

add_

- ▶ **dictionaries** and **lists** can be expanded even if they already exist in the same yaml file by using the **add_** feature

- ▶ **Syntax**

```
add_<dictionary>:
  <variable-1>: <value-1>
  <variable-2>: <value-2>
    <nested_dictionary>:
      <variable-3>: <value-3>
  ...
```

```
add_<list>:
  - <element-n+1>
  - <element-n+2>
  ...
```

- ▶ **Behavior for dictionaries**

- The information contained in the add_ is merged to the targeted **dictionary** complementarily
 - New variables and nested dictionaries are created if missing
 - Existing data is overwritten by that of the **add_dictionary**

add_

Behaviour for **lists**

- New elements are added to the end of the list

Use cases

- In the **configuration files, dictionaries**, such as **namelist_changes**, can contain the default configurations that need to be always used
- In the same **configuration file**, one can for example, nest an **add_namelist_changes** inside a **choose_** block to add special configuration for that particular case

Example

```
fesom-2.1.yaml
choose_icb_code:
  True:
    add_namelist_changes:
      namelist.config:
        icebergs:
          use_icebergs: "${use_icebergs}"
          use_icesheet_coupling: "${use_icesheet_coupling}"
          steps_per_ib_step: 8
```

add_



Recommendations

- In the **runscripts**, use always **add_namelist_changes** instead of **namelist_changes**
 - **add_namelist_changes** are common in **choose_** blocks
 - The adds inside **choose_** blocks are resolved after baking the information of the configuration files
 - That means that if the variables that you are trying to change in the **runscript** are also included inside an add nested in a **choose_block** in the **configuration files**, if you don't use **add_** in the **runscript**, the ones from the **choose_** will win

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add_



Example

your_runscript.yaml

```
fesom:
  icb_code: True
  namelist_changes:
    namelist.config:
      icebergs:
        steps_per_ib_step: 3
```

fesom-2.1.yaml

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```

ESM-Parser bakes the information across all the yamls used

finished_config.yaml

```
fesom:
  choose_icb_code:
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  icb_code: True
  namelist_changes:
    namelist.config:
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your_runscript.yaml

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fesom:
  icb_code: True
  namelist_changes:
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ESM-Parser resolves the chooses

finished_config.yaml

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        use_icesheet_coupling: "${use_icesheet_coupling}"
        steps_per_ib_step: 8
  icb_code: True
  namelist_changes:
    namelist.config:
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        use_icebergs: "${use_icebergs}"
        use_icesheet_coupling: "${use_icesheet_coupling}"
        steps_per_ib_step: 8
  icb_code: True
```

fesom-2.1.yaml

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  icb_code: True
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    add_namelist.config:
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Example

your_runscript.yaml

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  add_namelist_changes:
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ESM-Parser resolves the chooses

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fesom:
  add_namelist_changes:
    namelist.config:
      icebergs:
        use_icebergs: "${use_icebergs}"
        use_icesheet_coupling: "${use_icesheet_coupling}"
        steps_per_ib_step: 8
  icb_code: True
  add_namelist_changes:
    namelist.config:
      icebergs:
        steps_per_ib_step: 3
```

This add_namelist_changes wins because it comes from the runscript! (higher in the information hierarchy)

fesom-2.1.yaml

```
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ESM-Parser resolves the add

finished_config.yaml

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fesom:
  namelist_changes:
    namelist.config:
      icebergs:
        use_icebergs: "${use_icebergs}"
        use_icesheet_coupling: "${use_icesheet_coupling}"
        steps_per_ib_step: 3
  icb_code: True
```

fesom-2.1.yaml

```
choose_icb_code:
  True:
    add_namelist_changes:
      namelist.config:
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Note

- add_ only works at the first level of indentation inside a section

```
your_runscript.yaml
fesom:
  icb_code: True
  add_namelist_changes:
    namelist.config:
      icebergs:
        steps_per_ib_step: 3
```

```
your_runscript.yaml
fesom:
  icb_code: True
  namelist_changes:
    add_namelist.config:
      icebergs:
        steps_per_ib_step: 3
```

- Or, in a file that has no sections (component config files)

```
fesom-2.1.yaml
icb_code: True
add_namelist_changes:
  namelist.config:
    icebergs:
      steps_per_ib_step: 3
```

- Or inside a choose_

```
your_runscript.yaml
fesom:
  icb_code: True
  my_choice: True
  choose_my_choice:
    True:
      add_namelist_changes:
        namelist.config:
          icebergs:
            steps_per_ib_step: 3
```