

COCOMO RESULTS for Smart Home Climate Control System (SHCCS)								
MODE	"A" variable	"B" variable	"C" variable	"D" variable	KLOC	EFFORT, (in person-months)	DURATION, (in months)	STAFFING, (recommended)
embedded	1.025854960536	1.2	2.5	0.32	85.000	212.026	13.880	15.276
<p>Explanation: The coefficients are set according to the project mode selected on the previous page, (as per Boehm). Note: the decimal separator is a period.</p> <p>The final estimates are determined in the following manner:</p> <p>effort = $a \times \text{KLOC}^b$, in person-months, with KLOC = lines of code, (in thousands), and:</p> <p>staffing = effort/duration</p> <p>where a has been adjusted by the factors:</p>								

Product Attributes

Required Reliability	1.00 (N)
Database Size	0.94 (L)
Product Complexity	1.00 (N)

Computer Attributes

Execution Time Constraint	1.00 (N)
Main Storage Constraint	1.00 (N)
Platform Volatility	0.87 (L)
Computer Turnaround Time	1.00 (N)

Personnel Attributes

Analyst Capability	0.71 (VH)
Applications Experience	0.82 (VH)
Programmer Capability	0.70 (VH)
Platform Experience	0.90 (VH)
Programming Language and Tool Experience	0.95 (VH)

Project Attributes

Modern Programming Practices	1.00 (N)
Use of Software Tools	1.00 (N)
Required Development Schedule	1.00 (N)

New (Values are probably wrong)

Required reusability	1.00 (N)
Documentation match to life-cycle needs	1.00 (N)
Personnel continuity	1.00 (H)
Multisite development	1.00 (N)

For further reading, see Boehm, "Software Engineering Economics"

WARNING: If you see "NaN" or "undefined" in any field above, you have entered an **INVALID** value for KLOC or Mode! Hit the "BACK" button on your browser, hit the "RESET" button if you entered data previously, enter a **DECIMAL NUMBER** in the KLOC input text box and click on the appropriate mode!

The project should save the results of this COCOMO calculation if needed to support its make or buy decision.

Please send notice of any problems to: grc-dl-strs-repository-manager@mail.nasa.gov
([NASA Privacy Policy and Important Notices](#))

SWL03_1_ApplicationName:Smart Home Climate Control System (SHCCS)
SWL03_1_ApplicationVersion:any
SWL03_1_ApplicationNumber:STRS-SUB-
SWL25_COCOMO_KLOC:85.000
SWL25_1_ApplicationSLOC:85000
SWL25_COCOMO_mode:embedded
SWL25_COCOMO_a:1.025854960536
SWL25_COCOMO_b:1.2
SWL25_COCOMO_c:2.5
SWL25_COCOMO_d:0.32
SWL25_COCOMO_e_effort:212.026 (person-months)
SWL25_2_ApplicationLevelOfEffort:212.026 (person-months)
SWL25_COCOMO_t_duration:13.880 (months)
SWL25_2_ApplicationTime:13.880 (months)
SWL25_COCOMO_eot_staff:15.276 (recommended)
SWL25_COCOMO_Required Reliability:1.00 (N)
SWL25_COCOMO_Database Size:0.94 (L)
SWL25_COCOMO_Product Complexity:1.00 (N)
SWL25_COCOMO_Execution Time Constraint:1.00 (N)
SWL25_COCOMO_Main Storage Constraint:1.00 (N)
SWL25_COCOMO_Platform Volatility:0.87 (L)
SWL25_COCOMO_Computer Turnaround Time:1.00 (N)
SWL25_COCOMO_Analyst Capability:0.71 (VH)
SWL25_COCOMO_Applications Experience:0.82 (VH)
SWL25_COCOMO_Programmer Capability:0.70 (VH)
SWL25_COCOMO_Platform Experience:0.90 (VH)
SWL25_COCOMO_Programming Language and Tool Experience:0.95 (VH)
SWL25_COCOMO_Modern Programming Practices:1.00 (N)
SWL25_COCOMO_Use of Software Tools:1.00 (N)
SWL25_COCOMO_Required Development Schedule:1.00 (N)
SWL25_COCOMO_Required reusability:1.00 (N)
SWL25_COCOMO_Documentation match to life-cycle needs:1.00 (N)
SWL25_COCOMO_Personnel continuity:1.00 (H)
SWL25_COCOMO_Multisite development:1.00 (N)
STRS_WhichMetadata:COCOMO
STRS_RepMgrSeeStep:17f
STRS_FileNameOfPage:STRS COCOMO Calculation.html
Suggest_File_Name:2024-03-12_220414_Smart_Home_Climate_Control_System_SHCCS_-COCOMO-1.txt
STRS_VersionOfPage:Feb 6, 2015 10:30 ET
subject:STRS COCOMO Calculation