

NAME

`.dwrc` - connection information for D-Wave servers

SYNOPSIS

`$HOME/.dwrc` - required location

DESCRIPTION

Utilities from the D-Wave qOp package require users to first specify a connection to a D-Wave server. Servers can be either local or remote. Remote connections may or may not require specification of a proxy. To simplify the process of connecting, the `.dwrc` file summarizes connection data for a server and allows the user to provide a name for each connection.

Each line of the `.dwrc` file contains a connection name followed by a vertical bar (pipe) character, which separates the connection name from the connection data. Following the separator, one of three formats is allowed.

For local connections, the connection data should be the token "local". Here is an example of a line in the `.dwrc` file which defines a local connection named "laptop":

```
laptop|local
```

For remote connections that do not require a proxy, the connection data consists of two tokens separated by a comma. The first token is the URL and the second token is the user's Qubist token, which is created via the Qubist web interface. Here is an example of a line in the `.dwrc` file which defines a remote connection named "online":

```
online|http://qubist.dwavesys.com,Qubist-token-goes-here
```

For remote connections that require a proxy, the connection data consists of three tokens separated by commas. The first token is the URL, the second token is the user's Qubist token, and the third token is the URL of the proxy. Here is an example of a line in the `.dwrc` file which defines a remote connection named "private":

```
private|http://qubist.dwavesys.com,q-token,http://proxy.com
```

As a special case of this last format, the third token which normally specifies the URL for a proxy server can be left empty. This format disables auto detection of a proxy server. In this format the second comma in the connection data should be the last character on the line. For example:

```
noproxy|http://dw2x.organization.com,q-token,
```

The **.dwrc** file consists of one line per connection. Typical **.dwrc** files will contain two lines: one for a local connection and one for a remote connection, however there is no limit to the number of lines in the **.dwrc** file.

Several **dw** subcommands use the contents of the **.dwrc** file. When **dw set connection** is invoked with a single argument, that argument is taken to be a connection name. A lookup is performed against the **.dwrc** file and the first line that contains a matching connection name is parsed. The connection data from that line is placed into environment variables. Later processes with access to these environment variables can use the connection data to establish a connection to a D-Wave server.

When **dw get connection** is invoked and there is no current connection, the **.dwrc** file is parsed to obtain a list of available connections. The user is presented with the list. If the user chooses a connection from the list, the effect is the same as if the user had specified that connection name with a **dw set connection** command. The **dw get env** subcommand displays the environment variables (without the **DW_INTERNAL__** prefix) set as a side-effect of choosing a connection.

The format of the **.dwrc** file is inflexible. No spaces, blank lines, comments or other deviations from the above format are allowed. Each line of the **.dwrc** file ends with a newline character (on Unix) or a combination carriage return and newline character (on MinGW).

BUGS

Please report bugs to dwsupport@dwavesys.com.

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SEE ALSO

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