KTAB

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Chapter 1

Hierarchical Index

1.1 Class Hierarchy

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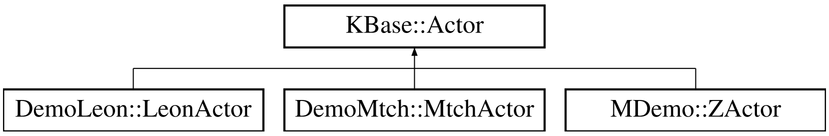
Chapter 3

Class Documentation

3.1 KBase::Actor Class Reference

Inheritance diagram for KBase::Actor:



Public Member Functions

- **Actor** (string n, string d)
- virtual double **vote** (unsigned int p1, unsigned int p2, const State ∗st) const =0

Static Public Member Functions

- static double **thirdPartyVoteSU** (double wk, VotingRule vr, ThirdPartyCommit comm, double pik, double pjk, double uki, double ukj, double ukk)
- static double **vProbLittle** (VotingRule vr, double wn, double uni, double unj, double contrib_i_ij, double contrib_j_ij)

Public Attributes

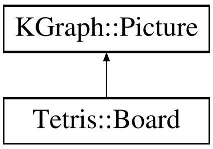
- string **name** = "GA"
- string **desc** = "Generic Actor"

The documentation for this class was generated from the following files:

- kmodel.h
- kmodel.cpp

3.2 Tetris::Board Class Reference

Inheritance diagram for Tetris::Board:



Public Member Functions

- **Board** (unsigned int r, unsigned int c)
- void **randomizeFragments** (double f)
- void **rotateDown** ()
- virtual void **update** (Canvas ∗c) const
- unsigned int **nFromIJ** (int i, int j) const
- bool **resetCurrPiece** ()
- unsigned int **clearLines** ()
- unsigned int **stepGame** ()
- bool **tryLRot** ()
- bool **tryRRot** ()
- bool **tryLMove** ()
- bool **tryRMove** ()
- bool **testSDrop** ()
- bool **trySDrop** ()
- bool **tryHDrop** ()
- void **drawShape** (int i, int j, Canvas ∗cnvs) const
- void **drawUnitSquare** (Fl_Color clr1, int i, int j, bool dotP, Fl_Color clr2, Canvas ∗cnvs) const

Public Attributes

- unsigned int **rows** = 0
- unsigned int **clms** = 0
- Shape **currShape** = Shape()
- int **currI** = 0
- int **currJ** = 0
- Shape **nextShape** = Shape()

Protected Member Functions

- void **drawBackground** (Canvas ∗c) const
- void **drawCurrShape** (Canvas ∗c) const
- void **drawFragments** (Canvas ∗c) const
- bool **testShape** (Shape s, int i, int j) const
- void **randomizeRow** (unsigned int i)
- vector< TCode > **emptyBoard** () const
- void **placeShape** (Shape s, int i, int j)
- bool **clearOneLine** (const unsigned int i)

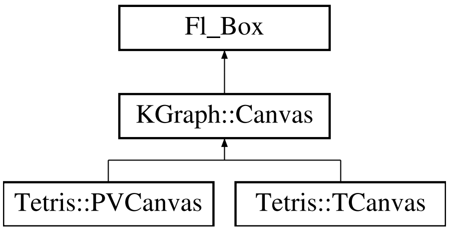
Additional Inherited Members

The documentation for this class was generated from the following files:

- board.h
- board.cpp

3.3 KGraph::Canvas Class Reference

Inheritance diagram for KGraph::Canvas:



Public Member Functions

- Canvas (int x, int y, int w, int h, const char ∗l=0)

  Abstract base class.
- void **end** ()
- void **updateMaps** ()
- void **clearMaps** ()
- virtual int **handle** (int ev)
- virtual void **onMove** (int x, int y)
- virtual void **onDrag** (int x, int y)
- virtual void **onPush** (int x, int y, int b)
- virtual void **onRelease** (int x, int y, int b)
- virtual void **onKeyDown** (int x, int y, int k)

Public Attributes

- Picture ∗ **pict** = nullptr
- CoordMap ∗ **xMap** = nullptr
- CoordMap ∗ **yMap** = nullptr

The documentation for this class was generated from the following files:

- kgraph.h
- kgraph.cpp

3.4 Tetris::ControlState Class Reference

Public Member Functions

- **ControlState** (unsigned int bv, unsigned int pv, unsigned int gv, unsigned int rv)

Public Attributes

- unsigned int **bg** = 1
- unsigned int **pc** = 2
- unsigned int **gt** = 1
- unsigned int **rt** = 0

The documentation for this class was generated from the following file:

- tmain.h

3.5 KGraph::CoordMap Class Reference

Public Member Functions

- **CoordMap** (int s1, double d1, int s2, double d2)
- int **d2s** (double d)
- double **s2d** (int s)

Protected Attributes

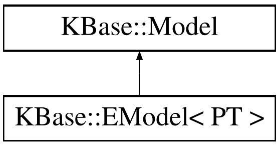
- double **as** = 0
- double **bs** = 0
- double **ad** = 0
- double **bd** = 0

The documentation for this class was generated from the following files:

- kgraph.h
- kgraph.cpp

3.6 KBase::EModel< PT > Class Template Reference

Inheritance diagram for KBase::EModel< PT >:



Public Member Functions

- **EModel** (PRNG ∗r, string d="")
- void **setOptions** ()
- unsigned int **numOptions** () const
- PT ∗ **nthOption** (unsigned int i) const

Public Attributes

- function< vector< PT ∗ >)> **enumOptions** = nullptr

Protected Attributes

- vector< PT ∗ > **theta** = {}

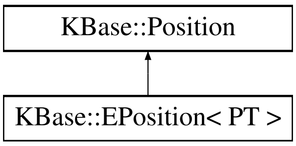
Additional Inherited Members

The documentation for this class was generated from the following files:

- emodel.h
- emodel.cpp

3.7 KBase::EPosition< PT > Class Template Reference

Inheritance diagram for KBase::EPosition< PT >:



Public Member Functions

- **EPosition** (EModel< PT > ∗m, int n)

Protected Attributes

- EModel< PT > ∗ **eMod** = nullptr
- int **ndx** = -1

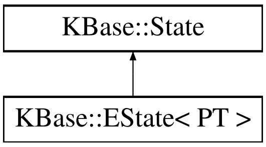
Additional Inherited Members

The documentation for this class was generated from the following files:

- emodel.h
- emodel.cpp

3.8 KBase::EState< PT > Class Template Reference

Inheritance diagram for KBase::EState< PT >:



Public Member Functions

- **EState** (EModel< PT > ∗mod)
- void **setValues** ()

Protected Member Functions

- void **setAllAUtil** (ReportingLevel rl)

Protected Attributes

- function< vector< KMatrix >)> **getAUtils** = nullptr
- function< vector< double > unsigned int j, const EModel < PT > ∗)> **actorVFn** = nullptr

Additional Inherited Members

The documentation for this class was generated from the following files:

- emodel.h
- emodel.cpp

3.9 KBase::GAOpt< GAP > Class Template Reference

Public Member Functions

- **GAOpt** (unsigned int s)
- void **init** (vector< GAP ∗ > ipop)
- void **fill** (PRNG ∗rng)
- void **run** (PRNG ∗rng, double c, double m, unsigned int maxI, double sTh, unsigned int maxS, ReportingLevel srl, unsigned int &iter, unsigned int &sIter)
- tuple< double, GAP ∗ > **getNth** (unsigned int n)
- void **show** ()
- void **sortPop** ()

Public Attributes

- function< tuple< GAP ∗, GAP ∗ > const GAP ∗g1, const GAP ∗g2, PRNG ∗rng)> **cross** = nullptr
- function< GAP ∗(const GAP ∗g1, PRNG ∗rng)> **mutate** = nullptr
- function< double(const GAP ∗g1)> **eval** = nullptr
- function< void(const GAP ∗)> **showGene** = nullptr
- function< GAP ∗(PRNG ∗rng)> **makeGene** = nullptr
- function< bool(const GAP ∗g1, const GAP ∗g2)> **equiv** = nullptr

Protected Member Functions

- void **step** ()
- void **mutatePop** ()
- void **crossPop** ()
- void **dropDups** ()
- void **selectPop** ()
- GAP ∗ **mutateOne** (const GAP ∗g1, PRNG ∗rng)
- tuple< GAP ∗, GAP ∗ > **crossPair** (const GAP ∗g1, const GAP ∗g2, PRNG ∗rng)
- void **cyclicApply** (function< void(unsigned int i)> fn, double f)

Protected Attributes

- vector< tuple< double, GAP ∗ > > **gpool** = {}
- unsigned int **pSize** = 0
- double **cFrac** = 1.0
- double **mFrac** = 0.5
- PRNG ∗ **rng** = nullptr

The documentation for this class was generated from the following file:

- gaopt.h

3.10 KBase::GHCSearch< HCP > Class Template Reference

Public Member Functions

- tuple< double, HCP, unsigned int, unsigned int > **run** (HCP p0, ReportingLevel srl, unsigned int iMax, unsigned int sMax, double sTol)

Public Attributes

- function< double(const HCP)> **eval** = nullptr
- function< vector< HCP >const HCP)> **nghbrs** = nullptr
- function< void(const HCP)> **show** = nullptr

The documentation for this class was generated from the following file:

- hcsearch.h

3.11 KBase::KException Class Reference

Public Member Functions

- **KException** (string m)

Public Attributes

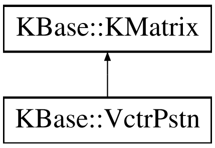
- string **msg** =""

The documentation for this class was generated from the following files:

- kutils.h
- kutils.cpp

3.12 KBase::KMatrix Class Reference

Inheritance diagram for KBase::KMatrix:



Public Member Functions

- **KMatrix** (unsigned int nr, unsigned int nc, double iv=0.0)
- double **operator()** (unsigned int i, unsigned int j) const
- double & **operator()** (unsigned int i, unsigned int j)
- void **mPrintf** (string) const
- unsigned int **numR** () const
- unsigned int **numC** () const

- vector< double >::iterator **begin** ()
- vector< double >::iterator **end** ()
- vector< double >::const_iterator **cbegin** ()
- vector< double >::const_iterator **cend** ()
- vector< double >::const_iterator **begin** () const
- vector< double >::const_iterator **end** () const

Static Public Member Functions

- static KMatrix **uniform** (PRNG ∗rng, unsigned int nr, unsigned int nc, double a, double b)
- static KMatrix **map** (function< double(unsigned int i, unsigned int j)> f, unsigned int nr, unsigned int nc)
- static void **mapV** (function< void(unsigned int i, unsigned int j)> f, unsigned int nr, unsigned int nc)
- static KMatrix **arrayInit** (const double mv[ ], const unsigned int &rows, const unsigned int &clms)

Protected Attributes

- unsigned int **rows** = 0
- unsigned int **clms** = 0
- vector< double > **vals** = vector<double>()

Friends

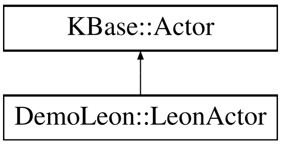
- KMatrix **inv** (const KMatrix &m)

The documentation for this class was generated from the following files:

- kmatrix.h
- kmatrix.cpp

3.13 DemoLeon::LeonActor Class Reference

Inheritance diagram for DemoLeon::LeonActor:



Public Member Functions

- **LeonActor** (string n, string d, LeonModel ∗em, unsigned int id)
- double **vote** (unsigned int p1, unsigned int p2, const State ∗st) const
- virtual double **vote** (const Position ∗ap1, const Position ∗ap2) const
- double **posUtil** (const Position ∗ap1) const
- void **randomize** (PRNG ∗rng)
- void **setShareUtilScale** (const KMatrix &runs)
- double **shareToUtil** (double gdpShare) const

Public Attributes

- const LeonModel ∗ **eMod** = nullptr
- unsigned int **idNum** = 0
- KMatrix **vCap** = KMatrix()
- VotingRule **vr** = VotingRule::Proportional
- double **minS** = 0
- double **refS** = 0.5
- double **refU** = 0.5
- double **maxS** = 1

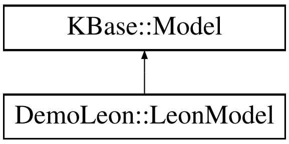
Additional Inherited Members

The documentation for this class was generated from the following files:

- demoleon.h
- demoleon.cpp

3.14 DemoLeon::LeonModel Class Reference

Inheritance diagram for DemoLeon::LeonModel:



Public Member Functions

- **LeonModel** (PRNG ∗r, string d="")
- tuple< KMatrix, KMatrix, KMatrix, KMatrix > **makeBaseYear** (unsigned int numF, unsigned int numCG, unsigned int numS, PRNG ∗rng)
- void **makeIOModel** (const KMatrix &trns, const KMatrix &rev, const KMatrix &xprt, const KMatrix &cons, PRNG ∗rng)
- KMatrix **xprtDemand** (const KBase::KMatrix &tau) const
- KMatrix **randomFTax** (PRNG ∗rng)
- KMatrix **makeFTax** (const KBase::KMatrix &tax) const
- double **infsDegree** (const KMatrix &tax) const
- KMatrix **vaShares** (const KMatrix &tax, bool normalizeSharesP) const
- KMatrix **monteCarloShares** (unsigned int nRuns, KBase::PRNG ∗rng)

Static Public Member Functions

- static double **stateDist** (const LeonState ∗s1, const LeonState ∗s2)

Public Attributes

- double posTol = 1E-5

  how close together positions must be to be considered equivalent

Protected Attributes

- unsigned int **L** = 0
- unsigned int **M** = 0
- unsigned int **N** = 0
- double **maxSub** = 0.5
- double **maxTax** = 0.5
- KMatrix **x0** = KMatrix()
- KMatrix **eps** = KMatrix()
- KMatrix **aL** = KMatrix()
- KMatrix **bL** = KMatrix()
- KMatrix **rho** = KMatrix()
- KMatrix **vas** = KMatrix()

Friends

- class **LeonActor**

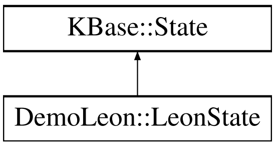
Additional Inherited Members

The documentation for this class was generated from the following files:

- demoleon.h
- demoleon.cpp

3.15 DemoLeon::LeonState Class Reference

Inheritance diagram for DemoLeon::LeonState:



Public Member Functions

- **LeonState** (LeonModel ∗em)
- virtual tuple< KMatrix, VUI > **pDist** (int persp) const
- LeonState ∗ **stepSUSN** ()

Public Attributes

- const LeonModel ∗ **eMod** = nullptr

Protected Member Functions

- LeonState ∗ **doSUSN** (ReportingLevel rl) const
- virtual bool equivNdx (unsigned int i, unsigned int j) const
- void **setAllAUtil** (ReportingLevel rl)

Additional Inherited Members

3.15.1 Member Function Documentation

3.15.1.1 bool DemoLeon::LeonState::equivNdx (unsigned int *i*, unsigned int *j*) const [protected], [virtual]

Compare two actual positions in the current state

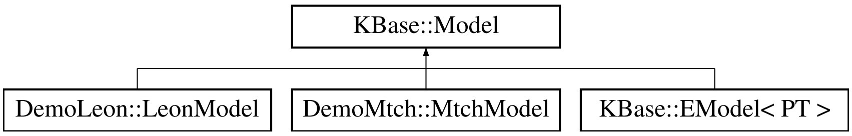
Implements KBase::State.

The documentation for this class was generated from the following files:

- demoleon.h
- demoleon.cpp

3.16 KBase::Model Class Reference

Inheritance diagram for KBase::Model:



Public Member Functions

- **Model** (PRNG ∗r, string d)
- void **run** ()
- virtual unsigned int **addActor** (Actor ∗a)
- int **actrNdx** (const Actor ∗a) const
- int **addState** (State ∗s)
- void **sqlAUtil** (unsigned int t)

Static Public Member Functions

- static double **nProd** (double x, double y)
- static double **vote** (VotingRule vr, double wi, double uij, double uik)
- static KMatrix **coalitions** (function< double(unsigned int ak, unsigned int pi, unsigned int pj)> vfn, unsigned int numAct, unsigned int numOpt)
- static KMatrix **vProb** (VPModel vpm, const KMatrix &c)
- static KMatrix **vProb** (VotingRule vr, VPModel vpm, const KMatrix &w, const KMatrix &u)
- static KMatrix **probCE** (PCEModel pcm, const KMatrix &pv)
- static KMatrix **scalarPCE** (unsigned int numAct, unsigned int numOpt, const KMatrix &w, const KMatrix &u, VotingRule vr, VPModel vpm, ReportingLevel rl)
- static void **demoSQLite** ()
- static KMatrix **bigRfromProb** (const KMatrix &p, BigRRange rr)
- static double **estNRA** (double rh, double ri, BigRAdjust ra)

Public Attributes

- function< bool(unsigned int iter, const State ∗s)> **stop** = nullptr
- vector< Actor ∗ > **actrs** = {}
- unsigned int **numAct** = 0
- PRNG ∗ **rng** = nullptr
- vector< State ∗ > **history** = {}

Static Protected Member Functions

- static string **createTableSQL** (unsigned int tn)
- static tuple< double, double > **vProb** (VPModel vpm, const double s1, const double s2)
- static KMatrix **markovPCE** (const KMatrix &pv)
- static KMatrix **condPCE** (const KMatrix &pv)

Protected Attributes

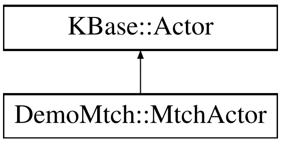
- sqlite3 ∗ **smpDB** = nullptr
- string **scenName** = "Scen"

The documentation for this class was generated from the following files:

- kmodel.h
- kmodel.cpp
- kmodelsql.cpp

3.17 DemoMtch::MtchActor Class Reference

Inheritance diagram for DemoMtch::MtchActor:



Public Types

- enum **PropModel** { **ExpUtil**, **Probability**, **AgreeUtil** }

Public Member Functions

- **MtchActor** (string n, string d)
- double **vote** (unsigned int p1, unsigned int p2, const State ∗st) const
- virtual double **vote** (const Position ∗ap1, const Position ∗ap2) const
- double **posUtil** (const Position ∗ap1) const
- void **randomize** (PRNG ∗rng, double minCap, double maxCap, unsigned int id, unsigned int numI)
- tuple< double, MtchPstn > **maxProbEUPstn** (PropModel pm, const MtchState ∗mst) const

Static Public Member Functions

- static MtchPstn ∗ **rPos** (unsigned int numI, unsigned int numA, PRNG ∗rng)
- static MtchActor ∗ **rAct** (unsigned int numI, double minCap, double maxCap, PRNG ∗rng, unsigned int i)

Public Attributes

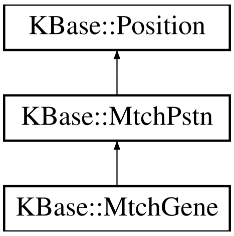
- unsigned int **idNum** = 0
- VotingRule **vr** = VotingRule::Proportional
- PropModel **pMod** = PropModel::ExpUtil
- double **sCap** = 0
- vector< double > **vals** = {}

The documentation for this class was generated from the following files:

- demomtch.h
- demomtch.cpp

3.18 KBase::MtchGene Class Reference

Inheritance diagram for KBase::MtchGene:



Public Member Functions

- void **randomize** (PRNG ∗rng)
- MtchGene ∗ **mutate** (PRNG ∗rng) const
- tuple< MtchGene ∗, MtchGene ∗ > **cross** (const MtchGene ∗g2, PRNG ∗rng) const
- bool **equiv** (const MtchGene ∗g2) const
- void **setState** (vector< Actor ∗ > as, vector< MtchPstn ∗ > ps)

Protected Member Functions

- virtual void **print** (ostream &os) const
- void **copySelf** (MtchGene ∗) const

Protected Attributes

- vector< Actor ∗ > **actrs** = {}
- vector< MtchPstn ∗ > **pstns** = {}

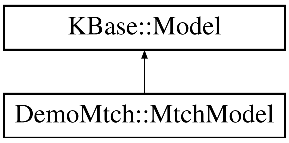
Additional Inherited Members

The documentation for this class was generated from the following files:

- kmodel.h
- kposition.cpp

3.19 DemoMtch::MtchModel Class Reference

Inheritance diagram for DemoMtch::MtchModel:



Public Member Functions

- **MtchModel** (PRNG ∗rng, string d="")

Static Public Member Functions

- static MtchModel ∗ **randomMS** (unsigned int numA, unsigned int numI, VotingRule vr, MtchActor::PropModel pMod, PRNG ∗rng)

Public Attributes

- unsigned int **numItm** = 0
- unsigned int **numCat** = 0

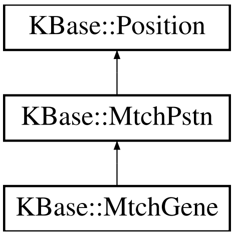
Additional Inherited Members

The documentation for this class was generated from the following files:

- demomtch.h
- demomtch.cpp

3.20 KBase::MtchPstn Class Reference

Inheritance diagram for KBase::MtchPstn:



Public Member Functions

- virtual vector< MtchPstn > **neighbors** (unsigned int nVar) const

Public Attributes

- unsigned int **numItm** = 0
- unsigned int **numCat** = 0
- VUI **match** = {}

Protected Member Functions

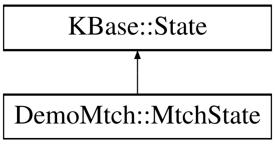
- virtual void **print** (ostream &os) const

The documentation for this class was generated from the following files:

- kmodel.h
- kposition.cpp

3.21 DemoMtch::MtchState Class Reference

Inheritance diagram for DemoMtch::MtchState:



Public Member Functions

- **MtchState** (Model ∗mod)
- KMatrix **actrCaps** () const
- tuple< KMatrix, VUI > **pDist** (int persp) const
- MtchState ∗ **stepSUSN** ()
- MtchState ∗ **stepBCN** ()

Protected Member Functions

- MtchState ∗ **doSUSN** (ReportingLevel rl) const
- MtchState ∗ **doBCN** (ReportingLevel rl) const
- bool **equivNdx** (unsigned int i, unsigned int j) const
- void **setAllAUtil** (ReportingLevel rl)

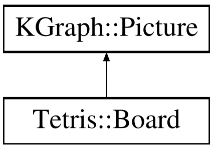
Additional Inherited Members

The documentation for this class was generated from the following files:

- demomtch.h
- demomtch.cpp

3.22 KGraph::Picture Class Reference

Inheritance diagram for KGraph::Picture:



Public Member Functions

- void **add** (Canvas ∗c)
- void **update** () const
- virtual void **connect** (Canvas ∗c)
- virtual void **update** (Canvas ∗c) const

Public Attributes

- double **minX** = 0
- double **maxX** = 1
- double **minW** = 1E-6
- double **minY** = 0
- double **maxY** = 1
- double **minH** = 1E-6

Protected Attributes

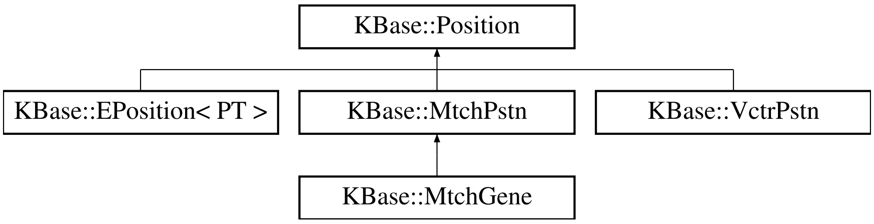
- vector< Canvas ∗ > **canvases** = {}

The documentation for this class was generated from the following files:

- kgraph.h
- kgraph.cpp

3.23 KBase::Position Class Reference

Inheritance diagram for KBase::Position:



Protected Member Functions

- virtual void **print** (ostream &os) const =0

Friends

- ostream & **operator**<< (ostream &os, const Position &p)

The documentation for this class was generated from the following files:

- kmodel.h
- kposition.cpp

3.24 KBase::PRNG Class Reference

Public Member Functions

- uint64_t **uniform** ()
- double **uniform** (double a, double b)
- vector< bool > **bits** (unsigned int nb)
- uint64_t **setSeed** (uint64_t)

Protected Attributes

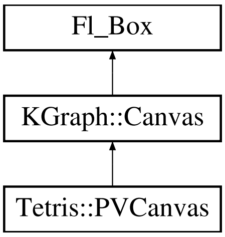
- mt19937_64 **mt** = mt19937_64()

The documentation for this class was generated from the following files:

- prng.h
- prng.cpp

3.25 Tetris::PVCanvas Class Reference

Inheritance diagram for Tetris::PVCanvas:



Public Member Functions

- **PVCanvas** (int x, int y, int w, int h, const char *l=0)
- void **onMove** (int x, int y)
- void **onDrag** (int x, int y)
- void **onPush** (int x, int y, int b)
- void **onRelease** (int x, int y, int b)
- void **onKeyDown** (int x, int y, int k)

Protected Member Functions

- virtual void **draw** ()

Additional Inherited Members

The documentation for this class was generated from the following files:

- pvcanvas.h
- pvcanvas.cpp

3.26 Tetris::Shape Class Reference

Public Member Functions

- **Shape** (TCode p)
- void **setShape** (TCode p)
- void **setRandomShape** ()
- TCode **getShape** () const
- char **getName** () const
- int **x** (int index) const
- int **y** (int index) const
- int **minX** () const
- int **maxX** () const
- int **minY** () const
- int **maxY** () const
- void **showCoords** () const
- Shape **lrot** () const
- Shape **rrot** () const

Public Attributes

- unsigned int **idNum** = 0

Static Public Attributes

- static unsigned int **shapeCounter** = 0

The documentation for this class was generated from the following files:

- shape.h
- shape.cpp

3.27 MDemo::SQLDB Class Reference

Public Member Functions

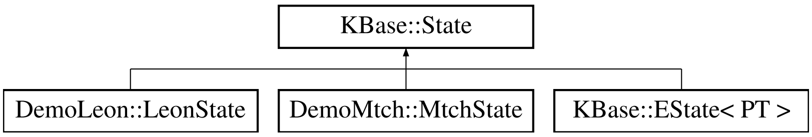
- **SQLDB** (char ∗filename)
- bool **open** (char ∗filename)
- tuple< unsigned int, vector
  < vector< string > > > **query** (const char ∗query)
- void **close** ()

The documentation for this class was generated from the following files:

- sqlitedemo.h
- sqlitedemo.cpp

3.28 KBase::State Class Reference

Inheritance diagram for KBase::State:



Public Member Functions

- **State** (Model ∗mod)
- void **randomizeUtils** (double minU, double maxU, double uNoise)
- void **clear** ()
- virtual void **addPstn** (Position ∗p)
- virtual tuple< KMatrix, VUI > **pDist** (int persp) const =0
- void **setAUtil** (int perspH=-1, ReportingLevel rl=ReportingLevel::Silent)
- void setUENdx ()

Public Attributes

- Model ∗ **model** = nullptr
- function< State ∗()> **step** = nullptr
- vector< Position ∗ > **pstns** = {}
- vector< KMatrix > **aUtil** = {}

Protected Member Functions

- virtual bool **equivNdx** (unsigned int i, unsigned int j) const =0
- virtual void **setAllAUtil** (ReportingLevel rl)=0
- virtual void **setOneAUtil** (unsigned int perspH, ReportingLevel rl)

Protected Attributes

- VUI **uIndices** = {}
- VUI **eIndices** = {}
- KMatrix **uProb** = KMatrix()

3.28.1 Member Function Documentation

3.28.1.1 void KBase::State::setUENdx ( )

Looking only at the positions in this state, return a vector of indices of unique positions.

The documentation for this class was generated from the following files:

- kmodel.h
- kstate.cpp

3.29 Tetris::TApp Class Reference

Public Member Functions

- **TApp** (uint64_t s)
- void **run** ()
- void **newGame** ()
- void **stepGame** ()
- void **pause** ()
- void **resume** (double delay)
- Fl_Color **color** (unsigned int i) const
- void **setRC** (unsigned int r, unsigned int c)
- void **setLevel** (unsigned int lvl)
- void **setRandom** (bool rp)
- double setDt ()
- void **applyControlState** (ControlState cs)
- void **applyColorScheme** (ControlState cs)
- void **processKey** (int x, int y, int k)
- void **quit** ()

Public Attributes

- unsigned int **level** = 3
- double **dt** = 0.1
- PRNG ∗ **rng** = nullptr
- Board ∗ **board** = nullptr
- unsigned int **rows** = 0
- unsigned int **clms** = 0
- bool **randomPlacement** = false
- double **playTime** = 5∗60
- double **maxPlayTime** = 10∗60
- bool **paused** = true

Static Public Attributes

- static TApp ∗ **theApp** = nullptr

Protected Member Functions

- unsigned int **scoreFn** (unsigned int clc)
- void **setColorScheme** ()

Protected Attributes

- unsigned int **lineCount** = 0
- unsigned int **score** = 0
- const unsigned int **defaultLevel** = 3
- const unsigned int **defaultRows** = 24
- const unsigned int **defaultClms** = 12
- const bool **defaultRP** = false
- vector< Fl_Color > **colors** = {}

3.29.1 Member Function Documentation

3.29.1.1 double Tetris::TApp::setDt ( )

set the time between updates, given the current level

The documentation for this class was generated from the following files:

- tmain.h
- tmain.cpp

3.30 UDemo::TargetedBV Class Reference

Public Member Functions

- virtual void **randomize** (PRNG ∗rng)
- virtual TargetedBV ∗ **mutate** (PRNG ∗rng) const
- virtual tuple< TargetedBV ∗, TargetedBV ∗ > **cross** (const TargetedBV ∗g2, PRNG ∗rng) const
- virtual void **show** () const
- virtual bool **equiv** (const TargetedBV ∗g2) const
- double **evaluate** ()
- double **tblEval** (double minD, vector< double > weights, vector< BVec > tbl) const
- unsigned int **hDist** (BVec bv) const

Static Public Member Functions

- static void **setTarget** (BVec trgt)
- static BVec **getTarget** ()
- static void **showBits** (BVec bv)
- static BVec **randomBV** (PRNG ∗rng, unsigned int nb)

Public Attributes

- BVec **bits** = BVec()

Static Public Attributes

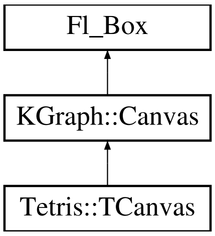
- static BVec **target**

The documentation for this class was generated from the following files:

- kutils/src/demo.h
- kutils/src/demo.cpp

3.31 Tetris::TCanvas Class Reference

Inheritance diagram for Tetris::TCanvas:



Public Member Functions

- **TCanvas** (int x, int y, int w, int h, const char ∗l=0)
- void **onMove** (int x, int y)
- void **onDrag** (int x, int y)
- void **onPush** (int x, int y, int b)
- void **onRelease** (int x, int y, int b)
- void **onKeyDown** (int x, int y, int k)

Protected Member Functions

- virtual void **draw** ()

Additional Inherited Members

The documentation for this class was generated from the following files:

- tcanvas.h
- tcanvas.cpp

3.32 MDemo::TwoDPoint Struct Reference

Public Member Functions

- **TwoDPoint** (unsigned int a, unsigned int b)

Public Attributes

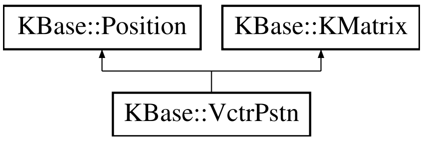
- unsigned int **x** = 0
- unsigned int **y** = 0

The documentation for this struct was generated from the following files:

- edemo.h
- edemo.cpp

3.33 KBase::VctrPstn Class Reference

Inheritance diagram for KBase::VctrPstn:



Public Member Functions

- **VctrPstn** (unsigned int nr, unsigned int nc)
- **VctrPstn** (const KMatrix &m)

Protected Member Functions

- virtual void **print** (ostream &os) const

Additional Inherited Members

The documentation for this class was generated from the following files:

- kmodel.h
- kposition.cpp

3.34 KBase::VHCSearch Class Reference

Public Member Functions

- tuple< double, KMatrix,
  unsigned int, unsigned int > **run** (KMatrix p0, unsigned int iMax, unsigned int sMax, double sTol, double s0, double shrink, double grow, double minStep, ReportingLevel rl)

Static Public Member Functions

- static vector< KMatrix > **vn1** (const KMatrix &m0, double s)
- static vector< KMatrix > **vn2** (const KMatrix &m0, double s)

Public Attributes

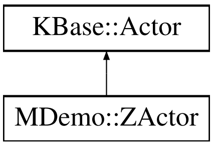
- function< double(const KMatrix &)> **eval** = nullptr
- function< vector< KMatrix >
  const KMatrix &, double)> **nghbrs** = nullptr
- function< void(const KMatrix &)> **report** = nullptr

The documentation for this class was generated from the following files:

- hcsearch.h
- hcsearch.cpp

3.35 MDemo::ZActor Class Reference

Inheritance diagram for MDemo::ZActor:



Public Member Functions

- **ZActor** (string n, string d)
- double **vote** (unsigned int p1, unsigned int p2, const State ∗st) const
- virtual double **vote** (const Position ∗ap1, const Position ∗ap2) const
- double **posUtil** (const Position ∗ap1) const

Additional Inherited Members

The documentation for this class was generated from the following files:

- zactor.h
- zactor.cpp