

Concepts of Programming Languages, CSCI 305, Fall 2021
Names, Scopes, and Bindings, Chapter 3, Nov. 3
 Section 3.1 The Notion of Binding Time

Binding -an association between two things such as a name to an object

Binding time - the point at which a binding is created

Scope of a binding - the textual part of a program in which the binding is active

Binding times:

- Language design time
- Language implementation time
- Program writing time
- Compile time
- Link time
- Load time
- Run time

Static Binding	Dynamic Bindings
<ul style="list-style-type: none"> • Typically refers to things which are bound before runtime • Associated with greater efficiency • More likely in compiled languages 	<ul style="list-style-type: none"> • Typically refers to things which are bound during run time • Associated with greater flexibility • More likely in interpreted languages

Dynamic type binding

- Used by Scheme, LISP, Python, JavaScript, PHP
- Allows programs to be written which can operate on a variety of data (string, real, integer)
- Reduces reliability
- Reduces efficiency
- Generally dynamic binding only occurs for interpreted languages. Then the extra costs are hidden due to the process of interpretation.