Extract the files in CarteretCounty-NVivoWorkshop.zip to a convenient folder.

Open NVivo.

As a first comment, I want to note that I am using NVivo Pro 12 which I am using as part of the library site license. Earlier versions of NVivo and the demo version may look a little different, but the functionality should be the same.

We will be working with a data collection that is a part of one of the sample datasets that comes with some versions of NVIVO. It is drawn from a two year study (2008-2009) undertaken by researchers from the Duke University Marine Lab in Beaufort, N.C. This study documented community perceptions of development and land-use change on coastal communities in the Down East area of Carteret County. We will be exploring the responses to a survey, files containing the full text of a few in-depth interviews, and a sample of social media data taken from Twitter using the CarteretCounty hashtag.

Create a new blank project by clicking the "New project" button and give it the title "Development in Carteret County". Leaving all the other boxes at their default values, click "**Next**" and then "**Create project**". (You can close the "quick start" window if it pops up)

We have a project! Now let's import files.

Importing Data

I'm going to start by importing a survey that is saved in MS Excel format. It's in a standard data file format with each row being a case (a person who responded to the survey) and each column a question in the survey. The first row of the Excel file contains column headers.

This is a common setup for data being exported from survey software like Qualtrics and is also how data needs to be organized for importing into other data analysis software such as SPSS.

On the Import menu, go to the "Survey" tab and choose the "Excel" option. Open NVivo_Survey_Responses.xlsx

Note that you need to change the date format to "Day Month Year", do so and click "**Next**". Leave everything on this screen the same and click "**Next" again.**

Observe that NVivo has done a good job of deciding which questions are open ended and which are closed ended. In essence open ended questions are ones where the respondent typed in an answer in their own words, and a closed ended question is one where the respondent chose a response from a list of options.

The open ended questions are set aside for further analysis and coding; the closed ended questions are classed automatically as attributes of the cases, in this project, the closed ended questions are personal characteristics of the people who responded to the survey.

Click "Next".

Uncheck the boxes for Sentiment analysis and Autocoding. While automatic coding can sometimes be useful results are often strange and distracting. Sentiment analysis is specifically designed for customer surveys looking at very simple responses designed to, for example, discover whether people feel

positively or negatively about a fast food restaurant or a financial services provider. Positive and negative are the only two sentiments it is programmed to find.

Click "Finish".

Skim through the survey responses and note that sentiment analysis might have worked on the Water Quality question, assuming that that type of classification was an important part of your research. Read through some of the question responses.

On the left sidebar, go to cases, click on case classifications. Each case can now be clicked on so you can examine the personal attributes and closed-ended responses of each respondent.

Now let's import some more files. This time I'm going to import -> file, because I want to import the word documents containing in-depth interviews that were done with a few respondents.

On the Import menu, click "Files"

You can select multiple files, so select the three MS Word interview documents using control-click and click "**Open**".

Check the box to create a case for each imported file, create a new classification to group cases, and call it "interview subjects". NVivo automatically assumes that each document contains a single interview.

We will also import the twitter data using the Excel option, on the survey tab. Although this is not a survey, the data is set up in a similar way.

On the Import menu, click the "Excel" option. Open
"CarteretCounty on Twitter.xlsx"

Go through the wizard as before. Note that the wizard correctly detects the tweet text itself as the 'open ended' qualitative data. Look at the date and verify that it matches the selected format. The tweeter's bio is also qualitative data.

On the last step, create a new classification to group cases; I called it "Tweeters". It's important to create new classifications as these files are all set up differently – they don't have attributes in common, they aren't the same people. So you can't reuse the same case classification.

Uncheck the boxes for Sentiment analysis and Autocoding.

Exploring Our Data

Since this is a study of attitudes towards development, let's start by exploring the survey data to get an overall picture of what people are thinking. The survey had a question asking what respondents thought of the pace of development overall. NVivo has some limited quantitative analysis capabilities to facilitate handling survey data. We're going to create a chart.

On the Explore menu, click "Chart" and select "Charts"…, then choose Coding, click "Next". We are interested in charting one of the closed ended questions, which NVivo classifies as case attributes. So choose the second option, "Coding by case attribute for a file", click "Next".

Under "Chart items" click "Select" next to "File" and choose the file "NVivo_Survey_Responses"

Under "Chart items" click "Select" next to the X-Axis attribute. In the right-hand box you should see "Survey Respondent". Click the "+" sign to expand the options and choose "Pace of development" and click "OK".

Click finish and examine the chart showing what the survey respondents think about the pace of development.

Coding Our Data

Now let's create a couple of codes for a priori coding. We'll start by making sure we have some place to put them. NVivo has already set up containers for the case information that it automatically extracted from the data. Now we want to get into the qualitative content and start coding the themes we are finding in the data, so we will create a folder called "themes".

On the left menu, under "Coding" right-click on "Codes" and choose "New folder…". Call your new folder "Themes".

The first thematic code I'm going to create is "Pace of development". We already have a quantitative analysis of whether people thing the pace is too fast or too slow. But we can get more insight into why people feel these things by looking at the content of their comments around development.

Right-click on the "Themes" folder and choose "New code…" and type in "Pace of development" (without quotes.)

You'll notice that NVivo lets you create hierarchies of codes – you can have top level codes and child codes. For example, I might have 'too fast' and 'too slow' as child codes under Pace of Development, and if I select the grouping option, I could choose to analyze the child codes together with their parent or separately. In this research project, I'm not ready to create any child codes under 'pace of development' until I get a better feel for what's being said.

Using the same actions, add two more a priori codes, "Environment" and "Regulation".

Let's delve into coding! We'll start by looking at one of the in depth interviews.

On the left sidebar, go to Data and click on Files. Double-click on "Interview with Maria and Daniel on January 20th." Read through the interview to get a feel for the data. Find a sentence or paragraph that seems to relate to the environment and highlight it using your mouse.

On the far left sidebar, make sure that "Themes" under "Codes" is selected. You should have a panel to the right of that showing the three codes you have created.

Click on the highlighted text and drag it on top of "Environment: under "Codes" on the left sidebar.

Highlight some more text, and this time **right-click** on the highlighted text and choose "Code selection" and then browse to your existing codes under "Themes" and choose one.

Note that a third way to apply a code is to use the "Code to:" dropdown menu at the bottom of the document.

Choose another selection of text, right-click, and after choosing "Code selection", click on "Themes" and select a theme. On the right, click "Child code" under "Create new". Give your new, emergent code a name and code to this new code.

Open the survey file by clicking on "Files" under "Data" in the left sidebar, and double-clicking "NVivo_Survey_Responses". Click on "Themes" under "Coding" again to bring up your codes, and code a few survey responses to new or existing codes. Do the same with the file of tweets,

Sometimes you may have thoughts while reading your data that are too complex to capture in a code but which you want to record for later. These can be kept in memos and annotations. Highlight the text of one of the tweets, right-click, and choose "New annotation". Type in a note to yourself. The annotation (Annotation 1 for this file) will remain visible as long as you keep this file open. You can add multiple annotations to a file or keep adding to the existing one.

Click a code, show browse sources

And that's the basics of how you use NVivo! It's a great tool for organizing your thoughts about qualitative research sources. I've shown how you might use it for analyzing a multi-modal project of digitized interviews, survey data and social media data, but it can also be used to keep track of sources in a qualitative literature review or for documentary or archival research, as well as many other applications