**Washington State**
**Department of Transportation**

# Control Account Guidelines

**Effective Date:** July 1, 2008
**Status:** Revision 0
**Supersedes:** NA
**Document Owner:** Director, Environmental and Engineering Program

## Introduction & Definition

This paper provides a description, guidance and examples of a "Control Account". The Control Account is the lowest level of the WSDOT Enterprise Project Structure (EPS)/Work Breakdown Structure (WBS).

According to the Project Management Body of Knowledge "PMBOK Guide Third Edition", a Control Account is defined as follows:

*Control Account (CA) [Tool]. A management control point where the integration of scope, budget, actual cost and schedule takes place, and where the measurement of performance will occur. Each control account is associated with a specific single organizational component in the organizational breakdown structure (OBS).*

In WSDOT, Control Accounts are placed at selected levels within work packages. There may be several control accounts associated with each work package; however, a control accounts is associated with only one work package.

In addition to the Control Account, a Control Account Plan is defined as follows:

*Control Account Plan (CAP) [Tool]. A plan for all of the work and effort to be performed in a control account. Each CAP has a definitive scope of work, schedule and time-phased budget.*

In WSDOT, the Control Account plan is simply the selected breakdown and application of each Control Account within project work packages and is developed as part of WBS definition.

## Where Control Accounts fit in the EPS/WBS

The nine (9) EPS/WBS levels are listed below. Refer to the Enterprise Project Structure (EPS)/Work Breakdown Structure (WBS) guidelines on the Project Management Web Portal for more information.

1. WSDOT Statewide
2. Mode
3. Region
4. Corridor (or group of projects)
5. Project
6. Work Item (WIN)
7. Phase
8. Work Package
9. **Control Account**

The Control Account is a division of the Work Package, and is an agreement between a project manager and a group, discipline, organization or company (organizational unit) to perform all of the work for that organizational unit. The Control Account divides the Work Package into the manageable packages of work performed by a specific organizational unit or an individual manager. The intent is to allocate/assign a specific scope to an individual or group of individuals and measure their cost and schedule performance against a plan. This enables the accountability and responsibility for delivery of specific scope items, such as Master Deliverable List items with a specific cost and schedule for their delivery. Each Work Package is required to have at least one Control Account. Another way to view Control Accounts, is a work breakdown structure (WBS) / organizational breakdown structure (OBS) or responsibility assignment matrix where each cell is a Control Account.

A Control Account can contain either a single or multiple deliverables and should span enough time so that its progress can be measured and a trend established that can be used to affect the outcome of that Control Account. On medium to large projects, it is recommended that a Control Account should be between 8 and 24 months in length, although this is just a guideline. Larger groupings of items into fewer Control Accounts make it easier to manage the Control Accounts. Control Accounts should be developed by staff knowledgeable about the work to be performed and set at a level that is appropriate for the specific project.

Earned value is applied at the Control Account level. When a Control Account is originally established, the Project Manager will cost load the Control Account and establish the earning rules for it. The cost loading provides a tool to establish a detailed baseline for the Control Account, or a plan for exactly how the work is going to be performed. The type of cost loading will depend on the project, its size, complexity and stage of completion and could range from a single line item to a breakdown of each person billing the item by hour and rate, to list of pay items and unit prices. The earning rules are independent from the roles/resources and are steps that have to be taken with a weighting assigned to each step that add up to 100% of the Control Account budget. When there is more than one deliverable associated with a Control Account, each deliverable contributes to the whole Control Account. This provides an objective method for measuring physical progress. As work progresses, actual costs are recorded and compared against the plan. The Control Account is key to earned value analysis.

## Scalability of Control Accounts

Control Accounts are scalable to project size so that Project Managers do not spend a disproportionate amount of time tracking a large number of Control Accounts for a project that doesn't justify this level of management detail. Control Accounts can be scaled to include a large number of deliverables or even all of the deliverables that an organizational unit is providing. A Project Manager would still track the deliverables by the organizational unit to maintain responsibility for the deliverables. A small paver project for example, may require only one Control Account for the design, individual deliverables can be included in a single Control Account. Earning rules would be established for the deliverables within the Control Account. This greatly simplifies the management effort needed to maintain the project records and still provides the reporting data needed to rollup all projects. The Project Manager still has to provide progress reports and track the schedule and cost, but only on a few items instead of hundreds or thousands on larger projects. The deliverables would have MDL codes associated with them so they too can be identified and tracked individually.

WSDOT Enterprise Project Structure (EPS) / Work Breakdown Structure (WBS)
August 6, 2008

| Scenario ———> | Level | Control Account at Level 9 | Multiple Control Accounts/Phase | One Control Account/Phase (minimum requirement) |
|---|---|---|---|---|
| EPS | 1 | WSDOT Statewide | WSDOT Statewide | WSDOT Statewide |
| | 2 | Mode | Mode | Mode |
| | 3 | Region | Region | Region |
| | 4 | Corridor | Corridor | Corridor |
| | 5 | Project | Project | Project |
| EPS/WBS | 6 | Work Item (WIN) | Work Item (WIN) | Work Item (WIN) |
| WBS | 7 | Phase | Phase | Phase/Control Account |
| | 8 | Work Package | Work Package/Control Account | |
| | 9 | Control Account | Schedule Activities (Deliverables) | Schedule Activities (Deliverables) |
| | | Schedule Activities (Deliverables) | | |

Key Points:
1. There is flexibility in using the WBS to meet project specific needs.
2. The WIN is the lowest level of the EPS and the highest level of the WBS.
3. Work Packages are defined at the project level.
4. Control Accounts are defined at the project level.

## Examples of Control Accounts
Below are a few examples of Control Accounts on different types of projects.

*Large Highway Project*
For example; a Control Account can be established for the Environmental Impact Statement (EIS) during the design phase of a large highway project. This is specific to one group who are responsible for a set of related deliverables with an assigned scope, schedule, and budget. Another example would be a Control Account for the environmental permits.   This is another set of related deliverables performed by the same group.  It makes sense to have separate control accounts in this case since the nature and type of deliverables are different, even though they are both environmental activities.

*Small Paver Project*
An example of a Control Account during the design phase of a small paver project can be the whole "Design" effort, assuming all of the work is being done in-house by the same group. If there are multiple groups working on it, each group will need its own Control Account.  On a small project with a short duration, it typically doesn't make sense to break down the design into small work packages.  The entire design can be tracked in one Control Account.  The schedule can identify the deliverables and reflect a greater level of detail, but the costs would be tracked at the Control Account level.

## What Detail is Needed Below the Control Account Level?
The breakdown of work doesn't stop at the Control Account.  It can continue down to as low a level as project management desires.  The way in which it breaks down will vary depending upon what management function is being performed.  For example, if performing scheduling

functions, the Control Account would then be broken down into the groups of tasks, and then the tasks themselves. Even the individual tasks can be broken down into steps needed to complete the tasks. If performing cost management functions and earned value analysis, the Control Account could breakdown into the deliverables, which would breakdown into the cost elements, which could be pay items or resources. The cost elements should have consistent earning rules applied by deliverable type. If performing document control functions the Control Account would breakdown into a detailed coding and filing structure.