

File created: 18-Jul-88 19:26:05 {POGO: AISNORTH: XEROX}<LOOPSCORE>TRUCKIN>TRUCKINM.;5

changes to: (CLASSES TruckinSimulator)

previous date: 17-Dec-87 17:29:42 {POGO: AISNORTH: XEROX}<LOOPSCORE>TRUCKIN>TRUCKINM.;4

Read Table: INTERLISP

Package: INTERLISP

Format: XCCS

::  
:: Copyright (c) 1985, 1987, 1988 by Xerox Corporation. All rights reserved.

(RPAQQ **TRUCKINCOMS**

```
((DECLARE%: DONTCOPY (PROP MAKEFILE-ENVIRONMENT TRUCKINM)
; Copyright (c) 1983 Xerox Corporation
; Classes for MultiMachineTruckin Knowledge System
; Programmed by LoopsDesignTeam in June 1983.0 Maintained
; by Sanjay Mittal
; This version of Truckin supersedes the older versions
(CLASSES BWTruckin ColorTruckin DisplayTruckinS GameCommInterface GameDecisionMaker GamePlayerInterface
GameSimulator MainCommInterface MasterTruckin MoveTruckinDM MoveTruckinPI NoDisplayTruckinS
RemoteMasterComm RemoteSlaveComm SlaveTruckin TimeTruckinDM TimeTruckinPI Truckin TruckinBoard
TruckinCommInterface TruckinDecisionMaker TruckinPlayerInterface TruckinSimulator)
(FNS RemoteMasterComm.StartWorldProcess RemoteSlaveComm.StartWorldProcess SlaveTruckin)
(VARS GameBrowse (GameProcRestFlg T)
(PlayerProcRestFlg 'HARDRESET))
(METHODS BWTruckin.InitializeGameWindow ColorTruckin.CreateGameBoard ColorTruckin.InitializeGameWindow
ColorTruckin.MakeDriveBitMaps DisplayTruckinS.NewGame DisplayTruckinS.ReUseGame
GameCommInterface.NewInstance GameDecisionMaker.NewInstance
GamePlayerInterface.ChangeGameParameters GamePlayerInterface.NewInstance
GameSimulator.NewInstance MainCommInterface.AddBandit MainCommInterface.AddPlayer
MainCommInterface.AddPlayerRequest MainCommInterface.BeginGameRequest
MainCommInterface.BreakCargo MainCommInterface.BuyMade MainCommInterface.BuyRequest
MainCommInterface.GameOver MainCommInterface.GasFill MainCommInterface.MaxMove
MainCommInterface.MoveMade MainCommInterface.MoveRequest MainCommInterface.NewGame
MainCommInterface.NewGameRequest MainCommInterface.ParkedAtAlice MainCommInterface.ReUseGame
MainCommInterface.ReUseGameRequest MainCommInterface.RemovePlayer
MainCommInterface.RemovePlayerRequest MainCommInterface.SellMade MainCommInterface.SellRequest
MainCommInterface.SetInitialParameters MainCommInterface.Setup MainCommInterface.SpoilCargo
MainCommInterface.StartGame MainCommInterface.WorldProcess MoveTruckinDM.InitializeGameParameters
MoveTruckinDM.MoveBandits MoveTruckinPI.BeginGame MoveTruckinPI.RunGame
NoDisplayTruckinS.AttachBoard NoDisplayTruckinS.DrivePlayer NoDisplayTruckinS.UpdateRS
RemoteMasterComm.AddBandit RemoteMasterComm.AddPlayer RemoteMasterComm.AddPlayerRequest
RemoteMasterComm.BeginGameRequest RemoteMasterComm.BreakCargo RemoteMasterComm.BuyMade
RemoteMasterComm.BuyRequest RemoteMasterComm.GameOver RemoteMasterComm.GasFill
RemoteMasterComm.InterimWorldProcess RemoteMasterComm.MaxMove RemoteMasterComm.MoveMade
RemoteMasterComm.MoveRequest RemoteMasterComm.NewGame RemoteMasterComm.NewGameRequest
RemoteMasterComm.ParkedAtAlice RemoteMasterComm.ReUseGame RemoteMasterComm.ReUseGameRequest
RemoteMasterComm.RemovePlayer RemoteMasterComm.RemovePlayerRequest RemoteMasterComm.SellMade
RemoteMasterComm.SellRequest RemoteMasterComm.SetInitialParameters RemoteMasterComm.Setup
RemoteMasterComm.SpoilCargo RemoteMasterComm.StartGame RemoteMasterComm.StartInterimWorldProcess
RemoteMasterComm.WorldProcess RemoteSlaveComm.AddBandit RemoteSlaveComm.AddPlayer
RemoteSlaveComm.AddPlayerRequest RemoteSlaveComm.BeginGameRequest RemoteSlaveComm.BreakCargo
RemoteSlaveComm.BuyMade RemoteSlaveComm.BuyRequest RemoteSlaveComm.GameOver
RemoteSlaveComm.GasFill RemoteSlaveComm.InterimWorldProcess RemoteSlaveComm.MaxMove
RemoteSlaveComm.MoveMade RemoteSlaveComm.MoveRequest RemoteSlaveComm.NewGame
RemoteSlaveComm.NewGameRequest RemoteSlaveComm.ParkedAtAlice RemoteSlaveComm.ReUseGame
RemoteSlaveComm.ReUseGameRequest RemoteSlaveComm.RemovePlayer RemoteSlaveComm.RemovePlayerRequest
RemoteSlaveComm.SellMade RemoteSlaveComm.SellRequest RemoteSlaveComm.SetInitialParameters
RemoteSlaveComm.Setup RemoteSlaveComm.SpoilCargo RemoteSlaveComm.StartGame
RemoteSlaveComm.StartInterimWorldProcess RemoteSlaveComm.WorldProcess TimeTruckinDM.ChargeTime
TimeTruckinDM.CheckAlice TimeTruckinDM.InitializeGameParameters TimeTruckinDM.MoveBandits
TimeTruckinDM.RedoGameParameters TimeTruckinDM.ReplenishQty TimeTruckinPI.BeginGame
TimeTruckinPI.RunGame TruckinBoard.AssignRoadStops TruckinBoard.AttachToGame
TruckinBoard.CreateGameBoard TruckinBoard.DisplayGameBoard TruckinBoard.DrawRoadMarks
TruckinBoard.InitializeRoadStops TruckinBoard.MakeDriveBitMaps TruckinBoard.NewBoard
TruckinBoard.PlaceRoadStops TruckinBoard.ReInitializeRoadStops TruckinBoard.ReUseBoard
TruckinBoard.RemovePlayer TruckinCommInterface.CleanGameWorld
TruckinCommInterface.CreateDecisionMaker TruckinCommInterface.CreateGateWay
TruckinCommInterface.CreatePlayerInterface TruckinCommInterface.CreateSimulator
TruckinCommInterface.NewInstance TruckinCommInterface.SetInitialParameters
TruckinCommInterface.StartWorldProcess TruckinCommInterface.TellMe TruckinDecisionMaker.AddBandit
TruckinDecisionMaker.AddPlayer TruckinDecisionMaker.AddPlayerRequest
TruckinDecisionMaker.AttachSimulator TruckinDecisionMaker.BeginGameRequest
TruckinDecisionMaker.BuyMade TruckinDecisionMaker.BuyRequest
TruckinDecisionMaker.ChangeGameParameters TruckinDecisionMaker.CheckAlice
TruckinDecisionMaker.ForcedMove TruckinDecisionMaker.GameOver TruckinDecisionMaker.GiveAliceBonus
TruckinDecisionMaker.InitializeGameParameters TruckinDecisionMaker.MonitorGame
TruckinDecisionMaker.MonitorProcess TruckinDecisionMaker.MoveBandits
TruckinDecisionMaker.MoveCheckingHazards TruckinDecisionMaker.MoveMade
TruckinDecisionMaker.MoveRequest TruckinDecisionMaker.MoveTruck
TruckinDecisionMaker.NewGameRequest TruckinDecisionMaker.ReUseGameRequest
TruckinDecisionMaker.RedoGameParameters TruckinDecisionMaker.RemovePlayer
```

```

TruckinDecisionMaker.RemovePlayerRequest TruckinDecisionMaker.ReplenishQty
TruckinDecisionMaker.SellMade TruckinDecisionMaker.SellRequest TruckinDecisionMaker.StartGame
TruckinDecisionMaker.StartMonitorProcess TruckinDecisionMaker.UpdateAlice
TruckinPlayerInterface.AddPlayer TruckinPlayerInterface.AddPlayerRequest
TruckinPlayerInterface.BeginGame TruckinPlayerInterface.Buy TruckinPlayerInterface.BuyMade
TruckinPlayerInterface.ChargeTime TruckinPlayerInterface.CheckLocalPlayers
TruckinPlayerInterface.ContinueGame TruckinPlayerInterface.CreatePlayerProcess
TruckinPlayerInterface.DeletePlayerProcesses TruckinPlayerInterface.Move
TruckinPlayerInterface.MoveMade TruckinPlayerInterface.NewGame
TruckinPlayerInterface.NewGameRequest TruckinPlayerInterface.PlayerRequestComplete
TruckinPlayerInterface.ReUseGame TruckinPlayerInterface.RemovePlayer
TruckinPlayerInterface.RemovePlayerRequest TruckinPlayerInterface.RunNextPlayer
TruckinPlayerInterface.ScheduleNextPlayer TruckinPlayerInterface.SelectPlayers
TruckinPlayerInterface.Sell TruckinPlayerInterface.SellMade TruckinPlayerInterface.StartGame
TruckinPlayerInterface.StartPlayerProcesses TruckinPlayerInterface.SuspendPlayer
TruckinPlayerInterface.WakePlayer TruckinSimulator.AddBandit TruckinSimulator.AddPlayer
TruckinSimulator.AttachBoard TruckinSimulator.BreakCargo TruckinSimulator.BuyMade
TruckinSimulator.ClockProcess TruckinSimulator.DrivePlayer TruckinSimulator.GameOver
TruckinSimulator.GasFill TruckinSimulator.GiveAliceBonus TruckinSimulator.Initialize
TruckinSimulator.MaxMove TruckinSimulator.MoveMade TruckinSimulator.NewGame
TruckinSimulator.ParkedAtAlice TruckinSimulator.ReUseGame TruckinSimulator.RedoGameParameters
TruckinSimulator.RemovePlayer TruckinSimulator.SellMade TruckinSimulator.SetUpGauges
TruckinSimulator.SpoilCargo TruckinSimulator.StartClockProcess TruckinSimulator.StartGame
TruckinSimulator.UnattachBoard TruckinSimulator.UpdateRS TruckinSimulator.WhoWon))

```

(DECLARE%: DONTCOPY

(PUTPROPS TRUCKINM MAKEFILE-ENVIRONMENT (:PACKAGE "IL" :READTABLE "INTERLISP" :BASE 10))  
)

```

;; Copyright (c) 1983 Xerox Corporation
;; Classes for MultiMachineTruckin Knowledge System
;; Programmed by LoopsDesignTeam in June 1983.0 Maintained by Sanjay Mittal
;; This version of Truckin supersedes the older versions

```

```

(DEFCLASSES BWTruckin ColorTruckin DisplayTruckinS GameCommInterface GameDecisionMaker GamePlayerInterface
GameSimulator MainCommInterface MasterTruckin MoveTruckinDM MoveTruckinPI NoDisplayTruckinS
RemoteMasterComm RemoteSlaveComm SlaveTruckin TimeTruckinDM TimeTruckinPI Truckin TruckinBoard
TruckinCommInterface TruckinDecisionMaker TruckinPlayerInterface TruckinSimulator)

```

```

(DEFCLASS BWTruckin (MetaClass GameClass Edited%: (* sm%: "27-JUN-83 17:31"))
(Supers TruckinBoard)
(ClassVariables (CopyCV NIL)))

```

```

(DEFCLASS ColorTruckin (MetaClass GameClass Edited%: (* sm%: "27-JUN-83 17:32"))
(Supers TruckinBoard)
(ClassVariables (numRows 4 doc "number of RoadStops arranged vertically on the game board."
(numColumns 7 doc "number of RoadStops arranged horizontally on the game board."
(colorP T doc "This indicates that the display will be on the color screen")
(CopyCV NIL)))

```

```

(DEFCLASS DisplayTruckinS (MetaClass GameClass Edited%: (* sm%: "27-JUN-83 17:10"))
(Supers TruckinSimulator)
(ClassVariables (CopyCV (Icon))
(Icon ?)))

```

```

(DEFCLASS GameCommInterface (MetaClass GameClass Edited%: (* edited%: "12-JUL-83 11:36")
doc "General class for Game Communications")
(Supers GameObject)
(ClassVariables (CopyCV NIL))
(InstanceVariables (simulator NIL doc "instance of GameSimulator")
(playerInterface NIL doc "instance of PlayerInterface")
(broadcastList NIL doc "list of objects which will get copies of incoming messages")
(machineID NIL doc "unique ID for identifying different machines in the multiMC Truckin")
(worldProcess NIL doc "handle of the WorldProcess")
(interimWP NIL doc "handle of Interim World Process")))

```

```

(DEFCLASS GameDecisionMaker (MetaClass GameClass Edited%: (* sm%: "30-JUN-83 18:53")
doc "Makes all decisions in the game")
(Supers GameObject)
(ClassVariables (CopyCV NIL))
(InstanceVariables (gameParameters DMPParameters doc "class for changing game parameters at DecisionMaker
level")))

```

```

(DEFCLASS GamePlayerInterface (MetaClass GameClass Edited%: (* sm%: "30-JUN-83 15:34")
doc "All players's messages go to this class")
(Supers GameObject)
(ClassVariables (CopyCV NIL))
(InstanceVariables (localPlayers NIL doc "list of players locally connected to this interface")
(suspendedPlayers NIL doc "list of players suspended pending completion of their requests")))

```

```

(DEFCLASS GameSimulator (MetaClass GameClass Edited%: (* sm%: "27-JUN-83 15:33")
doc "Handles the game simulation and keeps the game world in sync")
(Supers GameObject)
(ClassVariables (CopyCV (Icon))

```

```
(Icon ?)))

(DEFCLASS MainCommInterface (MetaClass GameClass Edited%:      (* sm%: "8-JUL-83 15:34")
  (Supers TruckinCommInterface)
  (ClassVariables (CopyCV NIL))
  (InstanceVariables (decisionMaker NIL DefaultClass TimeTruckinDM doc "instance of GameDecisionMaker")
    (gameStarted NIL)))

(DEFCLASS MasterTruckin (MetaClass GameClass Edited%:          (* sm%: "10-JUL-83 20:51")
  (Supers RemoteMasterComm)
  (ClassVariables (CopyCV NIL)))

(DEFCLASS MoveTruckinDM (MetaClass GameClass Edited%:          (* sm%: "29-JUN-83 10:17")
  (Supers TruckinDecisionMaker)
  (ClassVariables (CopyCV NIL)
    (PlayerInterface MoveTruckinPI doc "name of class of this type associated with this
      DecisionMaker")))
  (InstanceVariables (aliceStay 3 doc "how many moves can stay at Alices")
    (banditFreq 5 doc "how often bandits move")
    (numMovesRemaining 200 DefaultGauge DigiMeter GaugeLimit (0 200)
      GaugePos
      (852 . 465)
      SetByUser NIL doc "number of moves remaining in the game. SetByUser is used to flag that
        value is not to be reinitialized")
    (replenishFreq 40 doc "how often gas is replenished")))

(DEFCLASS MoveTruckinPI (MetaClass GameClass Edited%:           (* sm%: "29-JUN-83 10:16")
  (Supers TruckinPlayerInterface)
  (ClassVariables (CopyCV NIL)
    (DecisionMaker MoveTruckinDM doc "name of associated DecisionMaker class")))

(DEFCLASS NoDisplayTruckinS (MetaClass GameClass Edited%:       (* sm%: "27-JUN-83 17:10")
  (Supers TruckinSimulator)
  (ClassVariables (CopyCV (Icon))
    (Icon ?)))

(DEFCLASS RemoteMasterComm (MetaClass GameClass Edited%:        (* sm%: "8-JUL-83 12:16")
  (Supers TruckinCommInterface)
  (ClassVariables (CopyCV NIL))
  (InstanceVariables (decisionMaker NIL DefaultClass TimeTruckinDM doc "instance of GameDecisionMaker")
    (postman NIL DefaultClass MasterGateway doc "instance of Master GateWay")
    (gameStarted NIL)))

(DEFCLASS RemoteSlaveComm (MetaClass GameClass Edited%:         (* sm%: "8-JUL-83 12:14")
  (Supers TruckinCommInterface)
  (ClassVariables (CopyCV (Icon))
    (Icon ?))
  (InstanceVariables (postman NIL DefaultClass SlaveGateway doc "instance of Slave GateWay")
    (gameStarted NIL doc "set to T when StartGame msg received")))

(DEFCLASS SlaveTruckin (MetaClass GameClass Edited%:            (* sm%: "10-JUL-83 20:51")
  (Supers RemoteSlaveComm)
  (ClassVariables (CopyCV (Icon))
    (Icon ?)))

(DEFCLASS TimeTruckinDM (MetaClass GameClass Edited%:           (* sm%: "4-AUG-83 13:14")
  (Supers TruckinDecisionMaker)
  (ClassVariables (MinMoveTime 1 doc "min time everyone is charged")
    (MaxMoveTime 30 doc "max time per move, after which player yanked from game")
    (AliceBonus 2 doc "cashBox multiplied by this for reaching Alice")
    (CopyCV NIL)
    (PlayerInterface TimeTruckinPI doc "name of class of this type associated with this
      DecisionMaker")))
  (InstanceVariables (aliceStay 3 MaxTime 30 AliceFactor 8 doc "aliceStay - max conseq turns at Alice.
    MaxTime - Max time allowed at Alice during a conseq stay")
    (gameParameters TDMTParameters)
    (banditFreq 50 LastTime 3000 BanditFactor 15 doc "freq of bandits move")
    (replenishFreq 300 LastTime 3000 ReplenishFactor 30 doc "how freq are gas stations filled")))

(DEFCLASS TimeTruckinPI (MetaClass GameClass Edited%:           (* sm%: "29-JUN-83 10:16")
  (Supers TruckinPlayerInterface)
  (ClassVariables (CopyCV NIL)
    (DecisionMaker TimeTruckinDM doc "name of associated DecisionMaker class")))

(DEFCLASS Truckin (MetaClass GameClass Edited%:                 (* sm%: "10-JUL-83 20:50")
  (Supers MainCommInterface)
  (ClassVariables (CopyCV NIL)))

(DEFCLASS TruckinBoard (MetaClass GameClass Edited%:            (* sm%: "27-JUN-83 17:31")
  (Supers GameBoard)
  (ClassVariables (numRows 6 doc "number of RoadStops arranged vertically on the game board."
    (numColumns 11 doc "number of RoadStops arranged horizontally on the game board."
    (colorP NIL doc "This indicates that this is not a colordisplay")
    (CopyCV NIL))
  (InstanceVariables (roadStops NIL doc "List of RoadStops on gameBoard.")))

(DEFCLASS TruckinCommInterface (MetaClass GameClass Edited%:    (* sm%: "8-JUL-83 15:35")
```

```

doc "Class for handling Truckin Communications on a single machine")
(Supers GameCommInterface)
(ClassVariables (CopyCV NIL)
  (InitializeIVs (gameStarted)))
(InstanceVariables (simulator NIL DefaultClass DisplayTruckinS)
  (playerInterface NIL DefaultClass TimeTruckinPI)
  (gameStarted NIL))

```

```

[DEFCLASS TruckinDecisionMaker (MetaClass GameClass Edited%: (* dgb%:"11-JUL-83 13:35"))
(Supers GameDecisionMaker)
(ClassVariables (CopyCV (PlayerInterface))
  (PlayerInterface NIL doc "name of class of this type associated with this DecisionMaker")
  (InitializeIVs (bandits timeLeft players playerNames beginTime endTime timeLeft lastMoved loseTurn
    gameDuration startsAfter))
  (AliceBonus 2))
(InstanceVariables (gameParameters TruckinDMPParameters)
  (gameSeed NIL doc "random number generator seed used for creating game")
  (simulator NIL doc "instance of GameSimulator used by DecisionMaker")
  (alices NIL doc "actual AlicesRestaurant's on board")
  (bandits NIL nextTime NIL doc "list of bandits currently on board. nextTime is a list of locs to
    be used for placing bandits in next turn")
  (lastMoved NIL doc "last player who issued Move command")
  (loseTurn NIL doc "List of players that lose the next turn.")
  (players NIL doc "List of the players for this simulation.")
  (playerNames NIL doc "list of names of players already in game")
  (roadStops NIL doc "same roadStops as in (gameBoard roadStops)")
  (unionHall NIL doc "actual instance of UnionHall on board")
  (beginTime 0 doc "real clock time when game begins")
  (endTime 0 doc "real clock time when game ends")
  (gameDuration 15 doc "duration of game: endTime-beginTime")
  (startsAfter 0 doc "mins from now when game starts")
  (timeLeft 1800 DefaultGauge SSDigiMeter DefaultLimit (0 1800)
    GaugePos
    (852 . 465))

```

```

(DEFCLASS TruckinPlayerInterface (MetaClass GameClass Edited%: (* sm%:"10-JUL-83 21:59"))
(Supers GamePlayerInterface)
(ClassVariables (CopyCV (DecisionMaker))
  (DecisionMaker NIL doc "name of associated DecisionMaker class")
  (InitializeIVs (endTime beginTime unchargedTime lastMoved loseTurn localPlayers suspendedPlayers
    runningPlayer playerMenuWindow))
  (MinMoveTime 1)
  (MaxMoveTime 30))
(InstanceVariables (localPlayers NIL doc "list of players locally controlled by this PI")
  (suspendedPlayers NIL doc "players suspended pending response from DM")
  (unchargedTime 0)
  (roadStops NIL)
  (lastMoved NIL)
  (loseTurn NIL)
  (beginTime 0)
  (endTime 0)
  (runningPlayer NIL doc "player currently running")
  (playerMenuWindow NIL position (650 . 720)
    doc "Window for Menu to interrupt player processes"))

```

```

(DEFCLASS TruckinSimulator (MetaClass GameClass Edited%: ; Edited 18-Jul-88 10:59 by jrb:
)
(Supers GameSimulator)
(ClassVariables (CopyCV NIL)
  (InitializeIVs (gameRunningFlg bandits players unchargedTime beginTime endTime barChart clock))
  (AliceBonus 2))
(InstanceVariables (barChart NIL doc "barchart for players cash")
  (gameBoard NIL doc DefaultClass BWTruckin (* instance of GameBoard))
  (gameRunningFlg NIL doc "this flag is set to T when game starts and back to NIL when it ends")
  (roadStops NIL doc "same roadStops as in (gameBoard roadStops)")
  (alices NIL doc "actual AlicesRestaurant's on board")
  (bandits NIL nextTime NIL doc "list of bandits currently on board. nextTime is a list of locs to
    be used for placing bandits in next turn")
  (gameParameters TruckinParameters doc "pointer to gameParameters object")
  (players NIL doc "List of the players for this simulation.")
  (unchargedTime 0 doc "time not charged because used by Execs or Breaks")
  (unionHall NIL doc "actual instance of UnionHall on board")
  (beginTime 0)
  (endTime 0)
  (timeLeft 1800 DefaultGauge DigiMeter GaugeLimit (0 2000)
    GaugePos
    (852 . 465))
  (clock NIL doc "gauge attached to timeLeft"))

```

(DEFINEQ

**(RemoteMasterComm.StartWorldProcess**

```

[LAMBDA (self) (* edited%:"12-JUL-83 12:27")
(* Starts world process)
(PROG (hand)
  (DEL.PROCESS (FIND.PROCESS 'WorldProcess))
  (SETQ hand (ADD.PROCESS (LIST '_ self 'WorldProcess))

```

```

      'NAME
      'WorldProcess
      'RESTARTABLE T))
  (_@
  worldProcess hand)
  (_@
  gameStarted T)
  (GameControlMenu)
  (RETURN hand])

```

**(RemoteSlaveComm.StartWorldProcess**

```

[LAMBDA (self)
  (PROG (hand)
    (DEL.PROCESS (FIND.PROCESS 'WorldProcess))
    (SETQ hand (ADD.PROCESS (LIST '_ self 'WorldProcess)
      'NAME
      'WorldProcess
      'RESTARTABLE T))
    (_@
    worldProcess hand)
    (_@
    gameStarted T)
    (GameControlMenu)
    (RETURN hand])

```

(\* edited%: "12-JUL-83 12:26")  
(\* Starts world process)

**(SlaveTruckin**

```

[LAMBDA (displayFlg)
  [_ ($ SlaveTruckin)
    New NIL NIL (COND
      (displayFlg NIL)
      (T 'NoDisplayTruckinS])
    (SETQ debugMode NIL)
    (SETQ PlayerProcRestFlg 'HARDRESET))

```

(\* sm%: "16-SEP-83 15:05")  
(\* Sets up the Slave M/c with or without display)

```

(RPAQQ GameBrowse (GameBoard GameSimulator GameDecisionMaker GameCommInterface GamePlayerInterface))
(RPAQQ GameProcRestFlg T)
(RPAQQ PlayerProcRestFlg HARDRESET)
(\BatchMethodDefs)
(METH BWTruckin InitializeGameWindow NIL "Clears window and puts in proper background" (category (BWTruckin)))
(METH ColorTruckin CreateGameBoard (region title)
  "Creates a new Window for the gameBoard."
  (category (ColorTruckin)))
(METH ColorTruckin InitializeGameWindow (region)
  "Initializes gamewindow and puts in proper background"
  (category (ColorTruckin)))
(METH ColorTruckin MakeDriveBitMaps NIL "Creates Bit maps for Trucks" (category (ColorTruckin)))
(METH DisplayTruckinS NewGame (seed board)
  "Generates a new game based on seed and board specified by DecisionMaster"
  (category (DisplayTruckinS)))
(METH DisplayTruckinS ReUseGame (seed)
  "Sends message to GameBoard to reuse"
  (category (DisplayTruckinS)))
(METH GameCommInterface NewInstance (gameType boardType displayType dlist)
  "Any specialization must return self"
  (category (Object)))
(METH GameDecisionMaker NewInstance NIL "Any specialization must return self" (category (Object)))
(METH GamePlayerInterface ChangeGameParameters NIL "Changes gameParameters via inspector" (category (
  GamePlayerInterface
  )))
(METH GamePlayerInterface NewInstance NIL "later may set gameMaster to self too" (category (Object)))
(METH GameSimulator NewInstance NIL "Any specialization must return self" (category (Object)))
(METH MainCommInterface AddBandit (name)
  "Add bandit to game"
  (category (MainCommInterface)))
(METH MainCommInterface AddPlayer (reqID name type truck deniedFlg)

```

```

{MEDLEY}<loops>truckin>TRUCKINM.;1

    "Forwards to PI, Simulator, and DecisionMaker"
    (category (MainCommInterface))

(METH MainCommInterface AddPlayerRequest (reqID name type truck)
    "Forwards to DecisionMaker"
    (category (MainCommInterface)))

(METH MainCommInterface BeginGameRequest NIL "Request for starting game - forwarded to DecisionMaker"
    (category (MainCommInterface)))

(METH MainCommInterface BreakCargo (playerName cargoPos)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface BuyMade (playerName roadPosition reqQty qty reason penaltyAmt fragility lifetime)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface BuyRequest (player roadPosition qty)
    "Forwards to DecisionMaker"
    (category (MainCommInterface)))

(METH MainCommInterface GameOver NIL "Sent to Simulator" (category (MainCommInterface)))

(METH MainCommInterface GasFill (prev new qty pr)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface MaxMove (player maxMove)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface MoveMade (playerName fromStop toStop reason penaltyAmount missTurns)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface MoveRequest (player from to reason)
    "Forwards to DecisionMaker"
    (category (MainCommInterface)))

(METH MainCommInterface NewGame (seed boardType gameType)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface NewGameRequest (board)
    "Forwards to DecisionMaker"
    (category (MainCommInterface)))

(METH MainCommInterface ParkedAtAlice (player time)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface ReUseGame (seed)
    "Forwards to Simulator and other recipients"
    (category (MainCommInterface)))

(METH MainCommInterface ReUseGameRequest NIL "Forwards to DecisionMaker for reusing existing game board"
    (category (MainCommInterface)))

(METH MainCommInterface RemovePlayer (playerName reason)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface RemovePlayerRequest (player reason)
    "Request to remove player"
    (category (MainCommInterface)))

(METH MainCommInterface SellMade (playerName roadPosition reqQty qty cargoPos reason penaltyAmt)
    "Forwards to Simulator, DecisionMaker, PlayerInterface"
    (category (MainCommInterface)))

(METH MainCommInterface SellRequest (player roadPosition commodityIndex qty)
    "Forwards to DecisionMaker"
    (category (MainCommInterface)))

(METH MainCommInterface SetInitialParameters NIL "Sets initial parameters" (category (MainCommInterface)))

(METH MainCommInterface SetUp (game board display)
    "ARGS: If NIL, then default. If T, then ask user, else use the passed arg"
    (category (MainCommInterface)))

(METH MainCommInterface SpoilCargo (playerName cargoPos)
    "Forwards to Simulator"
    (category (MainCommInterface)))

(METH MainCommInterface StartGame (begTime endTime)
    "Forwards to simulator, PI, DM, and then starts WorldProcess"

```

```
(category (MainCommInterface))

(METH MainCommInterface WorldProcess NIL "This is the World Process" (category (MainCommInterface)))

(METH MoveTruckinDM InitializeGameParameters NIL "Per smL suggestion initializing by smashing #,NotSetValue -
used to be (GetInitialValue self (QUOTE numMovesRemaining))" (category (MoveTruckinDM)))

(METH MoveTruckinDM MoveBandits NIL "randomly moves bandits around on the board before each turn" (category
(
MoveTruckinDM
)))

(METH MoveTruckinPI BeginGame (players moves)
"Used to be just a function"
(category (TruckinPlayerInterface)))

(METH MoveTruckinPI RunGame (players)
"This is the main loop that runs the game"
(category (MoveTruckinPI)))

(METH NoDisplayTruckinS AttachBoard (gameBoard)
"Attaches gameBoard to game"
(category (NoDisplayTruckinS)))

(METH NoDisplayTruckinS DrivePlayer (curLoc finalLoc player)
"Noop for NoDisplay case"
(category (NoDisplayTruckinS)))

(METH NoDisplayTruckinS UpdateRS (roadStop)
"Does not ask roadStop to display"
(category (NoDisplayTruckinS)))

(METH RemoteMasterComm AddBandit (name)
"Add bandit to game"
(category (RemoteMasterComm)))

(METH RemoteMasterComm AddPlayer (reqID name type truck deniedFlg)
"Forwards to PI, Simulator, and DecisionMaker"
(category (RemoteMasterComm)))

(METH RemoteMasterComm AddPlayerRequest (reqID name type truck)
"Forwards to DecisionMaker"
(category (RemoteMasterComm)))

(METH RemoteMasterComm BeginGameRequest NIL "Request for starting game - forwarded to DecisionMaker"
(category (RemoteMasterComm)))

(METH RemoteMasterComm BreakCargo (playerName cargoPos)
"Forwards to Simulator"
(category (RemoteMasterComm)))

(METH RemoteMasterComm BuyMade (playerName roadPosition reqQty qty reason penaltyAmt fragility lifetime)
"Forwards to Simulator"
(category (RemoteMasterComm)))

(METH RemoteMasterComm BuyRequest (player roadPosition qty)
"Forwards to DecisionMaker"
(category (RemoteMasterComm)))

(METH RemoteMasterComm GameOver NIL "Sent to Simulator" (category (RemoteMasterComm)))

(METH RemoteMasterComm GasFill (prev new qty pr)
"Forwards to Simulator"
(category (RemoteMasterComm)))

(METH RemoteMasterComm InterimWorldProcess NIL "Interim world process" (category (RemoteMasterComm)))

(METH RemoteMasterComm MaxMove (player maxMove)
"Forwards to Simulator"
(category (RemoteMasterComm)))

(METH RemoteMasterComm MoveMade (playerName fromStop toStop reason penaltyAmount missTurns)
"Forwards to Simulator"
(category (RemoteMasterComm)))

(METH RemoteMasterComm MoveRequest (player from to reason)
"Forwards to DecisionMaker"
(category (RemoteMasterComm)))

(METH RemoteMasterComm NewGame (seed boardType gameType)
"Forwards to Simulator"
(category (RemoteMasterComm)))

(METH RemoteMasterComm NewGameRequest (board)
"Forwards to DecisionMaker"
(category (RemoteMasterComm)))
```

```

{MEDLEY}<loops>truckin>TRUCKINM.;1

(METH RemoteMasterComm ParkedAtAlice (player time)
  "Forwards to Simulator"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm ReUseGame (seed)
  "Forwards to Simulator and other recipients"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm ReUseGameRequest NIL "Forwards to DecisionMaker for reusing existing game board"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm RemovePlayer (playerName reason)
  "Forwards to Simulator"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm RemovePlayerRequest (player reason)
  "Request to remove player"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm SellMade (playerName roadPosition reqQty qty cargoPos reason penaltyAmt)
  "Forwards to Simulator, DecisionMaker, PlayerInterface"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm SellRequest (player roadPosition commodityIndex qty)
  "Forwards to DecisionMaker"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm SetInitialParameters NIL "Sets initial parameters" (category (RemoteMasterComm)))

(METH RemoteMasterComm SetUp (game board display)
  "ARGS: If NIL, then default. If T, then ask user, else use the passed arg"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm SpoilCargo (playerName cargoPos)
  "Forwards to Simulator"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm StartGame (begTime endTime)
  "Forwards to simulator, PI, DM, and then starts WorldProcess"
  (category (RemoteMasterComm)))

(METH RemoteMasterComm StartInterimWorldProcess NIL "Starts Interim World Process" (category (RemoteMasterComm))
)

(METH RemoteMasterComm WorldProcess NIL "This is the World Process." (category (RemoteMasterComm)))

(METH RemoteSlaveComm AddBandit (name)
  "Add bandit to game"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm AddPlayer (reqID name type truck deniedFlg)
  "Forwards to PI, Simulator, and DecisionMaker"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm AddPlayerRequest (reqID name type truck)
  "Forwards to DecisionMaker"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm BeginGameRequest NIL "Blocks it." (category (RemoteSlaveComm)))

(METH RemoteSlaveComm BreakCargo (playerName cargoPos)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm BuyMade (playerName roadPosition reqQty qty reason penaltyAmt fragility lifetime)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm BuyRequest (player roadPosition qty)
  "Forwards to DecisionMaker"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm GameOver NIL "Sent to Simulator" (category (RemoteSlaveComm)))

(METH RemoteSlaveComm GasFill (prev new qty pr)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm InterimWorldProcess NIL "Interim world process" (category (RemoteSlaveComm)))

(METH RemoteSlaveComm MaxMove (player maxMove)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm MoveMade (playerName fromStop toStop reason penaltyAmount missTurns)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

```



```
(METH RemoteSlaveComm MoveRequest (player from to reason)
  "Forwards to DecisionMaker"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm NewGame (seed boardType gameType)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm NewGameRequest (board)
  "Blocks it"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm ParkedAtAlice (player time)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm ReUseGame (seed)
  "Forwards to Simulator and other recipients"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm ReUseGameRequest NIL "Blocks it" (category (RemoteSlaveComm)))

(METH RemoteSlaveComm RemovePlayer (playerName reason)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm RemovePlayerRequest (player reason)
  "Request to remove player"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm SellMade (playerName roadPosition reqQty qty cargoPos reason penaltyAmt)
  "Forwards to Simulator, DecisionMaker, PlayerInterface"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm SellRequest (player roadPosition commodityIndex qty)
  "Forwards to DecisionMaker"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm SetInitialParameters NIL "Sets initial parameters" (category (RemoteSlaveComm)))

(METH RemoteSlaveComm SetUp (game board display)
  "Ignores game and board ARGS"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm SpoilCargo (playerName cargoPos)
  "Forwards to Simulator"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm StartGame (begTime endTime)
  "Forwards to simulator, PI, DM, and then starts WorldProcess"
  (category (RemoteSlaveComm)))

(METH RemoteSlaveComm StartInterimWorldProcess NIL "Starts Interim World Process" (category (RemoteSlaveComm)))

(METH RemoteSlaveComm WorldProcess NIL "This is the World Process" (category (RemoteSlaveComm)))

(METH TimeTruckinDM ChargeTime (player clockTime)
  "if clockTime is NIL, MinMoveTime is charged"
  (category (TimeTruckinDM)))

(METH TimeTruckinDM CheckAlice (player)
  "check AlicesRestaurant's before each turn"
  (category (TimeTruckinDM)))

(METH TimeTruckinDM InitializeGameParameters NIL "Initializes critical variables for new game to run"
  (category (TimeTruckinDM)))

(METH TimeTruckinDM MoveBandits NIL "randomly moves bandits around on the board before each turn" (category
  (
    TimeTruckinDM
  )))

(METH TimeTruckinDM RedoGameParameters NIL "Change game parameters based on players in the game" (category
  (TimeTruckinDM
  )))

(METH TimeTruckinDM ReplenishQty NIL "Checks if time to replenish" (category (TimeTruckinDM)))

(METH TimeTruckinPI BeginGame (players moves time)
  "Used to be just a function"
  (category (TruckinPlayerInterface)))

(METH TimeTruckinPI RunGame (players)
  "This is the main loop that runs the game"
  (category (TimeTruckinPI)))
```

(METH TruckinBoard AssignRoadStops NIL "Assign RoadStops to the current GameBoard" (category (TruckinBoard)))

(METH TruckinBoard AttachToGame (game)  
"returns previous game (if any) to which attached"  
(category (TruckinBoard)))

(METH TruckinBoard CreateGameBoard (region title)  
"Creates a new Window for the gameBoard."  
(category (TruckinBoard)))

(METH TruckinBoard DisplayGameBoard NIL "Displays the gameBoard. ReAllocates gameBoard window if needed."  
(category (TruckinBoard)))

(METH TruckinBoard DrawRoadMarks NIL NIL (category (TruckinBoard)))

(METH TruckinBoard InitializeRoadStops (seed)  
"Initializes RoadStop qty and pr"  
(category (TruckinBoard)))

(METH TruckinBoard MakeDriveBitMaps NIL "Creates Bit maps for Trucks" (category (TruckinBoard)))

(METH TruckinBoard NewBoard (seed)  
"Creates and displays a new game board"  
(category (TruckinBoard)))

(METH TruckinBoard PlaceRoadStops NIL "Place the RoadStops onto the GameBoard." (category (TruckinBoard)))

(METH TruckinBoard ReInitializeRoadStops (seed)  
"Reinitializes roadstops"  
(category (TruckinBoard)))

(METH TruckinBoard ReUseBoard (seed)  
"Reuses game board: displaying afresh"  
(category (TruckinBoard)))

(METH TruckinBoard RemovePlayer (player)  
"Sent to game board so it can remove player from board"  
(category (TruckinBoard)))

(METH TruckinCommInterface CleanGameWorld NIL "Cleans up the game world after game over" (category (TruckinCommInterface)))

(METH TruckinCommInterface CreateDecisionMaker (game)  
"ARGS: If NIL, then default. If T, then ask user, else use the passed arg"  
(category (TruckinCommInterface)))

(METH TruckinCommInterface CreateGateWay (machineName postalAddress)  
"creates a gateway and links it"  
(category (TruckinCommInterface)))

(METH TruckinCommInterface CreatePlayerInterface (gameType)  
"Create a PlayerInterface (if needed) matching gameType"  
(category (TruckinCommInterface)))

(METH TruckinCommInterface CreateSimulator (display)  
"Creates a new simulator"  
(category (TruckinCommInterface)))

(METH TruckinCommInterface NewInstance NIL "Used to be just a function" (category (Object)))

(METH TruckinCommInterface SetInitialParameters NIL "Sets initial parameters" (category (TruckinCommInterface)))

(METH TruckinCommInterface StartWorldProcess NIL "Starts world process" (category (TruckinCommInterface)))

(METH TruckinCommInterface TellMe (obj)  
"Adds obj to broadcastList"  
(category (TruckinCommInterface)))

(METH TruckinDecisionMaker AddBandit (name)  
"Add bandit to list"  
(category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker AddPlayer (reqID name type truck deniedFlg)  
"If player added, do initial placing for him"  
(category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker AddPlayerRequest (reqID name type truck)  
"Decides if a new player can be added or not"  
(category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker AttachSimulator (sim)  
"Attaches local simulator by copying relevant info"  
(category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker BeginGameRequest NIL "Starts the game" (category (TruckinDecisionMaker)))

```
(METH TruckinDecisionMaker BuyMade (player roadPosition reqQty qty reason penaltyAmt fragility lifetime)
  "Dummy for now"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker BuyRequest (player roadPosition qty)
  "message sent to DecisionMaker to BUY qty at roadPosition"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker ChangeGameParameters NIL "Changes gameParameters via inspector" (category (
  TruckinDecisionMaker
  )))

(METH TruckinDecisionMaker CheckAlice NIL "check AlicesRestaurant's before each turn" (category (
  TruckinDecisionMaker
  )))

(METH TruckinDecisionMaker ForcedMove (player curLoc maxMilePost reason)
  "determines the loc to move currentPlayer as a forced move close to maxMilePost"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker GameOver NIL "Sent when game is over" (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker GiveAliceBonus (atAlice)
  "Dummy method"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker InitializeGameParameters NIL "Initializes critical variables for new game to run"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker MonitorGame (gameOverFlg)
  "Monitors the game to move bandits, replenish qty, check alice, and signal game end."
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker MonitorProcess NIL "Monitors the game to move bandits, replenish qty, check alice,
  and signal game end" (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker MoveBandits NIL "randomly moves bandits around on the board before each turn"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker MoveCheckingHazards (player curLoc newLoc reason)
  "moves truck checking for hazards along the way. Called by GameMaster.MoveTruck"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker MoveMade (player fromStop toStop reason penaltyAmount missTurns)
  "update commodity status affected by moves"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker MoveRequest (player from to reason)
  "reason, if given is used for system generated requests and is not charged as a move to player"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker MoveTruck (player curLoc newLoc reason)
  "reason - if NIL then move asked by user. else is the reason for the move, where the actual loc will be
  different from the original request"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker NewGameRequest (board)
  "board - type of gameBoard needed (BW, Color etc)"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker ReUseGameRequest NIL "Generates a new seed for reusing existing game" (category (
  TruckinDecisionMaker
  )))

(METH TruckinDecisionMaker RedoGameParameters NIL "Dummy. Needed if some game parameters need to be changed
  after the players are known" (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker RemovePlayer (player reason)
  "removes player from game"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker RemovePlayerRequest (player reason)
  "Request to remove player"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker ReplenishQty NIL "replenish GasStations qty" (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker SellMade (player roadPosition reqQty qty cargoPos reason penaltyAmt)
  "Dummy for now"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker SellRequest (player roadPosition commodityIndex qty)
  "commodityIndex - index into cargo of player"
  (category (TruckinDecisionMaker)))

(METH TruckinDecisionMaker StartGame NIL "(_ self StartMonitorProcess) (_ self RedoGameParameters)"
```

```

(category (TruckinDecisionMaker)))
(METH TruckinDecisionMaker StartMonitorProcess NIL "Start the monitor process" (category (TruckinDecisionMaker))
)
(METH TruckinDecisionMaker UpdateAlice (player)
"Decides when parked at Alice"
(category (TruckinDecisionMaker)))
(METH TruckinPlayerInterface AddPlayer (reqID name type truck deniedFlg)
"New player being added to game"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface AddPlayerRequest (playerName playerType truckType)
"If playerName is an instance of Player, then used with other two args extracted from it"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface BeginGame (players moves)
"Starts a new game. Players is either the number of players or a list of Player objects. If players is
NIL, but the gameMaster has previous players, it uses those."
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface Buy (player qty)
"message sent by currentPlayer to BUY qty at its current location"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface BuyMade (player roadPosition reqQty qty reason penaltyAmt fragility lifetime)
"check if for local player"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface ChargeTime (player clockTime)
"if clockTime is NIL, MinMoveTime is charged"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface CheckLocalPlayers NIL "Should be needed only in abnormal situations, e.g., machine
crashes or manual deletion of a player's process" (category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface ContinueGame (noRedrawFlg)
"to resume a game in the middle."
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface CreatePlayerProcess (player staySuspendFlg)
"marks player to stay suspended if staySuspendFlg is non-NIL"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface DeletePlayerProcesses NIL "Deletes players processes after the game" (category
(
TruckinPlayerInterface
)))
(METH TruckinPlayerInterface Move (player newLoc)
"sent by to move to newLoc"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface MoveMade (player fromStop toStop reason penaltyAmount missTurns)
"check if for local player"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface NewGame (seed boardType gameType)
"Adds roadStops locally"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface NewGameRequest (board)
"board - type of GameBoard desired"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface PlayerRequestComplete (player reason)
"if player passed as arg, set wakeReason"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface ReUseGame NIL "Received when the current board is used for a new game"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface RemovePlayer (player reason)
"New method template"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface RemovePlayerRequest (player reason)
"Request to remove player"
(category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface RunNextPlayer NIL "This is one of the few methods which need to be changed to get
different strategies for scheduling players" (category (TruckinPlayerInterface)))
(METH TruckinPlayerInterface ScheduleNextPlayer NIL "Decides who to run next -" (category (
TruckinPlayerInterface
)))

```

```
(METH TruckinPlayerInterface SelectPlayers (players)
  "Asks user to select players"
  (category (TruckinPlayerInterface)))

(METH TruckinPlayerInterface Sell (player commodity qty)
  "commodity is either an instance of commodity or a class of commodity. In the latter case, the game master
  will try to find the proper instance if any from the cargo of the truck"
  (category (TruckinPlayerInterface)))

(METH TruckinPlayerInterface SellMade (player roadPosition reqQty qty cargoPos reason penaltyAmt)
  "check if for local player"
  (category (TruckinPlayerInterface)))

(METH TruckinPlayerInterface StartGame (begTime endTime)
  "Put in code to : wait till begTime; spawn processes for each player;"
  (category (TruckinPlayerInterface)))

(METH TruckinPlayerInterface StartPlayerProcesses NIL "starts players in separate processes" (category (
  TruckinPlayerInterface
  )))

(METH TruckinPlayerInterface SuspendPlayer (player staySuspend)
  "Suspends player after a Buy/Move/Sell request"
  (category (TruckinPlayerInterface)))

(METH TruckinPlayerInterface WakePlayer (player)
  "Wakes player so it can be run at next BLOCK"
  (category (TruckinPlayerInterface)))

(METH TruckinSimulator AddBandit (name)
  "Add bandit to game"
  (category (TruckinSimulator)))

(METH TruckinSimulator AddPlayer (reqID name type truck deniedFlg)
  "Adds player to its list - assumes player created by PlayerInterface"
  (category (TruckinSimulator)))

(METH TruckinSimulator AttachBoard (gameBoard)
  "Attaches gameBoard to game"
  (category (TruckinSimulator)))

(METH TruckinSimulator BreakCargo (player commodIndex)
  "Sent by a commodity when it breaks"
  (category (TruckinSimulator)))

(METH TruckinSimulator BuyMade (player roadPosition reqQty qty reason penalty fragility lifetime)
  "Indicates a definite BUY to be made, or reasons for not carrying out a BuyRequest"
  (category (TruckinSimulator)))

(METH TruckinSimulator ClockProcess NIL "Monitors game clock" (category (TruckinSimulator)))

(METH TruckinSimulator DrivePlayer (curLoc finalLoc player)
  "Drives player from curLoc to finalLoc"
  (category (TruckinSimulator)))

(METH TruckinSimulator GameOver NIL "Game Over" (category (TruckinSimulator)))

(METH TruckinSimulator GasFill (prevStop gsStop qty pr)
  "Spl cases: If prevStop =0 then start at UnionHall. If gsStop=0 then end at UnionHall"
  (category (TruckinSimulator)))

(METH TruckinSimulator GiveAliceBonus (atAlice)
  "Give bonus for reaching Alices"
  (category (TruckinSimulator)))

(METH TruckinSimulator Initialize NIL "Initializes" (category (GameObject)))

(METH TruckinSimulator MaxMove (player maxMove)
  "Puts maxMove in player"
  (category (TruckinSimulator)))

(METH TruckinSimulator MoveMade (player from to reason penaltyAmt missTurn)
  "Current set of reasons: Bandit, WeighStation, NoFuel, UnionHall, OffBoardBeg, OffBoardEnd, ConsecMoves,
  IllegalLoc, MoreThanAllowed, AlreadyThere, NoRoom, LowFuel"
  (category (TruckinSimulator)))

(METH TruckinSimulator NewGame (seed board)
  "Generates a new game based on seed and board specified by DecisionMaster"
  (category (TruckinSimulator)))

(METH TruckinSimulator ParkedAtAlice (player time)
  "Marks when player parked at alice"
  (category (TruckinSimulator)))

(METH TruckinSimulator ReUseGame (seed)
  "Sends message to GameBoard to reuse"
```

```

{MEDLEY}<loops>truckin>TRUCKINM.;1

    (category (TruckinSimulator))

(METH TruckinSimulator RedoGameParameters NIL "Change anything after all game info is known - prior to game
start" (category (TruckinSimulator)))

(METH TruckinSimulator RemovePlayer (player reason)
"Sent to game board so it can remove player from board"
(category (TruckinSimulator)))

(METH TruckinSimulator SellMade (player roadPosition reqQty qty cargoPosition reason penalty)
"Performs an actual Sell, once all checking is done"
(category (TruckinSimulator)))

(METH TruckinSimulator SetUpGauges NIL "Sets up gauges" (category (TruckinSimulator)))

(METH TruckinSimulator SpoilCargo (player commodIndex)
"Sent by commodity when it spoils"
(category (TruckinSimulator)))

(METH TruckinSimulator StartClockProcess NIL "Starts the clock process" (category (TruckinSimulator)))

(METH TruckinSimulator StartGame (begTime endTime)
"SetsUp IVs for time left etc and starts game clock process"
(category (TruckinSimulator)))

(METH TruckinSimulator UnattachBoard NIL "Removes game board" (category (TruckinSimulator)))

(METH TruckinSimulator UpdateRS (roadStop)
"Sent when any RoadStop's data changes"
(category (TruckinSimulator)))

(METH TruckinSimulator WhoWon NIL "summarizes the game results" (category (TruckinSimulator)))

(Method ((BWTruckin InitializeGameWindow) self) ;sm: 29-JUN-83 15:52
"Cleares window and puts in proper background"
(CLEARW (@ gameWindow))
(BITBLT NIL NIL NIL (@ gameWindow)
NIL NIL NIL NIL 'TEXTURE 'REPLACE boardShade))

(Method ((ColorTruckin CreateGameBoard) self region title) ;sm: 5-JUL-83 18:37
"Creates a new Window for the gameBoard."
(PROG (screen)
[COND
((OR (NULL (COLORDISPLAYP))
(NULL (SETQ screen (COLORSCREENBITMAP)))
(NEQ 4 (fetch (BITMAP BITMAPBITSPPERPIXEL) of screen)))
(COLORDISPLAY T 4)
(SETQ screen (COLORSCREENBITMAP]
(SETQ gameWindow (DSPCREATE screen))
(_@
gameWindow gameWindow)
(_ self InitializeGameWindow region)
(_ self MakeDriveBitMaps)
(RETURN gameWindow)))

(Method ((ColorTruckin InitializeGameWindow) self region) ;sm: 5-JUL-83 18:37
"Initializes gamewindow and puts in proper background"
(PROG NIL
(SETQ gameWindow (@ gameWindow))
(BITBLT NIL NIL NIL gameWindow NIL NIL NIL NIL 'TEXTURE 'REPLACE borderColor)
(DSPXOFFSET (IQUOTIENT (IDIFFERENCE 640 (fetch (REGION WIDTH) of region))
2)
gameWindow)
(DSPYOFFSET (IQUOTIENT (IDIFFERENCE 480 (fetch (REGION HEIGHT) of region))
2)
gameWindow)
(DSPCLIPPINGREGION (create REGION
LEFT _ 0
BOTTOM _ 0
WIDTH _ (fetch (REGION WIDTH) of region)
HEIGHT _ (fetch (REGION HEIGHT) of region))
gameWindow)
(BITBLT NIL NIL NIL gameWindow NIL NIL NIL NIL 'TEXTURE 'REPLACE roadColor)
(RETURN gameWindow)))

(Method ((ColorTruckin MakeDriveBitMaps) self) ;sm: 27-JUN-83 17:33
"Creates Bit maps for Trucks"
(MakeDriveBitMaps 4))

(Method ((DisplayTruckinS NewGame) self seed board) ;sm: 28-JUN-83 09:13
"Generates a new game based on seed and board specified by DecisionMaster"
(_Super
self NewGame seed board)
(_ (@ gameBoard)
DisplayGameBoard))

(Method ((DisplayTruckinS ReUseGame) self seed) ;sm: 1-JUL-83 18:14

```

```

" Sends message to GameBoard to reuse"
  (_Super
   self ReUseGame seed)
  (_ (@ gameBoard)
   DisplayGameBoard))

(Method ((GameCommInterface NewInstance) self gameType boardType displayType dlist)
        ;dgb: 22-SEP-83 15:16
        ; Received when new instance is created

"Any specialization must return self"
  (_Super
   self NewInstance)
  (SETQ Communicator self)

  (_@
   broadcastList dlist)
  (_ self SetUp gameType boardType displayType)
  self)
        ; gameType - type of Game
        ; boardType - type of board, e.g., BW or Color
        ; displayType - type of display, e.g., Display or Silent
        ; dlist - broadcastList

(Method ((GameDecisionMaker NewInstance) self)
        ;dgb: 22-SEP-83 15:17
        ; Received when new instance is created

"Any specialization must return self"
  (_Super
   self NewInstance))

(Method ((GamePlayerInterface ChangeGameParameters) self) ; sm: 29-JUN-83 13:45
  "Changes gameParameters via inspector"
  (PROG (gp)
    (SETQ gp (GetItHere self 'gameParameters))
    (COND
      ((EQ gp NotSetValue)
       (SETQ gp (_ (GetObjectRec (@ gameParameters)
                                New))
              (_@
               gameParameters gp)))
      (PROMPT "Change Game Parameters by using the displayed Inspector." "When done, click DONE")
      (_ gp SetUp)
      (while (NOT GameParaSet) do (TOTOPW GameParamW)
            (TOTOPW GameCommandW)
            (DISMISS 500))
      (RETURN T)))

(Method ((GamePlayerInterface NewInstance) self)
        ;dgb: 22-SEP-83 15:15
        ; Does initialization when created
        ; Any specialization must return self

"later may set gameMaster to self too"
  (_Super
   self NewInstance)
  (SETQ gameMaster self))

(Method ((GameSimulator NewInstance) self)
        ;dgb: 22-SEP-83 15:17
        ; Received when new instance is created

"Any specialization must return self"
  (_Super
   self NewInstance))

(Method ((MainCommInterface AddBandit) self name)
        ; sm: 10-JUL-83 18:38
  "Add bandit to game"
  (_ (@ simulator)
   AddBandit name)
  (_ (@ decisionMaker)
   AddBandit name)
  (MailOut self (LIST 'AddBandit name)))

(Method ((MainCommInterface AddPlayer) self reqID name type truck deniedFlg)
        ; sm: 10-JUL-83 18:40
  "Forwards to PI, Simulator, and DecisionMaker"
  (_ (@ playerInterface)
   AddPlayer reqID name type truck deniedFlg)
  (_ (@ simulator)
   AddPlayer reqID name type truck deniedFlg)
  (MailOut self (LIST 'AddPlayer reqID name type truck deniedFlg))
  (_ (@ decisionMaker)
   AddPlayer reqID name type truck deniedFlg))

(Method ((MainCommInterface AddPlayerRequest) self reqID name type truck)
        ; sm: 30-JUN-83 17:33
  "Forwards to DecisionMaker"
  (_ (@ decisionMaker)
   AddPlayerRequest reqID name type truck))

(Method ((MainCommInterface BeginGameRequest) self)
        ; sm: 1-JUL-83 17:13
  "Request for starting game - forwarded to DecisionMaker"
  (_ (@ decisionMaker)
   BeginGameRequest))

```

(Method ((MainCommInterface BreakCargo) self playerName cargoPos) ;sm: 10-JUL-83 18:41

"Forwards to Simulator"
(\_ (@ simulator)
BreakCargo playerName cargoPos)
(MailOut self (LIST 'BreakCargo (GetObjectRec playerName)
cargoPos)))

(Method ((MainCommInterface BuyMade) self playerName roadPosition reqQty qty reason penaltyAmt fragility
lifetime) ;sm: 10-JUL-83 18:42

"Forwards to Simulator"
(\_ (@ simulator)
BuyMade
(GetObjectRec playerName)
roadPosition reqQty qty reason penaltyAmt fragility lifetime)
(\_ (@ decisionMaker)
BuyMade
(GetObjectRec playerName)
roadPosition reqQty qty reason penaltyAmt fragility lifetime)
(\_ (@ playerInterface)
BuyMade
(GetObjectRec playerName)
roadPosition reqQty qty reason penaltyAmt fragility lifetime)
(MailOut self (LIST 'BuyMade (GetObjectRec playerName)
roadPosition reqQty qty reason penaltyAmt fragility lifetime)))

(Method ((MainCommInterface BuyRequest) self player roadPosition qty) ;sm: 5-JUL-83 17:22

"Forwards to DecisionMaker"
(\_ (@ decisionMaker)
BuyRequest
(GetObjectRec player)
roadPosition qty))

(Method ((MainCommInterface GameOver) self) ;sm: 12-JUL-83 22:09

"Sent to Simulator"
(\_ (@ simulator)
GameOver)
(MailOut self (LIST 'GameOver))
(\_@
gameStarted NIL))

(Method ((MainCommInterface GasFill) self prev new qty pr) ;sm: 10-JUL-83 18:44

"Forwards to Simulator"
(\_ (@ simulator)
GasFill prev new qty pr)
(MailOut self (LIST 'GasFill prev new qty pr)))

(Method ((MainCommInterface MaxMove) self player maxMove) ;sm: 10-JUL-83 18:45

"Forwards to Simulator"
(\_ (@ simulator)
MaxMove player maxMove)
(MailOut self (LIST 'MaxMove (GetObjectRec player)
maxMove)))

(Method ((MainCommInterface MoveMade) self playerName fromStop toStop reason penaltyAmount missTurns) ;sm: 13-JUL-83 09:17

"Forwards to Simulator"
(\_ (@ simulator)
MoveMade
(GetObjectRec playerName)
fromStop toStop reason penaltyAmount missTurns)
(\_ (@ decisionMaker)
MoveMade
(GetObjectRec playerName)
fromStop toStop reason penaltyAmount missTurns)
(\_ (@ playerInterface)
MoveMade
(GetObjectRec playerName)
fromStop toStop reason penaltyAmount missTurns)
(MailOut self (LIST 'MoveMade (GetObjectRec playerName)
fromStop toStop reason penaltyAmount missTurns))
(\_ (@ decisionMaker)
UpdateAlice
(GetObjectRec playerName)))

(Method ((MainCommInterface MoveRequest) self player from to reason) ;sm: 5-JUL-83 17:21

"Forwards to DecisionMaker"
(\_ (@ decisionMaker)
MoveRequest
(GetObjectRec player)
from to reason))

(Method ((MainCommInterface NewGame) self seed boardType gameType) ;sm: 10-JUL-83 18:47



```

"Forwards to Simulator"
(_ (@ simulator)
  NewGame seed boardType gameType)
(_ self CreatePlayerInterface gameType)
(_ (@ playerInterface)
  NewGame seed boardType gameType)
(MailOut self (LIST 'NewGame seed boardType gameType)))

(Method ((MainCommInterface NewGameRequest) self board) ;sm: 29-JUN-83 13:12
  "Forwards to DecisionMaker"
  (_ (@ decisionMaker)
    NewGameRequest board))

(Method ((MainCommInterface ParkedAtAlice) self player time) ;sm: 10-JUL-83 18:48
  "Forwards to Simulator"
  (_ (@ simulator)
    ParkedAtAlice player time)
  (MailOut self (LIST 'ParkedAtAlice (GetObjectRec player)
    time)))

(Method ((MainCommInterface ReUseGame) self seed) ;sm: 10-JUL-83 19:20
  "Forwards to Simulator and other recipients"
  (_ (@ simulator)
    ReUseGame seed)
  (_ (@ playerInterface)
    ReUseGame)
  (MailOut self (LIST 'ReUseGame seed)))

(Method ((MainCommInterface ReUseGameRequest) self) ;sm: 29-JUN-83 14:21
  "Forwards to DecisionMaker for reusing existing game board"
  (_ (@ decisionMaker)
    ReUseGameRequest))

(Method ((MainCommInterface RemovePlayer) self playerName reason) ;sm: 10-JUL-83 19:21
  "Forwards to Simulator"
  (_ (@ simulator)
    RemovePlayer playerName reason)
  (_ (@ playerInterface)
    RemovePlayer playerName reason)
  (MailOut self (LIST 'RemovePlayer (GetObjectRec playerName)
    reason)))

(Method ((MainCommInterface RemovePlayerRequest) self player reason) ;sm: 10-JUL-83 21:03
  "Request to remove player"
  (_ (@ decisionMaker)
    RemovePlayerRequest player reason))

(Method ((MainCommInterface SellMade) self playerName roadPosition reqQty qty cargoPos reason penaltyAmt) ;sm: 10-JUL-83 19:22
  "Forwards to Simulator, DecisionMaker, PlayerInterface"
  (_ (@ simulator)
    SellMade
    (GetObjectRec playerName)
    roadPosition reqQty qty cargoPos reason penaltyAmt)
  (_ (@ decisionMaker)
    SellMade
    (GetObjectRec playerName)
    roadPosition reqQty qty cargoPos reason penaltyAmt)
  (_ (@ playerInterface)
    SellMade
    (GetObjectRec playerName)
    roadPosition reqQty qty cargoPos reason penaltyAmt)
  (MailOut self (LIST 'SellMade (GetObjectRec playerName)
    roadPosition reqQty qty cargoPos reason penaltyAmt)))

(Method ((MainCommInterface SellRequest) self player roadPosition commodityIndex qty) ;sm: 5-JUL-83 17:22
  "Forwards to DecisionMaker"
  (_ (@ decisionMaker)
    SellRequest
    (GetObjectRec player)
    roadPosition commodityIndex qty))

(Method ((MainCommInterface SetInitialParameters) self) ;sm: 10-JUL-83 20:16
  "Sets initial parameters"
  (_ (@ decisionMaker)
    startsAfter 0))

(Method ((MainCommInterface SetUp) self game board display) ;sm: 10-JUL-83 19:37
  "ARGS: If NIL, then default. If T, then ask user, else use the passed arg"
  (_ self CreateDecisionMaker game)
  (_ self CreateSimulator display)
  (_ self SetInitialParameters) ; sends a request to DecisionMaker to create a new game

```

```
(_ (@ decisionMaker)
  NewGameRequest board))
```

```
(Method ((MainCommInterface SpoilCargo) self playerName cargoPos)
;sm: 10-JUL-83 19:22
```

```
"Forwards to Simulator"
(_ (@ simulator)
  SpoilCargo playerName cargoPos)
(MailOut self (LIST 'SpoilCargo (GetObjectRec playerName)
  cargoPos)))
```

```
(Method ((MainCommInterface StartGame) self begTime endTime) ;sm: 10-JUL-83 19:23
```

```
"Forwards to simulator, PI, DM, and then starts WorldProcess"
(_ (@ simulator)
  StartGame begTime endTime)
(_ (@ playerInterface)
  StartGame begTime endTime)
(_ (@ decisionMaker)
  StartGame begTime endTime) ; start the WorldProcess
(_ self StartWorldProcess)
(MailOut self (LIST 'StartGame begTime endTime)))
```

```
(Method ((MainCommInterface WorldProcess) self) ;sm: 16-SEP-83 17:17
```

```
"This is the World Process"
(PROG ([endTime (SETUPTIMER.DATE (GDATE (IPLUS (@ Simulator endTime)
  1]
  cTime pendReq) (* Wait till it is 2 secs before game)
[BLOCK NIL (SETUPTIMER (IntervalToEvent (@ Simulator beginTime)
  (* ask PI to start User Processes)
  (* (_ (@ playerInterface) StartPlayerProcesses))

(_ (@ decisionMaker)
  RedoGameParameters)
(_ (@ simulator)
  RedoGameParameters) (* Start the loop for checking messages from PI)
(PutValue (@ simulator)
  'timeLeft
  (IDIFFERENCE (@ (@ simulator)
  endTime)
  (IDATE)))

(_@
  (@ playerInterface)
  runningPlayer NIL)
(_ (@ playerInterface)
  CheckLocalPlayers)
(until (TIMEREXPIRED? endTime 'SECONDS) do (_ (@ playerInterface)
  ScheduleNextPlayer)
  (BLOCK)
```

(\* this will enable the Scheduler to consider all players next time around.  
 Needed only for Single Mc case)

```
(for x in (@ (@ playerInterface)
  suspendedPlayers)
  do (_@
    x staySuspend NIL))
(_ (@ decisionMaker)
  MonitorGame)
(* Game is over)
```

```
(_ (@ decisionMaker)
  MonitorGame T)
(_@
  gameStarted NIL)
(_ self CleanGameWorld)
(RETURN 'Done)))
```