

# The EXPRESS-UML Mapping

*The mappings between the ISO EXPRESS and OMG UML languages are described.*

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## 1. Part 25 - ISO EXPRESS/UML mappings

### 1.1. Part 25 Edition 2

The ISO team that created Part 25 Edition 1 has begun initial work on follow-on standards. No formal Part 25 Edition 2 project in ISO has been created as of July 2005. Agreement that an Edition 2 would address two needs has been reached in a series of ISO TC184/SC4 meetings:

1. extend the current mapping to cover EXPRESS 2;
2. add a new two-way mapping enabling the use of UML tools to define EXPRESS (i.e. to support UML/EXPRESS mapping for doing modeling, not implementation).

### 1.2. Part 25 Edition 1

ISO 10303-25 Edition 1 standardized a one-way mapping from EXPRESS 1 to UML 1.5 for use in implementations. In that usage scenario, UML is simply an abstraction of a programming language like C++.

Please see [An Introduction to Part 25 Edition 1](#) by David Price of Eurostep.

## 2. exff V0.1 EXPRESS/UML mappings

The [initial EXPRESS/UML mapping](#) was developed as a proof-of-concept as part of the early exff idea. A subset of EXPRESS Edition 1 is mapped into UML 1.5 static class diagram constructs. Additionally, a few EXPRESS structural constraints are mapped into OCL to test the concepts.

ISO 10303-25 EXPRESS to XMI Binding (Part25) is a standard being developed in ISO as part of the STEP suite of standards. It defines a mapping from EXPRESS 1 into UML 1.5. While the mapping defined here is in the spirit of Part 25, it is not yet identical. Part 25 Edition 1 is complete and future releases of exff will fully support Part 25.