Visual Syntactic Elements Reference Document

This document is intended to help code visual syntactic elements (VSEs) for video sessions. Every time a new visual syntactic element is introduced into a document, this list must be referenced, and an appropriate VSE from the document is used. If there is no VSE in this document that matches the one introduced in the video, then a new VSE should be added to this document. If a literal description of the VSE is not enough, then a picture should be provided.

The following are explanations of the VSE categories. If a VSE has a number at the end of its line, that means that was merged with the referenced number.

Map

- <1> Map grid lines (these means roads are the lines)
- <2> Labels on axes (labels)
- <3> Long and slender arrow pointer, pointing to or from map (arrows) (v-head)
- <4> Street symbol (two parallel lines surround a line, to represent a street on the map grid lines)
- <5> Circle (aka hollow dot) on intersection

- <6> Legend
- <7> Title

- <8> Time or condition label <7>
- <9> Lanes (single line represents lane)

- <10> Direction of lanes as arrow drawn on lane <3>
- <11> Circles as cars <5>
- <12> Circles with lines sticking out (lines indicate direction of cars or light)
- <12> Symbol for time (clock) <6>
- <13> Rectangle represents queue, encompasses cars. Open end represents tail.

- <14> Colored circle to indicate light
- <15> Arrow indicating movement of cars <3>
- <16> Bounding box
- <17> Dot with line indicating direction (represents on-ramp) (dot different from circle)
- <18> Segmented lines on map (each segment represents a queue) <9>
- <19> Notch on lane near an intersection (represents traffic light), or crossing out
- <20> dashed (dotted) line representing a provisional lane

- <21> tic-tac-toe symbol to represent intersections. The lines are the edge of the road here.

- <22> hollow dot (circle) with line on border that represents on-ramp (like 17). <12>

- <23> compass direction <6>

- <24> curly brace

- <25> dot on intersection

- <26> bolded line

- <27> arrow indicating movement of cars → same as 15

- <28> short arrow with solid arrowhead that represents a mouse pointer

- <29> parallel lines representing roads <4>

- <30> box representing intersection

- <31> squiggle line representing “neverland” where lane ends

- <32> colored arrows representing light configuration

- <33> free floating line to represent intersection <9>

- <34> palette icons/pane <dialog-19>

- <35> dotted circle around an intersection edge to indicate selection

- <36> dashed line representing intersection between parallel lines <20>

- <37> circle representing traffic light <5>

- <38> rectangle representing cars <13>

- <39> second order header <table-13>
- <40> break cells into sub sections
- <41> circle on intersection edge or road to indicate it can be connected
- <42> circle around title/item for emphasis
- <43> plus symbol representing intersection
- <44> the X symbol as emphasis
- <45> dotted line connecting two intersections
- <46> line representing lane
- <47> solid dot (circle) with line on border that represents on-ramp (like 22)
- <48> text list annotation near map
- <49> circle around whole map (for emphasis)
- <50> circle as intersection
- <51> label on traffic elements (intersection or roads)
- <52> notches on a line to indicate discrete distance
- <53> X to mark intersections on map
- <54> series of squares to represent “road block” objects
- <55> zoom box bounds
- <56> X to mark a block in the road
- <57> bolded dot next to intersection to mark emphasis
- <58> three light signal
- <59> arrow pointed at map for emphasis  
- <60> deliberate notch on road to indicate intersection  
- <61> Question mark to indicate provisionality  
- <62> Check mark to indicate approval  
- <63> Shading in a gradient  
- <64> dotted line (dashed) representing a range for labels  
- <65> cross out element with X  
- <66> brackets  

List
- <1> First order items  
- <2> Second order item  
- <3> Third order item  
- <4> title  
- <5> arrow comment (annotated comment that’s meta to list)  
- <6> circle item  
- <7> vertical line for emphasis  
- <8> underline  
- <9> box (red in picture)  
- <10> arrow between items  
- <11> dangling arrow to signify importance  
- <12> curly brace  
- <13> floating element not that is not part of ordering of list (has connector)
- **<14>** circle around grouping
- **<16>** question mark on element to signify provisionality
- **<17>** cross out an element
- **<18>** item annotation in parenthesis (used to signify secondary meaning or provisional meaning)
- **<19>** parenthesis to indicate a set (as in enums)
- **<20>** bounding box
- **<21>** etc. symbol (dot dot dot)
- **<22>** check mark next to list item
- **<23>** brackets
- **<24>** double underline
- **<25>** slash to separate values
- **<26>** T-arrow style
- **<27>** New column

**Table**
- **<1>** Title
- **<2>** Table column header
- **<3>** Table grid lines
- **<4>** Table cell items
- **<5>** Table row header
- **<6>** etc. table cell item (aka dash line to indicate “something here”)
- **<7>** Cell item highlight (aka, a different color is used around an item to indicate a special property)
- <8> bounding box
- <9> spreadsheet evaluation value (e.g., “=100%”, includes computed values such as summation, average, etc.)
- <10> X marking in table
- <11> adjacent floating annotation (represented by “50” in picture)
- <12> second order header
- <13> second order header
- <14> break cells into sub sections

**Dialog**

- <1> bounding box
- <2> color
- <3> buttons
- <4> title
- <5> red/green/yellow circles to represent light choices
- <6> timeline (single color)
- <7> timeline notches
- <8> timeline axis labels
- <9> timeline with color (red/green/yellow) for light durations
- <10> radio buttons
- <11> Cell item highlight (aka, a different color is used around an item to indicate a special property)
- <12> slider (thin line with a dash)
- <13> annotation with arrow
- <14> square box to represent a check button
- <15> draggable element <12>
- <16> triangle representing something selectable
- <17> record button
- <18> coordinate notches on edge
- <19> palette bar of items
- <20> scroll bar <12>
- <21> long lines to mean “etc.”
- <22> line
- <23> dot
ER Diagram

- <1> title (element name)
- <2> bounding box
- <3> member items
- <4> arrows that denote action (have line as body, a “V” as head, and dot on tail and head to denote source and target)
- <5> arrow with triangle head
- <6> line between objects, aka no head or tail
- <7> line between objects, empty circle as tail
- <8> line between objects, solid circle as head
- <9> text annotation on line
- <10> line connects to another line
- <11> line between objects, arrow and solid circle head, solid circle tail
- <12> cylinder container
- <13> dangling dotted line from entity
- <14> annotation to title (MVC in picture)
- <15> second order items (second order member items)
- <16> title box inside a bounding box
- <17> line separating member items
- <18> member written outside area, with circle
- <19> red circle (or any special color) around a member
Class Diagram
- <1> bounding box
- <2> class name
- <3> method names (always has parenthesis)
- <4> arrows to events \(\text{SAME AS 14}\)
- <5> freeform text with connector pointing to it
- <6> title annotation (in parenthesis)
- <7> arrow with solid dot as head, representing containment of other classes
- <8> actual arguments (i.e., values)
- <9> annotation on line (cardinality)
- <10> arrow with open dot as head
- <11> access restrictions for members (public, private, …)
- <12> field names using code syntax, E.g., Queue q;
- <13> code statements or expressions
- <14> connector with “v” arrowhead
- <15> connector annotation that are not cardinality (have regular words)
- <16> field name just written with quotes, E.g., “red”, “yellow” (representing enums)
- <17> formal parameters
- <18> method parameters with ellipses within parentheses
- <19> field names using freeform text description
- <20> title box inside a bounding box
- <21> variables (without type)
- <22> line between objects (no arrowheads)
- <23> informal parameters
- <24> freeform text as a class member
- <25> freeform text as entity
- <26> nested classes
- <27> freeform method annotation with a connector
- <28> cross out
- <29> using slash in entity name to indicate provisional second name

**Code**
- <1> method name
- <2> statements
- <3> actual arguments
- <4> parenthesis for method names
- <5> curly braces
- <6> semi colon
- <7> brackets (for arrays)
- <8> assignment operator
- <9> informal method arguments
- <10> double colons between words (Class :: method)

**Array Structure**
- <1> element slots
- <2> arrow from or to element

**Line graph**
- <1> title
- <2> axes (2 dimensional)
- <3> data lines
- <4> color
- <5> axis labels
- <6> data labels
- <7> axis (1 dimensional)
- <8> floating arrow
**Drawing**
- <1> strokes
- <2> fill
- <3> bounding box
- <4> title

**Freeform text**
- <1> text
- <2> bounding box
- <3> circle element for emphasis
- <4> question mark
- <5> extravagant underline for emphasis
- <6> line
- <7> different colors
- <8> underline

**Traffic signal**
- <1> three circles and a box to represent a traffic light
- <2> two circles, a box, and a left to represent a left turn signal
- <3> three circles and a left to represent a combined signal
- <4> line between signals to show they are connected together
- <5> bounding box showing signal frame
- <6> bracket to show comparison
- <7> circle around signal
- <8> signal represented by RYGL
• <9> arrow annotation to represent direction

Explaining

• <1> the X symbol as emphasis

• <2> bolded dot next to intersection to mark emphasis

• <3> arrow pointed at map for emphasis

• <4> Question mark to indicate provisionality

• <5> Check mark to indicate approval

• <6> cross out element with X

• <7> star symbol for emphasis

• <8> vertical line for emphasis