

## 18 Invaluable Lessons on ADF-JSF Interaction

1. An immediate command executes the action and actionListener in phase 2. Apply Request Values and then jumps to phase 6. Render Response, skipping validation and model update phases.
2. Using an immediate command, the UI components do NOT re-evaluate their underlying value binding, possibly showing stale data
3. `af:resetActionListener` does NOT reset child regions, use `ResetUtils.reset()` instead.
4. Always use `ComponentReference` in component binding getter/setter methods
5. Never use component binding in session-scoped beans, even `ComponentReference` won't be safe then.
6. When `immediate="true"` on Editable UI Component then:
  - a. Component validation is processed in phase 2. Apply Request Values
  - b. The validated and converted value is stored on the component
  - c. `valueChangeListener` is also called in this phase
7. Never set `immediate="true"` on an editable UI component, it prevents you from cancelling/abandoning a page.
8. You can programmatically execute JSF lifecycle phases 3 and 4 on a UI component:
  - a. `comp.processValidations(FacesContext.getCurrentInstance())`
  - b. `comp.processUpdates(FacesContext.getCurrentInstance())`
9. Items not in any sub-form are still processed in the JSF lifecycle when submitting a sub-form.
10. Layout gets messed up when using sub-forms. Use `panelFormLayout` within each subForm and `labelWidth` property to clean up.
11. Partial page refresh does not work across sub-forms.
12. Auto-submitted fields use ADF optimized lifecycle preventing premature validation on other fields
13. The components that are processed by ADF optimized lifecycle can be configured using `partialTrigger` property. This is known as Cross Component Refresh
14. Values set in value change listeners might be overridden in model update phase if not coded correctly.
15. Use programmatic PPR instead of `partialTriggers` property to prevent components to be processed by ADF optimized lifecycle, avoiding premature validation
16. To add components that should be processed in optimized lifecycle, the `partialTrigger` property must point to the boundary component
17. To show/hide a component, the parent component should be refreshed
18. Write previous 17 lessons down, print them, put them on the wall, learn them by heart, and reiterate them every week, it will save you tons of frustration!

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