

## ATCLab Release Notes

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## Version: 2.8.16

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

**Release Date:** Wednesday 12<sup>th</sup> June 2019

### Notes:

- Fixed bug for atc:timeEvent for block trials where the timer continues to run even after a trial has finished causing subsequent tasks to be closed due to the timeEvent expiring.
- Added the following global variables:

Variable	Type	Description
correct_decisions	Integer	Counts the number of correct decisions made by a participant in a trial
incorrect_decisions	Integer	Counts the number of incorrect decisions made by a participant in a trial
incorrect_descisions_with_correct_recommendation	Integer	For the automated mode, this variable counts the number of incorrect decisions made by a participant in a trial where there was a recommendation that was actually correct
incorrect_descisions_with_incorrect_recommendation	Integer	For the automated mode, this variable counts the number of incorrect decisions made by a participant in a trial where there was a recommendation that was incorrect but the participant accepted it anyway
accuracy	Integer	Percentage of correct_decisions over trial_count
trial_count	Integer	Number of trials that have elapsed

## ATCLab Release Notes (Default Branch)

- Updated scoreFeedback task to be able to display global variable values using the '%d' marker for <atc:text> attributes. An example is shown below:

```
<atc:scoreFeedback atc:idx='feedback_automatic' atc:type='general'>
  <atc:font atc:family='Arial' atc:pointSize='20' />
  <atc:text>
    <![CDATA[<qt>
      <center>
        <table width="80%" bgcolor="lightgrey" border="0" cellspacing="50" cellpadding="10">
          <tr><td align="left"><font face="calibri" size="1">
            <p align="center"><font face="calibri" size="6"><b>Your score</b></font></p>
          </td></tr>
          <tr><td align="left"><font face="calibri" size="1">
            <p align="center"><font face="calibri" size="6"><b>You responded correctly on %d trials</b></font></p>
          </td></tr>
          <tr><td align="left"><font face="calibri" size="1">
            <p align="center"><font face="calibri" size="6"><b>When the automated recommendation was right,<br>
              you incorrectly rejected the recommendation on %d trials</b></font></p>
          </td></tr>
          <tr><td align="left"><font face="calibri" size="1">
            <p align="center"><font face="calibri" size="6"><b>When the automated recommendation was wrong,<br>
              you incorrectly accepted the recommendation on %d trials.</b></font></p>
          </td></tr>
          <tr><td align="left"><font face="calibri" size="1">
            <p align="center"><font face="calibri" size="6"><b>Overall accuracy: %d%</b></font></p>
          </td></tr>
        </table>
      </center>
    </qt>]]>
  </atc:text>
  <atc:global_ref>correct_decisions</atc:global_ref>
  <atc:global_ref>incorrect_descisions_with_correct_recommendation</atc:global_ref>
  <atc:global_ref>incorrect_descisions_with_incorrect_recommendation</atc:global_ref>
  <atc:global_ref>accuracy</atc:global_ref>
</atc:scoreFeedback>
```

## ATCLab Release Notes (Default Branch)

- Added a new XML to the <atc:aircraftstatus> XML to inform ATCLab what recommendation is provided to an aircraft pair. This is similar to the <atc:autorecommendation> child element of <atc:aircraft> except that the latter is purely to display free text on an aircraft's information block during a trial. New XMLs are displayed in the table below:

Parent Element	New Element	Description	Value	Description	Example
<atc:aircraft_status>	<atc:recommendation>	Informs ATCLab whether an aircraft pair has a recommendation and what type of recommendation	conflict nonconflict	An aircraft pair has a conflict recommendation An aircraft pair has a non-conflict recommendation	</atc:flightpath><atc:autorecommendation>CONFLICT</atc:autorecommendation></atc:aircraft> <atc:aircraftstatus> <atc:aircraft>WTH513</atc:aircraft> <atc:aircraft>MYF583</atc:aircraft> <atc:status>conflict</atc:status> <atc:finaltime>100</atc:finaltime> <atc:recommendation>conflict</atc:recommendation> </atc:aircraftstatus>

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## Version: 2.8.15

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

**Release Date:** Wednesday 29<sup>th</sup> May 2019

### Notes:

- Updated scoreFeedback task to be able to be displayed based on a comparison between 2 global variables. An example would be a comparison between a global variable that stores the conflict type (trial\_conflict\_type) for trials with single aircraft pairs and a global variable that stores the decision a participant makes (participant\_decision). New XMLs are displayed in the table below:

Parent Element	New Attribute	Description	Value	Example
<atc:scoreFeedback>	<atc:idxref1>	ID of a global variable that will contain a value to evaluate if the scoreFeedback task is displayed	[String that represents the name of a global variable]	<pre> &lt;atc:scoreFeedback atc:idx='feedback' atc:type='general'   atc:idxref1='participant_decision' atc:comparison='notEqualTo'   atc:idxref2='trial_conflict_type'&gt;   &lt;atc:font atc:family='Arial' atc:pointSize='20' /&gt;   ... &lt;/atc:scoreFeedback&gt; </pre>
	<atc:comparison>	The comparison formula to compare two global variables to determine if the scoreFeedback task is displayed.	equalTo notEqualTo	
	<atc:idxref2>	ID of a global variable that will contain a value to evaluate if the scoreFeedback task is displayed	[String that represents the name of a global variable]	

## ATCLab Release Notes (Default Branch)

- Updated scoreFeedback task to display or not display specific text based on the value of a global variable. An example would be to display the text “This aircraft pair was in conflict” when the global variable that stores the trial conflict type (trial\_conflict\_type) as a conflict. New XMLs are displayed in the table below:

Parent Element	New Element	Description	Value	New Attribute	Description	Value	Example
<atc:scoreFeedback>	<atc:conditionalTextWithGlobal>	Text to display on the scoreFeedback task if the comparison between 2 global variables is true	[Text to be displayed on the scoreFeedback task]	atc:idxref	ID of a global variable that will contain a value to be compared to a set value to determine if specific text will be displayed in the scoreFeedback task.	[String that represents the name of a global variable]	<atc:scoreFeedback atc:idx='feedback' atc:type='general' atc:idxref1='participant_decision' atc:comparison='notEqualTo' atc:idxref2='trial_conflict_type'> <atc:font atc:family='Arial' atc:pointSize='20' /> ... <atc:conditionalTextWithGlobal atc:idxref='trial_conflict_type' atc:condition='equalTo' atc:value_str='conflict'> <![CDATA[<qt> <center> <table width="80%" bgcolor="lightgrey" border="0" cellspacing="60" cellpadding="20"> <tr><td align="left"><font face="calibri" size="1"> <p align="center"><font face="calibri" size="8"><b>This pair was in conflict</b></font></p> </td></tr> </table> </center> </qt>]]> ... </atc:scoreFeedback>
				<atc:condition>	The comparison formula to compare a global variables to a set value to determine if specific text in the scoreFeedback task is displayed.	lessThan lessThanOrEqualTo equalTo greaterThan greaterThanOrEqualTo	
				<atc:value>	String value that a global variable should have in order to display specific text in the scoreFeedback task	[String'	

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## Version: 2.8.14

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

**Release Date:** Friday 24<sup>th</sup> May 2019

### Notes:

- Added automation on/off label under in-trial clock display. New XMLs are displayed in the table below:

XML Element	Parent Element	Description	Example
<atc:automation>	<atc:info_block>	Displays the in-trial automation mode (on/off) under the clock label.	<pre>&lt;atc:info_block atc:position='TOPLEFT'&gt; &lt;atc:time atc:type='countDown' atc:source='blockTrial'/&gt; &lt;atc:automation/&gt; &lt;/atc:info_block&gt;</pre>

- Added automation mode that determines if conflict/non-conflict recommendations are displayed on aircraft. This sets the automation on/off label value in the info\_block (see above). New XMLs are displayed in the table below:

XML Element	Parent Element	Description	Values	Example
<atc:automation>	<atc:param>	Sets the automation mode of the trial which determines if scripted conflict/non-conflict recommendations are displayed for each aircraft.	true – enable automation false – disable automation	<pre>&lt;atc:param atc:idx='default'&gt;   &lt;atc:update_rate&gt;20&lt;/atc:update_rate&gt;   &lt;atc:automation&gt;true&lt;/atc:automation&gt;   ... &lt;/atc:param&gt;</pre>

- Added ability for experimenter to script conflict/non-conflict recommendation for each individual aircraft if the trial is running in automation mode (see above). New XMLs are displayed in the table below:

XML Element	Parent Element	Description	Values	Example
<atc:autorecommendation>	<atc:aircraft >	Sets a text string as a recommendation for individual aircraft which will be displayed under the altitude and velocity labels	[Text]	<pre>&lt;atc:aircraft atc:type='B737' atc:idx='LAT860'&gt; ... &lt;atc:flightpath&gt;&lt;atc:point atc:x='77.599' atc:y='80.588'&gt; &lt;atc:altitude&gt;37000&lt;/atc:altitude&gt;&lt;/atc:point&gt;</pre>

				<div>&lt;atc:point atc:x='90' atc:y='56.25'&gt; &lt;atc:altitude&gt;37000&lt;/atc:altitude&gt;&lt;/atc:point&gt; &lt;atc:point atc:x='138.183' atc:y='-38.315'&gt; &lt;atc:altitude&gt;37000&lt;/atc:altitude&gt;&lt;/atc:point&gt; &lt;/atc:flightpath&gt; &lt;atc:autorecommendation&gt;NON- CONF&lt;/atc:autorecommendation&gt; &lt;/atc:aircraft&gt;</div>
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## ATCLab Release Notes (Default Branch)

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**Version:** 2.8.13

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

**Release Date:** Sunday 12th June 2016

**Notes:**

- Modified the logging of each entry in the output file to include milliseconds.

## ATCLab Release Notes (Default Branch)

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**Version:** 2.8.12

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

**Release Date:** Tuesday 8th March 2016

### Notes:

- Modified the final trial in a block trial that has to wait for the block trial countdown timer to complete to only score conflict declarations once.

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## Version: 2.8.11

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

Release Date: Monday 7<sup>th</sup> March 2016

### Notes:

- Added a configuration to `<atc:block_trial>` to allow an experimenter to set whether to end the last trial task in a block trial when a participant makes a conflict declaration or to hide the aircraft and only end the last trial when the block trial countdown completes.

XML Attribute	Parent Element	Description	Values	Example
<code>&lt;atc:waitTimeOut&gt;</code>	<code>&lt;atc: block_trial&gt;</code>	A configuration to allow the last trial task in a block trial to wait for the block trial countdown to complete before ending the trial even if the participant has made a conflict declaration	true – wait until block trial countdown completes  false – don't wait for block trial countdown to complete. End the last trial if the participant responds with a conflict declaration	<code>&lt;atc:block_trial atc:waitTimeOut='true' &gt;</code> <code>&lt;atc:trial atc:idx='cond_D_PM_trial_1-1'</code> <code>atc:sky='sky41_PM' atc:param='default' atc:map='map41'</code> <code>atc:ui='ui01'&gt;</code> <code>&lt;atc:keyEvent atc:type='terminateTrial'&gt;q&lt;/atc:keyEvent&gt;</code> <code>&lt;/atc:trial&gt;</code>

## ATCLab Release Notes (Default Branch)

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### Version: 2.8.10

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

Release Date: Tuesday 1<sup>st</sup> March 2016

#### Notes:

- Added a 'other conflict' type event (a third conflict declaration type to conflict and non-conflicts)
- Added associated scoring for 'other conflict' events (correctly actioned, false alarm and missed other conflict events)
- Added a check for the scoring object to detect missed other conflict events at the end of a trial task
- Fixed bug where the first trial task mistakenly gets checked for missed non conflicts and generates an incorrect score
- Added an XML element for scoring for missed other conflict events

XML Element	Parent Element	Description	Attributes	Description	Values	Example
<atc:miss_other_conflict>	<atc:scoring>	Score settings for the scenario where an aircraft pair of type 'other conflict' doesn't get actioned by the participant	atc:value atc:audio atc:duration atc:delay	Value of the score in this scenario Name of audio file to play Duration to play audio Delay in seconds to play audio	[Number] [Text] [Number] [Number]	<atc:scoring> <atc:miss_other_conflict    atc:value='-20' atc:audio='' atc:duration='0' atc:delay='0'/> </atc:scoring>

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## Version: 2.8.9

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

**Release Date:** Monday 29<sup>th</sup> February 2016

### Notes:

- Fixed <atc:initial\_tools>/<atc:srprobe\_tool>. This now allows an experimenter to set the short route probe tool to be on for all aircraft by default.

XML Element	Parent Element	Description	Attributes	Description	Values	Example
<atc: srprobe_tool>	<atc: initial_tools>	Allows an experimenter to set the short route probe tool to be on by default for all aircraft in a trial.	atc:toggle	Toggles the length of the short route probe tool.	1 = 1 minute 2 = 2 minutes 3 = 3 minutes 4 = 5 minutes 5 = 10 minutes 6 = 15 minutes	<atc:initial_tools> <atc:srprobe_tool atc:toggle='1'/> </atc:initial_tools>

- Included scoring for child trial tasks in block trials that don't get run due to the block trial timing out. Prior to version 2.8.9, if only the first trial in a block trial times is run before the block trial times out, the output would be like the following:

```
...<type>trial</type><task_id>block1_trial1</task_id></info>
...<call>aircraft1</call>...
...<call>aircraft2</call>...
...<info><block_trial>timeout</block_trial></info>
...<info><score>0</score><total_score>0</total_score><grand_total_score>0</grand_total_score><event>MISS_CONFLICT</event>
...<correct_decisions>0</correct_decisions><goal>0</goal><success>false</success><goal_score>0</goal_score><total_score>0</total_score>
...<type>trial</type><task_id>block1_trial2</task_id></info>
...<type>trial</type><task_id>block1_trial2</task_id></info>
...<type>trial</type><task_id>block1_trial3</task_id></info>
...<type>trial</type><task_id>block1_trial4</task_id></info>
```

The new log will appear like the following:

```
...<type>trial</type><task_id>block1_trial1</task_id></info>
...<call>aircraft1</call>...
...<call>aircraft2</call>...
...<info><block_trial>timeout</block_trial></info>
...<info><score>0</score><total_score>0</total_score><grand_total_score>0</grand_total_score><event>MISS_CONFLICT</event>
...<correct_decisions>0</correct_decisions><goal>0</goal><success>false</success><goal_score>0</goal_score><total_score>0</total_score>
...<type>trial</type><task_id>block1_trial2</task_id></info>
...<info><score>0</score><total_score>0</total_score><grand_total_score>0</grand_total_score><event>MISS_CONFLICT</event>
...<correct_decisions>0</correct_decisions><goal>0</goal><success>false</success><goal_score>0</goal_score><total_score>0</total_score>
...<type>trial</type><task_id>block1_trial2</task_id></info>
...<info><score>0</score><total_score>0</total_score><grand_total_score>0</grand_total_score><event>MISS_CONFLICT</event>
...<correct_decisions>0</correct_decisions><goal>0</goal><success>false</success><goal_score>0</goal_score><total_score>0</total_score>
```

```
...<type>trial</type><task_id>block1_trial3</task_id></info>
...<info><score>0</score><total_score>0</total_score><grand_total_score>0</grand_total_score><event>MISS_CONFLICT</event>
...<correct_decisions>0</correct_decisions><goal>0</goal><success>false</success><goal_score>0</goal_score><total_score>0</total_score>
...<type>trial</type><task_id>block1_trial4</task_id></info>
...<info><score>0</score><total_score>0</total_score><grand_total_score>0</grand_total_score><event>MISS_CONFLICT</event>
...<correct_decisions>0</correct_decisions><goal>0</goal><success>false</success><goal_score>0</goal_score><total_score>0</total_score>
```

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## Version: 2.8.8

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

**Release Date:** Monday 9<sup>th</sup> November 2015

### Notes:

- Added scoring to conflict declarations using key presses.
- Modified key-based conflict declaration to use the existing conflictDeclarationActions XML structure. The following XML elements are now obsolete:

Obsolete Attribute	Parent Element	Description
<atc:type>	<atc:keyEvent>	registerConflictEvent, registerNonConflictEvent and registerOtherEvent are no longer supported as an 'atc:type' attribute for <atc:keyEvent> for a trial

- Registering conflict, non-conflict and other events are now scripted into the <atc:conflictDeclarationActions> XML element as described in the table below:

New/Modified Element	Parent Element	Description	Attributes	Description	Values	Example
<atc:conflict_key> <atc:non_conflict_key> <atc:other_key>	<atc:conflictDeclarationActions>	Allows an experimenter to assign a keyboard key to allow a participant to register a conflict, non-conflict or other event				<atc:param atc:idx="default"> <atc:conflictDeclarationActions atc:score_change='true' atc:end_trial='true'> <atc:conflict_key>c</atc:conflict_key> <atc:non_conflict_key>n</atc:non_conflict_key> <atc:other_key>o</atc:other_key> </atc:conflictDeclarationActions>

- Added additional scoring events for other event declarations

New/Modified Element	Parent Element	Description	Attributes	Description	Example
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## ATCLab Release Notes (Default Branch)

<atc:hit_other_ontime> <atc:false_alarm_other	<atc:scoring>	<atc:hit_other_ontime> and <atc:false_alarm_other> allows an experimenter to set the score, audio file to be played, audio duration and audio delay when a participant correctly and incorrectly declares an 'other' event respectively	<atc:value>  <atc:audio>   <atc:duration>   <atc:delay>	Value of score to be assigned to the event Filename and path of audio file to be played when the scoring event is triggered Duration in seconds for the audio file to be played when the audio event is triggered. Delay in seconds before the audio is played after the scoring event is triggerred.	<atc:scoring> <atc:initial        atc:value='0'/> <atc:hit_conflict_ontime    atc:value='1'  atc:audio="" atc:duration='0' atc:delay='0'/> <atc:hit_non_conflict        atc:value='2'  atc:audio="" atc:duration='0' atc:delay='0'/> <atc:hit_other_ontime        atc:value='3'  atc:audio="" atc:duration='0' atc:delay='0'/> <atc:false_alarm_conflict    atc:value='-1' atc:audio="" atc:duration='0' atc:delay='0'/> <atc:false_alarm_non_conflict atc:value='-2' atc:audio="" atc:duration='0' atc:delay='0'/> <atc:false_alarm_other        atc:value='-3' atc:audio="" atc:duration='0' atc:delay='0'/> </atc:scoring>
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- Added 'other' type of conflict in the <atc:aircraftstatus> XML element to allow for 'other' events associated with an aircraft pair.

New/Modified Attribute	Parent Element	Description	Values	Example
<atc:status>	<atc:aircraftstatus>	Added a value for 'other' aircraft event types	conflict nonconflict other	<atc:sky> ... <atc:aircraftstatus> <atc:aircraft>SXR992</atc:aircraft> <atc:aircraft>NZF711</atc:aircraft> <atc:status>other</atc:status> <atc:finaltime>100</atc:finaltime> </atc:aircraftstatus> </atc:sky>

- Added a grand total score to the scoring module to store accumulated scores for the entire experiment. The new log entry uses the <grand\_total\_score> XML element as detailed in the table below.

## ATCLab Release Notes (Default Branch)

XML Log	Description	Example
<grand_total_score>	Indicates the cumulative score for all trials	<time>Sun 8. Nov 22:01:10 2015</time><info><score>1</score><total_score>1</total_score><grand_total_score>1</grand_total_score><sound></sound><event>HIT_CONFLICT_ONTIME</event><elapsed>2</elapsed></info>

## ATCLab Release Notes (Default Branch)

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**Version:** 2.8.7

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

**Release Date:** Monday 28<sup>th</sup> September 2015

### Notes:

- Fixed bug where the in-trial clock will count down incorrectly when using the 'countDown' setting for the <atc:info\_block><atc:time> specification. The initial countdown value was set incorrectly after the first trial in a series of trials within a block trial causing the clock to count from an incorrect value often resulting in negative numbers.

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## Version: 2.8.6

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

**Release Date:** Monday 7<sup>th</sup> September 2015

### Notes:

- Added <atc:block\_trial> XML element as a child element of <atc:phase>. This specifies a group of trials tasks to be run together as a single master trial (e.g. with a common clock that sets the duration of a block of trials as opposed to individual trials). XML elements of type <atc:trial> can be specified as child elements of <atc:block\_trial>. Additionally, a child XML element <atc:timeEvent> can be used to specify the duration of the entire block of trials. Note: the block trial may be longer or shorter in duration than the set of trials which it contains. If the block trial is longer in duration than its child trials, the block trial will end when the last trial ends. If the block trial is shorter in duration than its child trials, the current trial will end and subsequent trials within the block will not be presented.
- Added an attribute <atc:source> to the <atc:time> XML element to allow an experimenter to specify the time source used to update the clock display within trials. A value of 'trial' indicates the in-trial clock will display the trial time of the individual trial. A value of 'blockTrial' indicates the in-trial clock of trials within a block will display the block trial time (i.e. the clock will not reset back to 00:00:00 when each new trial within a block starts).

## ATCLab Release Notes (Default Branch)

New/Modified Element	Parent Element	Description	Attributes	Description	Values	Example
<atc:block_trial>	<atc:phase>	Indicates a block of trials will be presented as a single trial				<atc:block_trial> <atc:trial atc:idx='trial3' atc:sky='sky3' atc:param='default' atc:map='map3' atc:ui='ui01'> <atc:timeEvent>60</atc:timeEvent> </atc:trial> <atc:timeEvent atc:timeUnit='milliseconds'>60000</atc:timeEvent> </atc:block_trial>
<atc:timeEvent >	<atc:block_trial>	Specifies the duration which a block of trials should run for.	atc:timeUnit	Time unit that the XML element represents (seconds/milliseconds)	seconds milliseconds	
<atc:time>	<atc:info_block>		atc:source	Specifies the source of the time that is displayed in the clock display during a trial. (block of trials, individual trial)	trial blockTrial	<atc:info_block atc:position="TOPLEFT"> <atc:time atc:type='countUp' atc:source='blockTrial' /> </atc:info_block>

- Added the following logging for block\_trials

XML Log	Description	Example
<type>block_trial</type>	Indicates the start of a block trial	<time>Sun 6. Sep 19:48:18 2015</time><info><phase>expTrial2</phase><type>block_trial</type><task_id></task_id></info>
<block_trial>timeout</block_trial>	Indicates that a block trial timed out	<time>Sun 6. Sep 19:48:18 2015</time><info><block_trial>timeout</block_trial></info>

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## Version: 2.8.5

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

**Release Date:** Tuesday 18<sup>th</sup> August 2015

### Notes:

- Modified trial task to handle conflict/non-conflict/other event detection with keypress input without requiring a choice\_question component. Trial task generates a new output into the log file to indicate what event was recognized by the participant as well as what key was pressed.

New/Modified Element	Parent Element	Description	Values	Example
<registerTrialTaskKeyEvent>	<info>	Indicates the event type the participant was registering	REGISTER_CONFLICT_EVENT REGISTER_NON_CONFLICT_EVENT REGISTER_OTHER_EVENT	<info><elapsed>13030</elapsed><registerTrialTaskKeyEvent>REGISTER_OTHER_EVENT</registerTrialTaskKeyEvent><KEY_PRESS>C</KEY_PRESS>
<KEY_PRESS>	<info>	Specifies the key used to register a particular event	[Keyboard key pressed]	

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## Version: 2.8.4

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

**Release Date:** Sunday 16<sup>th</sup> August 2015

### Notes:

- Added an optional attribute for the atc:timeEvent element called atc:timeUnit which allows a trial task duration to be specified in seconds or milliseconds.

New/Modified Element	Parent Element	Description	New/Modified Attributes	Attribute Values	Description	Example
<atc: timeEvent >	<atc:trial>	Specifies a trial task's duration	atc:timeUnit	seconds milliseconds	Allows a trial tasks duration to be specified in seconds or milliseconds	<pre> &lt;atc:phase atc:idx='expTrial1'&gt;   &lt;atc:instruction atc:idxref='interTrialInfo'/&gt;   &lt;atc:trial atc:idx='trial1' atc:sky='sky1' atc:param='default' atc:map='map1' atc:ui='ui01'&gt;   &lt;atc:keyEvent&gt;x&lt;/atc:keyEvent&gt;   &lt;atc:timeEvent atc:timeUnit='milliseconds'&gt;40000&lt;/atc:timeEvent&gt;&lt;/atc:trial&gt; &lt;/atc:phase&gt; </pre>

- Added an optional attribute for the atc:time element called atc:type which allows a trial task onscreen clock to count forward or backwards in time.

New/Modified Element	Parent Element	Description	New/Modified Attributes	Attribute Values	Description	Example
<atc: time >	<atc:info_block>	Specifies a clock to be displayed during a trial	atc:type	countUp countDown	Allows the onscreen clock in a trial to count forwards or backwards in time	<pre> &lt;atc:info_block atc:position="TOPLEFT"&gt;   &lt;atc:time atc:type='countDown'/&gt; &lt;/atc:info_block&gt; </pre>

- Added an optional attribute for the atc:choice element called atc:key which allows a keyboard key to be used to provide a response to the scripted question.

New/Modified Element	Parent Element	Description	New/Modified Attributes	Attribute Values	Description	Example
<atc: choice >	<atc:choice_question>	Specifies the details of a choice (button click or key press) to a question	atc:key	[Any keyboard alpha-numeric character]	Allows a keyboard key to be used to provide a response to the scripted question	<pre> &lt;atc:choice_question atc:idx='conflictDecision'&gt;   &lt;atc:text&gt;Will this pair of aircraft be in conflict?&lt;/atc:text&gt;   &lt;atc:choice atc:value='1' atc:key='c'&gt;Conflict&lt;/atc:choice&gt;   &lt;atc:choice atc:value='2' atc:key='n'&gt;No   Conflict&lt;/atc:choice&gt;   &lt;atc:choice atc:value='3'&gt;PM&lt;/atc:choice&gt; &lt;/atc:choice_question </pre>

- Added logging for the additional atc:key option for the atc:choice element if a key is used to provide an answer to a scripted question.

New/Modified Element	Parent Element	Description	Preceding Elements	Example
<KEY_PRESS>	<info>	Specifies the key used to provide an answer to a scripted question	<question::setAnswer>	<pre> &lt;time&gt;Sat 15. Aug 16:57:36 2015&lt;/time&gt;&lt;info&gt;&lt;elapsed&gt;3211&lt;/elapsed&gt;&lt;question::setAnswer&gt;2&lt;/question::s etAnswer&gt;&lt;KEY_PRESS&gt;N&lt;/KEY_PRESS&gt;&lt;/info&gt; </pre>

- Modified trial tasks to handle scripted key events so that the trial can terminate even if it is not in focus (e.g. when a floating dialog box is in focus).