



Welcome to a cost-estimating package specifically designed for architects and engineers. BSD CostLink[®]/AE is a subscription service that includes annually updated cost data from industry leader RS Means. CostLink/AE combines unlimited telephone support and regular software updates with over 11,000 systems and assemblies, 75 building cost models, 22,000 line items, and cost indices for over 725 U.S. and Canadian locations in a single subscription.

You construct an estimate in CostLink/AE either by starting with one of the 75 building cost models or by using drag-drop or copy-paste of entire building systems, assemblies, and line items into a project hierarchy, either pre-defined or constructed on the fly. AE makes it easy to place project and data windows side-by-side, assigning cost items to appropriate project elements. If you start with one of the building cost models, you can select the exterior closure, input the building area and perimeter, select appropriate additives, and quickly generate a budget estimate. You can scrutinize any or all of the assemblies and line items that make up that model estimate and substitute other RS Means assemblies or line items, modify any of them, or add others. The model-generated estimate can be refined right up until contract documents are issued, so there should be no surprises when the bids are submitted.

The system includes templates for Unifomat II, MasterFormat (both 95 and 2004) and a User-Defined hierarchy, as well as sample projects. A tab on the Summary Info dialog box allows you to choose a location (simply select your state and city) for automatic adjustment of your estimate, and you can also accept or modify prime contractor markups and sales tax values. The same tab lets you assign percentage markups for other costs such as contingency, escalation, and architect's fees. The RS Means data included with your subscription provides installed costs that encompass all labor, materials, equipment, and subcontractor overhead and profit. RS Means data is structured in intuitive hierarchies just like the books; Unifomat II for building systems and assemblies, the new 2004 MasterFormat divisions with breakdown for individual line items. Use the Find feature to locate any title, assembly, or line item regardless of hierarchy.

CostLink/AE also supports dynamic linking from Microsoft Excel. Create a space program or building parameters model in Excel, and link cells directly to CostLink/AE quantities. Once linked, quantities in CostLink/AE update as the space program and other parameters change.

Simple but powerful report formatting and presentation lets you choose and format your reports in a variety of ways. Each report can either include markups in the individual line items, or summarize markups at the end of the report—it's your choice. And you can choose the level of summarization, include or exclude a "percent of total" column, unit cost column, quantity column, and even the total cost column. You can also specify a report title and footer, apply your company's logo to the report, and choose whether to include notes in the report. AE lets you annotate any or every line of your cost estimate. Reports can then be printed or exported to a number of formats, including PDF, Excel, and Word.

CostLink/AE is both new and mature, because it is solidly founded on the CostLink/CM framework, tested and improved through three generations of release. BSD has designated CostLink/AE as the new vanguard of its cost estimating product line. We know you will be pleased, both with your initial release and the ongoing subscription updates that hallmark our other successful products. We look forward to your productive use of CostLink/AE, and as always, we welcome your feedback.

Learning about BSD CostLink/AE

CostLink/AE is designed to be as intuitive as possible. If you are familiar with other Windows programs, it should be easy to learn CostLink/AE's basic operations and data navigation. If you are new to Windows, it would be best to learn the fundamental Windows conventions before using CostLink/AE for the first time. At a minimum, you should understand how to open several windows concurrently and display and re-size them for greater productivity.

On-Line Help

On-line Help will get you answers fast, without having to read through a lot of instructions. The sizable Help window stays "on top" while you follow the instructions, rather than disappearing as soon as you click elsewhere, like other windows. This allows you to check the instructions as you work, without backtracking to find your place in Help again.

User Manual

The BSD CostLink/AE User Manual is available on the CD for your use, or for download from BSD's website: www.bsdssoftlink.com.

The User Manual files are saved as PDF files. The files are in the **AE_Doc** folder on the CD.

Check out the table of contents and the index for more detailed topics.

User Manual

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Technical Support

Your subscription to BSD CostLink/AE includes unlimited technical support. In order for you to fully evaluate the product, we encourage you to evaluate our excellent product support team. They can be reached by phone, fax, or email and are available Monday-Friday, 8:30 am to 5:30 pm, Eastern time zone. In the event that all support staff are engaged, please leave a message and your call will be returned promptly.

Direct Line: 800-266-7732 or 404-365-9226

Fax: 404-365-8912

Email: support@bsdssoftlink.com

Internet home page at <http://www.bsdssoftlink.com> for new product development and other news.



BSD CostLink/AE System Requirements

BSD CostLink/AE was designed to operate in 32-bit Microsoft Windows environments and to take advantage of the additional features and power of those platforms. Those environments include Windows Vista, XP and 2000.

Listed below are detailed hardware and software recommendations for operation of BSD CostLink/AE. As with any Windows application, faster system components and more system memory will enable superior performance of the software. Higher resolution video cards and monitors will enable more information to be displayed on the screen.

Hardware and Software Recommendations

Recommended Configuration

- Intel-compatible processor, 1 Ghz or better
- Windows™ Vista, XP or 2000
- 512 megabytes of RAM (256 minimum)
- 500 MB of available disk space
- 17-inch or 19-inch XGA monitor (1024 x 768 resolution and matching video card)
- 32x CD-ROM reader
- 600 dpi laser printer and matching driver
- Internet Explorer 5.5 or higher (5.0 minimum)
- Microsoft Excel 2000 (version 9.0) or higher if using the Excel linking feature

Installing BSD CostLink/AE

Prior to installing BSD CostLink/AE, it is best to upgrade your operating system to the latest version, if necessary.

If you upgrade to a new Service Pack, BSD recommends that you choose to back up your previous version of Windows if space permits.

Other Windows applications should be closed before proceeding with the installation. This is because certain types of system software used in many applications can interfere with the installation process.

CostLink/AE installation is performed from the CD-ROM or download file. Perform the following steps:

- Close all applications, including any virus scanning software.
- Upgrade your operating system, as noted above, if needed.
- Insert the BSD SoftLink CD-ROM or double click on the downloaded installation file.
- The BSD SoftLink Product Suite Installation Program will start automatically. (If you have turned Autorun off, then you can start the installation by selecting Run from the Start menu, then type in D:\setup (where D is the drive letter of your CD-ROM reader) and click OK.)
- Follow instructions to complete the installation, referring to the additional notes below.

NOTE: Note: For complete installation instructions print the Installation document, available on the Install Products screen of the BSD SoftLink CD ROM. It, along with the user's manual, is also available on our web page at http://www.bsdsftlink.com/costlinkae/ae_subscribers.htm.

By default, the installation will be made to C:\CostLink AE. You may choose to have the software loaded to a different drive and/or folder. Click on the Browse button to change the installation location. Your computer system will be checked to see if there is enough available disk space to install CostLink/AE.

Note: Depending on what files are already installed on your system, you may be asked to restart your computer before proceeding to run the CostLink /AE software. YOU MUST DO THIS to properly register all components necessary for operation of CostLink/AE.

Installation Choices

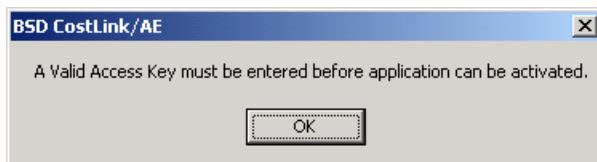
There are two installation choices:

- A. Standalone Installation**
- B. Network Server Installation**

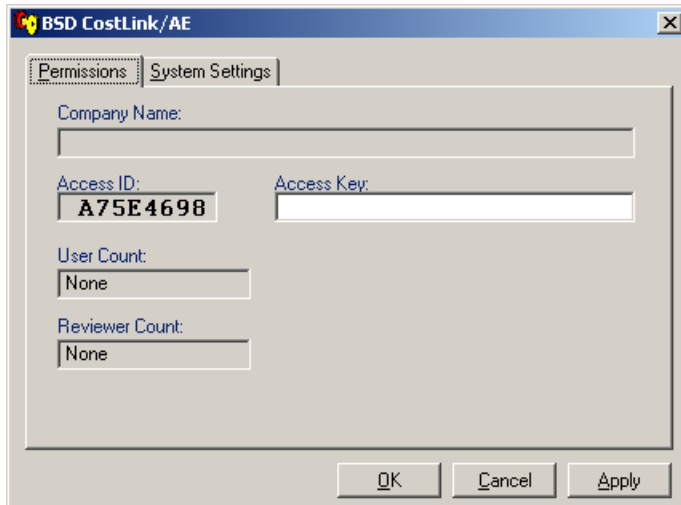
For evaluation purposes, we suggest you select Standalone Installation. See the User Documentation for information about network installations.

User Permissions

The first time you start CostLink/AE, a dialog box will be displayed noting that a valid access key is required. You must contact your Sales Representative to be set up for a CostLink/AE evaluation.



After clicking OK, a dialog box is displayed for display of an Access ID and entry of the Access Key.



To use the software, you must enter a valid access key in the Access Key field and then click the Apply button. Call BSD Technical Support direct at 800-266-7732 or 404-365-9226 to receive an access key. (You must first arrange for an access key with your Sales Representative.)

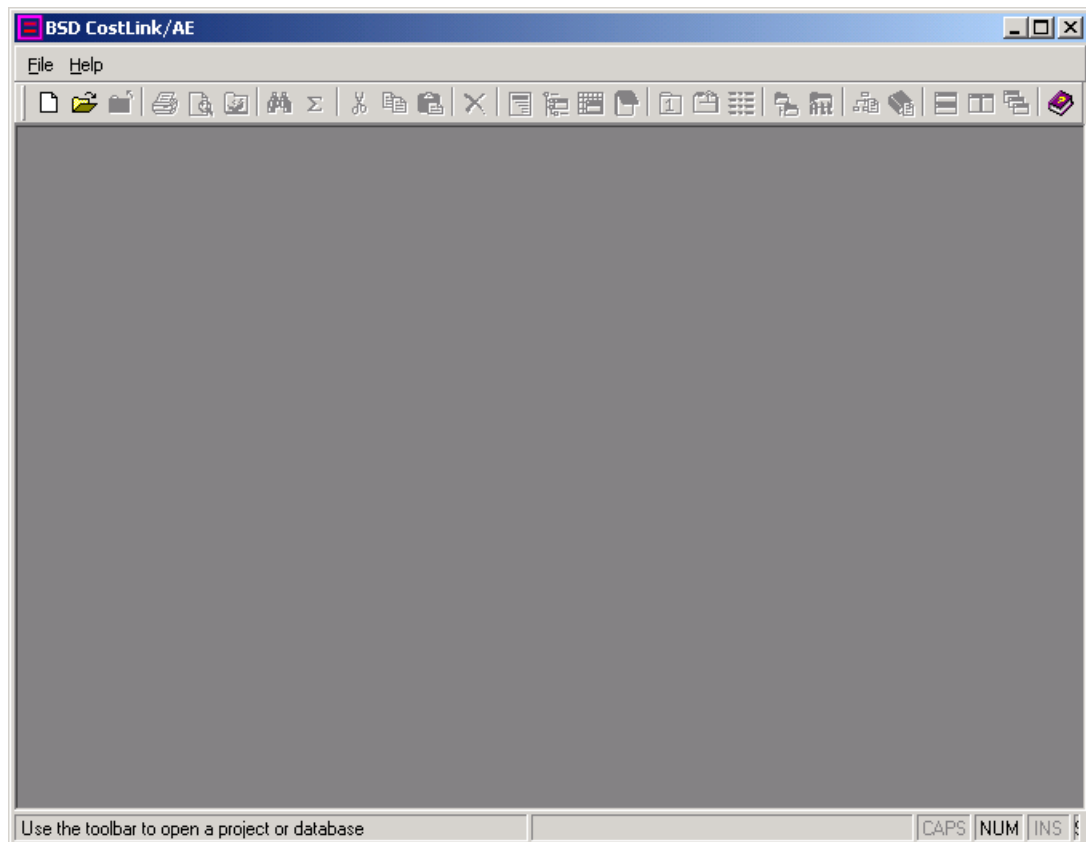
Once a valid access key has been entered and you click OK, the key will be stored, and CostLink/AE will start. You can then open one of the sample projects, or you can create a new project. Chapter 2 of the User Manual on the CD contains a tutorial that will guide you through the process of creating a new project.

CostLink/AE Overview

Panels and Windows

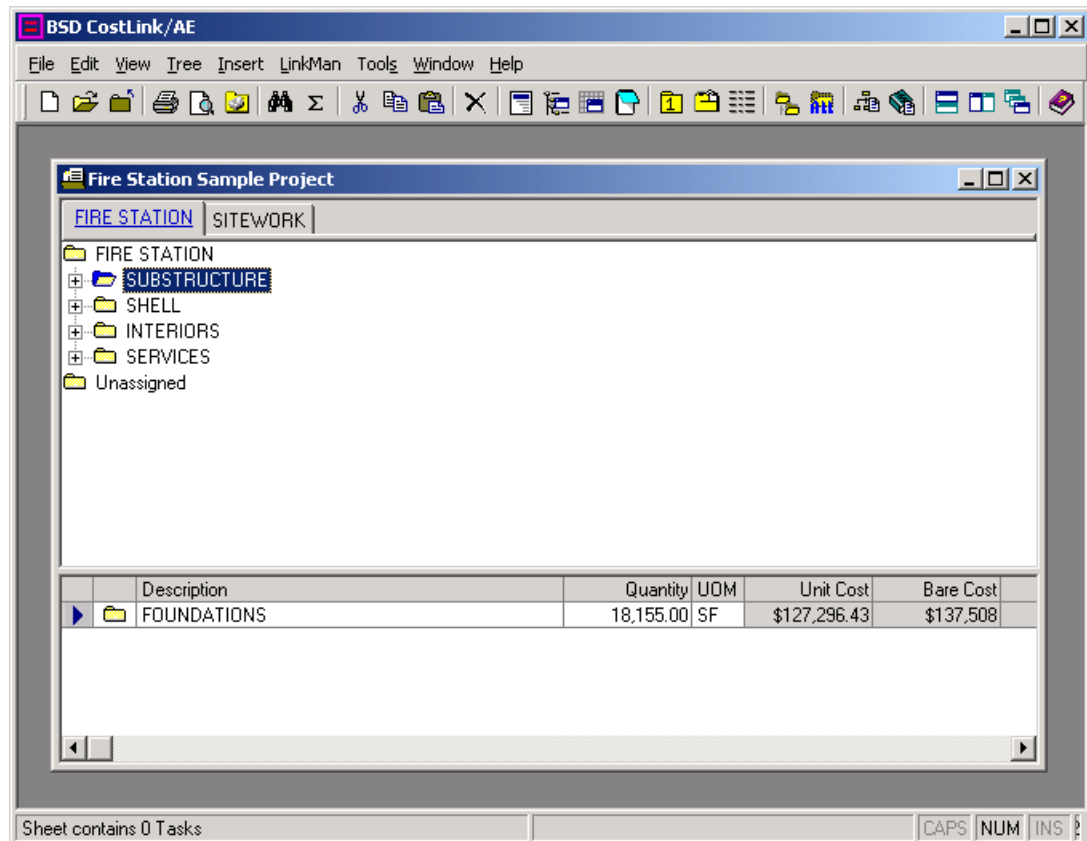
Opening an Estimate

When you first start BSD CostLink/AE, the program opens with an empty window.



To Open an Estimate

- 1 Choose File > Open, and select Project Database from the submenu.
The Open Database dialog appears, displaying the sample projects that were installed with the software.
- 2 Select the Fire Station Sample Project and click Open.
BSD CostLink/AE opens the project and displays it in its own *database window*—that is, a window within the BSD CostLink/AE main window.



This is the default window setup for BSD CostLink/AE. The top panel is called the tree panel and the panel at the bottom is called the sheet panel.

Definitions

The *tree panel* shows the hierarchical organization of the project (or other database). You can expand and collapse the tree to see different levels of the database structure, and you can apply a number of other configuration controls, as described below.

The *folders* shown in the tree panel represent different categories of work within the project (or other database). You can define a project with any number of levels of hierarchy, so that a given folder may have many folders (or *children*) beneath it and some levels of folders (*parents*) above it.

The *sheet panel* is used to display and edit project data. In the project hierarchy, the items listed in the sheet panel are always located one level below the folder currently selected in the tree panel.

The items in the sheet panel can either be folders or *tasks*. Tasks represent the estimated cost information for pieces of a project.

Expanding and Collapsing the Tree

You can control the display of data in the tree panel in a number of ways. Try the following:

- Click on the plus sign on any folder shown in the tree panel.

The view expands to show the next level down.

- Click on the minus sign to bring the folder back to its original view. You can also the tree menu to expand all folders in the project, or just one branch.

Arranging Panels and Windows

The View Menu contains additional functions for controlling the display. You can arrange the panels vertically or horizontally. When you have more than one database window open in BSD CostLink/AE, you can use the following toolbar buttons to arrange them.

Click on the following buttons. (Equivalent commands are located on the Window menu).



Tile windows vertically. Arrange the windows side by side.



Tile windows horizontally. Arrange all open windows one atop the other.



Stack windows in cascade. Arrange the windows in cascade fashion.

Showing Costs in the Tree Panel

You also have the option of showing costs for each folder in the tree panel. These costs are the summarized costs for all tasks contained in that folder. To show cost information, choose Show Data in Tree on the Tree menu. The BSD CostLink/AE display now looks like this.

The screenshot shows the BSD CostLink/AE interface for a 'Fire Station Sample Project'. The tree panel on the left lists various project components, and the main window displays a table of costs for selected items.

	Quantity	UOM	Cost To Prime	Project Cost	Pct
2007-16 Fire Station Sample Project	18,155.00	SF	\$2,438,536	\$3,464,517	100%
1 BUILDING	18,155.00	SF	\$2,052,103	\$2,915,497	84%
A SUBSTRUCTURE	18,155.00	SF	\$186,181	\$264,515	9%
A10 FOUNDATIONS	18,155.00	SF	\$186,181	\$264,515	100%
1010 Standard Foundations	18,155.00	SF	\$25,512	\$36,246	14%
1030 Slab on Grade	18,155.00	SF	\$160,670	\$228,269	86%
B SHELL	18,155.00	SF	\$705,858	\$1,002,839	34%
B10 SUPERSTRUCTURE	18,155.00	SF	\$205,120	\$291,422	29%
B20 EXTERIOR CLOSURE	18,155.00	SF	\$408,077	\$579,771	58%
B30 ROOFING	18,155.00	SF	\$92,661	\$131,646	13%
3010 Roof Coverings	18,155.00	SF	\$92,661	\$131,646	100%
C INTERIORS	18,155.00	SF	\$336,643	\$478,281	16%
D SERVICES	18,155.00	SF	\$823,420	\$1,169,863	40%
G SITEWORK	5.00	ACR	\$386,433	\$549,020	16%

	Sourc	Description	Quantity	UOM	Unit Cost	Base Cost	Cost To Prime	Project Cost
RSM		2" x 4" miscellaneous wood blocking, to wood construction	1.10	MBF	\$3,299.10	\$3,629	\$3,372	\$4,791
RSM		Membrane Waterproofing, fiberglass fabric, black, 20/10 mesh	40.00	SQ	\$20.59	\$823	\$765	\$1,087
ASM		Roofing, coal tar pitch, gravel, 4 plies 15# tarred felt, mopped	18,901.00	SF	\$2.96	\$55,877	\$51,920	\$73,764
ASM		Insulation, rigid, roof deck, fiberboard, high density, 3'x4' sheets, 1/2" thick, R1.3	18,901.00	SF	\$0.67	\$12,732	\$11,830	\$16,807
ASM		Roof edges, aluminum, mill finish, .050" thick, 6" face	986.00	LF	\$19.37	\$19,100	\$17,748	\$25,215
ASM		Flashing, aluminum, no backing sides, .032"	1,514.00	SF	\$4.27	\$6,472	\$6,013	\$8,543
ASM		Downspout, aluminum, rectangular, 3' x 4", enameled, .024" thick	142.00	VLF	\$7.68	\$1,090	\$1,013	\$1,439

Sheet contains 7 Tasks CAPS NUM INS 13:42


Forms

In addition to the tree and sheet panels, BSD CostLink/AE can display detailed information about each folder and task on a form. You can use forms to both view and edit information.

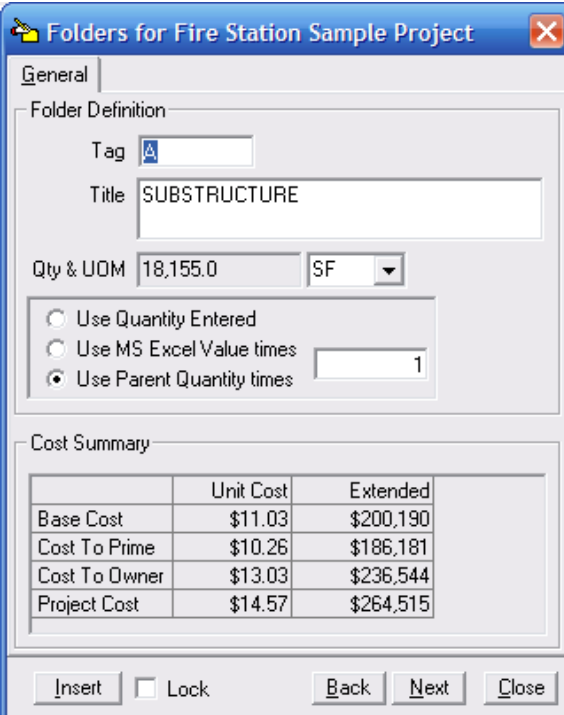
Folder Forms

Item forms for folders show descriptive information about the category that the folder represents. In an estimate, the folder item form also shows the summary of cost information for that category.

To view folder item forms

- 1 Click on Tree > Expand All.
- 2 In the tree panel, select the SUBSTRUCTURE folder.
- 3 Click the *Open item form on the tree panel* button on the toolbar .

The folder form opens:



General

Folder Definition

Tag

Title

Qty & UOM

Use Quantity Entered
 Use MS Excel Value times
 Use Parent Quantity times

Cost Summary

	Unit Cost	Extended
Base Cost	\$11.03	\$200,190
Cost To Prime	\$10.26	\$186,181
Cost To Owner	\$13.03	\$236,544
Project Cost	\$14.57	\$264,515

Lock

- 4 Notice the buttons at the bottom of the form. Click the Next button.
The item form changes to display information for the next folder on the tree panel, FOUNDATIONS.
- 5 Click the Next and Back buttons to move through display of the folder item forms. When you are ready, click Close.

Task Forms

Tasks forms show descriptive and detailed cost information about tasks.

To view task forms

- 1 In the tree panel, select the Strip Footings Folder.
- 2 In the sheet panel, double click on the one task under this folder, called Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide. This will open the task form.

Note: There are two additional ways to display task forms:

Context menus: first click the right mouse button on the item in the sheet panel. Then, from the context menu that appears, select Edit Item. The task item form appears.

Using the View menu, click on Sheet Items Form, or use the Sheet Items form icon on the Toolbar.

The screenshot shows a software window titled "Tasks for Fire Station Sample Project". The "General" tab is active, displaying the following information:

- Task ID: A10101102700 - Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide
- Task Description: Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide
- Quantity: 580.0
- Unit: LF
- Task Type: Assembly
- ASM: ASM
- Task ID: A10101102700

On the left side, there are radio buttons for "Use Quantity Entered" (selected), "Use MS Excel Value Times \", "Use Parent Quantity Times --" (set to 1), and "Use Formula Value Times - /". Below these is a dropdown menu for "Area per Window".

Below the radio buttons is a "Task Cost Data" table:

	Unit Cost	Extended
Base Cost	\$33.15	\$19,227.41
Cost To Prime	\$30.80	\$17,865.66
Cost To Owner	\$39.14	\$22,698.32
Project Cost	\$43.76	\$25,382.39

On the right side, there is an "Assembly Members" table:

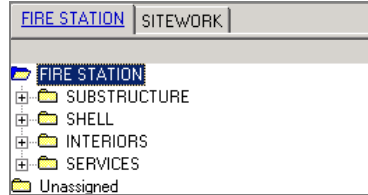
Description	Quantity	Units	Total Cost
C.I.P. concrete forms, footing, continuous wall, plywood, 4 use, includes erecting, bracing, stripping and cleaning	1,160.00	SF	\$5,234.15
C.I.P. concrete forms, footing, keyway, tapered wood, 2' x 6", 4 use, includes erecting, bracing, stripping and cleaning	580.00	LF	\$715.37
Reinforcing steel, in place, footings, #4 to #7, A615, grade 60, incl labor for accessories, excl material for accessories	1,740.00	LB	\$1,797.77
Reinforcing steel, in place, dowels, deformed, 2' long, #4, A615, grade 60	1,160.00	EA	\$3,461.79
Structural concrete, ready mix, normal weight, 3000 psi, includes local aggregate, sand, portland cement and water, excludes all additives and treatments	42.86	CY	\$4,903.41
Structural concrete, placing, continuous footing, shallow, direct chute, includes vibrating, excludes material	42.86	CY	\$814.22

At the bottom of the window, there are buttons for "Insert", "Lock", "Back", "Next", "Apply", and "Close".

Notice that the task form has more information than the folder form. Since the task is an assembly, the Assembly Members grid of the form displays the RS Means line items that make up this assembly. Click Close to close the task form.

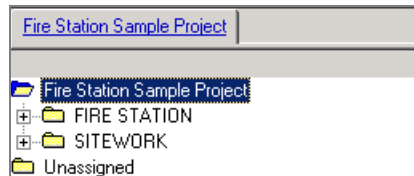
Tabs

By default, BSD CostLink/AE shows the level 1 Folders of the project hierarchy on separate tabs within the project window. The Fire Station Sample Project, for example, has two folders at the top level, one for the fire station and one for Sitework. Each of these divisions of the estimate is shown on a separate tab.



Showing All Data on One Tab


You can choose to show all of the data in the project on a single tab. Select Tree > Use Single Tab to accomplish this. The project window now looks like this:

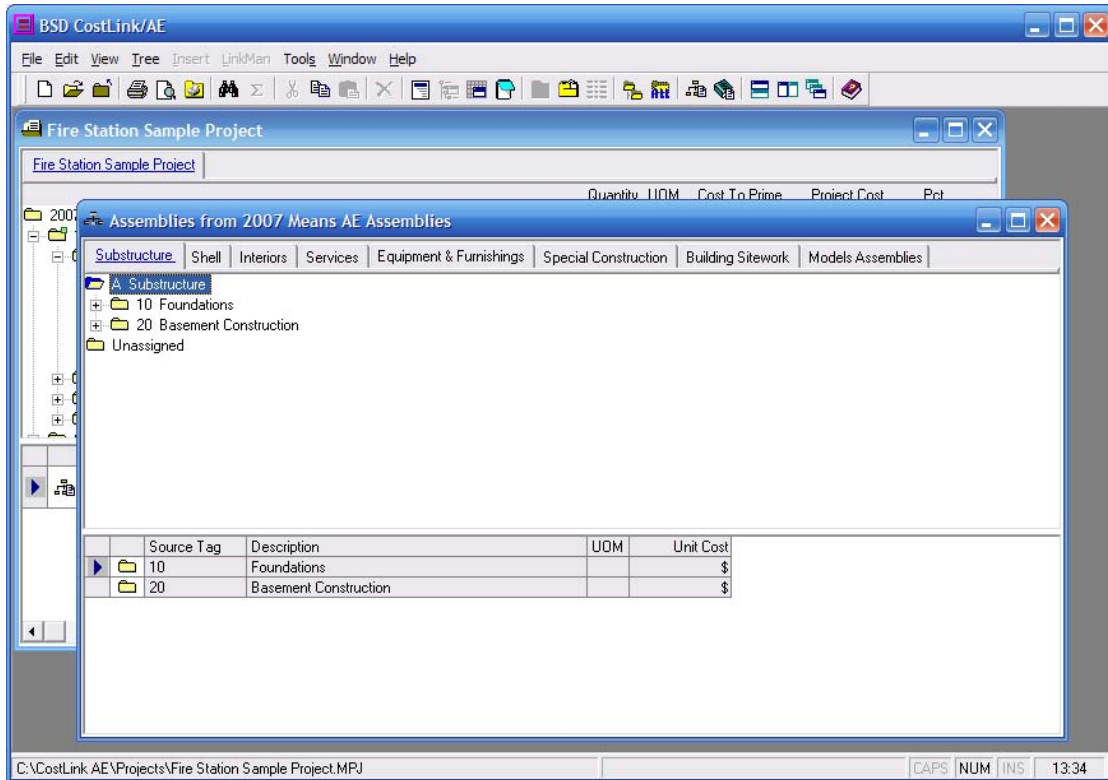


Showing multiple tabs is useful in complex estimates.

For now, return to the default view by choosing Tree > Use Single Tab again.

A Look at the Cost Data


- 1 On the BSD CostLink/AE toolbar, click the Open Assembly Resource Window .
 BSD CostLink/AE opens the assemblies resource view in its own window:



- 3 For a better view, click the maximize button in the upper right of the window.



The RS Means assemblies data is displayed with multiple tabs, one for each of the Uniformat Systems, which are used to organize the data.

- 4 Using the navigation techniques you've learned so far, spend some time exploring the RS Means Assemblies.
 - Click on different tabs to view different parts of the database
 - Expand and collapse the tree to view data at different levels of the hierarchy.
 - Examine some assemblies by opening the Item form in the Sheet, with an assembly selected.
- 5 Close any item forms so that only the tree and sheet panels are displayed. Now click the Tile windows vertically button  on the BSD CostLink/AE toolbar. (If you are still displaying the data in the project Tree panel, you may want to turn it off.)

BSD CostLink/AE displays the Project and Assemblies windows side-by-side. This arrangement is useful when you are copying tasks from one database to another, especially when using drag-and-drop.

- 6 To close the Assemblies, click the close button  in the upper right corner of the window. Click the maximize button  to maximize the Fire Station Sample Project Database window.

Reports

BSD CostLink/AE provides clean reports for presentation to clients. The Summary report can display costs at the folder level you choose. A Detailed Estimate is also available to itemize the assemblies and line items in your project. Click on the File > Reports Setup to choose and format your reports. See Chapter 07-reports.pdf, in the AE_Doc folder on the BSD SoftLink CD for more information on formatting and printing reports.

Starting a Project Using a Model

You are now ready to start a sample project using a model. You may already have an existing cost estimate that you would like to try to replicate in AE.

Chapter 2 of the BSD CostLink/AE User Manual, located in the AE_Doc folder on the BSD SoftLink CD or from our web page, walks you through the steps of starting a project from a model, copying assemblies and line items into your project, applying markups, and creating reports. It is suggested that you print this chapter before continuing your evaluation.