choose_ blocks

▶ a yaml dictionary with an extended functionality in ESM-Tools

▶ **choose_ blocks** are what in programming languages is known as a **select case** or **switch statements**

Fortran
```
SELECT CASE (<selector>)
    CASE (<pattern-1>)
        statements-1
    CASE (<pattern-2>)
        statements-2
    …
END SELECT
```

Bash
```
case <expression>
    case <pattern-1>)
        statements-1
        ;;
    case <pattern-2>)
        statements-2
        ;;
    …
esac
```

Matlab
```
switch <selector>
    case <pattern-1>
        statements-1
    case <pattern-2>
        statements-2
    …
end
```

ESM-Tools
```
choose_<selector>:
    <case-1>:
        statements-1
    <case-2>:
        statements-2
    …
```

choose_ blocks

▶ **Use**
- in any yaml file, but normally in the configuration files

▶ **Purpose**
- allows to control a full set of configurations under one single selector variable

▶ **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
```
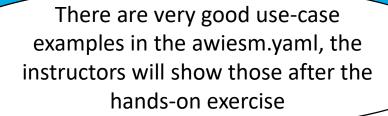
your_runscript.yaml
```
fesom:
    icb_code: True
```

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▶ **Syntax**

```
choose_<selector_variable>:
    <case-1>:
        statements-1
    <case-2>:
        statements-2
    …
```

▶ **Advance syntax**

- Allows for selecting a case based on variables in a different section

  general
  computer
  <model name> (i.e. echam, fesom, …)

- Allows to set an statement if the value does not match a case

  - if the selector variable does not match any case, use the statement indented under "*"
  - optional

```
choose_<section>.<selector_variable>:
    <case-1>:
        statements-1
    <case-2>:
        statements-2
"*":
        statements-3
```