

zn

Zn

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stfx Smalltalk is the Red Pill

Zinc

HTTP

Components

started

Sept 2010

included in

Pharo 1.3, 1.4, 2.0

WWW



HTTP

[]

Understandability

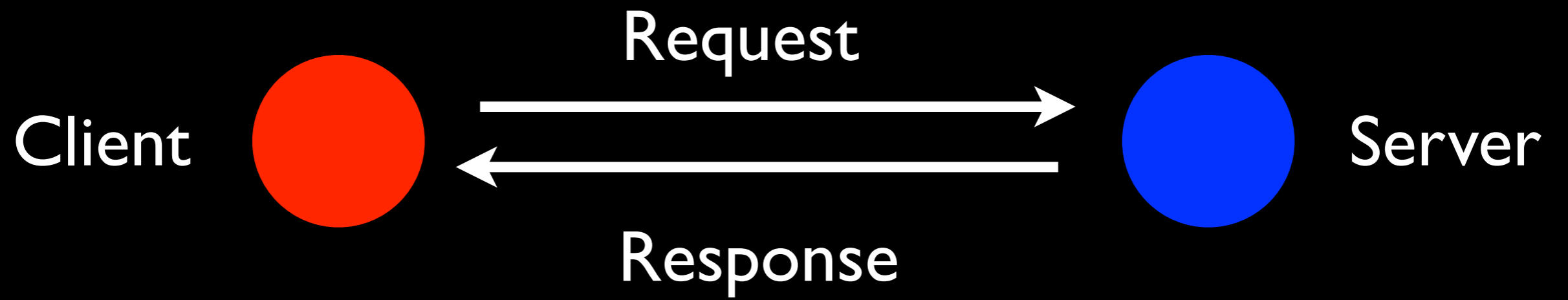
HTTP

Framework

Client

/

Server



Model



ZnRequest

ZnRequest

ZnRequestLine

ZnHeaders

ZnEntity

ZnMessage

ZnRequest

ZnRequestLine

ZnHeaders

ZnMessage

ZnRequest

ZnRequestLine **Verb URI**

ZnMessage

ZnHeaders

key:value *

ZnEntity

type/length/content

ZnResponse

ZnResponse

ZnStatusLine

ZnHeaders

ZnEntity

ZnMessage

ZnResponse

ZnStatusLine

ZnHeaders

ZnMessage

ZnResponse

ZnStatusLine **Code Reason**

ZnMessage

ZnHeaders

key:value *

ZnEntity

type/length/content

example

ZnClient new

get: <http://zn.stfx.eu/zn/small.html>.

ZnRequest

GET /zn/small.html HTTP/1.1

ZnMessage

Host: zn.stfx.eu

User-Agent: Zinc...

ZnResponse

HTTP/1.1 200 OK

Date: Tue, 08 May..

Server: Zinc...

text/html, 113B

<html>...</html>

ZnMessage

Framework

Core

Zinc-HTTP-Core

- *ZnMessage*
 - ZnRequest
 - ZnResponse
- ZnHeaders
- ZnRequestLine
- ZnStatusLine

Zinc-HTTP-Core

- *ZnEntity*
 - ZnStringEntity
 - ZnByteArrayEntity
 - ZnStreamingEntity

Zinc-HTTP-Core

- *ZnEntity*
 - ZnMultiPartFormDataEntity
 - ZnApplicationFormUrlEncodedEntity
- ZnMimePart

Support

Zinc-HTTP-Support

- ZnUrl
- ZnMimeType

Zinc-HTTP-Support

- Networking
- Authentication & Authorization
- Sessions, Cookies
- Constants, Parameters, Settings
- Utils

Streaming

Zinc-HTTP-Streaming

- Binary IO
- Bivalent Output
- Character Encoding/Decoding
- Chunked, Gzip Transfer

Exceptions

Zinc-HTTP-Exceptions

- Protocol specific
- Implementation Limits
- Parsing Errors

Logging

Zinc-HTTP-Logging

- Announcement based
- Destinations
 - Transcript
 - File
 - Stdout
 - Memory

Client

Zinc-HTTP-Client-Server

- ZnClient
 - **build** requests
 - **execute** requests
 - **process** responses
 - **manage** state

Correct HTTP Client Use

- ZnClient offers
 - **URI** construction
 - **error** handling
 - **retry** management
 - **response** handling
 - **accept/content-type** matching

MCHttpRepository>>allFileNames

| index |

self displayProgress: 'Updating ', self description during: [

index := ZnClient new

systemPolicy;

beOneShot;

signalProgress: true;

accept: ZnMimeType text;

ifFail: [:exception |

self error: 'Could not access ', location, ': ',

exception printString];

url: self locationWithTrailingSlash;

queryAt: 'C' put: 'M;O=D';

username: self user password: self password;

get].

^ self parseFileNamesFromStream: index readStream

Smalltalk HTTP Scripting

- ZnClient does
 - streaming downloads & uploads
 - follows redirects
 - write/read content representations
 - proxies, cookies, sessions
 - authentication, login, ...

Server

Zinc-HTTP-Client-Server

- ZnServer
 - run protocol
 - infrastructure
 - **delegate** #handleRequest:
 - **delegate** #authenticateRequest:do:

Zinc-HTTP-Client-Server

- ZnServer
 - ZnDefaultServerDelegate
 - ZnStaticFileServerDelegate
 - ZnMonticelloServerDelegate

Seaside

ZnZincServerAdaptor

default in/for Pharo

complete Seaside3 functionality

efficient binary data transfer

Documentation

Zn Paper / PBE2 Chapter

Class / Method Comments

220+ Unit & Functional Tests

QA = CI + IDE + Production

<http://zn.stfx.eu>

Zinc HTTP Components

Zn

May the source be with you

zn