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# Creating a Metrics Program

## Step 8: Define the Feedback Mechanism

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Step 8 is to outline the procedures necessary to enable good internal communication about the metrics data, the program goals, and the changes to the development process.

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Keeping in mind the goals identified in Step 2, you must define a set of procedures to ensure that these events occur:

- information is tabulated and presented to all levels of staff
- recommendations for process improvement are received and considered
- process changes and enhancements are implemented
- the metrics program is tracked against the initial program goals
- the program goals are revised as the metrics program matures

Having a good feedback mechanism in place ensures that the information obtained from the program is effectively communicated and used, and that the metrics program continues.

### Meetings and Reports

The measurement team is responsible for tabulating the information in the metrics database and presenting it to the company. They should make the presentations on a regular basis, and present data in a consistent manner. The metrics program sponsor must champion these tasks.

There are two basic methods for communicating the results:

- written reports
- presentations

It is often a good idea to provide both a formal report and a presentation to display findings and solicit opinions. The report can contain more detail than the presentation, but the focus should remain on whether goals are being reached. A presentation should include a visual display of graphs and tables, but only at the summary level, if the details are available in a report.

Set the frequency of the meetings and reports according to the volume of data being collected. If dealing with a large amount of data, hold meetings more frequently as there will be information on which to base process changes.

You will usually present project tracking metrics as part of the regular project status meetings. At the end of a project, it is often useful to hold a summary or followup meeting to look at overall project performance and to solicit input while the project is still fresh in everyone's mind.

Present data compared across projects as required (perhaps annually). It is at these meetings that you will discuss company-wide process changes.

### Baselines, Goals, and Process Changes

In preparing the presentations and reports, take care to ensure that the focus is on performance with respect to the predetermined goals. It is very easy to get sidetracked by interesting observations in the data.

Once you have collected a set of data, you can formalize a baseline to represent the company wide level of performance. Minimally, the values in the baseline should be the following:

- labor rates
- effort and cost information
- project size information

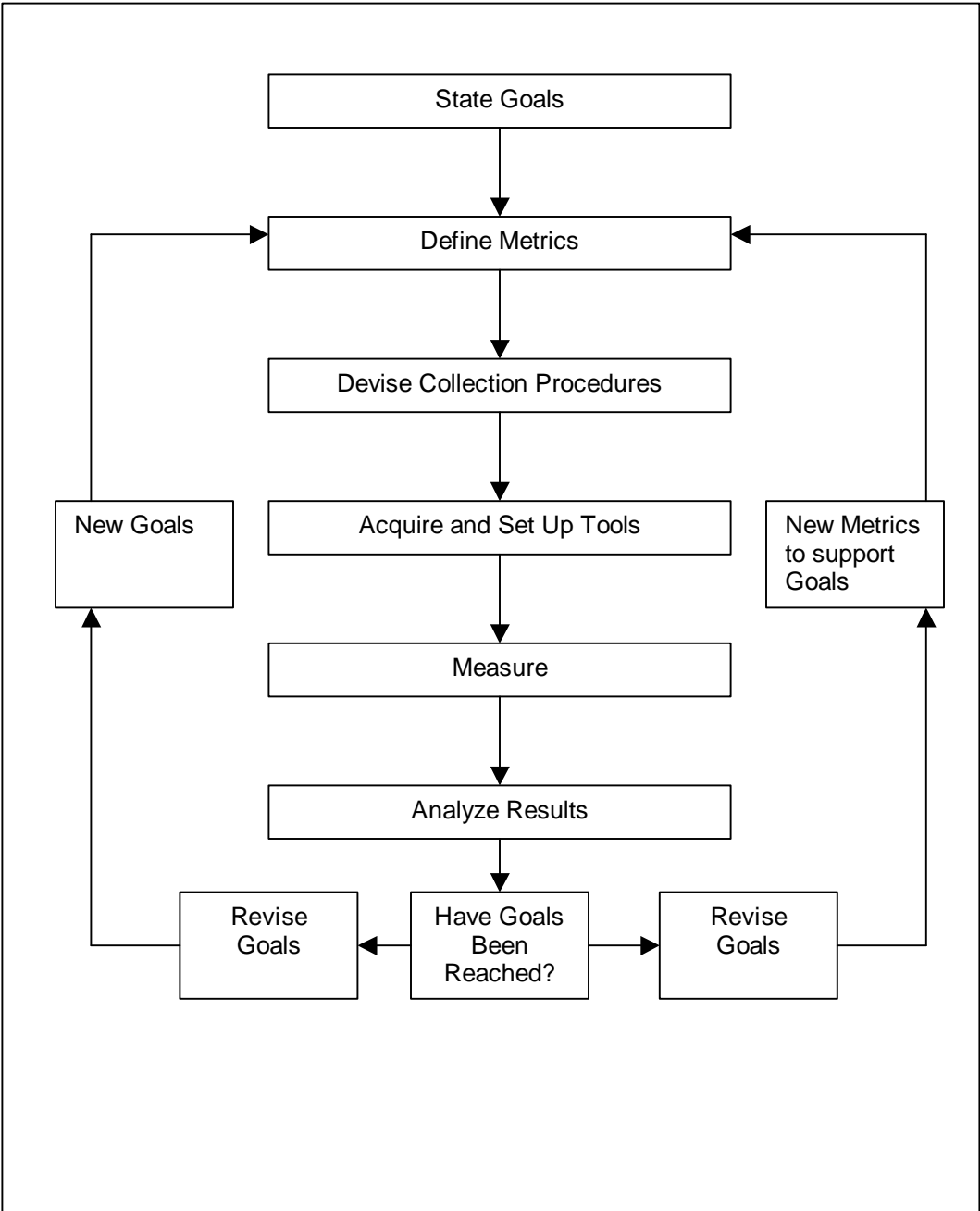
Redefine the baseline at regular intervals; you will likely redefine it annually, in conjunction with an annual metrics review meeting. However, baseline data can be useful for comparison at all stages of a software development project.

As results are analyzed, you will make changes to the development process, to achieve your goals. The key to successfully changing the process is to make everyone aware of what is going on and why, and then involving them in the process. This can be done through meetings, memos, email, or by having the information passed down through management to staff. There should be a mechanism in place for concerns to be recognized and investigated.

As the metrics program becomes more established, different goals will take priority, and new metrics will need to be collected. You should do so in a formal manner following the procedures defined in the previous steps.

You should revise and enhance your metrics program regularly as a part of an ongoing strategy to improve and streamline the way you develop software.

Figure 3.23 :  
Metrics  
program  
feedback  
mechanism.



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### **Actions Required for Step 8**

1. Define which meetings to hold, what to discuss, and who will attend. Decide which meetings to hold during the course of a project, and which to hold after one or more projects is completed.
  2. Define any reports to prepare, along with the frequency and format of the reports.
  3. Ensure that the reports and presentations are available and visible.
  4. Define the way in which the data in the reports and presentations can drive process change.
  5. Determine a set of data that will form the baseline, and determine a set of procedures for re-establishing this baseline.
  6. Ensure that all levels of staff can provide input regarding process change.
  7. Document the above procedures in the metrics program documentation.
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## **Buddicorp**

### **Step 8 - Feedback**

Following the procedure in Step 8, you outline a feedback mechanism for Buddicorp having two components:

- project specific feedback
- company wide feedback

You design the project specific feedback to assist primarily with scheduling and tracking of projects. You suggest adding a metrics status segment to the weekly progress review meetings that Buddicorp holds for all projects. Project managers will also hold follow-up meetings once the project is complete, to discuss issues such as overall productivity.

You set in motion company-wide feedback by requesting that the measurement team produce an annual metrics report. They will present it at a new annual meeting called the Annual Baseline Review meeting.

Following the Annual Baseline Review meeting, all staff members will be solicited for input about how they feel the baseline could be improved. The measurement team will review all suggestions and create an improvement action plan. They will then distribute the plan for verification and approval.

A well-documented metrics program is now in place at Buddicorp Systems. The company will be able to analyze and revise the metrics it collects while seeking to achieve its goals of improved scheduling and product quality. Ultimately, new goals can be incorporated into the metrics program.

Your job at Buddicorp is done!