VM State Accessable To Tree Table Programmers

- Simulator
  - SimGlobals
    - kHour
    - kDayOfMonth
    - kTemperature
    - kWeather
    - kFunds
    - kMinute
    - kSecond
    - kMonth
    - kYear
    - kCurrentFamily
    - kCurrentHouse
  - Funds
  - Running
  - Ticks
  - MilsPerTick
  - Object Module
- Tree
  - version
  - number of nodes
  - type
    - kGeneric
    - kPortal
    - kCheck
    - kContainer
    - kSwitch
  - nodes[]
  - class
  - id
  - name (associated with resource id)
  - list of comment windows
  - behavior
- Primitive
  - kIdle
  - kSearch
  - kAttr
  - kGoto
  - kGrab
  - kDrop
  - kStartSearch
  - kUpdate
  - kRandom
  - kDeltaMove
  - kAnimate
  - kDistanceTo
  - kDirectionTo
  - kPushAction
  - kAlert
  - kTreeBreak
  - kNeedExpr
  - kIdleForInput
  - kKillObj
  - kFindTreeNew
  - kUnusedPrim2
  - kUnusedPrim3
  - kUnusedPrim4
  - kPlaySound
  - kRelVar
  - kSpendMoney

```
                kAnimateOneLoop
                kGotoRel
                kSpeak
                kTreeSearch
                kGosubTree
                kGetNextObject
                kConstructMaxTree
                kFind5WorstMotives
                kIncrementNeed
                kGetMotive
                kShowDialog
                kGetFrontObject
                kRunTypeTree
                kShowHide
                kSetHeadline
                kSetThoughtBalloon
                kCreateObject
                kDropOnto
                kAnimateNew

        Data Owners
                kMyself,                // my own object's attribute block
                kTreeParam,             // the object of this behavior tree's attr
block
                kTargetObj,             // the target object's attr block
                kMyData,                // my own object's data
                kTreeParamData, // the tree's object's data
                kTargetObjData,
                kSimGlobals,    // simulation globals
                kImmediate,             // just plain old data
                kTempVars,              // temporaries of my object (referenced by
number)
                kStackVars,             // stack parameters
                kStackObject,   // the object on the stack at any level
                kTempTempVars,  // temporaries of my object (referenced by another
temporary)
                kStackObjTreeTableAdvertisement, // the array of floats in
stackObject->GetTreeTable()->GetEntry(fData[kTreeTableEntry]);
                kTreeParamTemps,
                kPersonMotive,
                kStackObjectMotive,                     // the literal motive of
stack object
                kStackObjectSlot,
                kStackObjectMotiveOfTemp,       // the motive of stack object
indexed by a temp

        Node
                Tree ID or Primitive code
                True transition
                False transition
                Node parameters
                        4 shorts: p1, p2, p3, p4
                        Used as primative and tree parameters.
                        If parameters are default values -1, -1, -1, -1,
                        then use first 4 temps to initialize stack vars
                        instead of node parameters, when calling a tree.
                        Primitives don't have stack vars (not allocated
                        on stack), so how do they get to these?

                Node string description

                Node Comment

                Breakpoint (not stored in node?)
```

```
                Pop out transition escape
                        none/pop out true/pop out false

                If the tree contains both true and false return value
                pop out nodes, then the tree has two outputs.
                If there is only one type of return value,
                then the node has one output.
                Do nodes with no outputs (like main) have any return values?

                Highlighted flag

                First node drawn with green outline. (first on tree's list)

        Object

                Stack Element[]
                        Tree id
                        Node number
                        Target object id
                        Interrupted flag
                        Local stack vars
                                4 shorts
                        Behavior

                Temps[8]

                Attributes[8]

                Data[36]
                        kGraphicNumber
                        kDirection
                        kColor1
                        kColor2
                        kPattern
                        kHeight
                        kRouteID
                        kIndirectID
                        kFlagField1
                                kCanContain
                                kCanWalkOver
                                kCanWalk
                                kPreviouslyFound
                                kOccupied
                                kNotified
                                kRoutingInterruptable
                        kAnimID
                        kAnimFrame
                        kObjectID
                        kOldTargetID
                        kWallPlacementFlags
                        kSlotID
                        kFamilyNumber
                        kUnused5
                        kCounter1 = kTrapCount = kRoomCompDelay
                        kAge
                        kGender
                        kTreeTableEntry
                        kSearchRadius
                        kSpeed
                        kRotationSpeed
                        kCounter2 kRouteCount
                        kUseCount
                        kContainerID
                        kWeight
                        kSupportWeight
```

```
                kRoom
                kRoomPlacement
                        kRmPlAnyRoom
                        kRmPlOutsideOnly
                        kRmPlInsideOnly
                kUnused2
                kUnused3
                kUnused4
                kHidden

        Flags (data[kFlagField1])
        Wall Placement Flags (data[kWallPlacementFlags])
        ContainerID (data[kContainer])
        ContainedSlotID (data[kSlotID])
        AnimID (data[kAnimID])
        Room (data[kRoom])
        Family number (data[kFamilyNumber])

        Definition (shared by all instances of this selector)
                version
                stackSize
                baseGraphic
                numGraphics
                initBhav
                toolbarPict
                treeTableID
                personalityID
                type
                        kUnknown, kFood, kPerson, kContainer,
                        kFurniture, kStructure, kAnimal, kSimType,
                        kDoor, kMouseType, kUserAvatar, kInternal
                masterID
                subIndex
                dialogID
                animTableID
                guid
                disabled
                portalTreeID
                price
                bodyStringsID
                slotsID
                headLinesID
                eventTreeID
                selfModTreeTableID

        type (definition->type)
        Tree Table (definition->treeTableID)
        Self Mod Tree Table (definition->selfModTreeTableID)

        Slots
                handles (registration points for picking up)
                entry slots (chair seat)
                container slots (shelf)
                headline slots (headline sprites)
                (character hands and head?)

        Semi global file
        Private file
        ID
        Relationship Matrix

        Sprite frames
                Draw groups
        Sounds
        Animations (private skills)
```

```
                Animation table
                Location (tile point)
                ObjectModule
                ObjSelector (object type definition)

                Return codes (result of TryElement)
                        kTrueComplete, kFalseComplete, kEngaged,
                        kError, kStackLoaded, kBreakpoint

        Person (subclass of Object)
                XVitaBoy
                Personality (not yet used)
                XAnimator
                Motives
                        HappyLife, HappyWeek, HappyDay, HappyNow
                        Physical, Energy, Comfort, Hunger, Hygiene, Bladder
                        Mental, Alertness, Stress, Environment, Social,
Entertained
                Action Queue
                Headline
                        Sprite id (global and private headlines supported)
                        Motive thought balloon icons
                                None, Energy, Hunger, Comfort, Hygiene, Bladder,
                                Stress, Alertness, Entertained, Social,
Environment
                        Headline icons
                                None, Stress, Smell, Hurt, Drunk,
                                Love, Idea, Suprise, Hate
                Skeleton Name
                Body Suit Name
                Head Suit Name
                        default/happy/sad/mad/sleep
                Slots
                        right hand
                        head
                Actions (private skills)
                        Feedback animations
                                Stand, Hunger, Sleepy, Wired,
                                Bladder, Mad, Entertained
                        Walking animations

        Behavior
                Global file
                Private file
                Language

        LayerBehavior
                Subclass of behavior that supports semi global files.
                Middle file (semi globals)

        Language
                Created in an attempt to disjoin behavior and sim.

        ObjSelector
                Defines a class of objects, shared by all instances.
                Private File
                Semi Global File
                Renderer
                Behavior
                File Name
                Object Name
                Animation Table
                Header
                Guid
                Index
```

```
        Definition Resource ID

Animation Table

Tree Table

ResFile
        Gui file
        Language file

        iResFile
        FlatResFile
        IFFResFile
        MacResFile
        MultiResFile
        ResolveResFile
        NResFile
        SeqResFile
        ObjResFile
        ChainResFile
                Private
                Semi global
                Global

Objects

Multi Tile Objects

People

Doors
        anything special about authoring doors?

Windows
        anything special about authoring windows?

Walls
        anything special about authoring walls?

World Grids

Object Module
        Error File
        Language
        3D Device
        Meshes
        Objects[]

House
        Family
        Object Module
        Rotatable World
        Fixed World
        Simulator
        Save File Name
        House Number

Family
        People[]
        Family Name
        Family Number
        House Number

World
        Altitude
```

Ground
Floor
Room
Object
Walls

Tools