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# Hanyuu-sama Documentation

*Release 1.3*

**R/a/dio**

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Contents:



# HANYUU

## 1.1 hanyuu Package

### 1.1.1 hanyuu Package

#### 1.1.2 config Module

`hanyuu.config.get(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

`hanyuu.config.getfloat(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

`hanyuu.config.getint(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

`hanyuu.config.has_option(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

`hanyuu.config.has_section(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

`hanyuu.config.items(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

`hanyuu.config.load_configuration(filepaths)`  
Creates a new `ConfigParser.SafeConfigParser` and tries parsing all `filepaths` given.  
`filepaths` should be a list of filenames.

Returns nothing, instead assigns itself to the global variable `configuration` and abstracts itself by calling `create_abstractions()`

`hanyuu.config.options(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

`hanyuu.config.reload_configuration()`  
Creates a new `ConfigParser.SafeConfigParser` and passes it the same filenames as given in the last call to `load_configuration()`.  
This effectively ‘reloads’ the configuration files.

`hanyuu.config.sections(*args, **kwargs)`  
See `ConfigParser.RawConfigParser`

### 1.1.3 `utils` Module

**class** `hanyuu.utils.Switch` (*initial*, *timeout=15*)

Bases: `object`

A timed switch. Evaluates truthy if the time has expired, else falsy.

**reset** (*timeout=15*)

### 1.1.4 Subpackages

#### abstractions Package

##### abstractions Package

package to abstract the database from the rest of the code.

**For users:** submodules are grouped by their overarching thema such as DJ profiles and users in the same submodule, track information in the same submodule, AFK streamer information in the same submodule, etc.

**For developers:** submodules should be of the grouping type where closely related data structures are placed together in a module.

##### tracks Module

**class** `hanyuu.abstractions.tracks.Length`

Bases: `int`

A simple subclass of `int` to support formatting on it without having to know the exact format or value in the rest of the code.

**format** ()

**Returns unicode** A formatted [hh:]mm:nn string of the integer.

**exception** `hanyuu.abstractions.tracks.NoTrackEntry`

Bases: `exceptions.Exception`

Raised when a `Song` instance accesses `Track` only attributes without having an audio file attached to it.

**class** `hanyuu.abstractions.tracks.Plays` (*song*, *sequence*)

Bases: `list`

A simple subclass of `list` to support some extra attributes.

This class is returned when you access `Track.plays` and is a collection of play times of the `Track` in question.

The collection contains `datetime.datetime` objects or objects that act the same as such with extra methods (for future additions).

**add** (*time*, *dj=None*)

Adds a played entry to the `Track` object.

The exact time it was played at. :params *time*: A `datetime.datetime` instance.

The DJ that played this track at the time. :params *dj*: A `hanyuu.abstractions.users.DJ` instance.

**Returns None**



---

**Note:** It's good practice to add the DJ argument to all the code already.

The current database however ignores this argument.

---

**last**

**Returns** The time that last occurred.

**Return type** `datetime.datetime` object.

**remove** (*time*, *dj=None*)

Removes a played entry from the `Track` object.

The time this was played at. :params *time*: A `datetime.datetime` instance.

The DJ that played this track at the time. If this is `None` it will be ignored otherwise it will be used for exact matching. :params *dj*: A `hanyuu.abstractions.users.DJ` instance.

**Returns** `None`

---

**Note:** Currently the *dj* argument is completely ignored.

---

**save** ()

Saves changes to the database.

**class** `hanyuu.abstractions.tracks.Requests`

Bases: `list`

A simple subclass of `list` to support some extra attributes.

**last**

**Returns** The time that last occurred.

**Return type** `datetime.datetime` object.

**class** `hanyuu.abstractions.tracks.Track` (*meta*, *\*\*kwargs*)

Bases: `object`

An instance of a known track in our database. This can also be used for adding new tracks.

A 'known' track is one we have seen before. This means there is no difference between tracks we have an audio file of and ones we only know metadata of. The object easily allows you to check if it has a corresponding audio file available or not.

**artist**

**Returns** The artist of this song.

**Return type** `unicode`

**filename**

**Returns** `unicode` The filename of the audio file.

**Raises** `NoTrackEntry` if the song has no audio file.

---

**Note:** This is relative to the configured *media.directory* configuration.

---

**filepath**

**Returns** `unicode` The full path to the audio file.

**Raises** `NoTrackEntry` if the song has no audio file.

**classmethod** `from_esong_id(id)`

Returns an instance based on the *esong* table ID.

**Warning:** Don't use this method in production code.

**classmethod** `from_track_id(id)`

Returns an instance based on the *tracks* table ID.

**Warning:** Don't use this method in production code.

**length**

**Returns** Length of the song or 0 if none available.

**Return type** `Length`

---

**Note:** The song length is only 100% accurate if the song has an audio file available. Otherwise it's an approximation from when it was last played.

---

**metadata**

**Returns** A metadata string of '[artist -] title' where artist is optional

**Return type** unicode

---

**Note:** This uses the *tracks* table if available before trying the other table.

---

**open** (*\*args*, *\*\*kwargs*)

Opens the associated file and returns a file object.

This handles the path finding for you.

**Params unicode mode** The mode to be passed to the `open()` call.

**Returns** An open file object.

**Raises** `NoTrackEntry` if the song has no audio file.

**plays**

**Returns** A mutable object with all the playing data in it.

**Return type** `Plays`

**requests**

**Returns** A mutable objects with all request data in it.

**Return type** `Requests`

**Raises** `NoTrackEntry` if the song has no audio file.

**save()**

Saves all the changes done so far on this object into the database.

---

**Note:** This method can do multiple queries to the database depending on the changes done on the object.

---

**title**

**Returns** The title of this song.

**Return type** unicode

`hanyuu.abstractions.tracks.create_metadata_string(track)`

Creates a '[artist -] title' string of the `hanyuu.db.models.Track` instance.

`hanyuu.abstractions.tracks.requires_track(func)`

Decorator that raises `NoTrackEntry` if the song instance has no associated audio file in the database.

Currently this only checks if `self._track` is falsy.

## users Module

A module used for the abstractions of the users part of the database.

**class** `hanyuu.abstractions.users.DJ(id=None, name=None)`

Bases: `object`

Encapsulates the concept of a DJ in our system.

This abstracts the database from the rest of the code. But does return a database related object since it's a simple one.

**classmethod** `resolve_id(id)`

Resolves a DJ identifier to a DJ username.

Returns a class instance or raises `DoesNotExist`

**classmethod** `resolve_name(name)`

Resolves a DJ username to a DJ identifier.

Returns an integer that is the DJ identifier or 0 if the DJ username does not exist.

## db Package

### db Package

#### common Module

#### legacy Module

#### models Module

**class** `hanyuu.db.models.Base(*args, **kwargs)`

Bases: `peewee.Model`

Simple base class to inherit from so all the other models inherit the database connection used.

**DoesNotExist**

alias of `BaseDoesNotExist`

**id** = `<peewee.PrimaryKeyField object at 0x3204590>`

**class** `hanyuu.db.models.DJ(*args, **kwargs)`

Bases: `hanyuu.db.models.Base`

Models the legacy *djs* table.

```
DoesNotExist
    alias of DJDoesNotExist

css = <peewee.CharField object at 0x3204850>
description = <peewee.TextField object at 0x3204750>
id = <peewee.PrimaryKeyField object at 0x3204650>
image = <peewee.TextField object at 0x3204790>
name = <peewee.CharField object at 0x3204710>
priority = <peewee.IntegerField object at 0x3204810>
queue
user
visible = <peewee.IntegerField object at 0x32047d0>

class hanyuu.db.models.Fave (*args, **kwargs)
    Bases: hanyuu.db.models.Base
    Models the legacy efave table.

    DoesNotExist
        alias of FaveDoesNotExist

    id = <peewee.PrimaryKeyField object at 0x3252b50>
    nickname = <peewee.ForeignKeyField object at 0x3252d10>
    song = <peewee.ForeignKeyField object at 0x3252d50>

class hanyuu.db.models.LastFm (*args, **kwargs)
    Bases: hanyuu.db.models.Base
    Models the legacy lastfm table.

    DoesNotExist
        alias of LastFmDoesNotExist

    id = <peewee.PrimaryKeyField object at 0x32520d0>
    nick = <peewee.CharField object at 0x3252190>
    username = <peewee.CharField object at 0x32521d0>

class hanyuu.db.models.NickRequest (*args, **kwargs)
    Bases: hanyuu.db.models.Base
    Models the legacy nickrequesttime table.

    DoesNotExist
        alias of NickRequestDoesNotExist

    host = <peewee.TextField object at 0x3204ed0>
    id = <peewee.PrimaryKeyField object at 0x3204c90>
    time = <peewee.DateTimeField object at 0x3204f10>

class hanyuu.db.models.Nickname (*args, **kwargs)
    Bases: hanyuu.db.models.Base
    Models the legacy enick table.
```

```

DoesNotExist
    alias of NicknameDoesNotExist

authcode = <peewee.CharField object at 0x3252490>

dtb = <peewee.DateTimeField object at 0x3252450>

faves

first_seen = <peewee.DateTimeField object at 0x3252410>

id = <peewee.PrimaryKeyField object at 0x3252250>

nickname = <peewee.CharField object at 0x32523d0>

class hanyuu.db.models.Play (*args, **kwargs)
    Bases: hanyuu.db.models.Base

    Models the legacy eplay table.

    DoesNotExist
        alias of PlayDoesNotExist

    id = <peewee.PrimaryKeyField object at 0x3252890>

    song = <peewee.ForeignKeyField object at 0x3252a90>

    time = <peewee.DateTimeField object at 0x3252ad0>

class hanyuu.db.models.Queue (*args, **kwargs)
    Bases: hanyuu.db.models.Base

    Models the new design queue table.

    DoesNotExist
        alias of QueueDoesNotExist

    dj = <peewee.ForeignKeyField object at 0x3255990>

    id = <peewee.PrimaryKeyField object at 0x32553d0>

    ip = <peewee.TextField object at 0x3255950>

    song = <peewee.ForeignKeyField object at 0x32558d0>

    time = <peewee.DateTimeField object at 0x3255890>

    track = <peewee.ForeignKeyField object at 0x3255910>

    type = <peewee.IntegerField object at 0x3255850>

class hanyuu.db.models.Relay (*args, **kwargs)
    Bases: hanyuu.db.models.Base

    Models the legacy relays table.

    DoesNotExist
        alias of RelayDoesNotExist

    active = <peewee.IntegerField object at 0x3255fd0>

    base_name = <peewee.CharField object at 0x3255dd0>

    bitrate = <peewee.IntegerField object at 0x3255e90>

    country = <peewee.CharField object at 0x3256090>

    disabled = <peewee.IntegerField object at 0x32560d0>

```

**format** = <peewee.CharField object at 0x3255ed0>  
**id** = <peewee.PrimaryKeyField object at 0x3255a10>  
**listener\_limit** = <peewee.IntegerField object at 0x3255f90>  
**listeners** = <peewee.IntegerField object at 0x3255f50>  
**mountpoint** = <peewee.CharField object at 0x3255e50>  
**owner** = <peewee.CharField object at 0x3255d90>  
**passcode** = <peewee.CharField object at 0x3256050>  
**port** = <peewee.IntegerField object at 0x3255e10>  
**priority** = <peewee.IntegerField object at 0x3255f10>  
**subdomain** = <peewee.CharField object at 0x3255d50>

**class** hanyuu.db.models.**Song** (\*args, \*\*kwargs)

Bases: hanyuu.db.models.Base

Models the legacy *esong* table.

**DoesNotExist**

alias of SongDoesNotExist

**faves**

**classmethod from\_meta** (metadata)

Returns the first match found of metadata

**Params unicode metadata** A string of metadata.

**Returns** Song instance.

**Raises** Song.DoesNotExist if no result was found.

---

**Note:** This currently does no pre-fetching of the faves and plays

---

**hash** = <peewee.CharField object at 0x3252750>

**hash\_link** = <peewee.CharField object at 0x3252810>

**id** = <peewee.PrimaryKeyField object at 0x3252690>

**length** = <peewee.IntegerField object at 0x3252790>

**meta** = <peewee.TextField object at 0x32527d0>

**plays**

**classmethod query\_from\_meta** (metadata)

Returns the first match found of metadata

**Params unicode metadata** A string of metadata.

**Returns** peewee.SelectQuery instance.

---

**Note:** This currently does no pre-fetching of the faves and plays

---

**queued**

```

class hanyuu.db.models.Track(*args, **kwargs)
    Bases: hanyuu.db.models.Base

    Models the legacy tracks table.

    DoesNotExist
        alias of TrackDoesNotExist

    acceptor = <peewee.CharField object at 0x3255210>
    album = <peewee.CharField object at 0x3255090>
    artist = <peewee.CharField object at 0x3252fd0>
    filename = <peewee.TextField object at 0x32550d0>
    classmethod from_meta(metadata)
        Returns the first match found of metadata

        Params unicode metadata A string of metadata.

        Returns Track instance.

    hash = <peewee.CharField object at 0x3255290>
    id = <peewee.PrimaryKeyField object at 0x3252dd0>
    last_editor = <peewee.CharField object at 0x3255250>
    last_played = <peewee.DateTimeField object at 0x3255150>
    last_requested = <peewee.DateTimeField object at 0x3255190>
    needs_reupload = <peewee.IntegerField object at 0x3255350>
    priority = <peewee.IntegerField object at 0x32552d0>
    queued
    request_count = <peewee.IntegerField object at 0x3255310>
    search_tags = <peewee.TextField object at 0x3255110>
    title = <peewee.CharField object at 0x3255050>
    usable = <peewee.IntegerField object at 0x32551d0>

class hanyuu.db.models.User(*args, **kwargs)
    Bases: hanyuu.db.models.Base

    Models the legacy users table.

    DoesNotExist
        alias of UserDoesNotExist

    dj = <peewee.ForeignKeyField object at 0x3204bd0>
    id = <peewee.PrimaryKeyField object at 0x32048d0>
    name = <peewee.CharField object at 0x3204b50>
    password = <peewee.CharField object at 0x3204b90>
    privileges = <peewee.IntegerField object at 0x3204c10>

```

## ircbot Package

ircbot Package

commands Module

## Subpackages

irclib Package

irclib Package

## connection Module

**class** hanyuu.ircbot.irclib.connection.**Connection** (*irclibobj*)

Bases: object

Base class for IRC connections.

Must be overridden.

**execute\_at** (*at, function, arguments=()*)

Executes a function at a specified time.

**See Also:**

`session.Session.execute_at()`

**execute\_delayed** (*delay, function, arguments=()*)

Executes a function after a specified number of seconds.

**See Also:**

`session.Session.execute_delayed()`

**class** hanyuu.ircbot.irclib.connection.**Event** (*eventtype, source, target, arguments=None*)

Bases: hanyuu.ircbot.irclib.connection.Event

Class representing an IRC event.

**exception** hanyuu.ircbot.irclib.connection.**IRCErrror**

Bases: exceptions.Exception

Represents an IRC exception.

**class** hanyuu.ircbot.irclib.connection.**ServerConnection** (*irclibobj*)

Bases: hanyuu.ircbot.irclib.connection.Connection

This class represents an IRC server connection.

**action** (*target, action*)

Send a CTCP ACTION command.

**admin** (*server=u''*)

Send an ADMIN command.

**close** ()

Close the connection.

<p><b>Warning:</b> This method closes the connection permanently; after it has been called, the object is unusable.</p>
---



**connect** (*server, port, nickname, password=None, username=None, ircname=None, localaddress=u'', localport=0, ssl=False, ipv6=False, encoding=u'utf-8'*)  
Connect/reconnect to a server.

#### Parameters

- **server** – Server name.
- **port** – Port number.
- **nickname** – The nickname.
- **password** – IRC Password (if any).

---

**Note:** This is NOT the NickServ password; you have to send that manually.

---

- **username** – The IRC username.
- **ircname** – The IRC name ('realname').
- **localaddress** – Bind the connection to a specific local IP address.
- **localport** – Bind the connection to a specific local port.
- **ssl** – Enable support for ssl.
- **ipv6** – Enable support for ipv6.

This function can be called to reconnect a closed connection.

Returns the ServerConnection object.

**ctcp** (*ctcptype, target, parameter=u''*)  
Send a CTCP command.

**ctcp\_reply** (*target, parameter*)  
Send a CTCP REPLY command.

**disconnect** (*message=u''*)  
Hang up the connection.

**get\_nickname** ()  
Get the (real) nick name.

This method returns the (real) nickname. The library keeps track of nick changes, so it might not be the nick name that was passed to the connect() method.

**get\_server\_name** ()  
Get the (real) server name.

This method returns the (real) server name, or, more specifically, what the server calls itself.

**get\_topic** (*channel*)  
Return the topic of a channel.

---

**Note:** You must be joined to the channel in order to get the topic.

---

**globops** (*text*)  
Send a GLOBOPS command.

**hasaccess** (*channel, nick*)  
Check if nick is halfop or higher

**hasanymodes** (*channel, nick, modes*)  
Check if nick has any of the specified modes on a channel.

**inchannel** (*channel, nick*)  
Check if nick is in channel

**info** (*server=u''*)  
Send an INFO command.

**invite** (*nick, channel*)  
Send an INVITE command.

**is\_channel** (*string*)  
Check if a string is a channel name.  
  
Returns True if the argument is a channel name, otherwise False.

**is\_connected** ()  
Return connection status.  
  
Returns True if connected, otherwise False.

**is\_identified** (*nick*)  
Checks if a user has identified for their Nickname via NickServ returns boolean

**ishop** (*channel, nick*)  
Check if nick is half operator on a channel.

**isnormal** (*channel, nick*)  
Check if nick is a normal on a channel.

**ison** (*nicks*)  
Send an ISON command.

**isop** (*channel, nick*)  
Check if nick is operator or higher on a channel.

**isvoice** (*channel, nick*)  
Check if nick has voice on a channel.

**join** (*channel, key=u''*)  
Send a JOIN command.

**kick** (*channel, nick, comment=u''*)  
Send a KICK command.

**links** (*remote\_server=u'', server\_mask=u''*)  
Send a LINKS command.

**list** (*channels=None, server=u''*)  
Send a LIST command.

**lusers** (*server=u''*)  
Send a LUSERS command.

**mode** (*target, command*)  
Send a MODE command.

**motd** (*server=u''*)  
Send an MOTD command.

**names** (*channels=None*)  
Send a NAMES command.

**nick** (*newnick*)  
Send a NICK command.

**notice** (*target, text*)  
Send a NOTICE command.

**oper** (*nick, password*)  
Send an OPER command.

**part** (*channels, message=u''*)  
Send a PART command.

**pass\_** (*password*)  
Send a PASS command.

**ping** (*target, target2=u''*)  
Send a PING command.

**pong** (*target, target2=u''*)  
Send a PONG command.

**privmsg** (*target, text*)  
Send a PRIVMSG command.

**privmsg\_many** (*targets, text*)  
Send a PRIVMSG command to multiple targets.

**process\_data** ()  
Processes incoming data and dispatches handlers.  
Only for internal use.

**quit** (*message=u''*)  
Send a QUIT command.

---

**Note:** This is not the same as `disconnect()`.

---



---

**Note:** Many IRC servers don't use your quit message unless you've been connected for at least 5 minutes.

---

**reconnect** (*message=u''*)  
Disconnect and connect with same parameters

**send\_raw** (*string*)  
Send raw string to the server.  
  
The string will be padded with appropriate CR LF.

**send\_raw\_instant** (*string*)  
Send raw string to the server, bypassing the flood protection.

**squit** (*server, comment=u''*)  
Send an SQUIT command.

**stats** (*statstype, server=u''*)  
Send a STATS command.

**time** (*server=u''*)  
Send a TIME command.

**topic** (*channel, new\_topic=None*)  
Send a TOPIC command.

**trace** (*target=u''*)  
Send a TRACE command.

**user** (*username, realname*)  
Send a USER command.

**userhost** (*nicks*)  
Send a USERHOST command.

**users** (*server=u''*)  
Send a USERS command.

**version** (*server=u''*)  
Send a VERSION command.

**wallops** (*text*)  
Send a WALLOPS command.

**who** (*target=u'', op=u''*)  
Send a WHO command.

**whois** (*targets*)  
Send a WHOIS command.

**howas** (*nick, max=u'', server=u''*)  
Send a WHOWAS command.

**exception** hanyuu.ircbot.irclib.connection.**ServerConnectionError**  
Bases: hanyuu.ircbot.irclib.connection.IRCError

**exception** hanyuu.ircbot.irclib.connection.**ServerNotConnectedError**  
Bases: hanyuu.ircbot.irclib.connection.ServerConnectionError

## dcc Module

**class** hanyuu.ircbot.irclib.dcc.**DCCConnection** (*irclibobj, dcctype, dccinfo=(None, 0)*)  
Bases: hanyuu.ircbot.irclib.connection.Connection

This class represents a DCC connection.

DCCConnection objects are instantiated by calling `session.Session.dcc()`.

For usage, see `connect()` and `listen()`.

**connect** (*address, port*)  
Connect/reconnect to a DCC peer.

### Parameters

- **address** – Host/IP address of the peer.
- **port** – The port number to connect to.

Returns the DCCConnection object.

**disconnect** (*message=u''*)  
Hang up the connection and close the object.

**Parameters** **message** – Quit message.

---

**Note:** After calling this method, the object becomes unusable.

---

**listen()**

Wait for a connection/reconnection from a DCC peer.

Returns the DCCConnection object.

The local IP address and port are available as `localaddress` and `localport`. After connection from a peer, the peer address and port are available as `peeraddress` and `peerport`.

**privmsg(*string*)**

Send data to DCC peer.

The string will be padded with appropriate LF if it's a DCC CHAT session.

**process\_data()**

[Internal]

**exception** `hanyuu.ircbot.irclib.dcc.DCCConnectionError`

Bases: `hanyuu.ircbot.irclib.connection.IRCError`

**session Module** A high level session object to the lower level `irclib.connection` module.

**class** `hanyuu.ircbot.irclib.session.HighEvent(server, command, nickname, channel, message)`

Bases: `object`

A abstracted event of the IRC library.

**classmethod** `from_low_event(server, low_event)`

Generates a high level event from a low level one.

**class** `hanyuu.ircbot.irclib.session.Nickname(host, nickname_only=False)`

Bases: `object`

A simple class that represents a nickname on IRC.

Contains information such as actual nickname, hostmask and more.

**class** `hanyuu.ircbot.irclib.session.Session(encoding=u'utf-8', handle_ctcp=True)`

Class that handles one or several IRC server connections.

When a Session object has been instantiated, it can be used to create Connection objects that represent the IRC connections. The responsibility of the Session object is to provide a high-level event-driven framework for the connections and to keep the connections alive. It runs a select loop to poll each connection's TCP socket and hands over the sockets with incoming data for processing by the corresponding connection. It then encapsulates the low level IRC events generated by the Connection objects into higher level versions.

**ctcp\_source = None**

Used to respond to CTCP SOURCE messages.

**ctcp\_version = None**

Used to respond to CTCP VERSION messages.

**dcc(*dcctype=u'chat', dccinfo=(None, 0)*)**

Creates and returns a `dcc.DCCConnection` object.

**Parameters** `dcctype` – “chat” for DCC CHAT connections or “raw” for DCC SEND (or other DCC types). If “chat”, incoming data will be split in newline-separated chunks. If “raw”, incoming data is not touched.

**disconnect\_all(*message=u''*)**

Disconnects all connections.

**Parameters** `message` – The quit message to send to servers.

**execute\_at** (*at, function, arguments=()*)

Execute a function at a specified time.

**Parameters**

- **at** – Time to execute at (standard “time\_t” time).
- **function** – The function to call.
- **arguments** – Arguments to give the function.

**execute\_delayed** (*delay, function, arguments=()*)

Execute a function after a specified time.

**Parameters**

- **delay** – How many seconds to wait.
- **function** – The function to call.
- **arguments** – Arguments to give the function.

**handlers** = {}

**process\_data** (*sockets*)

Called when there is more data to read on connection sockets.

**Parameters** **sockets** – A list of socket objects to be processed.

**process\_forever** (*timeout=0.2*)

Run an infinite loop, processing data from connections.

This method repeatedly calls `process_once()`.

**Parameters** **timeout** – Parameter to pass to `process_once`.

**process\_once** (*timeout=0*)

Process data from connections once.

**Parameters** **timeout** – How long the `select()` call should wait if no data is available.

This method should be called periodically to check and process incoming and outgoing data, if there is any.

It calls `process_data()`, `_send_once()` and `process_timeout()`.

It will also examine when we last received data from the server; if it exceeds a specified time limit, the Session assumes that we have lost connection to the server and will attempt to reconnect us.

If calling it manually seems boring, look at the `process_forever()` method.

**process\_timeout** ()

This is called to process any delayed commands that are registered to the Session object.

**See Also:**

`process_once()`

**register\_socket** (*socket, conn*)

Internal method used to map the sockets on `connection.Connection` to the connections themselves.

**server** ()

Creates and returns a `connection.ServerConnection` object.

`hanyuu.ircbot.irclib.session.event_handler` (*events, channels=[], nicks=[], modes=u'',  
regex=u''*)

The decorator for high level event handlers. By decorating a function with this, the function is registered in the global Session event handler list, `Session.handlers`.

**Parameters**

- **events** – The events that the handler should subscribe to. This can be both a string and a list; if a string is provided, it will be added as a single element in a list of events. This rule applies to *channels* and *nicks* as well.
- **channels** – The channels that the events should trigger on. Given an empty list, all channels will trigger the event.
- **nicks** – The nicknames that this handler should trigger for. Given an empty list, all nicknames will trigger the event.
- **modes** – The required channel modes that are needed to trigger this event. If an empty mode string is specified, no modes are needed to trigger the event.
- **regex** – The event will only be triggered if the `HighEvent.message` matches the specified regex. If no regex is specified, any `HighEvent.message` will do.

```
hanyuu.ircbot.irclib.session.high_level_events = [u'connect', u'text', u'join', u'part', u'kick', u'quit', u'mod
```

All the high level events that we can register to. Low level events that aren't on this list can be registered to as well, but they will not be parsed.

**tracker Module** Module that contains all the classes required to track channels, nicknames modes and other related stuff.

**class** `hanyuu.ircbot.irclib.tracker.IRCTracker`

This class is used to track nicknames, channels, and the modes that are associated to nicknames on channels. It also tracks channel topics.

This tracker uses an internal Sqlite database to store its information.

**add\_mode** (*chan, nick, mode*)

Sets 'mode' on 'nick' in the channel 'chan'.

**close** ()

Closes the Sqlite connection.

**execute** (*query*)

Executes a Sqlite query and returns the results.

**has\_chan** (*chan*)

Returns True if the tracker is familiar with the channel 'chan'.

**has\_modes** (*chan, nick, modes, operator=u'and'*)

Returns true if the nickname 'nick' has the modes 'modes' in the channel 'chan'.

Based on the value of 'operator', the return value is different; if the operator is 'and', the nickname must have ALL of the specified modes. If the operator is 'or', the nickname must have ANY of the specified modes.

**has\_nick** (*nick*)

Returns True if the tracker is familiar with the nickname 'nick'.

**in\_chan** (*chan, nick*)

Returns true if the nickname 'nick' is in the channel 'chan'.

**join** (*chan, nick*)

Tells the tracker that the nickname 'nick' joined 'chan'.

**nick** (*nick, newnick*)

Tells the tracker that the nickname 'nick' has changed to 'newnick'.

**part** (*chan, nick*)

Tells the tracker that the nickname ‘nick’ left ‘chan’.

**quit** (*nick*)

Tells the tracker that the nickname ‘nick’ has left the server.

**rem\_mode** (*chan, nick, mode*)

Unsets ‘mode’ on ‘nick’ in the channel ‘chan’

**topic** (*chan, topic=None*)

If ‘topic’ is None, this gets the topic in the channel ‘chan’.

Otherwise, the topic will be set to ‘topic’.

**class** hanyuu.ircbot.irclib.tracker.**SqliteCursor** (*conn*)

A simple Sqlite cursor.

### utils Module

**hanyuu.ircbot.irclib.utils.ip\_numstr\_to\_quad** (*num*)

Convert an IP number as an integer given in ASCII representation (e.g. ‘3232235521’) to an IP address string (e.g. ‘192.168.0.1’).

**hanyuu.ircbot.irclib.utils.ip\_quad\_to\_numstr** (*quad*)

Convert an IP address string (e.g. ‘192.168.0.1’) to an IP number as an integer given in ASCII representation (e.g. ‘3232235521’).

**hanyuu.ircbot.irclib.utils.irc\_lower** (*s*)

Returns a lowercased string.

The definition of lowercased comes from the IRC specification (RFC 1459).

**hanyuu.ircbot.irclib.utils.mask\_matches** (*nick, mask*)

Check if a nick matches a mask.

Returns True if the nick matches, otherwise False.

**hanyuu.ircbot.irclib.utils.nick\_characters** = u’abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ

The characters that are permitted in IRC nicknames

**hanyuu.ircbot.irclib.utils.nm\_to\_h** (*s*)

Get the host part of a nickmask.

(The source of an `connection.Event` is a nickmask.)

**hanyuu.ircbot.irclib.utils.nm\_to\_n** (*s*)

Get the nick part of a nickmask.

(The source of an `connection.Event` is a nickmask.)

**hanyuu.ircbot.irclib.utils.nm\_to\_u** (*s*)

Get the user part of a nickmask.

(The source of an `connection.Event` is a nickmask.)

**hanyuu.ircbot.irclib.utils.nm\_to\_uh** (*s*)

Get the userhost part of a nickmask.

(The source of an `connection.Event` is a nickmask.)



## listener Package

`listener` Package

## requests Package

`requests` Package

`hanyuu.requests.songdelay` (*val*)

Gives the time delay in seconds for a specific song request count.

## Subpackages

`servers` Package

`servers` Package

`fastcgi` Module

## status Package

`status` Package

**class** `hanyuu.status.Base`

Bases: `object`

Simple base class that sets the attribute `:attr:cache` to a `:class:memcache.Client` ready to be used.

**cache**

**class** `hanyuu.status.Site`

Bases: `hanyuu.status.Base`

Object that encapsulates state of the website.

**dj**

Returns the current DJ that is live.

Returns a `abstractions.users.DJ` object.

**thread**

Returns the current thread URL.

Returns a `unicode` string or `None`

**class** `hanyuu.status.Stream`

Bases: `hanyuu.status.Base`

Wrapping class around the memcache server and variables relevant to the status of the streaming server.

**current**

Gets the current song metadata playing on the master server.

Returns a `unicode` object.

### **listeners**

Returns the total amount of listeners as an integer.

This is the listeners combined from all relay servers.

### **online**

Returns if the master server is online or not.

Returns a boolean type.

### **peak\_listeners**

**class** `hanyuu.status.Streamer`

Bases: `hanyuu.status.Base`

Object that encapsulates state of the AFK streamer.

### **requests\_enabled**

Returns a bool indicating if the AFK streamer accepts requests.

This is False if either Requests got disabled explicitly or the AFK streamer is not streaming at the moment.

`hanyuu.status.memcache_client()`

Returns a `pylibmc.Client` object.

## **streamstatus Module**

## **streamer Package**

## **streamer Package**

## **afkstreamer Module**

## **Subpackages**

## **audio Package**

## **audio Package**

## **encoder Module**

## **files Module**

## **icecast Module**

## **Subpackages**

## **garbage Package**

## **garbage Package**

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