

**NAME**

writePolicyFile – Write policy data to a file

**SYNOPSIS**

```
#include <qnet.h>
```

```
int writePolicyFile(string path, int ndim, int decn, int trunc[], void* p, char* comment);
```

**DESCRIPTION**

The **writePolicyFile()** writes policy data for the entire state space to a file whose name is *path*. The dimension of the state space is *ndim*, the number of decisions for each state is *decn*, and the state space truncations are specified in *trunc[]*. The policy data to be saved is pointed to by *p* which should have been allocated with **makePolicyArray()**. If *comment* is not NULL then the character string it points to is written at the end of the file, otherwise a time-stamp is written.

**RETURN VALUE**

On success, the value **QNET\_NORMAL** (defined to be zero) is returned, otherwise one of the following negative values is returned (currently there is only one):

**QNET\_BAD\_FILE**

The output file could not be opened or written to.

**EXAMPLE**

Suppose that the policy data pointed to by *action* corresponds to a state space that has dimension *ndim* and *decn* decisions per state. The truncation values are given in *N[]* using the QNET convention that *N[0]* is not used (so *N[1]* is the truncation value for the first dimension). If no special comment is desired (the default is a time-stamp) then the policy data can be written to the file *policy.u* with

```
writePolicyFile(string("policy.u"), ndim, decn, &N[1], action, NULL);
```

If a comment is desired the last argument should be a pointer to the character string containing the comment:

```
char* comment = "Optimal policy computed using value iteration.";
writePolicyFile(string("policy.u"), ndim, decn, &N[1], action, comment);
```

**SEE ALSO**

**readPolicyFile(3)**, **makePolicyArray(3)**

**AUTHOR**

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