

Define the **local** component definition first and the **remote** last.

So:

LacI **replaces** TF implies that TF is a **remote** component contained within the laci_inverter and LacI is a **local** component contained within the toggle_switch.

```
toggle_switch : ToggleModule
  functionalComponent : public_io
    P03023_protein as LacI
  functionalComponent : public_io
    Q6QR72_protein as TetR

  module
    laci_inverter
      LacI replaces TF
  module
    tetr_inverter
      TetR replaces TF

  model
    toggleswitch
```

replaces

Is a mapsTo constructor which takes the local component to the left ("LacI") and the remote component to the right ("TF")

uses

LacI **uses** TF states that the **local** component "LacI" is replaced by the **remote** component "TF"

Becomes

```
toggle_switch : ToggleModule

  functionalComponent
    displayId = "LacI"
    definition = P03023_protein
    access = <SBOL:Public>
    direction = <SBOL:inout>
  functionalComponent
    displayId = "TetR"
    definition = Q6QR72_protein
    access = <SBOL:Public>
    direction = <SBOL:inout>
  module
    displayId = "laci_inverter"
    definition = laci_inverter
    mapsTo
      displayId = "LacI_mapping"
      refinement = <SBOL:useLocal>
      local = lacI
      remote = TF
  module
    displayId = "tetr_inverter"
    definition = tetr_inverter
    mapsTo
      displayId = "TetR_mapping"
      refinement = <SBOL:useLocal>
      local = TetR
      remote = TF
  model
    toggleswitch
```

"refinement = <SBOL:useLocal>"

Is propagated from the **replaces** mapsTo constructor.

is_eqaul_to

LacI **is_eqaul_to** TF states that the two components must refer to the same componentDefinition

merge

LacI **merge** TF states that the properties from each component are merged.