outgoing

Release 0.3.1

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CHAPTER

ONE

CONFIGURATION

1.1 The Configuration File

`outgoing` reads information on what sending method and parameters to use from a TOML or JSON configuration file. The default configuration file is TOML, and its location depends on your OS:

Linux	`~/.local/share/outgoing/outgoing.toml` or `$XDG_DATA_HOME/outgoing/outgoing.toml`
macOS	`~/Library/Preferences/outgoing/outgoing.toml`
Windows	`C:\Users\<username>\AppData\Local\jwodder\outgoing\outgoing.toml`

Changed in version 0.3.0: Due to a switch from `appdirs` to `platformdirs`, the default configuration path on macOS changed from `~/Library/Application Support/outgoing/outgoing.toml` to `~/Library/Preferences/outgoing/outgoing.toml`.

To find the exact path on your system, after installing `outgoing`, run:

```
python3 -c "from outgoing import get_default_configpath; print(get_default_configpath())"
```

Within the configuration file, all of the `outgoing` settings are contained within a table named "`outgoing`". This table must include at least a `method` key giving the name of the sending method to use. The rest of the table depends on the method chosen (see below). Unknown or inapplicable keys in the table are ignored.

File & directory paths in the configuration file may start with a tilde (~) to refer to a path in the user's home directory. Any relative paths are resolved relative to the directory containing the configuration file.

1.2 Sending Methods

1.2.1 `command`

The `command` method sends an e-mail by passing it as input to a command (e.g., **`sendmail`**, sold separately).

Configuration fields:

`command`
: [string or list of strings (optional)] Specify the command to run to send e-mail. This can be either a single command string that will be interpreted by the shell or a list of command arguments that will be executed directly without any shell processing. The default command is `sendmail -i -t`.

Note: Relative paths in the command will not be resolved by `outgoing` (unlike other paths in the configuration file), as it is not possible to reliably determine what is a path and what is not.

Example `command` configuration:

```
[outgoing]
method = "command"
command = ["/usr/local/bin/mysendmail", "-i", "-t"]
```

Another sample configuration:

```
[outgoing]
method = "command"
# A single string will be interpreted by the shell, so metacharacters like
# pipes have their special meanings:
command = "my-mail-munger | ~/some/dir/mysendmail"
```

1.2.2 `smtp`

The `smtp` method sends an e-mail to a server over SMTP.

Configuration fields:

`host`
: [string (required)] The domain name or IP address of the server to connect to

`ssl`
: [boolean or `"starttls"` (optional)]

- `true`: Use SSL/TLS from the start of the connection
- `false` (default): Don't use SSL/TLS
- `"starttls"`: After connecting, switch to SSL/TLS with the STARTTLS command

`port`
: [integer (optional)] The port on the server to connect to; the default depends on the value of `ssl`:

- `true` — 465
- `false` — 25
- `"starttls"` — 587

`username`
: [string (optional)] Username to log into the server with

`password`
: [password (optional)] Password to log into the server with; can be given as either a string or a password specifier (see "*Passwords*")

`netrc`
: [boolean or filepath (optional)] If `true`, read the username & password from `~/.netrc` instead of specifying them in the configuration file. If a filepath, read the credentials from the given netrc file. If `false`, do not use a netrc file.

Example `smtp` configuration:

```
[outgoing]
method = "smtp"
host = "mx.example.com"
ssl = "starttls"
username = "myname"
password = { "file" = "~/secrets/smtp-password" }
```

Another sample configuration:

```
[outgoing]
method = "smtp"
host = "mail.nil"
port = 1337
ssl = true
# Read username & password from the "mail.nil" entry in this netrc file:
netrc = "~/secrets/net.rc"
```

1.2.3 mbox

The `mbox` method appends e-mails to an mbox file on the local machine.

Configuration fields:

path
: [filepath (required)] The location of the mbox file. If the file does not exist, it will be created when the sender object is entered.

Example `mbox` configuration:

```
[outgoing]
method = "mbox"
path = "~/MAIL/inbox"
```

1.2.4 maildir

The `maildir` method adds e-mails to a Maildir mailbox directory on the local machine.

Configuration fields:

path
: [directory path (required)] The location of the Maildir mailbox. If the directory does not exist, it will be created when the sender object is entered.

folder
: [string (optional)] A folder within the Maildir mailbox in which to place e-mails

1.2.5 mh

The `mh` method adds e-mails to an MH mailbox directory on the local machine.

Configuration fields:

path
: [directory path (required)] The location of the MH mailbox. If the directory does not exist, it will be created when the sender object is entered.

folder
: [string or list of strings (optional)] A folder within the Maildir mailbox in which to place e-mails; can be either the name of a single folder or a path through nested folders & subfolders

Example configuration:

```
[outgoing]
method = "mh"
path = "~/mail"
# Place e-mails inside the "work" folder inside the "important" folder:
folder = ["important", "work"]
```

1.2.6 mmdf

The `mmdf` method adds e-mails to an MMDF mailbox file on the local machine.

Configuration fields:

path
: [filepath (required)] The location of the MMDF mailbox. If the file does not exist, it will be created when the sender object is entered.

1.2.7 babyl

The `babyl` method adds e-mails to a Babyl mailbox file on the local machine.

Configuration fields:

path
: [filepath (required)] The location of the Babyl mailbox. If the file does not exist, it will be created when the sender object is entered.

1.2.8 null

Goes nowhere, does nothing, ignores all configuration keys.

Example `null` configuration:

```
[outgoing]
# Just send my e-mails into a black hole
method = "null"
```

1.3 Passwords

When a sending method calls for a password, API key, or other secret, there are several ways to specify the value.

Using a string, naturally, supplies the value of that string as the password:

```
password = "hunter2"
```

Alternatively, passwords may instead be looked up in external resources. This is done by setting the value of the password field to a table with a single key-value pair, where the key identifies the password lookup scheme and the value is either a string or a sub-table, depending on the scheme.

The builtin password schemes are as follows. Extension packages can define additional password schemes.

1.3.1 base64

For slightly more security than a plaintext password, a password can be stored in base64 by specifying a table with a single `base64` key and the encoded password as the value:

```
password = { base64 = "aHVudGVyMg==" }
```

Base64 passwords must decode to UTF-8 text.

1.3.2 file

A password can be read from a file by specifying a table with a single `file` key and the filepath as the value:

```
password = { file = "path/to/file" }
```

The entire contents of the file, minus any leading or trailing whitespace, will then be used as the password. As with paths elsewhere in the configuration file, the path may start with a tilde, and relative paths are resolved relative to the directory containing the configuration file.

1.3.3 env

A password can be read from an environment variable by specifying a table with a single `env` key and the name of the environment variable as the value:

```
password = { env = "PROTOCOL_PASSWORD" }
```

1.3.4 dotenv

Passwords can be read from a key in a `.env`-style file as supported by python-dotenv like so:

```
password = { dotenv = { key = "NAME_OF_KEY_IN_FILE", file = "path/to/file" } }
```

The `file` path is resolved following the same rules as other paths. If the `file` field is omitted, the given key will be looked up in a file named `.env` in the same directory as the configuration file.

1.3.5 keyring

Passwords can be retrieved from the system keyring using keyring. The basic format is:

```
password = { keyring = { service = "host_or_service_name", username = "your_username" } }
```

If the `service` key is omitted, the value will default to the sending method's host value, if it has one; likewise, an omitted `username` will default to the username for the sending method, if there is one. A specific keyring backend can be specified with the `backend` key, and the directory from which to load the backend can be specified with the `keyring-path` key.

CHAPTER

TWO

CORE PYTHON API

2.1 Functions

`outgoing` provides the following functions for constructing e-mail sender objects. Once you have a sender object, simply use it in a context manager to open it up, and then call its `send()` method with each `email.message.EmailMessage` object you want to send. See *Examples* for examples.

`outgoing.`**`from_config_file`**(*path: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]] = None*, *section: Optional[str] = 'outgoing'*, *fallback: bool = True*) → *Sender*

Read configuration from the table/field `section` (default "`outgoing`") in the file at `path` (default: the path returned by *`get_default_configpath()`*) and construct a sender object from the specification. The file may be either TOML or JSON (type detected based on file extension). If `section` is `None`, the entire file, rather than only a single field, is used as the configuration. If `fallback` is true, the file is not the default config file, and the file either does not exist or does not contain the given section, fall back to reading from the default section of the default config file.

Raises

- ***`InvalidConfigError`*** – if the configuration is invalid
- ***`MissingConfigError`*** – if no configuration file or section is present

`outgoing.`**`from_dict`**(*data: Mapping[str, Any]*, *configpath: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]] = None*) → *Sender*

Construct a sender object using the given `data` as the configuration. If `configpath` is given, any paths in the `data` will be resolved relative to `configpath`'s parent directory; otherwise, they will be resolved relative to the current directory.

`data` should not contain a `"configpath"` key; such an entry will be discarded.

Raises

`InvalidConfigError` – if the configuration is invalid

`outgoing.`**`get_default_configpath`**() → Path

Returns the location of the default config file (regardless of whether it exists) as a `pathlib.Path` object

2.2 Sender Objects

class outgoing.**Sender**

Sender is a Protocol implemented by sender objects. The protocol requires the following behavior:

- Sender objects can be used as context managers, and their `__enter__` methods return `self`.
- Within its own context, calling a sender's `send(msg: email.message.EmailMessage)` method sends the given e-mail.

__enter__() → S

__exit__(*exc_type: Optional[Type[BaseException]]*, *exc_val: Optional[BaseException]*, *exc_tb: Optional[TracebackType]*) → Optional[bool]

send(*msg: EmailMessage*) → Any

Send `msg` or raise an exception if that's not possible

In addition to the base protocol, `outgoing`'s built-in senders are reentrant and reusable as context managers, and their `send()` methods can be called outside of a context.

2.3 Exceptions

exception outgoing.**Error**

Bases: Exception

The superclass for all exceptions raised by `outgoing`

exception outgoing.**InvalidConfigError**(*details: str*, *configpath: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]] = None*)

Bases: *Error*

Raised on encountering an invalid configuration structure

configpath: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]]

The path to the config file containing the invalid configuration

details: str

A message about the error

exception outgoing.**InvalidPasswordError**(*details: str*, *configpath: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]] = None*)

Bases: *InvalidConfigError*

Raised on encountering an invalid password specifier or when no password can be determined from a specifier

configpath: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]]

The path to the config file containing the invalid configuration

details: str

A message about the error

exception outgoing.**MissingConfigError**(*configpaths: Sequence[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]]*)

Bases: *Error*

Raised when no configuration section can be found in any config files

configpaths: List[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]]

Paths to the configfiles searched for configuration

exception outgoing.**NetrcLookupError**

Bases: *Error*

Raised by *lookup_netrc()* on failure to find a match in a netrc file

exception outgoing.**UnsupportedEmailError**

Bases: *Error*

Raised by sender objects when asked to send an e-mail that uses features or constructs that the sending method does not support

CHAPTER

THREE

COMMAND-LINE PROGRAM

```
outgoing [<options>] [<msg-file> ...]
```

You can use `outgoing` to send fully-composed e-mails directly from the command line with the **`outgoing`** command. Save your e-mail as a complete *`message/rfc822`* document and then run `outgoing path/to/email/file` to send it using the configuration in the default config file (or specify another config file with the `--config` option). Multiple files can be passed to the command at once to send multiple e-mails. If no files are specified on the command line, the command reads an e-mail from standard input.

3.1 Options

`-c` <file>, **`--config`** <file>

Specify a *configuration file* to use instead of the default configuration file

`-E` <file>, **`--env`** <file>

New in version 0.2.0.

Load environment variables from the given `.env` file before reading the configuration file. By default, environment variables are loaded from the first file named "`.env`" found by searching from the current directory upwards.

`-l` <level>, **`--log-level`** <level>

New in version 0.2.0.

Set the logging level to the given value; default: `INFO`. The level can be given as a case-insensitive level name or as a numeric value.

`-s` <key>, **`--section`** <key>

New in version 0.2.0.

Read the configuration from the given table or key in the configuration file; defaults to "`outgoing`"

`--no-section`

New in version 0.2.0.

Read the configuration fields from the top level of the configuration file instead of expecting them to all be contained below a certain table/key

CHAPTER

FOUR

AVAILABLE EXTENSIONS

It is possible to write packages for extending `outgoing` with support for further sending methods and password schemes. See *Writing Extensions* for how to do so.

If you develop an extension package, please submit a PR so it can be listed on this page!

4.1 Sending Methods

- outgoing-mailgun — Supports sending e-mail via Mailgun

4.2 Password Schemes

None yet. Be the first!

CHAPTER

FIVE

WRITING EXTENSIONS

5.1 Writing Sending Methods

A sending method is implemented as a callable (usually a class) that accepts the fields of a configuration structure as keyword arguments and returns a *sender object*. The keyword arguments include the `method` field and also include a `configpath` key specifying a `pathlib.Path` pointing to the configuration file (or `None` if *`from_dict()`* was called without setting a `configpath`). Callables should accept any keyword argument and ignore any that they do not recognize.

For example, given the following configuration:

```
[outgoing]
method = "foobar"
server = "www.example.nil"
password = { env = "SECRET_TOKEN" }
comment = "I like e-mail!"
```

the callable registered for the "foobar" method will be called with the following keyword arguments:

```
**{
    "method": "foobar",
    "server": "www.example.nil",
    "password": {"env": "SECRET_TOKEN"},
    "comment": "I like e-mail!",
    "configpath": Path("path/to/configfile"),
}
```

If the configuration passed to a callable is invalid, the callable should raise an *`InvalidConfigError`*.

Callables can resolve password fields by passing them to *`resolve_password()`* or by using pydantic and the *`Password`* type. Callables should resolve paths relative to the directory containing `configpath` by using *`resolve_path()`* or by using pydantic and the *`Path`*, *`FilePath`*, and/or *`DirectoryPath`* types.

The last step of writing a sending method is to package it in a Python project and declare the callable as an entry point in the `outgoing.senders` entry point group so that users can install & access it. For example, if your project is built using setuptools, and the callable is a `FooSender` class in the `foobar.senders` module, and you want it to be usable by setting `method = "foo"`, add the following to your `setup.py`:

```
setup(
    ...
    entry_points={
        "outgoing.senders": [
```

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```
            "foo = foobar.senders:FooSender",
        ],
    },
    ...
)
```

5.2 Writing Password Schemes

A password scheme is implemented as a function that takes the `value` part of a `password = { scheme = value }` entry as an argument and returns the corresponding password as a `str`. If the function additionally accepts arguments named `host`, `username`, and/or `configpath` (either explicitly or via `**kwargs`), the corresponding values passed to *`resolve_password()`* will be forwarded to the scheme function.

If the `value` structure is invalid, or if no password can be found, the function should raise an *`InvalidPasswordError`*.

The last step of writing a password scheme is to package it in a Python project and declare the function as an entry point in the `outgoing.password_schemes` entry point group so that users can install & access it. For example, if your project is built using setuptools, and the function is `foo_scheme()` in the `foobar.passwords` module, and you want it to be usable by writing `password = { foo = some-value }`, add the following to your `setup.py`:

```
setup(
    ...
    entry_points={
        "outgoing.password_schemes": [
            "foo = foobar.passwords:foo_scheme",
        ],
    },
    ...
)
```

CHAPTER

SIX

UTILITIES FOR EXTENSION AUTHORS

outgoing.**lookup_netrc**(*host: str*, *username: Optional[str] = None*, *path: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]] = None*) → Tuple[str, str]

Look up the entry for `host` in the netrc file at `path` (default: `~/.netrc`) and return a pair of the username & password. If `username` is specified and it does not equal the username in the file, a *NetrcLookupError* is raised.

Raises

- ***NetrcLookupError*** – if no entry for `host` or the default entry is present in the netrc file; or if `username` differs from the username in the netrc file
- **netrc.NetrcParseError** – if the `netrc` module encounters an error

outgoing.**resolve_password**(*password: Union[str, Mapping[str, Any]]*, *host: Optional[str] = None*, *username: Optional[str] = None*, *configpath: Optional[Union[str, Path]] = None*) → str

Resolve a configuration password value. If `password` is a string, it is returned unchanged. Otherwise, it must be a mapping with exactly one element; the key is used as the name of the password scheme, and the value is passed to the corresponding function for retrieving the password.

When resolving a password field in an `outgoing` configuration structure, the configpath and any host/service or username values from the configuration (or host/service/username constants specific to the sending method) should be passed into this function so that they can be made available to any password scheme functions that need them.

Raises

InvalidPasswordError – if `password` is invalid or cannot be resolved

outgoing.**resolve_path**(*path: Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]*, *basepath: Optional[Union[str, bytes, os.PathLike[str], os.PathLike[bytes]]] = None*) → Path

Convert a path to a `pathlib.Path` instance and resolve it using the same rules for as paths in `outgoing` configuration files: expand tildes by calling `Path.expanduser()`, prepend the parent directory of `basepath` (usually the value of `configpath`) to the path if given, and then resolve the resulting path to make it absolute.

Parameters

- **path** (*path*) – the path to resolve
- **basepath** (*path*) – an optional path to resolve `path` relative to

Return type

pathlib.Path

class outgoing.**OpenClosable**

Bases: `ABC`, `BaseModel`

An abstract base class for creating reentrant context managers. A concrete subclass must define `open()` and `close()` methods; *OpenClosable* will then define `__enter__` and `__exit__` methods that keep track of the depth of nested `with` statements, calling `open()` and `close()` only when entering & exiting the outermost `with`.

abstract close() → None

abstract open() → None

6.1 Pydantic Types & Models

The senders built into `outgoing` make heavy use of pydantic for validating & processing configuration, and some of the custom types & models used are also of general interest to anyone writing an `outgoing` extension that also uses pydantic.

class outgoing.**Path**

Converts its input to `pathlib.Path` instances, including expanding tildes. If there is a field named `configpath` declared before the *Path* field and its value is non-`None`, then the value of the *Path* field will be resolved relative to the parent directory of the `configpath` field; otherwise, it will be resolved relative to the current directory.

class outgoing.**FilePath**

Like *Path*, but the path must exist and be a file

class outgoing.**DirectoryPath**

Like *Path*, but the path must exist and be a directory

class outgoing.**Password**

A subclass of `pydantic.SecretStr` that accepts `outgoing` password specifiers as input and automatically resolves them using *resolve_password()*. Host, username, and `configpath` values are passed to *resolve_password()* as follows:

- If *Password* is subclassed and given a `host` class variable naming a field, and if the subclass is then used in a model where a field with that name is declared before the *Password* subclass field, then when the model is instantiated, the value of the named field will be passed as the `host` argument to *resolve_password()*. (If the named field is not present on the model that uses the subclass, the *Password* field will fail validation.)
- Alternatively, *Password* can be subclassed with `host` set to a class callable (a classmethod or staticmethod), and when that subclass is used in a model being instantiated, the callable will be passed a `dict` of all validated fields declared before the password field; the return value from the callable will then be passed as the `host` argument to *resolve_password()*. (If the callable raises an exception, the *Password* field will fail validation.)
- If *Password* is used in a model without being subclassed, or if `host` is not defined in a subclass, then `None` will be passed as the `host` argument to *resolve_password()*.
- The `username` argument to *resolve_password()* can likewise be defined by subclassing *Password* and defining `username` appropriately.
- If there is a field named `configpath` declared before the *Password* field, then the value of `configpath` is passed to *resolve_password()*.

For example, if writing a pydantic model for a sender configuration where the host-analogue value is passed in a field named `"service"` and for which the username is always `"__token__"`, you would subclass *Password* like this:

```
class MyPassword(outgoing.Password):
    host = "service"

    @staticmethod
    def username(values: Dict[str, Any]) -> str:
        return "__token__"
```

and then use it in your model like so:

```
class MySender(pydantic.BaseModel):
    configpath: Optional[outgoing.Path]
    service: str
    password: MyPassword  # Must come after `configpath` and `service`!
    # ... other fields ...
```

Then, when `MySender` is instantiated, the input to the `password` field would be automatically resolved by doing (effectively):

```
my_sender.password = pydantic.SecretStr(
    resolve_password(
        my_sender.password,
        host=my_sender.service,
        username="__token__",
        configpath=my_sender.configpath,
    )
)
```

Note: As this is a subclass of `pydantic.SecretStr`, the value of a *Password* field is retrieved by calling its `get_secret_value()` method.

---

class outgoing.**StandardPassword**

A subclass of *Password* in which `host` is set to `"host"` and `username` is set to `"username"`

class outgoing.**NetrcConfig**

A pydantic model usable as a base class for any senders that wish to support both `password` fields and netrc files. The model accepts the fields `configpath`, `netrc` (a boolean or a file path; defaults to `False`), `host` (required), `username` (optional), and `password` (optional). When the model is instantiated, if `password` is `None` but `netrc` is true or a filepath, the entry for `host` is looked up in `~/.netrc` or the given file, and the `username` and `password` fields are set to the values found.

The model will raise a validation error if any of the following are true:

- `password` is set but `netrc` is true
- `password` is set but `username` is not set
- `username` is set but `password` is not set and `netrc` is false
- `netrc` is true or a filepath, `username` is non-`None`, and the username in the netrc file differs from `username`
- `netrc` is true or a filepath and no entry can be found in the netrc file

configpath: `Optional[Path]`

host: `str`

netrc: Union[StrictBool, *FilePath*]

password: Optional[*StandardPassword*]

username: Optional[str]

CHAPTER

SEVEN

CHANGELOG

7.1 v0.3.1 (2022-01-02)

- Support tomli 2.0

7.2 v0.3.0 (2021-10-31)

- Support Python 3.10
- Replaced `entrypoints` dependency with `importlib-metadata`
- Replaced `appdirs` dependency with `platformdirs`. This is a **breaking** change on macOS, where the default configuration path changes from `~/Library/Application Support/outgoing/outgoing.toml` to `~/Library/Preferences/outgoing/outgoing.toml`.

7.3 v0.2.5 (2021-09-27)

- *outgoing.errors.UnsupportedEmailError* is now re-exported as *outgoing.UnsupportedEmailError* like all the other exception classes

7.4 v0.2.4 (2021-08-02)

- Update for tomli 1.2.0

7.5 v0.2.3 (2021-07-04)

- Read TOML files in UTF-8

7.6 v0.2.2 (2021-07-02)

- Switch from toml to tomli

7.7 v0.2.1 (2021-05-12)

- Support Click 8

7.8 v0.2.0 (2021-03-14)

- Require the `port` field of `SMTPSender` to be non-negative
- Mark *Sender* as `runtime_checkable` and export it
- Gave the **outgoing** command `--section`, `--no-section`, and `--log-level` options
- Added logging to built-in sender classes
- The **outgoing** command now loads settings from `.env` files and has an `--env` option

7.9 v0.1.0 (2021-03-06)

Initial release

`outgoing` provides a common interface to multiple different e-mail sending methods (SMTP, sendmail, mbox, etc.). Just construct a sender from a configuration file or object, pass it an `EmailMessage` instance, and let the magical internet daemons take care of the rest.

`outgoing` itself provides support for only basic sending methods; additional methods are provided by *extension packages*.

CHAPTER

EIGHT

INSTALLATION

`outgoing` requires Python 3.6 or higher. Just use pip for Python 3 (You have pip, right?) to install `outgoing` and its dependencies:

```
python3 -m pip install outgoing
```

CHAPTER

NINE

EXAMPLES

A sample configuration file:

```
[outgoing]
method = "smtp"
host = "mx.example.com"
ssl = "starttls"
username = "myname"
password = { file = "~/secrets/smtp-password" }
```

Sending an e-mail based on a configuration file:

```
from email.message import EmailMessage
import outgoing

# Construct an EmailMessage object the standard Python way:
msg = EmailMessage()
msg["Subject"] = "Meet me"
msg["To"] = "my.beloved@love.love"
msg["From"] = "me@here.qq"
msg.set_content(
    "Oh my beloved!\n"
    "\n"
    "Wilt thou dine with me on the morrow?\n"
    "\n"
    "We're having hot pockets.\n"
    "\n"
    "Love, Me\n"
)

# Construct a sender object based on the default config file (assuming it's
# populated)
with outgoing.from_config_file() as sender:
    # Now send that letter!
    sender.send(msg)
```

As an alternative to using a configuration file, you can specify an explicit configuration by passing the configuration structure to the *outgoing.from_dict()* method, like so:

```
from email.message import EmailMessage
import outgoing

```

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```
# Construct an EmailMessage object using the eletter library
# <https://github.com/jwodder/eletter>:
from eletter import compose

msg1 = compose(
    subject="No.",
    to=["me@here.qq"],
    from_="my.beloved@love.love",
    text=(
        "Hot pockets?  Thou disgusteth me.\n"
        "\n"
        "Pineapple pizza or RIOT.\n"
    ),
)

msg2 = compose(
    subject="I'd like to place an order.",
    to=["pete@za.aa"],
    from_="my.beloved@love.love",
    text="I need the usual.  Twelve Hawaiian Abominations to go, please.\n",
)

SENDING_CONFIG = {
    "method": "smtp",
    "host": "smtp.love.love",
    "username": "my.beloved",
    "password": {"env": "SMTP_PASSWORD"},
    "ssl": "starttls",
}

with outgoing.from_dict(SENDING_CONFIG) as sender:
    sender.send(msg1)
    sender.send(msg2)
```

CHAPTER

TEN

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