

# Recent Updates to ACT-R

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# ACT-R 6.1

- Current version of ACT-R is 6.1
  - Made available last December r1744
  - Next version before the end of the month ~r1833

# Chunks do not have a type!

- A chunk is a collection of slots and non-nil values
- A slot value of nil means that the chunk does not have the slot
  - Both for setting slot values and testing them

6.0  
CHUNK  
ISA TEST  
SLOT1 "value"  
SLOT2 NIL  
SLOT3 NIL

6.1  
CHUNK  
SLOT1 "value"

(p\* works-as-expected-in-6.1  
=imaginal>  
isa test  
slot1 slot3  
slot1 =s  
=goal>  
isa test  
=s nil  
==>

# Documentation

- Manuals
- Tutorial
- Examples

# Longer running models

- User values specified in seconds are tested and warnings provided
  - Then converted to ms before used internally
- Most user functions now allow times to be specified in s or ms

# Buffer failure

- New query available

*?buffer>*

buffer failure

- Current modules set it when they set “state error”
- The difference is that “buffer failure” clears when the buffer is cleared
  - Including strict harvesting which it will trigger
- The three “buffer” queries of full/empty/failure are mutually exclusive

# Vision and audio modules can clean up after themselves

- :unstuff-visual-location and :unstuff-aural-location
  - Nil – just like before (the default)
  - T – the module erases the chunk from the buffer after appropriate time  
:visual-onset-span or :sound-decay-time
  - New – the next stuffed chunk will overwrite the previous one
  - # – erase the buffer after the specified time in seconds

# Default context buffer changed

- Default values for :ga and :imaginal-activation are switched
  - :ga defaults to 0
  - :imaginal-activation defaults to 1

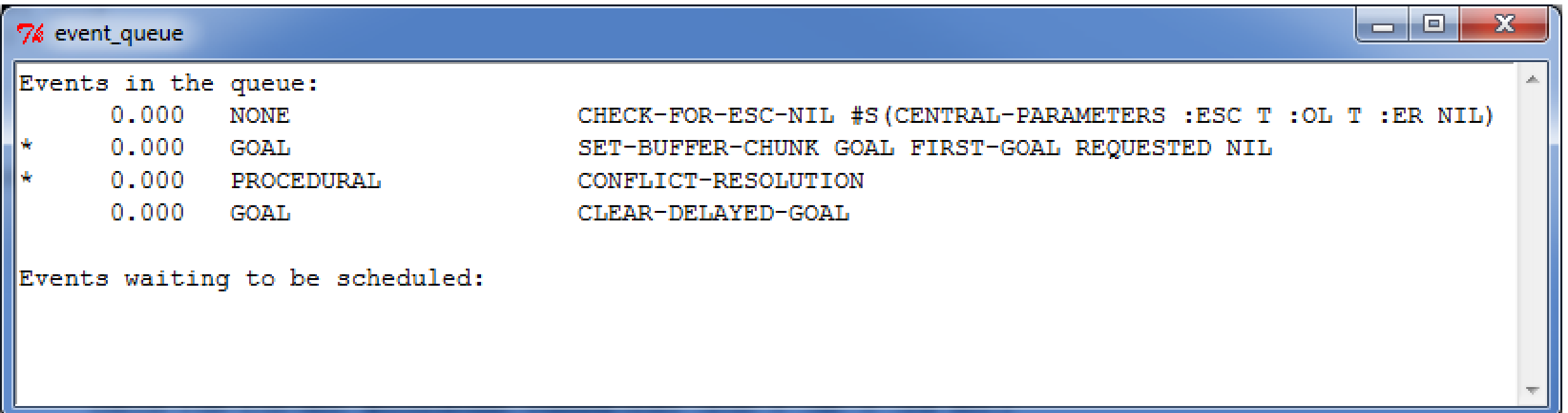


# New Extras

- ACT-Touch
  - Manual module and interface extensions for touch interfaces
    - Frank Tamborello
- Multiple ACT-Rs
  - Within a single Lisp load and run multiple separate ACT-R “systems”
    - Same Lisp code and model
  - In the extras/parallel-execution directory

# Misc.

- Add-text-to-exp-window has a new keyword param :font-size
- New device method vis-loc-coordinate-slots
- Event Queue button in environment



```
7% event_queue
Events in the queue:
  0.000  NONE          CHECK-FOR-ESC-NIL #S(CENTRAL-PARAMETERS :ESC T :OL T :ER NIL)
*  0.000  GOAL          SET-BUFFER-CHUNK GOAL FIRST-GOAL REQUESTED NIL
*  0.000  PROCEDURAL    CONFLICT-RESOLUTION
  0.000  GOAL          CLEAR-DELAYED-GOAL

Events waiting to be scheduled:
```