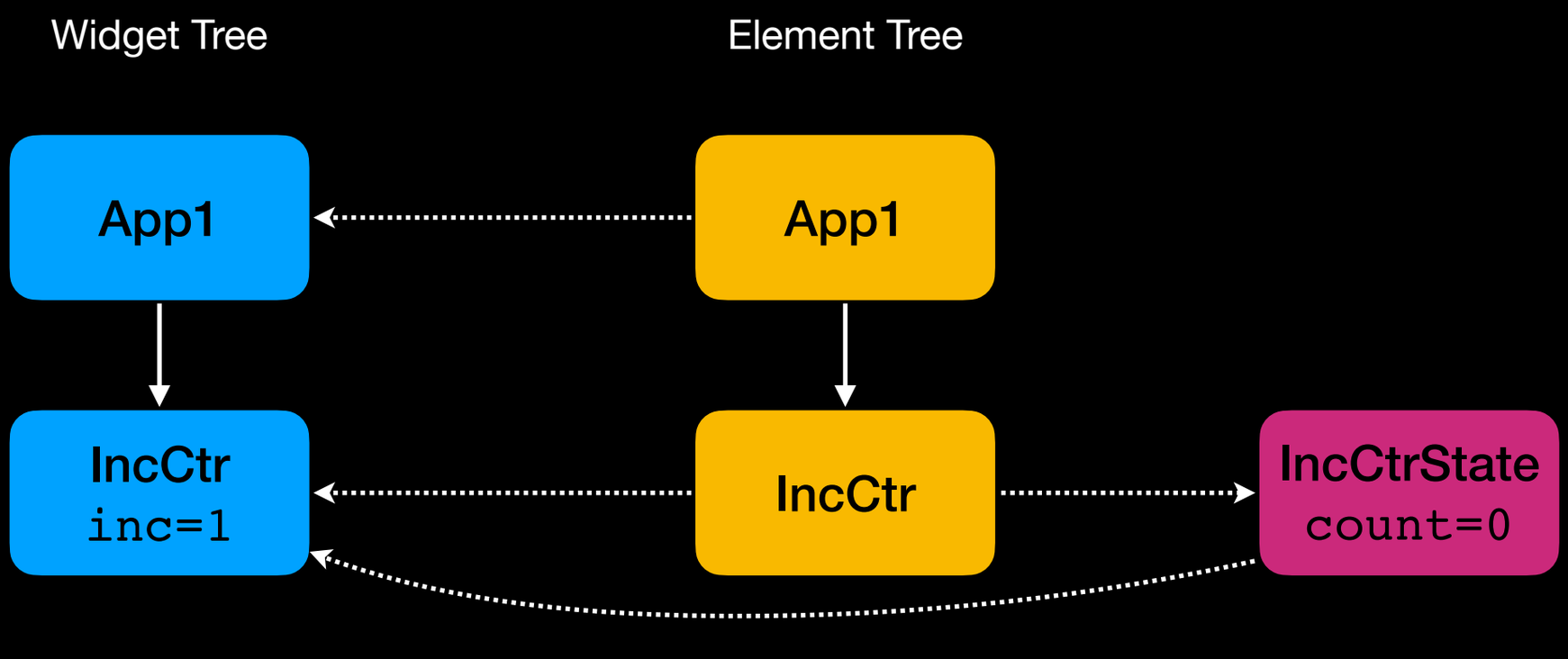
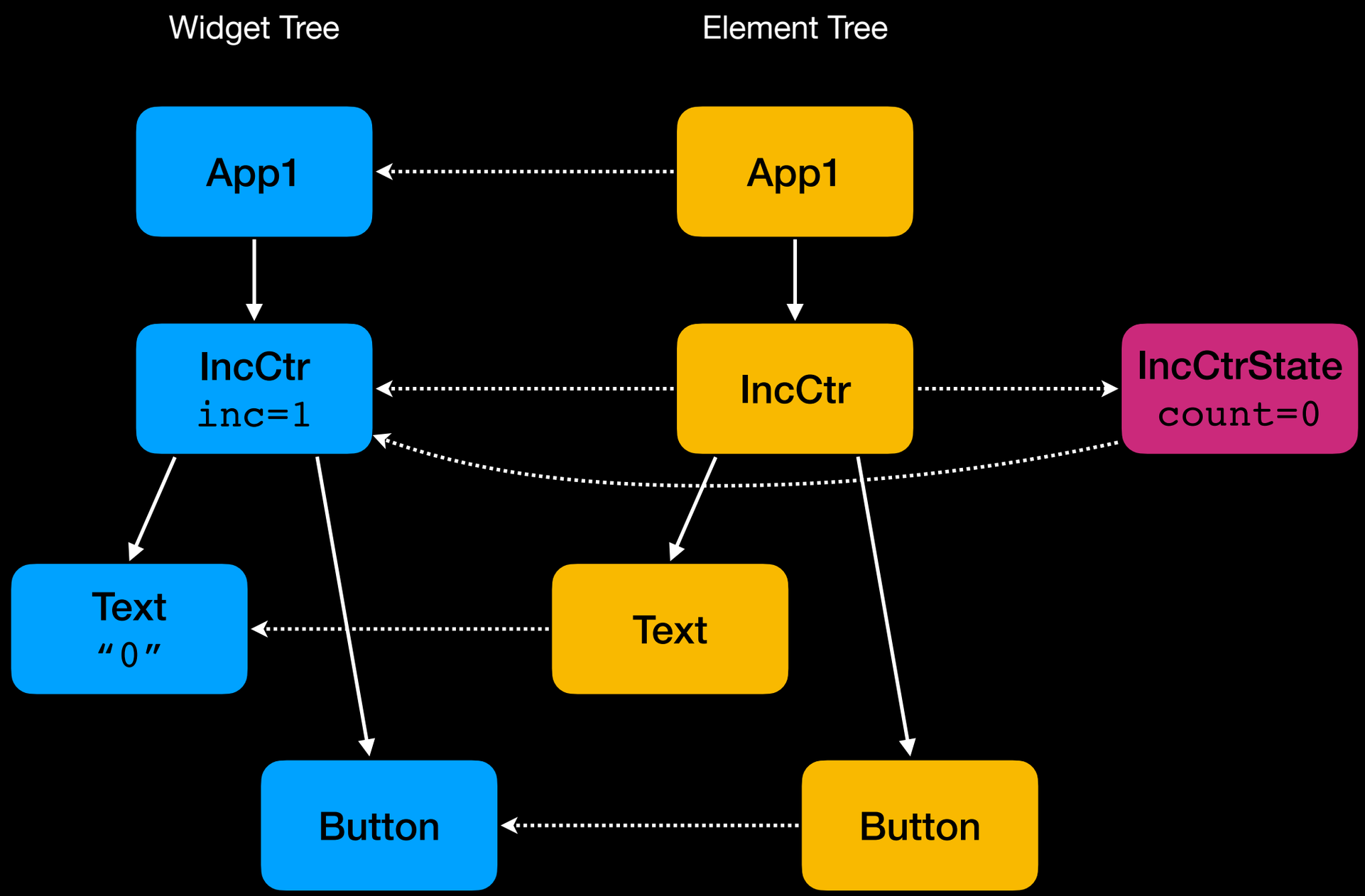
02_flutter_state_eg1

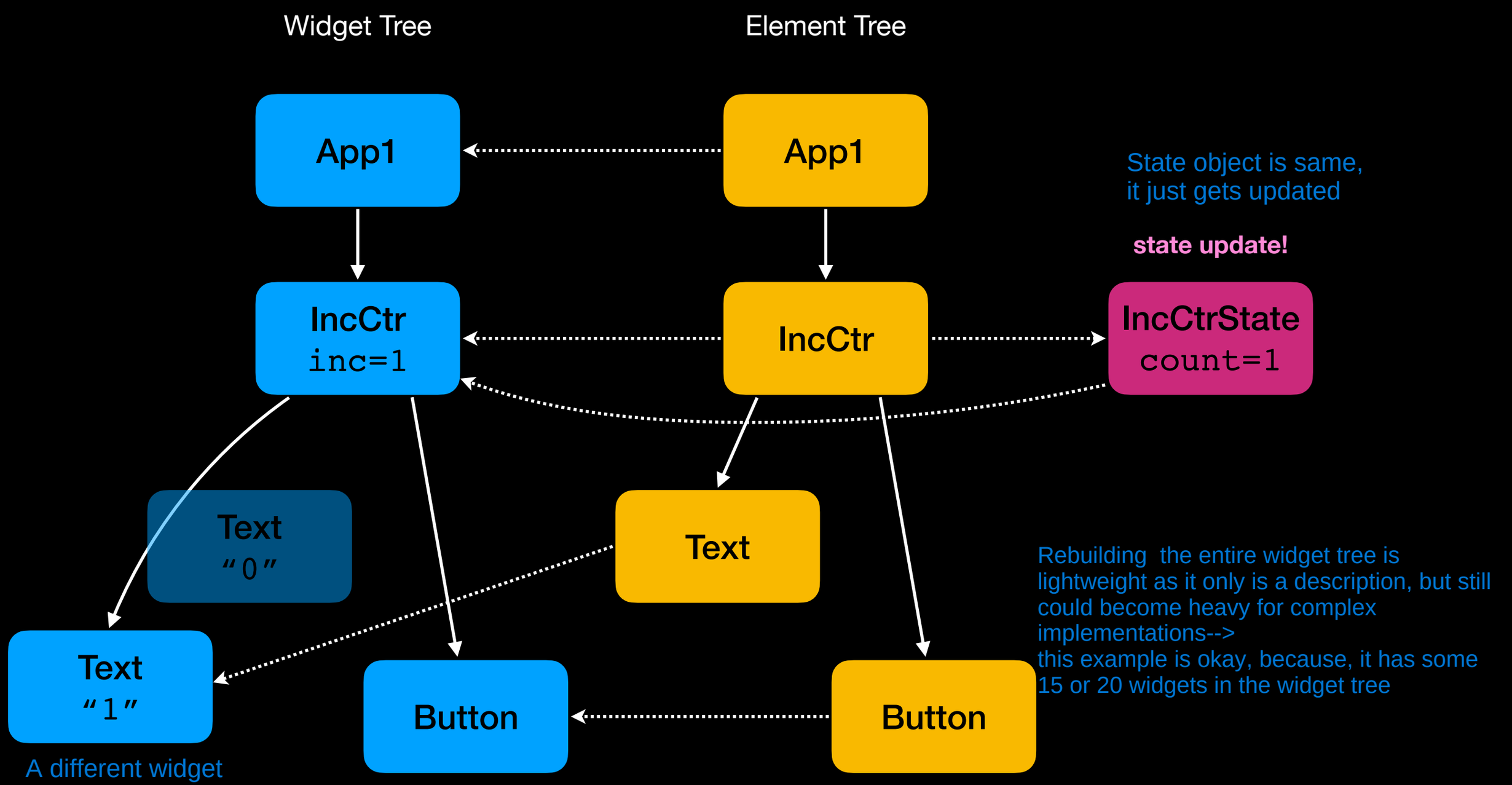


1) The App1 widget is created and its corresponding element gets created
2) App1 - Build method calls for IncCtr widget, --> IncCtr widget is created
3) IncCtr widget creates a State object (IncCtr State) ,, Meeanwhile, element is created for the IncCtr widget as well
4) This state object has the build method to create the children of the corresponding widget (IncCtr)

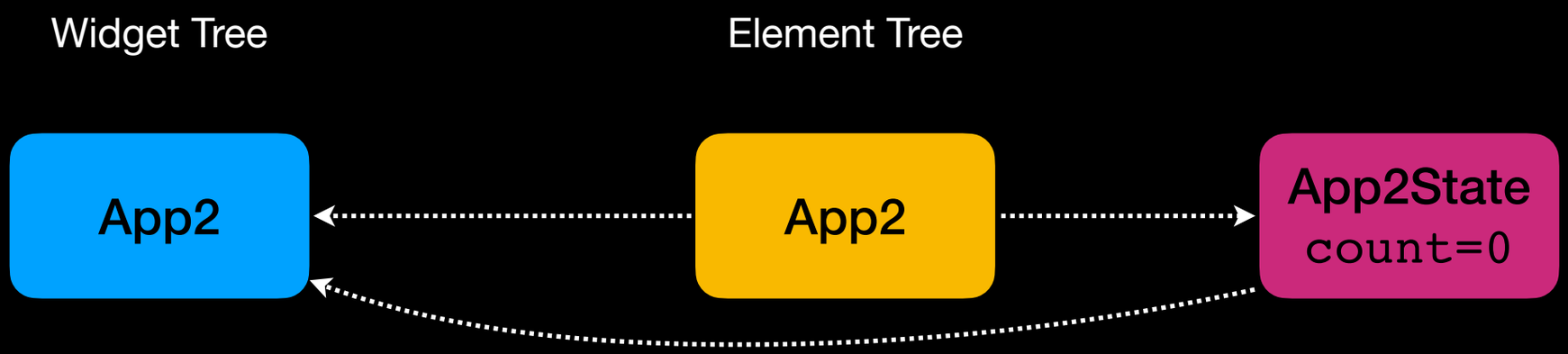
When the children widget are created by the State object, its corresponding elements created as well

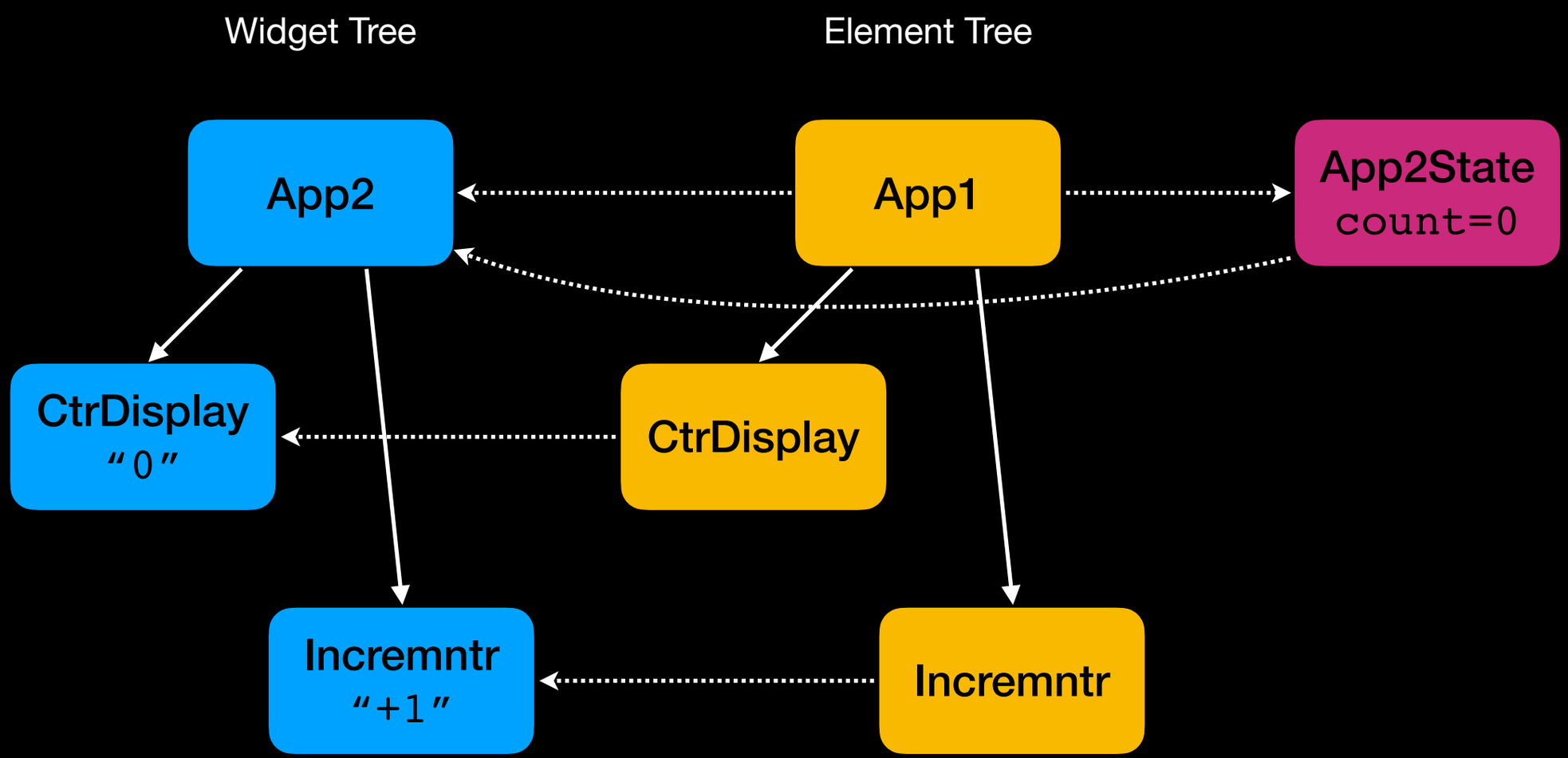


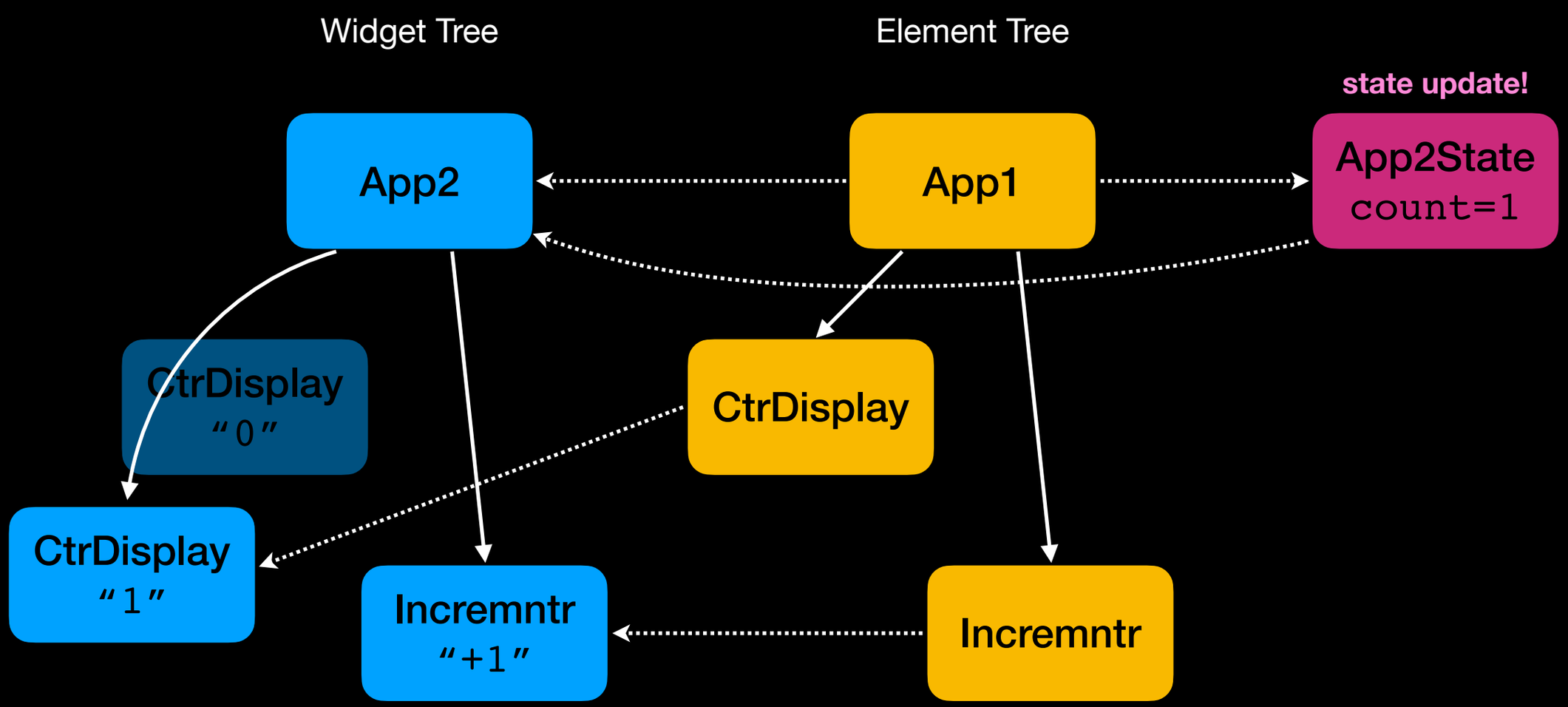
1) When there is a change in the child widget, the state of its parent needs to be changed-->when Text widget is having a updated value, then the state of the parent widget is what really gets changed, therefore, the part of the tree with the children are recreated on the whole in the widget tree vertical.
2) Note below, Only Text widget is changed in the widget tree, the button remains same. (Flutter walks through the new and old widget tree and changes element of only what is updated)--->So, the widget tree is fully recreated, but the elements are rebuilt only for changed widgets.
3) The corresponding element of the "Text" widget gets recreated as well.



02_flutter_state_eg2

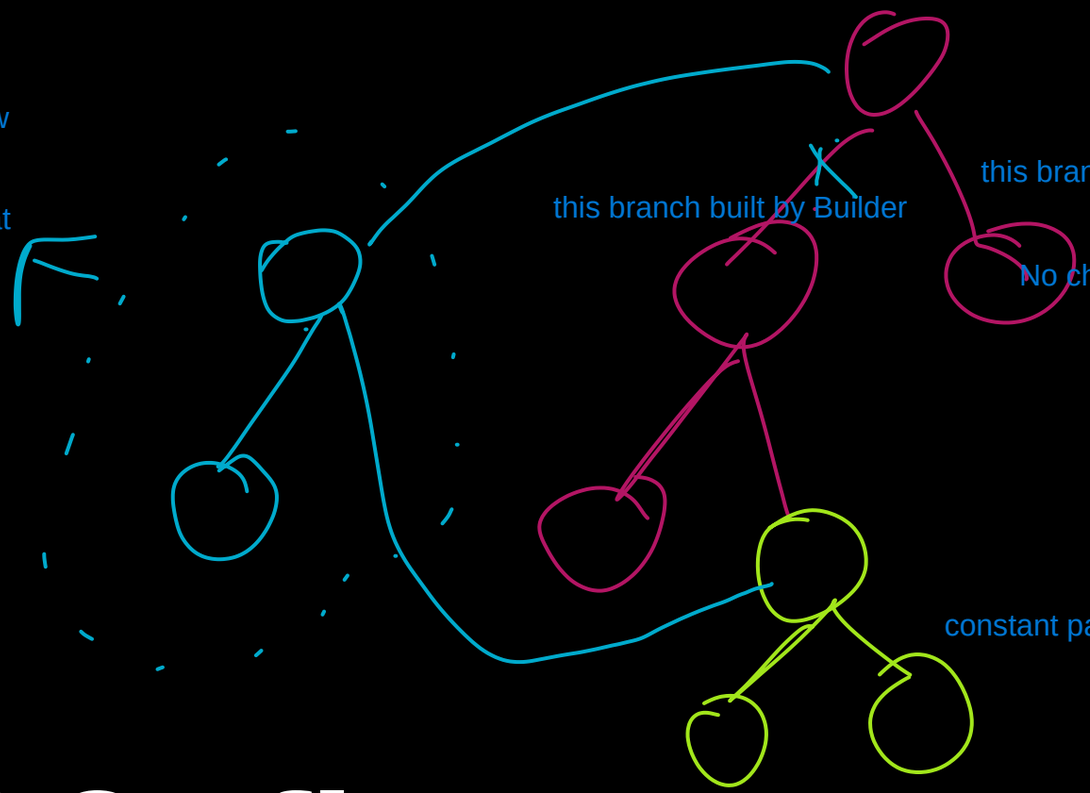

Widget Tree
Element Tree
App2
App2
App2State
count=0


Widget Tree
Element Tree
App2
App1
App2State
count=0
CtrDisplay
“0”
CtrDisplay
Incremntr
“+1”
Incremntr


Widget Tree
Element Tree
state update!
App2
App1
App2State
count=1
CtrDisplay
“0”
CtrDisplay
CtrDisplay
“1”
Incremntr
“+1”
Incremntr

Eg- 4 - how builder works

Say, there is a change now and the builder is invoked, it will rebuild the entire subtree except the one that was said to be constant



this branch built by Builder

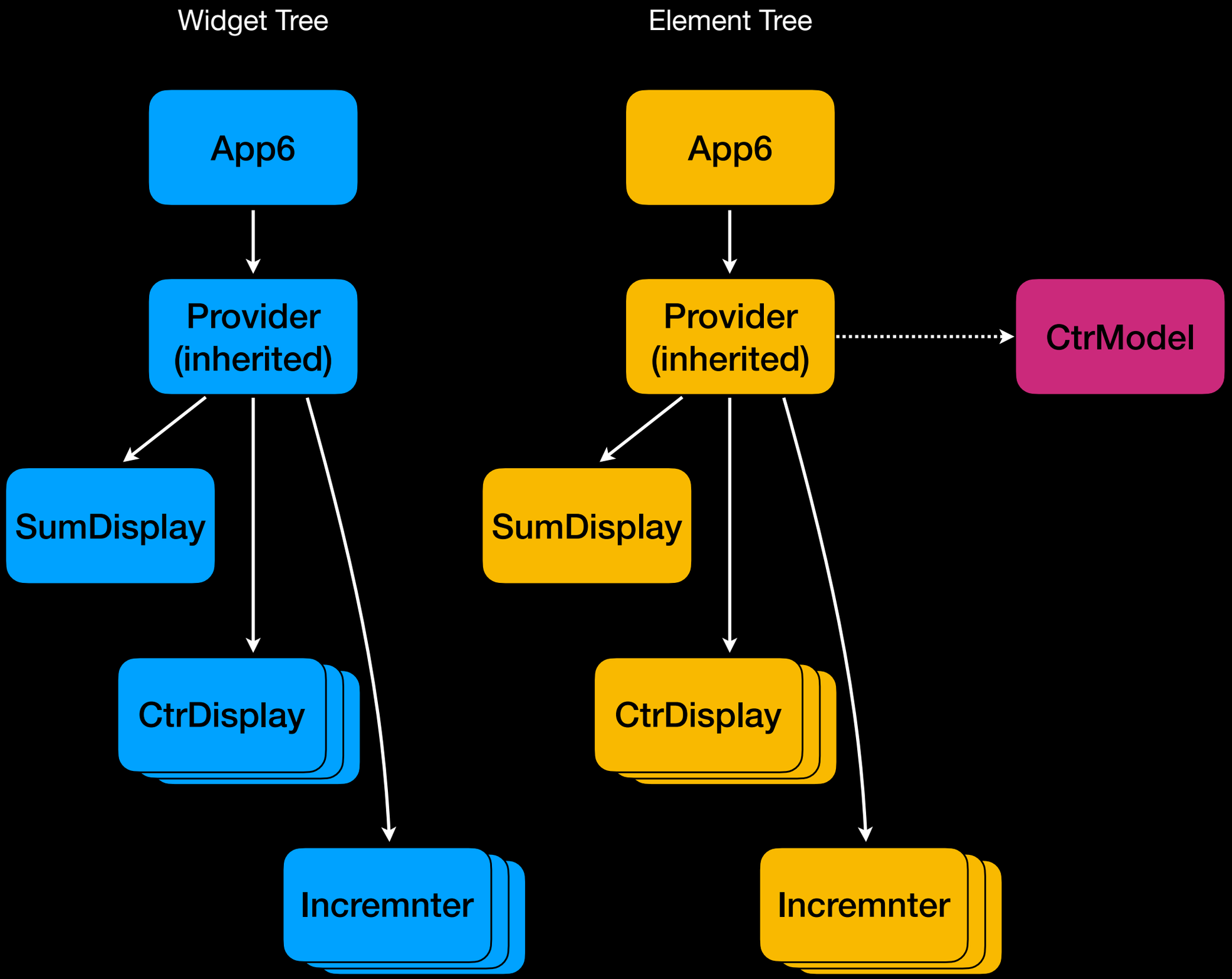
this branch built by parent

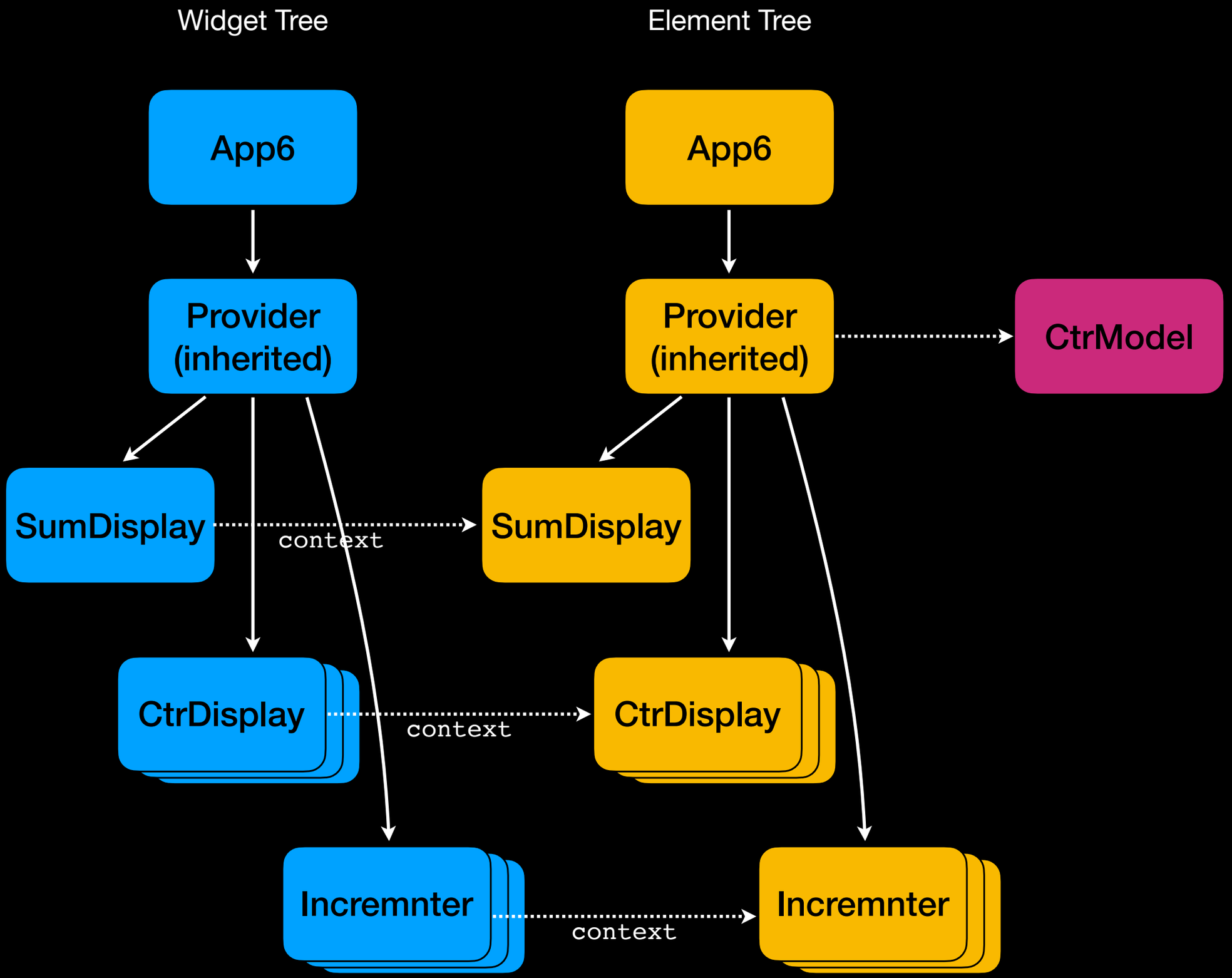
No change to this as it is not part of builder.

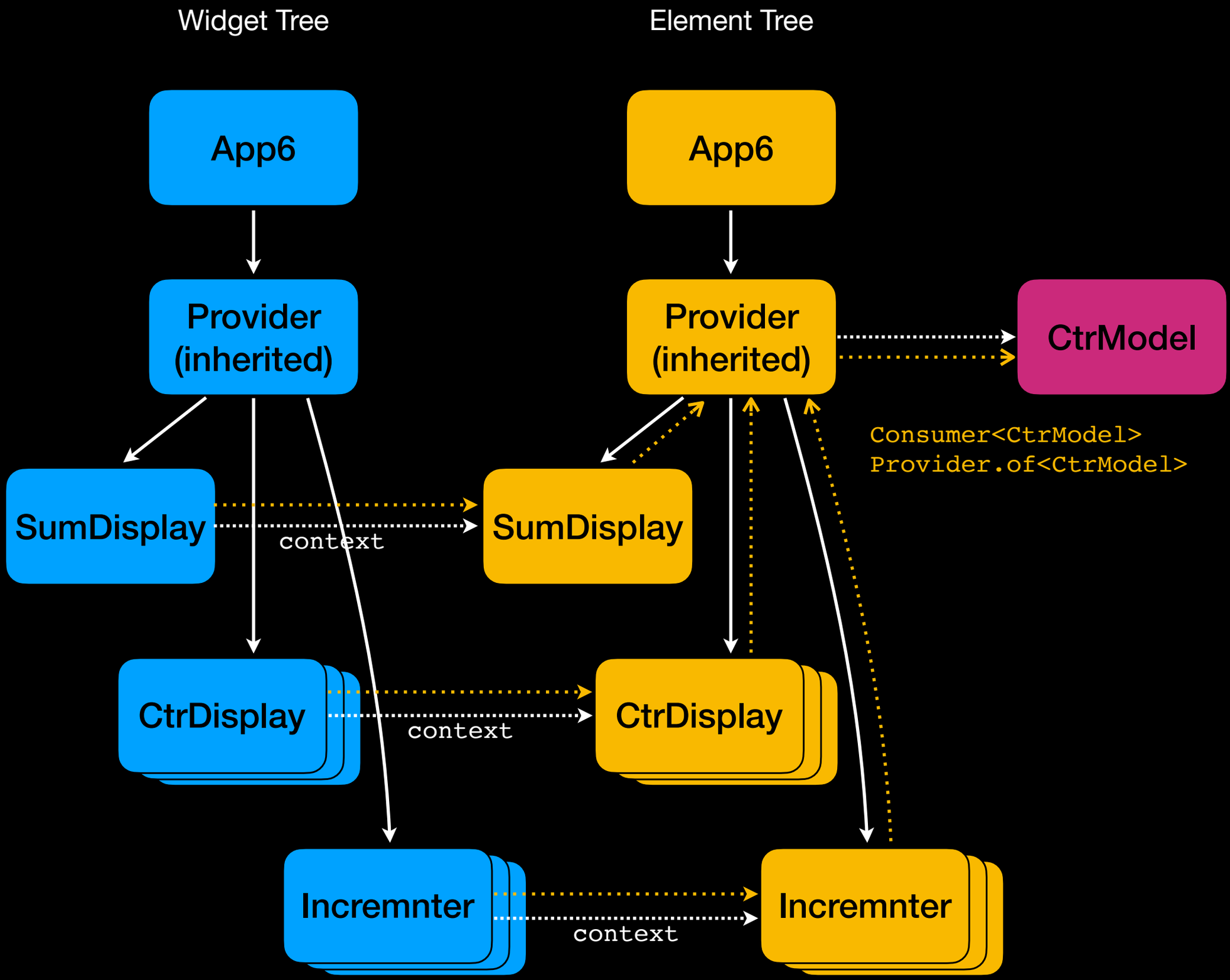
In case of the set state example, the entire Widget build is called ..so the entire widget tree under the root widget would be reconstructed.

constant part - sent as const child to builder

02_flutter_state_eg6


Widget Tree
Element Tree
App6
App6
Provider
(inherited)
Provider
(inherited)
CtrModel
SumDisplay
SumDisplay
CtrDisplay
CtrDisplay
Incremnter
Incremnter


Widget Tree
Element Tree
App6
App6
Provider
(inherited)
Provider
(inherited)
CtrModel
SumDisplay
context
SumDisplay
CtrDisplay
context
CtrDisplay
Incremnter
context
Incremnter


Widget Tree
Element Tree
App6
App6
Provider
(inherited)
Provider
(inherited)
CtrModel
Consumer<CtrModel>
Provider.of<CtrModel>
SumDisplay
context
SumDisplay
CtrDisplay
context
CtrDisplay
Incremnter
context
Incremnter