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**Designation: D6673 – 10**

**Standard Practice for**

**Sewn Products Pattern Data Interchange—Data Format**

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This standard is issued under the ﬁxed designation D6673; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. Asuperscript epsilon ( ) indicates an editorial change since the last revision or reapproval.

**1. Scope**

1.1 This standard is designed to facilitate communicationbetween CAD/CAM systems that represent two-dimensional ﬂat pattern pieces. This standard also provides conventions for representing related information such as grade rule tables. This standard is not intended to represent the relationships between pattern pieces or the correspondence between 2D or 3D sewn product pattern piece geometries.

1.2

The ﬁle format for the pattern data exchange ﬁle deﬁned by this standard (Practice D6673) complies with the Drawing Interchange File (DXF) format. Autodesk, Inc. developed the DXF format for transferring data between their AutoCAD(r) product and other software applications. This standard documents the manner in which pattern data should be represented within the DXF format. Users of this standard should have Autodesk, Inc.’s documentation on Drawing Interchange Files, found in the AutoCAD Reference Manual, in order to assure compatibility to all DXF format speciﬁcations. The AutoCAD Version 13 DXF speciﬁcation is to be used. The ﬁle format for the grade rule table exchange ﬁle is an ASCII text ﬁle.

1.3

*This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

**2. Referenced Documents**

2.1

*ASTM Standards:*

D6963 [Terminology Relating to Sewn ProductsAutomation](http://dx.doi.org/10.1520/D6963)

2.2

*ANSI/AAMA Standard:*

ANSI/AAMA-292A

**3. Terminology**

3.1

*Deﬁnitions of Terms Speciﬁc to This Standard:*

For all terminology related t Sewn Porducts Automation see Terminology D6963.

3.1.1

*alternate grade reference line*, *n* —an optional internal line whose orientation is used for the x axis of a grade rule.

3.1.1.1

*Discussion* —The application of a grade rule will beoriented to the grade reference line unless an alternate gradereference line is speciﬁed. (See grade reference line.)

3.1.2

*base size*, *n* —the digitized or created size of a style.

3.1.2.1

*Discussion* —Base size is a synonym of sample size.(See sample size.)

3.1.3

*block*, *n* —a DXF keyword that is used to identify asection of the ﬁle that has information about one object.

3.1.3.1

*Discussion* —a block keyword should be used to identify the start of information for a pattern piece and thesection should be ended with an endblk keyword.3.1.4

*internal cut outs*, *n* —lines, part of a pattern piece, not part of the piece boundary, which are cut during the cuttingprocess.

3.1.5

*internal lines*, *n* —lines, part of a pattern piece, not apart of the piece boundary, which are not cut.

3.1.5.1

*Discussion* —Internal lines are not cut but may bedrawn during the cutting process.3.1.6

*sew lines*, *n* —internal lines that indicate where stitch-ing of pattern pieces is to be done.

3.23.2.1

*entities*, *n* —a DXF keyword that is used to identify thesection of the DXF ﬁle describing ﬁle identiﬁcation informa-tion.

3.2.1.1

*Discussion* —Style system text must be placed in theentities section of the DXF ﬁle.

3.2.2

*system text*, *n* —information related to either the styleand/or pattern pieces in the DXF ﬁle.

3.2.3

*system text identiﬁer*, *n* —keywords used in DXF ﬁleto construct syntax and associate values with speciﬁc systemtext.

3.2.5

*validation vertex*, *n* —vertex that is inserted into a polyline in order to guarantee that the resulting polylinerepresents the original curve in the exporting CAD systemswithin a given curve tolerance

**4. Summary of Practice**

4.1

*Pattern Piece Transfer File Format* —The ﬁle format deﬁned by this standard complies with the DXF format. A DXF ﬁle is a specially formatted ASCII text ﬁle. It consists of an

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This practice is under the jurisdiction of ASTM Committee [D13](http://www.astm.org/COMMIT/COMMITTEE/D13.htm) on Textiles and is the direct responsibility of Subcommittee [D13.66](http://www.astm.org/COMMIT/SUBCOMMIT/D1366.htm) on Sewn Product Automation.

Current edition approved Jan. 1, 2010.

Published March 2010.

Originally approved in 2001.

Last previous edition approved in 2004 as D6673–04.

DOI:10.1520/D6673-04.

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