

Creating a Metrics Program

Step 2: State the Goals

Step 2 is to state the goals of the metrics program. The goals will ultimately determine which data to measure.

Every company will have different reasons for establishing a metrics program. If specific goals have already been determined, document them and Step 2 is complete.

If goals have not been determined, you should refer to the table in Figure 3.1. This table lists some of the goals that commonly drive metrics programs. The goals presented are all closely related and rely on much of the same data. The differences lie in which metrics will be constructed from the data, and how these metrics will be used.

Select one or two goals from the table, or use it to help generate your own goals. You may also want to refer to the process documentation for ideas, or ask those in the company who will benefit from the metrics program for input. Your company's goals may be less far-reaching than those presented in Figure 3.1.

Actions Required for Step 2

1. Select one or two goals from the following list, or use already determined goals.
 2. Document the goals in the metrics program documentation, and expand them in detail.
 3. List any questions that would be asked by someone trying to achieve these goals. These questions will be helpful in performing Step 3. A sample question might be *“What is the project schedule?”*
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Figure 3.1 :
Common
metrics
program goals.

Goal	Motivation for Choosing the Goal
1) Improve the development process	Establish conformance to standards Raise SEI maturity level Increase staff efficiency
2) Improve software estimation	Accurate project proposals Avoid cost overruns Avoid schedule overruns Ensure profitability Maximize requirements stability Minimize risks
3) Improve project tracking	Predict need for corrective action Ensure conformance to standards
4) Minimize schedule	Deliver products on schedule Increase throughput of new products or features
5) Minimize development cost	Deliver within budget Maximize profit
6) Improve software quality	Meet product requirements Reduce delivered defects Reduce time spent on rework
7) Improve software performance	Meet performance goals Minimize hardware performance requirements
8) Improve productivity	Reduce or stabilize staffing levels

Step 2 Example Goals

Back at Buddicorp, we are ready to select some goals for our software metrics program. Our initial description of the problem identified many problem areas, all of which can be translated into program goals. These include:

- excessively high defect levels in delivered software
- late and unpredictable software delivery dates
- ad hoc development process
- unrealistic development schedules

After consulting with the development teams, you determine that most of the problems are centered around the schedule and delivery dates.

Buddicorp could improve its company image as well as staff morale simply by better managing the time required to deliver products. Also, Buddicorp could track development against its schedule so that problems can be detected and corrected early in the development cycle.

Based on this information, you select following goals:

Goal 2: Improve Software Estimation Capabilities

Goal 3: Improve Product Tracking Capabilities

To record these goals, you decide to prepare a short document which you name "Metrics Program Description". This document will serve as a central place for the documentation of the details, rationale, and analysis of the Buddicorp metrics program.

You update the Metrics Program Description to include the goals, and the motivation behind their selection.