

ATF2 Flight Simulator Updates



- Overview of FS goals and requirements
- Summary of updates since Dec meeting
 - Core software
 - Client applications

*Glen White, SLAC
8th ATF2 Project Meeting
June 2009*

Flight Simulator Goals

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- Provide simple to use, beam dynamics oriented, portable control access framework for ATF2 tuning tasks.

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- Simple and reversible transition from beam dynamics simulation to accelerator ready code.

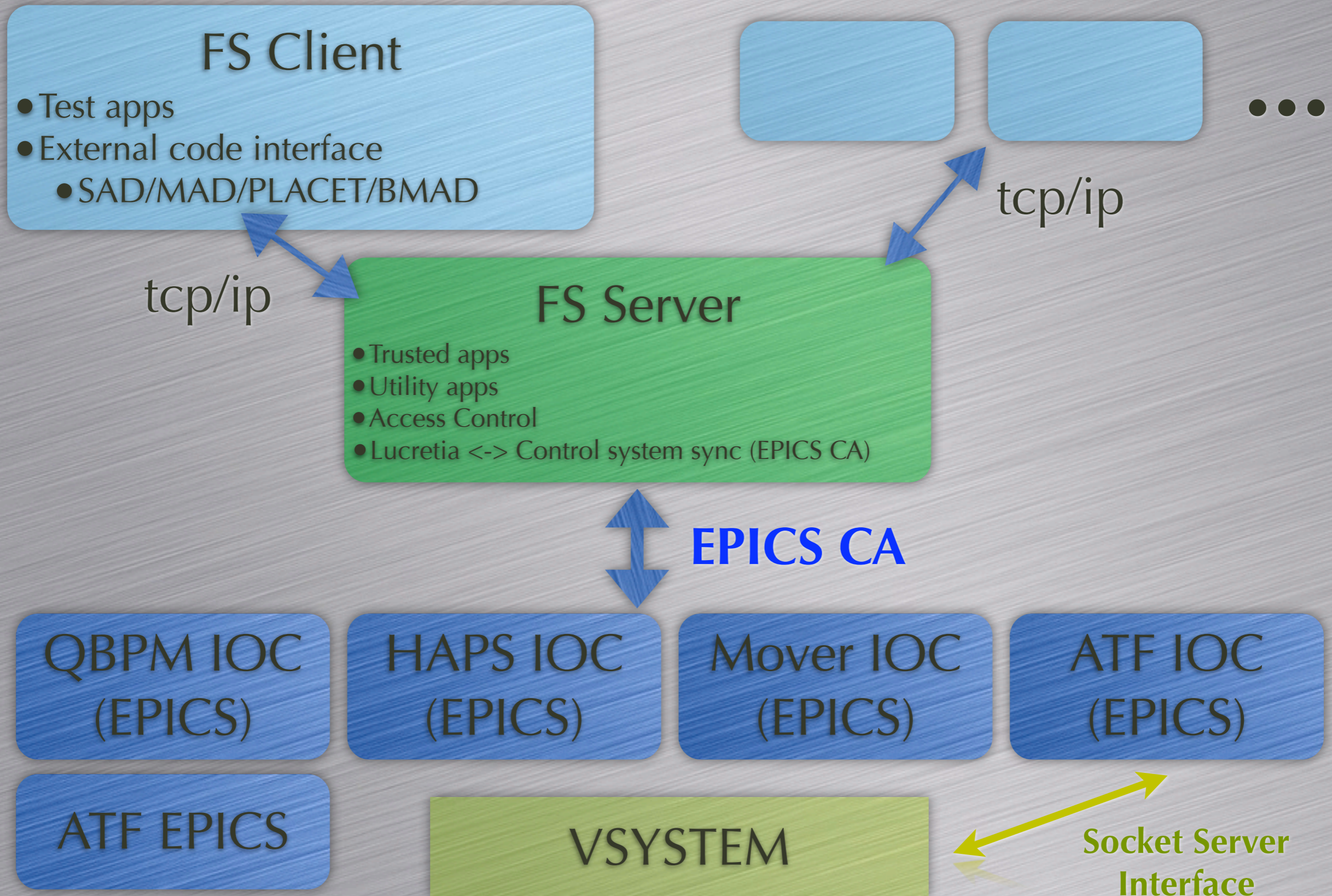
Flight Simulator Goals

- Provide simple to use, beam dynamics oriented, portable control access framework for ATF2 tuning tasks.
- Simple and reversible transition from beam dynamics simulation to accelerator ready code.
- Ability for international collaborators to develop beam tuning tools without need for expert level knowledge of control systems.

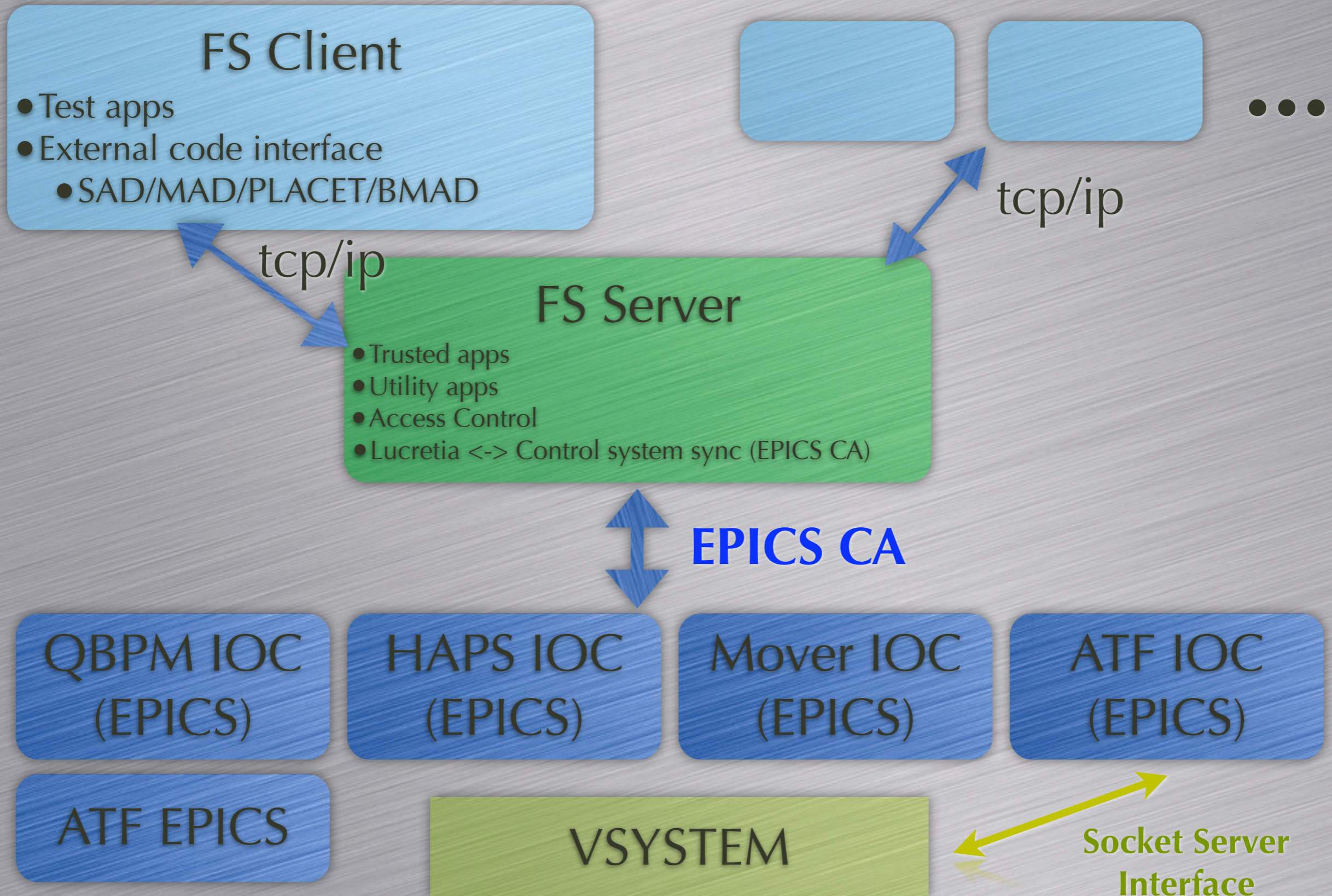
Flight Simulator Goals

- Provide simple to use, beam dynamics oriented, portable control access framework for ATF2 tuning tasks.
- Simple and reversible transition from beam dynamics simulation to accelerator ready code.
- Ability for international collaborators to develop beam tuning tools without need for expert level knowledge of control systems.
- Flight simulator operates in simulation mode at external location in the same way as the production system deployed at ATF2.

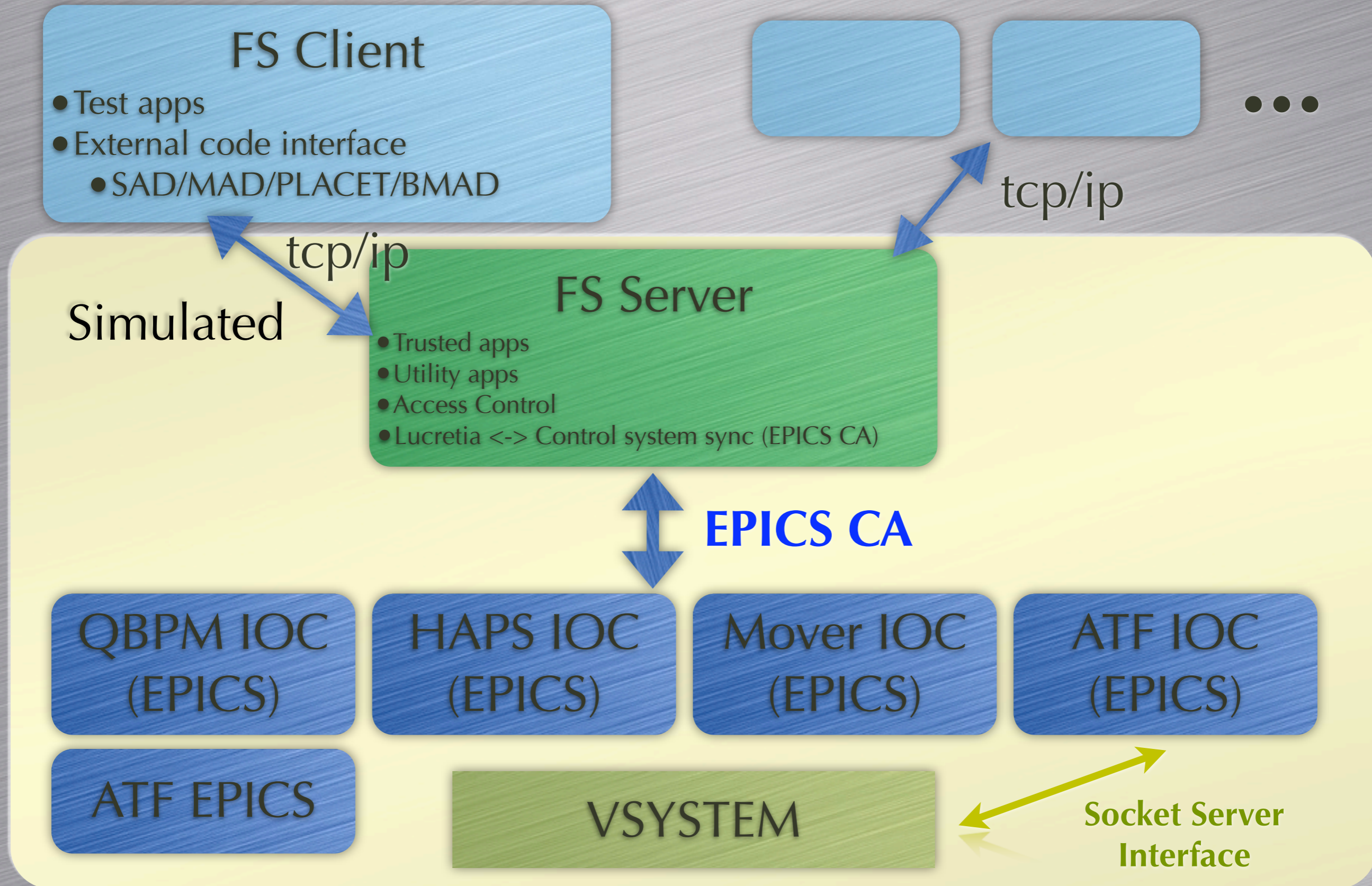
ATF2 Implementation



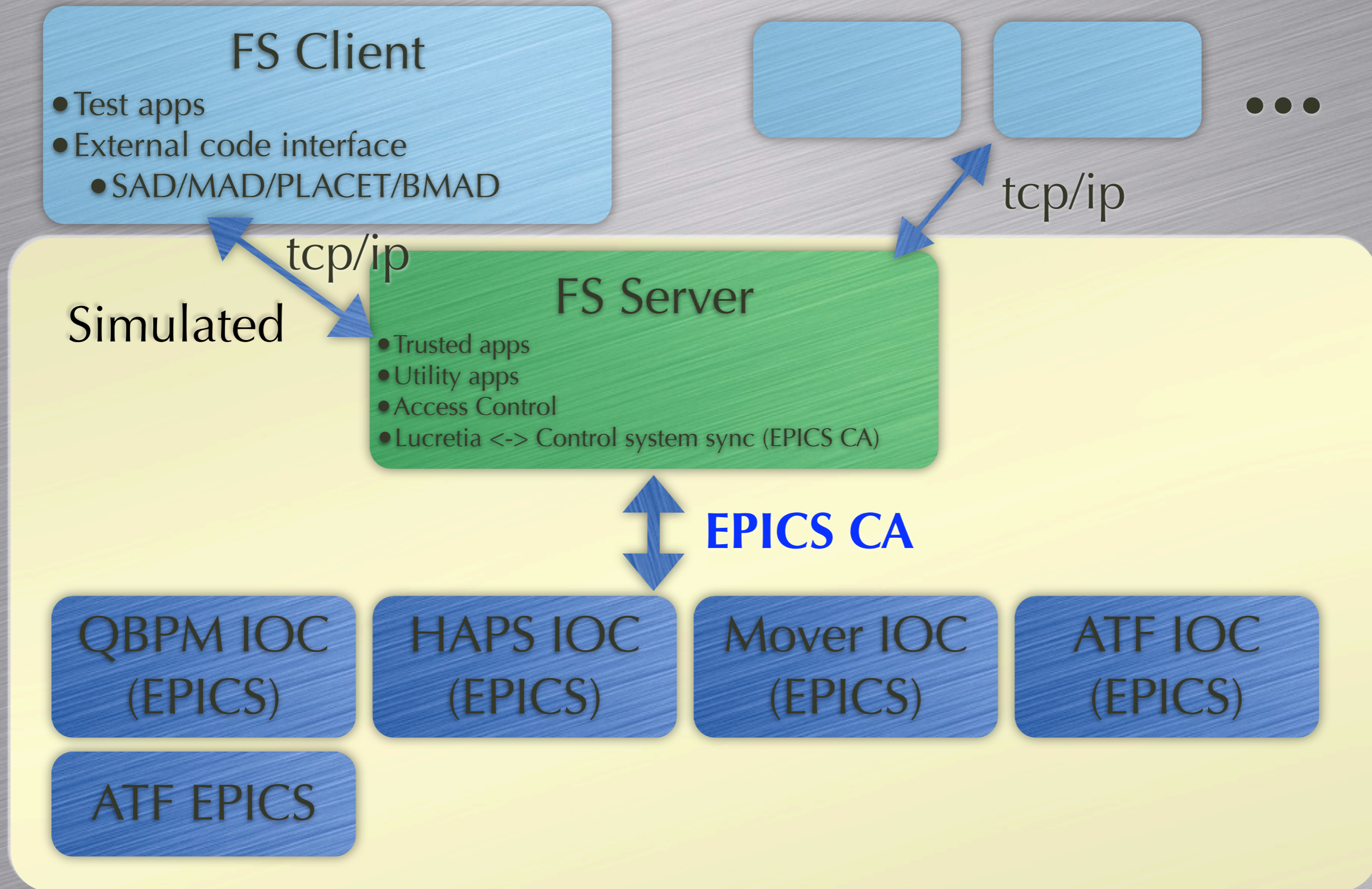
Simulation Mode



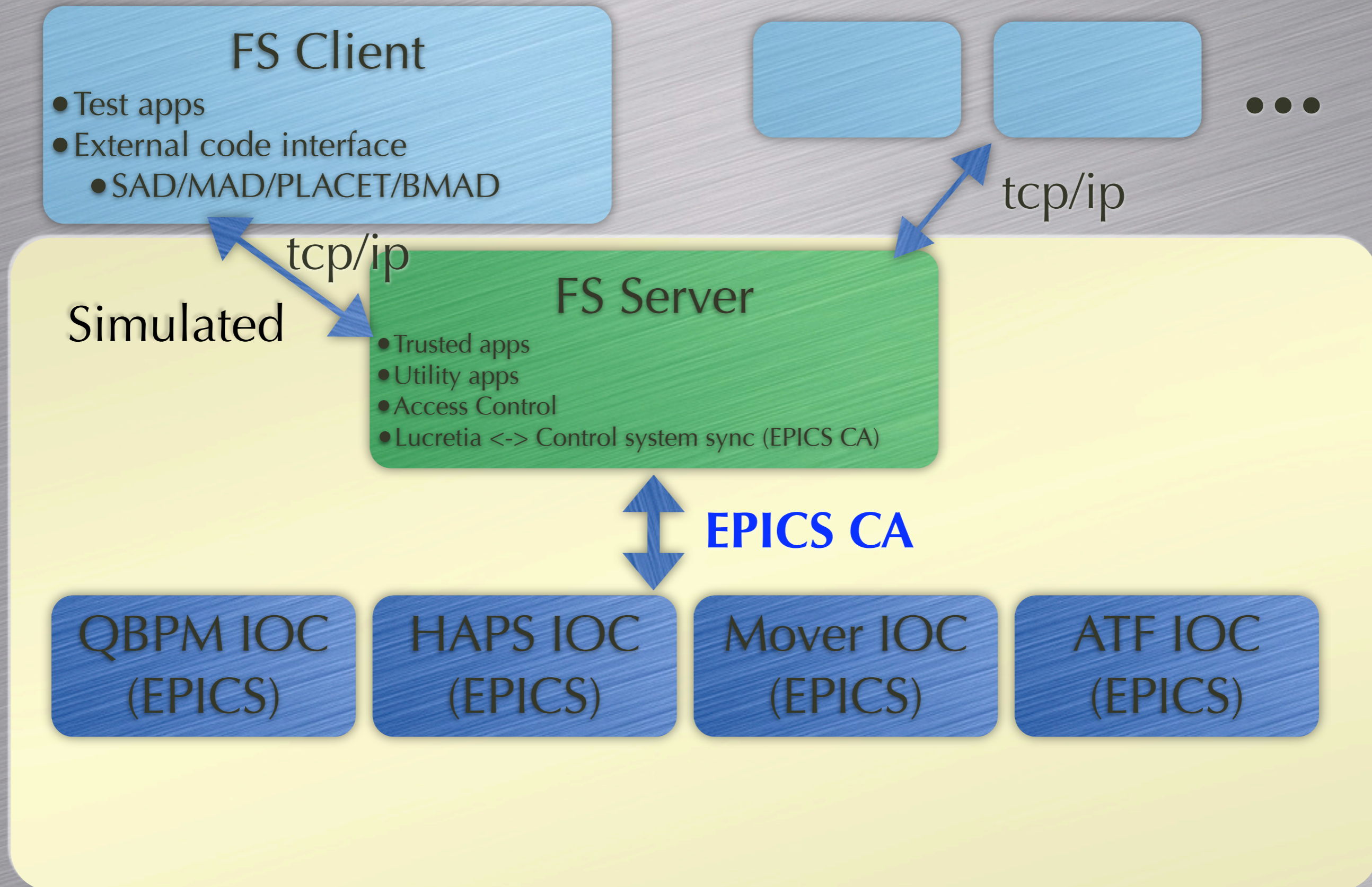
Simulation Mode



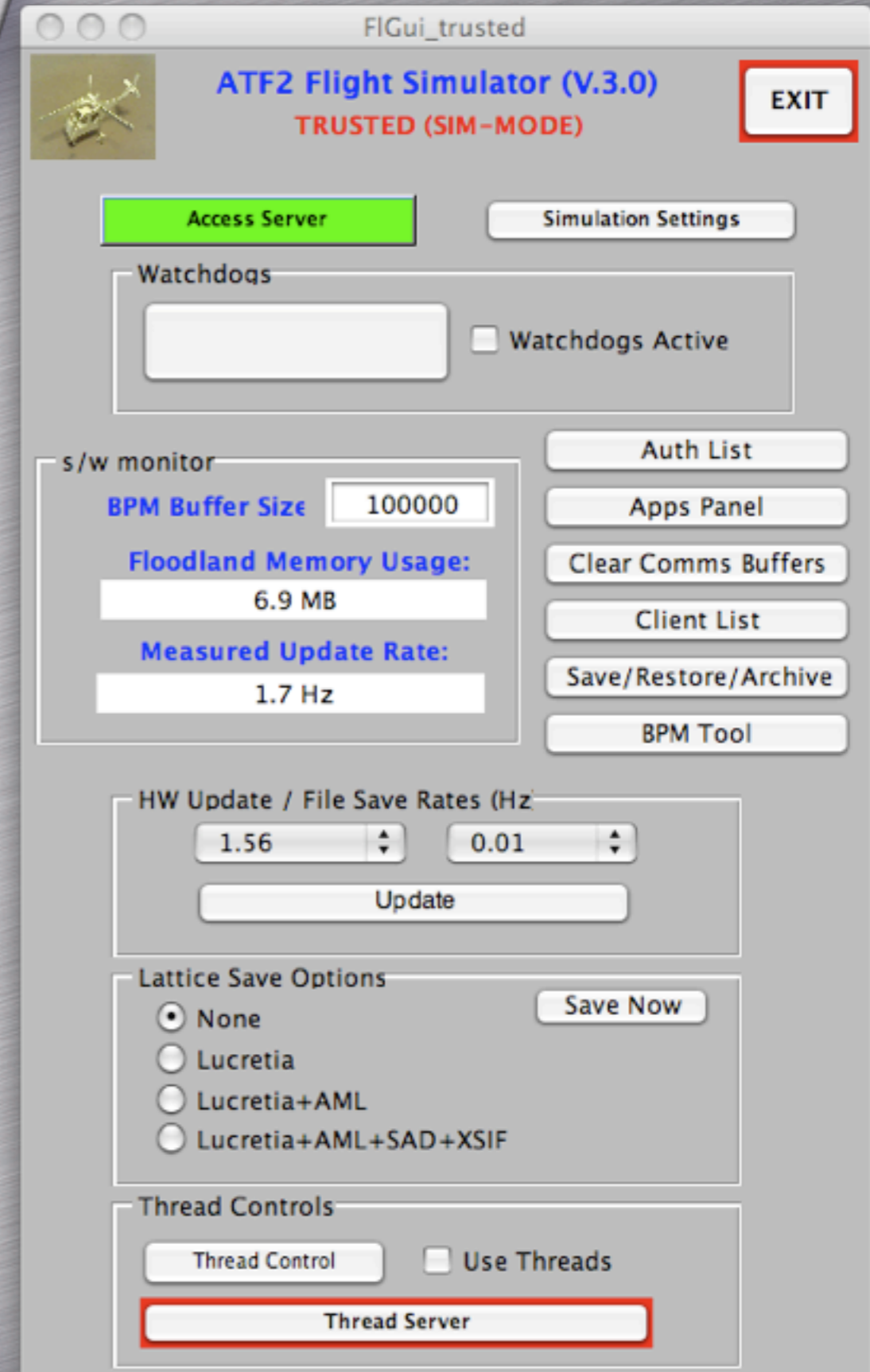
Simulation Mode



Simulation Mode

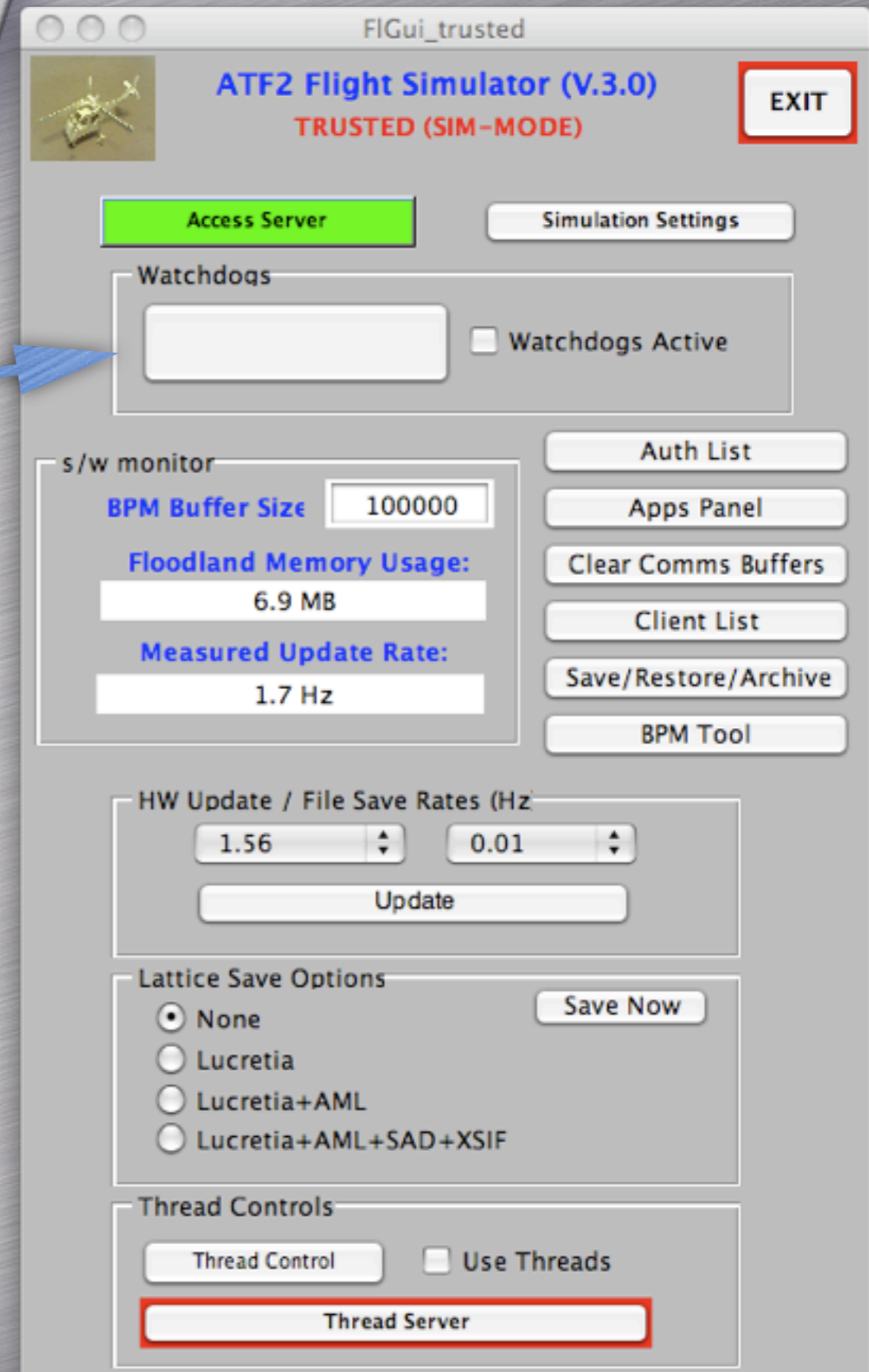


Server Development



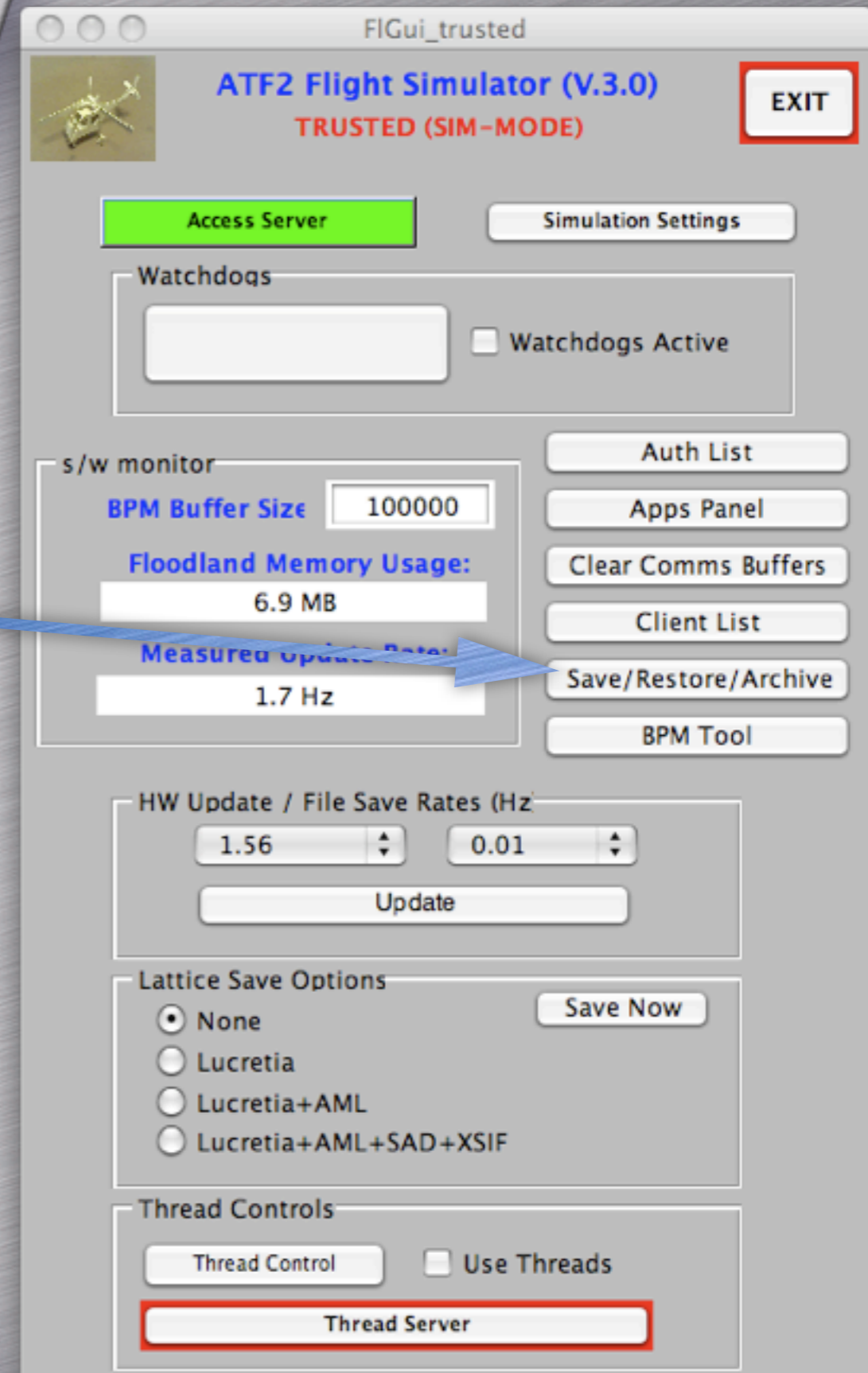
Server Development

- Watchdog apps



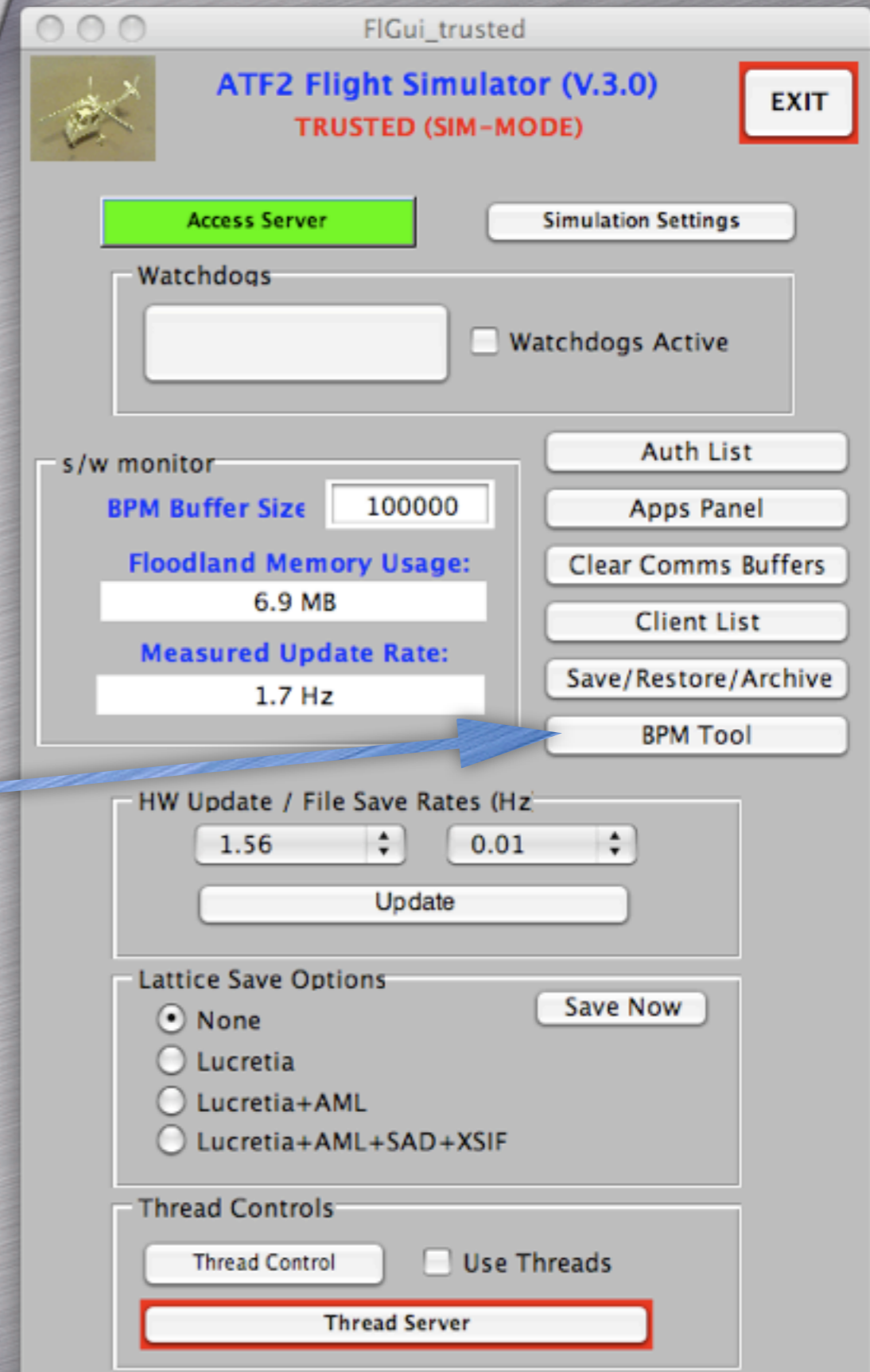
Server Development

- Watchdog apps
- Improved Archiver tool



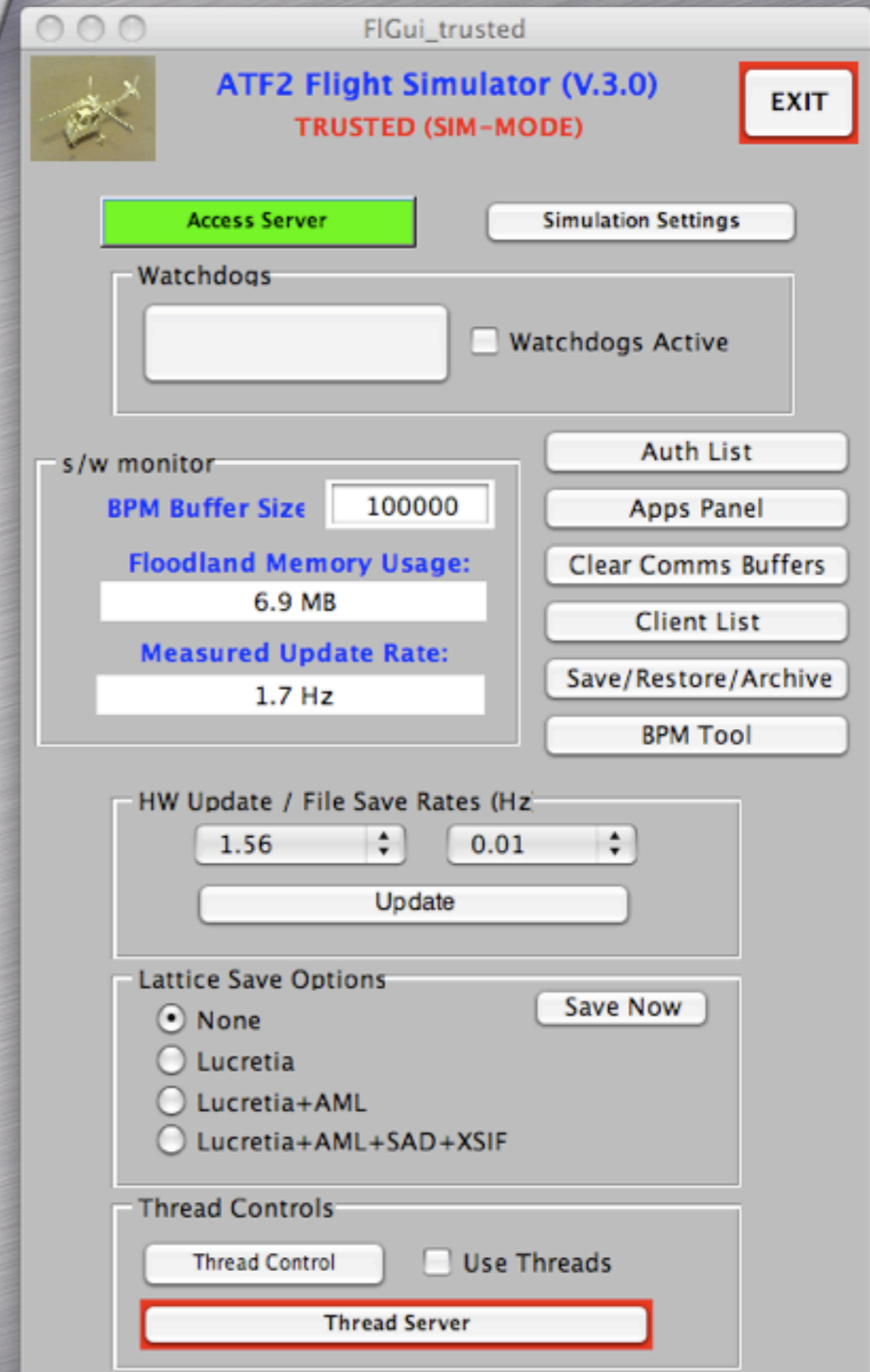
Server Development

- Watchdog apps
- Improved Archiver tool
- BPM tool

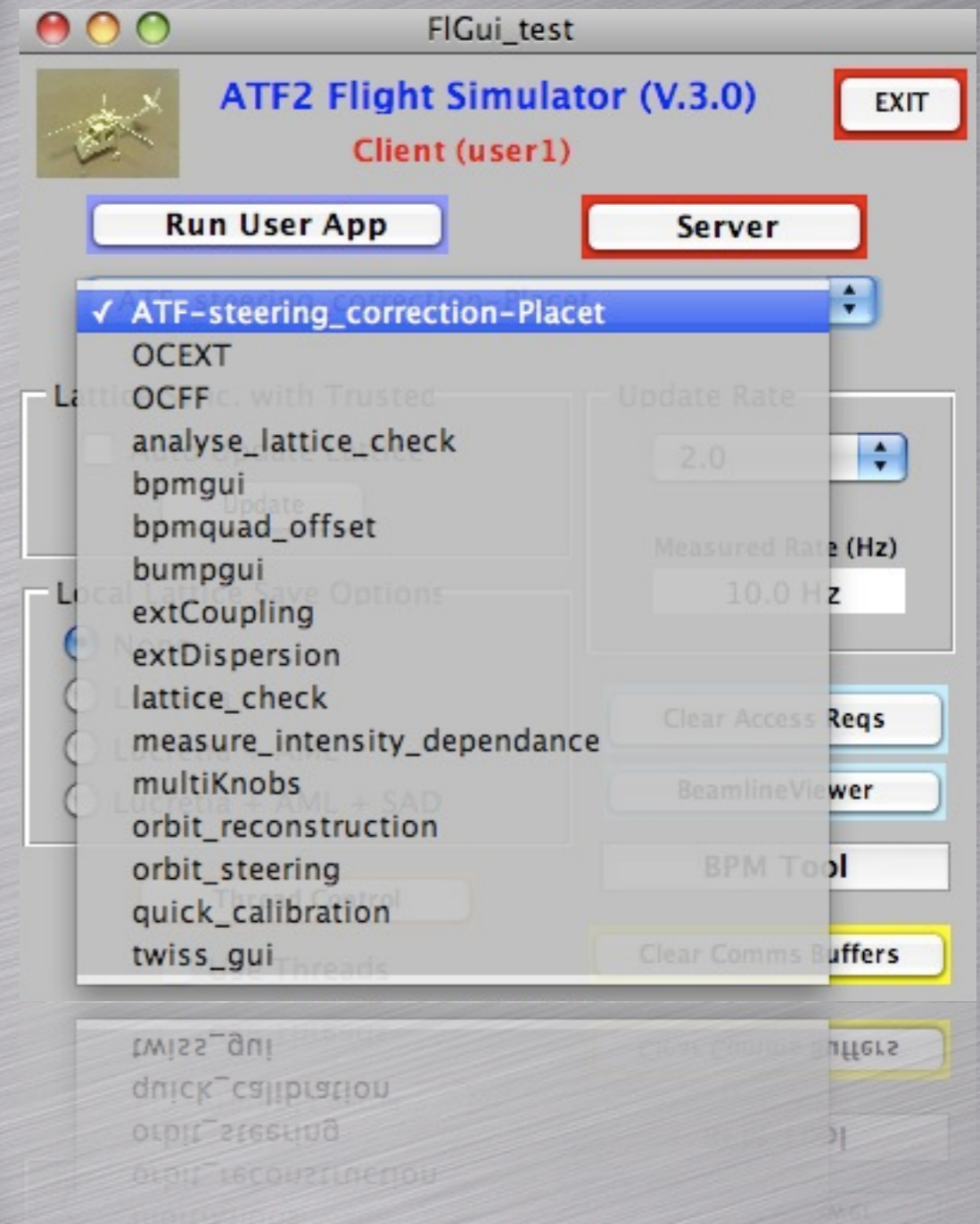


Server Development

- Watchdog apps
- Improved Archiver tool
- BPM tool
- Server available through VNC on controls subnet.

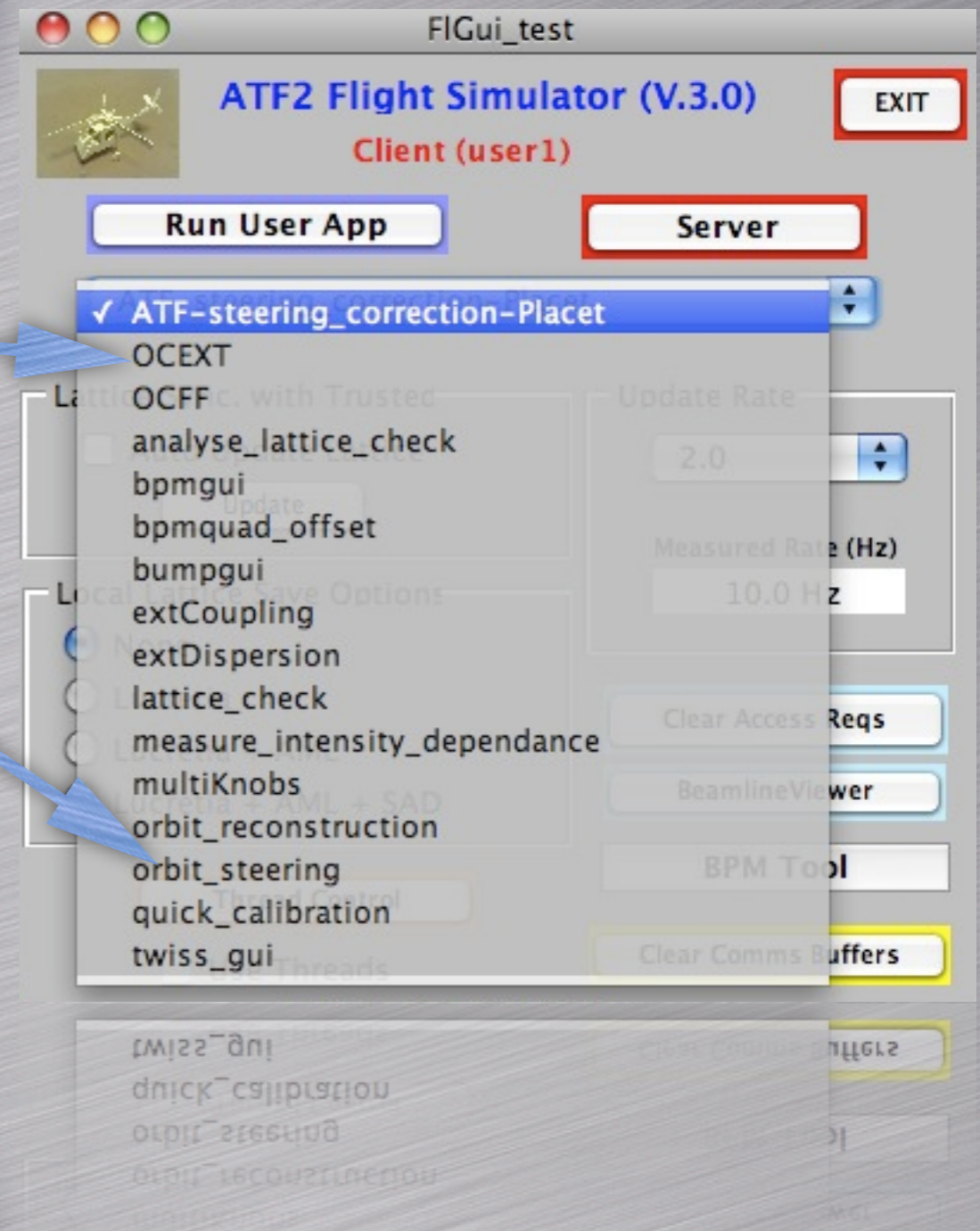


Client Apps Development



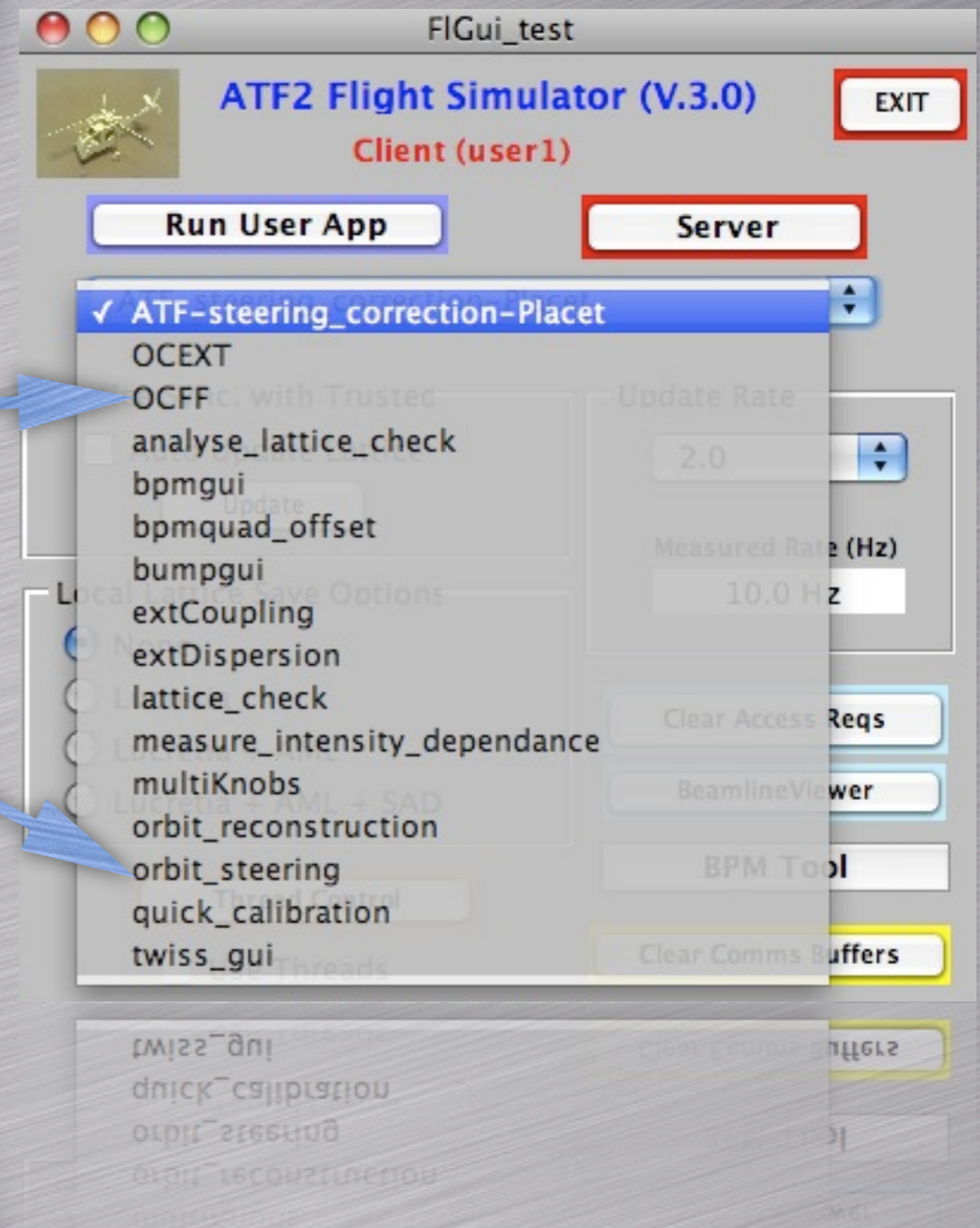
Client Apps Development

- EXT Steering



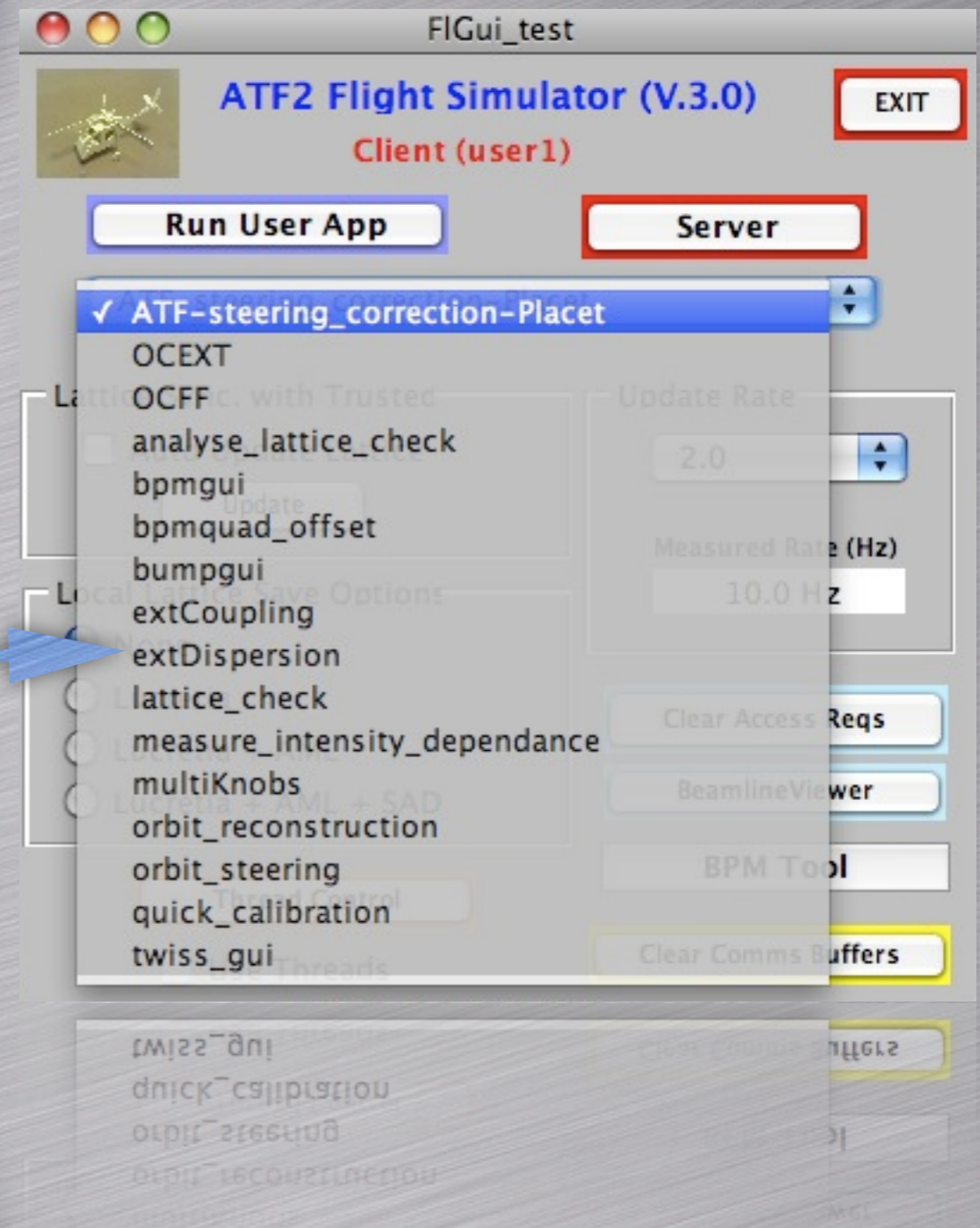
Client Apps Development

- EXT Steering
- FFS Steering



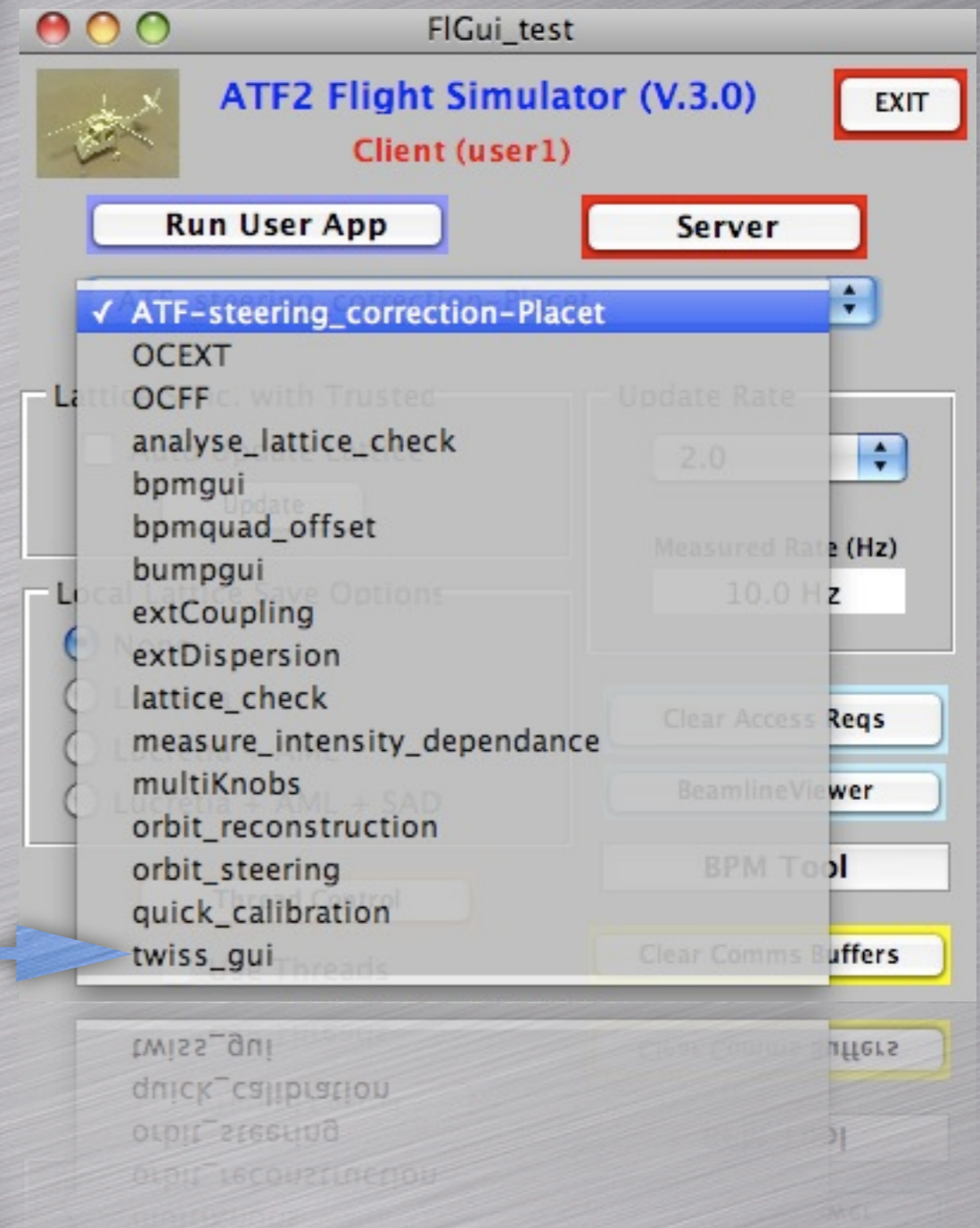
Client Apps Development

- EXT Steering
- FFS Steering
- Improved EXT dispersion tool



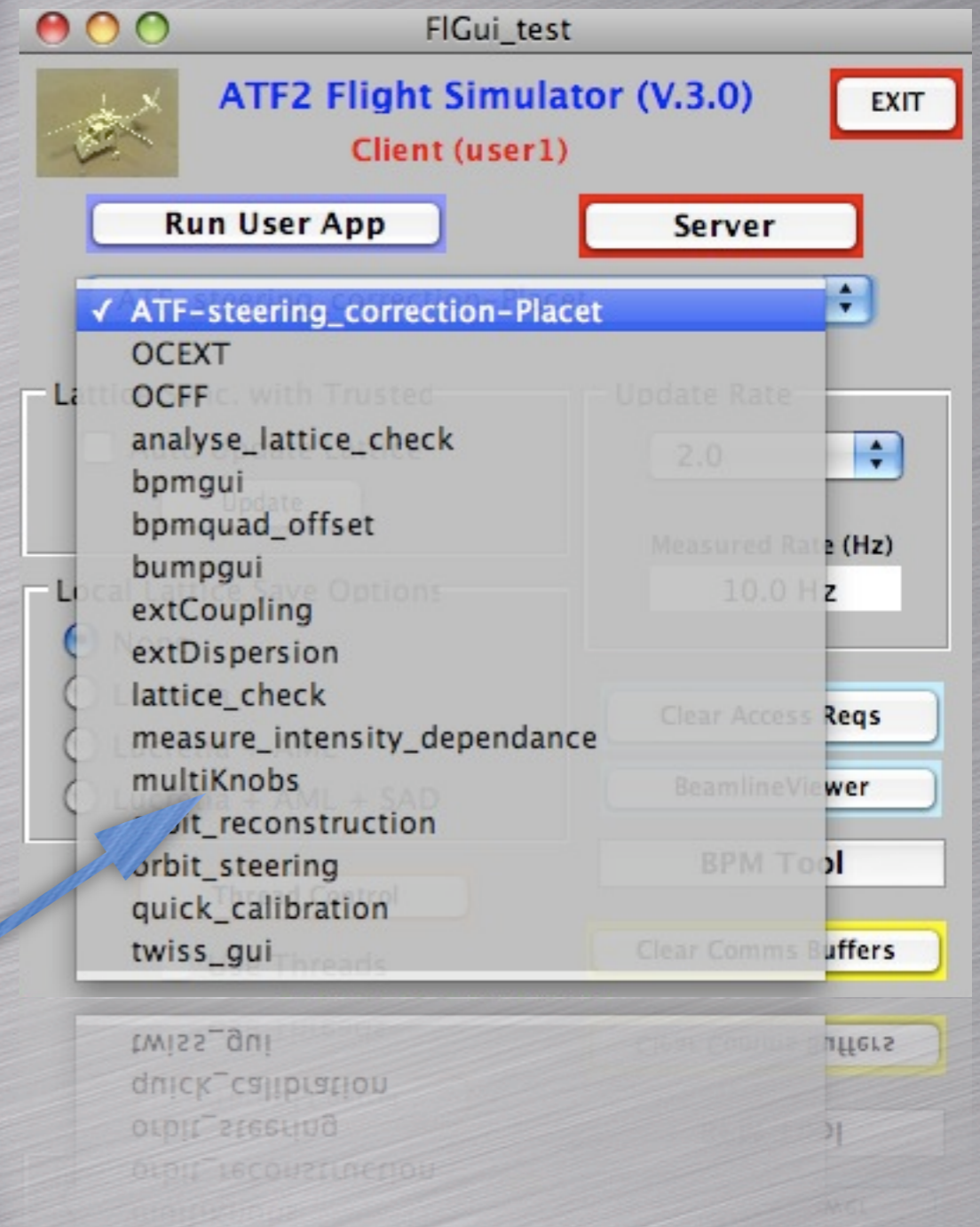
Client Apps Development

- EXT Steering
- FFS Steering
- Improved EXT dispersion tool
- Improved Twiss Tool with MAD interface

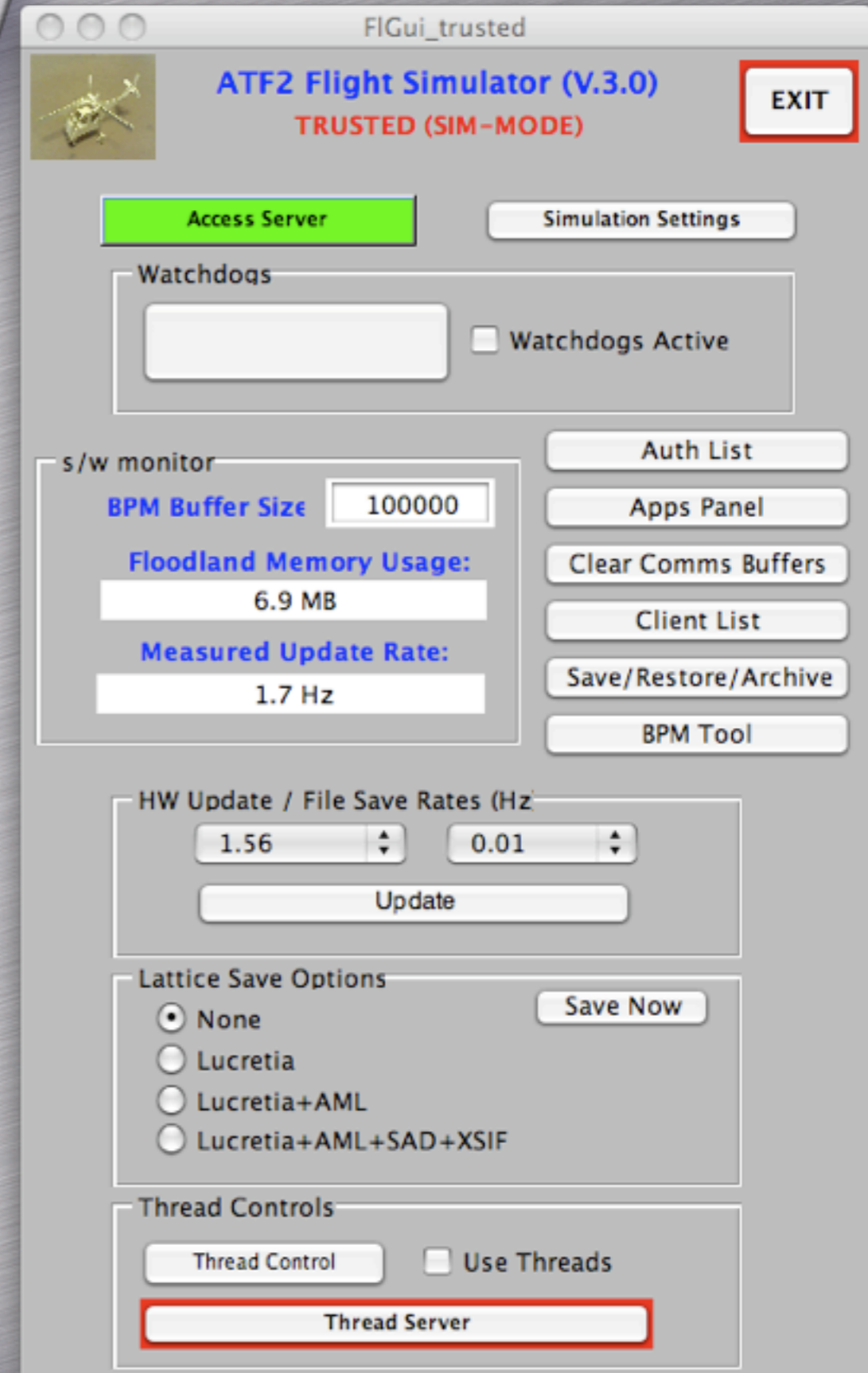


Client Apps Development

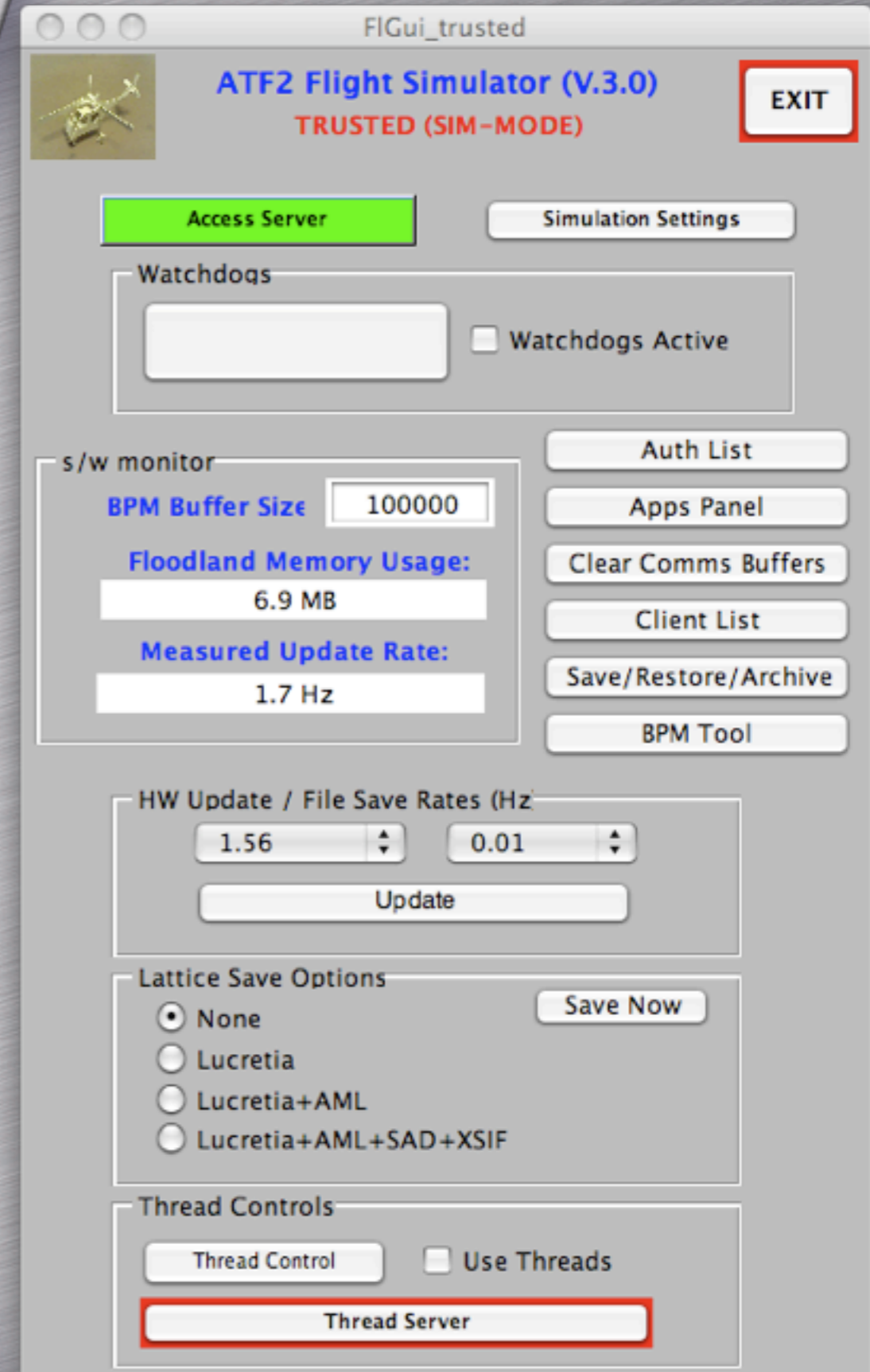
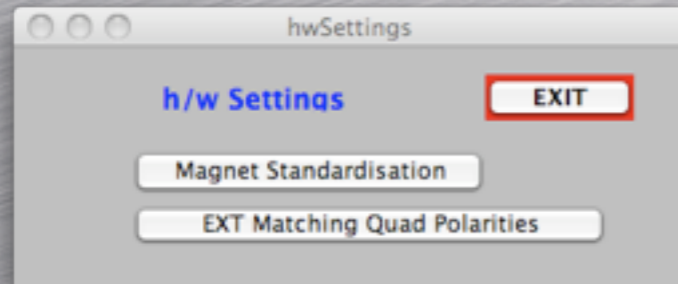
- EXT Steering
- FFS Steering
- Improved EXT dispersion tool
- Improved Twiss Tool with MAD interface
- IP multiknobs (functional interface only)



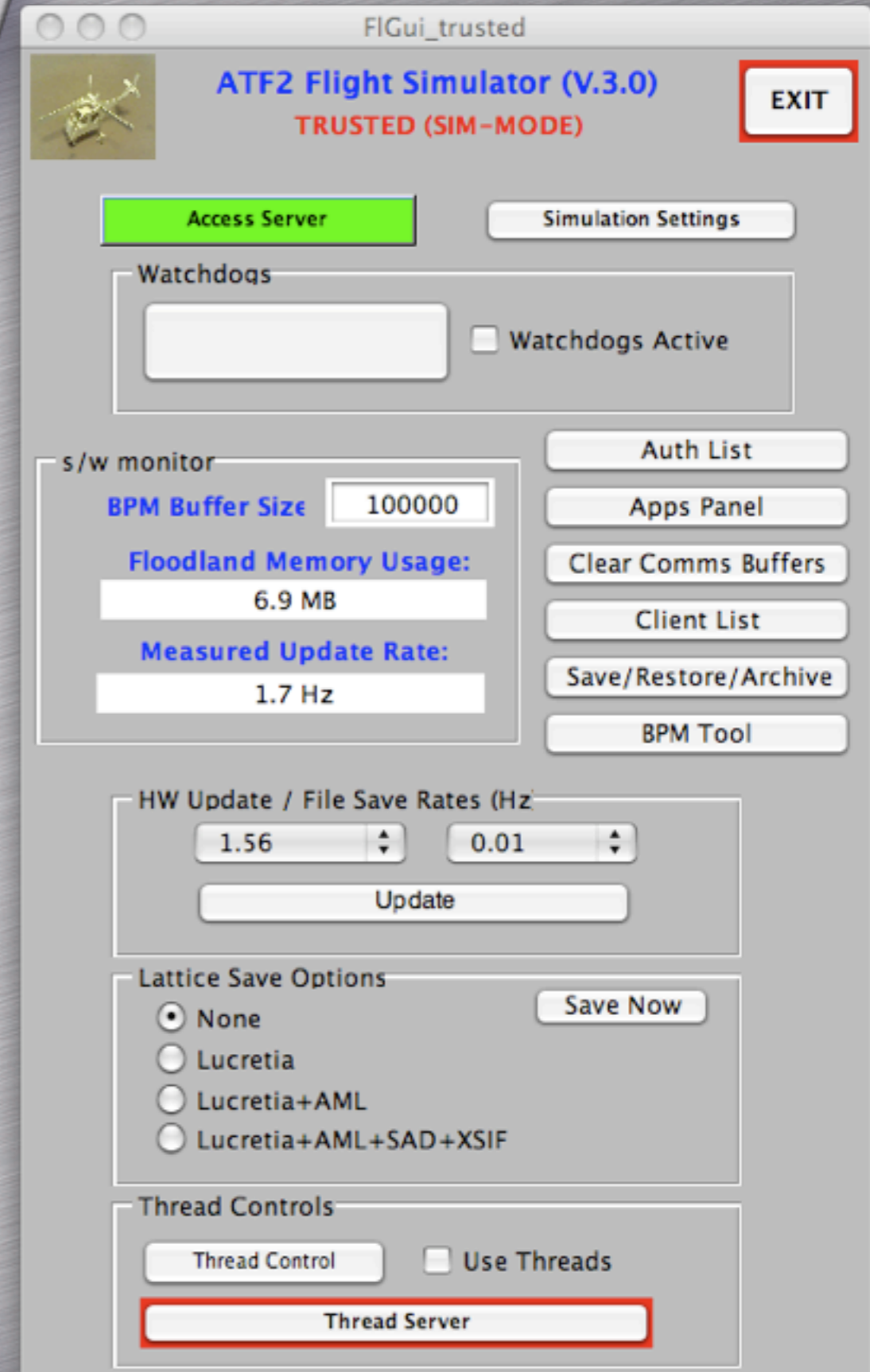
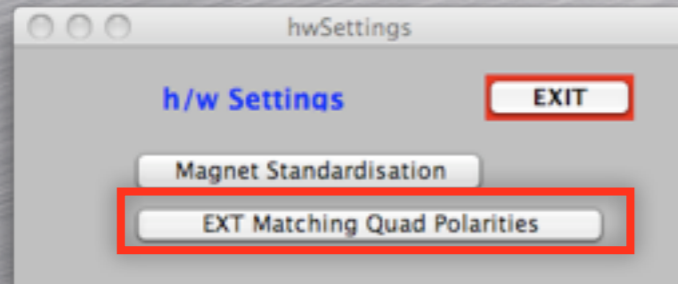
FFS Matching Quad Polarities



FFS Matching Quad Polarities



FFS Matching Quad Polarities



FFS Matching Quad Polarities

setQMffPolarities

Set FFS Matching Quad Polarities EXIT

QM16FF <input checked="" type="radio"/> QF(N) <input type="radio"/> QD(R)	QM15FF <input type="radio"/> QF(R) <input checked="" type="radio"/> QD(N)	QM14FF <input type="radio"/> QF(R) <input checked="" type="radio"/> QD(N)
QM13FF <input checked="" type="radio"/> QF(N) <input type="radio"/> QD(R)	QM12FF <input checked="" type="radio"/> QF(N) <input type="radio"/> QD(R)	QM11FF <input type="radio"/> QF(R) <input checked="" type="radio"/> QD(N)

Write To Database Refresh

FIGui_trusted

ATF2 Flight Simulator (V.3.0) EXIT
TRUSTED (SIM-MODE)

Access Server Simulation Settings

Watchdogs
 Watchdogs Active

s/w monitor
BPM Buffer Size
Floodland Memory Usage:
Measured Update Rate:

Auth List
Apps Panel
Clear Comms Buffers
Client List
Save/Restore/Archive
BPM Tool

HW Update / File Save Rates (Hz)

Update

Lattice Save Options
 None Save Now
 Lucretia
 Lucretia+AML
 Lucretia+AML+SAD+XSIF

Thread Controls
Thread Control Use Threads
Thread Server

FFS Matching Quad Polarities

setQMffPolarities

Set FFS Matching Quad Polarities EXIT

QM16FF <input checked="" type="radio"/> QF(N) <input type="radio"/> QD(R)	QM15FF <input type="radio"/> QF(R) <input checked="" type="radio"/> QD(N)	QM14FF <input type="radio"/> QF(R) <input checked="" type="radio"/> QD(N)
QM13FF <input checked="" type="radio"/> QF(N) <input type="radio"/> QD(R)	QM12FF <input checked="" type="radio"/> QF(N) <input type="radio"/> QD(R)	QM11FF <input type="radio"/> QF(R) <input checked="" type="radio"/> QD(N)

Write To Database Refresh

- Panel writes polarities (QF=1, QD=-1) to EPICS on pressing button

FIGui_trusted

ATF2 Flight Simulator (V.3.0)
TRUSTED (SIM-MODE) EXIT

Access Server Simulation Settings

Watchdogs
 Watchdogs Active

s/w monitor
BPM Buffer Size
Floodland Memory Usage:
Measured Update Rate:

Auth List
Apps Panel
Clear Comms Buffers
Client List
Save/Restore/Archive
BPM Tool

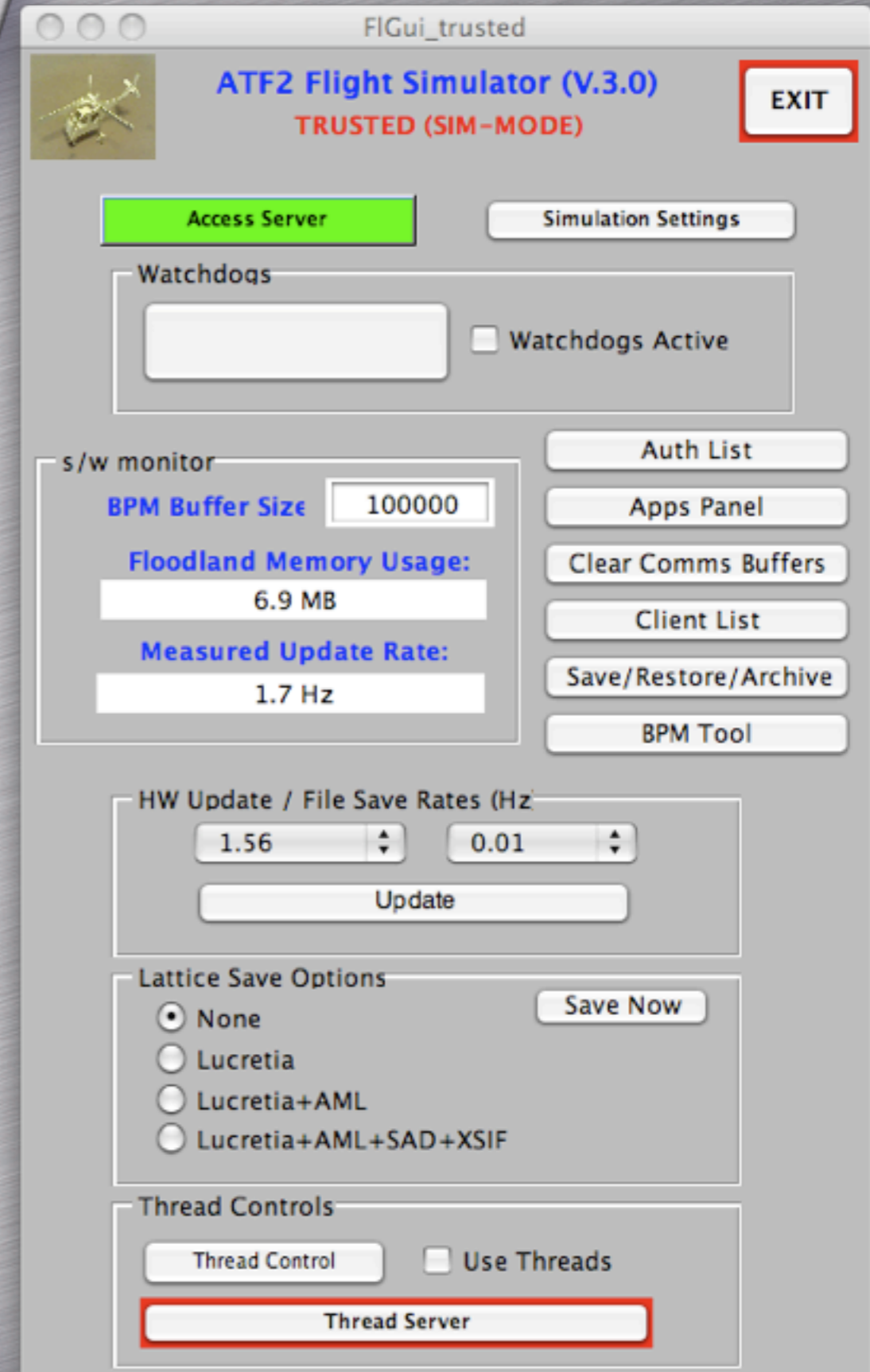
HW Update / File Save Rates (Hz)

Update

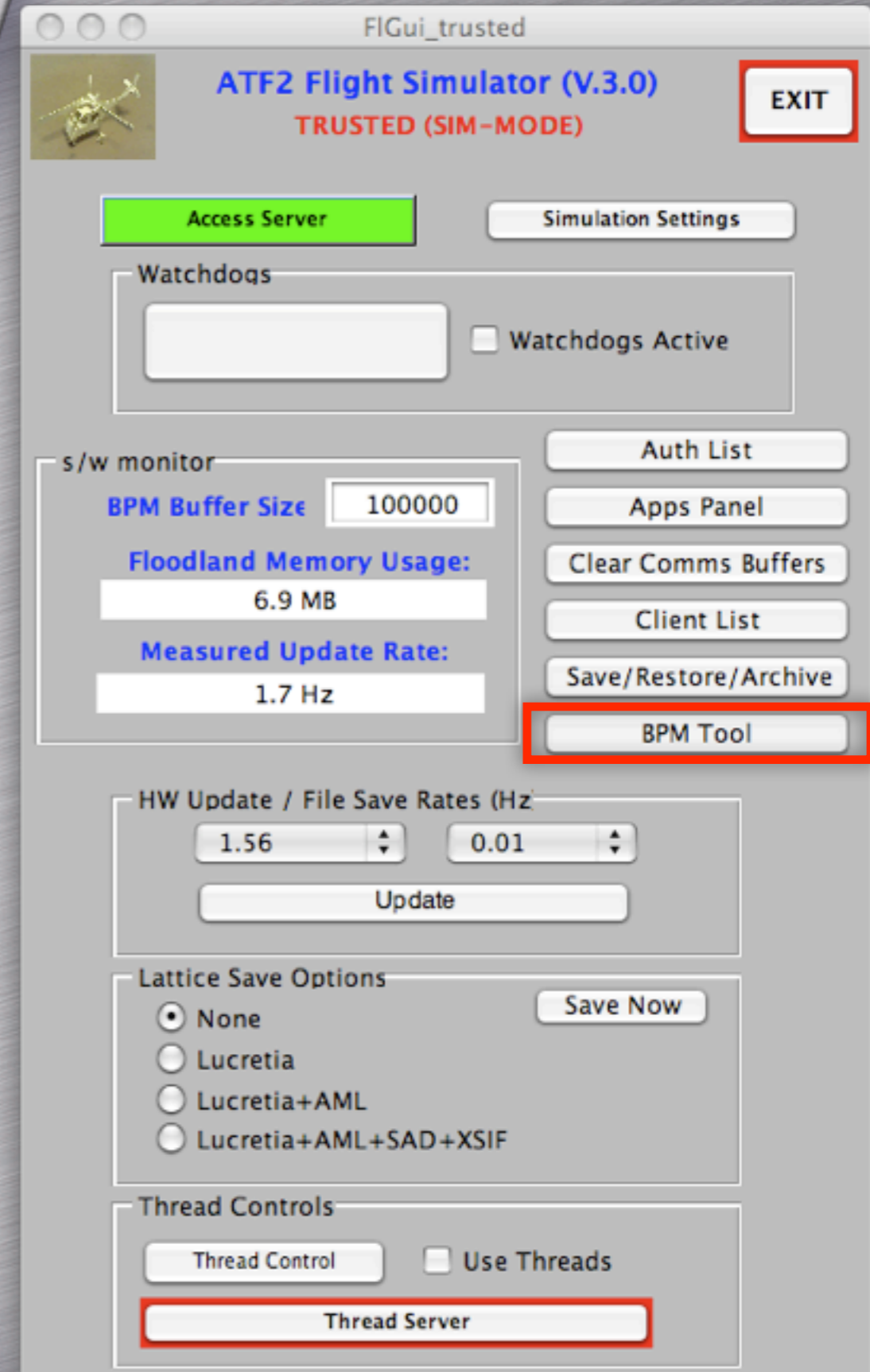
Lattice Save Options
 None Save Now
 Lucretia
 Lucretia+AML
 Lucretia+AML+SAD+XSIF

Thread Controls
Thread Control Use Threads
Thread Server

BPM Tool



BPM Tool



BPM Tool

FIBpmTool

BPM Tool EXIT

Status Selection

h/w Sel. True

Calibration Sel. False

Use Bpm All True

Use Cal All False

Use Tag

global

Make New newname

Delete

Region Select

All

Ref Orbit

Save to Memory

Restore from Memory

Save to File

Restore from File

Save Default

Restore Default

Save to Server

Restore from Server

Take New

BPM Info

1	MB20R	: True
2	MB21R	: True
3	MB22R	: True
4	MB23R	: True
5	MB24R	: True
6	MB25R	: True
7	MB26R	: True
8	MB27R	: True
9	MB28R	: True
10	MB29R	: True
11	MB30R	: True
12	MB31R	: True
13	MB32R	: True
14	MB33R	: True
15	MB34R	: True
16	MB35R	: True
17	MB36R	: True
18	MB37R	: True
19	MB38R	: True
20	MB39R	: True
21	MB40R	: True
22	MB41R	: True
23	MB42R	: True
24	MB43R	: True
25	MB44R	: True

Orbit Plotting

Plot

Main Orbit

Ref. Orbit

Diff. Orbit

ave+cuts?

error bars?

RMS Orbit (um):

RMS Diff. (um):

Current Reference Orbit In Use

Memory: 05-Jun-2009 11:35:31

Reference Orbit Parameters

ave: Q Cut:

BBA Tasks

Auto Subtract Offsets?

Edit BPM Offsets:

Re-Initialise

Sync to Server

Stripline Calibration Tools

Perform New Calibration

Plot

Last Cal: 05-Jun-2009 11:41:38

BPM Tool

FIBpmTool

BPM Tool

Status Selection

- h/w Sel. True
- Calibration Sel. False
- Use Bpm All True
- Use Cal All False

Use Tag

global

Make New newname

Delete

Region Select

All

Ref Orbit

Save to Memory

Restore from Memory

Save to File

Restore from File

Save Default

Restore Default

Save to Server

Restore from Server

Take New

BPM Info

- 1 MB20R : True
- 2 MB21R : True
- 3 MB22R : True
- 4 MB23R : True
- 5 MB24R : True
- 6 MB25R : True
- 7 MB26R : True
- 8 MB27R : True
- 9 MB28R : True
- 10 MB29R : True
- 11 MB30R : True
- 12 MB31R : True
- 13 MB32R : True
- 14 MB33R : True
- 15 MB34R : True
- 16 MB35R : True
- 17 MB36R : True
- 18 MB37R : True
- 19 MB38R : True
- 20 MB39R : True
- 21 MB40R : True
- 22 MB41R : True
- 23 MB42R : True
- 24 MB43R : True
- 25 MB44R : True

Current Reference Orbit In Use

Memory: 05-Jun-2009 11:35:31

Reference Orbit Parameters

ave: 10 Q Cut: 0.9

BBA Tasks

Auto Subtract Offsets?

Edit BPM Offsets: 0 0

Re-Initialise

Sync to Server

Stripline Calibration Tools

Perform New Calibration Plot

Last Cal: 05-Jun-2009 11:41:38

- **BPM selection**
 - User selection of which BPMs to use in apps
 - Good h/w & cal status
 - Use/not use FS cal constants

BPM Tool

Status Selection

- h/w Sel. True
- Calibration Sel. False
- Use Bpm All True
- Use Cal All False

Use Tag

global

Make New newname

Delete

Region Select

All

BPM Info

- 1 MB20R : True
- 2 MB21R : True
- 3 MB22R : True
- 4 MB23R : True
- 5 MB24R : True
- 6 MB25R : True
- 7 MB26R : True
- 8 MB27R : True
- 9 MB28R : True
- 10 MB29R : True
- 11 MB30R : True
- 12 MB31R : True
- 13 MB32R : True
- 14 MB33R : True
- 15 MB34R : True
- 16 MB35R : True
- 17 MB36R : True
- 18 MB37R : True
- 19 MB38R : True

Orbit Plotting

Plot

Main Orbit

Ref. Orbit

Diff. Orbit

ave+cuts?

error bars?

RMS Orbit (um):

RMS Diff. (um):

05-Jun-2009 11:35:31

t: 0.9

0 0

Re-Initialise

Sync to Server

Last Cal: 05-Jun-2009 11:41:38

Perform New Calibration Plot

- **Orbit Plotting**

- x/y/tit plot

- abs / ref / difference

- display RMS

BPM Tool

FIBpmTool

BPM Tool

EXIT

Status Selection

- h/w Sel. True
- Calibration Sel. False
- Use Bpm All True
- Use Cal All False

Use Tag

global

Make New newname

Delete

Region Select

All

Ref Orbit

- Save to Memory
- Restore from Memory
- Save to File
- Restore from File
- Save Default
- Restore Default
- Save to Server
- Restore from Server
- Take New

BPM Info

- 1 MB20R : True
- 2 MB21R : True
- 3 MB22R : True
- 4 MB23R : True
- 5 MB24R : True
- 6 MB25R : True
- 7 MB26R : True
- 8 MB27R : True
- 9 MB28R : True
- 10 MB29R : True
- 11 MB30R : True
- 12 MB31R : True
- 13 MB32R : True
- 14 MB33R : True
- 15 MB34R : True
- 16 MB35R : True
- 17 MB36R : True
- 18 MB37R : True
- 19 MB38R : True
- 20 MB39R : True
- 21 MB40R : True
- 22 MB41R : True
- 23 MB42R : True
- 24 MB43R : True
- 25 MB44R : True

Orbit Plotting

Plot

Main Orbit

Ref. Orbit

Diff. Orbit

ave+cuts?

error bars?

RMS Orbit (um):

RMS Diff. (um):

Current Reference Orbit In Use

Memory: 05-Jun-2009 11:35:31

Reference Orbit Parameters

ave: 10 Q Cut: 0.9

BPM Tasks

Auto Subtract Offsets?

Edit BPM Offsets: 0 0

Re-Initialise

Sync to Server

Stripline Calibration Tools

Perform New Calibration Plot

Last Cal: 05-Jun-2009 11:41:38

• Reference orbit taking

BPM Tool

The screenshot shows the FIBpmTool software interface. A callout box in the upper right corner contains the text "BBA orbit subtraction". The interface includes several sections:

- Status Selection:** Radio buttons for "h/w", "Calibration", "Use Bpm", and "Use Cal".
- Use Tag:** A dropdown menu set to "global" and buttons for "Make New" and "Delete".
- Region Select:** A dropdown menu set to "All".
- Ref Orbit:** A list of buttons for saving and restoring data to memory, file, and server.
- BPM Info:** A list of 25 items, each with a number and a label (e.g., "1 MB20R : True").
- Current Reference Orbit In Use:** A text field showing "Memory: 05-Jun-2009 11:35:31".
- Reference Orbit Parameters:** Input fields for "# ave:" (10) and "Q Cut:" (0.9).
- BBA Tasks:** A section highlighted with a red box, containing a checkbox for "Auto Subtract Offsets?" and an "Edit BPM Offsets:" field with the value "0 0".
- Stripline Calibration Tools:** Buttons for "Perform New Calibration" and "Plot".

• BBA orbit subtraction

BPM Tool

- FS Calibtion for striplines

The screenshot displays the FIBpmTool software interface. At the top, the title bar reads "FIBpmTool" and the main window title is "BPM Tool". A green callout box highlights the menu item "FS Calibtion for striplines".

Left Panel:

- Use Tag:** A dropdown menu set to "global", with "Make New" and "Delete" buttons. A text field contains "newname".
- Region Select:** A dropdown menu set to "All".
- Ref Orbit:** A vertical stack of buttons: "Save to Memory", "Restore from Memory", "Save to File", "Restore from File", "Save Default", "Restore Default", "Save to Server", "Restore from Server", and "Take New".

Center Panel:

- A list of 25 items, each with a number and a label (e.g., "6 MB25R : True").
- A plot area showing a blue horizontal bar.

Right Panel:

- Orbit Plotting:** Includes buttons for "Plot", "Main Orbit", "Ref. Orbit", and "Diff. Orbit". Checkboxes for "ave+cuts?" and "error bars?" are checked. Below are input fields for "RMS Orbit (um)" and "RMS Diff. (um)", each with red and green dashed lines.
- Current Reference Orbit In Use:** A text field containing "Memory: 05-Jun-2009 11:35:31".
- Reference Orbit Parameters:** "# ave:" is set to "10" and "Q Cut:" is set to "0.9".
- BBA Tasks:** An unchecked checkbox for "Auto Subtract Offsets?". Below it, "Edit BPM Offsets:" is set to "0 0".
- Buttons for "Re-Initialise" and "Sync to Server".

Bottom Panel (highlighted with a red box):

- Stripline Calibration Tools:** Contains buttons for "Perform New Calibration" and "Plot".
- Last Cal:** A text field containing "05-Jun-2009 11:41:38".

BPM Tool

FIBpmTool

BPM Tool EXIT

Status Selection

h/w Sel. True

Calibration Sel. False

Use Bpm All True

Use Cal All False

Use Tag

global

Make New newname

Delete

Region Select

All

Ref Orbit

Save to Memory

Restore from Memory

Save to File

Restore from File

Save Default

Restore Default

Save to Server

Restore from Server

Take New

BPM Info

1	MB20R	: True
2	MB21R	: True
3	MB22R	: True
4	MB23R	: True
5	MB24R	: True
6	MB25R	: True
7	MB26R	: True
8	MB27R	: True
9	MB28R	: True
10	MB29R	: True
11	MB30R	: True
12	MB31R	: True
13	MB32R	: True
14	MB33R	: True
15	MB34R	: True
16	MB35R	: True
17	MB36R	: True
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20	MB39R	: True
21	MB40R	: True
22	MB41R	: True
23	MB42R	: True
24	MB43R	: True
25	MB44R	: True

Orbit Plotting

Plot

Main Orbit

Ref. Orbit

Diff. Orbit

ave+cuts?

error bars?

RMS Orbit (um):

RMS Diff. (um):

Current Reference Orbit In Use

Memory: 05-Jun-2009 11:35:31

Reference Orbit Parameters

ave: Q Cut:

BBA Tasks

Auto Subtract Offsets?

Edit BPM Offsets:

Re-Initialise

Sync to Server

Stripline Calibration Tools

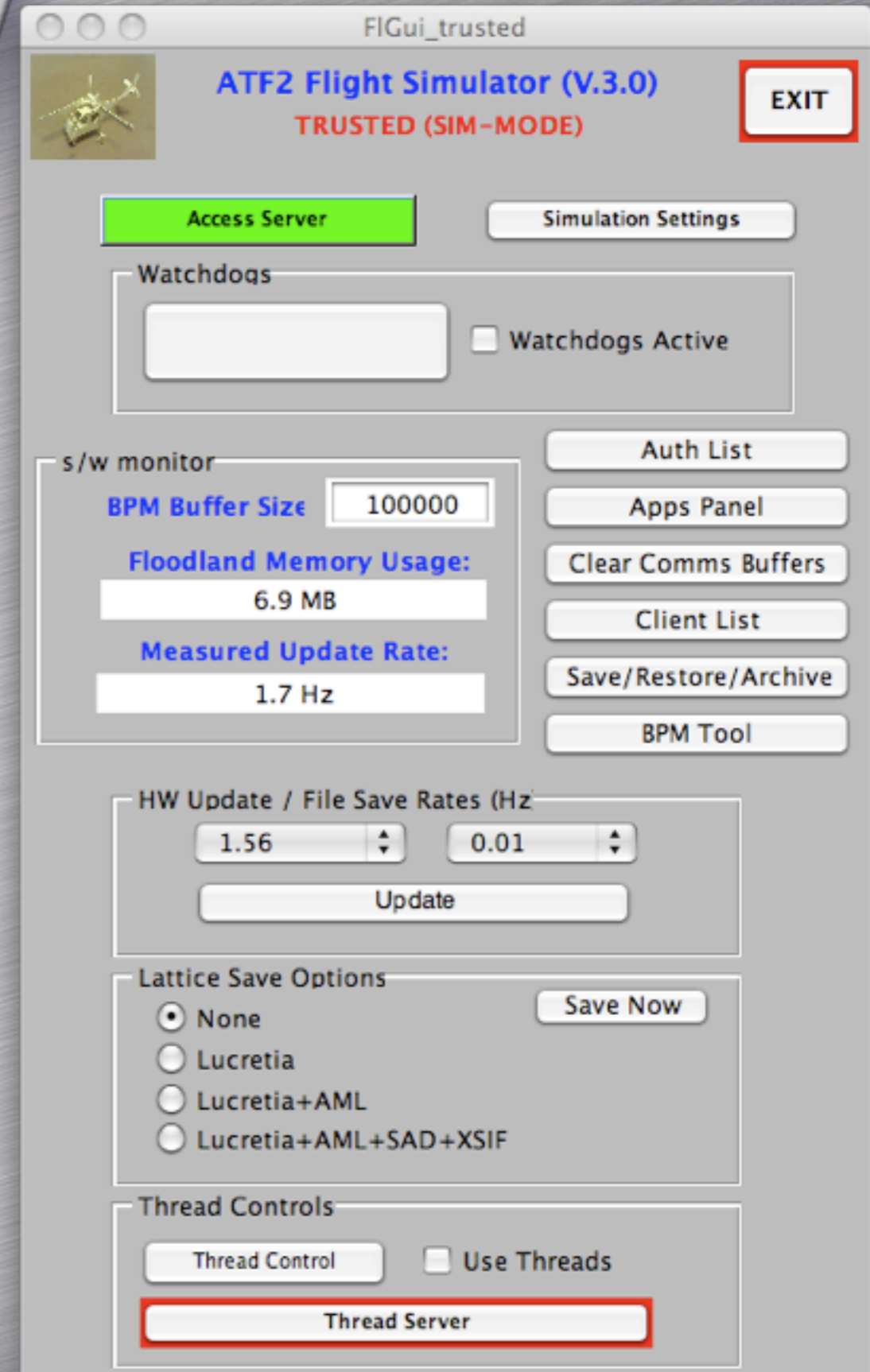
Perform New Calibration

Plot

Last Cal: 05-Jun-2009 11:41:38

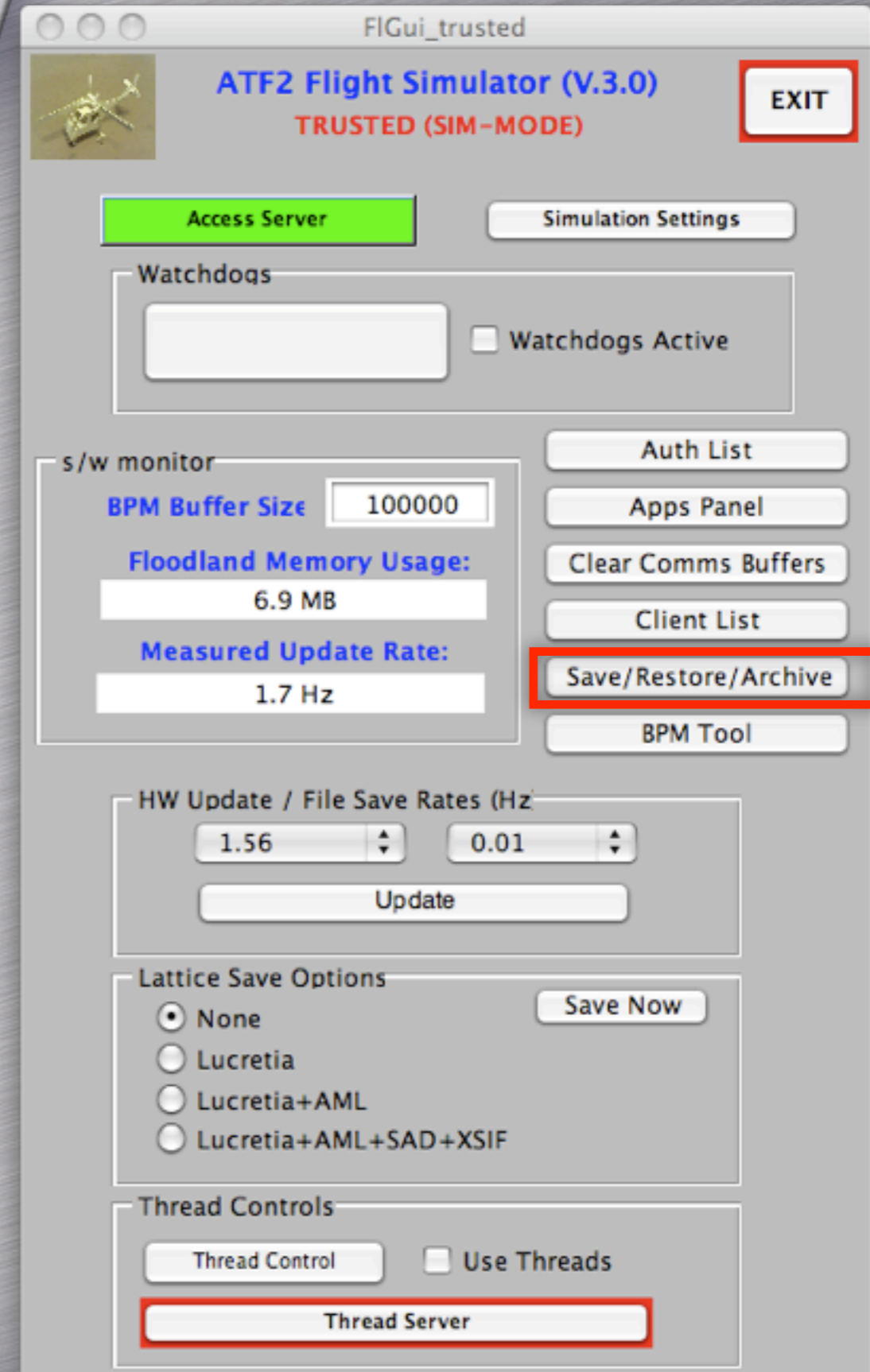
Archive Tool

- Save/Restore from/to Matlab file or EPICS archive



Archive Tool

- Save/Restore from/to Matlab file or EPICS archive



Archive Tool

- Save/Restore from/to Matlab file or EPICS archive

The image shows two overlapping GUI windows. The background window is titled "FIGui_trusted" and displays "ATF2 Flight Simulator (V.3.0) TRUSTED (SIM-MODE)". It features a green "Access Server" button, a "Watchdogs" section with a checkbox for "Watchdogs Active", and a "s/w monitor" section with a "BPM Buffer Size" of 100000. A vertical list of buttons on the right includes "Auth List", "Apps Panel", "Clear Comms Buffers", "Client List", "Save/Restore/Archive", and "BPM Tool".

The foreground window is titled "FIArchiveGui" and is titled "Save/Restore/Archive". It has "ABORT" and "EXIT" buttons in the top right. The "Restore Selection" section has two radio buttons: "EPICS Channel Archiver" and "Lucretia Matlab File" (which is selected). Below this is a "Select Lucretia Restore File" button and a text field containing "ATF2-09May28_170907.mat". There are "Restore" and "Restore Default" buttons, with a note "(Put server into NOAUTO update mode before restoring)". Below these are "Save Lucretia Matlab File", "Set Current As Default", "Restore Defaults to Control System", and "Set All Movers To Zero" buttons.

The "EPICS Channel Access Restore Info" section contains an "Available Date/Time Period:" text field, a "Set Date" button, and a note "(use +/- keys to change year)". It also has "Hour:" and "Min:" input fields, and a "Search time (min):" field with the value "10". The "DataServer URL:" field contains "http://localhost:8080/RPC2". A "Connect / Update" button is at the bottom, highlighted with a red border.

Archive Tool

- Save/Restore from/to Matlab file or EPICS archive

- After restoring a known good file
- Set as default optics file
- Then option to restore some or all settings to control system.

The screenshot displays the FIArchiveGui application window. The main window has a title bar with three window control buttons. The 'Save/Restore/Archive' dialog box is open, featuring a title bar with 'ABORT' and 'EXIT' buttons. The dialog is divided into two main sections. The left section, titled 'Restore Selection', contains two radio buttons: 'EPICS Channel Archiver' and 'Lucretia Matlab File', with the latter selected. Below these are a 'Select Lucretia Restore File' button, a text field containing 'ATF2-09May28_170907.mat', and 'Restore' and 'Restore Default' buttons. A note below reads '(Put server into NOAUTO update mode before restoring)'. At the bottom of this section are buttons for 'Save Lucretia Matlab File', 'Set Current As Default', 'Restore Defaults to Control System', and 'Set All Movers To Zero'. The right section, titled 'EPICS Channel Access Restore Info', includes an 'Available Date/Time Period:' text field, a 'Set Date' button, and a note '(use +/- keys to change year)'. Below this are 'Hour:' and 'Min:' input fields, a 'Search time (min):' field with the value '10', and a 'DataServer URL:' field containing 'http://localhost:8080/RPC2'. A 'Connect / Update' button is at the bottom of this section. In the background, another window is partially visible with buttons for 'Clear Comms Buffers', 'Client List', 'Save/Restore/Archive', 'BPM Tool', 'Save Now', and 'Use Threads'.

Archive Tool

- Save/Restore from/to Matlab file or EPICS archive

- After restoring a known good file
- Set as default optics file
- Then option to restore some or all settings to control system.

The screenshot displays the 'Archive Tool' interface with several overlapping windows and buttons. The main window, titled 'setDefaultsSelect', has the title 'Set Control System Variables To Floodland Default Values'. It contains three columns of checkboxes: 'Regions' (DR, EXT, FFS), 'Magnets' (Bends, Quadrupoles, Sextupoles, Skew Quadrupoles, X Correctors, Y Correctors), and 'Movers' (Horizontal, Vertical, Roll). Below these are 'Set Default Values' and 'Cancel' buttons. A smaller dialog box with 'ABORT' and 'EXIT' buttons is overlaid on top. At the bottom, a 'DataServer URL' field contains 'http://localhost:8080/RPC2' and a 'Connect / Update' button. Other buttons include 'Save Lucretia Matlab File', 'Set Current As Default', 'Restore Defaults to Control System', and 'Set All Movers To Zero'. In the background, a control panel is visible with buttons like 'Clear Comms Buffers', 'Client List', 'Save/Restore/Archive', 'BPM Tool', and 'Save Now'.

Archive Tool

- Save/Restore from/to Matlab file or EPICS archive

FIGui_trusted

ATF2 Flight Simulator (V.3.0)
TRUSTED (SIM-MODE)

EXIT

Access Server

Simulation Settings

Watchdogs

Watchdogs Active

s/w monitor

BPM Buffer Size 100000

Auth List

Apps Panel

Clear Comms Buffers

Client List

Save/Restore/Archive

BPM Tool

es (Hz)

0.01

Use Threads

FIArchiveGui

Save/Restore/Archive

ABORT

EXIT

EPICS Channel Access Restore Info

Available Date/Time Period:

Set Date

(use +/- keys to change year)

Hour:

Search time (min):

DataServer URL:

http://localhost:8080

Connect / Update

Restore Selection

EPICS Channel Archiver

Lucretia Matlab File

Select Lucretia Restore File

ATF2-09May28_170907.mat

Restore

Restore Default

(Put server into NOAUTO update mode before restoring)

Save Lucretia Matlab File

Set Current As Default

Restore Defaults to Control System

Set All Movers To Zero

• Ability to zero all movers simultaneously

Archive Tool

- Save/Restore from/to Matlab file or EPICS archive

The image shows two overlapping GUI windows. The background window is titled "FIGui_trusted" and displays "ATF2 Flight Simulator (V.3.0) TRUSTED (SIM-MODE)". It features a green "Access Server" button, a "Watchdogs" section with a checkbox for "Watchdogs Active", and a "s/w monitor" section with a "BPM Buffer Size" set to 100000. A vertical list of buttons on the right includes "Auth List", "Apps Panel", "Clear Comms Buffers", "Client List", "Save/Restore/Archive", and "BPM Tool".

The foreground window is titled "FIArchiveGui" and is titled "Save/Restore/Archive". It has "ABORT" and "EXIT" buttons in the top right. The "Restore Selection" section has two radio buttons: "EPICS Channel Archiver" and "Lucretia Matlab File" (which is selected). Below this is a "Select Lucretia Restore File" button and a text field containing "ATF2-09May28_170907.mat". There are "Restore" and "Restore Default" buttons, with a note "(Put server into NOAUTO update mode before restoring)". Below these are "Save Lucretia Matlab File", "Set Current As Default", "Restore Defaults to Control System", and "Set All Movers To Zero" buttons.

The "EPICS Channel Access Restore Info" section contains an "Available Date/Time Period:" text field, a "Set Date" button, and a note "(use +/- keys to change year)". It also has "Hour:" and "Min:" spinners, and a "Search time (min):" spinner set to "10". The "DataServer URL:" text field contains "http://localhost:8080/RPC2". A "Connect / Update" button is at the bottom, highlighted with a red border.

Watchdogs

The screenshot shows the FIGui_trusted application window. At the top, it displays 'ATF2 Flight Simulator (V.3.0)' and 'TRUSTED (SIM-MODE)'. A red-bordered 'EXIT' button is in the top right. Below this are 'Access Server' (highlighted in green) and 'Simulation Settings' buttons. The 'Watchdogs' section contains an empty text box and a 'Watchdogs Active' checkbox. The 's/w monitor' section shows 'BPM Buffer Size' at 100000, 'Floodland Memory Usage' at 6.9 MB, and 'Measured Update Rate' at 1.7 Hz. To the right of this section are buttons for 'Auth List', 'Apps Panel', 'Clear Comms Buffers', 'Client List', 'Save/Restore/Archive', and 'BPM Tool'. The 'HW Update / File Save Rates (Hz)' section has spinners for 1.56 and 0.01, and an 'Update' button. The 'Lattice Save Options' section has radio buttons for 'None', 'Lucretia', 'Lucretia+AML', and 'Lucretia+AML+SAD+XSIF', along with a 'Save Now' button. The 'Thread Controls' section has a 'Thread Control' button, a 'Use Threads' checkbox, and a red-bordered 'Thread Server' button.

Watchdogs

FIGui_trusted

ATF2 Flight Simulator (V.3.0)
TRUSTED (SIM-MODE) **EXIT**

Access Server Simulation Settings

Watchdogs

Watchdogs Active

s/w monitor

BPM Buffer Size

Floodland Memory Usage:

Measured Update Rate:

Auth List

Apps Panel

Clear Comms Buffers

Client List

Save/Restore/Archive

BPM Tool

HW Update / File Save Rates (Hz)

Lattice Save Options

None

Lucretia

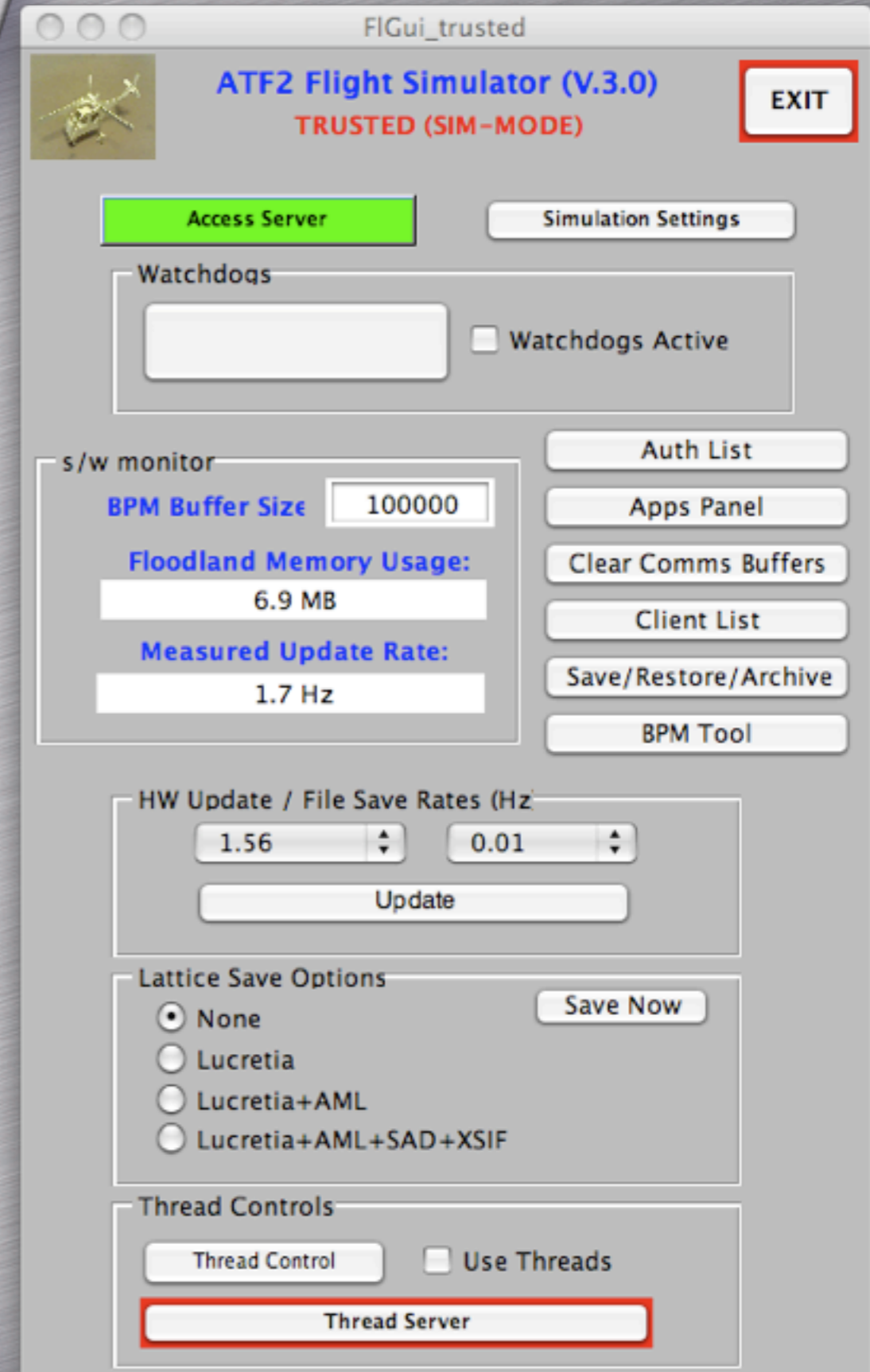
Lucretia+AML

Lucretia+AML+SAD+XSIF

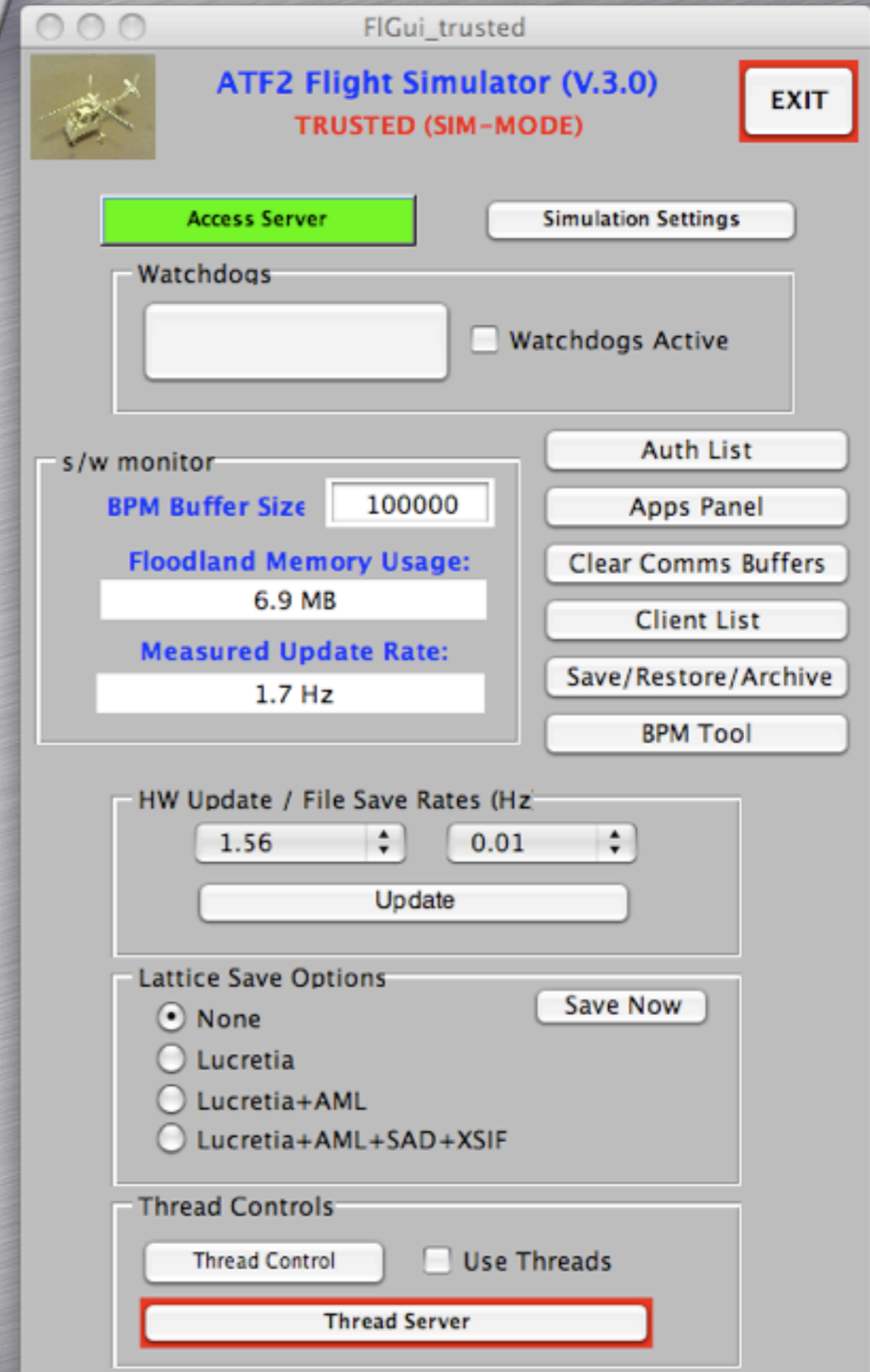
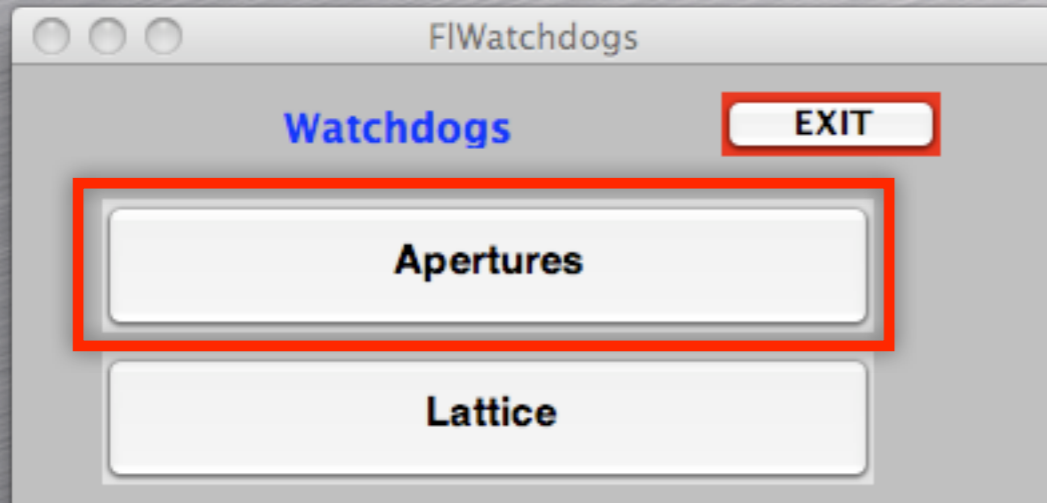
Thread Controls

Use Threads

Watchdogs



Watchdogs



Watchdogs

aperturesGui

Alarm Status: **OK**

Aperture Watchdog - Septum

Aperture display
 $x = 0.00320645 \pm 0.0150239 \text{ mm}$ $x' = -0.00184949 \pm 0.0068548 \text{ mrad}$ $y = 0.00280022 \pm 0.0158354 \text{ mm}$ $y' = -0.000156522 \pm 0.00433943 \text{ mrad}$

BPM Orbit Plots: Septum

Max RMS / Min Q: 3 / 0.5

Aperture Offset / Size (mm / mrad / degrees):
x/y offset: 0, x'/y' offset: 0, rotation: 0

width: 0.001, height: 0.001

Alarm Update / s: 60

BPM / # ave.: 5 / 10

Reference Orbit: Select File, New, Def., Use Default

ICT To Use for Q cut: ICTDUMP, ICT1X

Remove BPM(s) fwd propagate?

FIGui_trusted

ATF2 Flight Simulator (V.3.0)
TRUSTED (SIM-MODE)

EXIT

Access Server

Simulation Settings

Watchdogs Active

Auth List

Apps Panel

Clear Comms Buffers

Client List

Save/Restore/Archive

BPM Tool

File Save Rates (Hz): 0.01

Update

Options: Save Now

AML
AML+SAD+XSIF

Use Threads

Thread Server

Summary

- FS in use during 2009 run periods.
- Most debug issues now resolved
 - Connections to correct PSs / Movers / BPMs
 - Consistent co-ordinate system
 - FS stability
- Compiled list of core and test apps tweaks to do over summer shutdown period.
 - Also work on documentation.
- Planned more major developments to be reported on in next talk.