
Earned value management in project and programme management

*Management de la valeur acquise en management de projet et de
programme*



This document is a preview generated by ERS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms, definitions and abbreviated terms	1
4 Overview of earned value management	4
4.1 Earned value management.....	4
4.2 Purpose and benefits of earned value management.....	4
4.3 Guidelines for an earned value management system.....	4
4.4 Earned value management planning.....	5
4.5 Using earned value measurements and performance metrics.....	5
5 Earned value management process steps	6
5.1 General.....	6
5.2 Step 1: Decompose the project or programme scope.....	7
5.3 Step 2: Assign responsibility.....	7
5.4 Step 3: Schedule the work.....	7
5.5 Step 4: Develop time-phased budget.....	8
5.6 Step 5: Assign objective measures of performance.....	9
5.7 Step 6: Set the performance measurement baseline.....	10
5.8 Step 7: Authorize and perform the work.....	10
5.9 Step 8: Accumulate and report performance data.....	11
5.10 Step 9: Analyse performance data.....	12
5.11 Step 10: Take management action.....	12
5.12 Step 11: Maintain the baseline.....	13
6 Earned value management system review	13
6.1 General.....	13
6.2 Integrated baseline review.....	14
6.3 Demonstration review.....	14
6.4 Surveillance.....	15
Annex A (informative) Cost and schedule performance measurement analysis using earned value management data	16
Annex B (informative) Schedule analysis using earned value management data (earned schedule)	19
Annex C (informative) Integrating other project or programme management processes with earned value management	23
Bibliography	25

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 258, *Project, programme and portfolio management*.

Introduction

The purpose of this document is to provide guidance to those individuals involved in earned value management. It describes practices to provide benefits for project or programme planning and control.

This document provides guidance on concepts, responsibilities, integration and processes for the implementation of earned value management.

It provides information on performance metrics captured by an earned value management system.

It complements ISO 21500 and ISO 21503.

The target audience of this document includes, but is not limited to, the following:

- a) executive managers and those individuals involved in sponsoring projects or programmes;
- b) individuals managing projects, programmes or earned value management systems;
- c) individuals involved in the management of or performance of project management offices or project or programme control staff;
- d) developers of national or organizational standards.

The application of this document may be tailored to meet the needs of any organization or individual, so they may better apply the concepts and practice of earned value management.

Earned value management in project and programme management

1 Scope

This document provides guidance for practices of earned value management in project and programme management. It is applicable to any type of organization including public or private and any size or sector, as well as any type of project or programme in terms of complexity, size or duration.

This document provides the following:

- a) terms and definitions;
- b) descriptions of the purpose and benefits of earned value management;
- c) the integration and relationship with project or programme management;
- d) an overview of the processes and process descriptions;
- e) basic requirements for an earned value management system;
- f) use of an earned value management system.

It does not provide guidance on the use of specific processes, methods or tools in the practice of earned value management.

[Annexes A, B and C](#) describe cost, schedule and performance analysis, commonly used formulae with associated interpretations, and the integration of earned value with other project or programme management processes.

2 Normative references

There are no normative references in this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1.1 activity

identified piece of work that is required to be undertaken to complete a project or programme

Note 1 to entry: It may also be considered a work element.