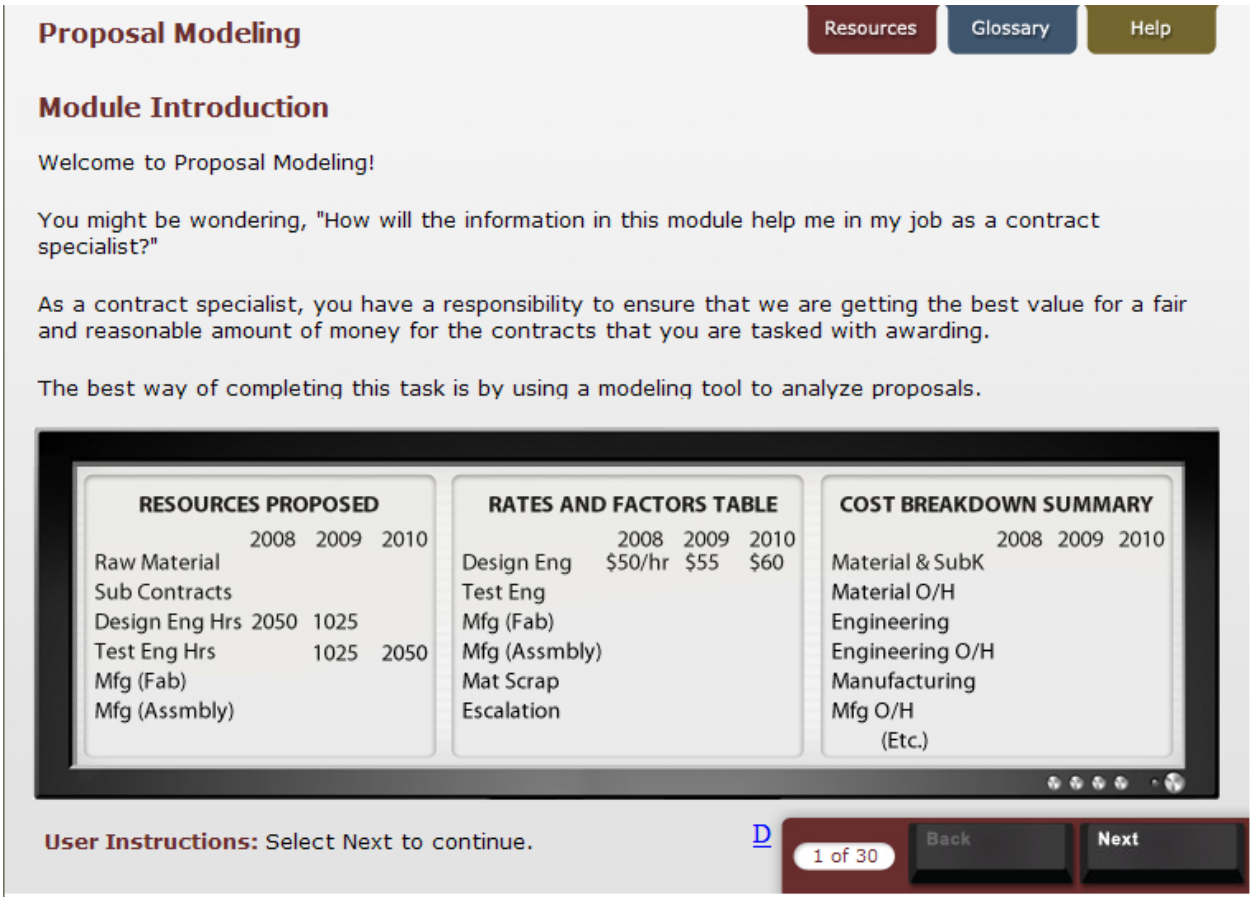
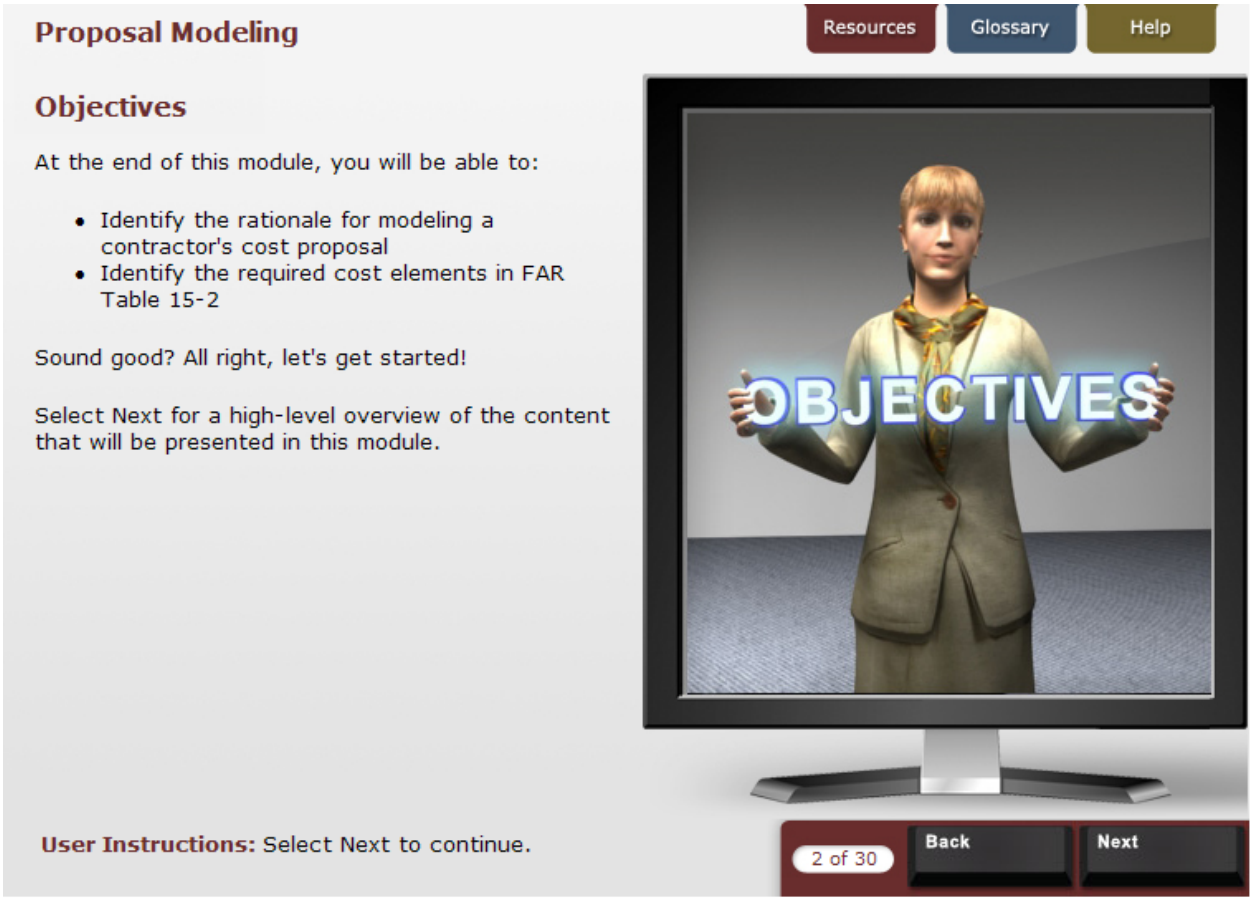

Proposal Modeling
Resources
Glossary
Help
Module Introduction
Welcome to Proposal Modeling!
You might be wondering, "How will the information in this module help me in my job as a contract specialist?"
As a contract specialist, you have a responsibility to ensure that we are getting the best value for a fair and reasonable amount of money for the contracts that you are tasked with awarding.
The best way of completing this task is by using a modeling tool to analyze proposals.
RESOURCES PROPOSED
2008 2009 2010
Raw Material
Sub Contracts
Design Eng Hrs 2050 1025
Test Eng Hrs 1025 2050
Mfg (Fab)
Mfg (Assmbly)
RATES AND FACTORS TABLE
2008 2009 2010
Design Eng $50/hr $55 $60
Test Eng
Mfg (Fab)
Mfg (Assmbly)
Mat Scrap
Escalation
COST BREAKDOWN SUMMARY
2008 2009 2010
Material & SubK
Material O/H
Engineering
Engineering O/H
Manufacturing
Mfg O/H
(Etc.)
User Instructions: Select Next to continue.
D
1 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Objectives
At the end of this module, you will be able to:
Identify the rationale for modeling a contractor's cost proposal
Identify the required cost elements in FAR Table 15-2
Sound good? All right, let's get started!
Select Next for a high-level overview of the content that will be presented in this module.
OBJECTIVES
User Instructions: Select Next to continue.
2 of 30
Back
Next

Proposal Modeling
Resources
Glossary
Help
Overview - Modeling to Analyze Proposals
Wondering why you need to use modeling to analyze proposals?
There are two main reasons:
1. It enables you to compare and validate contractor costs and prices to ensure that the contractor's proposal is sound (computations are correct).
2. It helps you strengthen a negotiation position.
Why do I need to use proposal modeling?
D
User Instructions: Select Next to continue.
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Next

Proposal Modeling

Resources | Glossary | Help

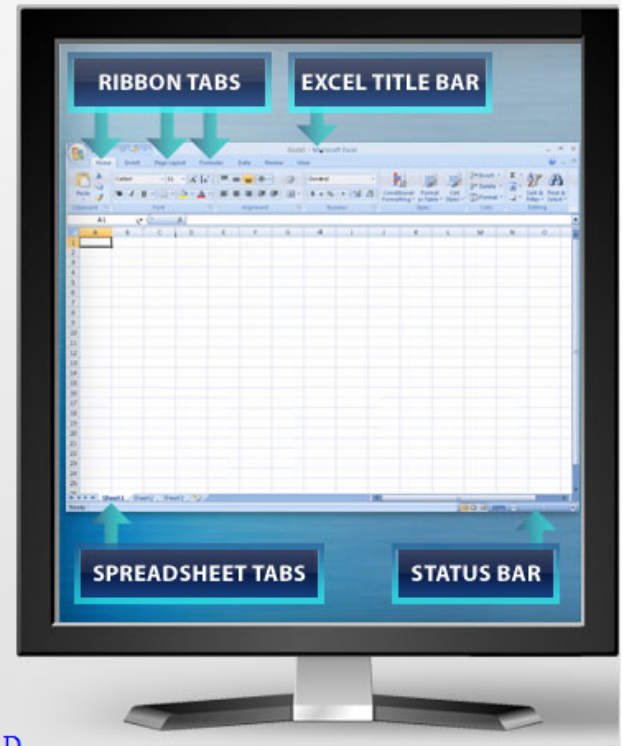
Overview - Using Excel for Proposal Modeling

There are various proposal modeling tools that you can use including commercial off-the-shelf (COTS) products. For this course, you will be using Excel 2007 with the data analysis add-in.

If you are familiar with Excel, you can use this information as a refresher. For some of you, this may be your first exposure to data analysis and you should find this module to be very beneficial.

There is also documentation available under the Resources tab to reference as you continue to use Excel 2007 for proposal modeling.

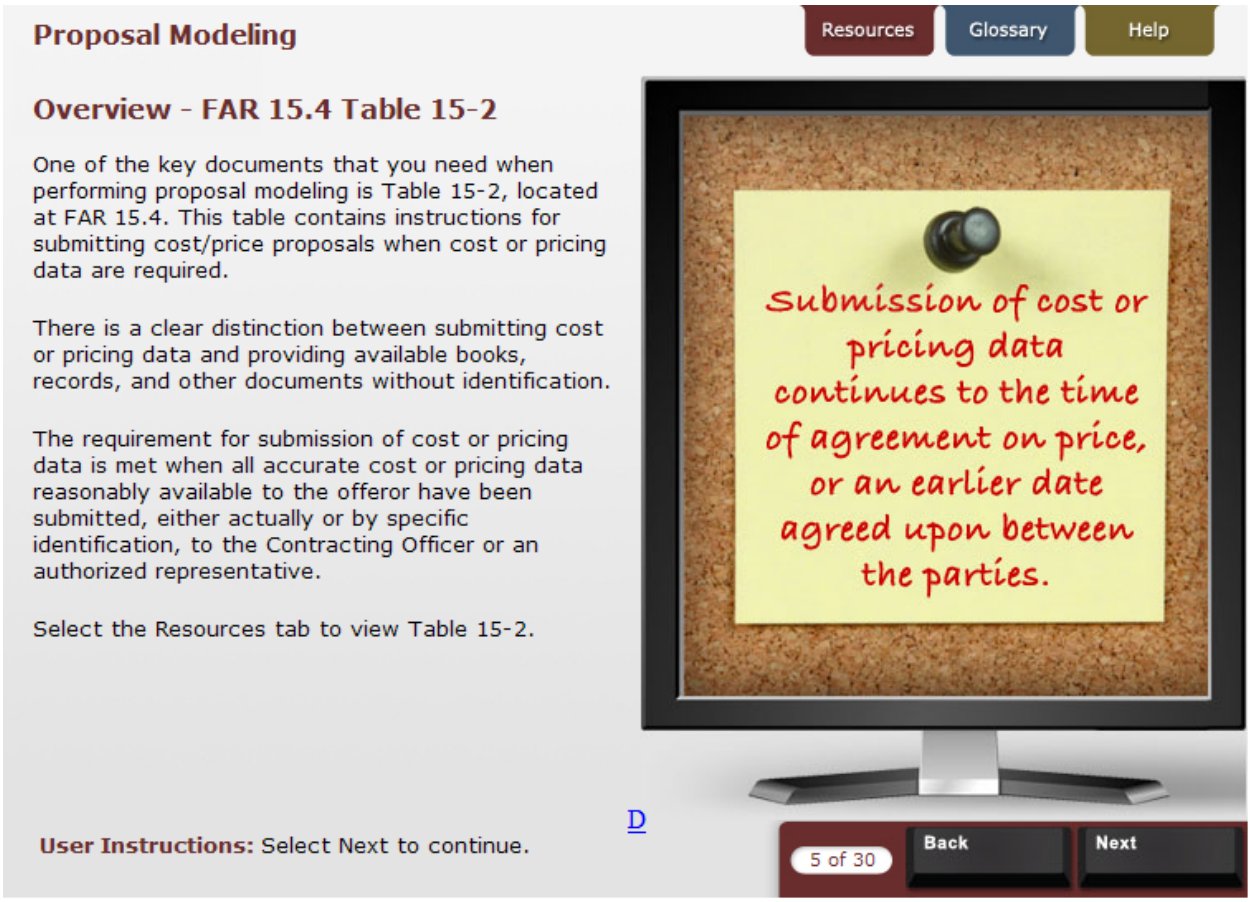
Note: The approach presented in this module using Excel as the proposal modeling tool is just one way of modeling a proposal.

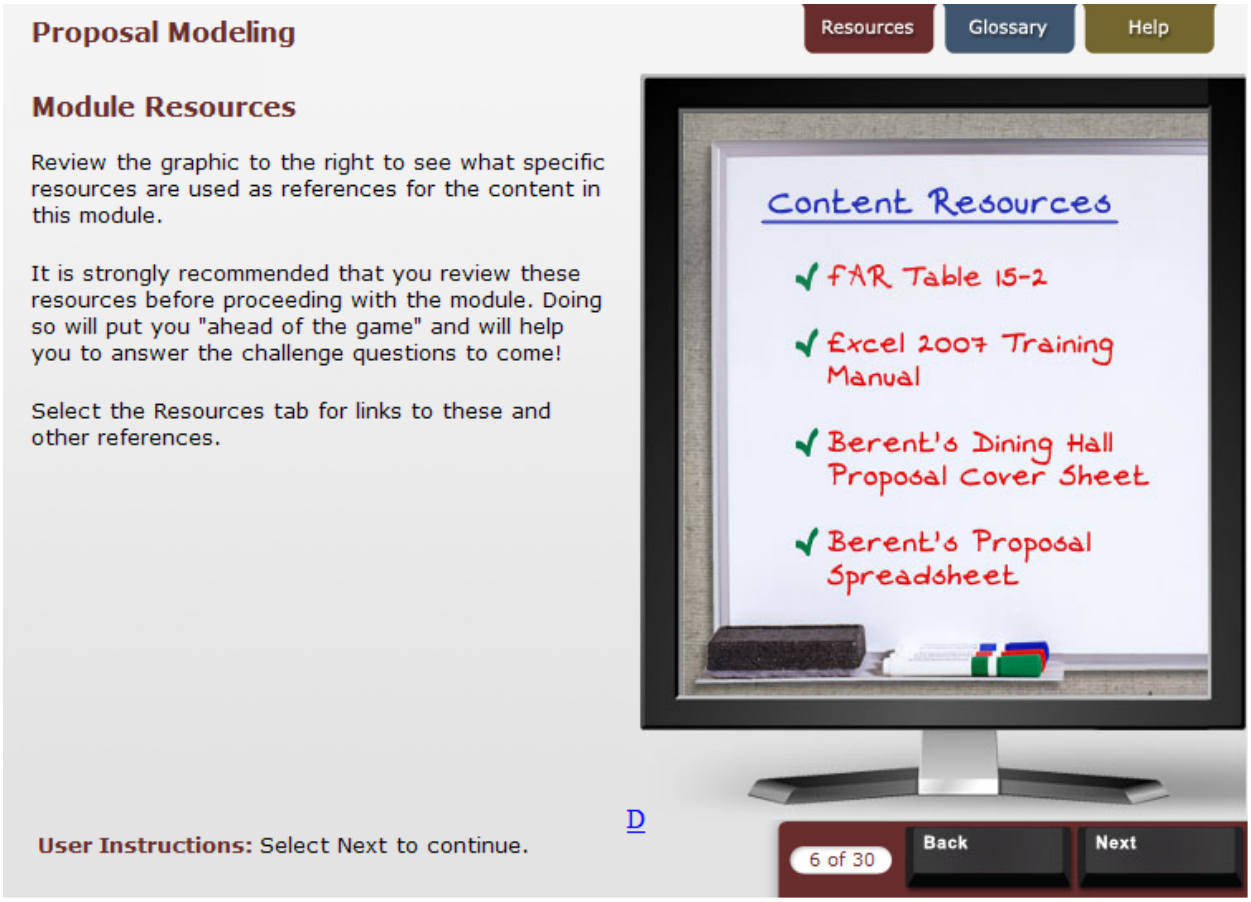


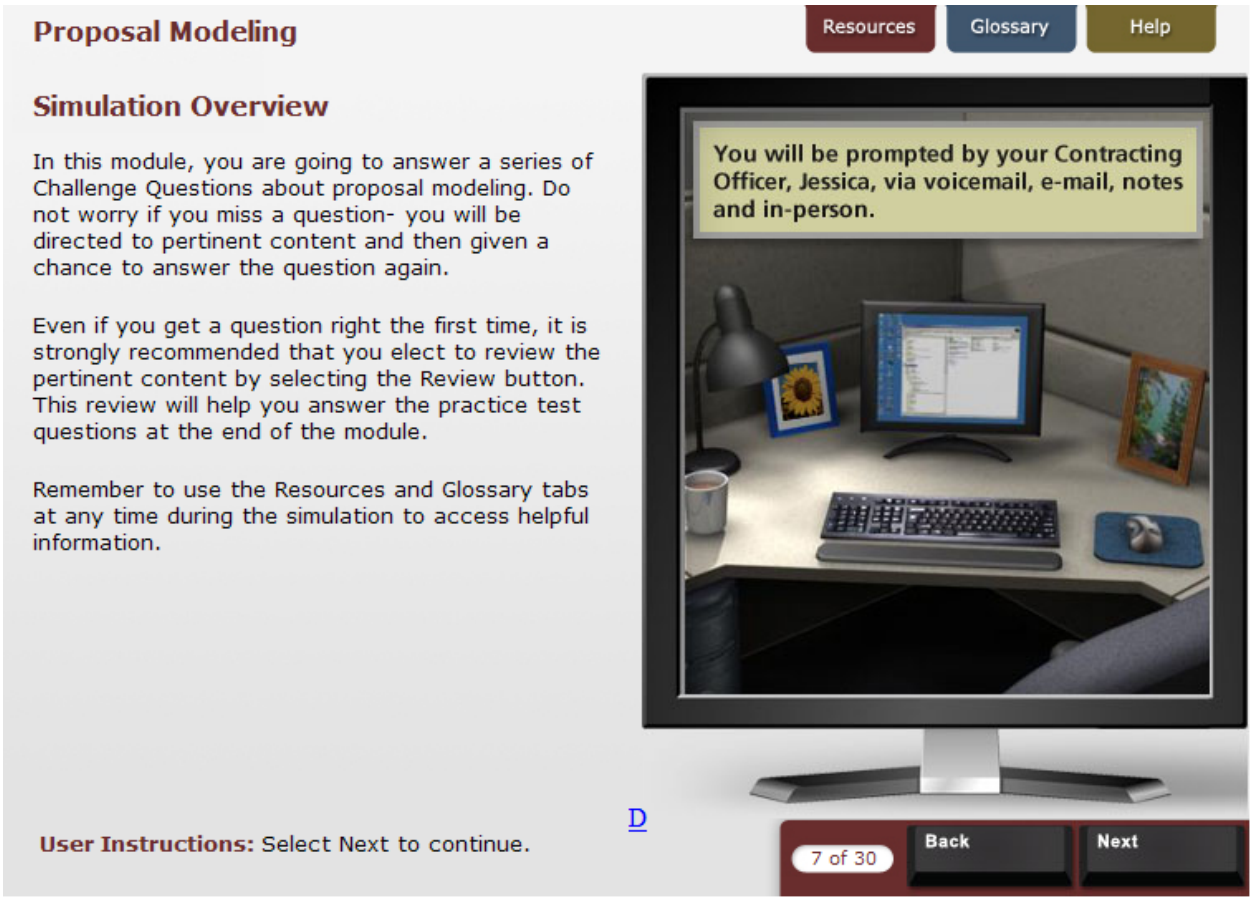
D

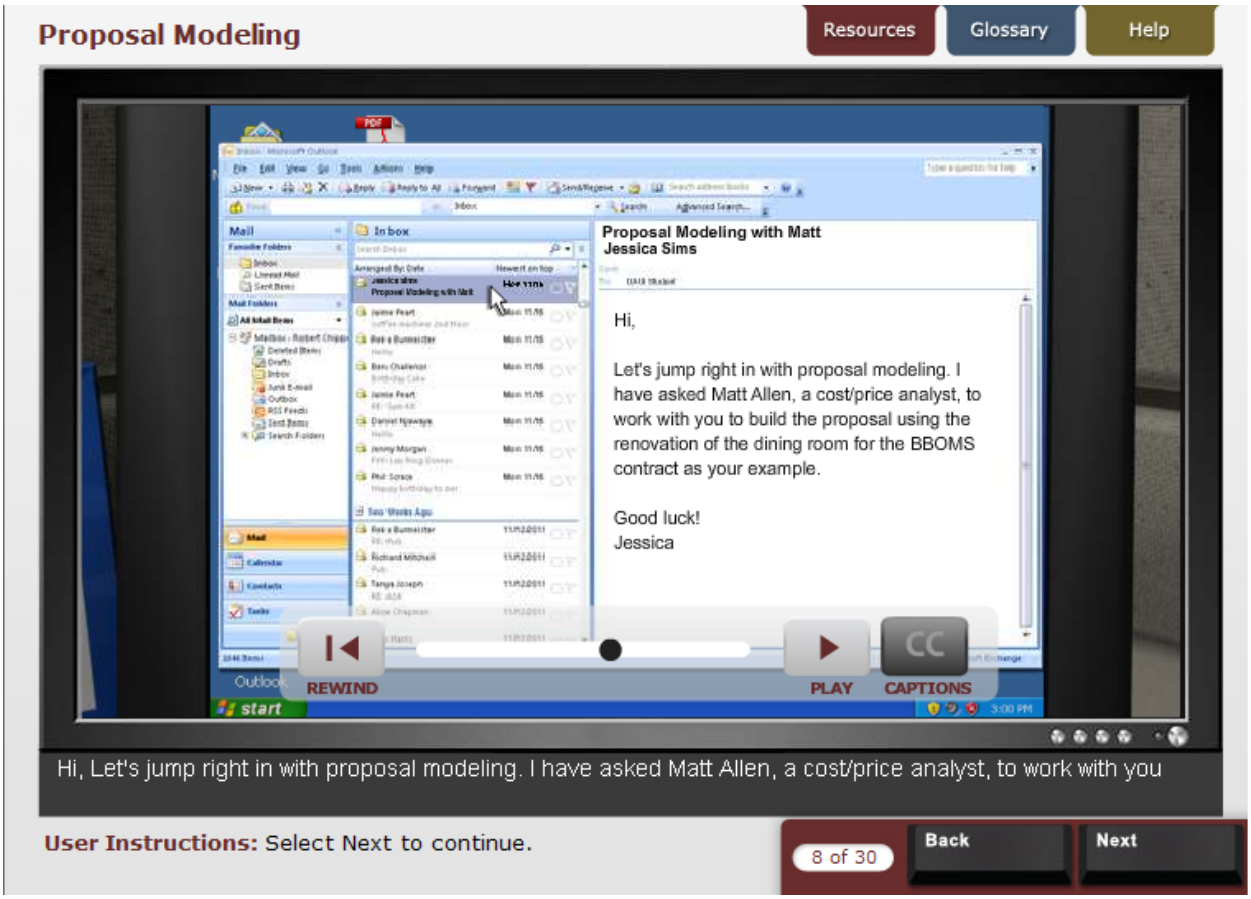
User Instructions: Select Next to continue.

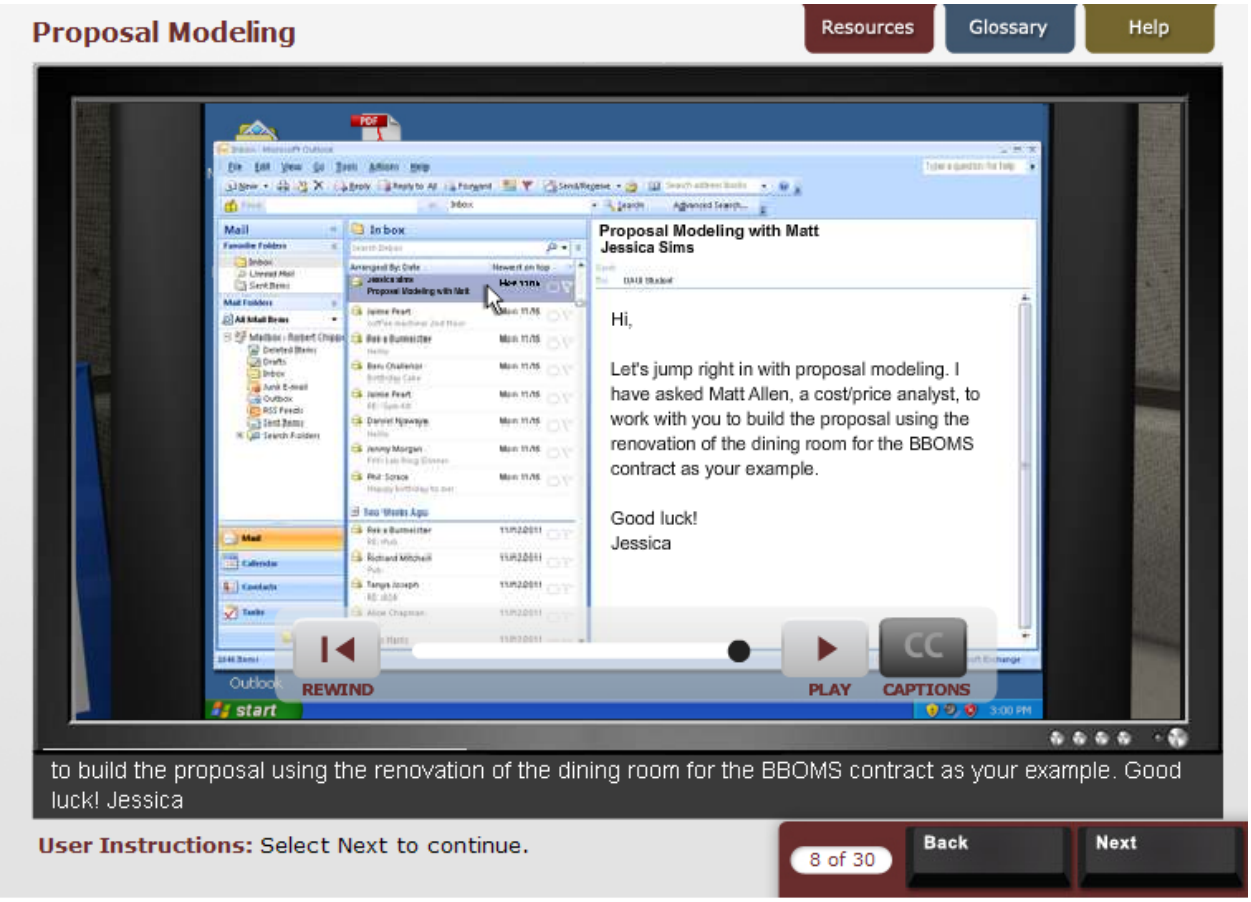
4 of 30 | Back | Next

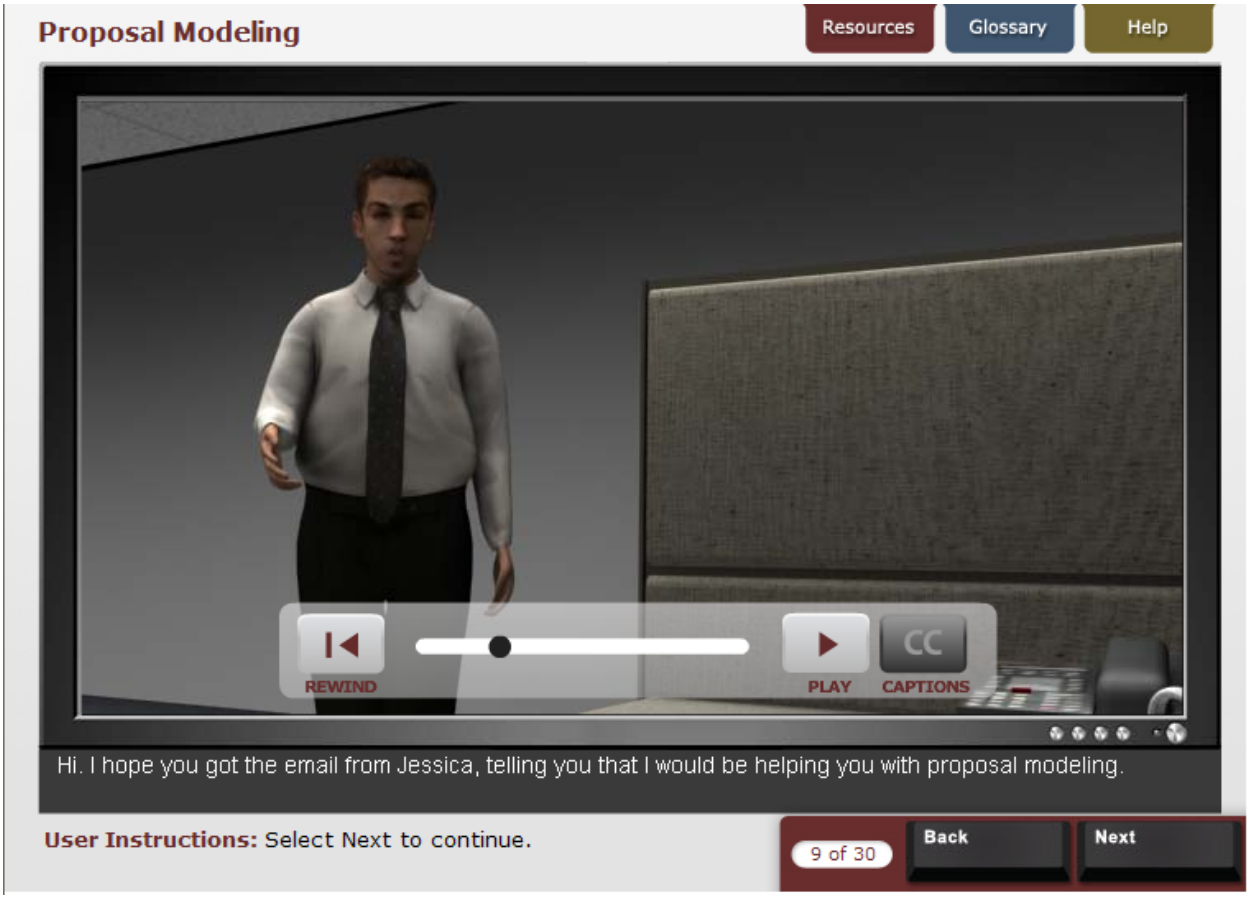

Proposal Modeling
Resources
Glossary
Help
Overview - FAR 15.4 Table 15-2
One of the key documents that you need when performing proposal modeling is Table 15-2, located at FAR 15.4. This table contains instructions for submitting cost/price proposals when cost or pricing data are required.
There is a clear distinction between submitting cost or pricing data and providing available books, records, and other documents without identification.
The requirement for submission of cost or pricing data is met when all accurate cost or pricing data reasonably available to the offeror have been submitted, either actually or by specific identification, to the Contracting Officer or an authorized representative.
Select the Resources tab to view Table 15-2.
Submission of cost or pricing data continues to the time of agreement on price, or an earlier date agreed upon between the parties.
D
User Instructions: Select Next to continue.
5 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Module Resources
Review the graphic to the right to see what specific resources are used as references for the content in this module.
It is strongly recommended that you review these resources before proceeding with the module. Doing so will put you "ahead of the game" and will help you to answer the challenge questions to come!
Select the Resources tab for links to these and other references.
Content Resources
FAR Table 15-2
Excel 2007 Training Manual
Berent's Dining Hall Proposal Cover Sheet
Berent's Proposal Spreadsheet
D
User Instructions: Select Next to continue.
6 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Simulation Overview
In this module, you are going to answer a series of Challenge Questions about proposal modeling. Do not worry if you miss a question- you will be directed to pertinent content and then given a chance to answer the question again.
Even if you get a question right the first time, it is strongly recommended that you elect to review the pertinent content by selecting the Review button. This review will help you answer the practice test questions at the end of the module.
Remember to use the Resources and Glossary tabs at any time during the simulation to access helpful information.
You will be prompted by your Contracting Officer, Jessica, via voicemail, e-mail, notes and in-person.
D
User Instructions: Select Next to continue.
7 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Proposal Modeling with Matt
Jessica Sims
Hi,
Let's jump right in with proposal modeling. I have asked Matt Allen, a cost/price analyst, to work with you to build the proposal using the renovation of the dining room for the BBOMS contract as your example.
Good luck!
Jessica
REWIND
PLAY
CAPTIONS
Hi, Let's jump right in with proposal modeling. I have asked Matt Allen, a cost/price analyst, to work with you
User Instructions: Select Next to continue.
8 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Proposal Modeling with Matt
Jessica Sims
Hi,
Let's jump right in with proposal modeling. I have asked Matt Allen, a cost/price analyst, to work with you to build the proposal using the renovation of the dining room for the BBOMS contract as your example.
Good luck!
Jessica
REWIND
PLAY
CAPTIONS
to build the proposal using the renovation of the dining room for the BBOMS contract as your example. Good luck! Jessica
User Instructions: Select Next to continue.
8 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
REWIND
PLAY
CC
CAPTIONS
Hi. I hope you got the email from Jessica, telling you that I would be helping you with proposal modeling.
User Instructions: Select Next to continue.
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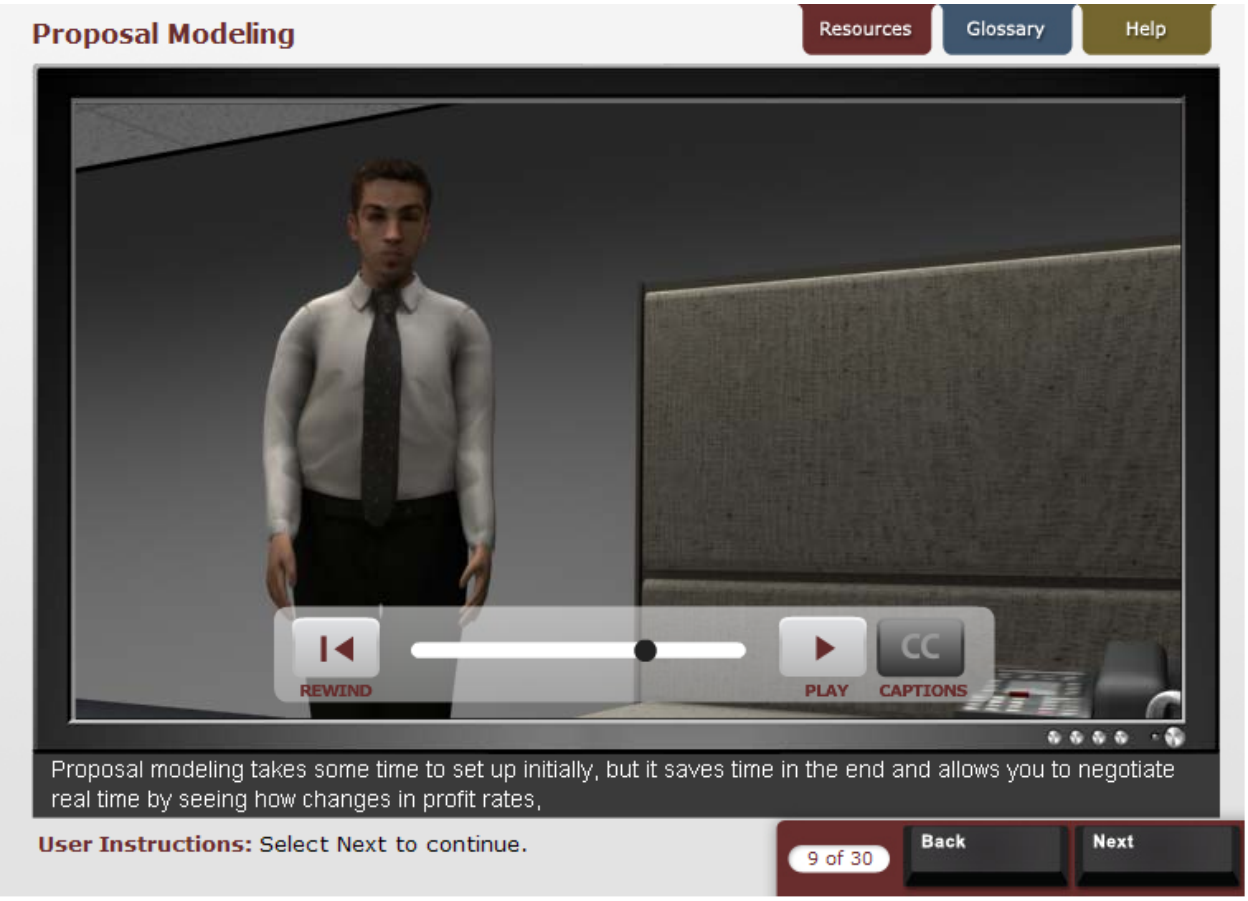
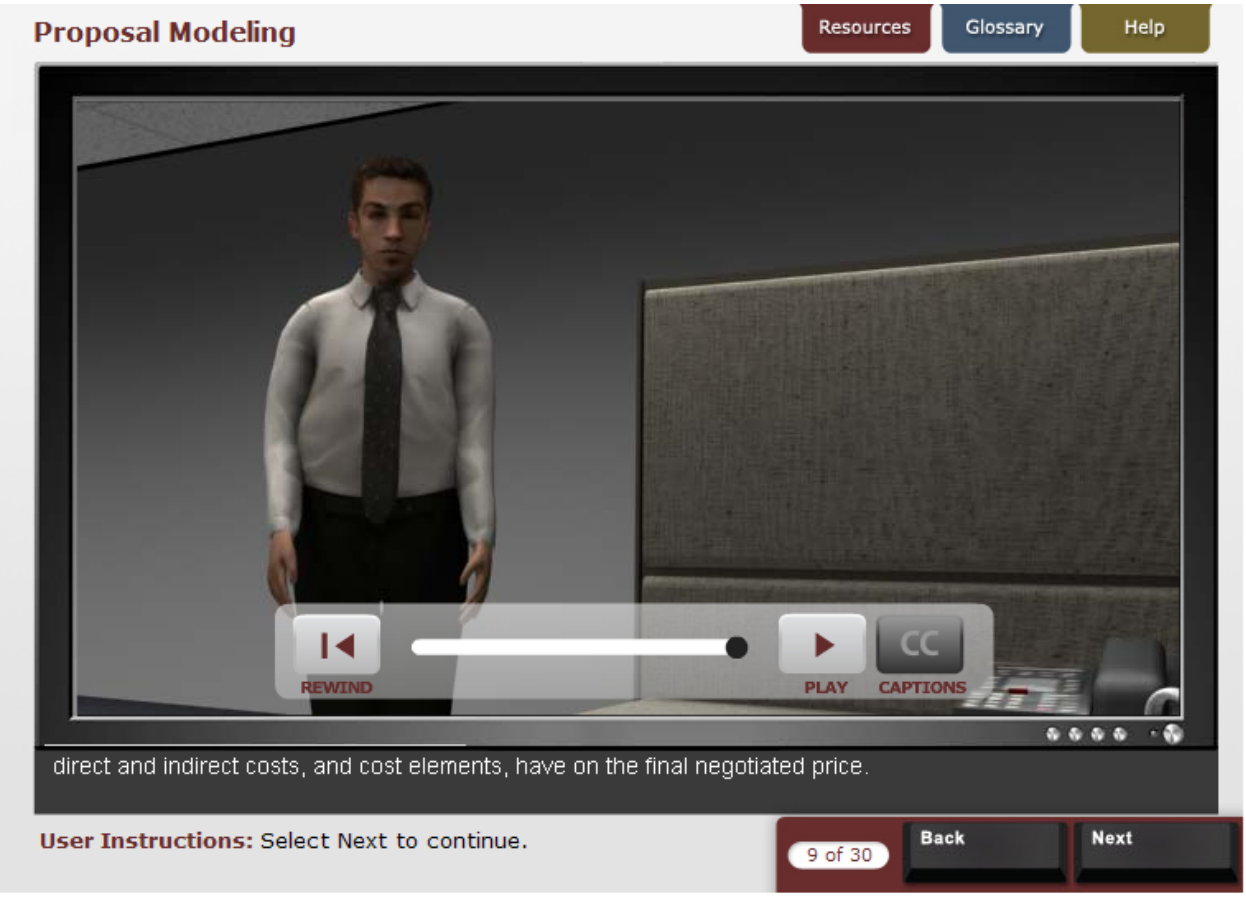
Back
Next

Proposal Modeling
Resources
Glossary
Help
REWIND
PLAY
CC
CAPTIONS
I think a good approach is to learn a little bit about proposal modeling and then just jump right in and actually walk through the steps using Excel.
User Instructions: Select Next to continue.
9 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
REWIND
PLAY
CC
CAPTIONS
Proposal modeling takes some time to set up initially, but it saves time in the end and allows you to negotiate real time by seeing how changes in profit rates,
User Instructions: Select Next to continue.
9 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
REWIND
PLAY
CC
CAPTIONS
direct and indirect costs, and cost elements, have on the final negotiated price.
User Instructions: Select Next to continue.
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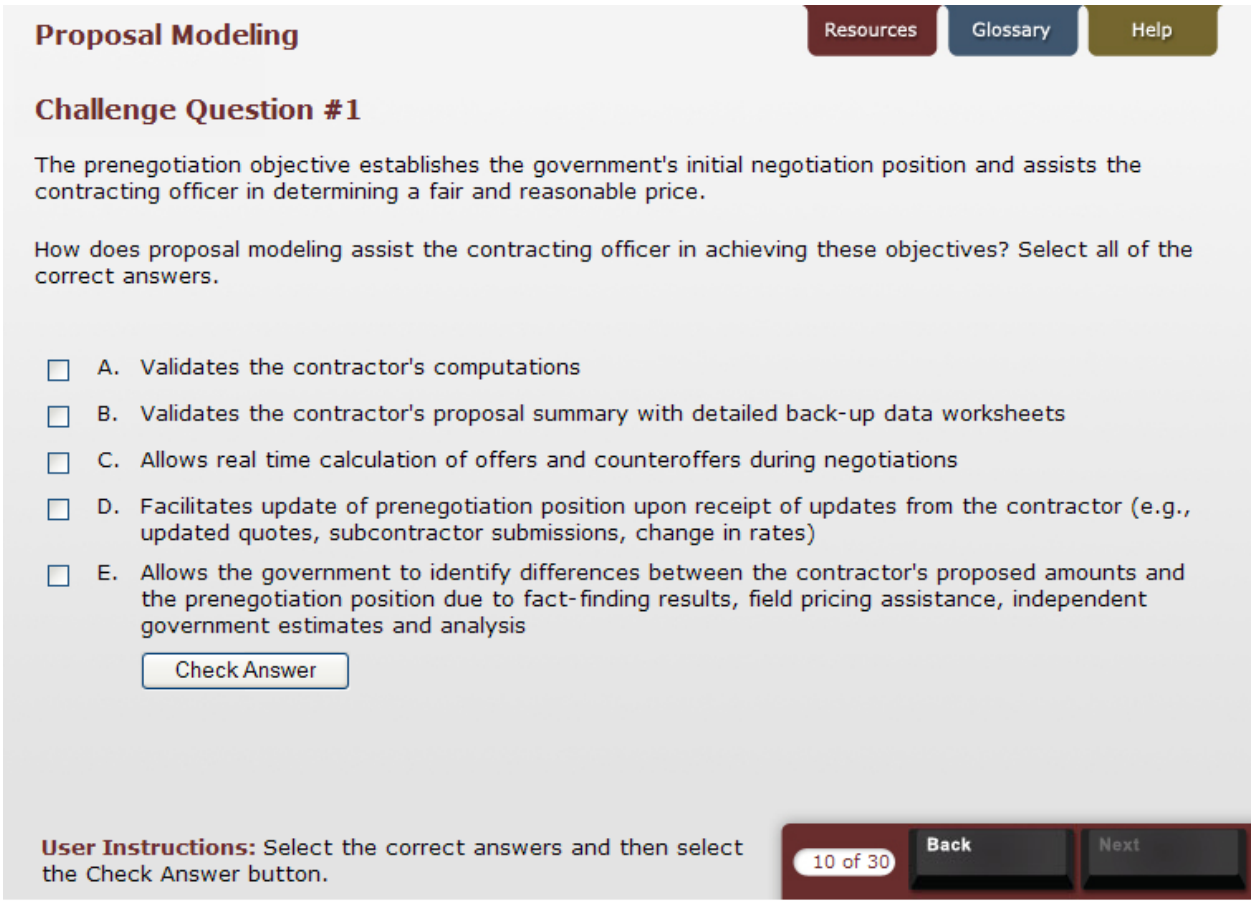
Back
Next


Proposal Modeling
Resources
Glossary
Help
Challenge Question #1
The prenegotiation objective establishes the government's initial negotiation position and assists the contracting officer in determining a fair and reasonable price.
How does proposal modeling assist the contracting officer in achieving these objectives? Select all of the correct answers.
A. Validates the contractor's computations
B. Validates the contractor's proposal summary with detailed back-up data worksheets
C. Allows real time calculation of offers and counteroffers during negotiations
D. Facilitates update of prenegotiation position upon receipt of updates from the contractor (e.g., updated quotes, subcontractor submissions, change in rates)
E. Allows the government to identify differences between the contractor's proposed amounts and the prenegotiation position due to fact-finding results, field pricing assistance, independent government estimates and analysis
Check Answer
User Instructions: Select the correct answers and then select the Check Answer button.
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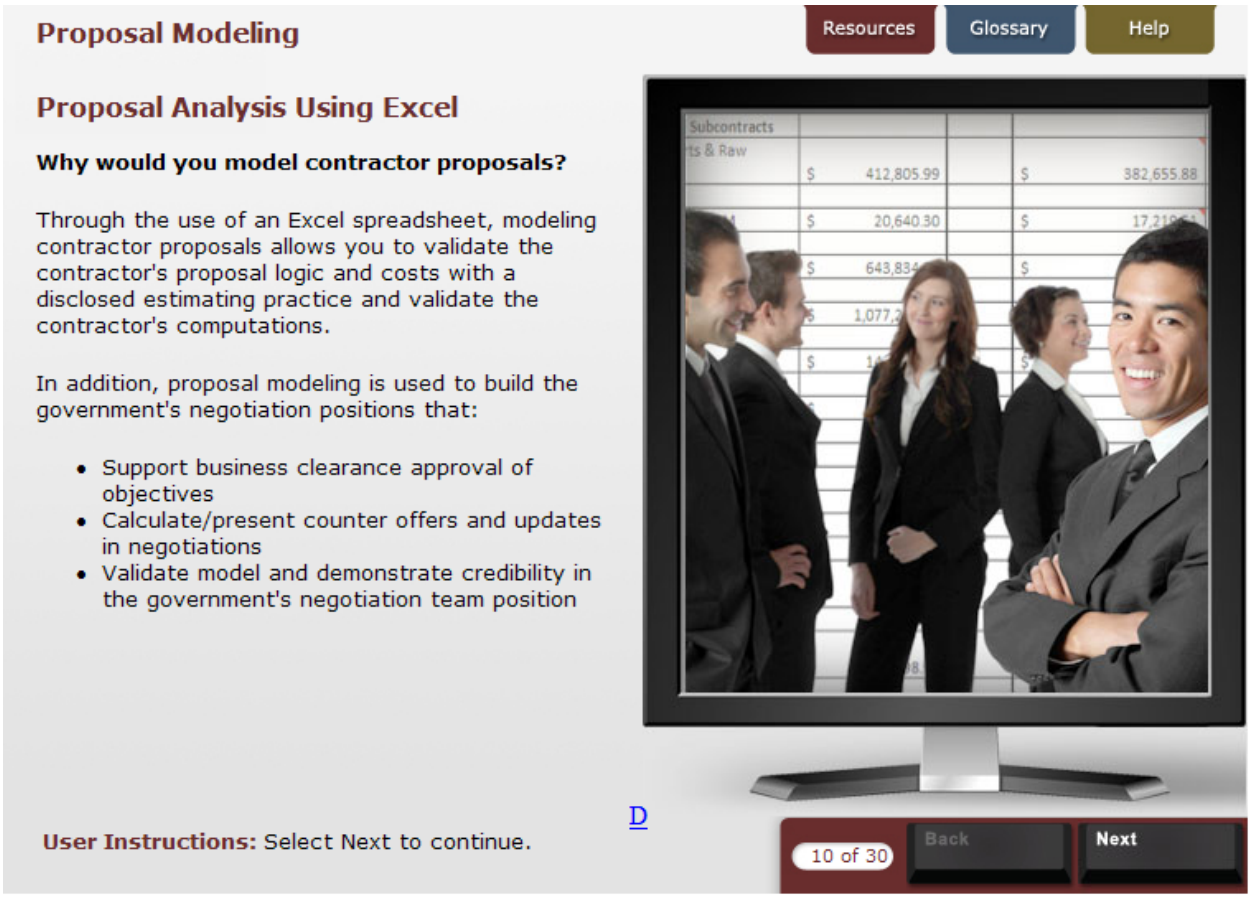
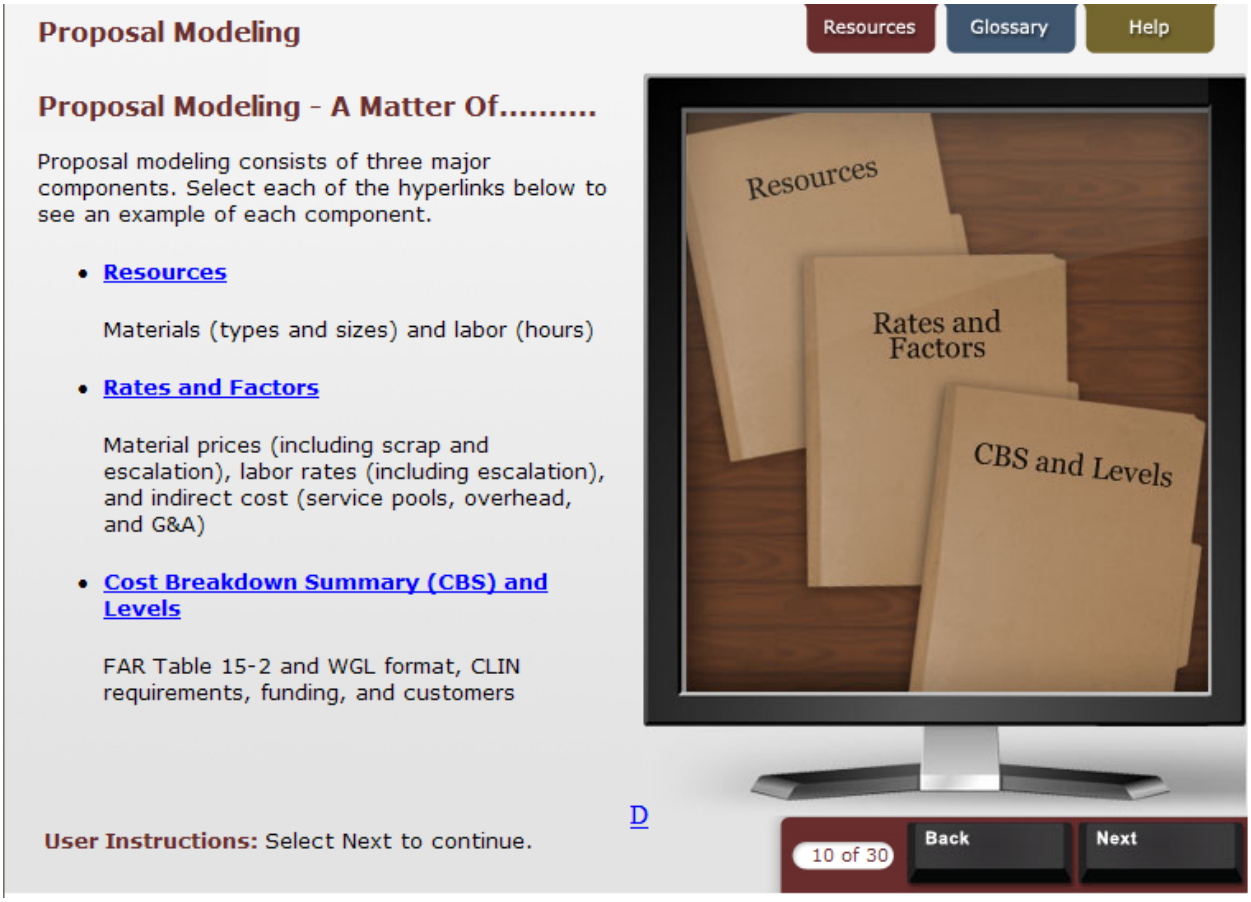
Back
Next


Proposal Modeling
Resources
Glossary
Help
Proposal Analysis Using Excel
Why would you model contractor proposals?
Through the use of an Excel spreadsheet, modeling contractor proposals allows you to validate the contractor's proposal logic and costs with a disclosed estimating practice and validate the contractor's computations.
In addition, proposal modeling is used to build the government's negotiation positions that:
Support business clearance approval of objectives
Calculate/present counter offers and updates in negotiations
Validate model and demonstrate credibility in the government's negotiation team position
Subcontracts
$ 412,805.99
$ 382,655.88
$ 20,640.30
User Instructions: Select Next to continue.
10 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Proposal Modeling - A Matter Of.....
Proposal modeling consists of three major components. Select each of the hyperlinks below to see an example of each component.
Resources
Materials (types and sizes) and labor (hours)
Rates and Factors
Material prices (including scrap and escalation), labor rates (including escalation), and indirect cost (service pools, overhead, and G&A)
Cost Breakdown Summary (CBS) and Levels
FAR Table 15-2 and WGL format, CLIN requirements, funding, and customers
Resources
Rates and Factors
CBS and Levels
D
User Instructions: Select Next to continue.
10 of 30
Back
Next

Resources Proposed

	2008	2009	2010
Raw Material			
Sub Contracts			
Design Eng Hrs	2050	1025	
Test Eng Hrs		1025	2050
Mfg (Fab)			
Mfg (Assmbly)			

Rates and Factors Table

	2008	2009	2010
Design Eng	$50/hr	$55	$60
Test Eng			
Mfg (Fab)			
Mfg (Assmbly)			
Mat Scrap			
Escalation			

Cost Breakdown Summary (CBS)				
	2008	2009	2010	Total
Material & SubK				
Material O/H				
Engineering				
Engineering O/H				
Manufacturing				
Mfg O/H				
(Etc.)				

Proposal Modeling

Resources | Glossary | Help

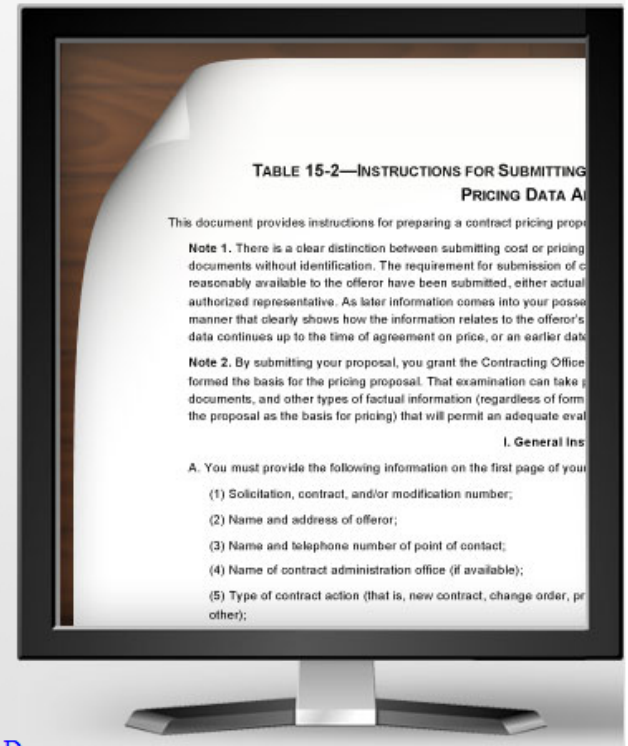
How Should the Model Look?

When building the proposal, you need to think about how you would want the proposal to look to ensure that you have included everything you need.

You can replicate the contractor's format. Remember that the spreadsheet serves as the basis for the prenegotiation objective, business clearance, and Price Negotiation Memorandum.

An important point about proposal modeling is that any proposals subject to the Truth In Negotiations Act (TINA) must be submitted in the format outlined in FAR Table 15-2.

Select the Resources tab to review the specifics of this table.



D

User Instructions: Select Next to continue.

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Proposal Modeling
Resources
Glossary
Help
REWIND
PLAY
CAPTIONS
Hi. It's Matt. I was thinking that before we jump into actually creating a spreadsheet as part of proposal modeling, you might want to review some of the basic functionality of Excel.
User Instructions: Select Next to continue.
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Next

Proposal Modeling
Resources
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Help
REWIND
PLAY
CAPTIONS
Then you will be able to navigate quicker through the tasks we need to perform in Excel. Call me with any questions. Bye.
User Instructions: Select Next to continue.
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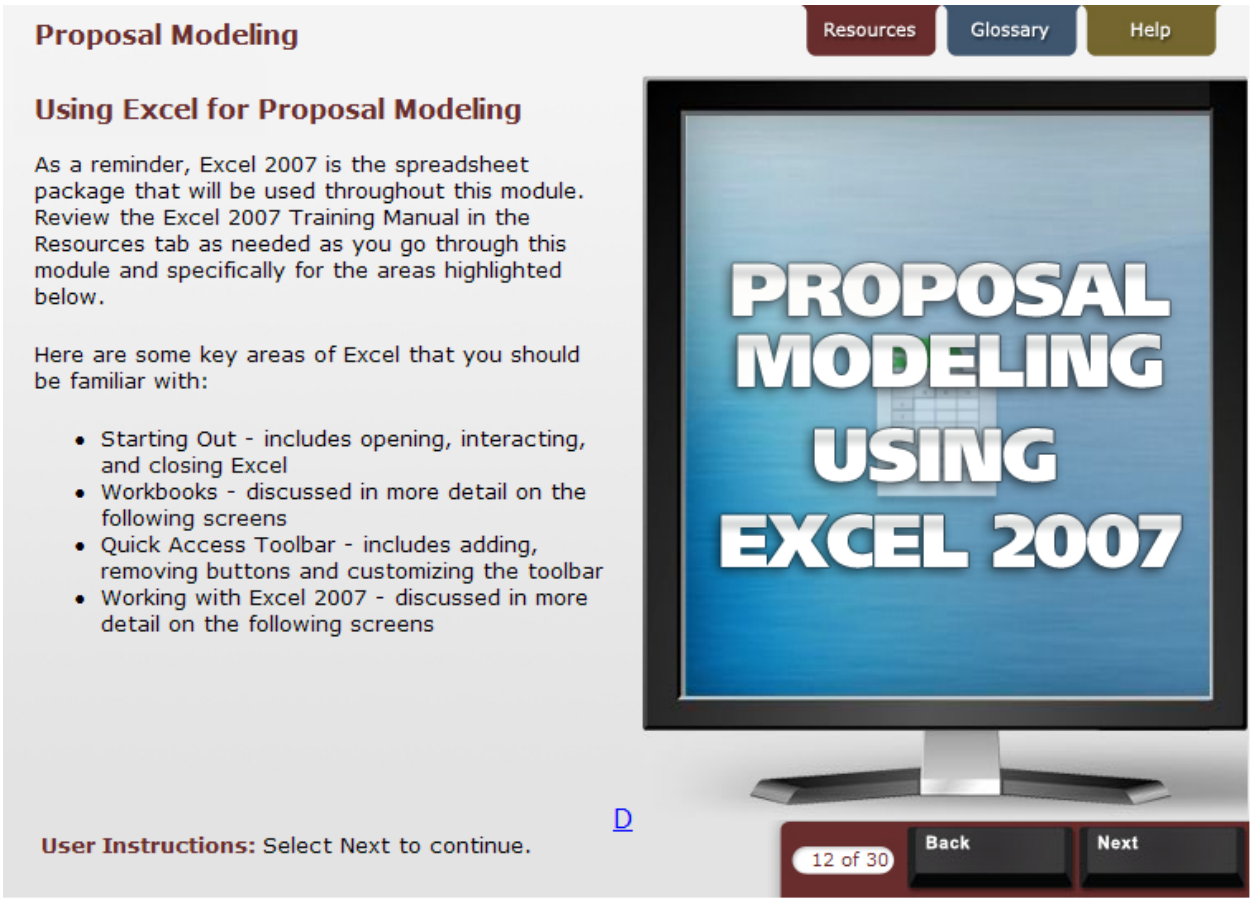
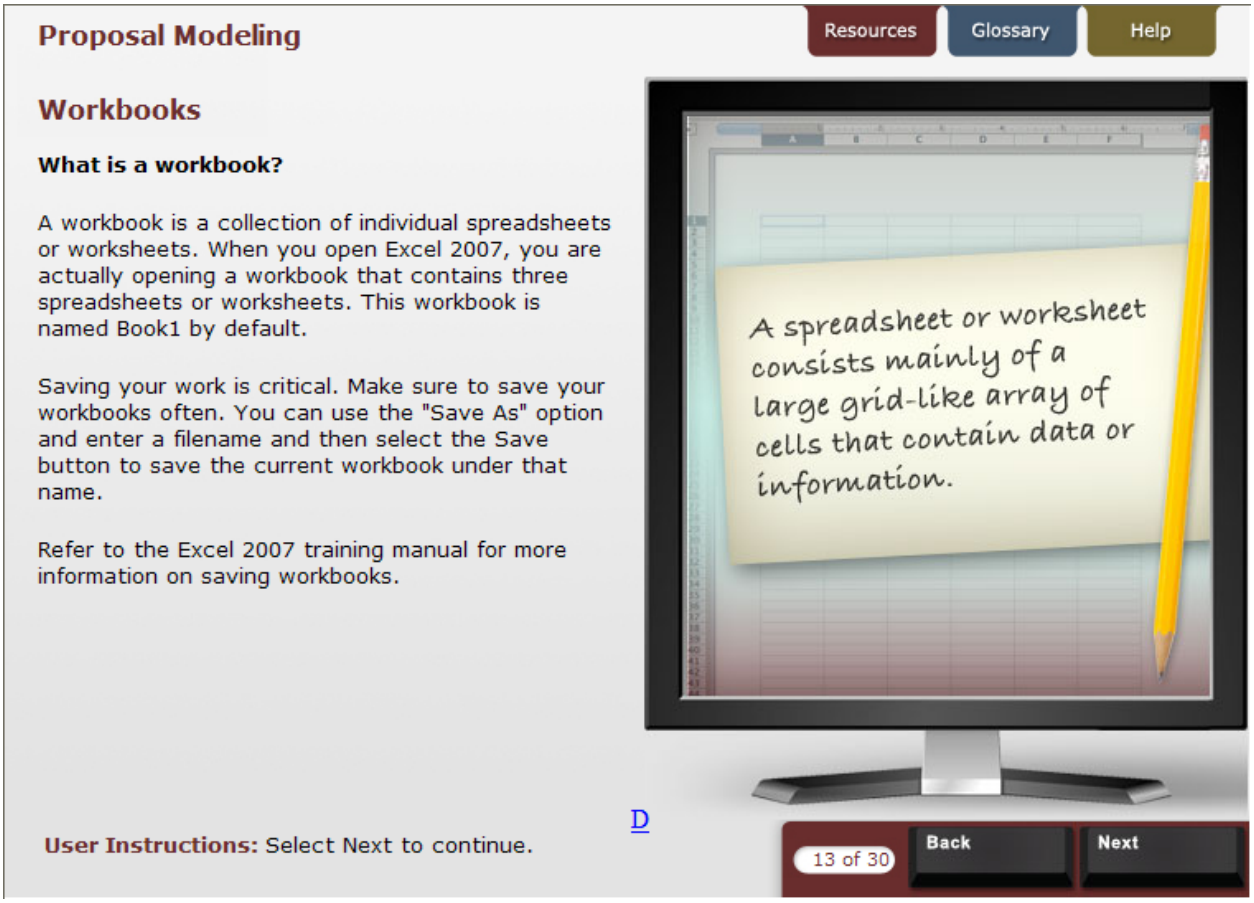
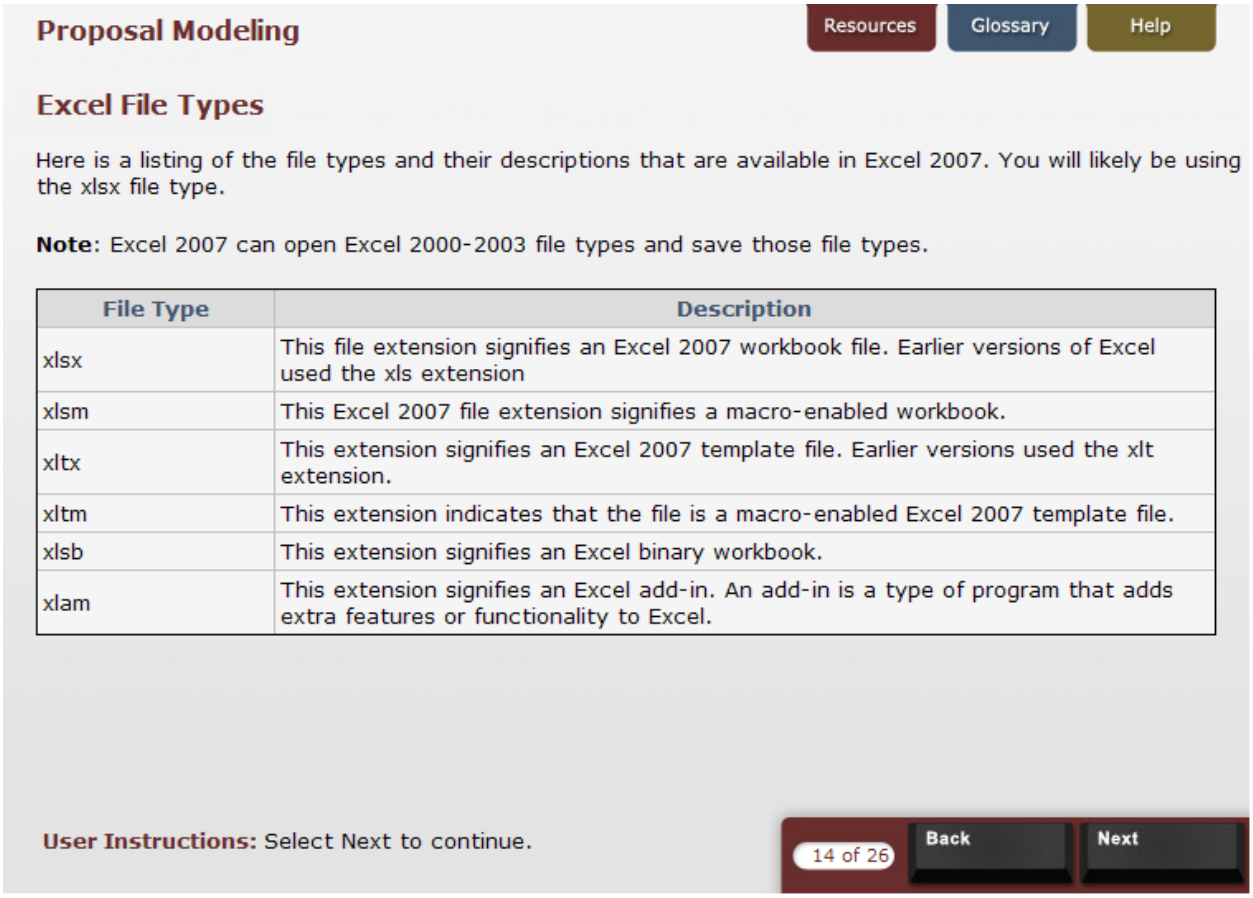
Next


Proposal Modeling
Resources
Glossary
Help
Using Excel for Proposal Modeling
As a reminder, Excel 2007 is the spreadsheet package that will be used throughout this module. Review the Excel 2007 Training Manual in the Resources tab as needed as you go through this module and specifically for the areas highlighted below.
Here are some key areas of Excel that you should be familiar with:
• Starting Out - includes opening, interacting, and closing Excel
• Workbooks - discussed in more detail on the following screens
• Quick Access Toolbar - includes adding, removing buttons and customizing the toolbar
• Working with Excel 2007 - discussed in more detail on the following screens
PROPOSAL MODELING USING EXCEL 2007
D
User Instructions: Select Next to continue.
12 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Workbooks
What is a workbook?
A workbook is a collection of individual spreadsheets or worksheets. When you open Excel 2007, you are actually opening a workbook that contains three spreadsheets or worksheets. This workbook is named Book1 by default.
Saving your work is critical. Make sure to save your workbooks often. You can use the "Save As" option and enter a filename and then select the Save button to save the current workbook under that name.
Refer to the Excel 2007 training manual for more information on saving workbooks.
A spreadsheet or worksheet consists mainly of a large grid-like array of cells that contain data or information.
D
User Instructions: Select Next to continue.
13 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Excel File Types
Here is a listing of the file types and their descriptions that are available in Excel 2007. You will likely be using the xlsx file type.
Note: Excel 2007 can open Excel 2000-2003 file types and save those file types.
File Type
Description
xlsx
This file extension signifies an Excel 2007 workbook file. Earlier versions of Excel used the xls extension
xlsm
This Excel 2007 file extension signifies a macro-enabled workbook.
xltx
This extension signifies an Excel 2007 template file. Earlier versions used the xlt extension.
xltm
This extension indicates that the file is a macro-enabled Excel 2007 template file.
xlsb
This extension signifies an Excel binary workbook.
xlam
This extension signifies an Excel add-in. An add-in is a type of program that adds extra features or functionality to Excel.
User Instructions: Select Next to continue.
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Proposal Modeling

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Worksheets

A workbook is just a collection of worksheets. Within a workbook, you may need to switch worksheets or add more worksheets. The graphic below shows the area of Excel where you can select worksheets (spreadsheets) by selecting individual tabs labeled Sheet1, Sheet2, Sheet3, etc.

To create a new worksheet, you would select the icon that is shown by the arrow on the graphic.

User Instructions: Select Next to continue.

D

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Proposal Modeling

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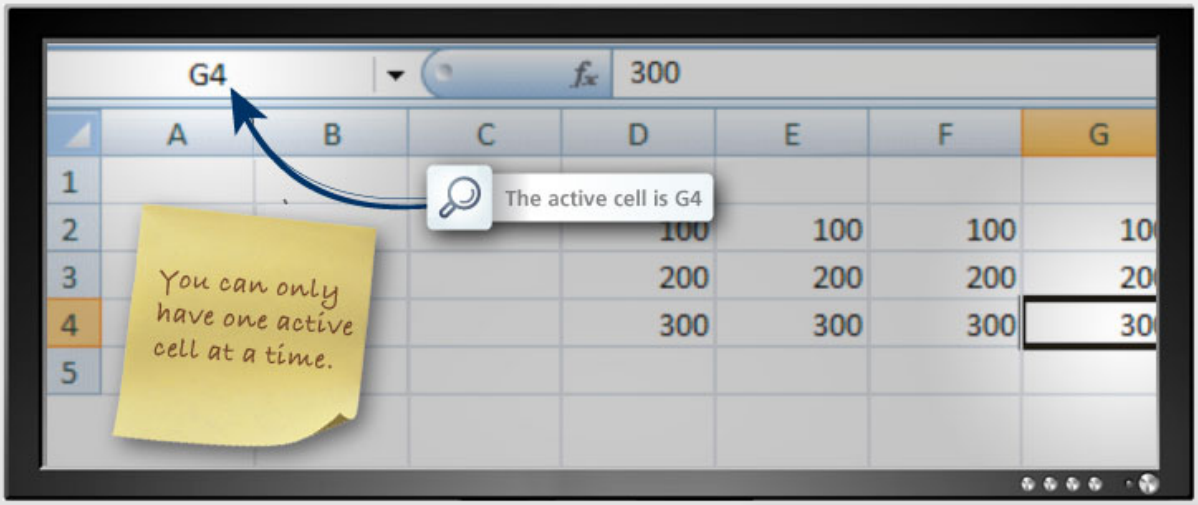
The Active Cell in Excel

When you select a cell in an Excel worksheet, it becomes enhanced with a thicker border and is now the active cell. Its reference is the cell column letter and row number (the number and letter that are shaded differently). You can enter text or a number directly into the active cell.

To change the contents of any cell, you would select it to make it active, and then make your changes.



User Instructions: Select Next to continue.

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Proposal Modeling

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Working with Excel 2007

Your main goal for using an Excel 2007 worksheet is to organize and analyze data as part of proposal modeling. You need to learn to work with the basic components found in every worksheet/spreadsheet, which consist of columns, rows, and cells.

A **column (F)** is a vertical series of adjacent cells from top to bottom.

A **row (9)** is a horizontal series of cells from left to right.

A basic **cell (C7)** is an individual rectangle anywhere in the grid area of a worksheet.

Selecting a number or letter header selects that entire row or column.

In addition, there are ranges, which are areas of a worksheet/spreadsheet. Ranges are always defined as the following - upper-left cell:lower-right cell.....**B3:H9**

D

User Instructions: Select Next to continue.

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Proposal Modeling

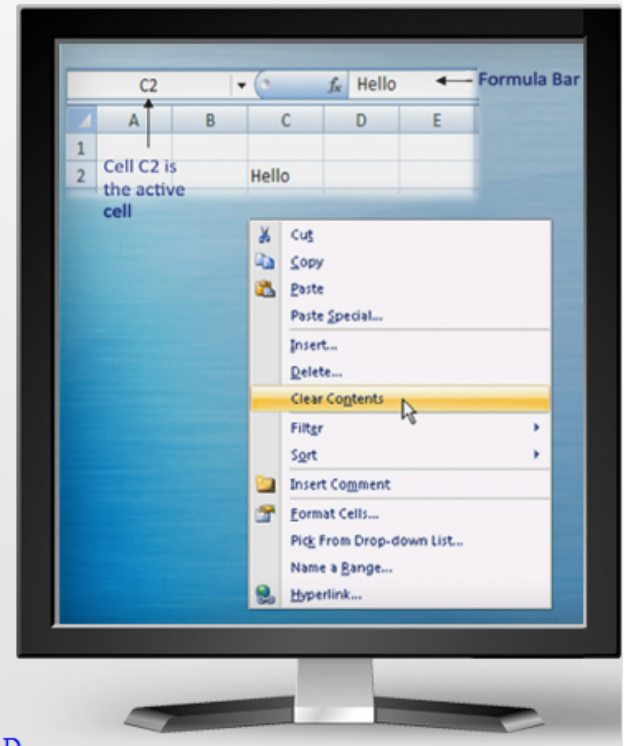
Resources Glossary Help

Entering and Deleting Data in a Worksheet

Two key functions of working with data in a worksheet are entering data and deleting data.

To enter data into a worksheet, select the cell you want to use, which activates it, and enter the information directly into it. When you type something in the active cell, what you type will also be displayed in the formula bar.

To delete data from a worksheet, right click on a cell to display the drop down menu. Select the Clear Contents option to remove the cell data, but not the cell formatting.



D

User Instructions: Select Next to continue.

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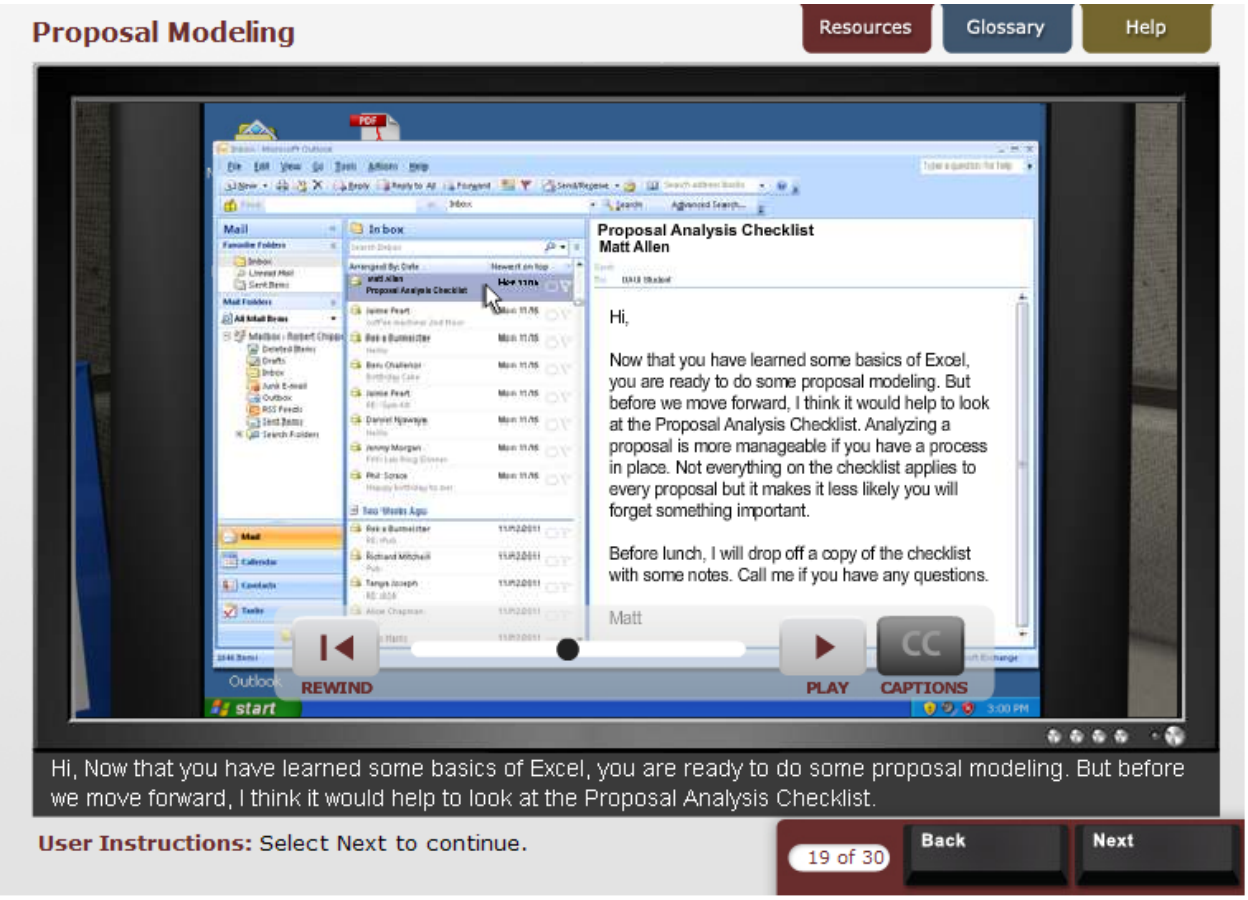
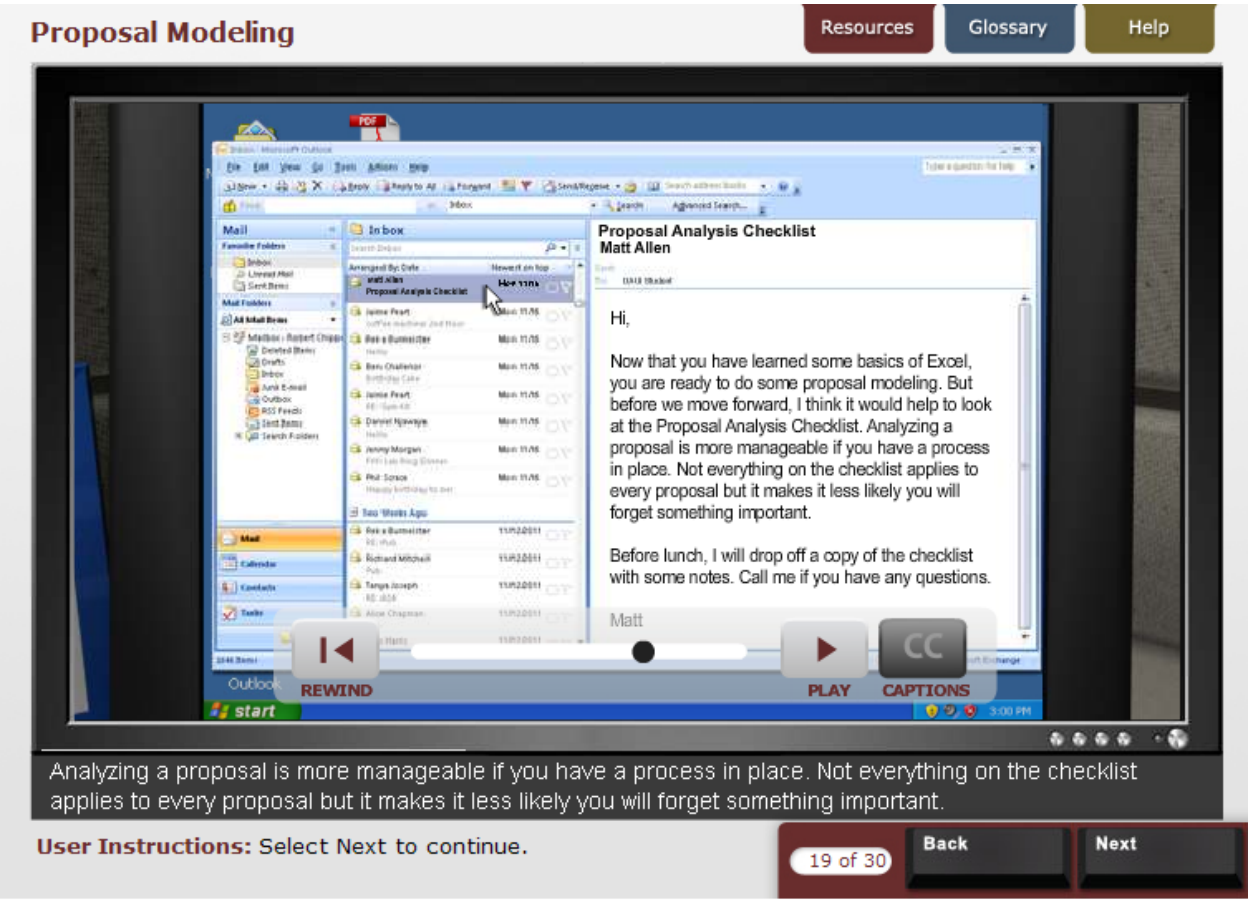

Proposal Modeling
Resources
Glossary
Help
Proposal Analysis Checklist
Matt Allen
Hi,
Now that you have learned some basics of Excel, you are ready to do some proposal modeling. But before we move forward, I think it would help to look at the Proposal Analysis Checklist. Analyzing a proposal is more manageable if you have a process in place. Not everything on the checklist applies to every proposal but it makes it less likely you will forget something important.
Before lunch, I will drop off a copy of the checklist with some notes. Call me if you have any questions.
Matt
REWIND
PLAY
CAPTIONS
Hi, Now that you have learned some basics of Excel, you are ready to do some proposal modeling. But before we move forward, I think it would help to look at the Proposal Analysis Checklist.
User Instructions: Select Next to continue.
19 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Proposal Analysis Checklist
Matt Allen
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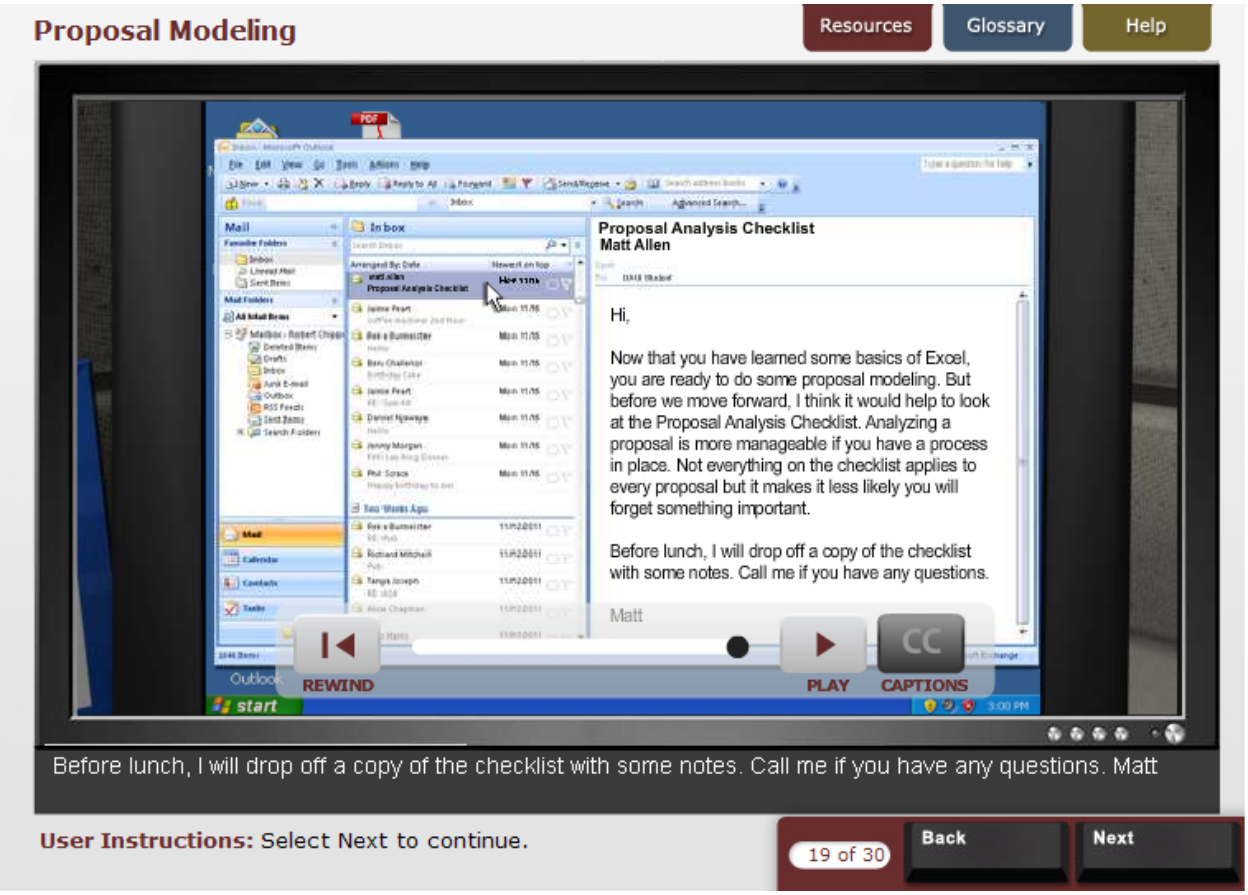
Matt
REWIND
PLAY
CAPTIONS
Analyzing a proposal is more manageable if you have a process in place. Not everything on the checklist applies to every proposal but it makes it less likely you will forget something important.
User Instructions: Select Next to continue.
19 of 30
Back
Next


Proposal Modeling
Resources
Glossary
Help
Proposal Analysis Checklist
Matt Allen
Hi,
Now that you have learned some basics of Excel, you are ready to do some proposal modeling. But before we move forward, I think it would help to look at the Proposal Analysis Checklist. Analyzing a proposal is more manageable if you have a process in place. Not everything on the checklist applies to every proposal but it makes it less likely you will forget something important.
Before lunch, I will drop off a copy of the checklist with some notes. Call me if you have any questions.
Matt
REWIND
PLAY
CAPTIONS
Before lunch, I will drop off a copy of the checklist with some notes. Call me if you have any questions. Matt
User Instructions: Select Next to continue.
19 of 30
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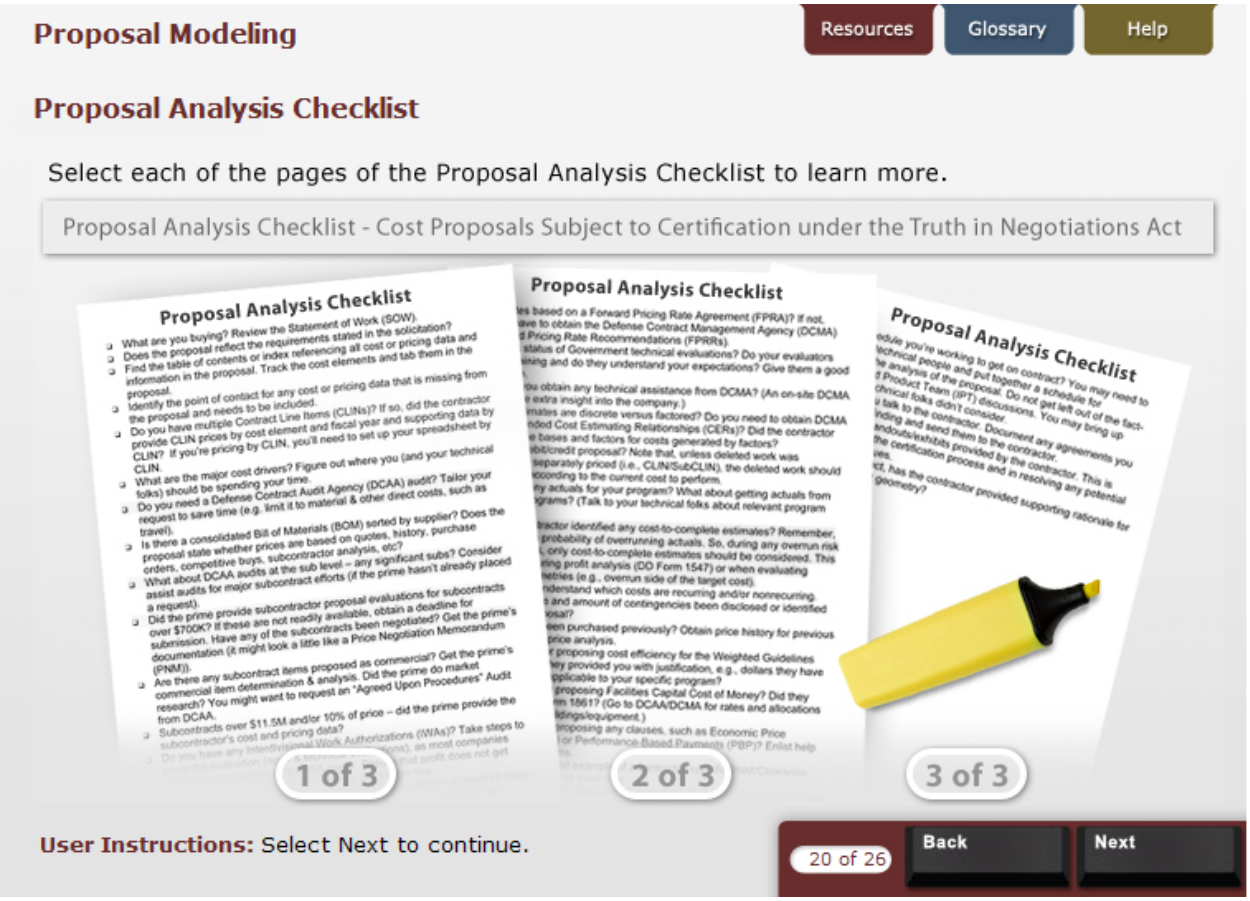
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Proposal Analysis Checklist
Select each of the pages of the Proposal Analysis Checklist to learn more.
Proposal Analysis Checklist - Cost Proposals Subject to Certification under the Truth in Negotiations Act
Proposal Analysis Checklist
What are you buying? Review the Statement of Work (SOW).
Does the proposal reflect the requirements stated in the solicitation?
Find the table of contents or index referencing all cost or pricing data and information in the proposal. Track the cost elements and tab them in the proposal.
Identify the point of contact for any cost or pricing data that is missing from the proposal and needs to be included.
Do you have multiple Contract Line Items (CLINs)? If so, did the contractor provide CLIN prices by cost element and fiscal year and supporting data by CLIN? If you're pricing by CLIN, you'll need to set up your spreadsheet by CLIN.
What are the major cost drivers? Figure out where you (and your technical folks) should be spending your time.
Do you need a Defense Contract Audit Agency (DCAA) audit? Tailor your request to save time (e.g. limit it to material & other direct costs, such as travel).
Is there a consolidated Bill of Materials (BOM) sorted by supplier? Does the proposal state whether prices are based on quotes, history, purchase orders, competitive buys, subcontractor analysis, etc?
What about DCAA audits at the sub level – any significant subs? Consider assist audits for major subcontract efforts (if the prime hasn't already placed a request).
Did the prime provide subcontractor proposal evaluations for subcontracts over $700K? If these are not readily available, obtain a deadline for submission. Have any of the subcontracts been negotiated? Get the prime's documentation (it might look a little like a Price Negotiation Memorandum (PNM)).
Are there any subcontract items proposed as commercial? Get the prime's commercial item determination & analysis. Did the prime do market research? You might want to request an "Agreed Upon Procedures" Audit from DCAA.
Subcontracts over $11.5M and/or 10% of price – did the prime provide the subcontractor's cost and pricing data?
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Proposal Analysis Checklist
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Proposal Analysis Checklist
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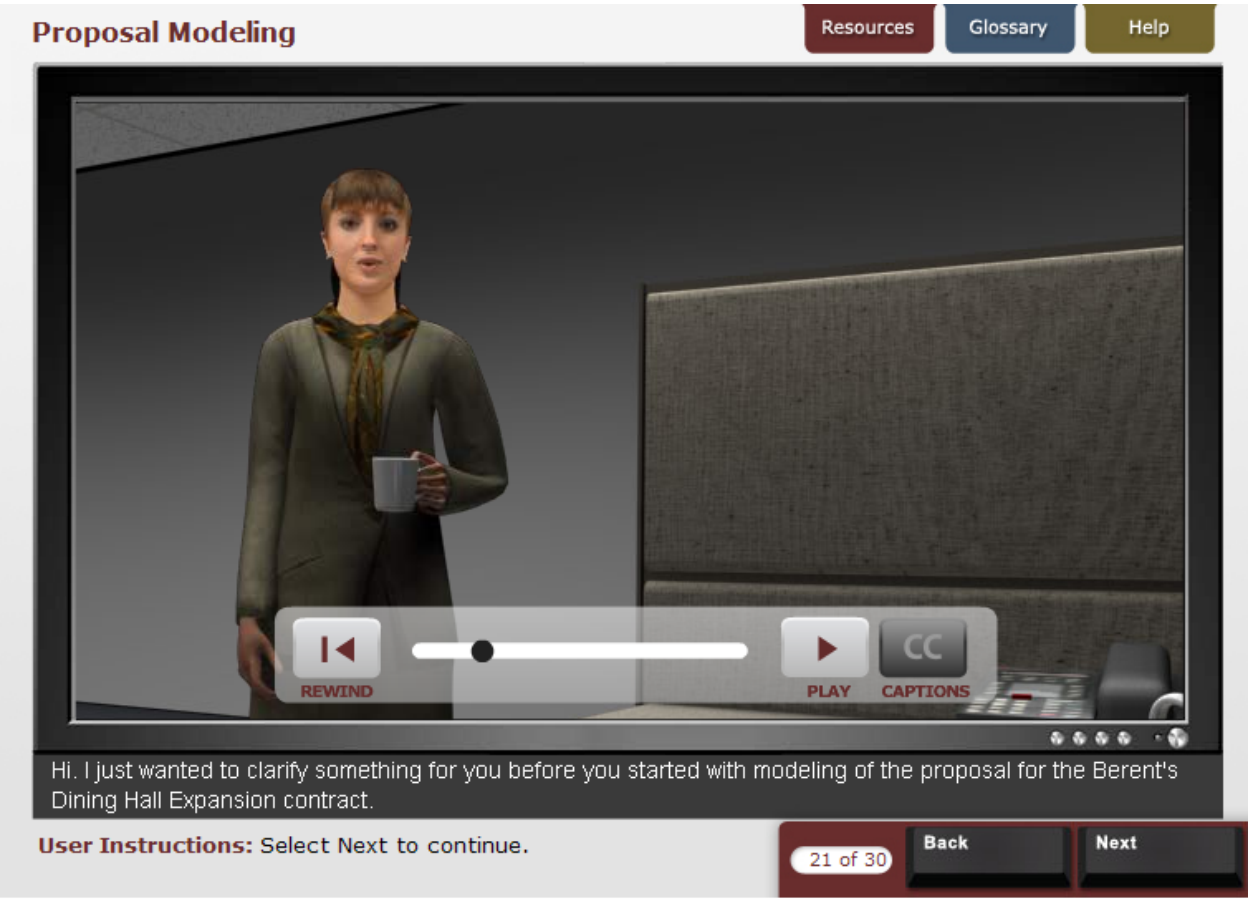
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CAPTIONS
Hi. I just wanted to clarify something for you before you started with modeling of the proposal for the Berent's Dining Hall Expansion contract.
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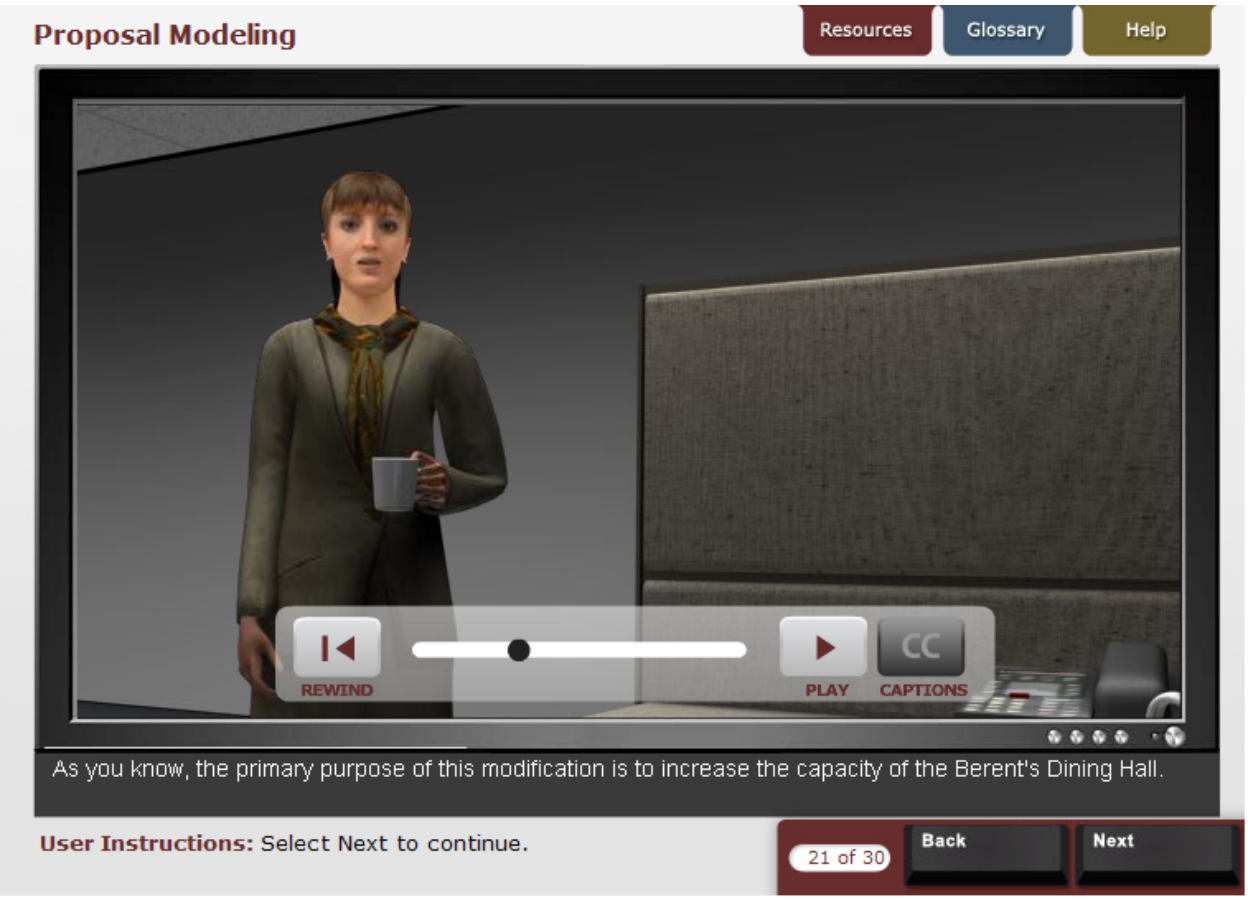
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CAPTIONS
As you know, the primary purpose of this modification is to increase the capacity of the Berent's Dining Hall.
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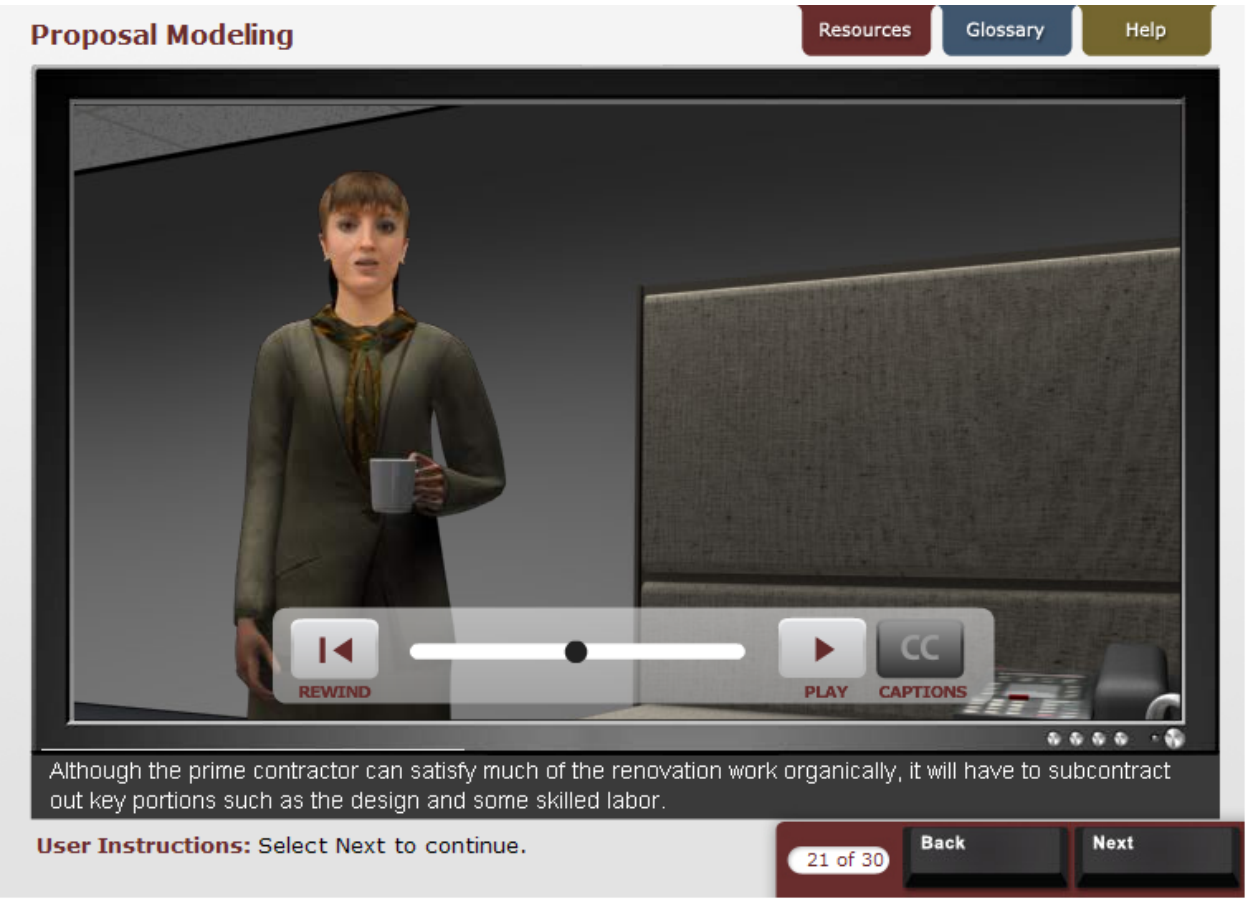
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CAPTIONS
Although the prime contractor can satisfy much of the renovation work organically, it will have to subcontract out key portions such as the design and some skilled labor.
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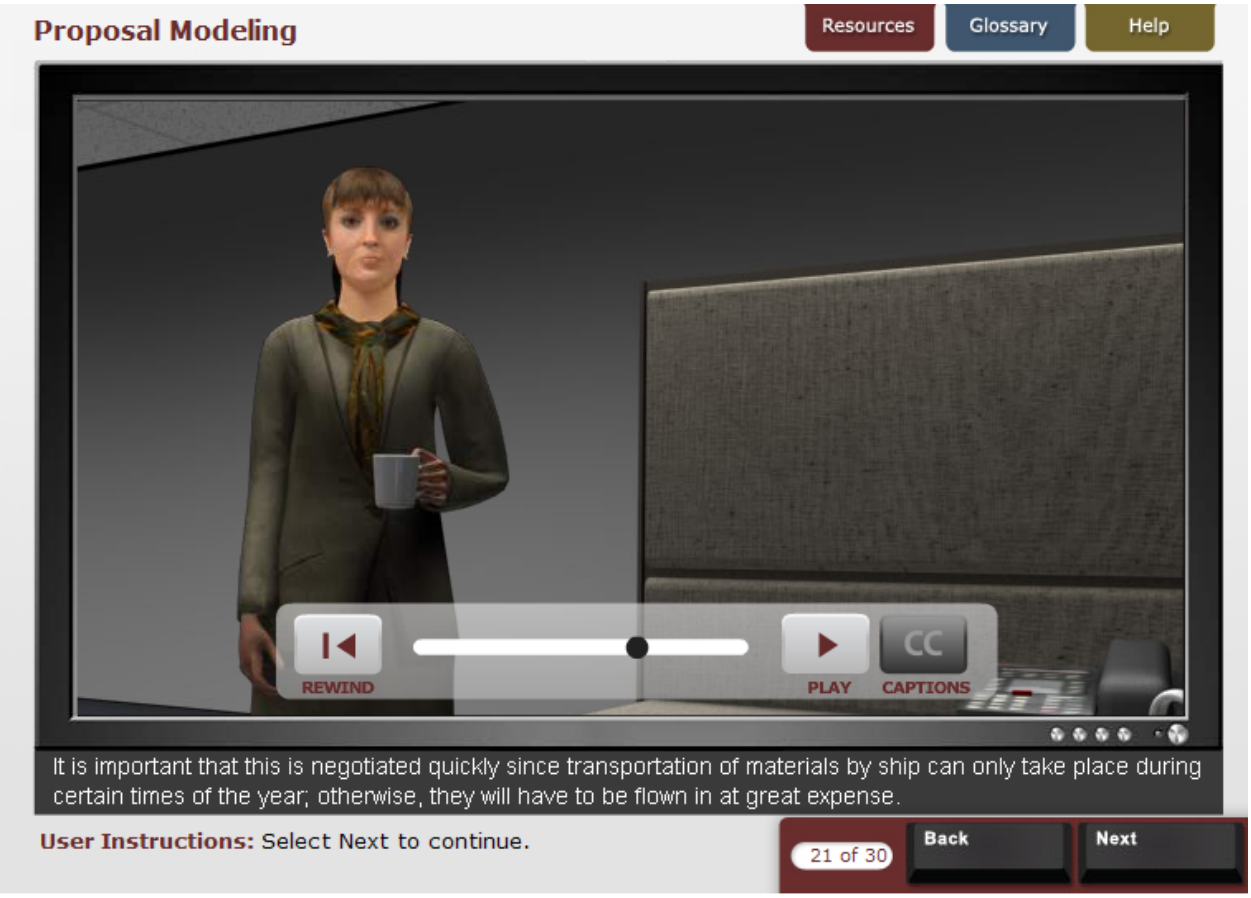
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CAPTIONS
It is important that this is negotiated quickly since transportation of materials by ship can only take place during certain times of the year; otherwise, they will have to be flown in at great expense.
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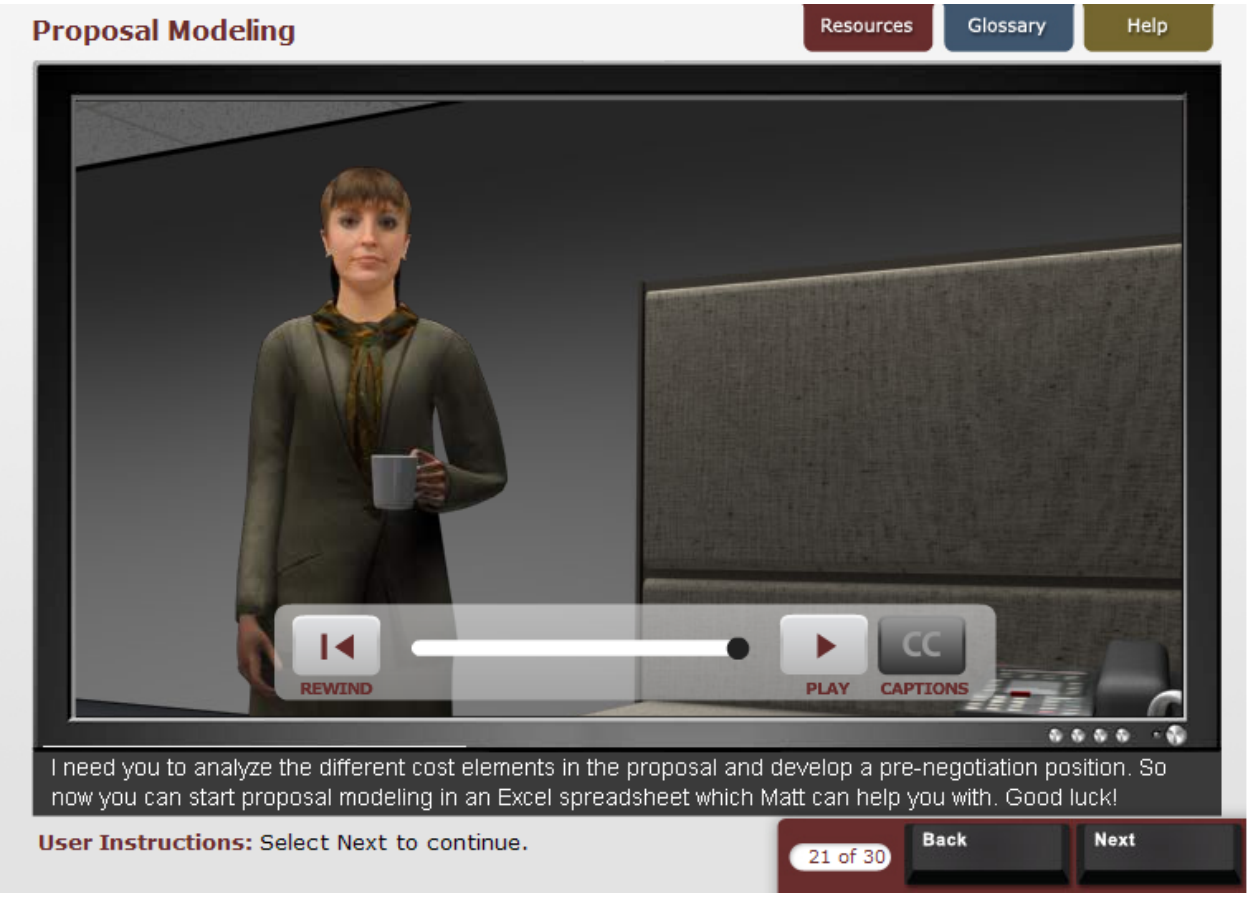
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CAPTIONS
I need you to analyze the different cost elements in the proposal and develop a pre-negotiation position. So now you can start proposal modeling in an Excel spreadsheet which Matt can help you with. Good luck!
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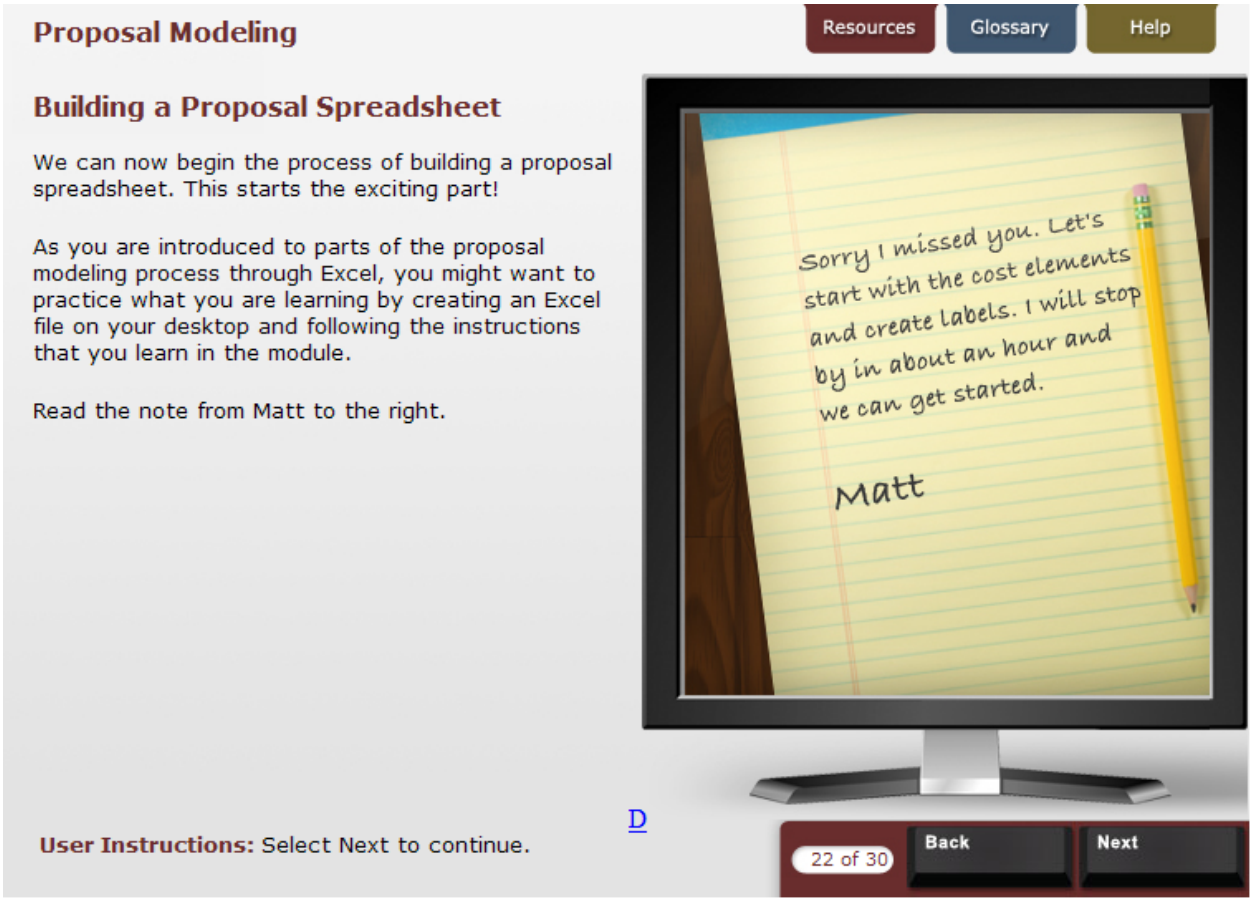
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Building a Proposal Spreadsheet
We can now begin the process of building a proposal spreadsheet. This starts the exciting part!
As you are introduced to parts of the proposal modeling process through Excel, you might want to practice what you are learning by creating an Excel file on your desktop and following the instructions that you learn in the module.
Read the note from Matt to the right.
Sorry I missed you. Let's start with the cost elements and create labels. I will stop by in about an hour and we can get started.
Matt
D
User Instructions: Select Next to continue.
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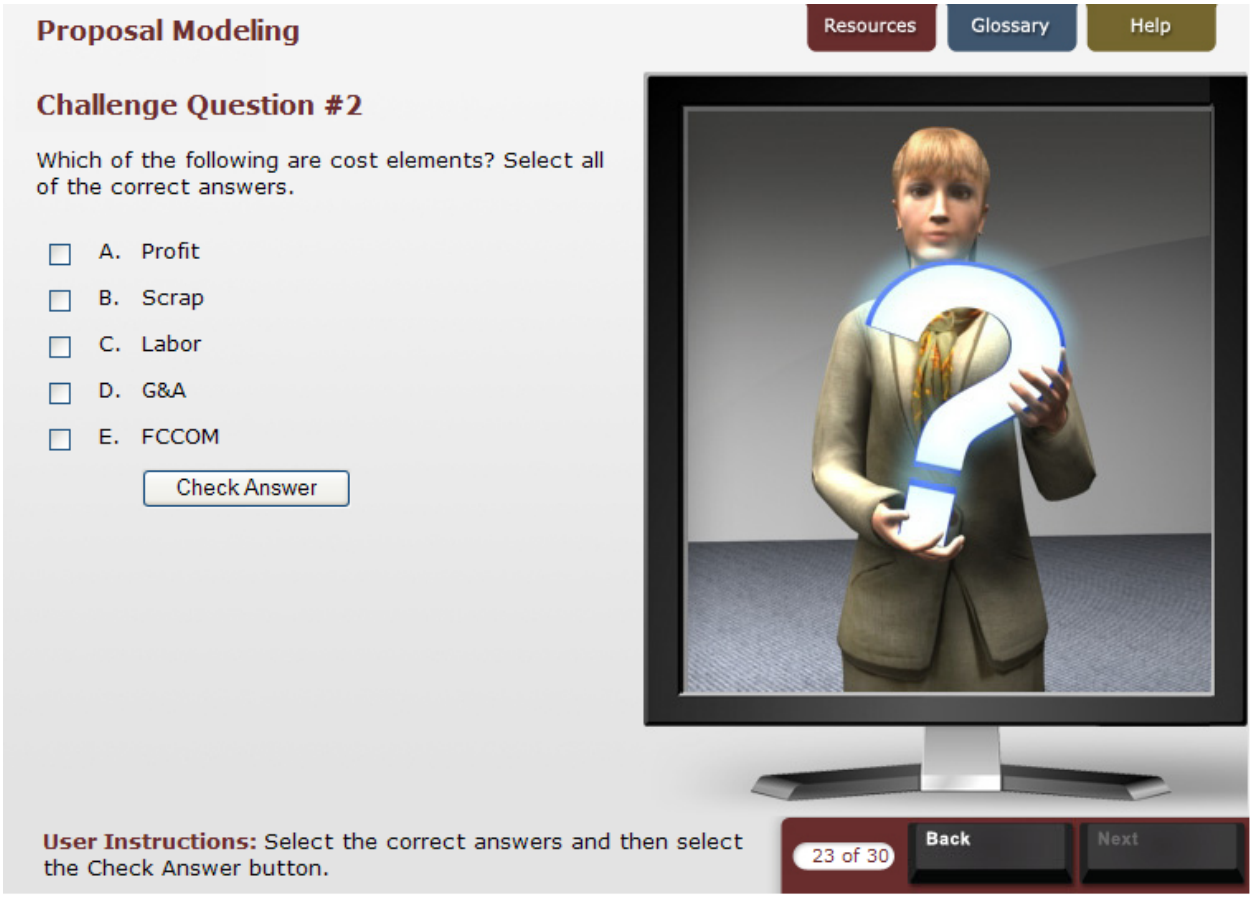
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Challenge Question #2
Which of the following are cost elements? Select all of the correct answers.
A. Profit
B. Scrap
C. Labor
D. G&A
E. FCCOM
Check Answer
User Instructions: Select the correct answers and then select the Check Answer button.
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Berent's Dining Hall Proposal Cover Sheet/Summary

When a contractor submits a proposal cover sheet or summary page, he or she must submit the proposal in the format outlined in FAR 15.4 Table 15-2.

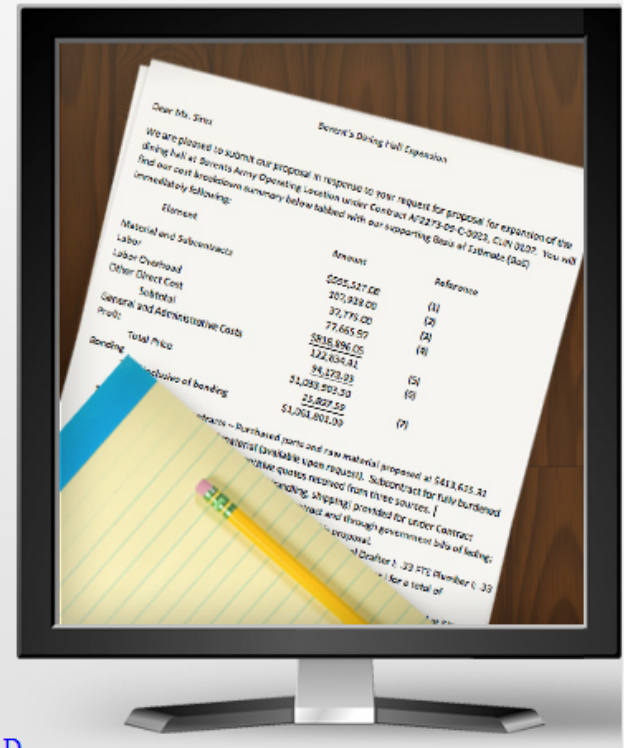
You can look at the Berent's Dining Hall Proposal Cover Sheet/Summary as an example (select it under the Resources tab), and review the summary information on specific cost elements including:

- Materials and Subcontracts
- Labor
- Labor Overhead
- Other Direct Costs
- General and Administrative (G&A) Costs

As part of these cost elements, the contractor also provides supporting information as references to specific cost elements.

The contractor also provided information regarding proposed profit and bonding costs.

User Instructions: Select Next to continue.



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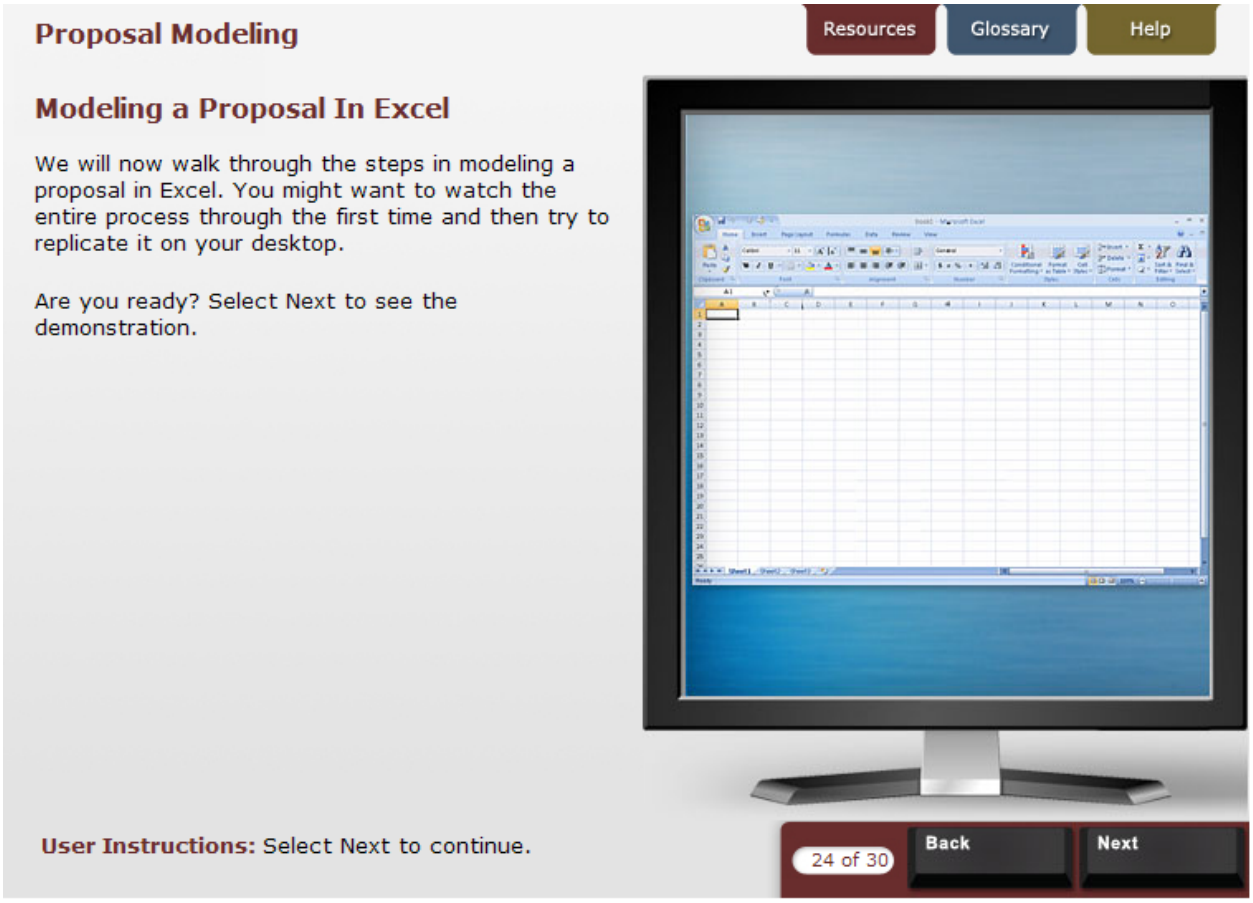
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Modeling a Proposal In Excel
We will now walk through the steps in modeling a proposal in Excel. You might want to watch the entire process through the first time and then try to replicate it on your desktop.
Are you ready? Select Next to see the demonstration.
User Instructions: Select Next to continue.
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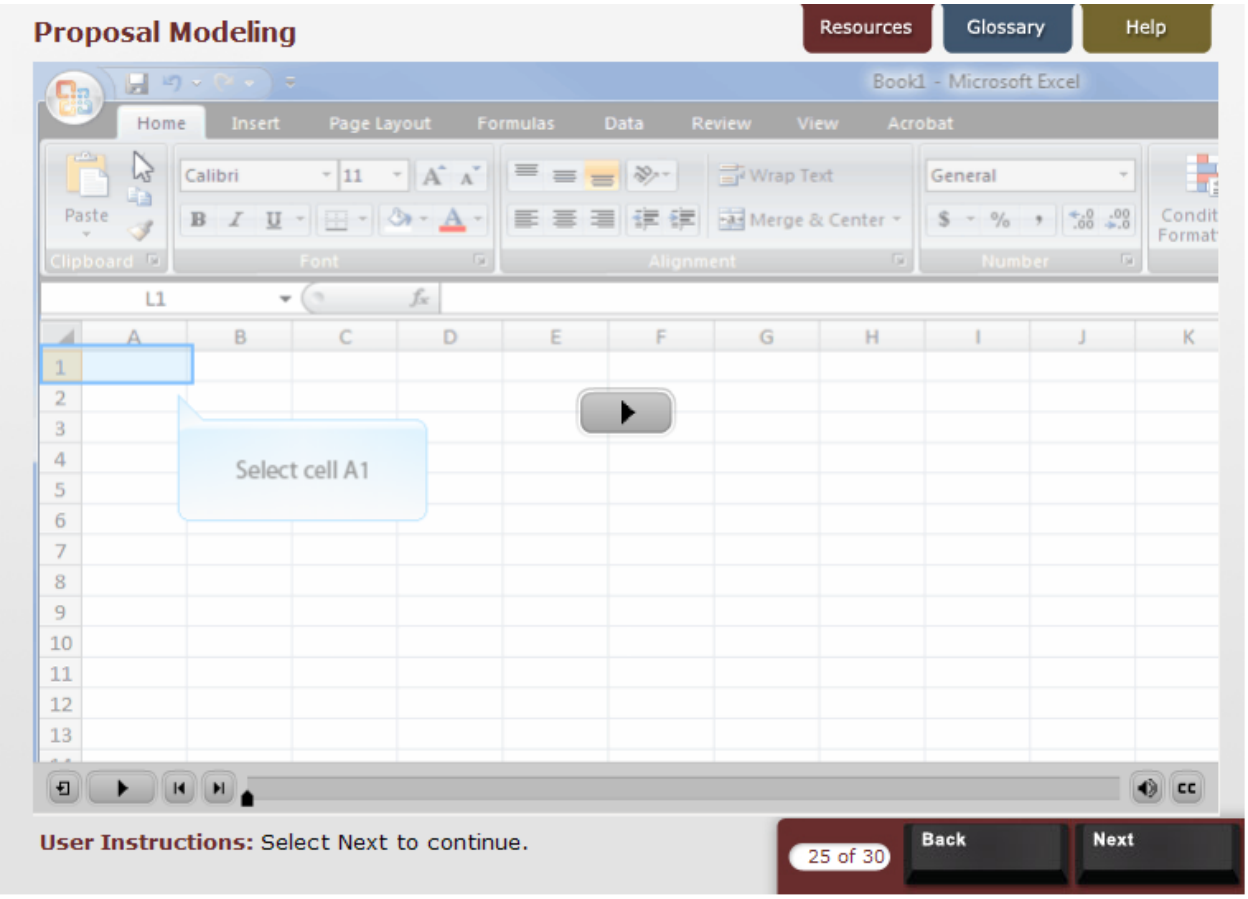
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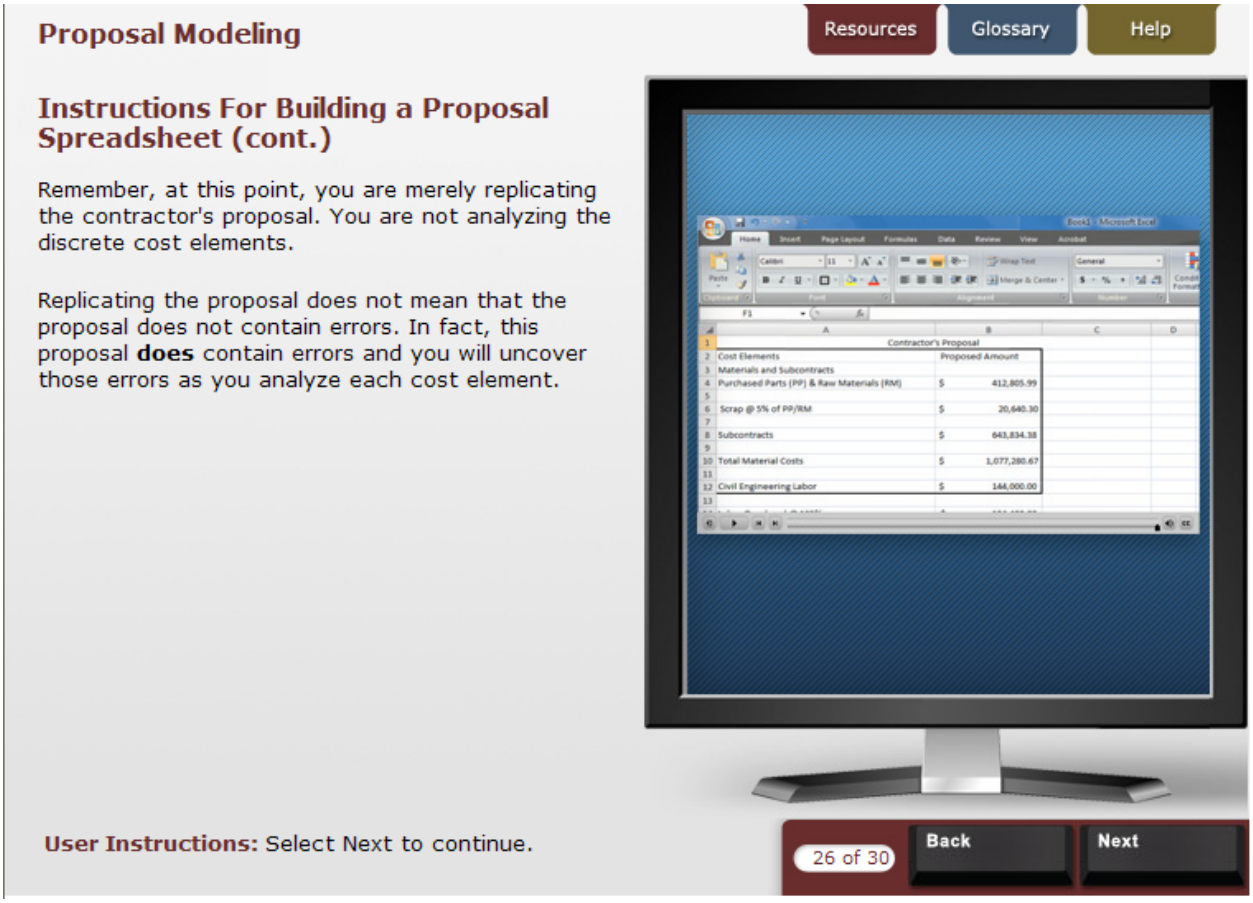
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Instructions For Building a Proposal Spreadsheet (cont.)
Remember, at this point, you are merely replicating the contractor's proposal. You are not analyzing the discrete cost elements.
Replicating the proposal does not mean that the proposal does not contain errors. In fact, this proposal does contain errors and you will uncover those errors as you analyze each cost element.
Contractor's Proposal
Cost Elements
Proposed Amount
Materials and Subcontracts
Purchased Parts (PP) & Raw Materials (RM) $ 412,805.99
Scrap @ 5% of PP/RM $ 20,640.30
Subcontracts $ 643,834.38
Total Material Costs $ 1,077,280.67
Civil Engineering Labor $ 144,000.00
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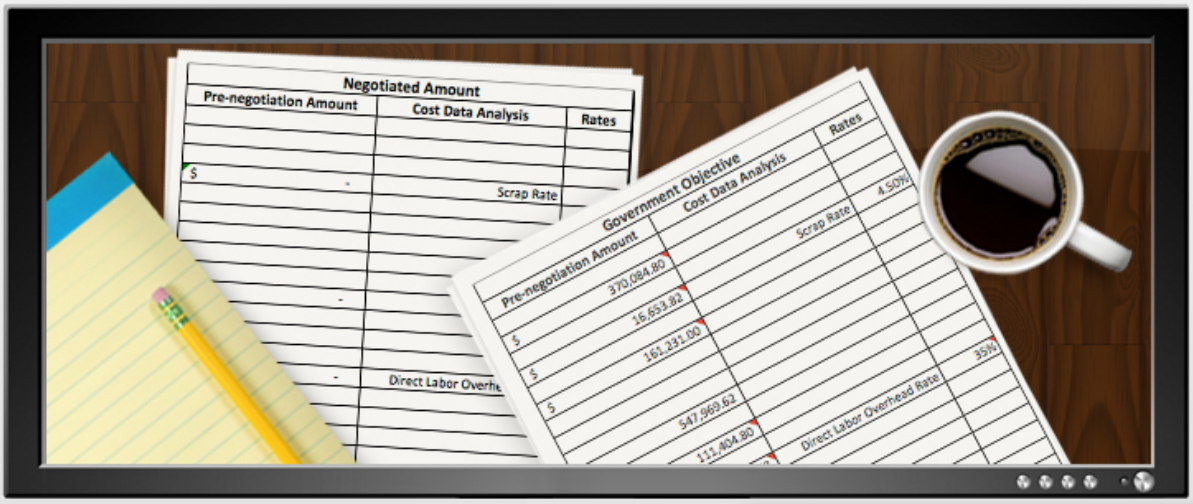
Government Objective and Negotiated Amount

Now that you have completed the contractor's proposal piece, you can continue, using Excel and referencing the Berent's Proposal Spreadsheet available under the Resources tab, and create the Government Objective information and the Negotiated Amount information.



User Instructions: Select Next to continue.

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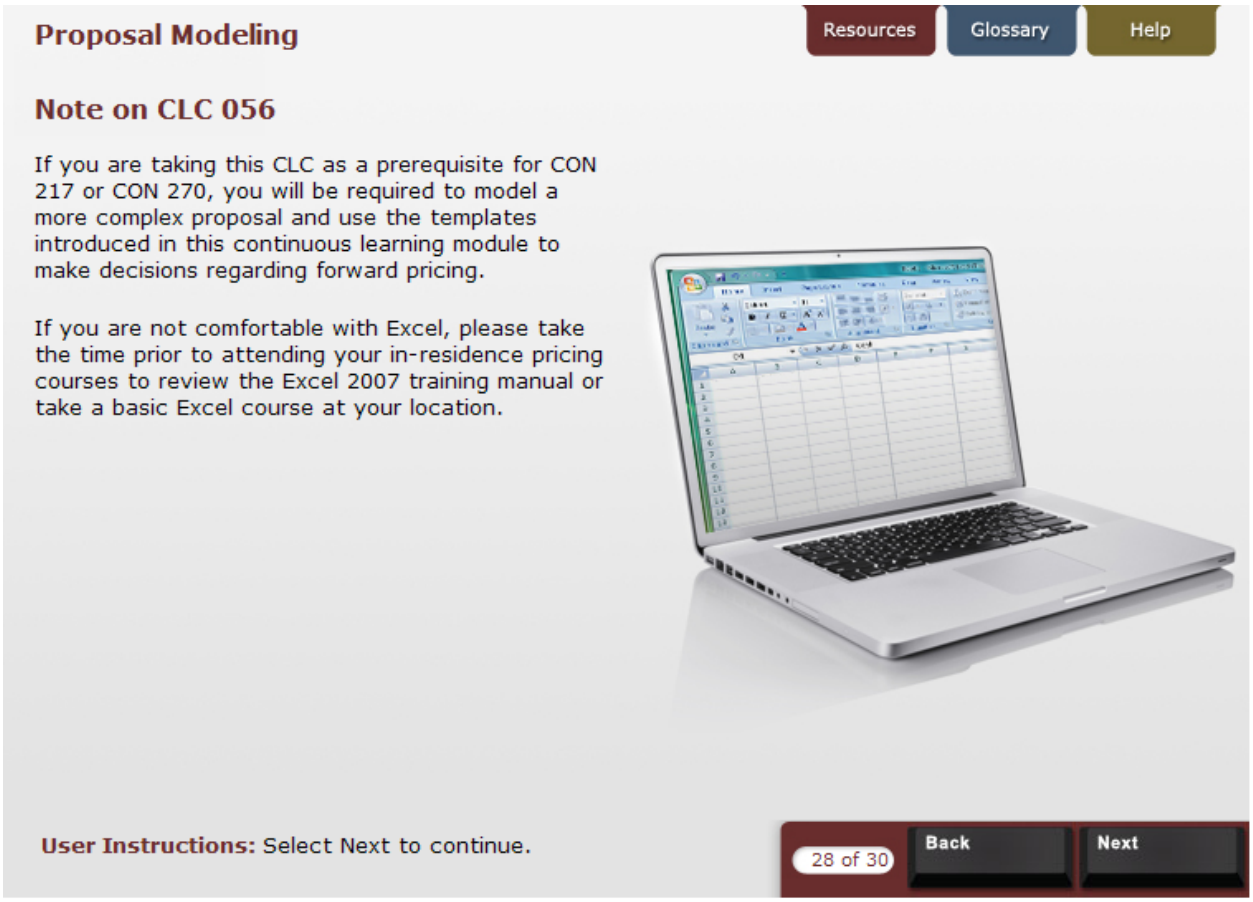
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Note on CLC 056
If you are taking this CLC as a prerequisite for CON 217 or CON 270, you will be required to model a more complex proposal and use the templates introduced in this continuous learning module to make decisions regarding forward pricing.
If you are not comfortable with Excel, please take the time prior to attending your in-residence pricing courses to review the Excel 2007 training manual or take a basic Excel course at your location.
User Instructions: Select Next to continue.
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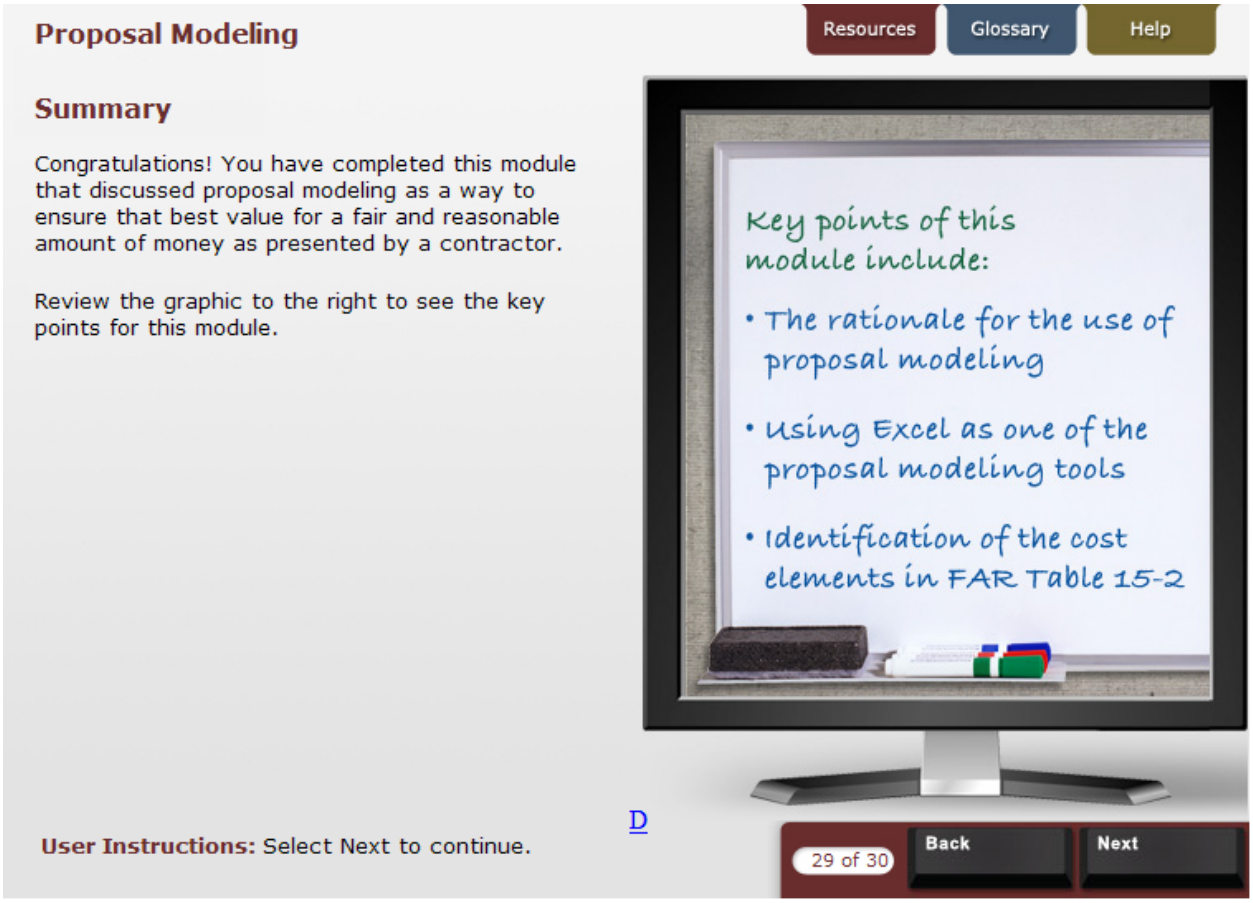
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Summary
Congratulations! You have completed this module that discussed proposal modeling as a way to ensure that best value for a fair and reasonable amount of money as presented by a contractor.
Review the graphic to the right to see the key points for this module.
Key points of this module include:
• The rationale for the use of proposal modeling
• Using Excel as one of the proposal modeling tools
• Identification of the cost elements in FAR Table 15-2
D
User Instructions: Select Next to continue.
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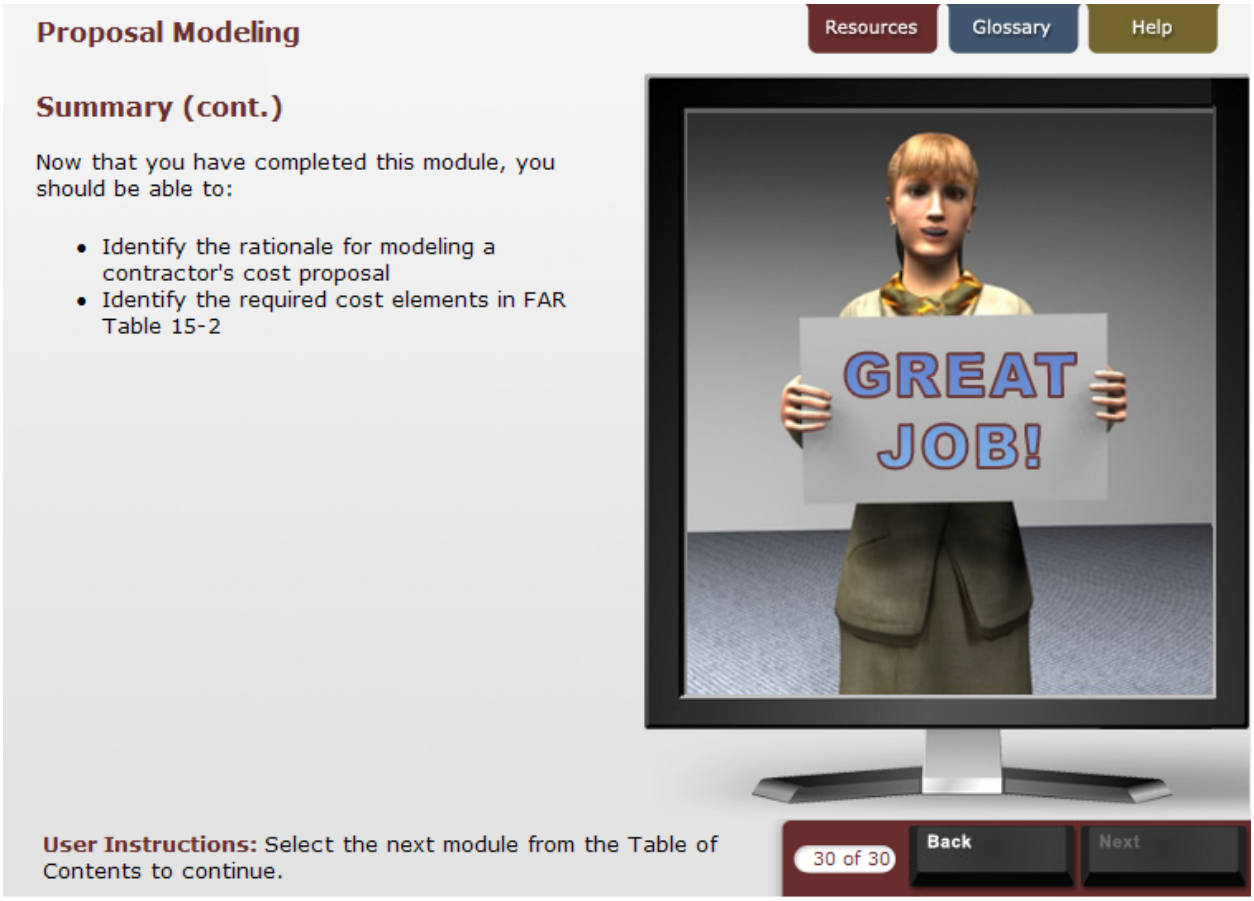
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Summary (cont.)
Now that you have completed this module, you should be able to:
• Identify the rationale for modeling a contractor's cost proposal
• Identify the required cost elements in FAR Table 15-2
GREAT JOB!
User Instructions: Select the next module from the Table of Contents to continue.
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