

# EOF-1

## Basic definitions

telmich

2007-11-22 v0.2-train

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# 1 Introduction

This document specifies the basic datatypes and connection methods used in EOF-1. The aim is to stop repetition of datatype definition in other documents.

## 1.1 Changelog

### 1.1.1 v0.1 to v0.2

- Add versions specification

### 1.1.2 v0.1

- Initial release

# 2 Versions

This section clarifies the use of versions in the programs and protocols.

## 2.1 Protocol

The version of a protocol consists of

- **major** number,
- **minor** number and
- the **patchlevel**

An increment of either number must be reflected with a protocol version change within the protocol definition.

## 2.2 Major number

Within one major number the same aim should be followed. For instance version "0.x.y" could target the first release.

## 2.3 Minor number

Within one minor number the same functionality should be kept. For instance "0.1.y" contains basic functionality, "0.2.y" could contain complete new functionality.

## **2.4 Patchlevel**

The patchlevels are used to correct mistakes, but do not change the API.

## **2.5 Valid from...**

All protocol definitions (including drafts) that are released after **20071122** should follow this version numbering scheme.

## **2.6 Programs**

# **3 Connections**

## **3.1 Sockets**

Sockets are named Unix sockets.

## **3.2 Stdin and stdout**

To make programming easier, communication between some parts in EOF-1 is realised using stdin and stdout.

# **4 Environment**

Environment variable are set from the operating system or from the user. The following environment variables are used with EOF-1:

## **4.1 HOME**

Home directory of the user.

## **4.2 CEOF\_DIR**

Ceof configuration directory.

## **4.3 CEOF\_CLIENT\_SOCKET**

The socket that the clients (GUIs) should use. Relative to the directory specified by CEOF\_DIR.

## 5 Paths

### 5.1 Ceof configuration directory

#### 5.1.1 Default case

Normally, `$HOME` is set and `$CEOF_DIR` is not set. In that case the configuration directory defaults to `$HOME/.ceof`.

#### 5.1.2 HOME is unset

If the environment variable ”`HOME`” is not set, the directory named `.ceof` in the current directory will be used.

#### 5.1.3 CEOF\_DIR is set

If the environment variable ”`CEOF_DIR`” is set, its content will be used to refer to the configuration directory.

### 5.2 Ceof client socket

The client connects to a socket named `clients/socket`, relative to the configuration directory.

#### 5.2.1 CEOF\_CLIENT\_SOCKET is set

If the environment variable `CEOF_CLIENT_SOCKET` is set, ”`clients/socket`” should be replaced by its content.

## 6 Datatypes

### 6.1 ASCII numbers

ASCII numbers use the string representation of a number and 4 Byte, used when other programming language Excluding 0

### 6.2 Binary numbers

Between some parts of EOF-1 are binary numbers (as in `uint32`) exchanged.

### 6.3 Strings

Strings are transmitted without termination (i.e. no new line, no 0 byte).

## **6.4 Variable length strings**

Before variable length strings the length is submitted in a fixed size datatype.

## **6.5 Fixed length strings**

Fixed length strings must be padded with 0 Bytes, if they are shorter than the defined length.