

# IceDust 2: Derived Bidirectional Relations and Calculation Strategy Composition (Artifact)\*

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## Abstract

This artifact is based on IceDust2, a data modeling language with derived values. The provided package is designed to support the claims of the companion paper: in particular, it allows users to

compile and run IceDust2 specifications. Instructions for building the IceDust2 compiler from source in Spoofox are also provided.

**1998 ACM Subject Classification** D.3.2 Data-flow languages

**Keywords and phrases** incremental computing, data modeling, domain specific language

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## 1 Scope

The provided package is designed to support the following claims of the companion paper:

- IceDust2 has two working back ends.
- We did two case studies.

## 2 Content

The archive contains the following file and folders:

- A description on how to build the IceDust2 compiler and how to compile IceDust2 files.
- The source files for the IceDust compiler, a test suite, and IceDust example programs.
- The language workbench Spoofox (in Eclipse) in which IceDust is developed. The folder contains a Linux, Windows and MacOS version.
- The WebDSL compiler (also in Eclipse), which IceDust compiles to for persistence and concurrency. The folder contains a Linux, Windows and MacOS version.
- Two empty folders, suggested to use as workspace for Spoofox and WebDSL.

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† Core artifact developer.



## 1:2 IceDust 2: Derived Relations and Calculation Strategy Composition (Artifact)

### 3 Getting the artifact

The artifact endorsed by the Artifact Evaluation Committee is available free of charge on the Dagstuhl Research Online Publication Server (DROPS). The latest version of our code is available on GitHub: <https://github.com/MetaBorgCube/IceDust>.

### 4 Tested platforms

The artifact is known to work on macOS Sierra and Windows 10 with at least 5 GB of free space on disk and at least 4 GB of free space in RAM. JDK 8 or newer needs to be available on your path. (Both `java` and `javac` should be available in the terminal.)

### 5 License

EPL-1.0 (<http://www.eclipse.org/legal/epl-v10.html>)

### 6 MD5 sum of the artifact

65f4eb739bd175221e1e4962b9dad5b8

### 7 Size of the artifact

2.1 GB