



**ATTACHMENT 14 – CONTRACT WORK BREAKDOWN STRUCTURE (CWBS)  
DATA ITEM DESCRIPTION, CDRL # 19**

The developer will use DI-MGMT-81334, Contract Work Breakdown Structure, approved March 25, 1993 (available at <http://assist.daps.dla.mil/online/start/>), as a format in which to deliver its CWBS. In addition, contractor-specified formats may be substituted whenever they contain all the required elements in a form suitable for ERA Program Management Office management.

Specific instructions for submission of the CWBS:

- 1) The developer shall use a single, product-based Contract Work Breakdown Structure (CWBS) as the basis for all contract work scope planning, scheduling, contract cost estimates, resource allocations, performance measurement, configuration management, and status reporting.
- 2) The developer's CWBS Index and CWBS Dictionary shall be extended from and include the ERA Program Work Breakdown Structure (PWBS) elements identified in Section J, Attachment 11.
- 3) The developer shall deliver the CWBS WBS Index and CWBS Dictionary in both hardcopy and Microsoft Word format on the 13th business day following the close of the developer's fiscal month only when there is a change to the CWBS or the CWBS Dictionary.
- 4) The developer shall maintain and update the CWBS Index and CWBS Dictionary under configuration management control throughout the life of the contract.
- 5) The developer shall perform configuration control of CWBS codes to ensure the following business rules are followed:
  - a) CWBS Codes shall never be assigned to two different work elements during the life span of the ERA Program.
  - b) If any CWBS element is deleted, deactivated, or put on hold, then, its CWBS code will not be reused or deleted from the WBS in order to maintain history.
  - c) Work element events, such as completion or termination shall not result in modifications to the elements' original WBS code assignments.
- 6) Routine reporting for the purpose of completing the Cost Performance Report (CPR) shall be at CWBS level 6 for prime contractors and key subcontractors. Detailed reporting (i.e., below level 6) shall be required only for those lower-level elements that address high-risk, high-value, or high-technical-interest areas of a program. Reporting for completion of the Earned Value Management Data requirement will be at the lowest level of the CWBS. The ERA PMO and the developer will periodically review these levels to determine if they continue to meet the Government's management needs.



- 7) The following data elements supersede DI-MGMT-81334 data elements for the CWBS Index (Part I of the CWBS). CWBS Index data elements shall include:
- a) CWBS Code.
  - b) CWBS Element Level. Enter the level of the CWBS element. Level 1 is the ERA Program. Levels 2, 3, etc., are successively lower levels of the program.
  - c) CWBS Element Name. Enter the title of each CWBS element.
  - d) Contract Line Item(s). Enter the numbers of the contract line item(s) associated with the CWBS element.
  - e) Performance Work Statement (PWS) paragraph number(s). Enter the applicable paragraph number(s) from the PWS.
- 8) The following data elements supersede DI-MGMT-81334 data elements for the CWBS Dictionary (Part II of the CWBS). CWBS Dictionary data elements shall include:
- a) CWBS Code.
  - b) CWBS Element Name. Enter the title of each CWBS element in the same order as given in Part I.

CWBS Definition. Enter a complete description of the technical and cost content of each CWBS element. The statement should be as descriptive as possible about the efforts, tasks, tests, components, etc., that are to be included in the CWBS element by the contractor. The CWBS Dictionary must be updated and maintained throughout the life of the contract. However, the updated dictionary shall be submitted no more frequently than the CCDR report submissions.

### **Integrated Schedule (IS) Data Item Description**

The developer shall use DI-MISC-81183A, Integrated Master Schedule, approved February 9, 1996 (available at <http://assist.daps.dla.mil/online/start/>), as a format in which to deliver its IS. In addition, contractor-specified formats may be substituted whenever they contain all the required elements in a form suitable for ERA Program Management Office (PMO) management.

Specific instructions for submission of the IS:

1. Each deliver of the IS shall consist of three parts: the IS itself, an MS Project 2003 field map (described in bullet 7 below), and a schedule quality assessment (described in bullet 12 below).
2. The developer shall deliver an electronic copy of the IS to the ERA PMO, in Microsoft (MS) Project 2003 “.mpp” format, twice a month, on the 3<sup>rd</sup> and 13<sup>th</sup> business day following the close of the developer’s fiscal month.
3. The project schedule shall contain a single baseline schedule which is the schedule portion of the earned value Performance Measurement Baseline approved by the ERA PMO.



4. The developer shall update the project schedule to reflect a new baseline within 30 calendar days of any NARA-approved change to the baseline schedule.
5. The developer should update the project schedule to be current as of the Friday preceding delivery to the ERA PMO. In updating the schedules, the developer shall minimally update the Percent Complete (see bullet 8 below), Actual Start, and Actual Finish attributes for activities in progress. The developer shall revise planned start and finish dates for all activities that have not met their scheduled start or finish dates.
6. The project schedule delivered shall contain the developer's current, best estimate of planned start and finished dates of all unfinished activities. Finished activities shall include their actual start and finish dates.
7. It is the intent of the ERA PMO to independently analyze earned value data delivered by the contractor. Therefore, it is necessary for the ERA PMO to understand the developer's utilization of fields within MS Project 2003 to ensure compatibility with its earned value analysis tools: wInsight, Project Connect, and C/S Glue, produced by C/S Solutions. The initial delivery of the schedule should include an MS Project 2003 field map showing the MS Project 2003 field name, user defined field name for any customized fields, and a short description of how the developer uses each field and any value settings or business rules associated with each field. Any further changes to the configuration of MS Project 2003 fields should be documented in a revised MS Project 2003 field map accompanying subsequent deliveries of the IS. The delivery format for the field map is Microsoft Excel ".xls" format.
8. To facilitate ERA PMO analysis, for every activity, the developer shall identify an earned value method and store the code for it in the MS Project 2003 field "Number19." The acceptable methods, their definitions, and their corresponding codes are as follows:
  - 8.1. 1-0/100 – 100% of BAC is credited to BCWP when activity is completed.
  - 8.2. 2-20/80 – 20% of BAC is credited to BCWP when the activity is started. The remaining 80% is credited when the activity is completed.
  - 8.3. 3-50/50 - 50% of BAC is credited to BCWP when the activity is started. The remaining 50% is credited when the activity is completed.
  - 8.4. 4-Other Milestone – The user enters the percentage of BAC to credit to BCWP for reaching a milestone. 100% of BAC is credited to BCWP when the activity is completed.
  - 8.5. 5-Physical % Complete –  $BCWP = \text{Physical \% Complete} \times BAC$
  - 8.6. 6-Apportioned – BCWP are calculated based on the performance of other activities. The user enters the unique ID of the task(s) used as the basis for the calculation.  $BCWP (\text{current task}) = [BCWP(\text{sum})/BAC(\text{sum})] \times BAC (\text{current task})$
  - 8.7. 7-Level of Effort –  $BCWP = BCWS$
9. Activities started but not complete shall include an estimate of their percent complete if the earned value method for those activities is based on percent complete (see bullet 7). Note that the percent complete used by the developer must be an earned value percentage of



baseline (a physical percent complete) and not a duration-based percent complete as defined in the percent complete field in Microsoft Project default method.

10. Developers should use the following MS Project 2003 fields for the following purposes:

- 10.1. Number20 = earned value physical percent complete (as opposed to percent complete field in MS project 2003, see bullet 6 above)
- 10.2. Text4 = CWBS Code consistent with developer's CWBS

11. The following MS Project 2003 fields are reserved for Government use:

- 11.1. Cost1
- 11.2. Cost2
- 11.3. Cost3
- 11.4. Cost10
- 11.5. Duration1
- 11.6. Duration2
- 11.7. Duration3
- 11.8. Finish1
- 11.9. Finish2
- 11.10. Finish3
- 11.11. Flag1
- 11.12. Flag6
- 11.13. Flag7
- 11.14. Flag8
- 11.15. Number1
- 11.16. Number2
- 11.17. Number3
- 11.18. Number4
- 11.19. Number14
- 11.20. Number15
- 11.21. Number16
- 11.22. Number17
- 11.23. Number18
- 11.24. Text5
- 11.25. Text8
- 11.26. Text9
- 11.27. Text30

12. Prior to each delivery of the IS, the developer shall assess the quality of the schedule in order to determine whether it is sufficient to rely upon. With each delivery of the schedule the developer will deliver a schedule quality assessment report, in Microsoft Excel ".xls" format addressing the following:

- 12.1. Does the IS allow for the production of a pure logic activity plot for the entire critical path? The critical path being defined as a single series of continuously linked, non-summary, unconstrained activities that have a slack time (float) of between zero and +10 days?
- 12.2. Is there a contractual requirement for all activities shown in the IS?



- 12.3. Do all activities within the IS maintain a predecessor and successor relationship? If not, provide rationale justifying exceptions.
- 12.4. Do all activities have an owner?
- 12.5. How many activities are constrained and why?
- 12.6. How many non-summary activities were scheduled to start or finish by Tim Now date but have not?
- 12.7. Does the schedule conform to DI-MISC-81183A, Integrated Master Schedule, approved February 9, 1996, or to the contractor-specified format chosen for delivery?
- 12.8. Are all WBS levels represented in the schedule consistent with the current CWBS?
- 12.9. Do all activities have an earned value method identified in the MS Project 2003 Number19 field?
- 12.10. Was the schedule statused on the Friday prior to delivery?

### **Cost Performance Report (CPR) Data Item Description, CDRL # 22**

The developer shall use DI-MGMT-81466, Cost Performance Report, approved October 19, 1995 (available at <http://assist.daps.dla.mil/online/start/>), as a format in which to deliver its CPR. In addition, contractor-specified formats may be substituted whenever they contain all the required elements in a form suitable for ERA Program Management Office (PMO) management.

Specific instructions for submission of the CPR :

1. The developer shall deliver CPR formats 1, 3, 4, and 5. Format 2 is not required.
2. The developer shall deliver electronic and hard copy versions of the CPR to the ERA PMO in accordance with Section J4, Table 2. entitled "The CDRL Table".
3. Electronic CPR data must be delivered to the ERA PMO in a format compatible with its EVM analysis tools, the C/S Solutions suite using wInsight, Project Connect, and C/S Glue. EVM data shall be delivered in one of the following two formats. Information on these formats can be found at the following URL: <http://www.cs-solutions.com/support/support.html>.
  - 3.1. ANSI X12 839 EDI format
  - 3.2. wInsight compatible XML format
4. If the electronic data submission for the current month contains data for the previous month (or multiple previous months) as well, the data for the previous month(s) must be exactly the same as it was when the previous month's data was originally submitted.
5. Electronic CPR data also shall be delivered in PDF format.

For Format 5 – Explanations and Problem Analyses, Cost and Schedule Variances, Written variance analyses will be provided for +/- \$25,000 current cost and schedule variances, +/- \$50,000 cumulative cost and schedule variances, and +/- \$125,000 variances at completion.



Additionally, all instances of negative BCWS, BCWP or ACWP will be explained. The ERA PMO and the developer will periodically review these cost and schedule variance thresholds to determine if they continue to meet the Government's management needs.

### **Contract Funds Status Report (CFSR) Data Item Description, CDRL # 23**

The developer shall use DI-MGMT-81468, Contract Funds Status Report (CFSR), approved October 19, 1995 (available at <http://assist.daps.dla.mil/online/start/>), as a format in which to deliver its CFSR. In addition, contractor-specified formats may be substituted whenever they contain all the required elements in a form suitable for ERA Program Management Office (PMO) management.

Specific instructions for submission of the CFSR :

1. The developer shall deliver electronic and hard copy versions of the CFSR to the ERA PMO in accordance with Section J4, Table 2. entitled "The CDRL Table".
2. Electronic CFSR data must be delivered to the ERA PMO in PDF format.

### **Earned Value Management (EVM) Data Guidelines, CDRL # 26**

The ERA PMO will use EIA 748-A, EIA Standard-Earned Value Management Systems, January 2002, as the basis for evaluating the validity of data from the developer's Performance Measurement Baselines (PMB).

Specific instructions for submission of the earned value management data:

1. The developer shall deliver an electronic copy of the EVM data to the ERA PMO in accordance with Section J4, Table 2. entitled "The CDRL Table".
2. EVM data must be delivered to the ERA PMO in a format compatible with its EVM analysis tools, the C/S Solutions suite using wInsight, Project Connect, and C/S Glue. EVM data shall be delivered in one of the following two formats. Information on these formats can be found at the following URL: <http://www.cs-solutions.com/support/support.html>
  - 2.1. ANSI X12 839 EDI format
  - 2.2. wInsight compatible XML format
3. The developer shall not re-baseline their performance measurement baseline without the prior permission of the ERA PMO change control board. Re-planning of future work that does not change the contract budget, period of performance and/or scope, however, does not require change control board approval.



4. The developer shall not under any circumstances adjust cost performance data (BCWS, BCWP, ACWP) from prior months. Any errors, accounting adjustments or approved re-baseline actions shall be recorded as a single point adjustment in the current reporting month.
5. The developer shall ensure that its subcontractors comply with the intent of the EVM guidelines and report their data accurately and in time for inclusion the developer's Cost Performance Report (CPR).
6. For calculation of BCWP using a percent complete earned value method, the developer must use an earned value percentage of baseline (a physical percent complete) and not a duration-based percent complete as defined in the percent complete field in Microsoft Project default method. See Integrated Schedule Data Item Description (Attachment 16 of Section J), bullet 9, for further information.

The developer shall establish a Performance Measurement Baseline (PMB) covering the entire technical scope of contracted work and shall include realistic schedules integrated with the proper amount and mix of resources necessary to meet contract requirements.

### **Life Cycle Cost (LCC) Data Item Description**

The developer shall use a contractor-specified format for delivery of the LCC estimates provided that they comply with data elements described in Attachment 13 to Section J, Cost Element Structure Data Dictionary.

Specific instructions for submission of the LCC Estimates:

1. The developer shall deliver electronic and hard copy versions of the LCC estimates to the ERA PMO nine months from contract award.
2. The developer shall deliver the electronic copy of the LCC estimate in Microsoft Excel ".xls" format.
3. The developer shall document all basis of estimates, assumptions, ground rules, constraints, and methodology associated with the LCC estimate.
4. The developer's format shall provide identify costs in each cost element on a yearly basis through 2020. The format shall provide sheets that sum the totals of subordinate cost elements at each level.