ISO/IEC 19516:2020-02 (E)

Information technology - Object manage ment group - Interface definition language (IDL) 4.2

Contents

Page

Foreword v

Introduction v

1 Scope 1
1.1 Overview 1

2 Conformance Criteria 1

3 Normative References 2

4 Terms and Definitions 2

5 Symbols 2

6 Additional Information 3
6.1 Acknowledgments 3
6.2 History 3

7 IDL Syntax and Semantics 4
7.1 Overview 4
7.2 Lexical Conventions 5
7.2.1 Tokens 8
7.2.2 Comments 8
7.2.3 Identifiers 8
7.2.4 Keywords 9
7.2.5 Other Characters Recognized by IDL 10
7.2.6 Literals 11
7.3 Preprocessing 13
7.4 IDL Grammar 13
7.4.1 Building Block Core Data Types 14
7.4.2 Building Block Any 30
7.4.3 Building Block Interfaces — Basic 31
7.4.4 Building Block Interfaces — Full 37
7.4.5 Building Block Value Types 39
7.4.6 Building Block CORBA-Specific — Interfaces 42
7.4.7 Building Block CORBA-Specific — Value Types 48
7.4.8 Building Block Components — Basic 53
7.4.9 Building Block Components — Homes 56
7.4.10 Building Block CCM-Specific 59
7.4.11 Building Block Components — Ports and Connectors 64
7.4.12 Building Block Template Modules 67
7.4.13 Building Block Extended Data-Types 70
7.4.14 Building Block Anonymous Types 76
7.4.15 Building Block Annotations 77
7.4.16 Relationships between the Building Blocks 80
7.5 Names and Scoping 81
7.5.1 Qualified Names 81
7.5.2 Scoping Rules and Name Resolution 82
7.5.3 Special Scoping Rules for Type Names 84

8 Standardized Annotations 86
8.1 Overview 86
8.2 Introduction 86
8.2.1 Rules for Defining Standardized Annotations 86
8.2.2 Rules for Using Standardized Annotations 86
8.3 Standardized Groups of Annotations 86
8.3.1 Group of Annotations General Purpose 86
8.3.2 Group of Annotations Data Modeling 89
8.3.3 Group of Annotations: Units and Ranges 89
8.3.4 Group of Annotations Data Implementation 91
8.3.5 Group of Annotations Code Generation 91
8.3.6 Group of Annotations Interfaces 92

9 Profiles 93
9.1 Overview 93
9.2 CORBA and CCM Profiles 93
9.2.1 Plain CORBA Profile 93
9.2.2 Minimum CORBA Profile 94
9.2.3 CCM Profile 94
9.2.4 CCM with Generic Interaction Support Profile 94
9.3 DDS Profiles 95
9.3.1 Plain DDS Profile 95
9.3.2 Extensible DDS Profile 95
9.3.3 RPC over DDS Profile 95

Annex A Consolidated IDL Grammar 97