

futures egg

A straightforward implementation of "futures" for concurrent evaluation of expressions.

Extension for Chicken Scheme

Version 1.1

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1 About this egg

1.1 Version history

1.1 Thomas Chust added some missing functions

1.0 Initial release

1.2 Usage

Load this egg like so:

```
(require-extension futures)
```

2 Documentation

This extension provides syntax and data types for *futures* - concurrently evaluated expressions that memoize their result

future [macro]
(future EXPRESSION)

Starts evaluation of EXPRESSION in a separate thread and returns a *future* object representing the computation.

future? [procedure]
(future? X)

Returns #t if X is an object returned by a **future** expression or #f otherwise.

force [procedure]
(force X)

If X is a future, then the current threads waits until the expression evaluated at the point of creating the future is complete. If an error occurred during that evaluation, or when the future executed to completion, then **force** will return the result(s) of the future expression.

If the argument is not a future, then the usual semantics of **force** apply.

future-complete? [procedure]
(future-complete? FUTURE)

Returns #t if the future has completed execution, or if an exception occurred during its evaluation, or #f otherwise.

future-failed? [procedure]
(future-failed? FUTURE)

Returns #t if an exception occurred during evaluation of the future or #f otherwise.

future-condition [procedure]
(future-condition FUTURE)

Returns the error-condition if an exception occurred during evaluation of the future or #f if the future is still executing or executed without an error.

3 License

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