10 BUILDING LIFE-CYCLE COST (BLCC) PROGRAM

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10.1 Introduction

The Life-Cycle Cost Program (BLCC) that is integrated with ASEAM3.0 was developed by the National Institute of Standards and Technology (NIST) as an independent software program. The BLCC program has been integrated into ASEAM3.0 for LCC analysis.

This chapter describes the integration of ASEAM3.0 with the BLCC program. The documentation for the BLCC program is contained on the distribution diskette with the BLCC program. This ASEAM3.0 User's Manual does not describe the operation of the BLCC program. Stephen R. Petersen of NIST is the author of both the program and the documentation.

10.2 Changes in ASEAM3.0

The BLCC program replaces two former LCC programs (FBLCC and NBSLCC) with ASEAM2.1. The data files and input questions are substantially changed with the new BLCC program. Therefore - older LCC files that you may have created with either FBLCC or NBSLCC will not work with ASEAM3.0. You must use the BLCC program to create the LCC input files for ASEAM3.0.

The BLCC input program also must be run separately from ASEAM3.0. You must exit ASEAM3.0 and access the BLCC program and then 'Create New Input Data File' or 'Edit Existing Input Data File' from the main BLCC menu.

In order to perform the integrated life-cycle cost calculations with ASEAM3.0, you must insure that the input data files created with the BLCC program (file name extension is '.DAT') reside on the ASEAM3.0 data subdirectory. It is normal practice to have all input data files for a particular project reside on one subdirectory. To change the data subdirectory for the BLCC input data files, access the 'Setup' selection from the main BLCC menu. You will not be able to select a BLCC input file when you 'Specify Analysis' if the BLCC input data file resides on any subdirectory other than the ASEAM3.0 data subdirectory. Future version of ASEAM will address this problem.

10.3 Using BLCC Programs with ASEAM3.0

BLCC input files may be specified when you "Specify Analysis." After each ASEAM3.0 energy calculation is performed, the resultant annual energy consumption values are automatically substituted into the BLCC input files, and the BLCC calculations are then performed with these values (not the original energy values in your LCC input file). In addition, the energy consumption numbers entered in the original BLCC input file will be overwritten with the ASEAM3.0 consumption values.

10.4 BLCC Output with ASEAM3.0

When integrating LCC calculations with ASEAM3.0 energy calculations, the output you receive from the LCC analysis depends on the type of ASEAM3.0 calculation mode you are using:

Single and Batch Run Modes. If you specify an LCC input file for these calculation run modes, the PRNTLCC report will be generated at the completion of each ASEAM3.0/LCC analysis. The report will always appear on the screen. If a printer is available, the report will also be printed. You may also specify to save this report as a text ASCII file on your data diskette. The file name for this report is `xxxxLCCO', where `xxxx' is the four-character file-name prefix you assign. Separate LCC input files must be specified for each run.

Parametric Run Mode. At the completion of each ASEAM3.0/LCC analysis the PRNTLCC report is displayed only on the screen, because there is no hard-copy report in the parametric run mode. Since both the parametric and ECO run modes are used to "compare" different runs, the LCC analysis actually is performed twice: once with base- case data, and once for the parametric or ECO case. The results of these two LCC analyses are then compared and displayed on the screen only. For the parametric run mode only, the LCC results are stored in a LOTUS-compatible output file for each run, complete with financial indicators such as benefit-cost ratio, savings to investment ratio, etc. The file name used to save these results is `xxxxPRLC.prn', where `xxxx' is the four-character file-name prefix you assign. Only one LCC input file is required for the base-case information.

Single and Multiple ECO Run Modes. Like the parametric run mode, two LCC analyses are performed: one for the base case and one for the ECO case. The LCC output results are automatically stored in an ASCII text file at the completion of each run. The file name used to save these results is `xxxxSECO.#' for single ECO runs and `xxxxMECO.#' for multiple ECO runs, where `xxxx' is the four-character file-name prefix you assign and `#' is the run number: `1' for base case, `2' for the first ECO, `3' for the second ECO, etc.  If a printer is available, these reports will also be printed. Note that for the ECO cases (run number `2' and up), the text report also includes an LCC comparison of the base case and ECO case. Separate LCC input files must be specified for each ECO run.

10.5 BLCC Documentation

The documentation for the BLCC program is provided on diskette with the BLCC program.