

The Type System of PLAAY

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Abstract

Abstract to be done.

1 The basic idea of the type system

In PLAAY, values are organized into types. When variables and constants have declared types we try to ensure that only values of the given type are assigned to the variable or constants. This is done through a combination of static (i.e., composition-time) and dynamic (i.e., run-time) checks. The basic principle is to report problems to the user as soon as possible. Thus we report errors at composition-time when possible. Errors reported at composition time may be ignored by the user. That is they can run the program even if errors are being reported. So we still need run time checks even for errors that would normally be caught at compile time. This is in contrast languages like Java where compile there is limited need for run-time type checking.