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Earned Value Reporting – Guidance on the set up and maintenance of Primavera schedules

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1 Purpose

This Guidance Note forms part of the suite of documents comprising the Planning and Programme Controls standard and relates to the use of Earned value within Investment Projects.

2 Scope

The Guidance Note details all the various parameters and settings that can be utilised within the Primavera application to set up and report Earned Value.

This encompasses:

- a) administrative settings;
- b) project settings;
- c) user preferences;
- d) activity options;
- e) report production;

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3 Primavera Utilisation

3.1 General

In order to make use of the Earned Value functionality in Primavera, the following rules must be adhered to. Those terms in ***bold italics*** are specific Primavera terms. The assumption is made here that the user carrying out the Earned Value work in Primavera is familiar with the use of the tool.

3.2 Administrative settings

Database level setting for Earned Value.

This indicates that it is calculated from the baseline using budgeted values and current dates. This is a global setting and is used for all projects it cannot be changed by users.

In Primavera, this is set from Admin, Admin Preferences.

Figure 1 – Database earned Value setting

The screenshot shows the 'Admin Preferences' dialog box with the 'Earned Value' tab selected. The 'Technique for computing performance percent complete' section has three radio buttons: 'Activity % Complete' (selected), 'Use WBS Milestones', and '0/100 % Complete'. The 'Technique for computing Estimate to Complete (ETC)' section has two radio buttons: 'ETC = remaining cost for activity' (selected) and 'ETC = PF * (Budget at Completion - Earned Value), where:'. Below this, there are four radio buttons for the Performance Factor (PF): 'PF = 1', 'PF = 1 / Cost Performance Index', 'PF = 1 / (Cost Performance Index * Schedule Performance Index)', and 'PF = 0.88'. The 'Earned value calculation' section has a label 'When calculating earned value from a baseline use' and a dropdown menu set to 'Budgeted values with current dates'. A red circle highlights the dropdown menu, and an arrow points from the text 'Database level setting for Earned Value.' to it.

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3.3 Project settings

- The Current Project Managers' Baseline (**Current PMB**)

Must exist in Primavera, this is the Baseline for Earned Value and must be set to the **Project Baseline** on the Assign Baselines screen.

Figure 2 – Setting the Project Baseline

The screenshot shows the 'Assign Baselines' dialog box. The 'Project' field is set to 'EV Work'. The 'Project Baseline' field is set to '<Current Project>'. The 'User Baselines' section has 'Primary' set to '<Current Project>', 'Secondary' set to '<None>', and 'Tertiary' set to '<None>'. An arrow points from the text 'The Current Project Managers' Baseline (Current PMB)' to the 'Project Baseline' dropdown. The dialog has 'OK', 'Cancel', and 'Help' buttons on the right.

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The project setting for calculating Earned Value must be set to Project Baseline as shown below.

Figure 3 – Setting the Project Baseline for Earned Value calculations

The screenshot shows the 'Project Settings' tab in Primavera. On the left, the 'Summarized Data' section has 'Contains Summarized Data Only' unchecked, 'Last Summarized On' empty, 'Summarize to WBS Level' set to 2, and 'Summarize project based on' set to 'Detail activity resource assignments'. On the right, the 'Project Settings' section has 'Baseline for earned value calculations' set to 'Project baseline' (radio button selected). Below it, 'Define Critical Activities' is set to 'Total Float less than or equal to' (radio button selected). An arrow points from the text above to the 'Project baseline' radio button.

There must be only one Baseline with type **Current PMB** assigned per project.

Following **PEST/Re-PEST** ensure baseline type is (or has been) modified to **Current PMB**. and that this baseline is assigned as the Project Baseline (as above). It is worth re-iterating the normal principles for interfacing projects and baseline control which are:

- o Plan created in Primavera.
- o **PEST** Baseline created, baseline type **Submit PEST**.
- o PEST interface to OP performed, Baseline Type modified to **Proposal**.
- o Authority process, which results in Authority being entered into OP.
- o Proposal Baseline Type Modified to **Current PMB** (this should be automatic, but only rarely happens (if ever))
- o Work performed.
- o Changes identified/reviewed/approved.
- o Changes implemented into a copy of the **Current PMB** (done selectively) and this is set as **Submit PEST** Baseline.
- o PEST interface to OP, Baseline Type to **Proposal**.
- o Approval/Authority process (if no change to Authority, Project Manager approval in OP required).
- o Proposal Baseline Type modified to **Current PMB**, again in theory automated.

3.4 Activity Alignment

All activities in the live plan must align with those in the **Current PMB**. If not, Earned Value will not be calculated where there is a misalignment. This alignment includes the Activity ID, resources, etc. If re-alignment (**Current PMB** to Live) is required a PEST must be submitted to OP for approval, by the Project Manager (but not necessarily Authority).

For example, if activity A1020 has £38,750 as an **At Completion Cost**, but £0 as **BL Project Total Cost**, then even if a percentage complete is claimed on this activity the Earned Value will always be Zero. The same will happen if the activity in the PMB is B1070, because Earned Value is calculated from the percentage completion of an activity in the