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Additive manufacturing — General principles — Overview of data processing



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Preface

This Standard was prepared by the Standards Australia Committee MB-028, Additive Manufacturing.

The objective of this document is to specify requirements applying to data exchange for additive manufacturing. It specifies terms and definitions which enable information to be exchanged describing geometries or parts such that they can be additively manufactured. The data exchange method outlines file type, data enclosed formatting of such data and what this can be used for.

This document enables a suitable format for data exchange to be specified. It describes the existing developments for additive manufacturing of 3D geometries and outlines existing file formats used as part of the existing developments, enabling the understanding of necessary features for data exchange for adopters of this document.

This document is aimed at users and producers of additive manufacturing processes and associated software systems. It applies wherever additive processes are used, and to the following fields in particular:

- (a) Producers of additive manufacturing systems and equipment including software.
- (b) Software engineers involved in CAD/CAE systems.
- (c) Reverse engineering systems developers.
- (d) Test bodies wishing to compare requested and actual geometries.

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Foreword

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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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This document was prepared by Technical Committee ISO/TC 261, *Additive manufacturing*, in cooperation with ASTM Committee F42, *Additive Manufacturing Technologies*, on the basis of a partnership agreement between ISO and ASTM International with the aim to create a common set of ISO/ASTM standards on additive manufacturing, and in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 438, *Additive manufacturing*, in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO/ASTM 52950 replaces ISO 17296-4:2014, which has been technically revised and renumbered. The main changes compared to ISO 17296-4:2014 are as follows:

- change of the document number to ISO/ASTM 52950;
- removal of outdated or withdrawn standards ISO 17296-4 and DIN 66301 (VDA-FS);
- revisions to [Figure 1](#).

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