

Exercise Table

Using PERCEPTION© ESTI-MATE™


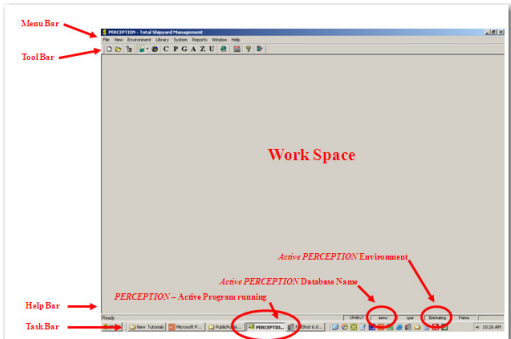
For Developing a Cost Estimate.


Amended November 6, 2009
















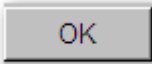
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Screen	Function	Notes
	E01: Log in to PERCEPTION	
PERCEPTION Logon	<div style="text-align: center;">  <p>Activate the icon to open the logon screen. Enter the appropriate password.</p> </div>	<p>After logging into PERCEPTION, the system will display a blank window with a main menu and toolbar at the top. At the bottom are the Help Bar that displays the active PERCEPTION database and selected business environment (see E01.2 below) and the Windows Task Bar.</p> 
	E01.1: Standard Menu & Toolbar	
All screens	The standard menu with toolbar offers just a blank screen ready for the user to open a particular window of the system. The majority of the windows, or screens, appear as spreadsheets of columns and rows for data.	
	E01.2: Environment	
All screens	PERCEPTION addresses a number of different shipyard business processes. These processes have been grouped into operating environments.	<p>PERCEPTION has functions for a wide range of shipyard business processes from cost estimating to planning and scheduling, purchasing and material control, etc. The “Environment” on the main menu allows the user to process functions in each of these areas.</p> <p>From the main menu select the environment desired. Cost estimating is the default environment whenever a user initially logs into PERCEPTION.</p>



	E01.6: Re-Arranging Worksheet Rows & Columns	
All screens	<p>PERCEPTION worksheets consist of rows and columns. They can be re-arranged to better suit the needs of the user.</p> <p>By clicking the column header, the system will sort the rows in either ascending or descending order.</p> <p>Columns may be re-arranged by holding down the left mouse button on a column header and dragging the column left or right.</p>	<p>Another method for sorting is selecting <i>Data/Sort</i> from the main menu or by clicking the sort button  on the toolbar. The pop up window provides a means to drag and drop column headings listed for an expanded sorting operation.</p>
	E01.7: Filtering, Finding & Replacing Data	
All screens	<p>Once a worksheet has been loaded with data, the FILTER option allows global changes without affecting other records in the worksheet.</p> <p>There also is a FIND option and a REPLACE option to help the user focus on specific cells of information.</p>	<p>For a complete description on how to use these options, please refer to the PERCEPTION GETTING STARTED User Manual.</p>





Basic Steps to Create a New Cost Estimate		
	E02: Creating a New Project	
Contract Worksheet	Click on the "C" button  on the toolbar to open the "Contract" worksheet.	<p>Each project on the database is defined by a unique set of keys: an alphanumeric "contract" name and an "alphanumeric" "Project" name. This allows a contract to be comprised of multiple projects. Examples include a project for non-recurring design and engineering; a project for the lead ship; and projects for each follow ship.</p>
	Click on the "Add" button  and enter a new line item for the new contract name.	
	Click on the "Save"  button.	
Projects Worksheet	Now, click on the "Drill Down" button  and select "Project" from the drop-down list. This opens the "Project" level worksheet.	
	Click on the "Add" button  and enter a new line for the new project name.	
	Click on the "Save" button  .	
	E02.1: Identify Base Year for the Cost Estimate	
Projects Worksheet & Project Details Information Tab Window	Double click on the project row to open the "Project Details Information" tab window. The first tab, "Details" provides a summary of the cost estimate for the project (this information becomes evident as the cost estimate is developed).	<p>Material costs may come from a variety of sources, including older estimates, the parts catalog, etc. PERCEPTION will escalate older material costs to the base year identifies for the project by applying escalation factors developed from the Escalation Factors table.</p> <p>Select <i>Environment/Cost Estimating/Escalation</i> to open the "Escalation Factors" table. This table applies to all projects. The factors not only can reflect historical changes in costs, but can be manually estimated out for future years.</p>
Project Details Information Tab Window	Click on the "Options" tab and identify the type of project WBS.	<p>If this tab window is blank ("no options"), click on the "Add"  button and this tab window will then be displayed.</p>


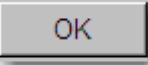
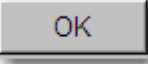
Project Details Information Tab Window	Enter the base year for the estimated material and for the labor rate.	
	Click on the "Save" button  .	
	E03: Creating a Project WBS	
SWBS Groups Worksheet	Click on the "Drill Down" button  and select "SWBS Groups"" from the drop-down list. This opens the "SWBS Groups" level worksheet.	SWBS Work Breakdown Structure (WBS) summarizes costs at two levels of detail. The SWBS accounts identify specific ship systems to be built/repaired or shipyard services to be provided. Each account will be supported by individual cost items that identify steps of work to be done for the account and the material requirements. The SWBS accounts can be grouped where there is similar work; for example all piping work accounts can be cataloged under a piping SWBS group. The WBS can be different for each project on the database, and should suit the specific requirements of each project.
	Click on the "Add" button  and enter new lines for each of the project WBS groups.	
	Click on the "Save" button.	
SWBS Accounts Worksheet	Click on the "Drill Down" button  and select "SWBS Accounts"" from the drop-down list. This opens the "SWBS Accounts" level worksheet.	
	Click on the "Add" button  and enter new lines for each of the project SWBS accounts for each SWBS group.	
	Click on the "Save" button  .	
	E03.1: Shortcut for Defining a Project WBS.	
Copy Project Window	Click on <i>Environment/Cost Estimating/Cost Estimator's Toolbox</i> from the main menu and select "Copy Project" from the drop-down window to open the "Copy Project" window.	New projects can be set up from copies of previous project that have been stored on the database. Copying elements of the previous project is very quick and the results can be modified to suit the requirements of the new project.
	Identify the project to copy and the name of the new project. Select what level of details needs to be copied.	
	Click the "OK" button  to make the copy.	

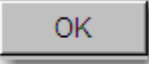
	E05: Creating Master List of Work Centers	
Work Center Worksheet	Click on <i>Library/Work Centers</i> from the main menu to open the Work Center worksheet.	All estimate detail cost items must be assigned to a shipyard work center (there may be only one work center is that is desired). When a cost item is defined, the work center automatically supplies the labor and indirect rates for the item. This worksheet provides a listing of all work centers that may be used for any project. If this list does not change from project to project, this step will not need to be repeated.
	Click on the "Add" button  and enter new lines for the work centers to be used for the new project.	
	Click on the "Save" button  .	
	E06: Creating Labor & Profit Rates	
Rate Table Worksheet	Click on the "Drill Down" button  and select "Rate Tables"" from the drop-down list. This opens the Rate Table worksheet.	
	Click on the "Add" button  and assign work centers for the project from the Work Center drop-down from the master list (master list has been defined above).	
	Click on the "Save" button  .	
	For each of the project work centers, double click on the center's line to open a 2-tab rate table window.	
Labor Rate Tab Window	Click on the "Labor Rate" tab and enter the required labor rates as well as other related data for the work center.	Labor Rates can be entered for multiple years.
Apply Rates to... Tab Window	Click on the "Apply Rates to..." tab and enter how rates are to be applied for the work center.	
	Click on the "Save" button  .	

	E06.1: Shortcut for Defining Work Centers and Rates	
Estimating Toolbox Window	Click on <i>Environment/Cost Estimating/Cost Estimator's Toolbox</i> from the main menu to open the toolbox window. Select "Copy Rate Tables"	
Copy Rate Table Window	Select work center to copy, and then select the new project to which the same work center will be assigned.	
	Click on the "Save" button  .	
Labor Rate Tab Window	To modify work center rates for the new project, click on the "Drill-Down" button  on the toolbar and select "Rate Tables"	
	Double click on each work center listed for the project to open windows for the rates to modify.	
	Click on the "Save" button  .	
	E08: Create Detail Cost Items	
Cost Item Worksheet	From the Project Worksheet, click on the Drill-Down button on the toolbar and select "Cost Items".	NOTE: if cost items are being entered together for each SWBS account, instead drill-down to the cost item worksheet from the SWBS account worksheet. This will automatically assigned the SWBS account and SWBS group numbers as each cost item is entered into the worksheet. Otherwise, this WBS information must be entered manually for each cost item entered.
	Click on the "Add" button  and fill in cost item data, including WBS, quantity, unit of measure, and labor hour and material cost CERs.	
	Click on the "Save" button  .	
		For a complete description on how to set up these libraries and how to use them in cost items, please refer to the PERCEPTION ESTI-MATE User Manual, Chapter 6.
	E08.1: Options - Cost Items Using CER Libraries	
Cost Item Worksheet & "Create Cost Item(s) from CERs" pop-up	On the cost item row, select the type of CER from the drop-down. Then select the required CER from the library.	Standard costs can be set up in the CER libraries. The libraries catalog costs by type of cost (Structure, Machinery, Pipe, etc.). Chapter 8 of the PERCEPTION ESTI-MATE

window		User Manual provides details for setting up CER libraries.
Cost Item Worksheet & “Create Cost Item(s) from CERs” pop-up window	To use an Equation CER from the library, select “Equation” from the CER type drop-down and then select the required equation CER needed from the list that is displayed; enter values for the equation variables.	Also, there are special CER library tables for defining costs that are mathematical functions (Equations) that have multiple variables (par ex., pipe length and pipe diameter). Chapter 9 of the PERCEPTION ESTI-MATE User Manual provides details for setting up CER Equation libraries.
	E08.2: Options - Cost Items Using Ship Characteristics for Cost Item Quantity	For a complete description on how to set up and use Ship Characteristics, please refer to the PERCEPTION ESTI-MATE User Manual, Chapter 6 & Chapter 18.
Cost Item Worksheet	For a cost item that uses a Ship Characteristic previously defined for the project, click on “Yes” in the “Use Ship Char” column of the cost item row. Then select the characteristic name from the drop down list.	Each project being estimated can utilize a table of ship characteristics, the values of which can be linked to selected cost items of the estimate to drive their costs.
	E08.3: Options - Cost Items Using Standard Interim Products Packages to Generate Cost Items	For a complete description on how to set up and use Standard Interim Products, please refer to the PERCEPTION ESTI-MATE User Manual, Chapter 6.
Cost Item Worksheet & “Add Package” pop-up window	Click on the “Add IP Packages” button  from the toolbar. Select one or more packages from the pop-up wizard’s list. Use the >> button to add these selections to the “Shopping Basket” for the estimate. Enter required quantities for each of the packages. Click on the FINISH button, and the system will create sets of cost items for each of these selected packages.	Estimate cost items can be generated automatically from cataloged Standard Interim Products Packages. Each of these packages defines detailed labor and material costs for specific products, ship modules, and/or specific shipyard services.
	E08.4: Options - Cost Items Referencing the Parts Catalog	For a complete description on how to reference items in the Parts Catalog, please refer to the PERCEPTION ESTI-MATE User Manual, Chapter 6.
Cost Item Worksheet & “ADD Standard Parts” pop-up window.	Click on the “Add Parts” button  from the toolbar. Select one or more parts from the pop-up wizard’ list. Use the >> button to add these selections to the “Shopping Basket” for the estimate. Enter required quantities for each of the parts. Click on the FINISH button, and the	Estimate cost items can reference items in the Parts Catalog to retrieve catalog prices automatically.

	system will create cost items for each of these selected parts.	
	E09: Editing Detail Cost Items	
Cost Item Worksheet	From the Project Worksheet, click on the Drill-Down button  on the toolbar and select "Cost Items". All cost items for the project will be displayed in this Cost Item Worksheet.	
	Add, change and/or delete cost item data as required.	
	1. To add a cost item, click on the "Add" button  and enter the cost item information.	Adding new cost items
	2. To change information on a cost item, identify the item and proceed to the columns where changes are required.	Modifying existing cost items
	3. To delete a cost item, identify the cost item and then click on the "Delete" button  .	Deleting cost items
	Click on the "Save" button  .	After editing project cost items, data validation (E90) is recommended followed by a project rollup as described in E91 below.

		For a complete description on the cost data validation, please refer to the PERCEPTION ESTI-MATE User Manual, Chapter 6.
	E90: Cost Data Validation	
Cost Item Worksheet	<p>Click on the "Validate Displayed Data" button  on the toolbar.</p> <p>The validation test will determine what information is missing that will result in an incomplete estimate.</p>	The user should exercise a data validation on all cost items for an estimate to help ensure that the cost items are capable of generating a complete estimate as entered and defined on the database.
	E91: Rolling Up Cost Estimate	
Rollup Cost Window	Click on <i>Environment/Cost Estimating/Rollup</i> from the main menu and select "Cost Estimate Rollup" from the Select Rollup Procedure window.	
	Click the "OK" button  and the "Rollup Cost Estimate" window will appear.	
	Identify the project for rollup processing. There are several rollup options. These options apply only for special circumstances where cost items are linked to CER libraries, to the Parts Catalog, to the project's Ship Characteristics, etc. If none of these options are selected, a simple re-summarization of costs will be performed throughout the project WBS.	NOTE: The cost rollup function is very important. It collects all estimate cost item and summarizes their costs at each level of the WBS and for the project totals. A rollup is required whenever cost items are edited. A rollup should be performed prior to generating any reports.
	Click on the "OK" button  to proceed with the rollup.	

	E100: Generating Reports	
Select Report Window	Click on <i>Reports/Select Reports</i> from the main menu to open the “Select Report” window.	The “Select Report” window lists various reports and formats available from the system. Each selection identifies a type report with a series of reports cataloged at the next level of selection.
Select Range Window	Once a report format has been selected, the “Select Range” window will appear for identifying details of the report.	All reports are initially generated on screen. Once displayed, the report can be sent to the printer or to the Acrobat pdf file.
	Click the "OK" button  to generate the report.	
	E100.1: On-Line Project Detail Cost Estimate Summary	
Projects Worksheet & Project Details Information Tab Window	Double click on the project row to open the “Project Details Information” tab window. The first tab, “Details” provides a summary of the cost estimate for the project.	