button is selected. There are two text input fields: 'Name' with the text 'Student' and 'Description' which is empty.

OR Select a pre-defined classification

 A screenshot of a dialog box titled 'Add one or more predefined classifications to the project'. It has a list box containing 'Organization' and 'Person'. The 'Person' item is selected and highlighted in blue. There are 'OK' and 'Cancel' buttons at the bottom right.

Click **OK**

To view the classifications:

In Navigation View click on **Classifications, Node (or Source) Classifications**

Case Classifications		
Name	Created On	Created By
 Student	31/10/2016 11:33	SO

Step 3 – Creating Attributes for the Classifications

You can create attributes for a classification at any time. You may know some you need straightaway, but you can always add others later. Start by viewing the classifications:

In Navigation View click on **Classifications, Case (or Source) Classifications**

Click on the Classification you want to create attributes for, eg **Student**

Click on **Create Tab, Attribute** button

We will create an attribute to record the Gender of the students.

New Attribute

General | Values

Name Gender

Description Gender of student

Type Text

Give a **Name**, eg **Gender**, and optional **Description**

You must say what type of data this attribute will record; it can be Text, Integer (*ie whole number*), Decimal, Date/Time, Date, Time, or Boolean (*ie Yes/No or True/False*).

Set Type to **Text**

We can now add possible values if we know what they are. For Gender we know that we will need the values Male and Female.

Click on the **Values** tab

Text
Text
Integer
Decimal
Date/Time
Date
Time
Boolean

Note that there are already two attribute values in place; **Unassigned** (meaning that we don't yet know the student's gender) and **Not Applicable** (meaning gender isn't relevant to the student). It's unlikely we'll need '**Not Applicable**' with a Gender attribute, but it might be used for example with an attribute recording a reference code such as National Insurance Number or Passport Number.

'**Unassigned**' has been made the default, which makes sense, but you can have any value as the default by ticking the checkbox on the right.

New Attribute

General | Values

Attribute Values			
Value	Description	Color	Default
Unassigned		None	☒
Not Applicable		None	☐
Female		None	☐
Male		None	☐

Add Remove Sort Move Up Move Down

Click on **Add**, type **Female**

Click on **Add**, type **Male**

Click **OK**

The attributes are listed under the classification like this:

Node Classifications			
Name	Created On		
Student	13/01/2011 11:49		
Name	Type	Created On	
Gender	Text	13/01/2011 11:55	
Age at Interview	Integer	13/01/2011 11:56	
Nationality	Text	13/01/2011 11:56	

You can change the properties (including name, type and values) of any attribute. If making changes after having used attributes be careful as some changes may result in lost data (eg if you changed Type from Text to Integer).

Right-click on an attribute then click on **Attribute Properties...**

Make any changes then click **OK**

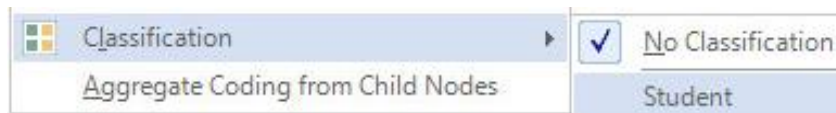
Step 4 – Classifying the Case Nodes (or Sources)

You now have to classify your Case Nodes (or Sources) appropriately, so in our example we would want to associate the nodes **Drew**, **Karen**, **Kimberley** and **Taj** with the classification **Student**. Here is how we do it:

List and select the nodes or Sources (hold **Ctrl** and click to select several separate items in a tree structure)

Cases		
Name	Sources	References
University A		0
Drew		0
Karen		0
University B		0
Kimberley		0
Taj		0

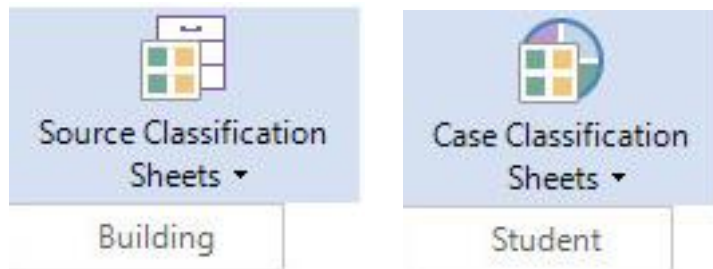
Right-click on one of the selected items, then click on **Classification** and choose a classification, eg **Student**



Step 5 – Managing Attribute Values

To work with the attribute values:

Click on **Explore Tab, Case (or Source) Classification Sheets**, then on the classification, eg **Student**



The Node (or Source) Classification Sheets are just like the Casebook from earlier versions of NVivo, but instead of seeing all cases and attributes you focus on one type of case. So here we are looking only at Student cases.

Student			
	A : Gender ▼	B : Age at Interview ▼	C : Nationality ▼
1 : Drew	Unassigned	Unassigned	Unassigned
2 : Karen	Unassigned	Unassigned	Unassigned
3 : Kimberley	Unassigned	Unassigned	Unassigned
4 : Taj	Unassigned	Unassigned	Unassigned

At first all you will see is the default values – in our example these were all set to Unassigned. You put in the actual values when you have them.

To select from pre-defined values:

For **Gender** we were able to set up values in advance (ie **Female** and **Male**) so we can select these for students.

In the **Gender** column move pointer onto a cell and click on the down-arrow

Click on a value, eg **Female**

Student			
	A : Gender ▼	B : Age at Interview ▼	C : Nationality ▼
1 : Drew	Unassigned	Unassigned	Unassigned
2 : Karen	Unassigned ▼	Unassigned	Unassigned
3 : Kimberley	Unassigned	Unassigned	Unassigned
4 : Taj	Not Applicable	Unassigned	Unassigned
	Female		
	Male		

You can change the value at any time if necessary.

To type in new values:

For Age at Interview we couldn't set up all possible values in advance, so we record them when we know them.

In the **Age at Interview** column move pointer onto a cell and click on the down-arrow

Type a new value (age), eg **37**

Student			
	A: Gender	B: Age at Interview	C: Nationality
1: Drew	Unassigned	37	Unassigned
2: Karen	Female	Unassigned	Unassigned
3: Kimberley	Unassigned	Not Applicable	Unassigned
4: Taj	Unassigned	Unassigned	Unassigned

Click elsewhere to fix the typed value

As you record more values for a variable such as Age, you will see them appearing in the drop-down list and if the value you require is there you can just click to select it.

4: Taj	Male	Unassigned	British
		Unassigned Not Applicable 24 33 37	

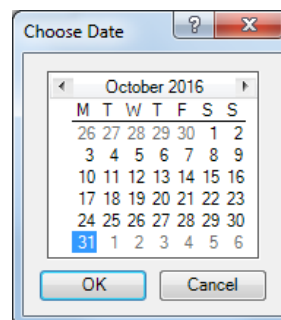
To select or type in dates:

In our example we have added an attribute for Date of Registration.

In the **Date of Registration** column move pointer onto a cell and click on the down-arrow

Click on **<Select Date...>**, and on a date in the calendar, then click **OK**

D: Date of Registration
Unassigned
Unassigned
Unassigned
<Select Date...>
Unassigned
Not Applicable



OR

In the cell click on the down-arrow then type a new date in the form **21/12/22** or **21/12/1922**

The second method is easiest when dates are quite a few years away from today. Note that if just two digits are used for the year, NVivo will assume you are referring to a year in the range **1930 to 2029**, so 01/01/23 is assumed to be in 2023 and 01/01/54 is assumed to be in 1954. If in any doubt (and for dates in different centuries) use four digits for the year, eg 03/12/1753.

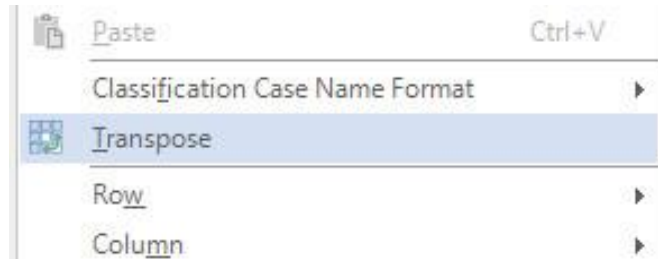
Modifying Case (or Source) Classification Sheets

You can alter the appearance of the Case (or Source) Classification Sheets in various ways to make them easier to work with.

To transpose columns and rows:

Right-click in the classification sheet area, and click **Transpose**

Repeat to cancel this setting.



Now the cases are the columns and the attributes are the rows.

Student				
	A : Drew	B : Karen	C : Kimberley	D : Taj
1 : Gender ▼	Female	Female	Female	Male
2 : Age at Inter... ▼	37	24	27	40
3 : Nationality ▼	American	British	Unassigned	Unassigned
4 : Date of Re... ▼	13/10/2016	Unassigned	12/01/2017	Unassigned

To alter the width of columns:

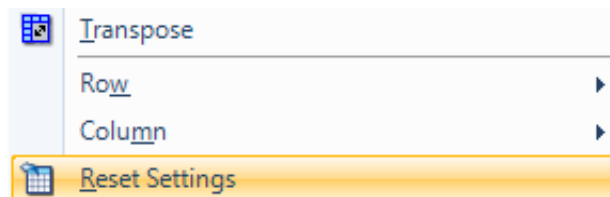
Place the pointer on the line between two headings (see arrow) and drag left or right



A : Gender ▼	B : Age at Inte... ▼	C : Nationality ▼	D : Date of Re... ▼
Male	22	American	Unassigned
Female	40	Swiss	Unassigned
Female	37	Australian	24/02/2011
Male	21	British	Unassigned

To return to default layout:

Right-click in the node classification sheet area, and click **Reset Settings**



Filtering in Case (or Source) Classification Sheets

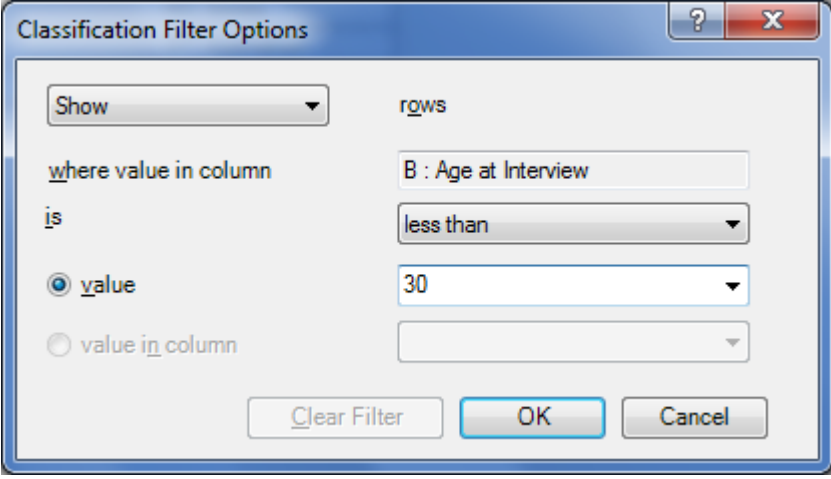
You can carry out some basic filtering in the classification sheets according to attribute values.

Click the filter icon ▼ for the required attribute



A : Gender ▼	B : Age at Interview ▼	C : Nationality ▼	D : Date of Re... ▼
Male	22	American	Unassigned
Female	40	Swiss	Unassigned

The Classification Filter Options dialogue box appears:



Classification Filter Options

Show rows

where value in column B : Age at Interview

is less than

☒ value 30

☐ value in column

Clear Filter OK Cancel

With these settings we are asking NVivo to **Show** rows (ie cases) where the value in the **Age at Interview** column is **less than 30**. Simply put, we want to list students who were younger than 30 when we interviewed them.

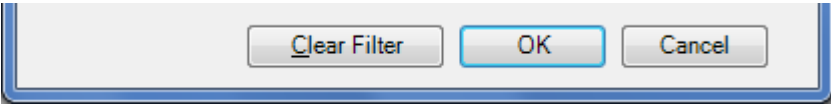
Click **OK**

Notice the filter symbol is coloured red and the list is limited to those younger than 30 years old.

A : Gender ▼	B : Age at Interview ▼	C : Nationality ▼	D : Date of Re... ▼
Male	22	American	Unassigned
Male	21	British	Unassigned

To clear the filter:

Click on filter symbol and then on **Clear Filter** button



Clear Filter OK Cancel

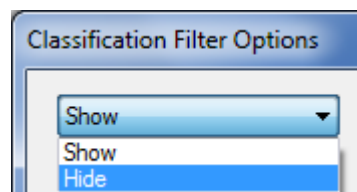
OR

Right-click in the node classification sheet area, and click **Reset Settings**

Filter Options

We'll go through the filter options from top to bottom...

Show/Hide: Set this to **Show** or **Hide** rows (or columns if Casebook is transposed) depending on the filter settings.



where value in column:

This shows the name of the selected column (or row), in this case, **B: Age at Interview**. We can't change this.

is: Here we choose a relational operator, such as **greater than**, to compare the column contents with a value we choose. Here are some examples:

Date of Birth **greater than** 14/10/1982
(ie born after 14/10/1982)

Eye Colour **equal to** brown
(ie all those with brown eyes)

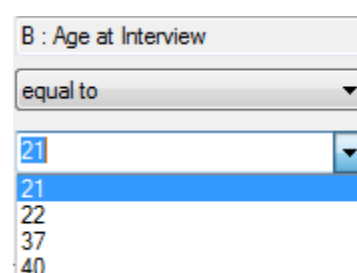
Eye Colour **not equal to** brown
(ie those whose eyes are not brown)

Height **less than or equal to** 1.5
(ie those with a height of 1.5 metres or less)

Height **not equal to unassigned**
(ie those of any height, or with 'Not Applicable' stored)

value: Here we give an appropriate value to compare the column contents with, in this case a number, **21**.

With Dates and Numbers you can click on the down arrow and type the new value, or select an existing one from the list (see right).



With Strings you can only choose existing values to filter by, so you have to choose from the drop-down list.

You can use more than one filter at the same time. Here we applied a filter to both **Gender** and **Age at Interview**:

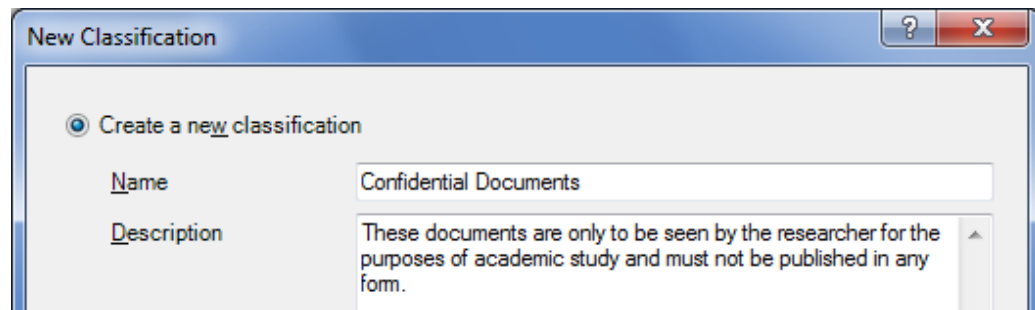
	A : Gender ▼	B : Age at Inte... ▼	C : Nationality ▼	D : Date of Re... ▼
3 : Kimberley	Female	37	Australian	24/02/2011 ▼

About Source Classifications

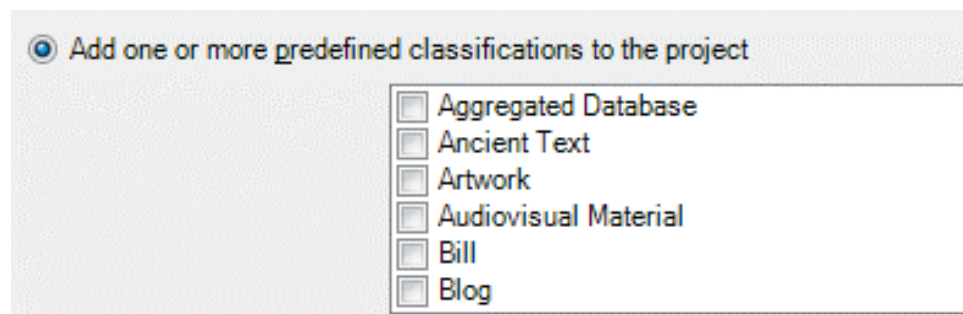
Although the examples used have been Case Classifications, the procedure is just the same for Source Classifications, but here are a few notes.

When you work with Source Classifications, the focus is on documents, memos and externals, so the kinds of classification and attributes you use will reflect this.

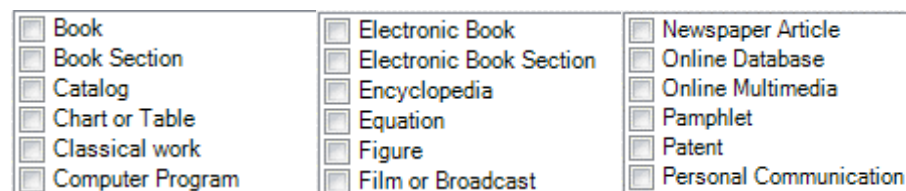
Here we are creating a *new* Source Classification to represent Confidential Documents in our research:



Or we might like to use one or more of the predefined Source Classifications. There are many of these so it's worth taking a look:



Here are some extracts from the full list:



The predefined options already have many attributes associated with them. This will give you a good idea of how they might be used. Here is an example (Unpublished Work is a predefined classification):

Source Classifications		
Name	Created On	
Unpublished Work	20/01/2011 09:40	
Name	Type	Created On
Author	Text	20/01/2011 09:40
Year	Text	20/01/2011 09:40
Title of Work	Text	20/01/2011 09:40
Series Title	Text	20/01/2011 09:40
City	Text	20/01/2011 09:40
Institution	Text	20/01/2011 09:40
Number	Text	20/01/2011 09:40
Pages	Text	20/01/2011 09:40
Date	Text	20/01/2011 09:40
Type of Work	Text	20/01/2011 09:40

...and so on.

You may find there are more attributes than you need, but they are easily deleted:

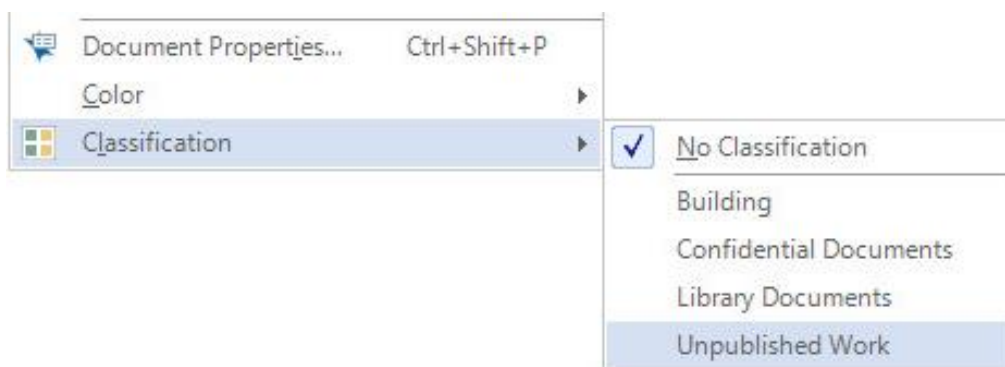
Right-click on an attribute, click **Delete**, **Yes**

You can select several attributes before right-clicking if you first hold **Ctrl** and click on the attributes to be deleted.

Classifying Sources is the same as for Cases:

List the Sources (Internals, Externals or Memos)

Right-click on a source, then on **Classification**



Click on a classification, eg **Unpublished Work**

Managing the attribute values is the same as for Cases. This shows some attributes and values associated with the Unpublished Work classification:

Unpublished Work			
	A : Author	B : Year	C : Institution
1 : A Study of Stereoscopy	Alec Brooker	2011	UEA
2 : Book of My Life	Ray Dailey	2015	Langton Inc
3 : Interview technique notes	Aggy Toller	2003	Not Applicable
4 : Notes About SSR	Munif Team	Unassigned	Cambridge

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