

# Chapitre 1

## Introduction

### 1.1 Architecture

FMURF architecture consists in a simple application having several OSC connections in input and output. Basically it receives OSC/TUIO message on 3333 default port and emits/receive custom [/smurf/\*] messages on default ports 4444 and 4445.

### 1.2 TUIO

FMURF only uses a subset of TUIO 2D capabilities regarding fiducials (FIDs) and cursors.

### 1.3 OSC IN

[/smurf/fid/\*/live]

### 1.4 OSC OUT

OSC messages going out on default 4445 port consists in patterns like : [/smurf/fid/\*] and [/smurf/cursor/\*] . Indeed CRUD lifecycle is deduced from TUIO messages for both fiducials and cursors.

#### 1.4.1 Fiducials

Fiducials have five different messages : ADD, REMOVE, UPDATE and BANG

### 1.5 credits

FMURF heavily relies on openframeworks.cc C++ library. It uses TUIO and OSC protocols to connect to other 3rd party applications such as Puredata, Max/MSP, Csound, etc ...