

# DIN 66341:1993-12 (E)

Information technology; computer graphics; reference model; identical with ISO/IEC 11072:1992

---

<b>Contents</b>	<b>Page</b>
Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Definitions .....	2
3 The Computer Graphics Reference Model .....	7
3.1 Environment model .....	7
3.2 Externalrelationships .....	8
3.3 Environmentstructure .....	9
3.4 Data elements 1 .....	1
3.4.1 Introduction 1 .....	1
3.4.2 Composition 1 .....	1
3.4.3 Collection Store .....	11
3.4.4 Token Store .....	11
3.4.5 Aggregationstore .....	12
3.4.6 Environment State .....	12
3.5 Processing elements .....	12
3.5.1 Absorption 1 .....	2
3.5.2 Manipulation .....	13
3.5.3 Distribution .....	13
3.5.4 Assembly .....	13
3.5.5 Emanation .....	13
3.6 Characteristics of specific environments .....	14
3.6.1 Environment details 1 .....	4
3.6.2 Ou^utprimitives .....	16
3.6.3 Inputtokens .....	16
3.6.4 Properties .....	17
3.6.5 Transformations .....	18
3.6.6 Fan-in and fan-out .....	18
3.7 Relationship between Output and input .....	20
3.8 Internal interfaces .....	21
Annexes A Existing Standards and the CGRM .....	22
A. 1 Graphical kernel system—ISO 7942 .....	22
A.2 Graphical kernel system for three dimensions—ISO 8805 .....	22
A.3 Programmer's hierarchical interactive graphics system — ISO/IEC 9592 .....	24
A.4 Interfacing techniques for dialogues with graphical devices—ISO/IEC 9636 .....	24
A.5 Metafile for the storage and transfer of picture description information—ISO 8632 .....	26
B The relationship of Computer imaging to Computer graphics .....	27
C The relationship of window systems to Computer graphics .....	30
C.1 Introduction .....	30
C.2 Window systems .....	30
C.3 Windowing considered as an operator .....	30

<b>C.4 Windowing considered as part of the Computer graphics system .....</b>	<b>32</b>
<b>C.4.1 Overview .....</b>	<b>32</b>
<b>C.4.2 Operations on windows.....</b>	<b>33</b>
<b>C.4.3 Operations on window content.....</b>	<b>33</b>
<b>C.4.4 Displaying windows .....</b>	<b>34</b>
<b>C.4.5 Input.....</b>	<b>34</b>
<b>D Bibliography .....</b>	<b>35</b>