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Introduction to Nvivo

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WORKSHOP OBJECTIVE:
The purpose of this tutorial is to give you a brief introduction to using Nvivo for qualitative analysis.

LEARNING OUTCOMES:
1. Import data in the form of text documents
2. Use data in the form of text, images, audio, video, and PDFs
3. Learn how to analyze data using nodes.
4. Learn to use basic query functions, including matrix queries and word clouds

SCENARIO:
This tutorial uses publicly available data provided by NVivo. The file that will be used is called *"Environmental Change Down East"* and consists of materials from a study on the perceptions about development and land-use change on coastal communities in the Down East area of Carteret County, North Carolina, USA. This data includes examples of the different types of source materials that you can bring into NVivo (documents, datasets, audio, video and picture sources), and examples of the different types of coding and analyses that can be done in NVivo. The original study was conducted by Duke University, and all data is real, except for the social-media data that was added later to demonstrate new NVivo functions.

We will explore the data in several ways, to determine what residents think of the changes happening in their communities. This will include identifying terms most commonly used during the interview, and examining the attitude of residents based on how many generations their families have lived in the area.

I.   OVERVIEW OF NVIVO FUNCTIONS

We will use the sample project "Environmental Change Down-East." Open the file "Environmental Change Down-East" from the Getting Started menu. If you cannot see it, the file is stored in: C:\Users\Public\Documents\NVivo 11 Samples.

Drawers in the left navigation panel

The bottom left navigation panel is made up of "drawers" which contain the main functionality of Nvivo. The most important drawers are the following:

a. **Sources**
As already seen, the **Sources** drawer includes all the data within your Nvivo project. This drawer is composed of internal and external documents, as well as memos.

b. **Nodes**
These are your coding categories. To analyze your data, you must first mark part, or all, of each piece as a member of a node. You will want to take care in defining your nodes to be sure that you can analyze the data appropriately.

c. **Queries**
They help find and analyze key content in the data.

Menus across the top

You will find that NVivo has multiple ways to do almost anything. In particular, in this workshop, you will want to examine the **External Data**, **Analyze**, and **Query** menus.

II.   SOURCES

Sources are documents, videos, audio files, pictures, spreadsheets, or other data sources that you wish to analyze. At the highest level, sources are divided into two main types "internals" and "externals"

Create a document within Nvivo

- For doing this you need to copy and then paste text directly into a new document in NVivo.
- Open the **Create** menu and click on "Document".
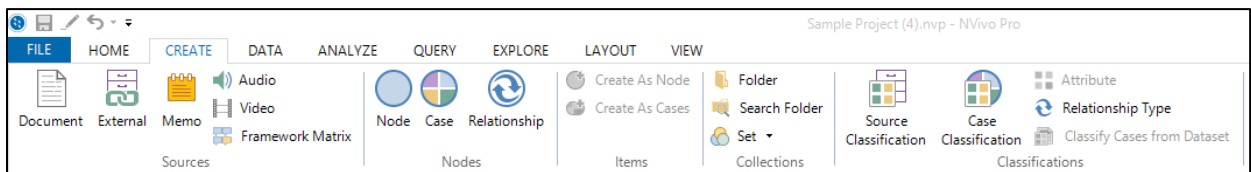
- Name the document
- In the new frame, paste the text for that document.
- NOTE: Though this is an option, in most research situations, you will want to import an already formatted document.

Import sources

- Locate the left navigation view window and select the **Sources** drawer. Within Sources, you can see folders for "internals," "externals," and "memos."
  - o **Internals** are imported pieces of data that will be stored within the NVivo project file.
  - o **Externals** are pieces of data that stay in their original location; for example, if you work with large videos, your project file would quickly become too big if you imported them all.

- Import your internals by:
  - Opening the **Data** menu and selecting the type of external file that you want to import.
  - Alternatively, you can right click in the white blank space in the center of the page and select "import internals."
  - You can also drag-and-drop.
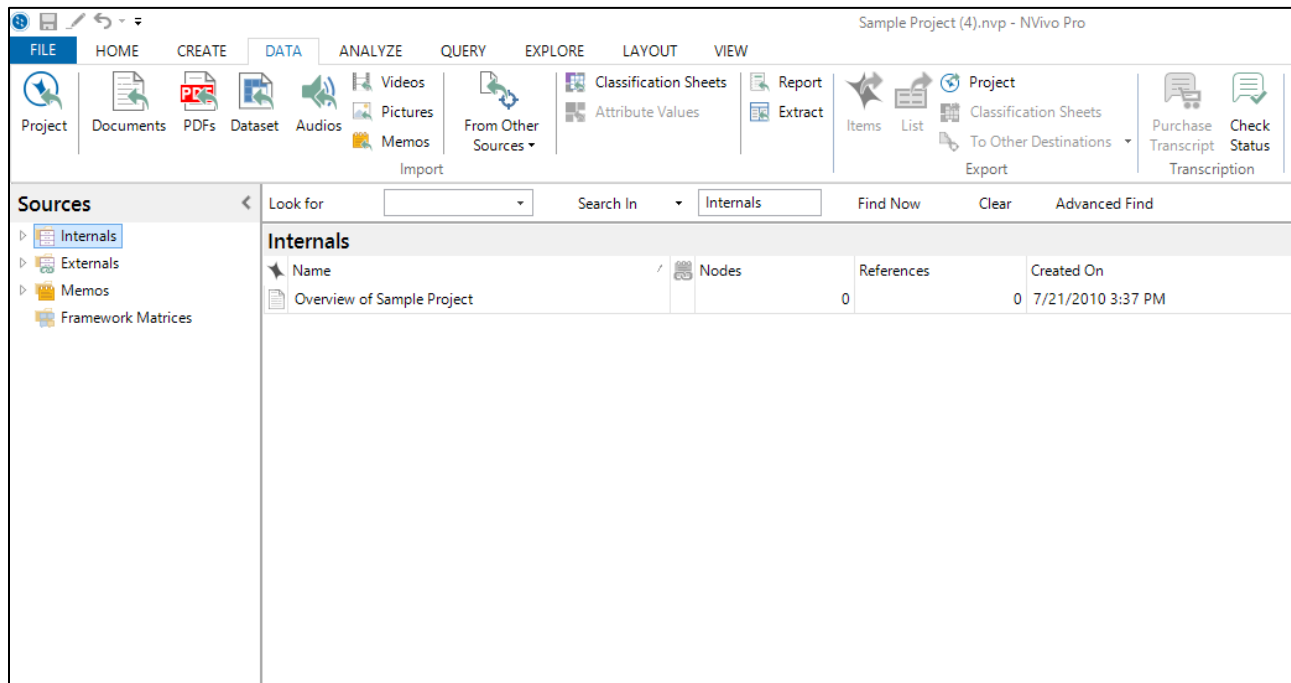
III.   NODES

Nodes represent your coding scheme. When you are "coding a piece of text" you are "putting it in a node". Start out by selecting the **Node** drawer in the bottom left menu.

Creating a new node

- Click on the Create tab on the ribbon. You will see an option called node with a blue circle – click on it
- In the Dialog box give the name to your node – Click Ok
- Alternately right click on the blank white space below the node listing – click on 'New Node' and follow the same process

Coding data

There are many ways to put text into nodes in NVivo. The best way to do this will depend on your project. How many nodes you have, whether you are coding one node at a time vs. all nodes at once, etc. Here are three important options to know about:
- You can highlight a piece of text, right click, and code it using the **Code Selection** menu option.

- You can highlight a piece of text and use the bottom line on the NVivo screen, using the green check box to apply the code.
- You can highlight a piece of text and drag it directly into a node.

Viewing Codes

To see how your data is coded, you will need to turn on "Coding Stripes" from the **View** menu. For now, turn on "Most Recently Coded" to make the work you just did visible.
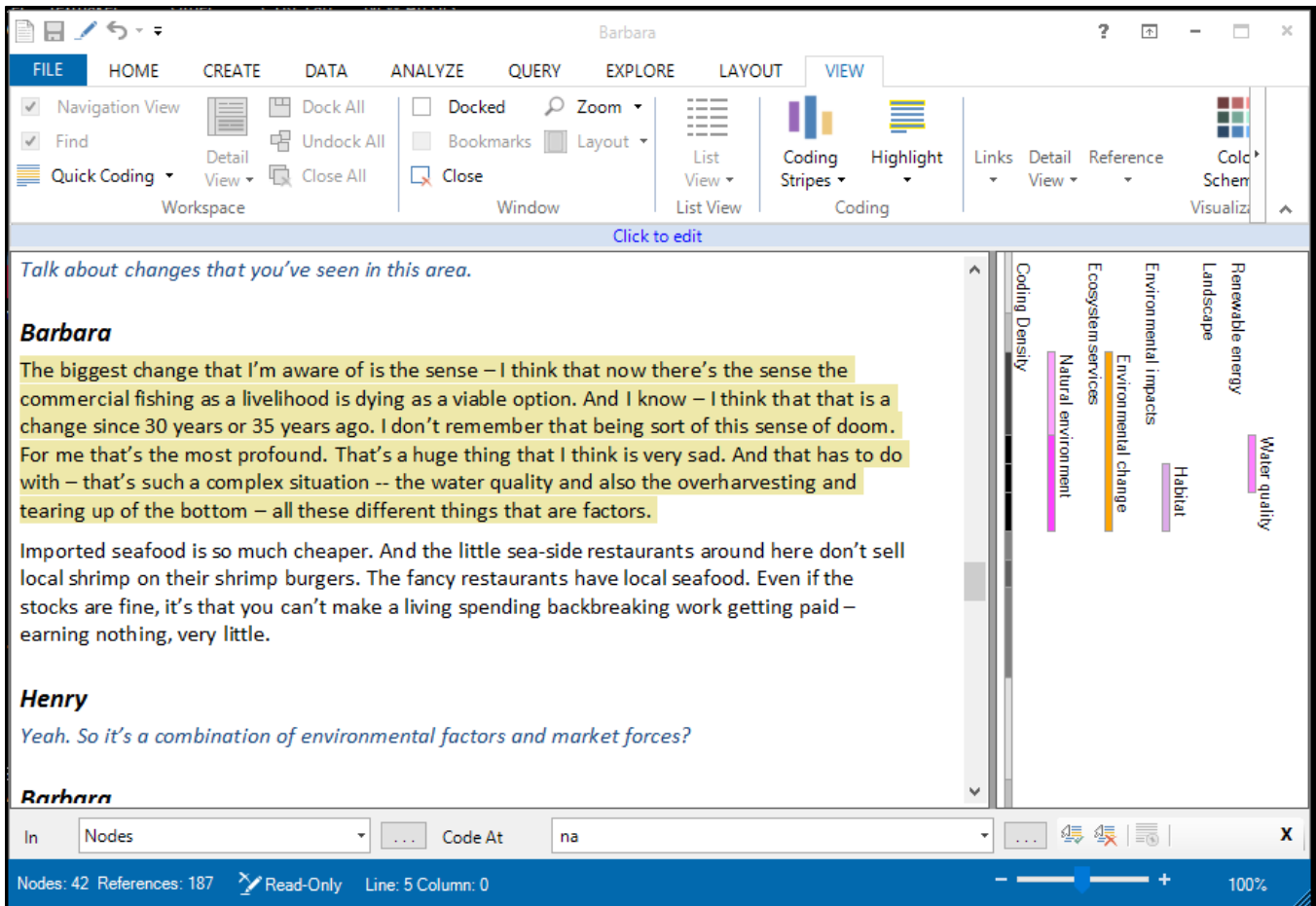
Creating a node while reading

As you continue to read references to "tourist" you notice another important theme. You would like to create a new node for it.

- To create a new code while reading, simply highlight the text to be coded.
- Right click and select Code Selection > At New Node.
- Name the new node, adding a description if needed. Click OK.

IV.   QUERIES

Queries are how you ask questions about your data. You can begin queries from the **Queries** menu. You can see saved queries by opening the Queries drawer.

Creating a word cloud to know which words appear most frequently

- Open the Queries drawer in the left navigation bar.
- To set the parameters that will help you generate a word cloud, right click in the white space to the right. Select "New Query" > "Word Frequency".
- In the tab for Word Frequency Criteria you can select how rigorous you would like the match (from Exact to Similar). This time we will select exact match. You can also indicate how many words you want to display.
- In the General tab assign a name for your Word Frequency query (for example "WordCount1"). Also, make sure the box for adding this to your project is selected.
- Finally, click Run.
- When you obtain the results, on the right-hand menu click on the tab for Word Cloud.
- You can export this Word Cloud by right clicking it. You can also choose the format by selecting any of the options from the drop down menu.

Creating a node from a query

- Open the Queries drawer in the left navigation bar.
- To set the parameters for a new query, right click in the white space to the right. Select "New Query" > "Text Search".
- Name this search "Tourist"
- In this first search, type the word **_tourist_** in the "search for" box. Leave the drop down menu selected to search text in all sources.
- Notice that there is a sliding scale for "Finding matches" from exact to similar. Pull the tab across the scale to read the options.
- Click on the "Query Options" tab at the top of the window. The result options can be previewed for your reading, but they can also be saved.
- Select "Create Results as New Node" for the result options.
- Change the Location to Nodes.
- Name this node "Tourist"
- Finally, click Run.
- The results will open automatically.
  - Notice the view options on the far right tabs. The summary view lists all the documents in which "tourists" was found, as well as the number of references. Reference view allows you to see the found word in each document. The name of the document, in blue, is a link to open the original source.
  - For future reference, you can view these documents by clicking on "Nodes" in the left navigation window.
- Scroll through the reference view of the results to see if you agree with what the computer selected. If you disagree, you can uncode the reference.
  - For this you just need to highlight the text to be uncoded.
  - Right click and select "Uncode Selection" > "Uncode Selection at Existing Node". Select "Tourist Impact". Click OK.

Matrix of attitudes by generations-down-east
- This query is already created for this project
    - Go to the **Queries** drawer
    - Double click on "Attitudes about environment by longevity"
- To see how the query was set up, right click on it, and examine its "Properties."

V.   OTHER NOTES

Nvivo is available on computers in the Hurst 202, 203 labs and in Anderson Computing Labs.

Nvivo can be downloaded on personal computers for free as long as you a current member of the AU community (student, staff, and faculty). Go to www.myau.american.edu and under the **Technology** menu, go to **Software Downloads**. You will need to contact CTRL to get the most recent license code.

For a full list of our other workshops, go to http://www.american.edu/ctrl/rsgevents.cfm

Assistance with Nvivo is also available in the CTRL lab during normal business hours. For more information, go to http://www.american.edu/ctrl/lab.cfm