

Station
- _mID: int - _userName: string - _mStartTime: int - _mActiveTime: int - _mStoptTime: int - _mSubKey: size_t - _mBlocked: bool - _mAlive: bool
+gietBlocked(): bool +getTerminated(): bool +getID(): int +getUserName(): string +getActiveTime(): int +unblock(): void +block(): void +message(msg: string, senderID: int, senderName: string): void +terminate(cycle: int): void +updateTime(): void

Monitor
- _mNet: Network - _loginData: map<string, string> - _time: int - _randEngine: default_random_engine
+execute(command: netWorkCommandPOD, logFunction: const function<void(string)>): bool +getBlockedStations(): vector<int> +getActiveStations(): vector<int> +getTerminatedStations(): vector<int> +getAliveStations(): vector<int> +getAllStations(): vector<int> +getBlockedID(id: int): bool +getTerminatedID(id: int): bool +getUserName(id: int): string +getNetworkState(): deque<Station> +updateTime(): void

Simulator
<ul style="list-style-type: none"> <li>- _randEngine: default_random_engine</li> <li>- _currentCycle: unsigned int</li> <li>- _mMonitor: unique_ptr&lt;Monitor&gt;</li> <li>- _chanceAccumulators: vector&lt;float&gt;</li> <li>- _vecEventGenerators: vector&lt;uniform_real_distribution&lt;float&gt;&gt;</li> <li>- _phrases: vector&lt;string&gt;</li> <li>- _config: map&lt;configType, configValue&gt;</li> <li>- _loginDataSet: map&lt;string, string&gt;</li> <li>- _vOnStationsPerCycle: vector&lt;int&gt;</li> <li>- _logDesc: std::ofstream</li> </ul>
<ul style="list-style-type: none"> <li>-loop(): void</li> <li>-printStats(): void</li> <li>-manageEvent(type: configType): void</li> <li>+runSimulation(file: string): void</li> <li>+updateTime(): void</li> <li>+logEvent(string event): void</li> </ul>

Network
<ul style="list-style-type: none"> <li>- _mClients: deque&lt;Station&gt;</li> <li>- _time: int</li> <li>- _randEngine: default_random_engine *</li> <li>- _idGenerator: uniform_int_distribution &lt; int &gt;</li> </ul>
<ul style="list-style-type: none"> <li>+getBlockedStations(): vector&lt;int&gt;</li> <li>+getActiveStations(): vector&lt;int&gt;</li> <li>+getTerminatedStations(): vector&lt;int&gt;</li> <li>+getAliveStations(): vector&lt;int&gt;</li> <li>+getAllStations(): vector&lt;int&gt;</li> <li>+getBlockedID(id: int): bool</li> <li>+getTerminatedID(id: int): bool</li> <li>+getUserName(id: int): string</li> <li>+getNetworkState(): deque&lt;Station&gt;</li> <li>+broadcast(cmd: netWorkCommandPOD, onlyToBlocked: bool): void</li> <li>+command(cmd: netWorkCommandPOD): void</li> <li>+addStation(uname: string): int</li> <li>+updateTime(): void</li> </ul>

<b>ClockSubject</b>
- _randEngine: default_random_engine - randGaussian: uniform_int_distribution<size_t> - _mObservers: map<size_t>
+registerObserver(observer: function<void()>): size_t +unregisterObserver(obsID: size_t): void +notify(): void +get(): ClockSubject

<b>netWorkCommandPOD</b>
+type: enum +senderID: int +receiverID: int +time: int +senderName: string +msg: string