



CLOUD Days

mobile day

3 CONFERENCES  
2 DAYS  
1 PLACE

17-19 NOVEMBER 2014

INTER EXPO CENTER (IEC), SOFIA



**Ceylon from here to infinity: the big picture and what's coming**

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Chief FroMage Officer at Ceylon

# Of course I have a plan

- Who's that?
- What does he do?
- Let's explain what it's about
  - The Ceylon ecosystem
- Ceylon's future

**Who? What?**

# N'importe qui, n'importe quoi

- I work for Red Hat
  - Since Ceylon went public
- Started the JVM compiler, Herd
- Works on the SDK, tools, integration



# Ceylon



# Ceylon is

- A language
  - Powerful, modern
  - Readable
  - Predictable
- An ecosystem
  - A platform
  - With modularity
  - Tooling

# The language

# The language

- Inspired by Java, C#
- Type inference
- More powerful typing
- Flow-typing
- Mixins
- Lambdas
- Comprehensions
- Reified generics
- Modules
- Metamodel
- Compiles to JVM, JSVM
- Full interoperability with Java, JavaScript



# The Ceylon IDE

# The Ceylon IDE

- Eclipse plugin started by David Festal (Serli) and Gavin King
- Integrated with JDT
- Compiles to JVM, JS
- Quick-fixes, refactoring, wizards
- Integrated with the backends
- And the module system
- As production-ready as Java Plugin

# Ceylon on IntelliJ

- Project started by Bastien Jansen and Matija Mazi
- Syntax colouring
- Compilation
- Navigation
- Work in progress

A large, faint, light-colored illustration of a hand holding a teardrop is centered in the background. The hand is positioned as if holding a single drop of liquid, which is depicted as a teardrop shape. The overall tone is soft and emotional.

# Demo

# The SDK

# ceylon.language thin

- String, Boolean, Integer, Float, Character
- Set, List, Map
- Operators : Summable, Correspondence...
- Callable, apply...
- System information : runtime, language
- Metamodel

# SDK aside

- `ceylon.collection`
- `ceylon.dbc*`
- `ceylon.file*`
- `ceylon.html`
- `ceylon.interop*`
- `ceylon.io*`
- `ceylon.json`
- `ceylon.locale`
- `ceylon.logging`
- `ceylon.math*`
- `ceylon.net*`
- `ceylon.process*`
- `ceylon.promise*`
- `ceylon.test`
- `ceylon.time`
- `ceylon.unicode*`

A large, faint, light-colored silhouette of an elephant's head and trunk, facing left, serves as a background for the text.

**CLI**



# The developer's best friend: the CLI

- Based on git
- One command: `ceylon`
  - Many sub-commands (compile, run...)
  - Plugins scripts: `ceylon-build`
- Completion
- Contextual help
  - Exported in man, html, docbook

A large, faint, light-colored illustration of a hand holding a teardrop is centered in the background. The hand is shown from the side, with the thumb and index finger forming a shallow cup that holds a single, large teardrop. The entire illustration is rendered in a soft, pale yellow or cream color, blending into the white background.

# Demo

**ceylon.build**



# ceylon.build

- Started by Loïc Rouchon
- Lets you write your build in Ceylon
- Inspired by Gradle

A large, faint, light-colored illustration of a hand holding a teardrop is centered in the background. The hand is shown from the side, with the thumb and index finger forming a shallow cup. A single teardrop is falling from the center of the cup. The entire illustration is rendered in a soft, pale yellow or cream color, blending into the white background.

# Demo

# Herd

# The module repository of tomorrow

- As pretty and useable as GitHub
- Web interface easy to use
- REST API
- Staging repositories
- Works with teams
- Integration with IDE, CLI, GitHub
- Social aspect

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**Demo**



# Vert.x / Cayla

# Vert.x / Cayla

- Started by Julien Viet (now working for Red Hat on Vert.x and Ceylon)
- Consists of:
  - `ceylon.promise`
  - `io.vertx.ceylon.core`
    - For Vert.x 2 and 3
  - `io.cayla.web`
  - `io.cayla.mvvm`

A large, faint, light-colored illustration of a hand holding a teardrop is centered on the page. The hand is shown from the side, with the thumb and index finger forming a shallow cup. A single teardrop is falling from the center of the cup. The entire illustration is rendered in a light, semi-transparent style against a white background.

**Demo**

# The future

# The past, actually

- 1.0 released in November 2013
- 1.1 released in October 2014
  - Compilation twice as fast
  - Up to 5 times faster in the IDE
  - Many bug fixes
  - IDE way more polished and powerful
  - Few changes in the language
  - Much better Java interoperability

# The future

- 1.1.5 end of 2014
  - Serialisation
  - Flow-typing in expressions
    - `if`, `switch` expressions
    - `else` blocks
  - `let`-expressions
  - Multiple constructors
- 1.2 in 2015
  - Sugar for enumerations
  - Assemblies
  - Multi-backend modules
  - Sync with Java 8 features
  - AST transformers
  - Linq-style comprehensions



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# Q & A

