

# **r6rs-libraries egg**

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Andre van Tonders macro and module system, with R6RS (draft) / SRFI-83 compliant libraries  
Extension for Chicken Scheme  
Version 2.204

Andre van Tonder, some work on the CHICKEN port by felix

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# 1 About this egg

## 1.1 Version history

- 2.204 Automatically compiles code using this extension with literal-compression
- 2.203 Added support for [SRFI-61](#)
- 2.202 Added a few new procedures, removed dependency on `chicken-config`.
- 2.201 Initial release

## 1.2 Usage

Load this egg like so:

```
(require-extension r6rs-libraries)
```

## 2 Documentation

For detailed specifications consult the official SRFI documents:

[SRFI-72](#)

[SRFI-83](#)

[Portable modules](#)

### 2.1 Notes

At least CHICKEN version 2.110 is required.

"Curried" `define` is allowed, as are definitions of the form `(define VARIABLE)` Note that DSSSL extended lambda lists are currently not available. CHICKEN as of version 2.0 supports the abbreviation `#'` for `quasisyntax`

`import` loads separately compiled libraries automatically. The predefined modules are handled specially since they are bundled in a separate shared object. Other modules are loaded via `require` by prepending the URI-scheme to the library name (if existing) and converting the library name to a symbol. So for example `(import "scheme://syntax-case")` would be required as `scheme-syntax-case`.

Toplevel expressions are by default evaluated in a scope that has the `scheme://chicken` library imported.

If you need to create a module for pre-existing libraries, create a wrapper module. The special form `import-primitives` allows importing unqualified toplevel identifiers into the current scope.

This extension is still in an experimental stadium.

### 2.2 Languages

Basically any library may be used as the "language" part (the second argument) of a library definition, but it must be available both at compile and run-time. Pre-defined languages are:

`scheme://chicken` [library]  
 Contains all R5RS and non-standard procedures provided by the basic CHICKEN system, that is everything contained in the `library` and `eval` library units.

`scheme://r6rs` [library]  
 R5RS procedures and syntax, including `scheme://syntax-case` and [SRFI-83](#).

### 2.3 Other libraries

`chicken://macros` [library]  
 Non-standard syntax extensions. Note that `eval-when` is not available and `internal-define-values` is not supported)

<code>chicken://ffi</code>	[library]
Macros for interfacing to foreign code.	
<code>chicken://extras</code>	[library]
<code>chicken://lolevel</code>	[library]
<code>chicken://posix</code>	[library]
<code>chicken://regex</code>	[library]
<code>chicken://tinyclos</code>	[library]
<code>chicken://utils</code>	[library]
Non-standard extensions of the CHICKEN system.	
The <code>chicken://tinyclos</code> module exports the <code>define-class</code> , <code>define-generic</code> and <code>define-method</code> syntax. Methods may only be defined on generic functions that have been previously defined with <code>define-generic</code> .	
<code>scheme://syntax-case</code>	[library]
<code>scheme://srfi-1</code>	[library]
<code>scheme://srfi-4</code>	[library]
<code>scheme://srfi-13</code>	[library]
<code>scheme://srfi-14</code>	[library]
<code>scheme://srfi-18</code>	[library]
Modules with <b>SRFI</b> functionality.	
<code>scheme://syntax-case</code> provides the <code>syntax-case</code> macro and also defines <code>syntax-rules</code> .	

## 2.4 Extensions

<code>define-for-syntax</code>	[macro]
( <code>define-for-syntax</code> ...)	
Identical to ( <code>begin-for-syntax</code> ( <code>define</code> ...)).	Exported by the
<code>scheme://chicken</code> and <code>scheme://r6rs</code> libraries.	
<code>import-primitives</code>	[macro]
( <code>import-primitives</code> IDENTIFIER ...)	
Imports the given identifiers unadorned into the current library. This provides a kind of "backdoor" for accessing internal identifiers or identifiers that are not defined in a library.	

### 3 License

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