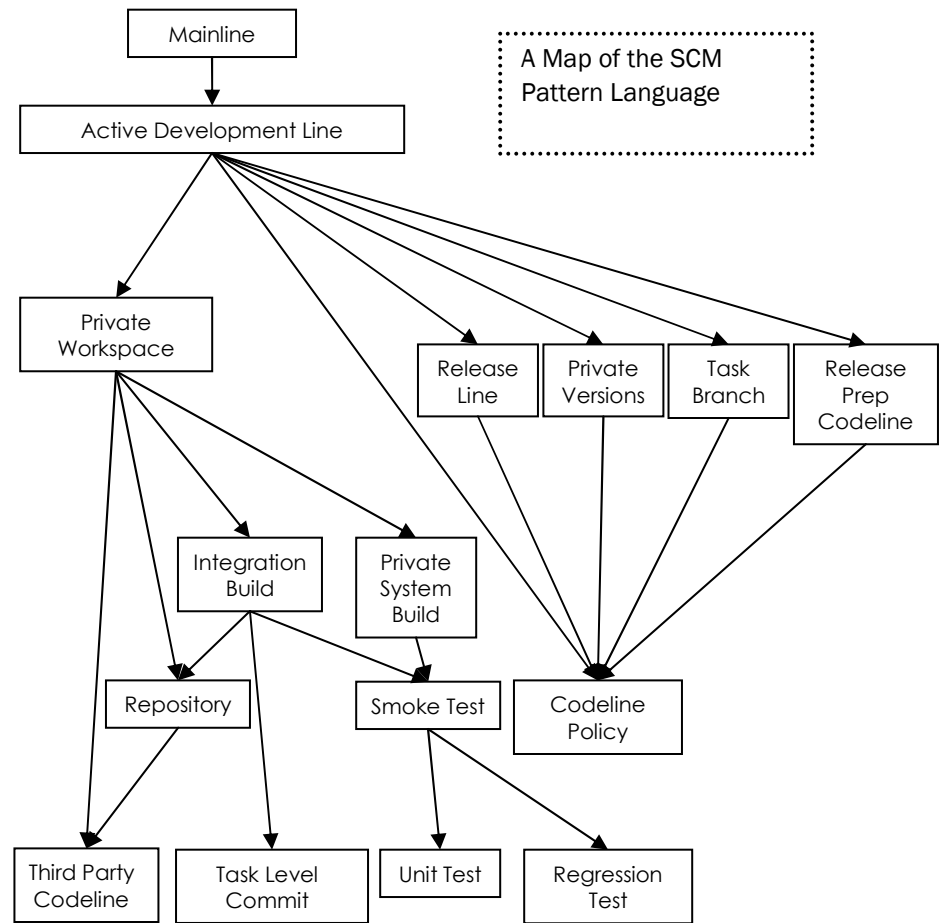


Software Configuration Management Patterns

Reference Card ■ www.scmpatterns.com

Pattern	Description	Completes	Complete with
Mainline	Minimize merging and keep the number of active code lines manageable by developing on a Mainline .		Active Development Line
Active Development Line	Keep a rapidly evolving codeline stable enough to be useful by creating an Active Development Line .	Mainline	Private Workspace, Private Versions, Task Branch, Release Line, Release Prep Codeline, Codeline Policy
Private Workspace	Prevent integration issues from distracting you, and from your changes causing others problems by developing in a Private Workspace .	Active Development Line	Third Party Codeline, Repository, Integration Build, Private System Build
Repository	Set up a new workspace by populating it from a Repository that contains everything that you need.	Private Workspace, Integration Build	Third Party Codeline
Private System Build	Check to see that your changes will not break the build by doing a Private System Build before committing changes to the Repository.	Private Workspace	Smoke Test
Integration Build	Ensure that your code base always builds reliably by doing an Integration Build periodically.	Private Workspace	Task Level Commit, Smoke Test
Third Party Codeline	Manage vendor code by using a Third Party Codeline .	Repository, Private Workspace	
Task Level Commit	Organize source code changes by task-oriented units of work and submit changes as a Task Level Commit .	Integration Build	
Codeline Policy	Create a Codeline Policy to help developers decide when to check in code to a codeline and what procedures to follow before a check-in on each codeline.	Private Versions, Active Development Line, Release Line, Release Prep Codeline, Task Branch	
Smoke Test	Ensure that the system still works after you make a change by running a Smoke Test .	Integration Build, Private System Build, Active Development Line	Unit Test, Regression Test
Unit Test	Verify that a module still works after you make a change by running a Unit Test .	Smoke Test	
Regression Test	Ensure that existing code doesn't get worse as you make other improvements by running a Regression Test .	Smoke Test	
Private Versioning	Use Private Versioning to enable you to experiment with complex changes locally, yet still be able to take advantage of the features of a version control system.	Active Development Line	Codeline Policy
Release Line	Maintain released versions without interfering with your current development by establishing a Release Line .	Active Development Line	Codeline Policy
Release Prep Codeline	Stabilize a codeline for an upcoming release while also enabling new work to continue on active codelines by doing the stabilization work on a Release-Prep Codeline .	Active Development Line	Codeline Policy
Task Branch	Have part of your team perform a disruptive task without forcing the rest of the team to work around them, using a Task Branch .	Active Development Line	Codeline Policy



The arrow from **PatternA** → **PatternB** means that **PatternA** needs **PatternB** to complete it. For example, the arrow from **Private Workspace** to **Integration Build** means that you need to implement **Integration Build** for **Private Workspace** to work.

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