

than one when earned-value efficiency is poor. Analogous to schedule recovery, the value of TCPI<sup>-1</sup> is used in the computation of the OT rate for cost recovery required for the remainder of the project. The adjusted OT rate is calculated using the following equation.

$$OT_{CR} = (TCPI^{-1}) \cdot (1 + OT_p) - 1$$

The expectation is that by working at this reduced OT rate, employees will complete the project at the planned cost. If the OT calculation produces a negative number, the project *must* reduce its staffing. If TFA is substituted for BAC in the calculation, a smaller decrease in OT rate will result so as not to exceed the available funding reserve.

### Project Application

Over the last year, we have been prototyping these management tools and ideas in a large development project. As can be seen in Figures 5 and 6, not much information about the usefulness of the tools can be stated; the project has performed too well. To date, no cost or schedule recovery has been required. However, a few observations can be made. Before the tools were developed, the only reserve component considered in project planning was funding. Figure 6 illustrates this point; the prototyping project has a schedule ratio of 1, thereby indicating the absence of schedule reserve. Because they recognize the value and reduced risk of having two dimensions of MR, our managers now pay much more attention to the schedule compo-

nent. The new projects are being planned with consideration for schedule reserve.

### Other Thoughts

In considering the application of these tools, you should recognize that considerable discretion is required. If applied in too rote a manner, especially early in a project, there is risk of tampering, e.g., overcorrection. Generally speaking, if yellow and sometimes even red indications occur early in the project, it is wise to merely look into the problem and wait for the next review before taking action.

### Summary

The concepts presented are extensions of C/SCSC and are targeted to the effective use of MR. The tools presented provide simple visual aids to assess project health, which, in turn, leads to suggested management actions. Calculation formulas are also provided to further refine the recommended management action. This set of management tools should be easily applied by anyone who uses C/SCSC for software project management.

The prototyping of the tools performed to date does not provide sufficient information to show their usefulness. Even so, because we believe that the indicators, prescribed management actions, and formulas are conceptually sound, we are proceeding with their application to other projects. By expanding the application of the MR management technique this year, we

expect to broaden our perspective by gaining additional inputs from several managers. ♦

### Reference

1. Fleming, Quentin W., *Cost/Schedule Control Systems Criteria, The Management Guide to C/SCSC*, Probus, Chicago, 1988.

### About the Author



**Walter H. Lipke** is the deputy chief of the Software Division at the Oklahoma City Air Logistics Center. The division comprises approximately 600

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