```python
%matplotlib inline
import phoebe
from phoebe import u # units
import numpy as np
logger = phoebe.logger()

Period = 0.5294
MASS_RATIO = 0.70000
TEMPERATURE_1 = 4000.000000
TEMPERATURE_2 = 4500.000000
INCLINATION = 90.00000
ECCENTRICITY = 0.0

sma = 1.7671

b = phoebe.default_binary()
b.add_constraint('semidetached', 'primary')
b.add_component('envelope', component='contact_envelope')
hier = phoebe.hierarchy.binaryorbit(b['binary'], b['primary'],
b['secondary'], b['contact_envelope'])
b.set_hierarchy(hier)

ERROR:BUNDLE:Constraint 'pot@contact_envelope@envelope@constraint'
raised the following error while attempting to solve for
'pot@contact_envelope@envelope@component'.  Consider flipping the
constraint or changing the value of one of
['requiv@primary@star@component', 'q@binary@orbit@component',
'sma@binary@orbit@component',
'pot@contact_envelope@envelope@component'] until the constraint
succeeds.  Original error: roche_contact_Omega_at_partial_vol::Volume
is outside bounds.

print(b.hierarchy)


    orbit:binary

        star:primary
        star:secondary
        envelope:contact_envelope


b.set_value('incl@orbit', INCLINATION)
b.set_value('period@binary', Period)
b.set_value('q@binary@component',MASS_RATIO)
b.set_value('teff@primary', TEMPERATURE_1)
b.set_value('teff@secondary', TEMPERATURE_2)
b.set_value('ecc@binary@orbit', ECCENTRICITY )
b.set_value('sma@binary', sma )
```

```python
b.add_dataset('lc', compute_phases=phoebe.linspace(0,1,101))
```

ERROR:BUNDLE:Constraint 'requiv@secondary@star@constraint' raised the
following error while attempting to solve for
'requiv@secondary@star@component'. Consider flipping the constraint
or changing the value of one of
['pot@contact_envelope@envelope@component',
'q@binary@orbit@component', 'sma@binary@orbit@component',
'requiv@secondary@star@component'] until the constraint succeeds.
Original error: potential > L1 critical value
ERROR:BUNDLE:Constraint
'fillout_factor@contact_envelope@envelope@constraint' raised the
following error while setting the value of
'fillout_factor@contact_envelope@envelope@component'. Original error:
value of fillout_factor=-1.2616524293086129 not within limits of
[<Quantity 0.>, <Quantity 1.>]

<ParameterSet: 80 parameters | contexts: compute, dataset, figure,
constraint>

```python
try:
    b.run_compute()
except Exception as err:
    print(err)
```

ERROR:BUNDLE:Constraint
'fillout_factor@contact_envelope@envelope@constraint' raised the
following error while attempting to solve for
'fillout_factor@contact_envelope@envelope@component'. Consider
flipping the constraint or changing the value of one of
['q@binary@orbit@component',
'pot@contact_envelope@envelope@component',
'fillout_factor@contact_envelope@envelope@component'] until the
constraint succeeds. Original error: name 'nan' is not defined
WARNING:BUNDLE:secondary is overflowing at L2/L3
(requiv=2.0132751769154753, requiv_min=0.6164740960017236,
requiv_max=0.8002115820310605) If not addressed, this warning will
continue to be raised and will throw an error at run_compute.
WARNING:BUNDLE:constraints ['requiv@secondary@star@constraint'] failed
to run. Address errors and try again. Call run_failed_constraints to
see the tracebacks. If not addressed, this warning will continue to
be raised and will throw an error at run_compute.

failed to pass checks
Run Checks Report: FAIL
ERROR: secondary is overflowing at L2/L3 (requiv=2.0132751769154753,
requiv_min=0.6164740960017236, requiv_max=0.8002115820310605) (3
affected parameters, affecting system,run_compute)
ERROR: constraints ['requiv@secondary@star@constraint'] failed to run.

Address errors and try again. Call run_failed_constraints to see the
tracebacks. (1 affected parameters, affecting system,run_compute)

b.set_value('atm', component='primary', value='blackbody')

b.set_value('ld_mode', component='primary', value='manual')

b.run_compute(irrad_method='none')

WARNING:BUNDLE:secondary is overflowing at L2/L3
(requiv=2.0132751769154753, requiv_min=0.6164740960017236,
requiv_max=0.8002115820310605) If not addressed, this warning will
continue to be raised and will throw an error at run_compute.
WARNING:BUNDLE:constraints ['requiv@secondary@star@constraint'] failed
to run. Address errors and try again. Call run_failed_constraints to
see the tracebacks. If not addressed, this warning will continue to
be raised and will throw an error at run_compute.

ValueError   Traceback (most recent call
last)
<ipython-input-219-739dcf085734> in <cell line: 1>()
----> 1 b.run_compute(irrad_method='none')

/usr/local/lib/python3.10/dist-packages/phoebe/parameters/parameters.p
y in _send_if_client(self, *args, **kwargs)
    422
    423   else:
--> 424   return fctn(self, *args, **kwargs)
    425
    426   return _send_if_client

/usr/local/lib/python3.10/dist-packages/phoebe/frontend/bundle.py in
run_compute(self, compute, model, solver, detach, dataset, times,
return_changes, **kwargs)
  11713   # NOTE: _prepare_compute calls run_checks_compute and
will handle raising
  11714   # any necessary errors
> 11715   model, computes, datasets, do_create_fig_params,
changed_params, overwrite_ps, kwargs = self._prepare_compute(compute,
model, dataset, from_export=False, **kwargs)
  11716   _ = kwargs.pop('do_create_fig_params', None)
  11717

/usr/local/lib/python3.10/dist-packages/phoebe/frontend/bundle.py in
_prepare_compute(self, compute, model, dataset, from_export, **kwargs)
  11279
  11280   if not kwargs.get('skip_checks', False):
> 11281   report = self.run_checks_compute(compute=computes,
  11282

```
    run_checks_server=True,
      11283
    allow_nonlocal_server=from_export,

/usr/local/lib/python3.10/dist-packages/phoebe/frontend/bundle.py in
run_checks_compute(self, compute, solver, solution, figure,
raise_logger_warning, raise_error, run_checks_system,
run_checks_server, **kwargs)
      4397                              True, 'run_compute')
      4398
-> 4399        self._run_checks_warning_error(report,
raise_logger_warning, raise_error)
      4400
      4401        return report

/usr/local/lib/python3.10/dist-packages/phoebe/frontend/bundle.py in
_run_checks_warning_error(self, report, raise_logger_warning,
raise_error)
      3221         if raise_error:
      3222             if not report.passed:
-> 3223                 raise ValueError("failed to pass checks\
n{}".format(report))
      3224
      3225     def run_checks(self, raise_logger_warning=False,
raise_error=False, **kwargs):

ValueError: failed to pass checks
Run Checks Report: FAIL
ERROR: secondary is overflowing at L2/L3 (requiv=2.0132751769154753,
requiv_min=0.6164740960017236, requiv_max=0.8002115820310605) (3
affected parameters, affecting system,run_compute)
ERROR: constraints ['requiv@secondary@star@constraint'] failed to run.
Address errors and try again.  Call run_failed_constraints to see the
tracebacks. (1 affected parameters, affecting system,run_compute)
```