
**Industrial automation systems and
integration — Integration of life-cycle
data for process plants including oil
and gas production facilities —**

**Part 13:
Integrated asset planning life-cycle**

*Systèmes d'automatisation industrielle et intégration — Intégration
de données de cycle de vie pour les industries de "process", y compris
les usines de production de pétrole et de gaz —*

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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).

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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

A list of all parts in the ISO 15926 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

ISO 15926 is an International Standard for the representation of process industries facility life-cycle information. This representation is specified by a generic, conceptual ontology that is suitable as the basis for implementation in a shared database or data warehouse. This ontology is defined in ISO 15926-2, and has an OWL (Web Ontology Language) representation defined in ISO/TS 15926-12. ISO 15926-2 and ISO/TS 15926-12 are intended to be used as a foundation for domain specific extensions defined in other parts of ISO 15926.

The ontology is designed to be used in conjunction with reference data, i.e. standard instances that represent information common to a number of users, production facilities, or both. The support for a specific life-cycle activity depends on the use of appropriate reference data in conjunction with the ontology.

This document specifies an extension to the generic, conceptual ontology to support integrated planning for assets throughout their life-cycle. The ontology enables the integration of planning data from different sources within a company database.

The ontology is represented in OWL. This document also specifies an XML schema definition (XSD) for a machine-readable exchange of data used for asset planning.

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Part 13: Integrated asset planning life-cycle

1 Scope

This document specifies an ontology for asset planning for process plants, including oil and gas production facilities. In addition, it specifies an XML schema, derived from the ontology, for exchange of data used for asset planning.

The following are within the scope of this document:

- portfolio, programme and project plans and schedules;
- operational modification and ongoing maintenance plans and schedules;
- calendars for plan execution;
- constraints on the temporal relationships between items within plans and schedules, including succession link, lag, free and total float;
- activity breakdown structures;
- locations of activities;
- resources required, including material, equipment and human resources, and their costs;
- interfaces to systems that process work orders and purchase orders;
- responsible organizations and people;
- progress tracking and resource usage;
- reference to standard classes of facility, activity and resource.

EXAMPLE Standard classes are defined in ISO 19008.

The following are outside the scope of this document:

- standard classes of facility, activity and resource;
- NOTE ISO 19008 contains such standard classes.
- production planning;
 - plan simulation and optimization;
 - hazard identification and risk analysis;
 - manning and training of personnel;
 - budgeting and cost allocation.