

---

# **irctk Documentation**

***Release 0.2.0***

**Kyle Fuller**

**Mar 27, 2021**



---

## Contents

---

|          |                            |           |
|----------|----------------------------|-----------|
| <b>1</b> | <b>Client</b>              | <b>3</b>  |
| <b>2</b> | <b>Message</b>             | <b>5</b>  |
| <b>3</b> | <b>Nick</b>                | <b>7</b>  |
| <b>4</b> | <b>Channel</b>             | <b>9</b>  |
| <b>5</b> | <b>Support</b>             | <b>11</b> |
| <b>6</b> | <b>Numerics</b>            | <b>13</b> |
| 6.1      | RFC1459 . . . . .          | 13        |
| <b>7</b> | <b>Indices and tables</b>  | <b>17</b> |
|          | <b>Python Module Index</b> | <b>19</b> |
|          | <b>Index</b>               | <b>21</b> |



Contents:



# CHAPTER 1

---

## Client

---

```
class irctk.client.Client (nickname: str = 'irctk', ident: str = 'irctk', realname: str = 'irctk',  
                           password: str = None)
```

```
>>> client = Client(nickname='example')
```

**channel\_class**

alias of `irctk.channel.Channel`

**connect** (host: str, port: int, use\_tls: bool = False, loop=None)

Connect to the IRC server

**irc\_equal** (lhs: str, rhs: str) → bool

Determine if two strings are IRC equal.

**quit** (message: str = 'Disconnected')

Disconnects from IRC and closes the connection. Accepts an optional reason.

**send** (message\_or\_command, \*parameters, colon: bool = False)

Send an IRC message

```
>>> client.send('JOIN', '#example')
```

**send\_join** (channel, key: str = None)

Sends a JOIN channel command.

```
>>> client.send_join('#palaver')
```

**send\_line** (line: str)

Sends a raw line to IRC

Example:

```
>>> client.send_line('PRIVMSG kylef :Hey!')
```

**send\_part** (channel)

Sends a PART channel command.

```
>>> client.send_part('#palaver')
```

**send\_privmsg** (*target, message: str*)

Sends a private message to a target.

Example:

```
>>> client.send_privmsg('kyle', 'Hi')
>>> client.send_privmsg(channel, 'Hi')
```

## CHAPTER 2

---

### Message

---

```
class ircdk.message.Message (tags: List[ircdk.message.MessageTag] = None, prefix: str = None,
                             command: str = "", parameters: List[str] = None)
```

**get** (index: int) → Optional[str]  
Returns a parameter at index or None

```
>>> message = Message.parse('JOIN #example')
>>> message.get(0)
'#example'
>>> message.get(1)
```

**classmethod parse** (string: str)  
Parse an IRC line into a Message instance

```
>>> message = Message.parse(':doe!doe@example.com PRIVMSG #example :Hello_
↳World')
>>> message.prefix
'doe!doe@example.com'
>>> message.command
'PRIVMSG'
>>> message.parameters
['#example', 'Hello World']
```

```
class ircdk.message.MessageTag (vendor: str = None, name: str = None, value: str = None)
```



## CHAPTER 3

---

Nick

---

```
class irctk.nick.Nick (nick: str = "", ident: Optional[str] = "", host: Optional[str] = "")
```



## CHAPTER 4

---

### Channel

---

```
class irctk.channel.Channel (name: str)
```

Represents a channel

```
class irctk.channel.Membership (nick: irctk.nick.Nick, modes: List[str] = None)
```

Represents a nick membership inside a channel.

```
    has_mode (perm: str) → bool
```

Checks if the membership contains a user mode

```
    >>> membership.has_mode('o')
```



**class** `irctk.isupport.ISupport`

**case\_mapping**

Returns the case mapping.

Example:

```
>>> support.case_mapping
'rfc1459'
```

**channel\_prefixes**

Returns a list of channel prefixes.

Example:

```
>>> support.channel_prefixes
['#', '&']
```

**is\_channel** (*channel\_name*) → bool

Returns True if supplied channel name is a valid channel name.

Example:

```
>>> support.is_channel('#darkscience')
True

>>> support.is_channel('kylef')
False
```

**maximum\_channel\_length**

Returns the maximum length of a channel name.

Example:

```
>>> support.maximum_channel_length
200
```

**maximum\_nick\_length**

Returns the maximum length of a nickname.

Example:

```
>>> support.maximum_nick_length
9
```

### 6.1 RFC1459

#### 6.1.1 Error Replies

```
irctk.numerics.ERR_NOSUCHNICK = 401
irctk.numerics.ERR_NOSUCHSERVER = 402
irctk.numerics.ERR_NOSUCHCHANNEL = 403
irctk.numerics.ERR_CANNOTSENDTOCHAN = 404
irctk.numerics.ERR_TOOMANYCHANNELS = 405
irctk.numerics.ERR_WASNOSUCHNICK = 406
irctk.numerics.ERR_TOOMANYTARGETS = 407
irctk.numerics.ERR_NOORIGIN = 409
irctk.numerics.ERR_NORECIPIENT = 411
irctk.numerics.ERR_NOTEXTTOSEND = 412
irctk.numerics.ERR_NOTOPLEVEL = 413
irctk.numerics.ERR_WILDTOPLEVEL = 414
irctk.numerics.ERR_UNKNOWNCOMMAND = 421
irctk.numerics.ERR_NOMOTD = 422
irctk.numerics.ERR_NOADMININFO = 423
irctk.numerics.ERR_FILEERROR = 424
irctk.numerics.ERR_NONICKNAMEGIVEN = 431
irctk.numerics.ERR_ERRONEUSNICKNAME = 432
```

```
irctk.numerics.ERR_NICKNAMEINUSE = 433
irctk.numerics.ERR_NICKCOLLISION = 436
irctk.numerics.ERR_USERNOTINCHANNEL = 441
irctk.numerics.ERR_NOTONCHANNEL = 442
irctk.numerics.ERR_USERONCHANNEL = 443
irctk.numerics.ERR_NOLOGIN = 444
irctk.numerics.ERR_SUMMONDISABLED = 445
irctk.numerics.ERR_USERSDISABLED = 446
irctk.numerics.ERR_NOTREGISTERED = 451
irctk.numerics.ERR_NEEDMOREPARAMS = 461
irctk.numerics.ERR_ALREADYREGISTRED = 462
irctk.numerics.ERR_NOPERMFORHOST = 463
irctk.numerics.ERR_PASSWDMISMATCH = 464
irctk.numerics.ERR_YOUREBANNEDCREEP = 465
irctk.numerics.ERR_KEYSET = 467
irctk.numerics.ERR_CHANNELISFULL = 471
irctk.numerics.ERR_UNKNOWNMODE = 472
irctk.numerics.ERR_INVITEONLYCHAN = 473
irctk.numerics.ERR_BANNEDFROMCHAN = 474
irctk.numerics.ERR_BADCHANNELKEY = 475
irctk.numerics.ERR_NOPRIVILEGES = 481
irctk.numerics.ERR_CHANOPRIVSNEEDED = 482
irctk.numerics.ERR_CANTKILLSERVER = 483
irctk.numerics.ERR_NOOPERHOST = 491
irctk.numerics.ERR_UMODEUNKNOWNFLAG = 501
irctk.numerics.ERR_USERSDONTMATCH = 502
```

## 6.1.2 Command Responses

```
irctk.numerics.RPL_NONE = 300
irctk.numerics.RPL_USERHOST = 302
irctk.numerics.RPL_ISON = 303
irctk.numerics.RPL_AWAY = 301
irctk.numerics.RPL_UNAWAY = 305
irctk.numerics.RPL_NOWAWAY = 306
irctk.numerics.RPL_WHOSUSER = 311
irctk.numerics.RPL_WHOSSERVER = 312
```

```
irctk.numerics.RPL_WHOSOPERATOR = 313
irctk.numerics.RPL_WHOSIDLE = 317
irctk.numerics.RPL_ENDOFWHOIS = 318
irctk.numerics.RPL_WHOSCHANNELS = 319
irctk.numerics.RPL_WHOWASUSER = 314
irctk.numerics.RPL_ENDOFWHOWAS = 369
irctk.numerics.RPL_LISTSTART = 321
irctk.numerics.RPL_LIST = 322
irctk.numerics.RPL_LISTEND = 323
irctk.numerics.RPL_CHANNELMODEIS = 324
irctk.numerics.RPL_NOTOPIC = 331
irctk.numerics.RPL_TOPIC = 332
irctk.numerics.RPL_INVITING = 341
irctk.numerics.RPL_SUMMONING = 342
irctk.numerics.RPL_VERSION = 351
irctk.numerics.RPL_WHOREPLY = 352
irctk.numerics.RPL_ENDOFWHO = 315
irctk.numerics.RPL_NAMREPLY = 353
irctk.numerics.RPL_ENDOFNAMES = 366
irctk.numerics.RPL_LINKS = 364
irctk.numerics.RPL_ENDOFLINKS = 365
irctk.numerics.RPL_BANLIST = 367
irctk.numerics.RPL_ENDOFBANLIST = 368
irctk.numerics.RPL_INFO = 371
irctk.numerics.RPL_ENDOFINFO = 374
irctk.numerics.RPL_MOTDSTART = 375
irctk.numerics.RPL_MOTD = 372
irctk.numerics.RPL_ENDOFMOTD = 376
irctk.numerics.RPL_YOUREOPER = 381
irctk.numerics.RPL_REHASHING = 382
irctk.numerics.RPL_TIME = 391
irctk.numerics.RPL_USERSSTART = 392
irctk.numerics.RPL_USERS = 393
irctk.numerics.RPL_ENDOFUSERS = 394
irctk.numerics.RPL_NOUSERS = 395
irctk.numerics.RPL_TRACELINK = 200
```

irctk.numerics.RPL\_TRACECONNECTING = 201  
irctk.numerics.RPL\_TRACEHANDSHAKE = 202  
irctk.numerics.RPL\_TRACEUNKNOWN = 203  
irctk.numerics.RPL\_TRACEOPERATOR = 204  
irctk.numerics.RPL\_TRACEUSER = 205  
irctk.numerics.RPL\_TRACESERVER = 206  
irctk.numerics.RPL\_TRACENEWTYPE = 208  
irctk.numerics.RPL\_TRACELOG = 261  
irctk.numerics.RPL\_STATSLINKINFO = 211  
irctk.numerics.RPL\_STATSCOMMANDS = 212  
irctk.numerics.RPL\_STATSCLINE = 213  
irctk.numerics.RPL\_STATSNLIN = 214  
irctk.numerics.RPL\_STATSIKLINE = 215  
irctk.numerics.RPL\_STATSKLIN = 216  
irctk.numerics.RPL\_STATSYLIN = 218  
irctk.numerics.RPL\_ENDOFSTATS = 219  
irctk.numerics.RPL\_STATSLLIN = 241  
irctk.numerics.RPL\_STATSUPTIME = 242  
irctk.numerics.RPL\_STATSOLIN = 243  
irctk.numerics.RPL\_STATSHLIN = 244  
irctk.numerics.RPL\_UMODEIS = 221  
irctk.numerics.RPL\_LUSERCLIENT = 251  
irctk.numerics.RPL\_LUSEROP = 252  
irctk.numerics.RPL\_LUSERUNKNOWN = 253  
irctk.numerics.RPL\_LUSERCHANNELS = 254  
irctk.numerics.RPL\_LUSERME = 255  
irctk.numerics.RPL\_ADMINME = 256  
irctk.numerics.RPL\_ADMINLOC1 = 257  
irctk.numerics.RPL\_ADMINLOC2 = 258  
irctk.numerics.RPL\_ADMINEMAIL = 259

## CHAPTER 7

---

### Indices and tables

---

- `genindex`
- `modindex`
- `search`



### i

- `irctk.channel`, 9
- `irctk.client`, 3
- `irctk.isupport`, 11
- `irctk.message`, 5
- `irctk.nick`, 7
- `irctk.numerics`, 14



## C

case\_mapping (*irctk.isupport.ISupport attribute*), 11  
 Channel (*class in irctk.channel*), 9  
 channel\_class (*irctk.client.Client attribute*), 3  
 channel\_prefixes (*irctk.isupport.ISupport attribute*), 11  
 Client (*class in irctk.client*), 3  
 connect () (*irctk.client.Client method*), 3

## E

ERR\_ALREADYREGISTRED (*in module irctk.numerics*), 14  
 ERR\_BADCHANNELKEY (*in module irctk.numerics*), 14  
 ERR\_BANNEDFROMCHAN (*in module irctk.numerics*), 14  
 ERR\_CANNOTSENDTOCHAN (*in module irctk.numerics*), 13  
 ERR\_CANTKILLSERVER (*in module irctk.numerics*), 14  
 ERR\_CHANNELISFULL (*in module irctk.numerics*), 14  
 ERR\_CHANOPRIVSNEEDED (*in module irctk.numerics*), 14  
 ERR\_ERRONEUSNICKNAME (*in module irctk.numerics*), 13  
 ERR\_FILEERROR (*in module irctk.numerics*), 13  
 ERR\_INVITEONLYCHAN (*in module irctk.numerics*), 14  
 ERR\_KEYSET (*in module irctk.numerics*), 14  
 ERR\_NEEDMOREPARAMS (*in module irctk.numerics*), 14  
 ERR\_NICKCOLLISION (*in module irctk.numerics*), 14  
 ERR\_NICKNAMEINUSE (*in module irctk.numerics*), 13  
 ERR\_NOADMININFO (*in module irctk.numerics*), 13  
 ERR\_NOLOGIN (*in module irctk.numerics*), 14  
 ERR\_NOMOTD (*in module irctk.numerics*), 13  
 ERR\_NONICKNAMEGIVEN (*in module irctk.numerics*), 13  
 ERR\_NOOPERHOST (*in module irctk.numerics*), 14  
 ERR\_NOORIGIN (*in module irctk.numerics*), 13  
 ERR\_NOPERMFORHOST (*in module irctk.numerics*), 14  
 ERR\_NOPRIVILEGES (*in module irctk.numerics*), 14  
 ERR\_NORECIPIENT (*in module irctk.numerics*), 13  
 ERR\_NOSUCHCHANNEL (*in module irctk.numerics*), 13

ERR\_NOSUCHNICK (*in module irctk.numerics*), 13  
 ERR\_NOSUCHSERVER (*in module irctk.numerics*), 13  
 ERR\_NOTEXTTOSEND (*in module irctk.numerics*), 13  
 ERR\_NOTONCHANNEL (*in module irctk.numerics*), 14  
 ERR\_NOTOPLEVEL (*in module irctk.numerics*), 13  
 ERR\_NOTREGISTERED (*in module irctk.numerics*), 14  
 ERR\_PASSWDMISMATCH (*in module irctk.numerics*), 14  
 ERR\_SUMMONDISABLED (*in module irctk.numerics*), 14  
 ERR\_TOOMANYCHANNELS (*in module irctk.numerics*), 13  
 ERR\_TOOMANYTARGETS (*in module irctk.numerics*), 13  
 ERR\_UMODEUNKNOWNFLAG (*in module irctk.numerics*), 14  
 ERR\_UNKNOWNCOMMAND (*in module irctk.numerics*), 13  
 ERR\_UNKNOWNMODE (*in module irctk.numerics*), 14  
 ERR\_USERNOTINCHANNEL (*in module irctk.numerics*), 14  
 ERR\_USERONCHANNEL (*in module irctk.numerics*), 14  
 ERR\_USERSDISABLED (*in module irctk.numerics*), 14  
 ERR\_USERSDONTMATCH (*in module irctk.numerics*), 14  
 ERR\_WASNOSUCHNICK (*in module irctk.numerics*), 13  
 ERR\_WILDTOPLEVEL (*in module irctk.numerics*), 13  
 ERR\_YOUREBANNEDCREEP (*in module irctk.numerics*), 14

## G

get () (*irctk.message.Message method*), 5

## H

has\_mode () (*irctk.channel.Membership method*), 9

## I

irc\_equal () (*irctk.client.Client method*), 3  
 irctk.channel (*module*), 9  
 irctk.client (*module*), 3  
 irctk.isupport (*module*), 11  
 irctk.message (*module*), 5  
 irctk.nick (*module*), 7  
 irctk.numerics (*module*), 13, 14

`is_channel()` (*irctk.isupport.ISupport method*), 11  
`ISupport` (class in *irctk.isupport*), 11

## M

`maximum_channel_length` (*irctk.isupport.ISupport attribute*), 11  
`maximum_nick_length` (*irctk.isupport.ISupport attribute*), 12  
`Membership` (class in *irctk.channel*), 9  
`Message` (class in *irctk.message*), 5  
`MessageTag` (class in *irctk.message*), 5

## N

`Nick` (class in *irctk.nick*), 7

## P

`parse()` (*irctk.message.Message class method*), 5

## Q

`quit()` (*irctk.client.Client method*), 3

## R

`RPL_ADMINEMAIL` (in module *irctk.numerics*), 16  
`RPL_ADMINLOC1` (in module *irctk.numerics*), 16  
`RPL_ADMINLOC2` (in module *irctk.numerics*), 16  
`RPL_ADMINME` (in module *irctk.numerics*), 16  
`RPL_AWAY` (in module *irctk.numerics*), 14  
`RPL_BANLIST` (in module *irctk.numerics*), 15  
`RPL_CHANNELMODEIS` (in module *irctk.numerics*), 15  
`RPL_ENDOFBANLIST` (in module *irctk.numerics*), 15  
`RPL_ENDOFINFO` (in module *irctk.numerics*), 15  
`RPL_ENDOFLINKS` (in module *irctk.numerics*), 15  
`RPL_ENDOFMOTD` (in module *irctk.numerics*), 15  
`RPL_ENDOFNAMES` (in module *irctk.numerics*), 15  
`RPL_ENDOFSTATS` (in module *irctk.numerics*), 16  
`RPL_ENDOFUSERS` (in module *irctk.numerics*), 15  
`RPL_ENDOFWHO` (in module *irctk.numerics*), 15  
`RPL_ENDOFWHOIS` (in module *irctk.numerics*), 15  
`RPL_ENDOFWHOWAS` (in module *irctk.numerics*), 15  
`RPL_INFO` (in module *irctk.numerics*), 15  
`RPL_INVITING` (in module *irctk.numerics*), 15  
`RPL_ISON` (in module *irctk.numerics*), 14  
`RPL_LINKS` (in module *irctk.numerics*), 15  
`RPL_LIST` (in module *irctk.numerics*), 15  
`RPL_LISTEND` (in module *irctk.numerics*), 15  
`RPL_LISTSTART` (in module *irctk.numerics*), 15  
`RPL_LUSERCHANNELS` (in module *irctk.numerics*), 16  
`RPL_LUSERCLIENT` (in module *irctk.numerics*), 16  
`RPL_LUSERME` (in module *irctk.numerics*), 16  
`RPL_LUSEROP` (in module *irctk.numerics*), 16  
`RPL_LUSERUNKNOWN` (in module *irctk.numerics*), 16  
`RPL_MOTD` (in module *irctk.numerics*), 15  
`RPL_MOTDSTART` (in module *irctk.numerics*), 15

`RPL_NAMREPLY` (in module *irctk.numerics*), 15  
`RPL_NONE` (in module *irctk.numerics*), 14  
`RPL_NOTOPIC` (in module *irctk.numerics*), 15  
`RPL_NOUSERS` (in module *irctk.numerics*), 15  
`RPL_NOWAY` (in module *irctk.numerics*), 14  
`RPL_REHASHING` (in module *irctk.numerics*), 15  
`RPL_STATSCLINE` (in module *irctk.numerics*), 16  
`RPL_STATSCOMMANDS` (in module *irctk.numerics*), 16  
`RPL_STATSHLINE` (in module *irctk.numerics*), 16  
`RPL_STATSILINE` (in module *irctk.numerics*), 16  
`RPL_STATSKLINE` (in module *irctk.numerics*), 16  
`RPL_STATSLINKINFO` (in module *irctk.numerics*), 16  
`RPL_STATSLLINE` (in module *irctk.numerics*), 16  
`RPL_STATSNLN` (in module *irctk.numerics*), 16  
`RPL_STATSOLN` (in module *irctk.numerics*), 16  
`RPL_STATSUPTIME` (in module *irctk.numerics*), 16  
`RPL_STATSYLINE` (in module *irctk.numerics*), 16  
`RPL_SUMMONING` (in module *irctk.numerics*), 15  
`RPL_TIME` (in module *irctk.numerics*), 15  
`RPL_TOPIC` (in module *irctk.numerics*), 15  
`RPL_TRACECONNECTING` (in module *irctk.numerics*), 15  
`RPL_TRACEHANDSHAKE` (in module *irctk.numerics*), 16  
`RPL_TRACELINK` (in module *irctk.numerics*), 15  
`RPL_TRACELOG` (in module *irctk.numerics*), 16  
`RPL_TRACENEWTYPE` (in module *irctk.numerics*), 16  
`RPL_TRACEOPERATOR` (in module *irctk.numerics*), 16  
`RPL_TRACESERVER` (in module *irctk.numerics*), 16  
`RPL_TRACEUNKNOWN` (in module *irctk.numerics*), 16  
`RPL_TRACEUSER` (in module *irctk.numerics*), 16  
`RPL_UMODEIS` (in module *irctk.numerics*), 16  
`RPL_UNAWAY` (in module *irctk.numerics*), 14  
`RPL_USERHOST` (in module *irctk.numerics*), 14  
`RPL_USERS` (in module *irctk.numerics*), 15  
`RPL_USERSSTART` (in module *irctk.numerics*), 15  
`RPL_VERSION` (in module *irctk.numerics*), 15  
`RPL_WHOSCHANNELS` (in module *irctk.numerics*), 15  
`RPL_WHOSIDLE` (in module *irctk.numerics*), 15  
`RPL_WHOSISOPERATOR` (in module *irctk.numerics*), 14  
`RPL_WHOSISSERVER` (in module *irctk.numerics*), 14  
`RPL_WHOSISUSER` (in module *irctk.numerics*), 14  
`RPL_WHOREPLY` (in module *irctk.numerics*), 15  
`RPL_WHOWASUSER` (in module *irctk.numerics*), 15  
`RPL_YOUREOPER` (in module *irctk.numerics*), 15

## S

`send()` (*irctk.client.Client method*), 3  
`send_join()` (*irctk.client.Client method*), 3  
`send_line()` (*irctk.client.Client method*), 3  
`send_part()` (*irctk.client.Client method*), 3  
`send_privmsg()` (*irctk.client.Client method*), 4