

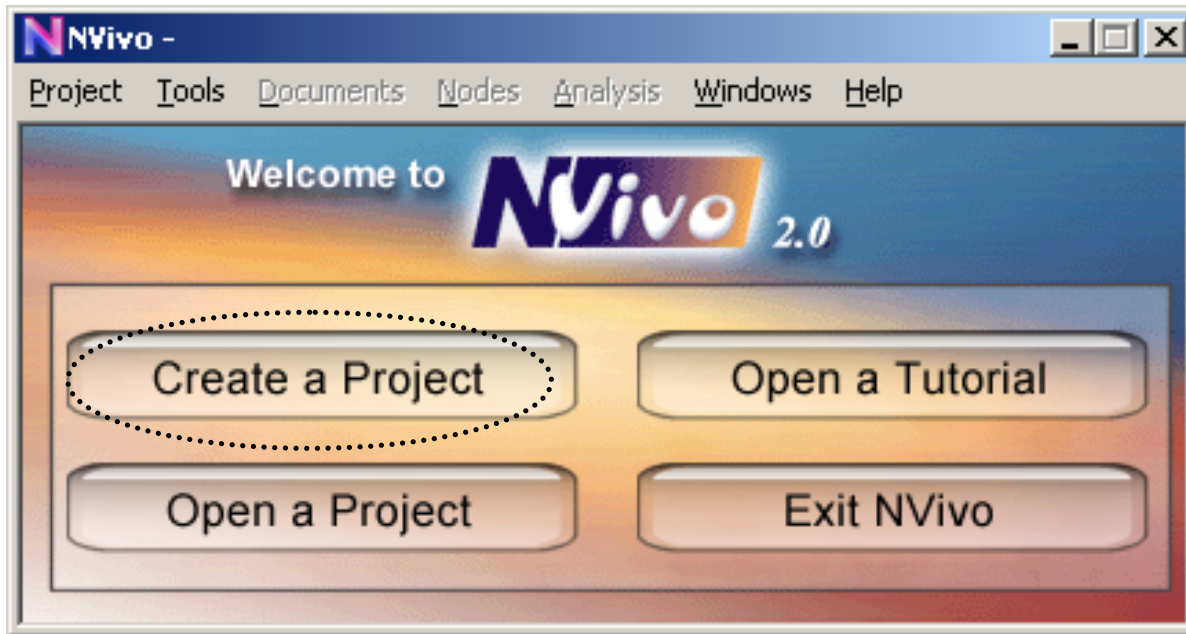
Text analysis

NVivo

<http://www.qsrinternational.com/>

Starting points

- The first step in using NVivo is to create a project



New project wizard



- NVivo begins the process of setting up a project via a menu-guided interface

New project wizard

New Project Wizard : Name - NVivo

Please give the project a name and a description

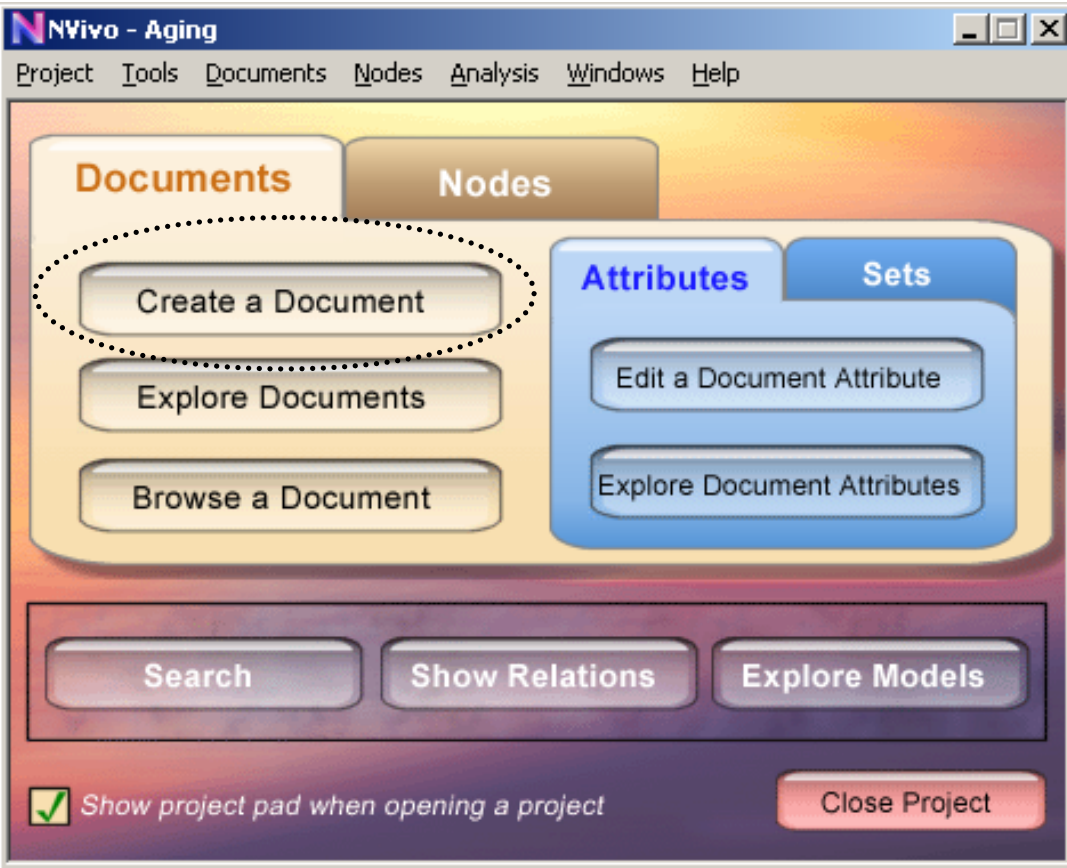
Name : Aging

Description : U3A participants interviewed by email in 2002-3

< Back Next > Cancel

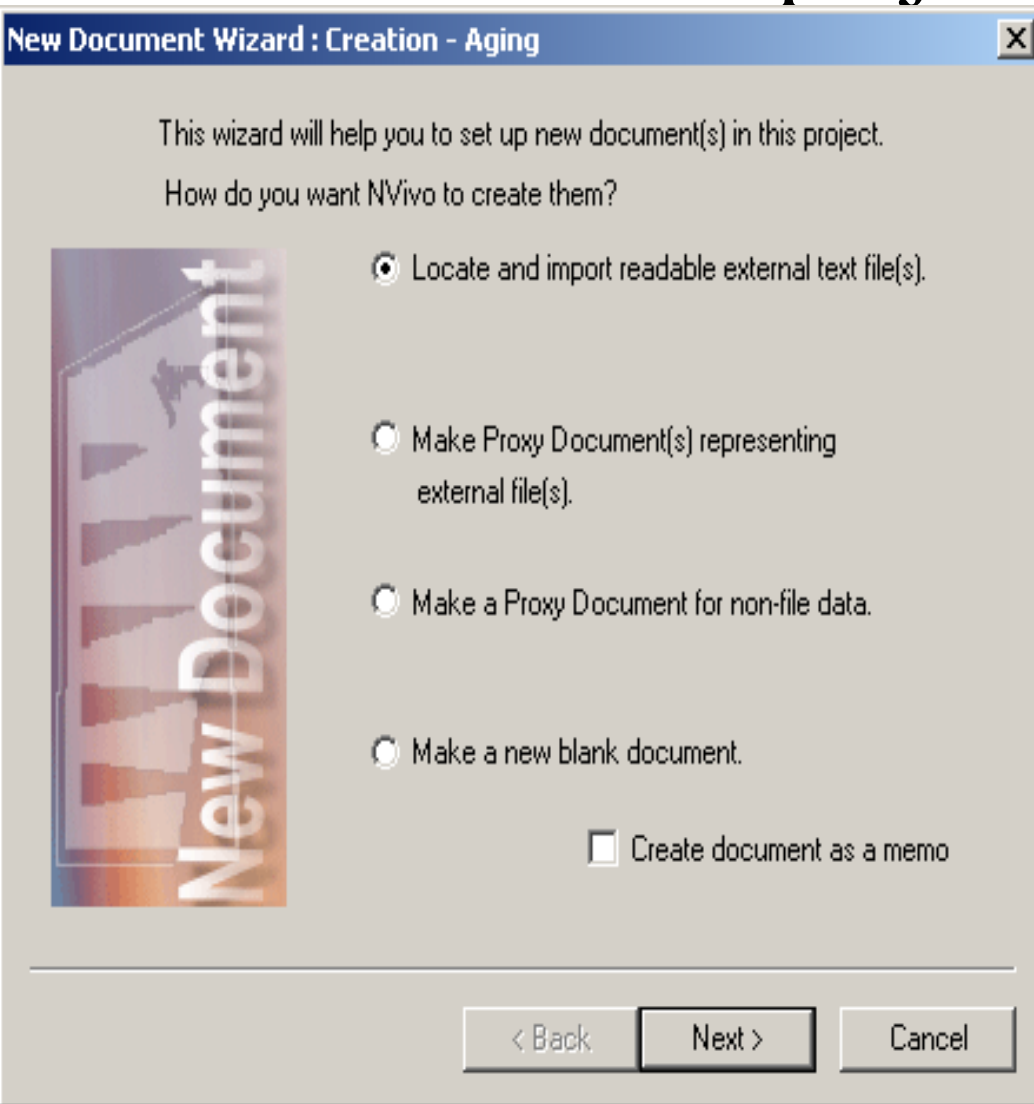
- You are prompted to provide a project name

Document explorer



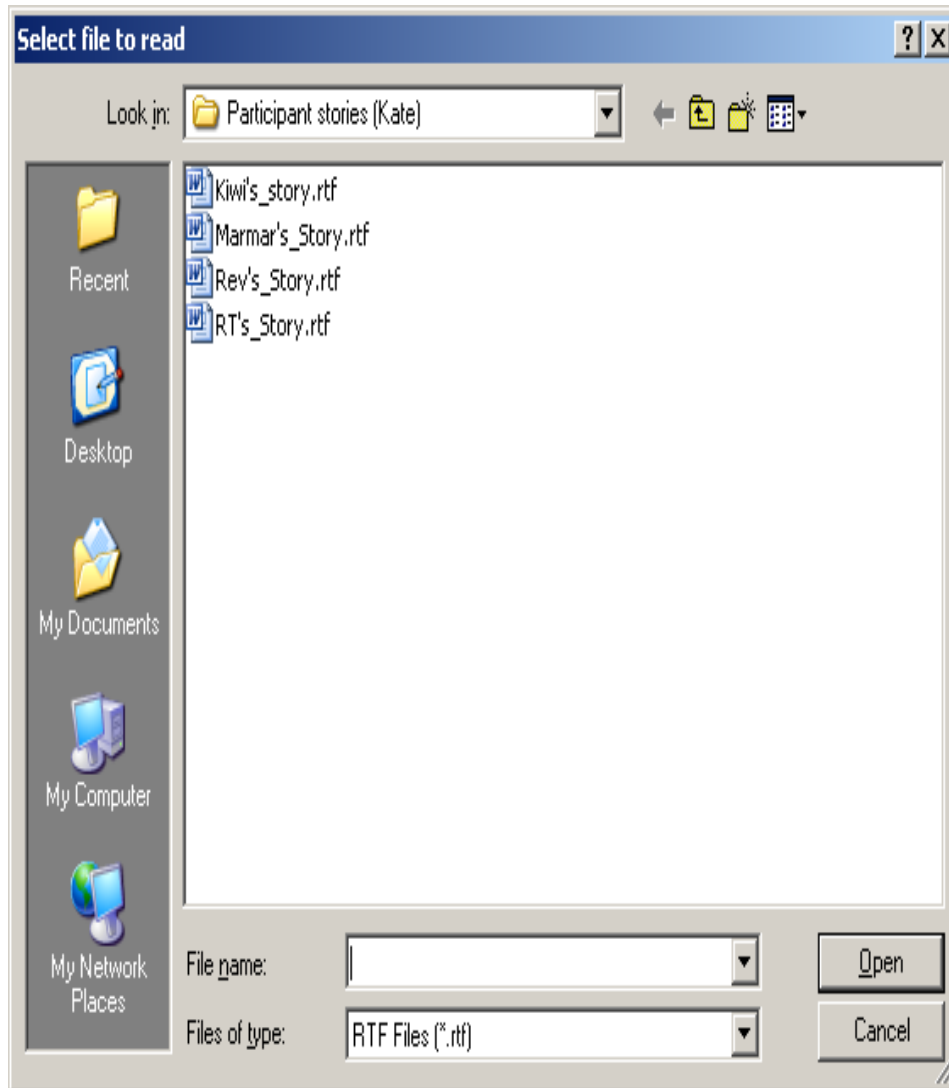
- This major interface guides and provides links that allow you to work with documents, with nodes, with attributes, and with sets, and also sooner or later to create and explore models

Make a project document



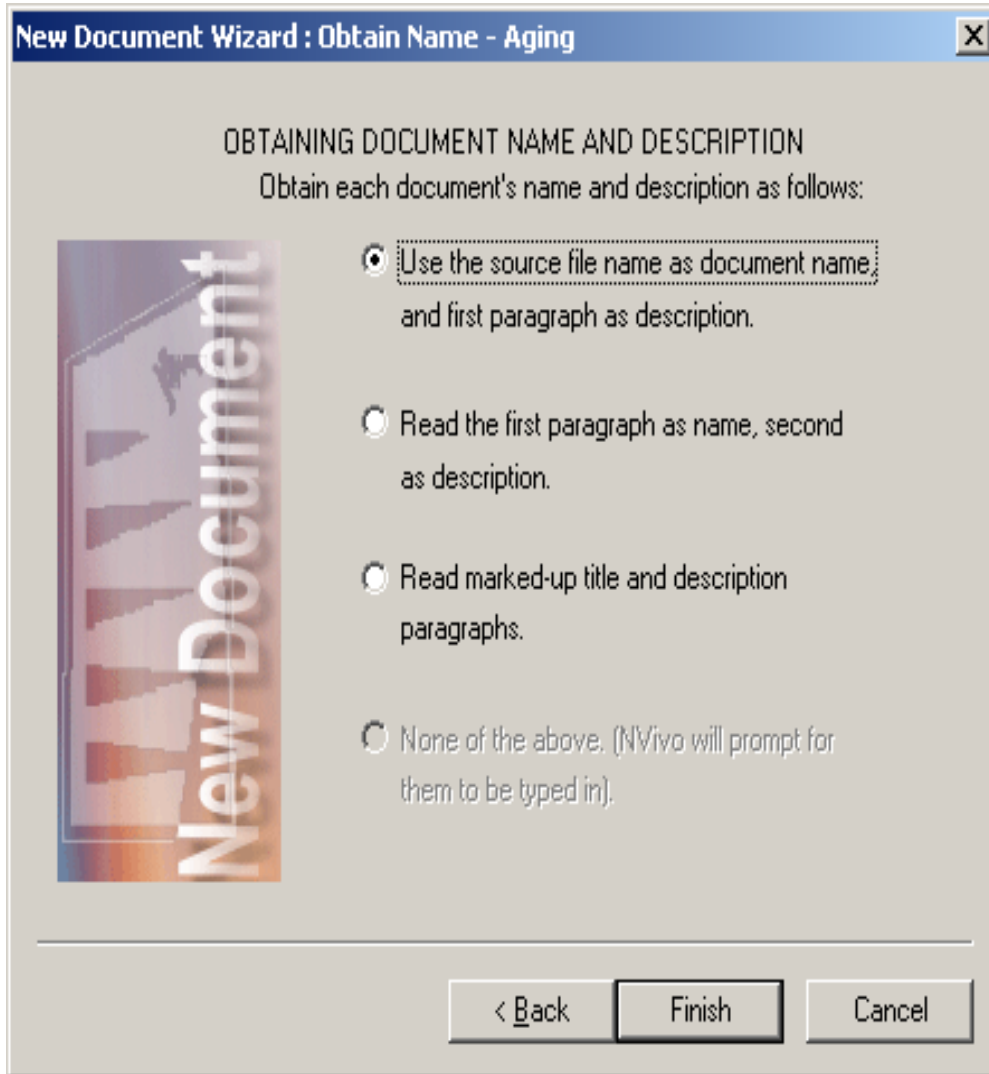
- The first step in any project is to locate and import documents, to make proxy documents, or to construct new documents
- You begin doing so by clicking on *Make a project document* button

Locate and import text or rtf documents



- NVivo “reads” text or rich text documents
- The advantage with rich text is that you can use colours and styles to mark up the document from within NVivo
- The advantage in using NVivo rather than NUD*ist is that you don't need to specify the unit of analysis (sentence, paragraph, etc)

Obtaining document name

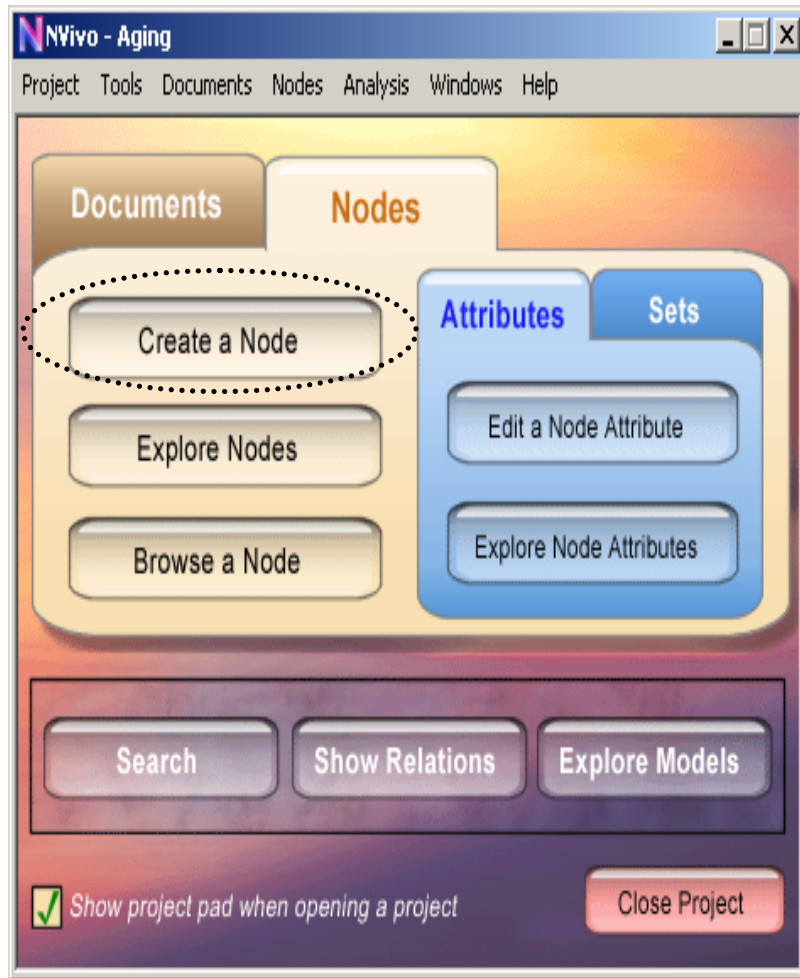


- Having selected a document and clicked OK, you are now prompted to name the document in one of a number of ways
- The default is to use the source name

Creating Nodes (categories)

- NVivo offers two major options for specifying categories:
- Node explorer allows the analyst to specify and order a set of categories prior to viewing the document (or while viewing the document)
- Document explorer allows the analyst to specify categories based on extracts observed within the document.

Node explorer



- After importing project documents, you are ready to begin the analytic process
- *Node explorer* allows you to make, explore, code, and generally explore all node attributes and sets
- Node explorer provides a modifiable top-down view of the node matrix

Creating Nodes: Top-down coding

Free | Tree | Case

Free Nodes:

Title:

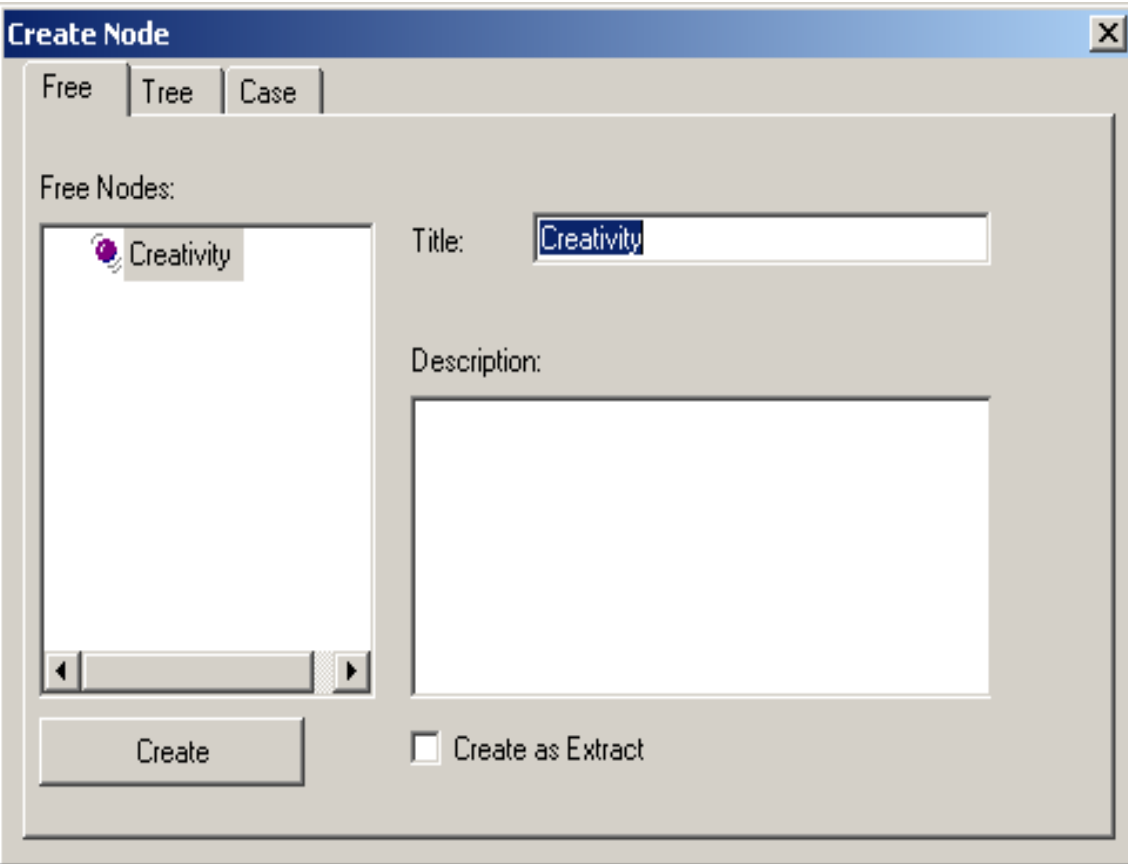
Description:

Create

Create as Extract

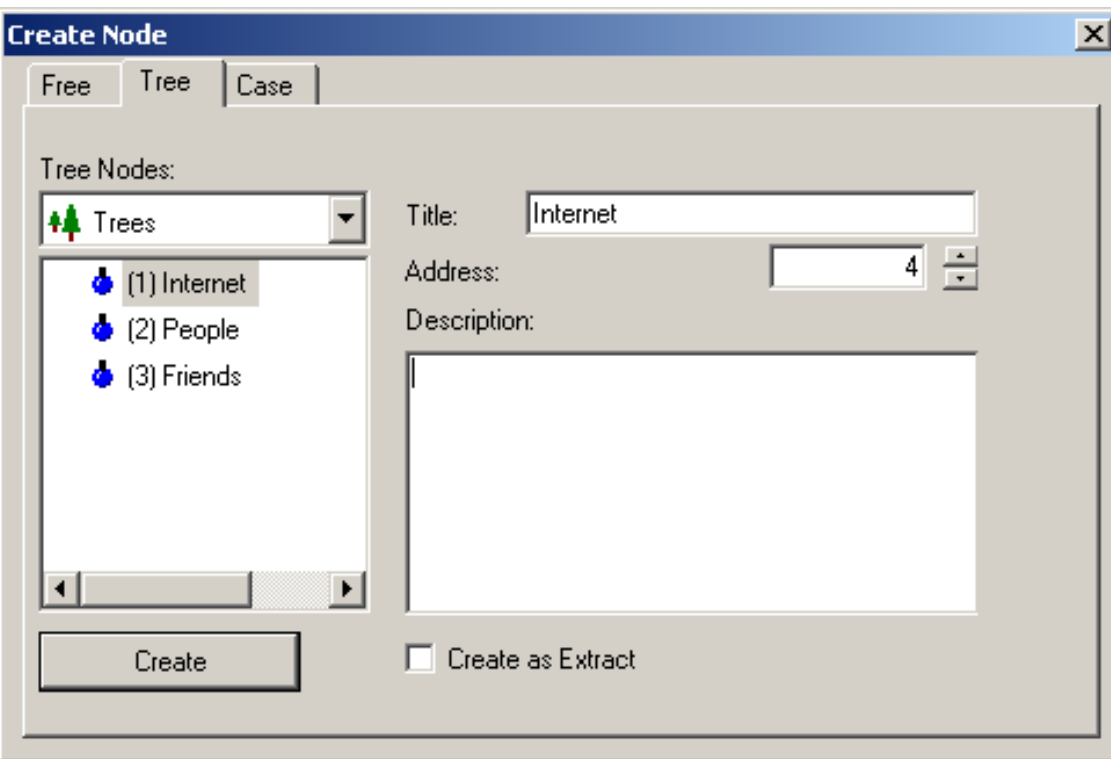
- The first stage in text analysis is to identify and specify nodes (categories)
- NVivo allows one to specify categories in advance by using the Create Node interface to create Free nodes, Tree nodes, and Case nodes
 - Free nodes gather up emergent ideas
 - Tree nodes gather up hierarchically ordered categories
 - Case nodes capture other material (including participants)

Free nodes



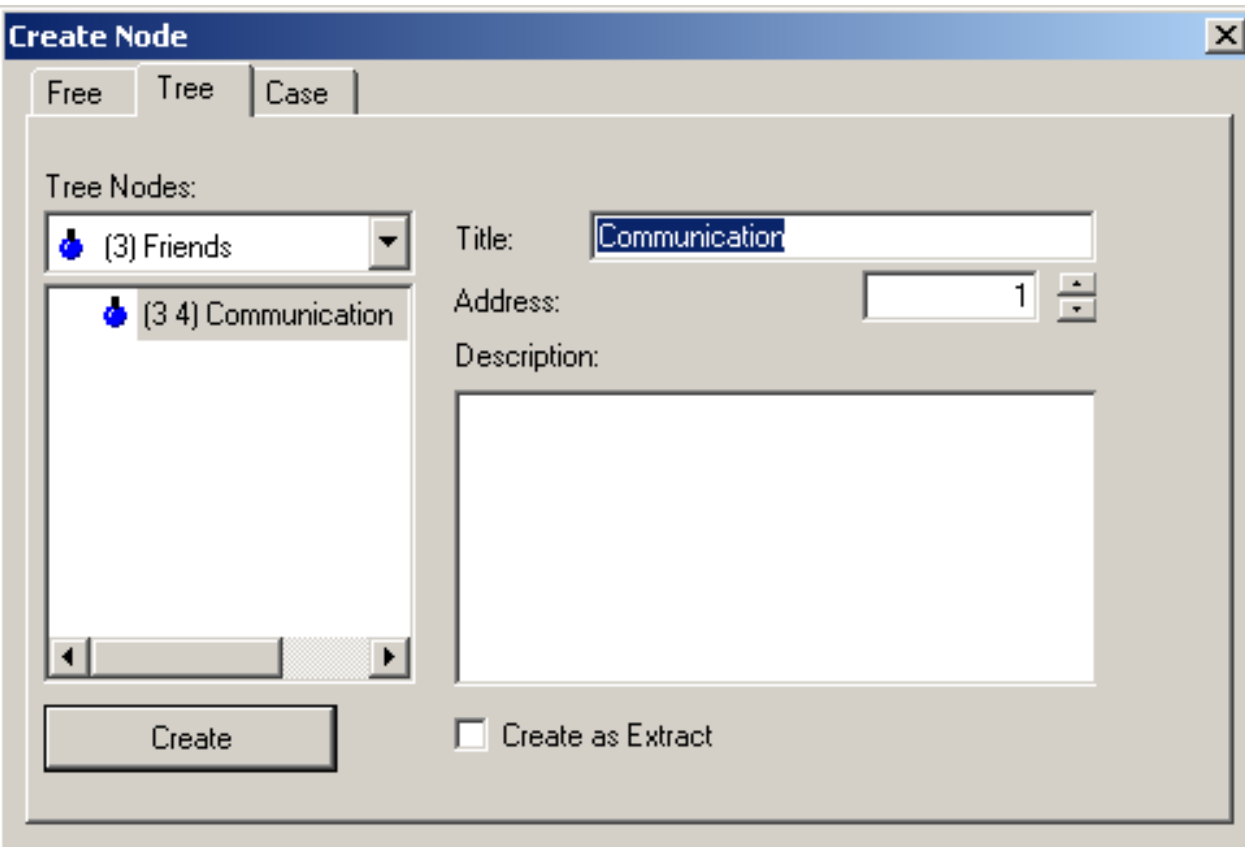
- In the Free tab's *Title* and *Description* edit fields, type a title (different from the title of any other free node) and optionally a description
- To classify the new node as an extract, click the Extract checkbox to insert a tick in it
- Click *Create*. The new node will appear in the left-hand list pane

Tree nodes



- In *Title* and *Description* edit fields, type a title (different from title of any other free node) and an optional description
- In address field, new number for new node allocated automatically
- To classify new node as an extract, click *Create Extract* checkbox (to create hyperlink)
- Click *Create* to produce new node in left-hand list pane

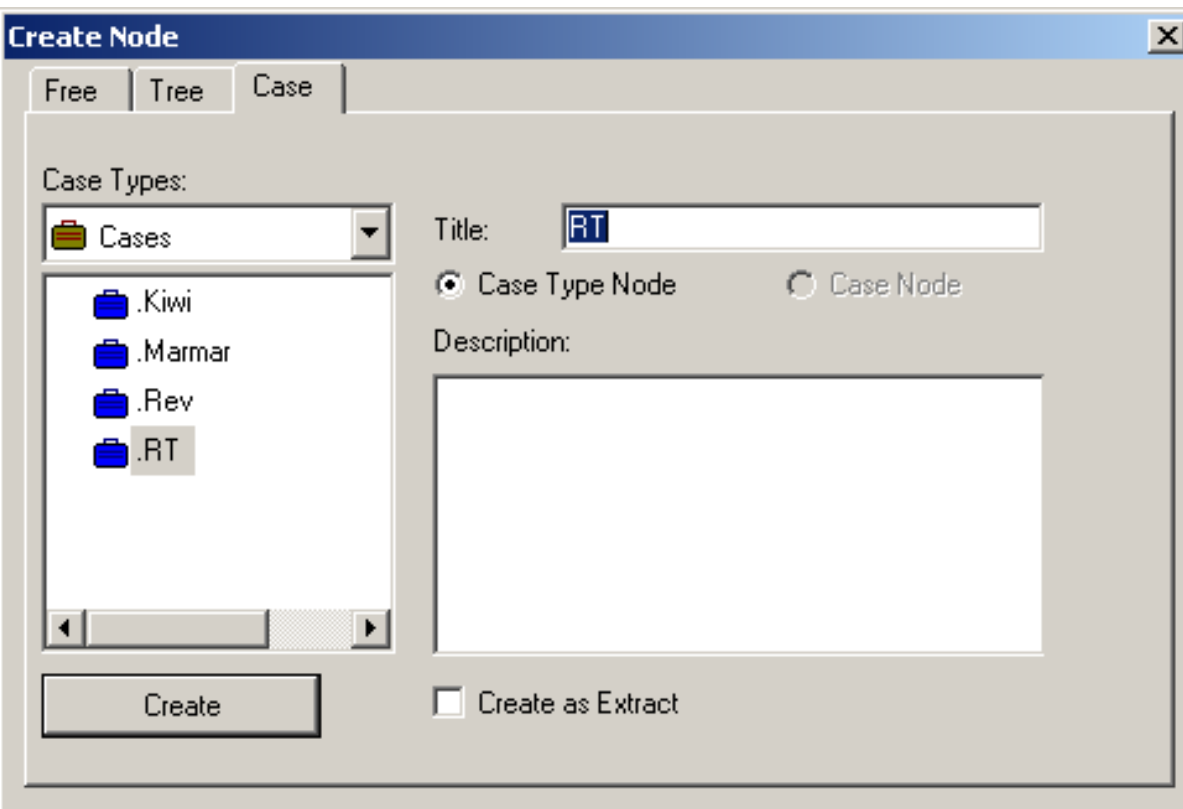
Tree nodes: Child and sibling nodes



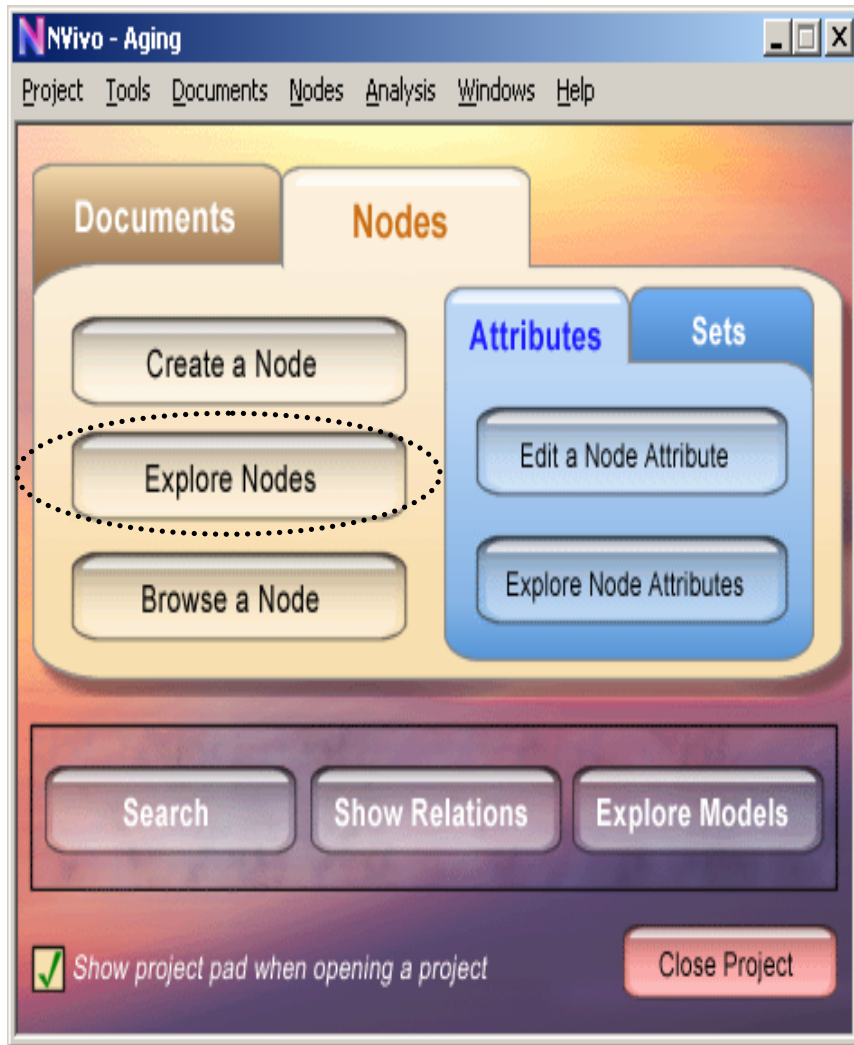
- In *Tree* tab, can create child nodes by double-clicking on parent nodes to gain access to secondary levels
- Create nodes as per usual
- Node addresses are shown to assist navigation
- Multiple nodes at same level referred to as sibling nodes

Case type node

- Click the *Case Type Node* option button to create nodes that contain sets of cases (e.g., participants)
- The *Case* tab also allows you to create child or sibling nodes in the list pane on the left-hand side if required



Explore all project nodes



- Having created an initial set of nodes, it is possible to view, edit, rearrange, and add to them, etc.

Explore all project nodes

Node Explorer - Aging

Node Set Tools View

Browse Properties Attributes DocLinks NodeLinks Edit Set Assay Search

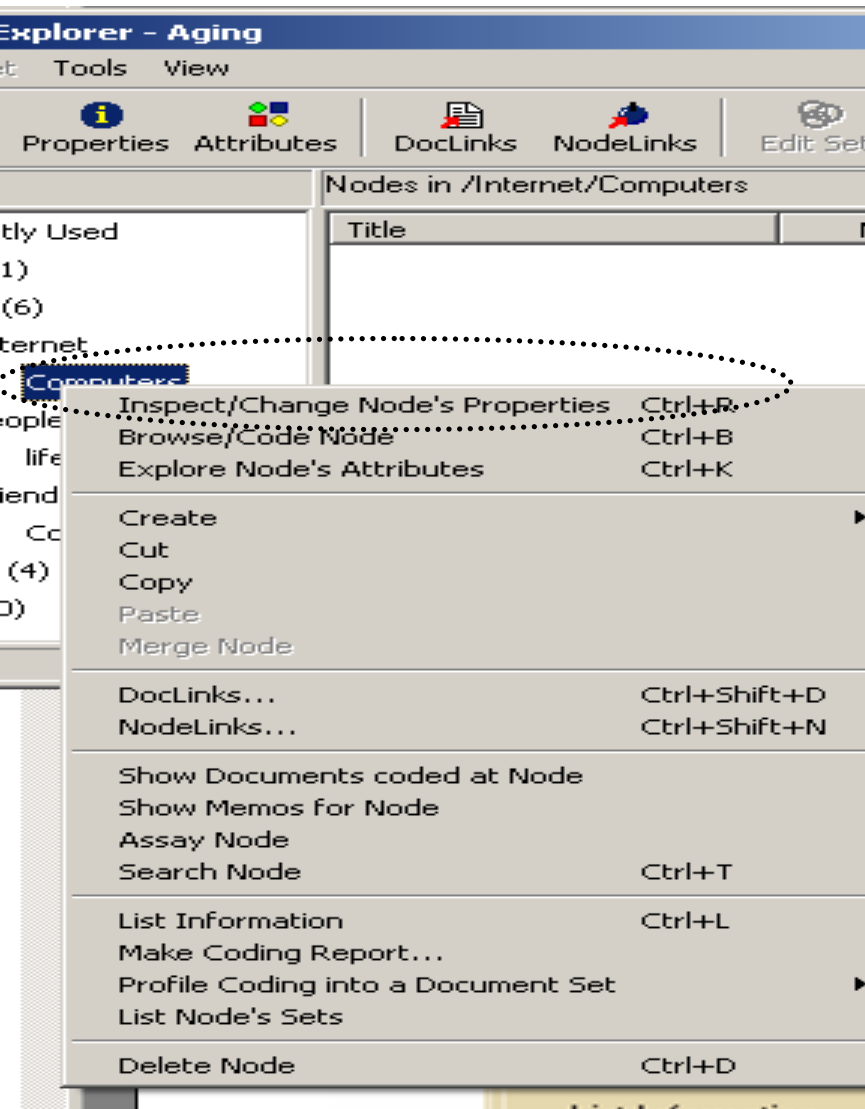
Nodes Case Types

Title	Passages	Created	Modified
Kiwi	0	19/08/20...	19/08/20...
Marmar	0	19/08/20...	19/08/20...
Rev	0	19/08/20...	19/08/20...
RT	0	19/08/20...	19/08/20...

Cases

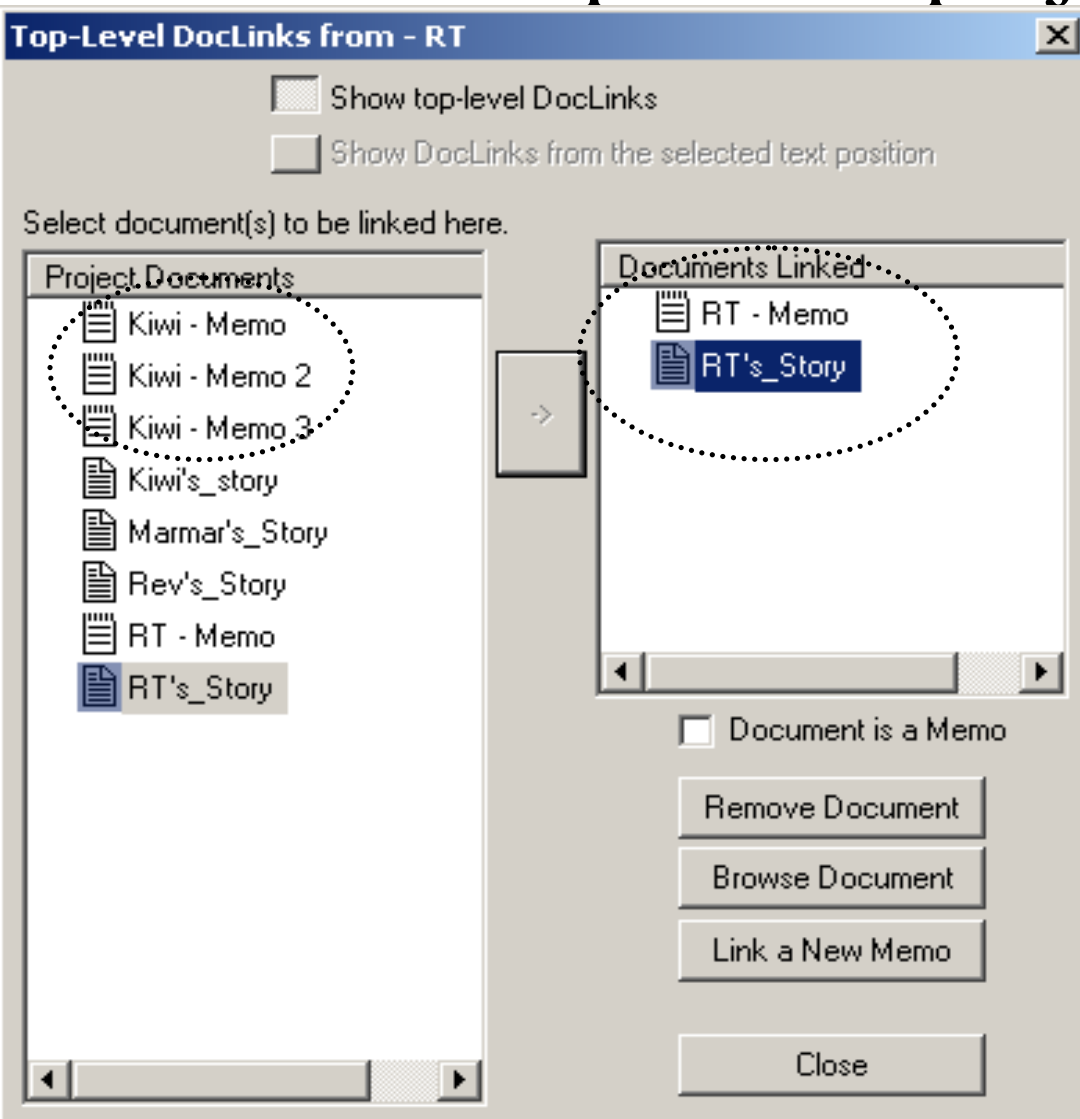
- The node explorer allows you to survey your node kingdom
- Sub-levels of the default display can be made visible by double-clicking on parent nodes (categories)
- Selecting a node allows you to edit that node's properties via the *Properties* button

Explore all project nodes



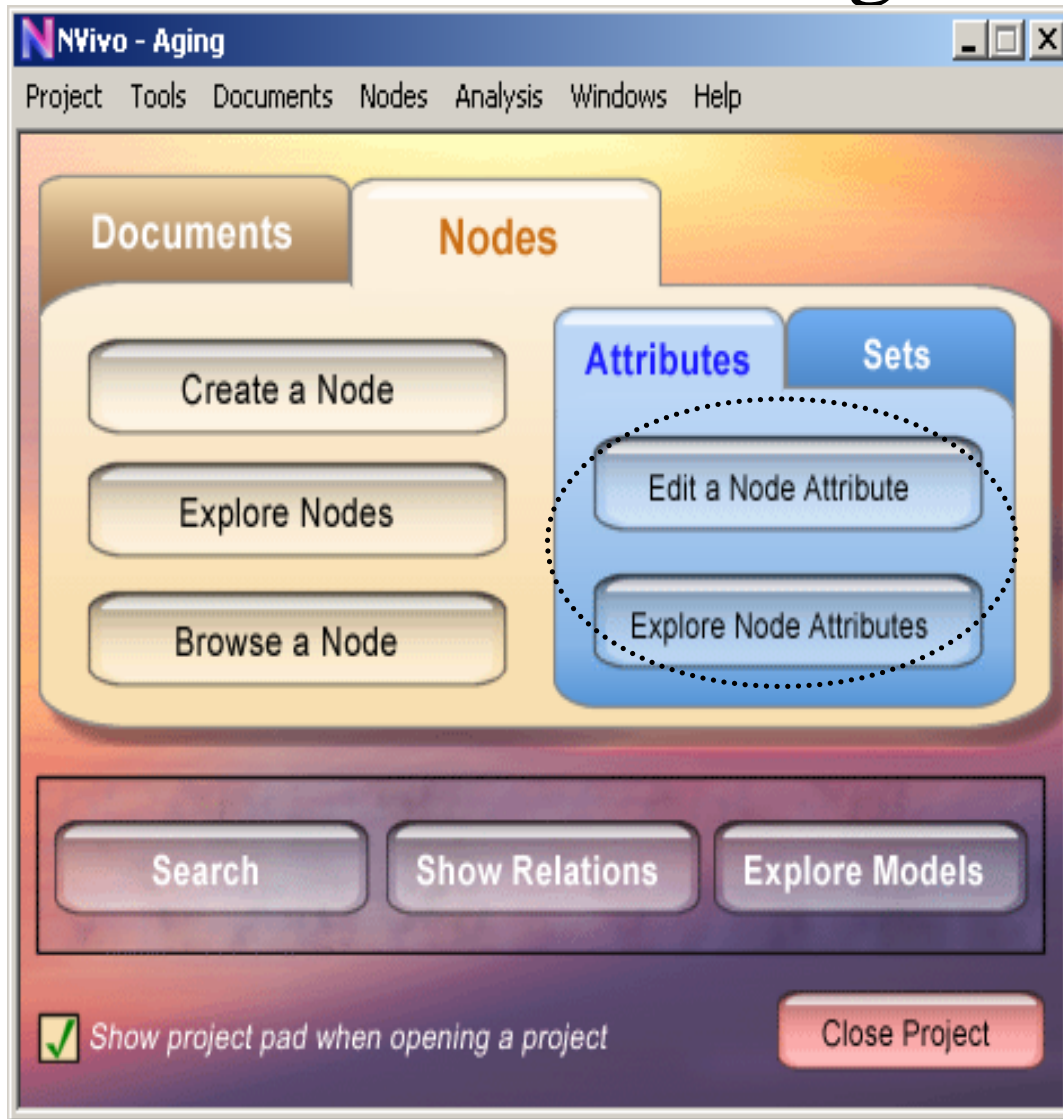
- Clicking on the *Node* menu and then selecting *Inspect/Change Node Properties* allows you to edit the node's title, description, etc
- The Create option allows you to create further child or sibling nodes as well
- It is also possible to conduct a range of other editing operations that include cutting, copying, (and then pasting) or deleting the Node

Explore all project nodes



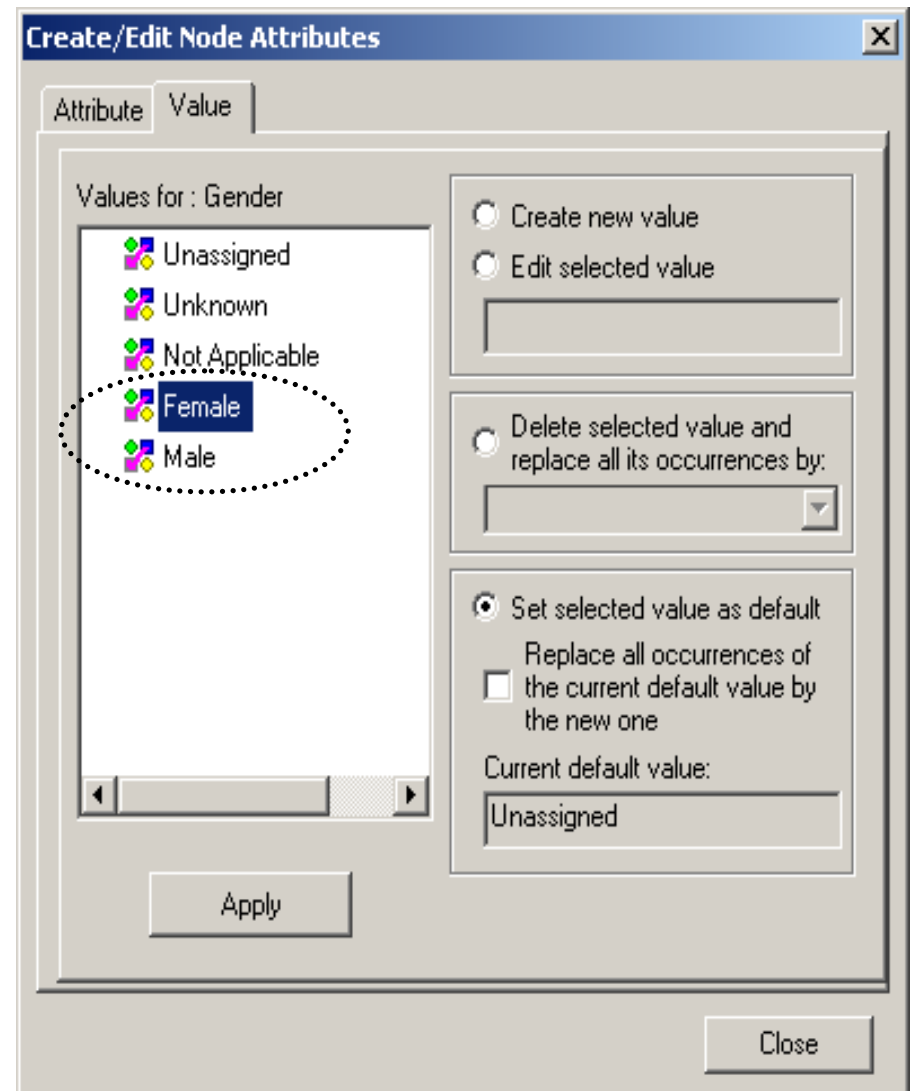
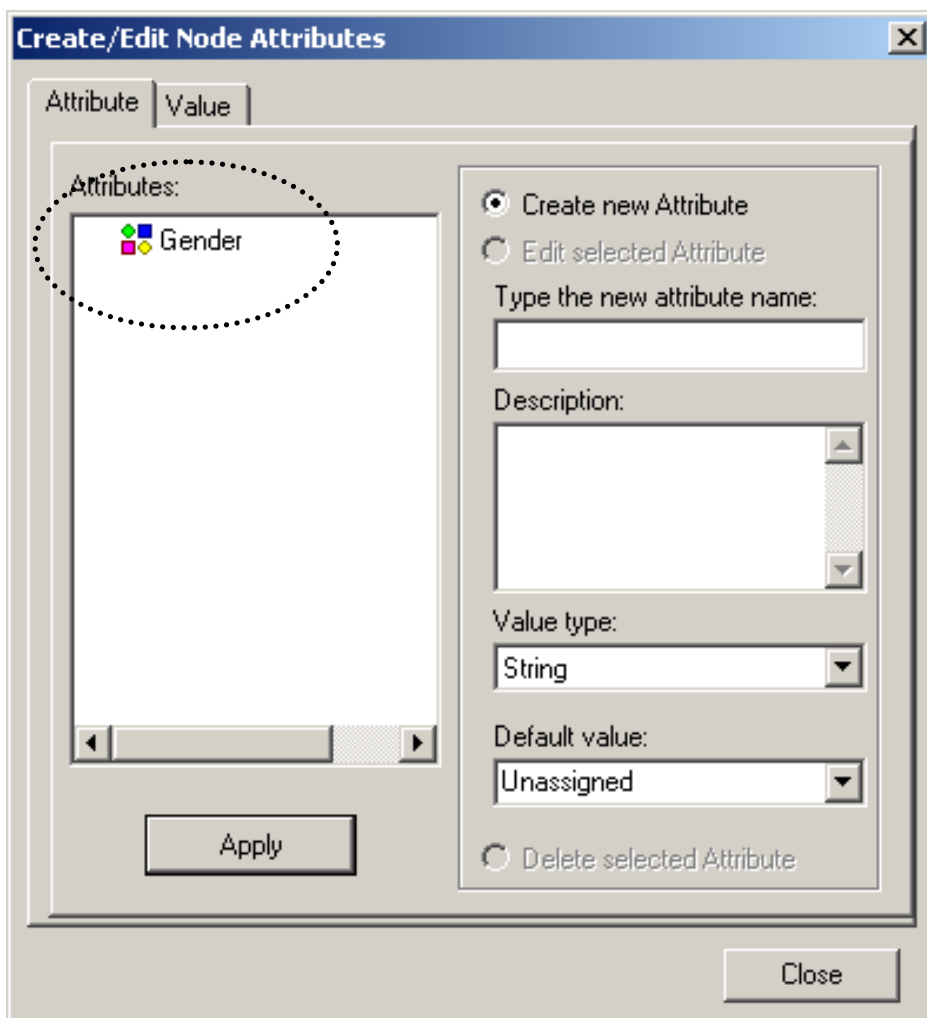
- In theory, the *document links* button allows you to link specific nodes to specific documents or make notes (memos)
 - BE WARNED, these links, once made, can only be removed from within the document explorer (Explore documents option)

Make or change a node attribute

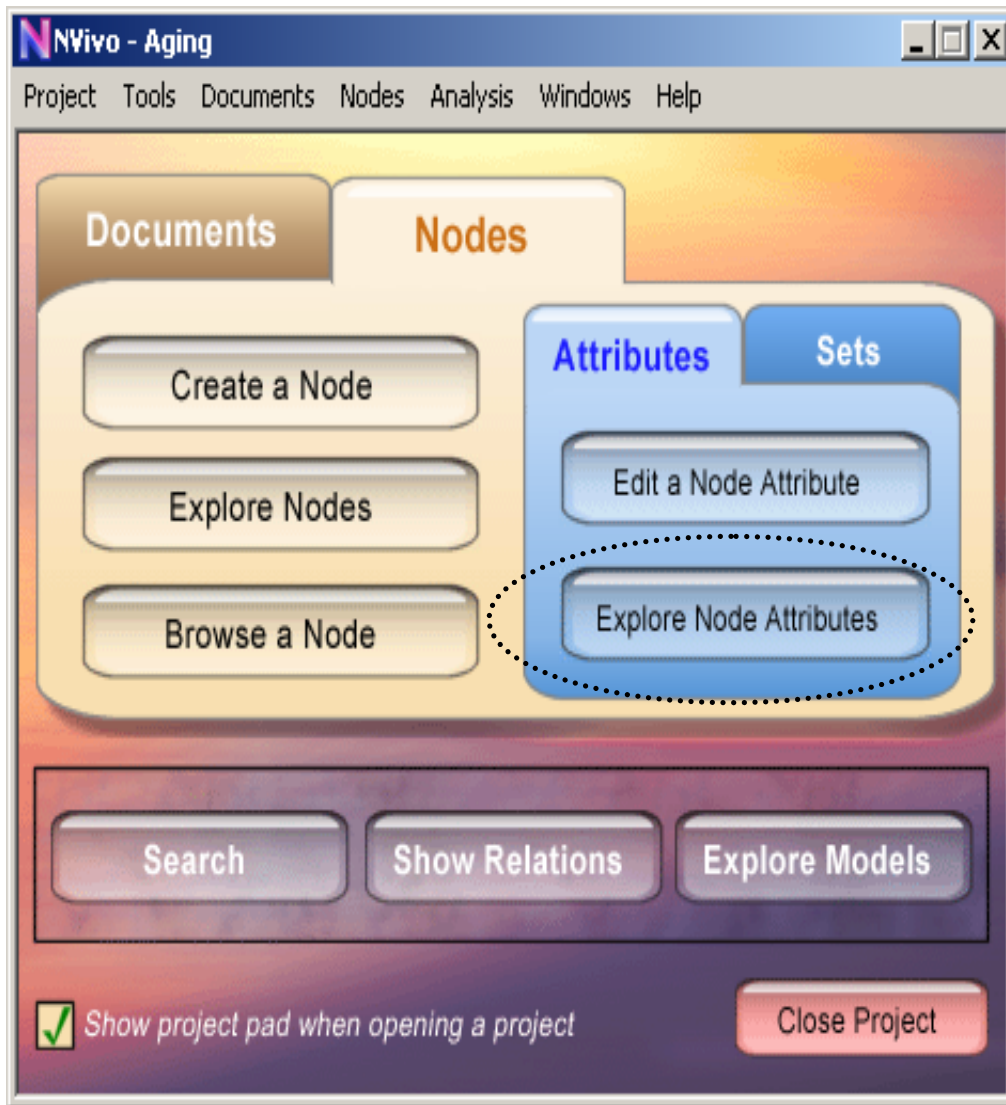


- As well as making and editing nodes, it is possible to make or change (or explore) node attributes

Make or change a node attribute

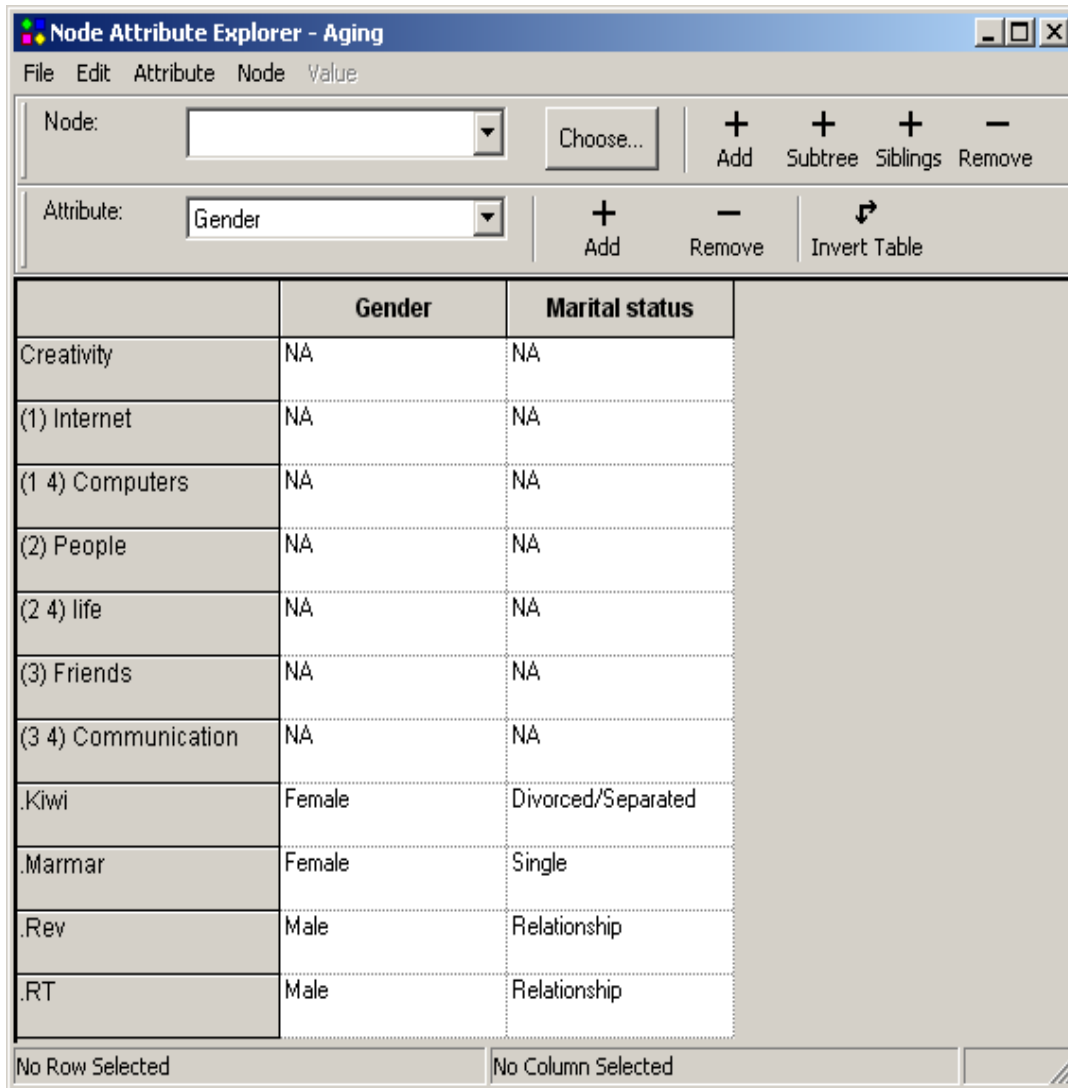


Case nodes and attributes



- In theory, it is possible to link selected demographic attributes with particular nodes (e.g., the participants and interviewer cases)

Explore all node attributes



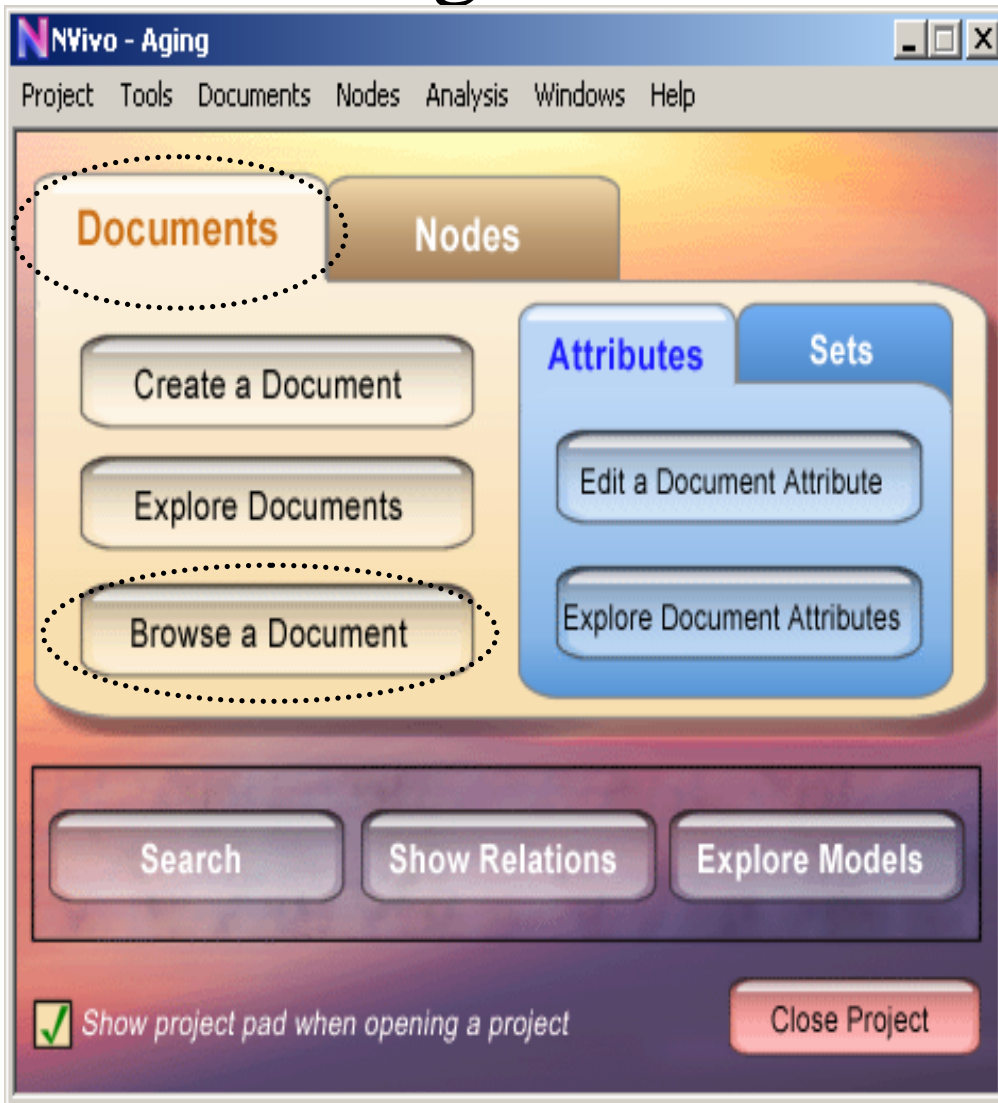
The screenshot shows the 'Node Attribute Explorer - Aging' window. The interface includes a menu bar (File, Edit, Attribute, Node, Value), a 'Node:' dropdown menu, a 'Choose...' button, and buttons for '+ Add', '+ Subtree', '+ Siblings', and '- Remove'. Below this, there is an 'Attribute:' dropdown menu set to 'Gender', and buttons for '+ Add', '- Remove', and 'Invert Table'. The main area contains a table with columns for 'Gender' and 'Marital status'. The table lists various nodes and their corresponding attribute values.

	Gender	Marital status
Creativity	NA	NA
(1) Internet	NA	NA
(1 4) Computers	NA	NA
(2) People	NA	NA
(2 4) life	NA	NA
(3) Friends	NA	NA
(3 4) Communication	NA	NA
.Kiwi	Female	Divorced/Separated
.Marmar	Female	Single
.Rev	Male	Relationship
.RT	Male	Relationship

No Row Selected No Column Selected

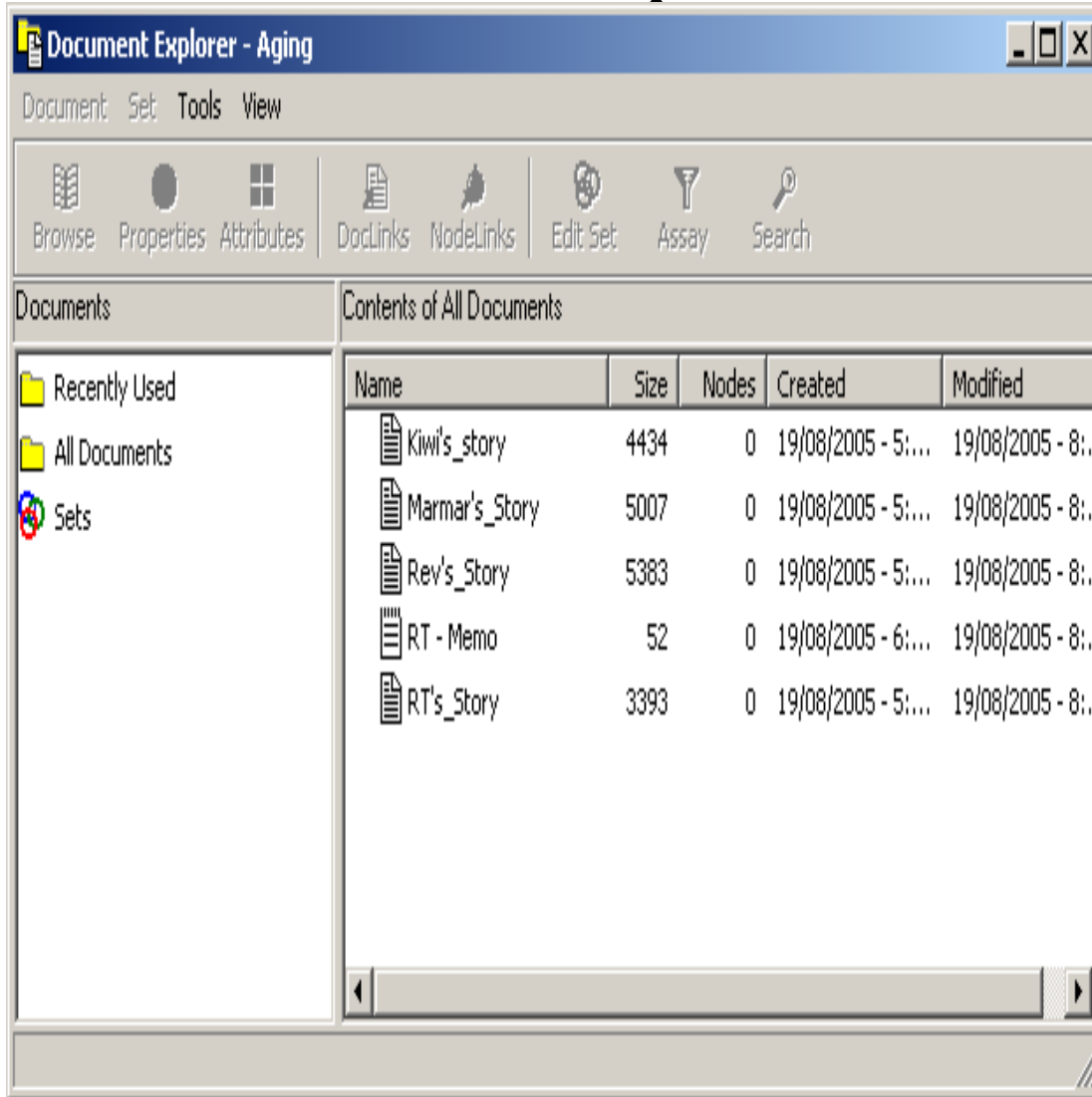
- This linkage of attributes and their values with the various nodes provides cross-referencing information that could be useful to the analysis

Coding a document: Bottom-up coding



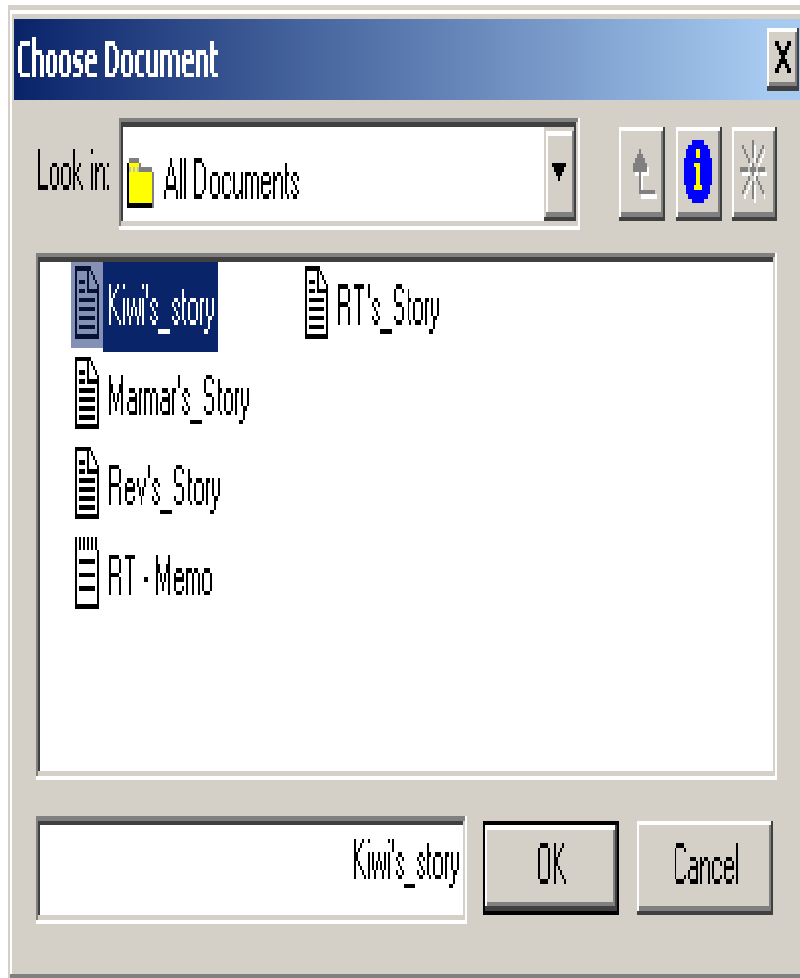
- To commence coding manually, it is necessary to shift back from the *Node explorer* to the *Document explorer* and select the *Browse* option

Explore a document



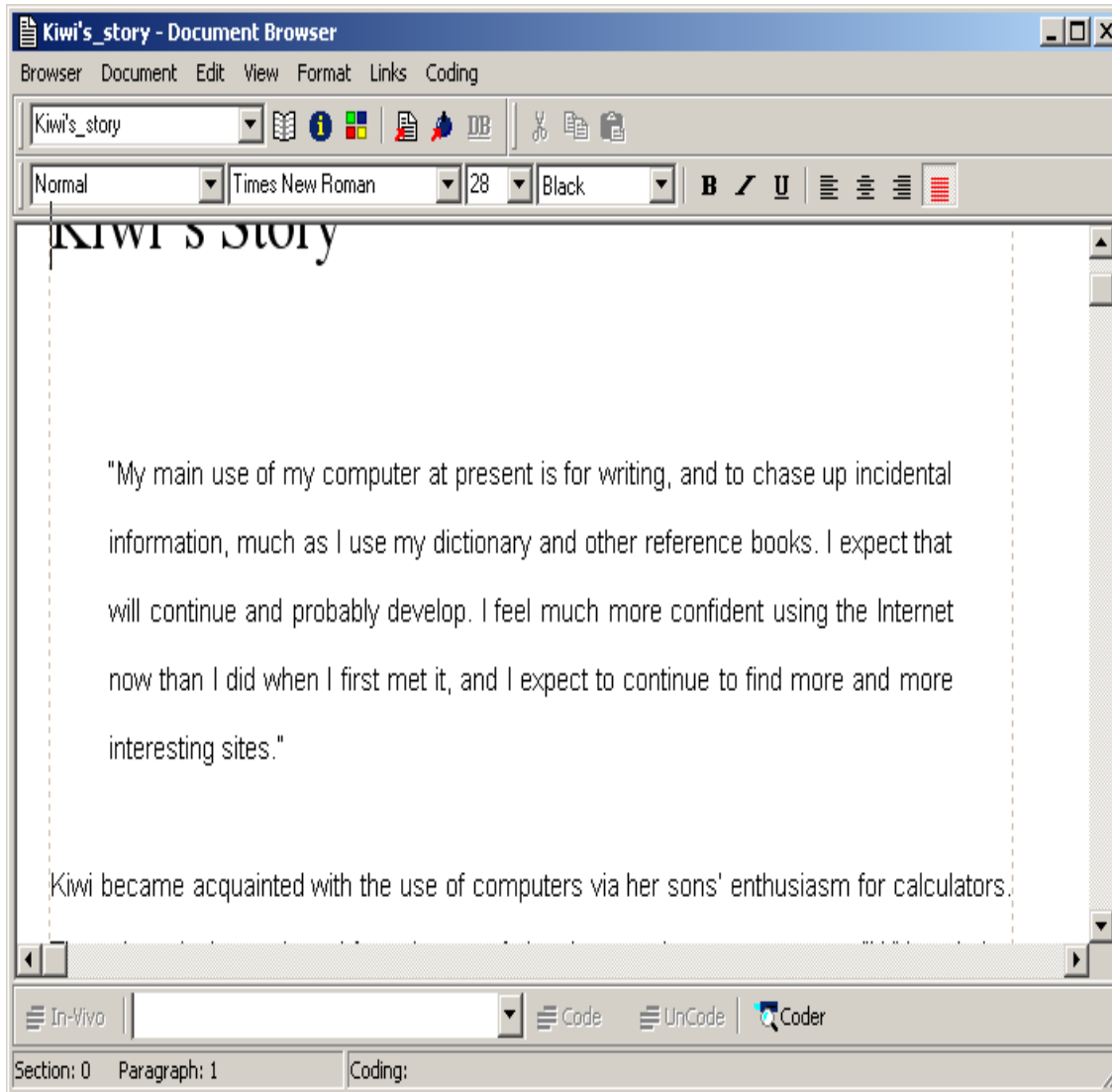
- This option allows one to review the range of available documents
- From within this window, you could add or remove documents

Browse a document: Step 1



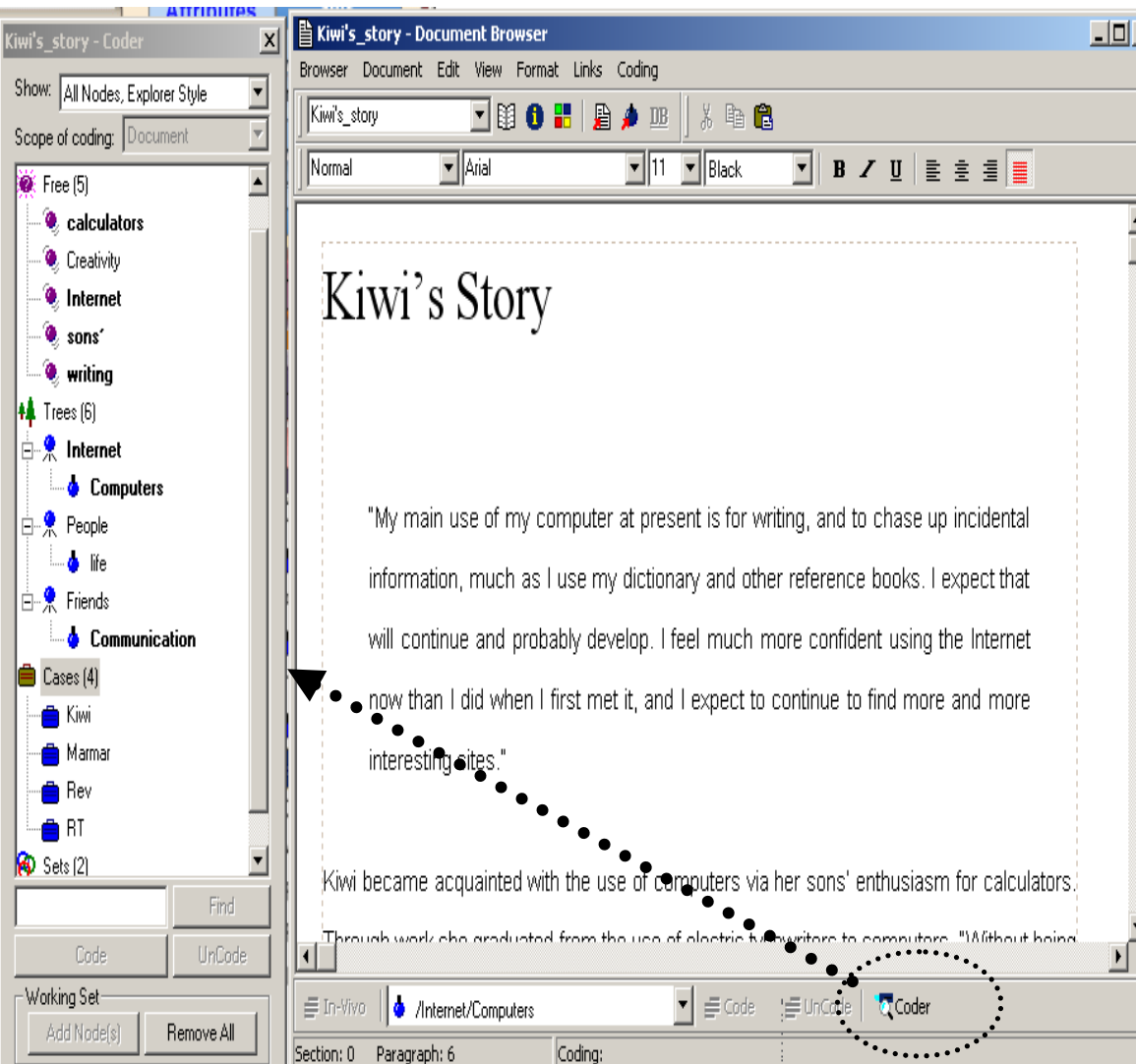
- Clicking *OK* allows you to choose one or more document to code manually

Browse a document: Step 2



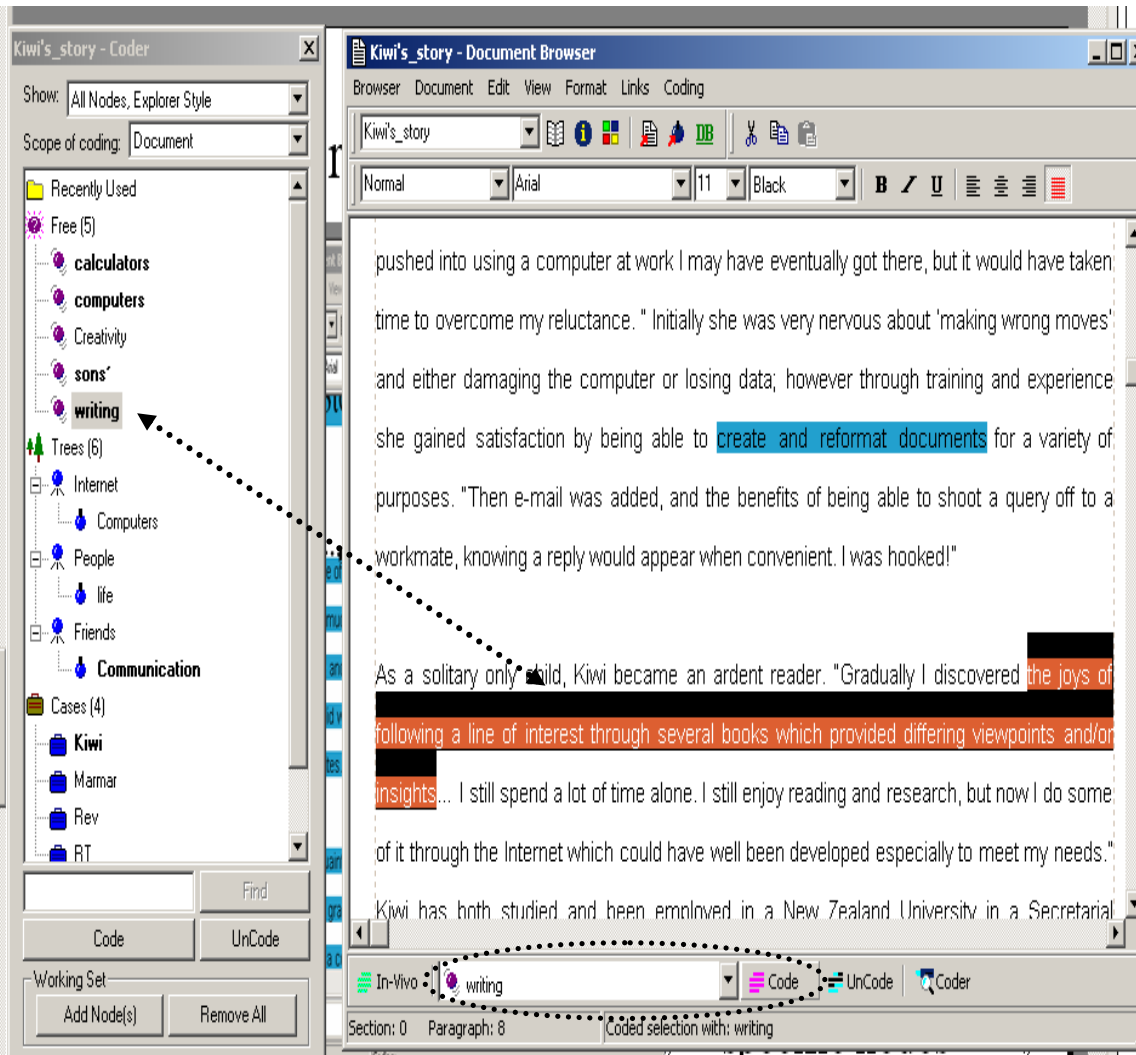
- Clicking *OK* allows you to choose a document to code manually

Browse a document: Using the Coder



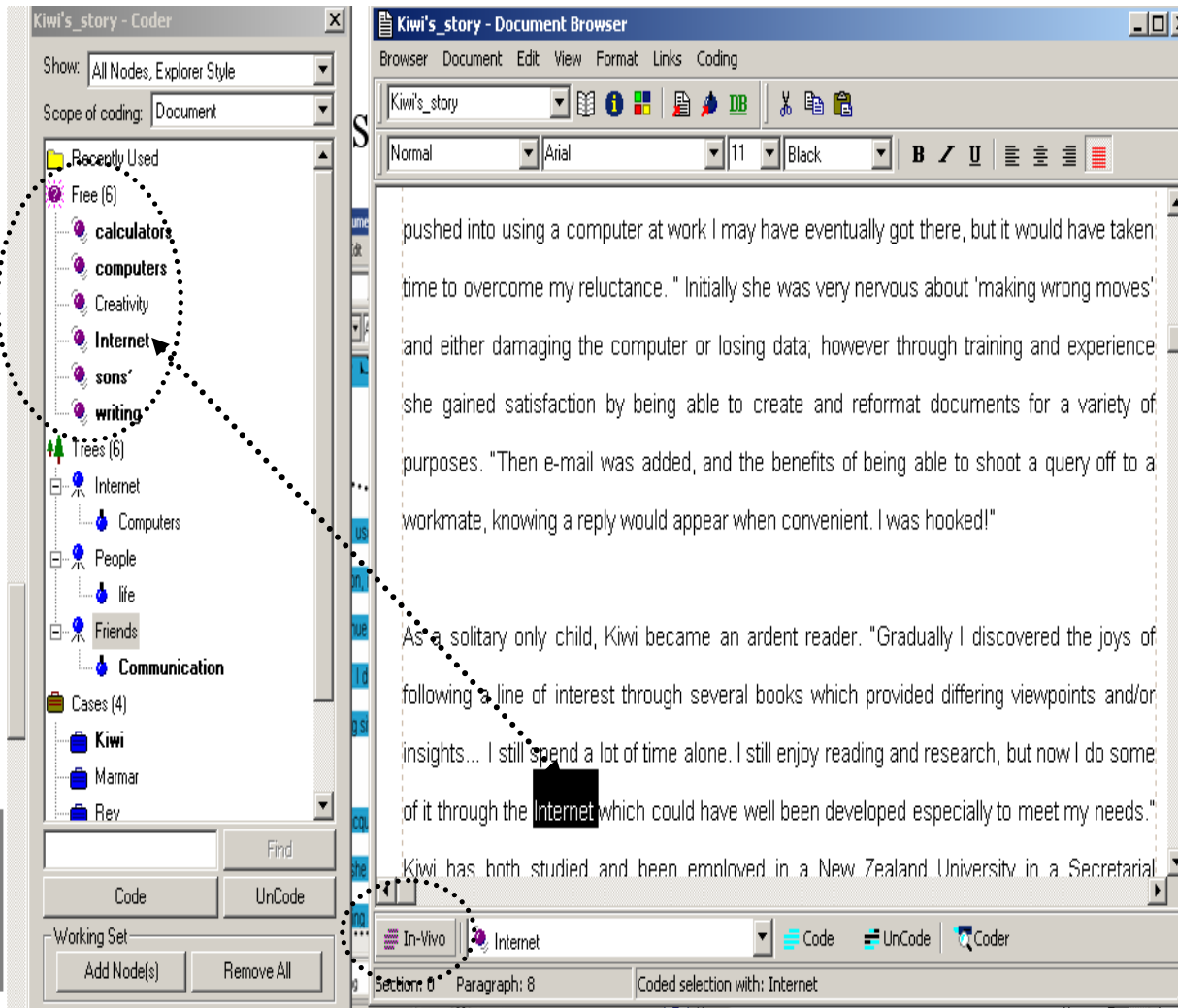
- Selecting the Coder at the bottom right hand side of the browser window opens the Node Explorer window
- The coder:
 - Provides information about pre-constructed and newly added nodes
 - Can be used to code directly from text in the document browser

Browse a document: Using Document browser Code button



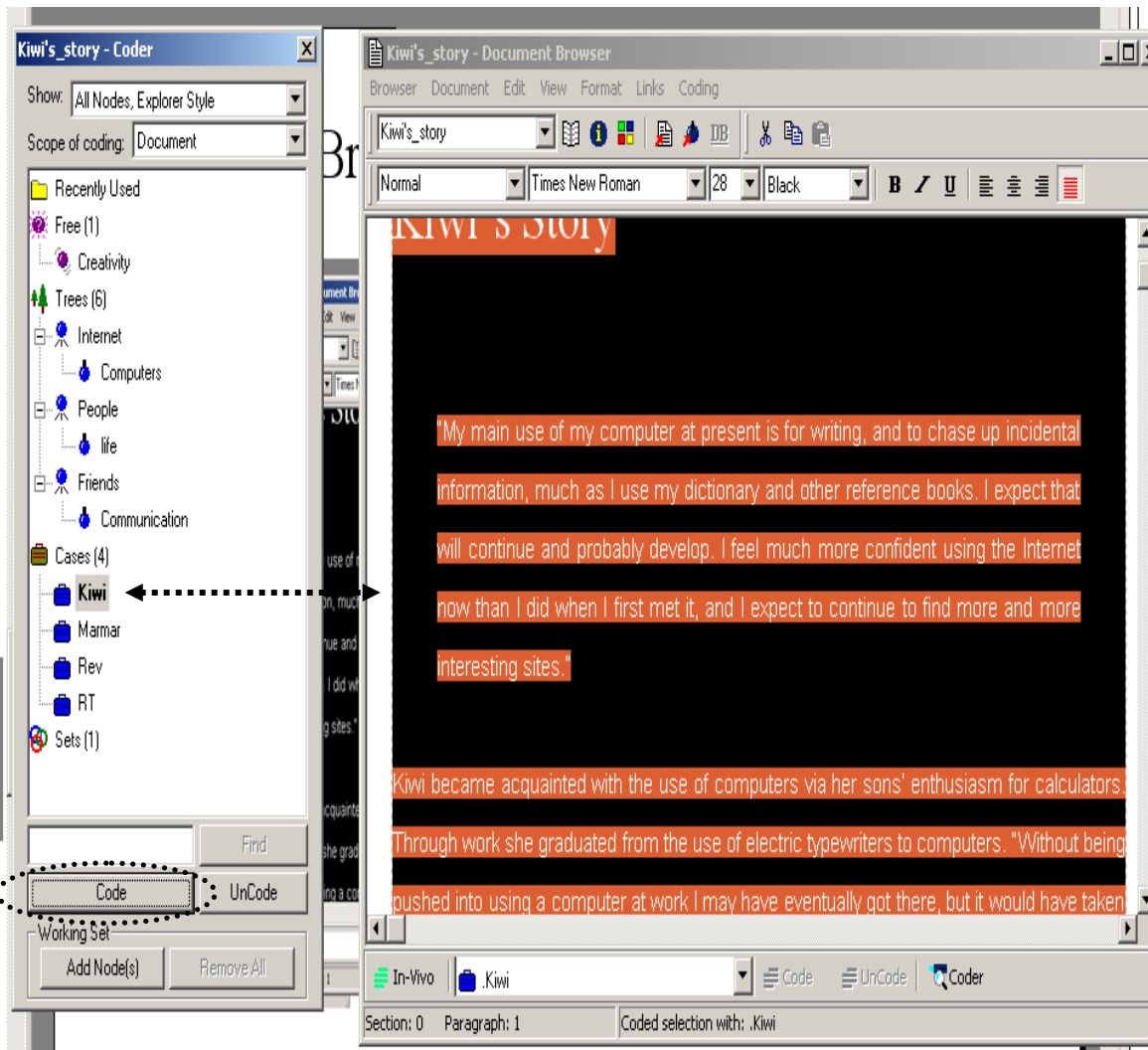
- One can link specific chunks of text to specific nodes by:
 - Selecting text in the document browser
 - Selecting one of the nodes listed in the drop-down list of already used nodes at the bottom of the document browser
 - Clicking Code at bottom of the document browser

Browse a document: Using In-Vivo



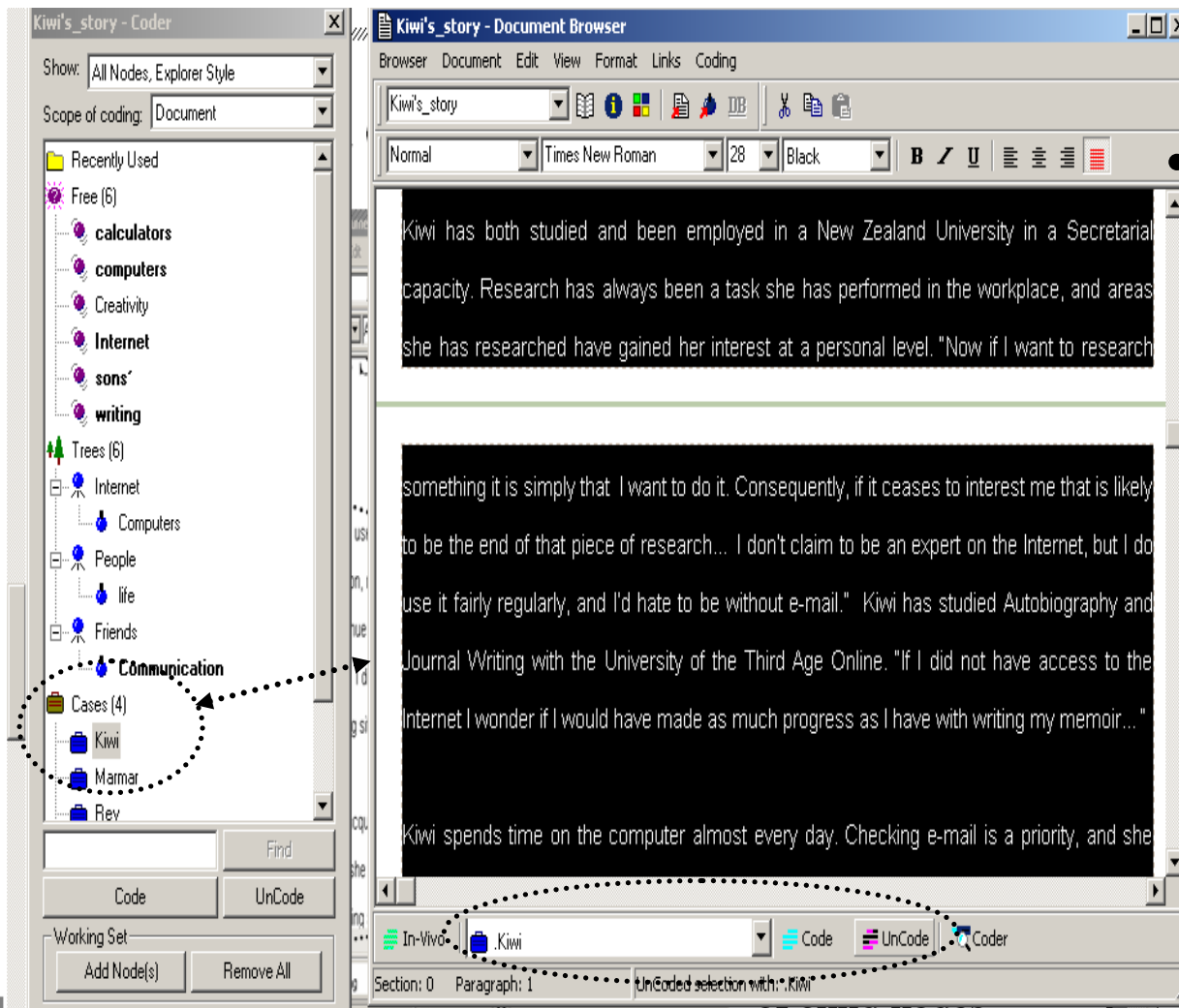
- One can use specific chunks of text to create additional free nodes by:
 - Selecting text in the document browser
 - Clicking In-Vivo at bottom of the document browser

Browse a document: Using Node explorer Code button



- One can link specific chunks of text to nodes already linked to text by:
 - Selecting text in the document browser, a node in the node explorer
 - Clicking Code in the Node explorer

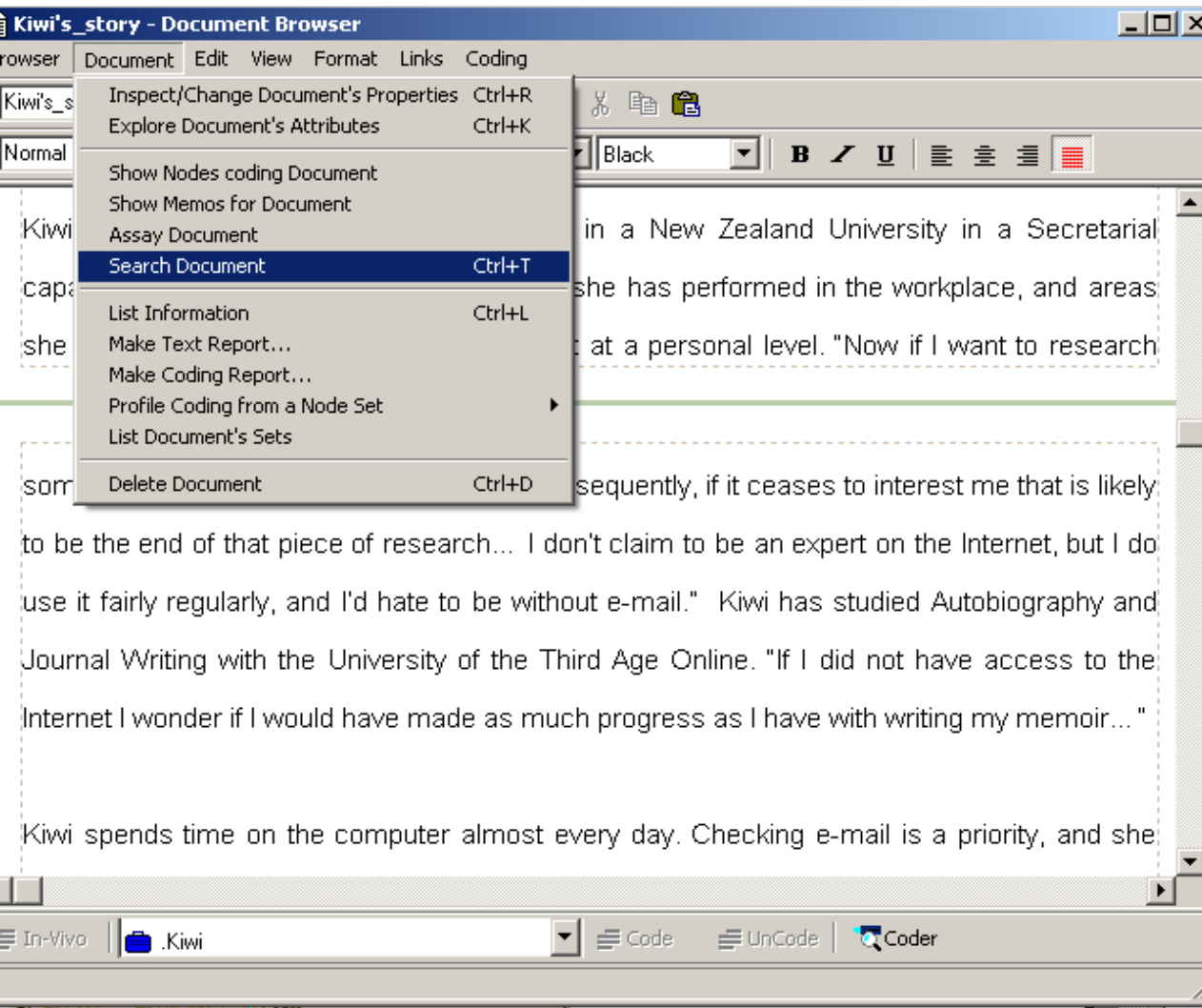
Browse a document: Using UnCode button



One can remove the links between specific chunks of text and specific nodes by:

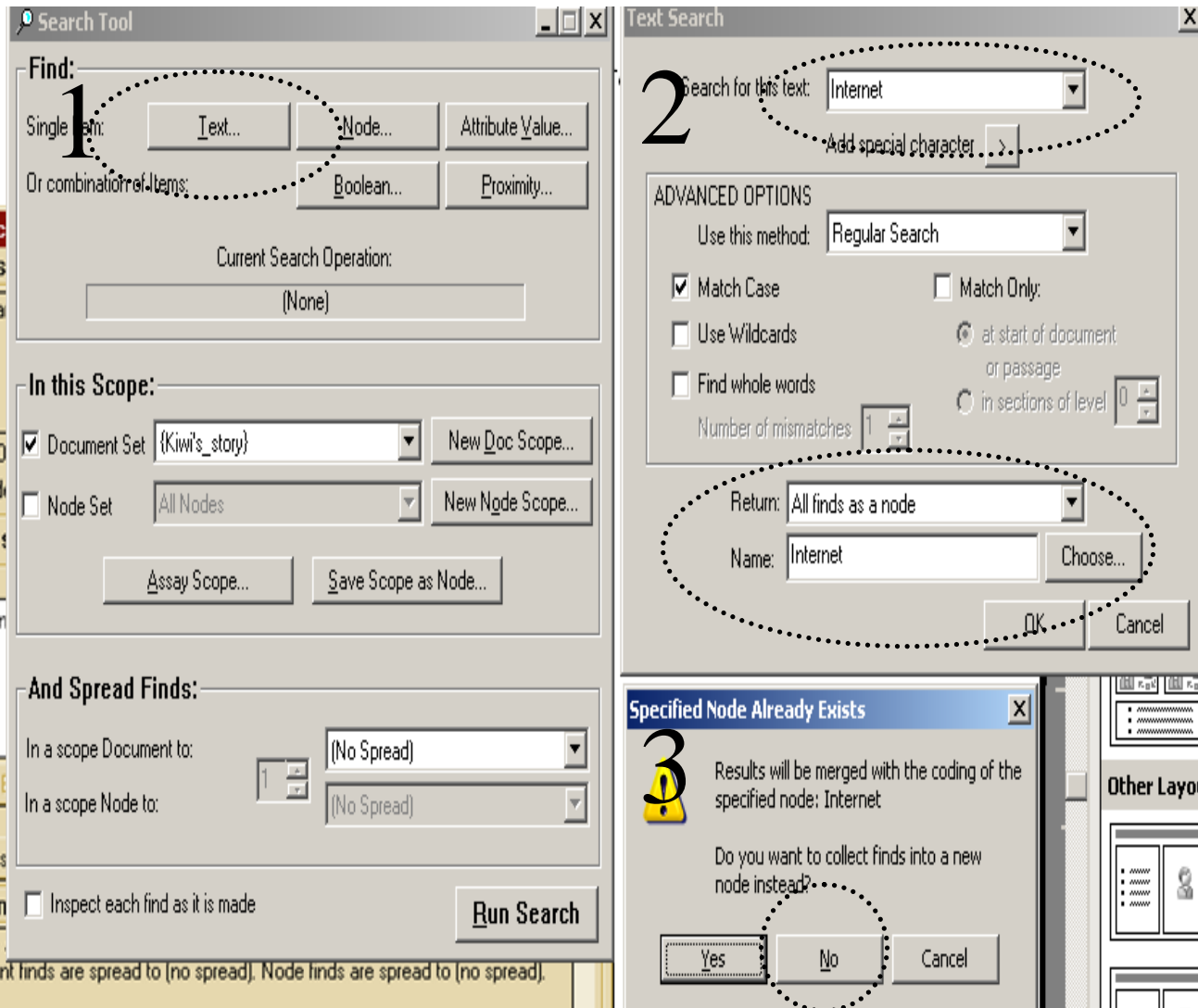
- Selecting text in the document browser
- Clicking UnCode at bottom of the document browser

Document browser: Using Search document



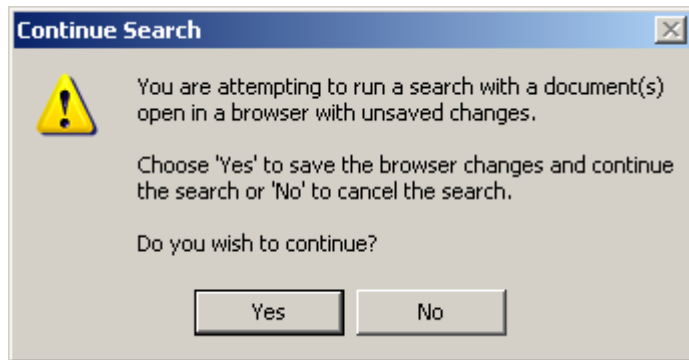
- The Search document option can be selected via the Document Browser's Document pull-down menu

Document browser: Using Search document

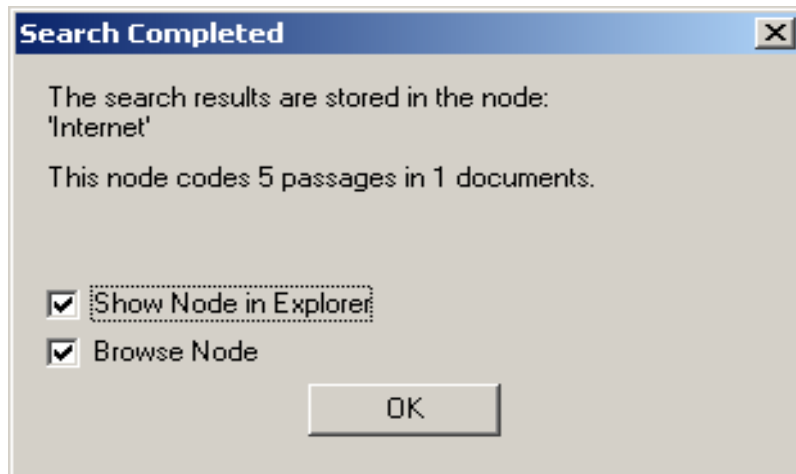


- One can link specific chunks of text to specific nodes by:
 - Opting to search for text
 - nominating an existing node name as the storage point for search results
 - Choosing to merge results with the coding of the specified node instead of creating a new node

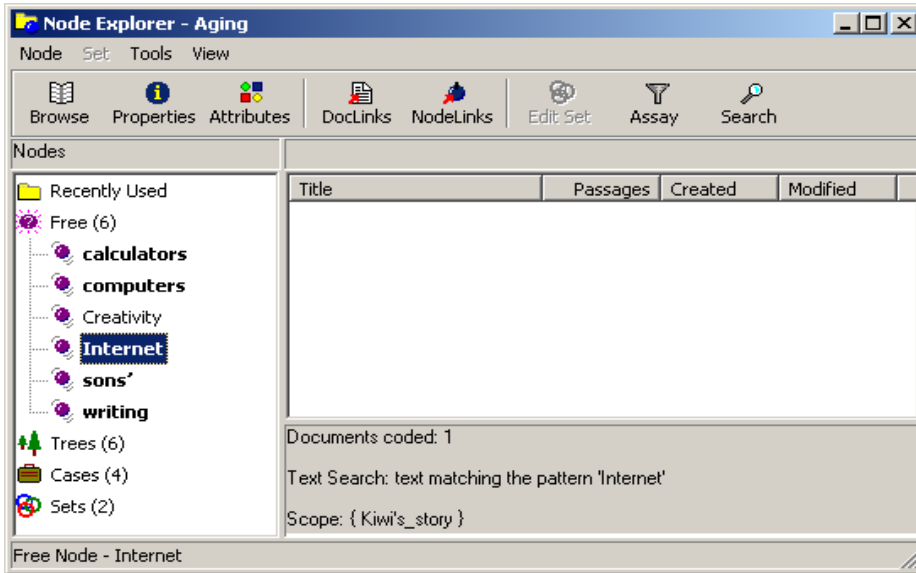
Document browser: Using Search document



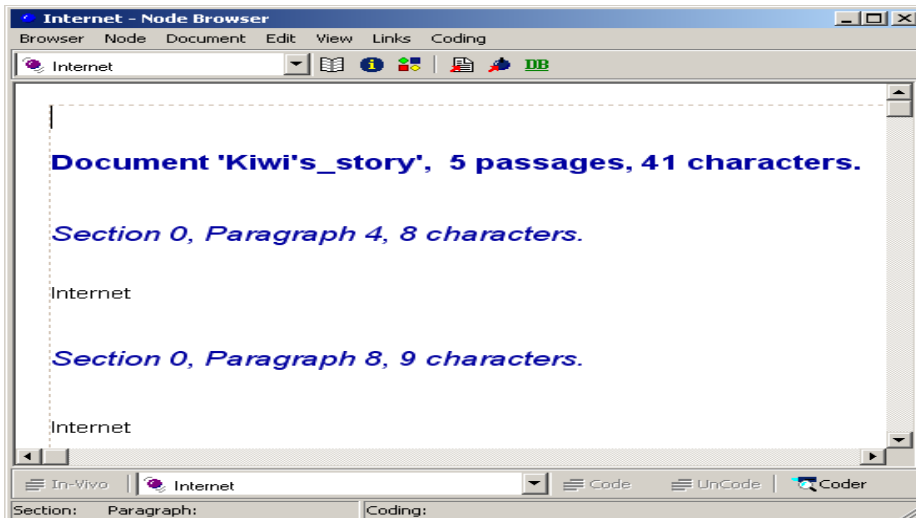
- You will be asked to save Browser changes
- You will be given information about the completed search and asked whether you want this node shown in Explorer



Document browser: Using Search document

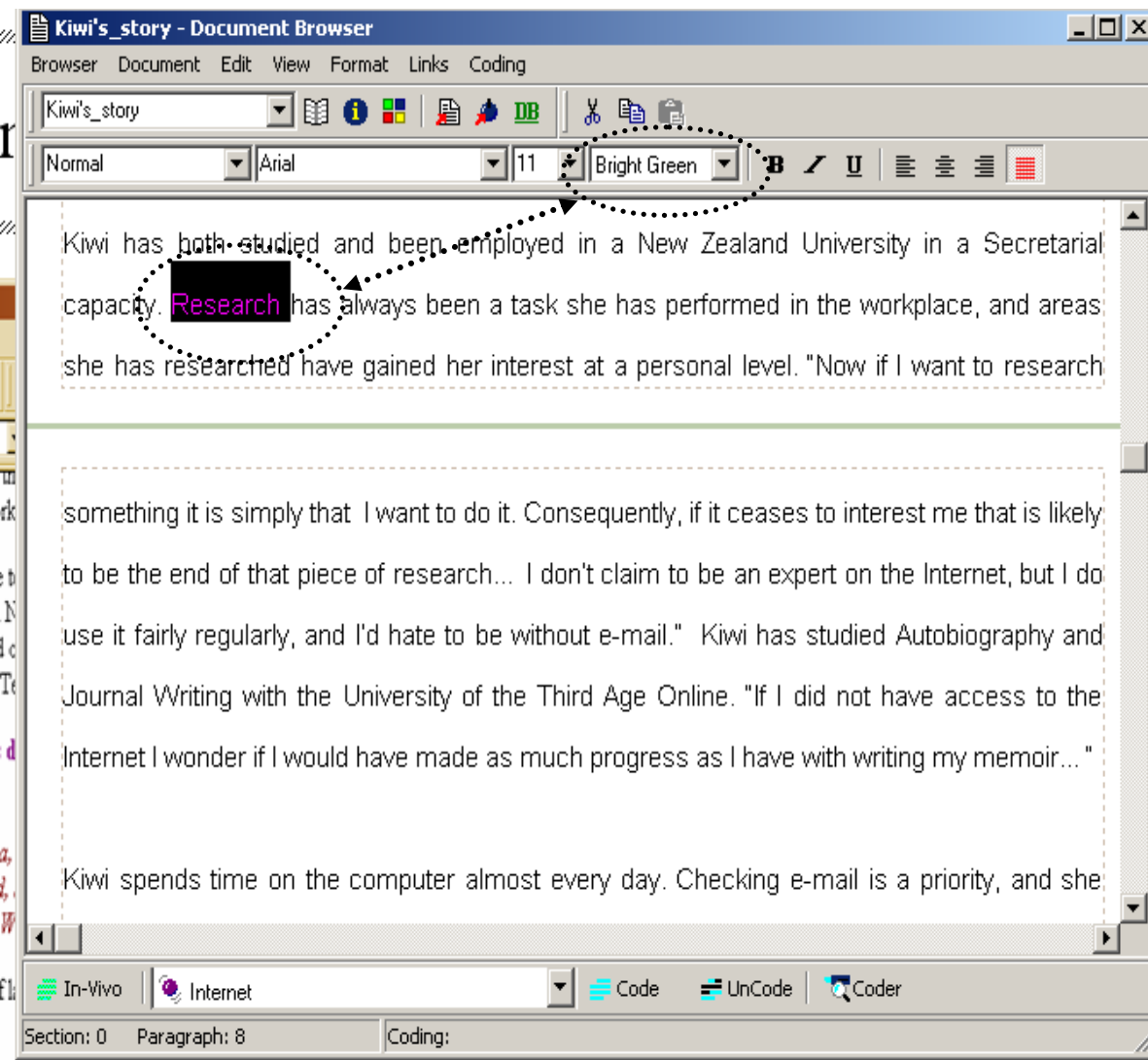


- The node of interest will be highlighted in the Node explorer and other details listed in the pane below and to the right, and also in a slot at the foot of the window
- Search results will also be summarised in the Node Browser

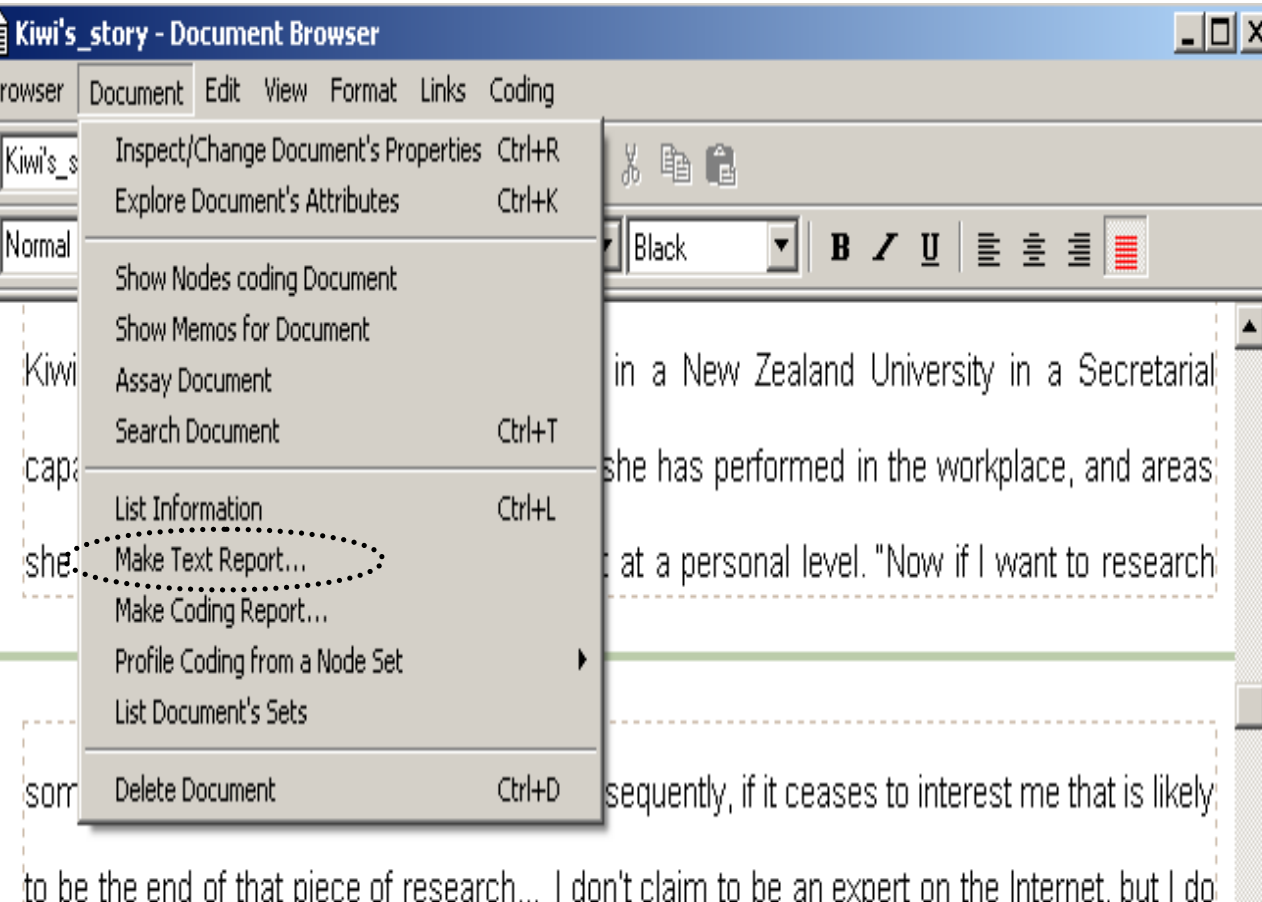


Document browser: Using colour coding

- One can highlight specific chunks of text without linking them to specific nodes by:
 - Adding colour and other formatting directly from within the *Document Browser*

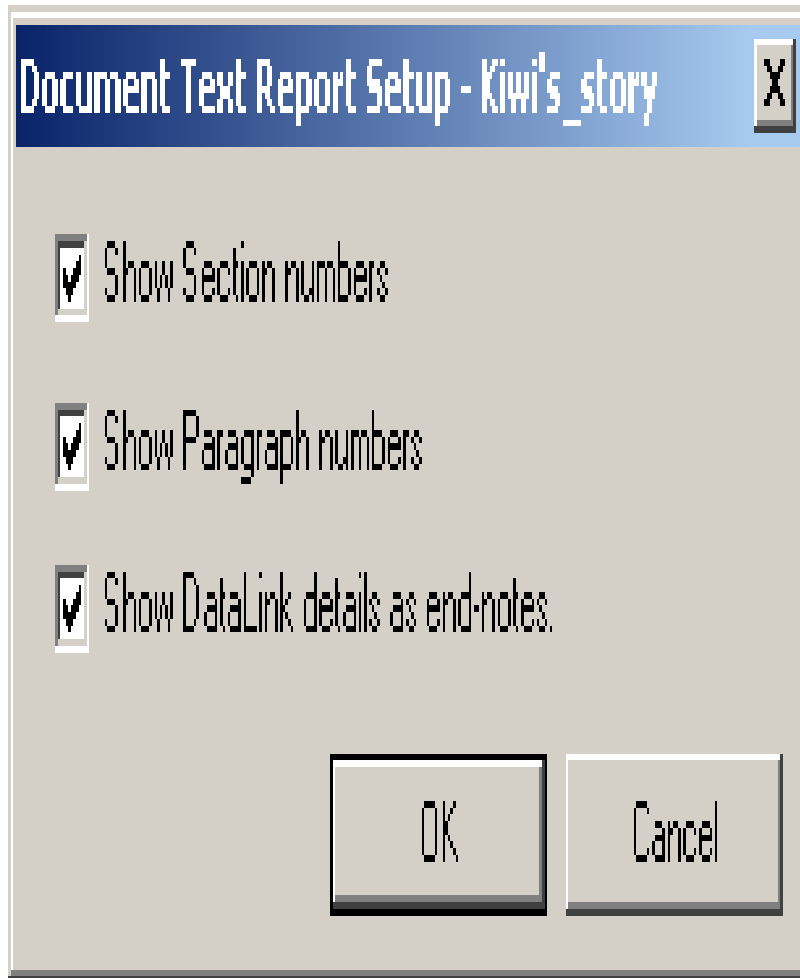


Document browser: Using Make Text report



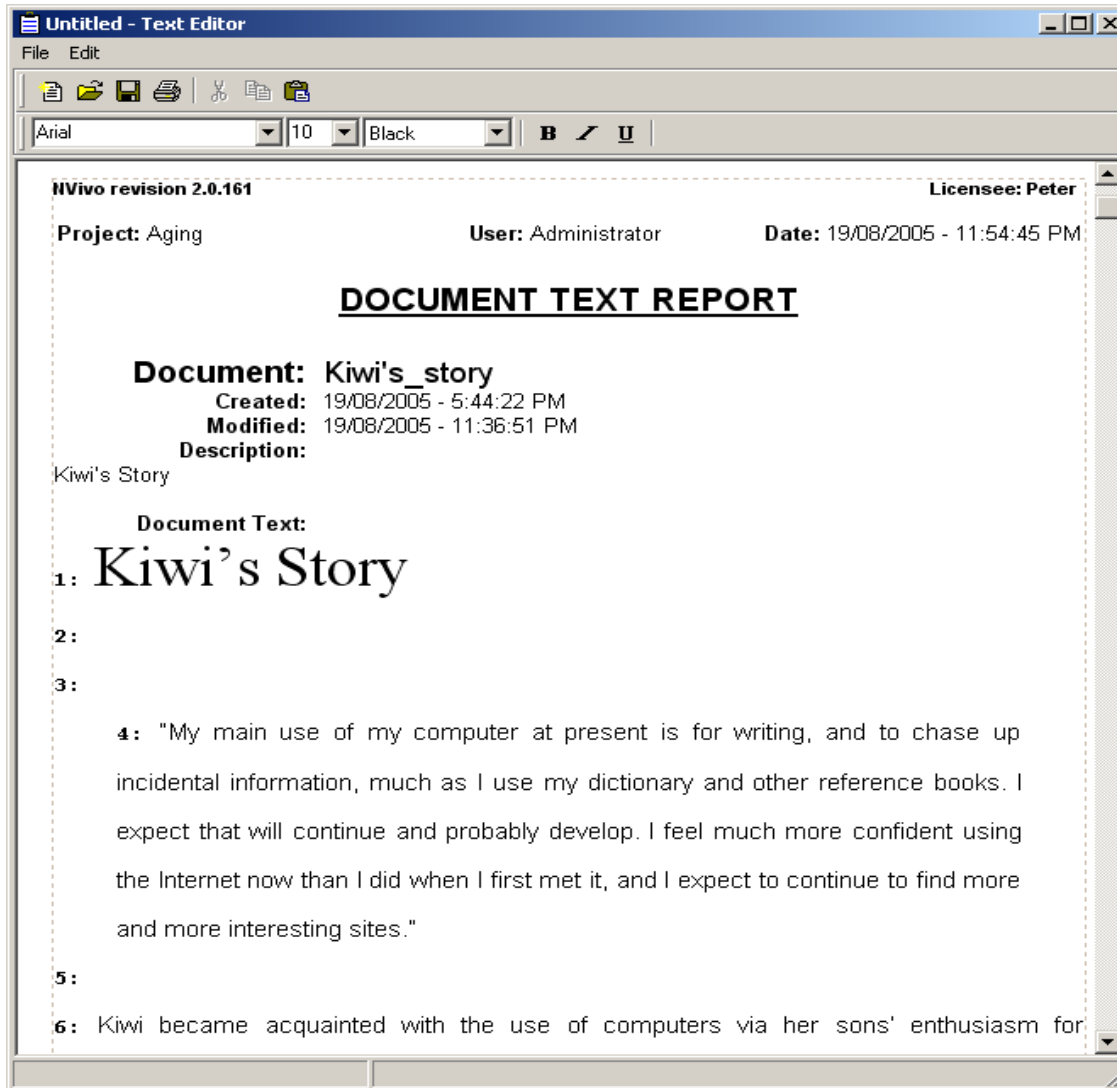
- A sixth alternative is to use *Make Text* report to produce a numbered document for manual coding and later electronic entry

Document browser: Coding options



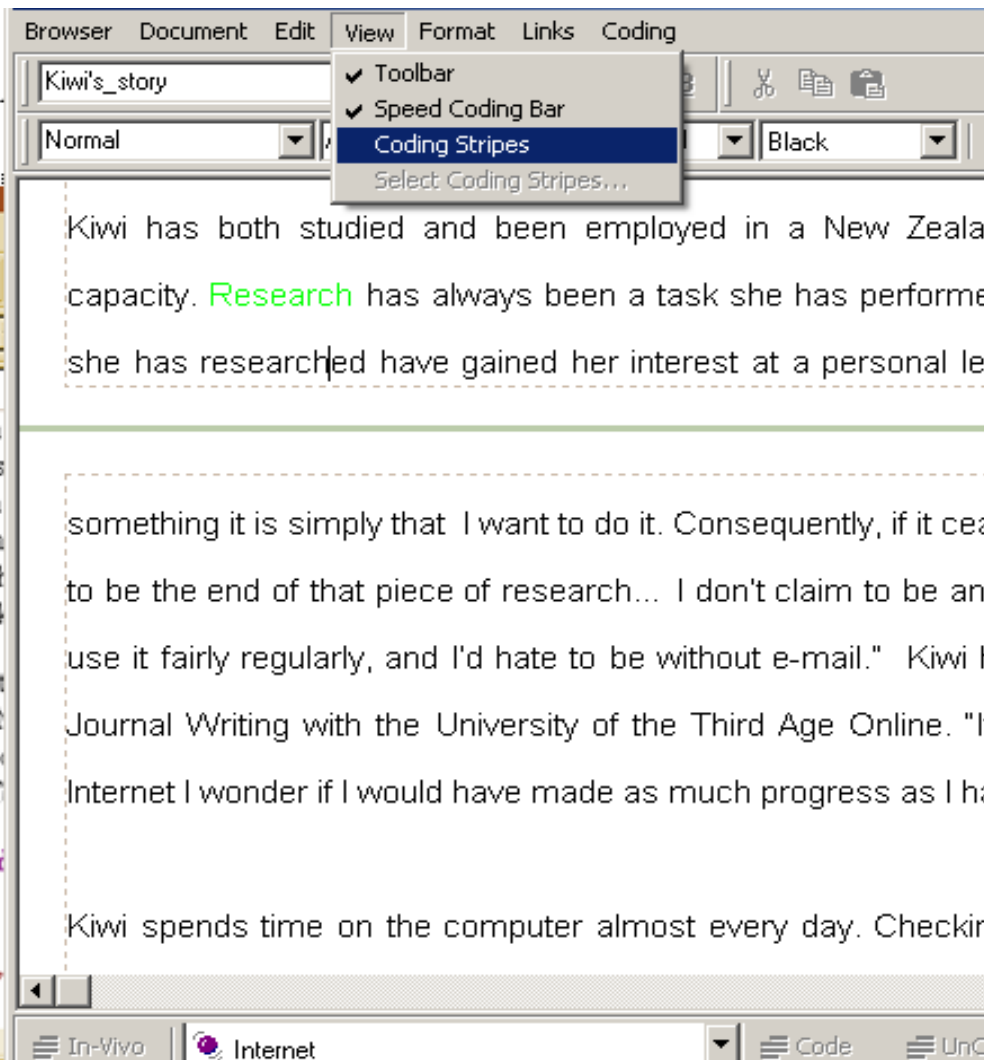
- The default setting includes the options of including section and paragraph numbers and Datalink details

Document browser: Text report



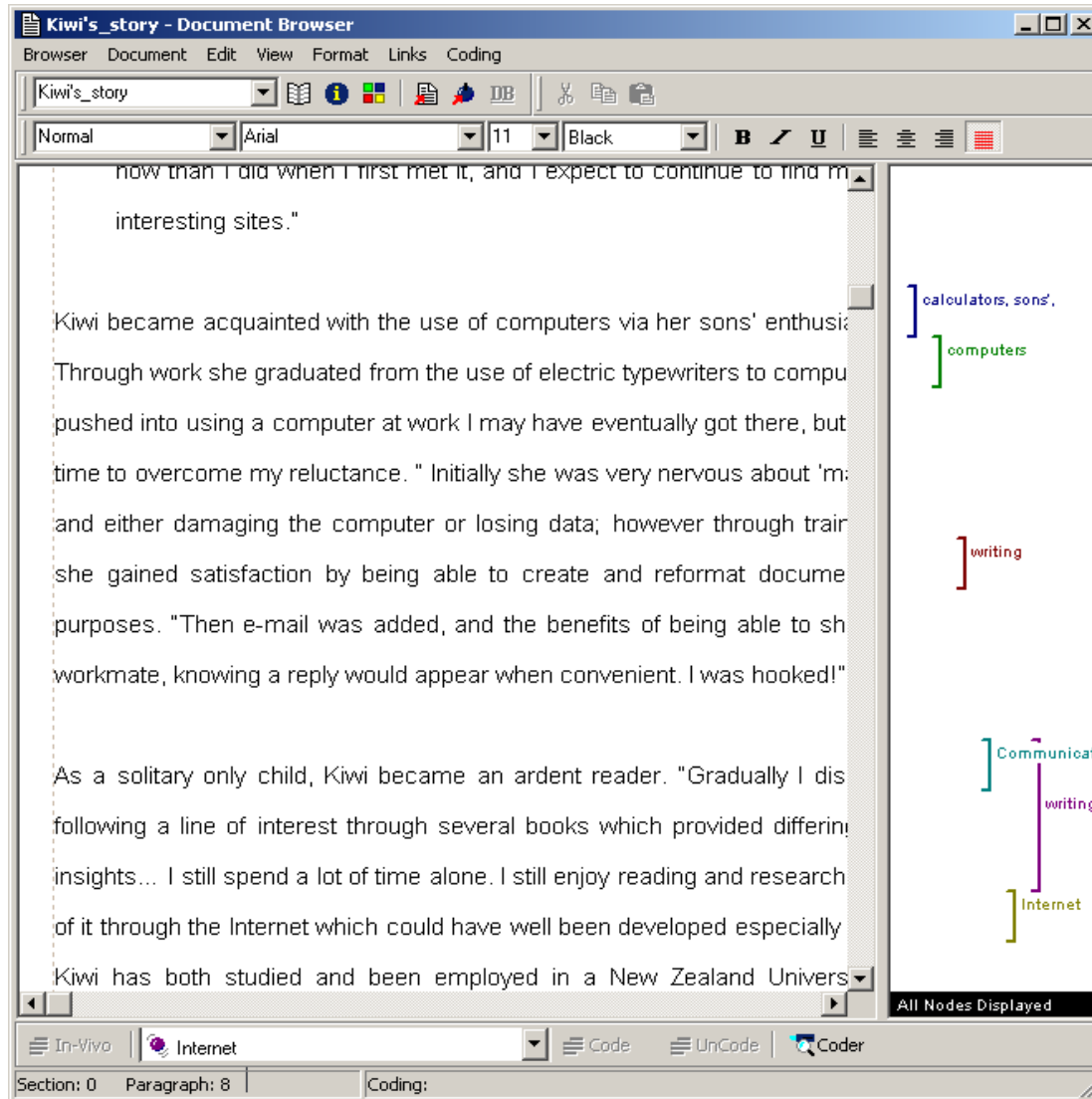
- The text report, accessed via the document menu, numbers the text and allows you to do further manual coding
 - Note that the blank lines between paragraphs, etc, have been numbered

Document browser: View coding stripes



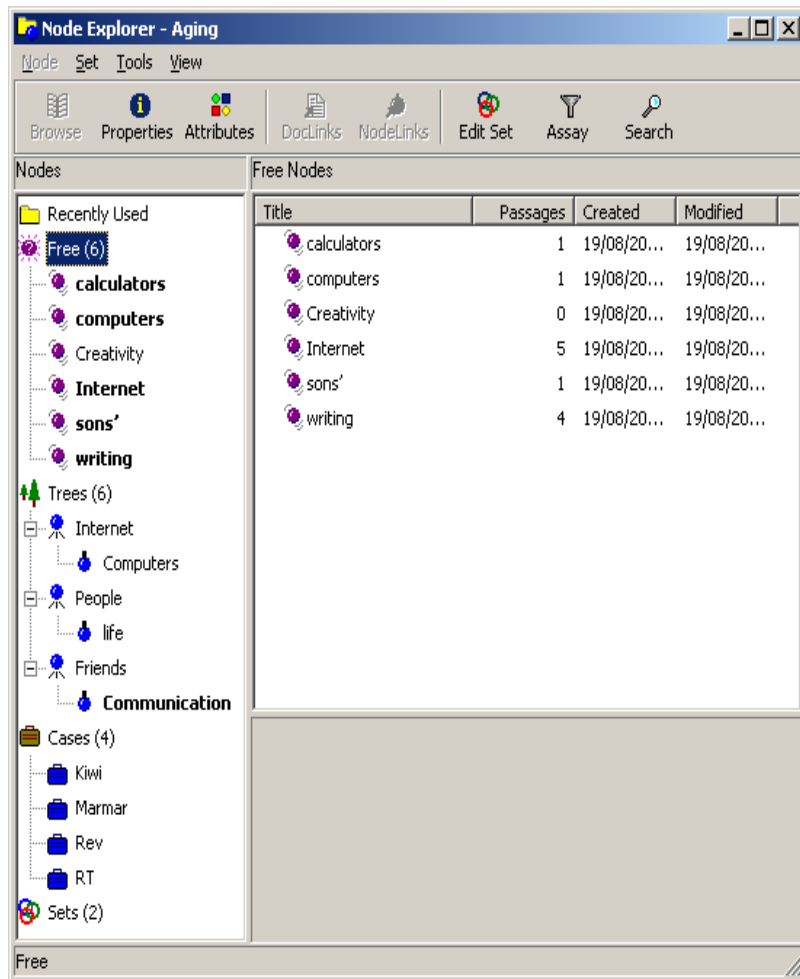
- Having completed some coding, you might want to check the density and evenness of the coding
- One way to do so is to select View Coding Stripes via the View menu

Document browser: View coding stripes



- Coded portions of text here are shown in terms of their allocation to specific nodes
- The text report when printed can show coding stripes as well

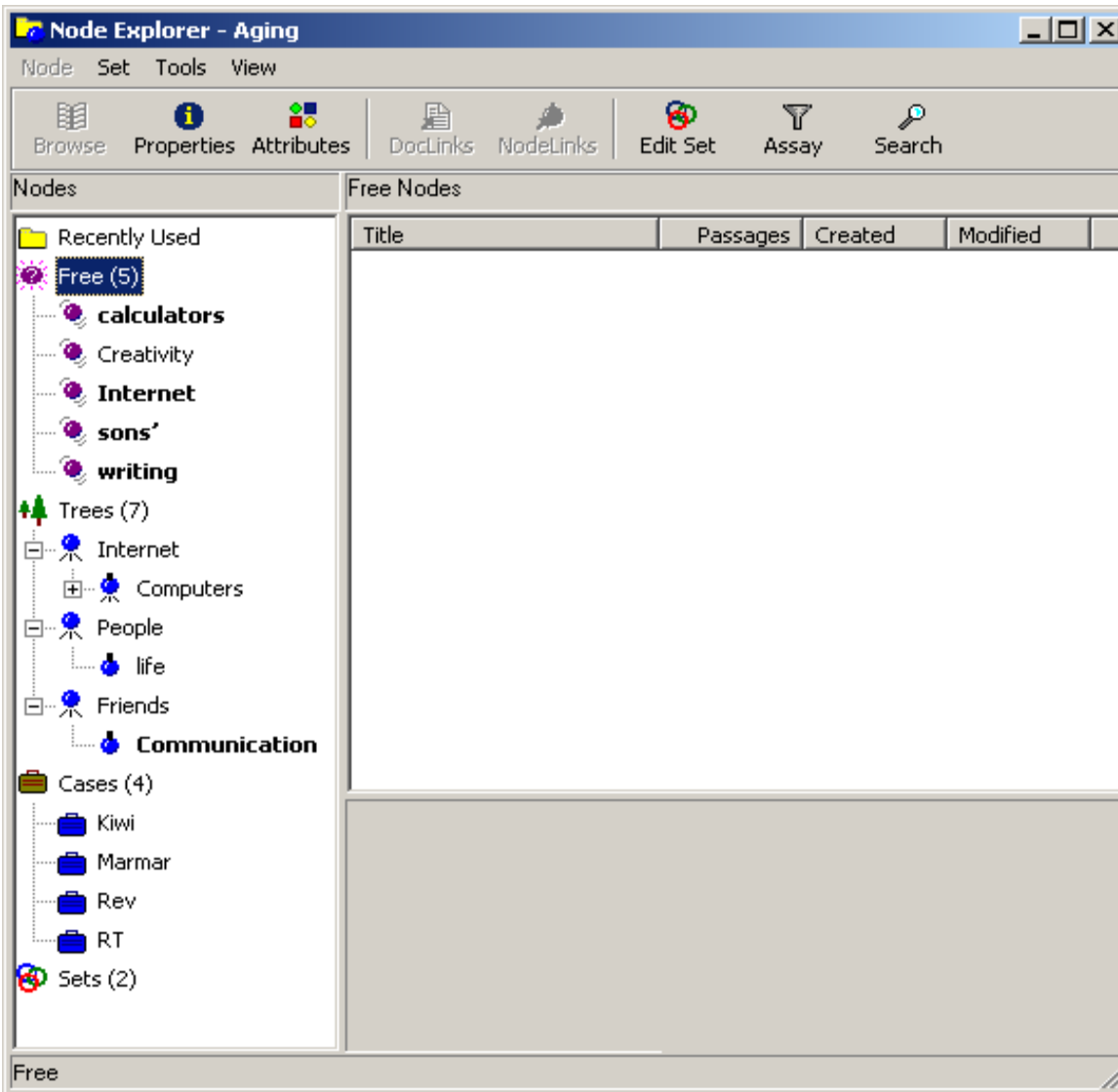
Reviewing the node explorer: A work in progress



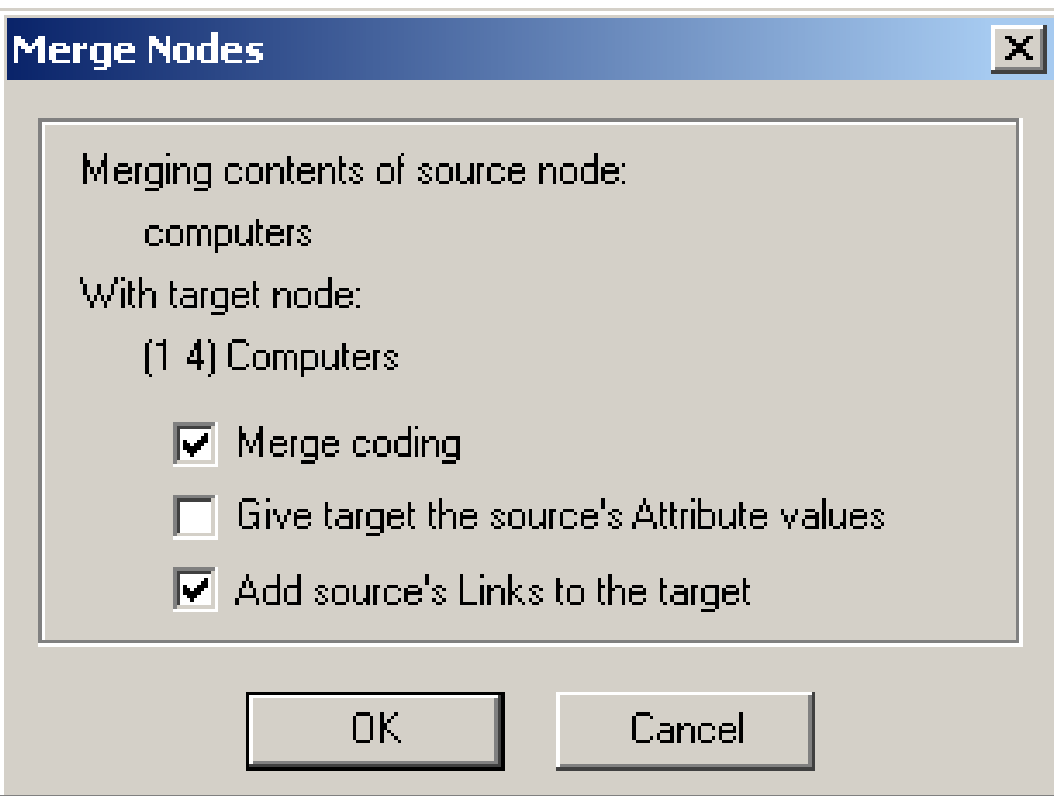
- At this point, the node explorer contains a collection of free nodes, some of which could be re-allocated to specific tree nodes
 - For instance, free nodes such as *calculators*, *computers*, and *Internet* could be merged with or linked to the tree node, *Computers*

Reviewing the node explorer: A work in progress

- Right-clicking the term *computers* in the collection of free nodes offers a range of options, including shifting it from that part of the display
 - One option might be to merge its links with those for the tree node, *computers*

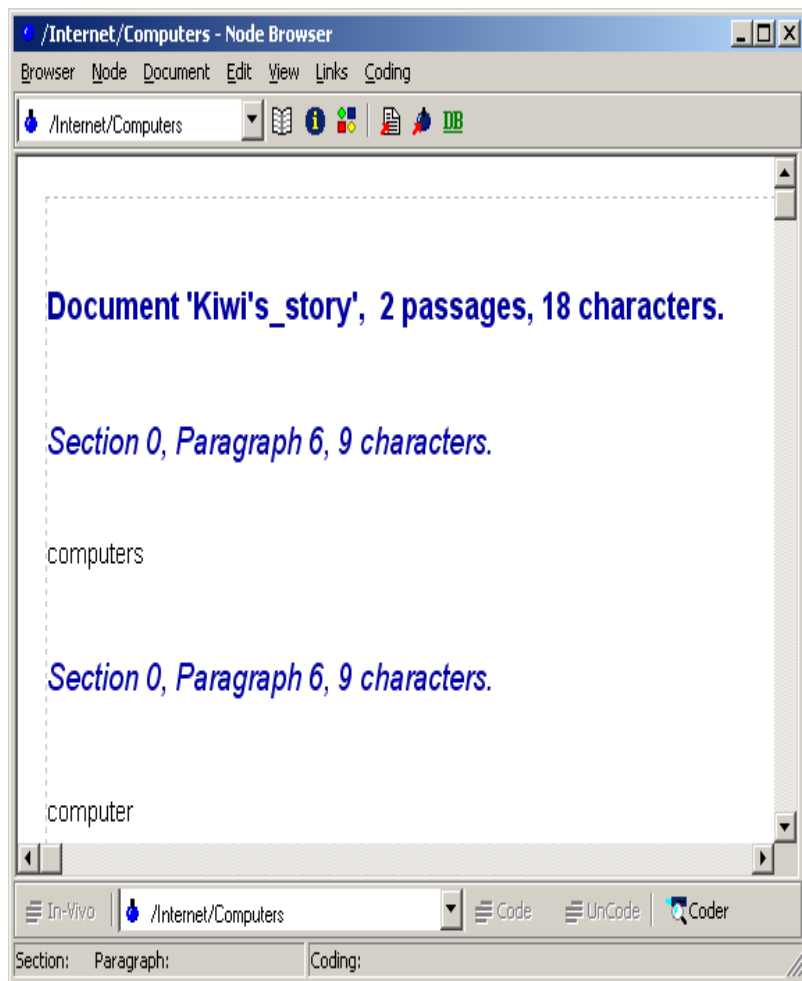


Reviewing the node explorer: A work in progress



- Cut or copied information is stored in the computer clipboard
- This information can be pasted elsewhere or merged with another node
 - In this instance, free node reference to computers have been merged with the tree node, computers

Reviewing the node explorer: A work in progress



- The resulting set of links for the tree node, computer, after merging the free node, computers, can be inspected by clicking the Node browser

Final thoughts about NVivo

- NUD*ist offers a range of options beyond those outlined so far
- It is clear that coding even one document thoroughly could take a while
- It is highly possible that the coding categories in use would be refined along the way
- A range of documents, including notes, photos, etc, can be appended, and included in this coding process