**ATCLab Release Notes**

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**Version**: 2.4.5.19

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_19

**Release Date:** Sunday 30th August 2015

**Notes:**

* Fixed bug in the interruption task where the initial countdown value is displayed after the initial display when the show\_timer is set to false
* Added <atc:clock> child XML element to <atc:ui> in a trial task to allow an experimenter to show or hide the in trial clock. The details of the new XML element is detailed in the table below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **New/Modified Element** | **Parent Element** | **Description** | **Values** | **Description** | **Example** |
| <atc: clock > | <atc:ui> | Toggles whether the in-trial clock is displayed | ‘true’ or ‘false’ |  | <atc:ui atc:idx='ui001'>  <atc:clock>false</atc:clock>  </atc:ui> |

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**Version**: 2.4.5.18

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_18

**Release Date:** Thursday 20th August 2015

**Notes:**

* Added <atc:initial\_display> child XML element to <atc:interruption> task to allow an experimenter to show an initial display during an external interruption task. The details of the new XML element is detailed in the table below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **New/Modified Element** | **Parent Element** | **Description** | **New/Modified Attributes** | **Attribute Values** | **Description** | **Example** |
| <atc: initial\_display > | <atc:interruption> | Specifies initial display parameters in the blank screen for an external interruption task | atc:symbol  atc:font  atc:font\_size  atc:font\_colour  atc:duration\_ms  atc:show\_timer  atc:x  atc:y | [alpha-numeric character  [Font name]  [Font size]  [Font colour]  [Duration in milliseconds]  true/false  [X coordinate of symbol]  [Y coordinate of symbol] | Symbol to display  Font name  Font size  Font colour  Duration in milliseconds  Whether to show countdown timer  X coordinate of symbol  Y coordinate of symbol | <atc:interruption atc:start='5' atc:end='15' atc:auto\_handoff='true' atc:auto\_accept='true' atc:show\_blank\_screen='true' atc:show\_timer='true'>  <atc:initial\_display atc:symbol='+' atc:font='Courier' atc:font\_size='50' atc:font\_colour='white' atc:duration\_ms='5000' atc:show\_timer='false' atc:x='840' atc:y='525'/>  </atc:interruption> |

* Added <atc:info\_box> child XML element to <atc:trial> to allow an experimenter to display a text box in a trial to display any scriptable text.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **New/Modified Element** | **Parent Element** | **Description** | **New/Modified Attributes** | **Attribute Values** | **Description** | **Example** |
| <atc: info\_box > | <atc:trial > | Specifies a textbox to be displayed during a trial. | atc:x  atc:y  atc:font  atc:font\_size  atc:font\_colour  atc:border | [X coordinate of info box]  [Y coordinate of info box]  [Font name]  [Font size]  [Font colour]  true/false | X coordinate of info box  Y coordinate of info box  Font name  Font size  Font colour  Whether to show a border around the info box | <atc:info\_box atc:x='0' atc:y='0' atc:font='Courier New' atc:font\_size='50' atc:font\_colour='blue' atc:border='true'>Primary Scenario</atc:info\_box> |

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**Version**: 2.4.5.17

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_17

**Release Date:**

**Notes:**

* Updated N back task stimuli generation to check that selected stimuli is not the same as the previous stimuli

for the first N stimuli. This prevents the same value stimuli being presented consecutively.

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**Version**: 2.4.5.16

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_16

**Release Date:**

**Notes:**

* Changed instruction task text box to only allow alpha-numeric characters

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**Version**: 2.4.5.15

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_15

**Release Date:**

**Notes:**

* Added section in the output CSV log for scoring for each trial with a grand total. An example output is as follows:

Trial Total Score

test2 30

test1 -10

test3 40

Total 60

* Re-implemented unique recall number for each text box in the instruction task for each trial

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**Version**: 2.4.5.14

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_14

**Release Date:**

**Notes:**

* Added scriptable option to disable the double clicking on aircraft to rotate the aircraft text details

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XML Element Attributes Description Values

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atc:trial Parent XML element.

atc:disable\_callout\_rotation Enable/disable double click to rotate aircraft details True, False

Example:

<atc:trial atc:idx='test2' atc:param='default' atc:map="map1" atc:sky="script2" atc:ui="ui001" atc:notify\_missed\_acceptance='false' atc:notify\_missed\_handoff='false' atc:disable\_callout\_rotation='true'>

* Modified nback task to allow sub second timing in the displaying of the initial screen and stimuli. The following changes in XML attributes have been made

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Parent XML Original Attribute New Attribute Note

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initialDisplayElement duration duration\_ms This element now specifies the duration to display the initial screen in milliseconds rather than seconds

stimuliElement display\_duration display\_duration\_ms This element now specifies the duration to display the stimuli in milliseconds rather than seconds

Example:

<atc:nbackTask atc:start='1' atc:end='72' atc:auto\_handoff='true' atc:auto\_accept='true' atc:background\_colour='black' atc:response\_key='space' atc:n\_factor='2' atc:reptition\_probability='40' atc:show\_task='true'>

<atc:initial\_display atc:symbol='+' atc:font='Courier' atc:font\_size='50' atc:font\_colour='white' atc:duration\_ms='3000' atc:show\_timer='true' atc:x='487' atc:y='330'/>

<atc:stimuli atc:font='SansSerif' atc:font\_size='50' atc:font\_colour='white' atc:display\_duration\_ms='1500' atc:show\_timer='true' atc:x='487' atc:y='330' />

...

</atc:nbackTask>

* Fixed bug in the instruction task which would only write the results in the instruction task text box for every second instruction

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**Version**: 2.4.5.13

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_13

**Release Date:**

**Notes:**

* Decreased the aircraft acceptance time window from 20 seconds to 15 seconds

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**Version**: 2.4.5.12

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_12

**Release Date:**

**Notes:**

* Added logging of interruption tasks to the output .xml file. The output XML logging are described below:

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XML Element Description Values

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interruption\_type Type of interruption "Interruption" or "NBack"

start\_time Programmed start time of interruption

end\_time Programmed end time of interruption

show\_full\_screen Whether the task was shown in full screen 0 = no, 1 = yes

external\_program Name of external program that was run

auto\_accept Whether aircraft were auto accepted during interruption 0 = no, 1 = yes

auto\_handoff Whether aircraft were auto handed off during interruption 0 = no, 1 = yes

* Added logging of interruption tasks to the output .csv file. The output fields are described below:

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Field Description Values

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Trial Name of the trial that the interruption occurred in

Interruption Type Type of interruption "Interruption" or "NBack"

Start Time Programmed start time of interruption

End Time Programmed end time of interruption

Show Full Screen Whether the task was shown in full screen 0 = no, 1 = yes

External Program Name of external program that was run

Auto Accept Whether aircraft were auto accepted during interruption 0 = no, 1 = yes

Auto Handoff Whether aircraft were auto handed off during interruption 0 = no, 1 = yes

* Added additional field in the aircraft flash details section of the output .csv file called "Automatic" to indicate if an aircraft is automatically accepted or handed off. Values are 0 (not automatic) or 1 (automatic acceptance/handoff)
* Added logging of reminder box dismiss button times to the output .xml file. The output XML logging are described below:

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XML Element Description Values

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reminder\_box Tag to indicate that the reminder box dismiss button was pressed Aircraft callsign that had the dismiss

button pressed

dismiss\_button Tag to indicate that the reminder box dismiss button was pressed "pressed"

clicked\_time Millisecond time that the dismiss button was pressed

* Added logging of reminder box dismiss button times to the output .csv file. The output fields are described below:

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Field Description Values

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Trial Name of the trial that the dismiss button was pressed

Callsign Aircraft callsign that had the dismiss button pressed

Dismiss Time Time in seconds into the trial that the dismiss button was pressed

Dismiss Time HP Time in milliseconds into the trial that the dismiss button was pressed

* Added calculation of Nback task results based on participant's inputs/non-inputs in the N back task. The are described as follows:

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Result Description

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Hit Participant correctly responds to a stimuli that was the same as the stimuli N times before

Miss Participant fails to respond to a stimuli that was the same as the stimuli N times before

Correct rejection Participant correct ignores the stimuli which is not the same as the stimulis N times before

False alarm Paricipant incorrectly responds to a stimuli that was not the same as the stimuli N times before

* Added logging of N back task results to the output .xml file. The output XML logging are described below:

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XML Element Description Values

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NBackTask\_response Stimuli order of the stimuli that was presented

stimuli The actual stimuli that was displayed to the participant

response The result of the paritcipant's response hit, miss, false\_alarm, correct\_rejection

* Added logging of N back task results to the output .csv file. The output fields are described below:

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XML Element Description Values

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Trial Name of the trial that the N back response was generated in

Stimuli Number Stimuli order of the stimuli that was presented

Stimuli The actual stimuli that was displayed to the participant

Response The result of the paritcipant's response hit, miss, false\_alarm, correct\_rejection

* Added a count down timer for the blank interruption task. It can be enabled/disabled with the XML below:

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XML Element Attribute Description Values

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atc:interruption atc:show\_timer Enable/disable countdown timer in the blank interruption task 'true' or 'false'

Example:

<atc:interruption atc:start='3' atc:end='21' atc:auto\_handoff='true' atc:auto\_accept='false' atc:show\_blank\_screen='true' atc:show\_timer='true' atc:external\_program='"calc.exe"'/>

* Added ability to enable/disable error pop up dialogs when a paricipant misses an aircraft acceptance or handoff. This can be achieved with the XML below:

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XML Element Attribute Description Values

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atc:trial atc:notify\_missed\_acceptance Enable/disable pop up error dialog when a paricipant misses an acceptance 'true' or

'false'

atc:notify\_missed\_handoff Enable/disable pop up error dialog when a paricipant misses a handoff 'true' or

'false'

Example:

<atc:trial atc:idx='test2' atc:param='default' atc:map="map1" atc:sky="script2" atc:ui="ui001" atc:notify\_missed\_acceptance='false' atc:notify\_missed\_handoff='false'>

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**Version**: 2.4.5.11

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_11

**Release Date:**

**Notes:**

* Added N Back Task to display random numbers at a set interval as a distraction to the ATC task. The N Back task is displayed in full screen and covers the ATC task which continues to run in the background. The N Back task can be specified with XML as detailed in the table below:

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

XML Element Attributes Description

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atc:nbackTask N Back Task parent XML element.

atc:start Time in seconds into the ATC task to display the N Back task.

atc:end Time in seconds into the ATC task to stop showing the N Back task.

atc:auto\_handoff Determines whether aircraft are automatically handed off while N Back ask is running

('true' or 'false').

atc:auto\_accept Determines whether aircraft are automatically accepted while N Back task is running

('true' or 'false').

atc:background\_colour Set the background colour of the N Back task screen ('black', 'white', 'blue', 'red', 'green').

atc:response\_key The key that a participant needs to press to respond in the N Back task

('space' or an alpha-numeric key).

atc:n\_factor The Nth number prior to the current stimuli that needs to be recognized as a match.

atc:reptition\_probability The probability that the current stimuli matches the stimuli Nth number previously shown.

atc:show\_task Toggles if the N Back task is to be displayed. Used to test what is happening to ATC while

the N Back task is running ('true' or 'false').

atc:initial\_display Sub-element of <atc:nbackTask>. Specifies the inital character to be displayed before the

stimuli are presented.

User cannot make a response during this state.

atc:symbol An alpha-numeric character to be displayed initially.

atc:font Name of the font to display the initial symbol in.

('Courier', 'Helvetica', 'SansSerif', 'Times', 'Serif', 'TypeWriter', 'OldEnglish', 'Decorative', 'System')

atc:font\_size Font size for the initial display to be displayed in.

atc:font\_colour Font colour of the initial display ('black', 'white', 'blue', 'red', 'green').

atc:duration Duration in seconds for the initial display to be shown for.

atc:show\_timer Show/Hide the countdown timer before the first stimuli is shown ('true' or 'false').

atc:x Horizontal position of the initial display symbol in pixels.

atc:y Veritical position of the initial display symbol in pixels.

atc:stimuli Sub-element of <atc:nbackTask>. Specifies the stimuli presentation details.

atc:font Name of the font to display the initial symbol in.

('Courier', 'Helvetica', 'SansSerif', 'Times', 'Serif', 'TypeWriter', 'OldEnglish', 'Decorative', 'System')

atc:font\_size Font size for the initial display to be displayed in.

atc:font\_colour Font colour of the initial display ('black', 'white', 'blue', 'red', 'green').

atc:display\_duration Duration in seconds for each stimuli to be displayed for.

atc:show\_timer Show/Hide the countdown timer before the next stimuli is shown ('true' or 'false').

atc:x Horizontal position of the stimuli in pixels.

atc:y Veritical position of the stimuli in pixels.

atc:correct\_feedback Sub-element of <atc:nbackTask>. Specifies the user feedback when they respond correctly.

atc:symbol The symbol to be displayed when a user correctly identifies a stimuli as an N back stimuli

('circle', 'square').

atc:colour Colour of the feedback symbol ('black', 'white', 'blue', 'red', 'green').

atc:width Width of the feedback symbol.

atc:height Height of the feedback symbol.

atc:x Horizontal position of the feedback symbol in pixels.

atc:y Vertical position of the feedback symbol in pixels.

atc:incorrect\_feedback Sub-element of <atc:nbackTask>. Specifies the user feedback when they respond

incorrectly.

atc:symbol The symbol to be displayed when a user incorrectly identifies a stimuli as an N back stimuli ('circle', 'square').

If the user responds within the first N stimuli, it is also considered as incorrect.

atc:colour Colour of the feedback symbol ('black', 'white', 'blue', 'red', 'green').

atc:width Width of the feedback symbol.

atc:height Height of the feedback symbol.

atc:x Horizontal position of the feedback symbol in pixels.

atc:y Vertical position of the feedback symbol in pixels.

atc:timer

atc:font Name of the font to display the count down timer in. ('Courier', 'Helvetica', 'SansSerif', 'Times', 'Serif', 'TypeWriter', 'OldEnglish', 'Decorative', 'System')

atc:font\_size Font size for the count down timer to be displayed in.

atc:font\_colour Font colour of the count down timer ('black', 'white', 'blue', 'red', 'green').

atc:x Horizontal position of the count down timer in pixels.

atc:y Veritical position of the count down timer in pixels.

Example:

<atc:trial atc:idx='test2' atc:param='default' atc:map="map1" atc:sky="script2" atc:ui="ui001">

<atc:timeEvent>300</atc:timeEvent>

<atc:nbackTask atc:start='2' atc:end='180' atc:auto\_handoff='true' atc:auto\_accept='true' atc:background\_colour='black' atc:response\_key='space' atc:n\_factor='2' atc:reptition\_probability='40' atc:show\_task='true'>

<atc:initial\_display atc:symbol='+' atc:font='Courier' atc:font\_size='50' atc:font\_colour='white' atc:duration='3' atc:show\_timer='true' atc:x='487' atc:y='330'/>

<atc:stimuli atc:font='SansSerif' atc:font\_size='50' atc:font\_colour='white' atc:display\_duration='2' atc:show\_timer='true' atc:x='487' atc:y='330' />

<atc:correct\_feedback atc:symbol='circle' atc:colour='green' atc:width='15' atc:height='15' atc:x='500' atc:y='410'/>

<atc:incorrect\_feedback atc:symbol='square' atc:colour='red' atc:width='15' atc:height='15' atc:x='500' atc:y='410'/>

<atc:timer atc:font='SansSerif' atc:font\_size='20' atc:font\_colour='white' atc:x='465' atc:y='450' />

</atc:nbackTask>

</atc:trial>

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**Version**: 2.4.5.10

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_10

**Release Date:**

**Notes:**

* Modified aircraft behaviour such that if aircraft are ready to be accepted (flashing orange) or

ready to be handed off (flashing blue) at the time of interruption, that aircraft will automatically

be accepted or handed off.

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**Version**: 2.4.5.9

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_9

**Release Date:**

**Notes:**

* Implemented scriptable external program that can be run during the interruption period. An experimenter can specify the name of the .exe file without the full path or include the full path to the executable enclosed between double quotes ("")

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XML Element Attributes Description

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atc:interruption atc:external\_program Name of executable or full path to executable

Example:

<atc:trial atc:idx='test1' atc:param='default' atc:map="map1" atc:sky="script1" atc:ui="ui001">

<atc:timeEvent>300</atc:timeEvent>

<atc:interruption atc:start='60' atc:end='180' atc:auto\_handoff='true' atc:auto\_accept='true'

atc:show\_blank\_screen='false'

atc:external\_program='"C:\Program Files\Windows NT\Accessories\wordpad.exe"'/>

</atc:trial>

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**Version**: 2.4.5.8

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_8

**Release Date:**

**Notes:**

* Implemented scriptable interruption task with configurable start time, end time, automatic aircraft acceptance, automatic aircraft handoff and the displaying of a full black screen

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XML Element Attributes Description

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atc:interruption atc:start Trial time when the interruption begins

atc:end Trial time when the interruption ends

atc:auto\_handoff Set if aircraft are automatically handed off during the interruption (true/false)

atc:auto\_accept Set if aircraft are automatically accepted during the interruption (true/false)

atc:show\_blank\_screen Set if a full black screen is to be displayed to hide the aircraft simulation (true/false)

atc:external\_program Not implemented yet

Example:

<atc:trial atc:idx='test2' atc:param='default' atc:map="map1" atc:sky="script2" atc:ui="ui001">

<atc:timeEvent>300</atc:timeEvent>

<atc:interruption atc:start='40' atc:end='180' atc:auto\_handoff='false' atc:auto\_accept='false' atc:show\_blank\_screen='true' atc:external\_program='c:\' />

</atc:trial>

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**Version**: 2.4.5.7

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_7

**Release Date:**

**Notes:**

* Fixed two issues:

1. Canvasview grabs all the keypress events which causes other widgets like the altitude selection tool to not be able to be escaped
2. When aircraft are set with a customized handoff key, the default handoff key 'h' is not usable for handoff

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**Version**: 2.4.5.6

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_6

**Release Date:**

**Notes:**

* Implemented a scriptable handoff keys for individual aircraft. The default handoff key is still the 'h' key.

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XML Element Description

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atc:handoffKey Specifies the key that will be used to handoff an aircraft instead of the default 'h' key. E.g. "w"

For special non-character keys, the following are supported:

- "key\_up" - Up arrow

- "key\_down" - Down arrow

- "key\_left" - Left arrow

- "key\_right" - Right arrow

Example:

<atc:aircraft atc:idx="PM2" atc:type="A320">

<atc:start>0</atc:start>

<atc:altitude>46000</atc:altitude>

<atc:altitudeChangeEnableTime>20</atc:altitudeChangeEnableTime>

<atc:velocity>450</atc:velocity>

<atc:flightpath>

<atc:point atc:x='38' atc:y='30.86' />

<atc:point atc:x='30.6458' atc:y='24.2536' />

<atc:point atc:x='23.7007' atc:y='18.0156' />

<atc:point atc:x='23.7115' atc:y='0' />

</atc:flightpath>

<atc:acceptedStateFlashParams>

<atc:flashItem>fl</atc:flashItem>

<atc:colour>red</atc:colour>

</atc:acceptedStateFlashParams>

<atc:coordinationRequest atc:key='9'>

<atc:show>true</atc:show>

</atc:coordinationRequest>

<atc:handoffkey>key\_left</atc:handoffkey>

</atc:aircraft>

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**Version**: 2.4.5.5

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_5

**Release Date:**

**Notes:**

* Implemented a scriptable altitude change time restriction for aircraft.

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XML Element Description

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atc:altitudeChangeEnableTime Specifies the time an aircraft's altitude selection list can be enabled

Example:

<atc:aircraft atc:idx="PM2" atc:type="A320">

<atc:start>0</atc:start>

<atc:altitude>46000</atc:altitude>

<atc:altitudeChangeEnableTime>20</atc:altitudeChangeEnableTime>

<atc:velocity>450</atc:velocity>

<atc:flightpath>

<atc:point atc:x='38' atc:y='30.86' />

<atc:point atc:x='30.6458' atc:y='24.2536' />

<atc:point atc:x='23.7007' atc:y='18.0156' />

<atc:point atc:x='23.7115' atc:y='0' />

</atc:flightpath>

<atc:acceptedStateFlashParams>

<atc:flashItem>fl</atc:flashItem>

<atc:colour>red</atc:colour>

</atc:acceptedStateFlashParams>

<atc:coordinationRequest atc:key='9'>

<atc:show>true</atc:show>

</atc:coordinationRequest>

</atc:aircraft>

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**Version**: 2.4.5.4

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_4

**Release Date:**

**Notes:**

* Implemented a scriptable dismiss button for aircraft reminder boxes.

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XML Element Description Attributes Description

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atc:dismissButton

enable\_time Time in the simulation to enable the dismiss button

label The text to display on the dismiss button

fontSize The font size of the text to be displayed on the dismiss button

width The width of the dismiss button in pixels

height The height of the dismiss button in pixels

posX The horizontal distance from the centre of the aircraft to the top left corner of the dismiss

button in pixels

posY The vertical distance from the centre of the aircraft to the top left corner of the dismiss

button in pixels

Example:

<atc:reminderBox atc:bgColor="darkOrange" atc:width='380' atc:height='70' atc:aircraft='C69' atc:posX='10'

atc:posY='10' atc:displayText="This is just a test" atc:displayTextSize='20'>

<atc:displayTime atc:startTime='0' atc:endTime='600'/>

<atc:flashColor>darkOrange</atc:flashColor>

<atc:flashColor>darkOrange</atc:flashColor>

<atc:flashTime atc:startTime='15' atc:endTime='600'/>

<atc:dismissButton atc:enable\_time='10' atc:label="Multiple reminderboxes" atc:fontSize='10' atc:width='120' atc:height='30' atc:posX='20' atc:posY='70'/>

</atc:reminderBox>

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**Version**: 2.4.5.3

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_3

**Release Date:**

**Notes:**

* Implemented scriptable sound file for trial tasks which allow a .wav file to be played while the trial is running.

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XML Element Value Description

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atc:sound [String] The full path to sound file in .wav format to be played for the trial. Note, the sound file will be stopped if its

duration is longer than the trial duration.

Example:

<atc:trial atc:idx='test1' atc:param='default' atc:map="map1" atc:sky="scriptt1" atc:ui="ui001" atc:sound="C:\Documents and Settings\Aaron Yeung\My Documents\Key Centre For Human Factors\Work\Source\atc\_lab\Debug\incorrect.wav">

<atc:timeEvent>300</atc:timeEvent>

</atc:trial>

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**Version**: 2.4.5.2

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_2

**Release Date:**

**Notes:**

* Implemented scriptable update\_rate and update\_multiplier for the engine clock.

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XML Element Value Description

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update\_rate [Integer] The rate (in ms) that the clock should update

update\_multiplier [Integer] The multiples the clock should count in.

E.g. a value of 2 means the clock will update in multples of 2 (Twice as fast)

Example:

<atc:param atc:idx='default'>

<atc:sectorEntryDistance>5</atc:sectorEntryDistance>

<atc:sectorExitDistance>0</atc:sectorExitDistance>

<atc:update\_rate>1000</atc:update\_rate>

<atc:update\_multiplier>2</atc:update\_multiplier>

<atc:horizontal\_doms>5</atc:horizontal\_doms>

<atc:vertical\_doms>0</atc:vertical\_doms>

</atc:param>

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**Version**: 2.4.5.1

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:** atclab-rel-2\_4\_5\_1

**Release Date:**

**Notes:**

* Branched off from version 2.4.5
* Added millisecond timer using the hosts high performance counter (if it exists). Timing in the resulting log file is encased in the <hpc\_elapsed\_time> XML tag. Also added millisecond fields in the CSV log file.

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**Version**: 2.4.5

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:** atclab-rel-2\_4\_5\_branch

**CVS Tag:**

**Release Date:**

**Notes:**

Added XML sub-element to acceptedStateFlashParams element called flashColour. This was used instead of the equivalent element 'colour' for acceptedStateFlashParams because Shayne had many scripts with <acceptedStateFlashParams><colour>red</colour></acceptedStateFlashParams> but did not want those aircrafts to be red. So had to add a new element so that only the few aircrafts that need to flash red would be shown as red. The aircrafts with <colour>red</colour> would be ignored and default to flash orange

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**Version**: 2.4.4

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:**

**CVS Tag:**

**Release Date:**

**Notes:**

* Removed functionality added in v2.4.3 where an experimenter could change the flash colour to be red when an aircraft is in a proposed state.
* Removed XML script elements

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XML Element Description Attributes Description

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<acceptedStateFlashParams> colour The colour an aircraft is to flash when in the proposed state ready to be accepted.

(Orange by default)

Example:

<atc:acceptedStateFlashParams>

<atc:colour>red</atc:colour>

</atc:acceptedStateFlashParams

Added more flexible checks in the instruction screen's recall tasks. The instruction task now removes leading, trailing and duplicate spaces in the entered text and converts to all uppercase (The same is applied to the answer that is scripted into the instruction task).

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**Version**: 2.4.3

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:**

**CVS Tag:**

**Release Date:** Thursday 20th August 2015

**Notes:**

* Modified the Excel logger to write the files when the trial ends (either by timing out or by pressing 'alt+ctrl+n') rather than just when the trial times out.

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**Version**: 2.4.2

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:**

**CVS Tag:**

**Release Date:**

**Notes:**

* Fixed problem with canvasview not taking focus so that keypresses were not working for onscreen sprites. This was fixed by calling canvasview's setFocus() method after task::showEvent (which calls setFocus).
* Added functionality to allow an experimenter to script in the flash colour to be red when an aircraft is in a proposed state ready to be accepted.
* New XML script elements

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XML Element Description Attributes Description

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<acceptedStateFlashParams> colour The colour an aircraft is to flash when in the proposed state ready to be accepted.

(Orange by default)

Example:

<atc:acceptedStateFlashParams>

<atc:colour>red</atc:colour>

</atc:acceptedStateFlashParams

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**Version**: 2.4.1

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:**

**CVS Tag:**

**Release Date:**

**Notes:**

* Added functionality to allow reminder boxes to be attached to aircrafts
* New XML script elements

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XML Element Description Attributes Description

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<reminderBox> aircraft A string which represents the aircraft that the reminder box should attach to. If this is

omitted then the reminder box will just be a standard reminder box that is displayed at a certain location on screen. If this attribute is specified, the posX and posY attributes then become offsets from the centre of the plane rather than coordinates on the map

Example:

<atc:reminderBox atc:bgColor="yellow" atc:width='420' atc:height='90' atc:posX='2080' atc:posY='880' atc:aircraft='C10'

atc:displayText="If CallSign Greater 88/n Then Press 9" atc:displayTextSize='22'>

<atc:displayTime atc:startTime='82' atc:endTime='102'/>

<atc:flashColor>darkorange</atc:flashColor>

<atc:flashTime atc:startTime='236' atc:endTime='256'/>

</atc:reminderBox>

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**Version**: 2.4.0

**Developer:** Aaron Yeung ([aaron.c.yeung@gmail.com](mailto:aaron.c.yeung@gmail.com))

**CVS Branch:**

**CVS Tag:**

**Release Date:**

**Notes:**

* Disabled the Ok pushbutton in the instruction task if the textbox is empty. This prevents participants from entering nothing in the textbox
* Instruction tasks are now fixed so that an experimenter can specify a key to press to close an instruction screen

Added version numbering so that particular versions of ATCLab can be easily identified in the future