

## Software Estimation Service Center (SESC)

### Purpose:

Inaccurate software project estimates are the cause of a lot of waste in IT departments. For example, the consequences of trying to work to an inaccurate estimate can be:

- initial estimate was too high - low productivity or missed opportunities;
- initial estimate was too low - inefficient resource allocation at the end of the project, budget overruns and late deliveries .

There are some very good estimating tools available to help solve this problem but they require expertise and regular use to deliver benefits. If our clients are ready to invest in in-house expertise and they have the estimate volume to ensure regular use then we may recommend that they buy a tool.

If clients don't want to invest in in-house expertise, but have the need for frequent estimates, we recommend that they establish an outsourced Software Estimation Service Center (SESC) at DCG.

An SESC establishes an outsourced estimating capability to satisfy continuous estimating practices. This model is often used when the majority of projects need estimates or when frequent business critical project estimates are required.

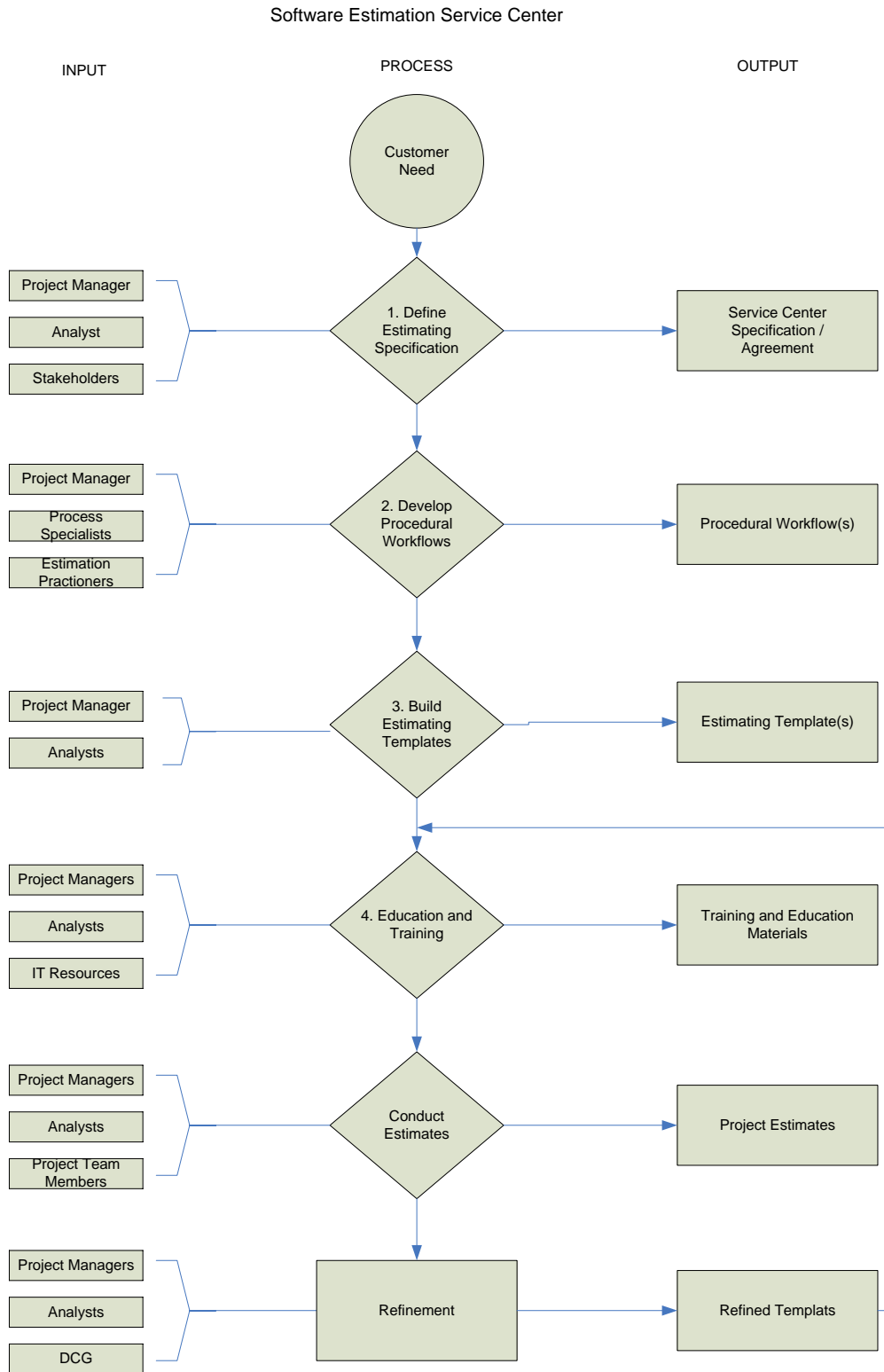


### Software Estimation Service Center (SESC) Service Offering

### The Need:

This service is directed at those organizations that have to estimate projects and releases throughout the year. These estimates are planned and scheduled, typically on a monthly basis. A well defined process is established and estimating templates are developed that are unique to a particular organization. Historical data is maintained and over time the estimating practices are calibrated to achieve a higher degree of accuracy.

The Process:



## Step 1 - Define estimating specifications

This initial step includes developing an understanding of the clients needs and expectations and the availability of critical data required to produce a reasonable estimate. During this step we: gain an understanding as to the nature of the projects to be estimated (e.g., new development, enhancement, maintenance); define what is being estimated (e.g., level of effort, duration, resources, defects); identify which estimate will be used (e.g., project management, customer expectations); identify the level and quality of data available to perform the estimate and examine current estimating practices. This information is used to create a formal specification and serves as the basis for establishing a formal estimation service center. The associated costs for a formal service center are estimated and a go/no go decision is made at this stage.

Participants: Project managers, business and systems analyst, stakeholders

Technique: Agile 30 day sprint

Output: Service Center Specification/Agreement

Duration: 30 days

## Step 2 - Develop Procedural Workflows

During this stage several procedural models are created. The intent is to fully define how and when the estimating procedures occur in the various software development lifecycles. It is anticipated that an organization will have different lifecycle models depending upon the nature of their development activity; e.g., waterfall, agile, unified process. It is critical to understand each of these models and how the estimates will be used at various stages of development. Service Center practices and procedures are defined during this stage and will outline the roles and responsibilities as well as the intended deliverables.

Participants: Project managers, process specialists, estimation practionners

Techniques: Agile 30 day sprint

Output: Procedural Workflows

Duration: 30 days

## Step 3 – Build Estimating Templates

We incorporate the use of a commercially available estimating software package (Seer from Galorath) into our Service Center program. This software tool requires a certain degree of 'tuning' to the specifics of the organization and their estimating specifications. As such, during this stage we work with selected personnel to fine tune the model and essentially define within the software model the general characteristics of the development environment. Defaults are established and thresholds and allowances are fine tuned thus creating a standardized model for the organization. During this stage, several 'pilot' projects will be selected and estimates will be generated using the estimating software.

Participants: Project managers, business and systems analyst

Techniques: Agile 30 day sprint

Output: Properly 'tuned' Estimating Template(s)

Duration: 30 days

#### Step 4 – Educate and train personnel

The Estimation Service Center operation procedures will be a new concept and will represent change within the organization; therefore, selected individuals need to be aware of the service and educated on how this service is to be used to fit their specific needs. General awareness and education sessions are scheduled. We will incorporate the pilot experiences into the awareness and training sessions.

Participants: Project managers, business and systems analyst, IT resources

Techniques: Group training and awareness sessions

Output: Training and Education Materials

Duration: 10 days

#### Step 5 – Conduct Estimates

Estimates will be scheduled in a 30 to 60 day window. Specific procedures describing how estimates are to be scheduled will have been defined in Step 2 above. The estimates will be performed remotely. Each estimate will be recorded and the information will be retained. As actual data becomes available that too will be captured and retained for further analysis.

Participants: Project manager, business and systems analyst, project team members

Techniques: Group or individual interviews

Output: Project Estimates

Duration: 1- 3 days

#### Step 6 – Refine Estimating Procedures

As the organization gains experience with the estimating practices and as historical project data is collected, we will use that information to make adjustments to both the tool and the estimating procedures. Estimating activities will be closely monitored for the first three months. Reports will be generated to show the effectiveness of the estimating activity and recommendations will be made based on future needs.

Software Estimation Service Center

