

Feature	+ / - (de-) selected		man./autom.		GIT	SVN	Google Docs	Overleaf	IRIS	Onion
• Problem Space	+	+	+	+						
• Goals	+	+	+	+						
• Supported Collaborators	+	+	+	+						
▲ Two	-	-								-
▲ Up to Ten	-	-	+	+	+	+	+	+		+
▲ Hundreds	+	+	-	-	-	-	-	-		-
• Supported CSs	+	+	+	+	+	+	+	+	+	
▲ Single CS	+	+	+	+	+	+	+	+	+	-
▲ Multi CS	-	-	-	-	-	-	-	-	-	+
◦ Layout manually	-	-	-	-	+	+			+	+
◦ Publish Work	+	+	+	+	+	+	+	+	+	-
◦ Restrict	+	+	+	+	+	+	+	+	+	-
▲ Restrict Read Access	-	+	+	+	+	+	+	+	-	-
▲ Delete Information	+	-	-	-					-	-
▲ Obfuscate Information	-	-	+	-	+	+	+	+	+	-
◦ Deal with Evolution	+	+	+	+	+	+	+	+	+	+
◦ Undo	+	-	+	+	+	+	+	+	-	+
◦ Record Evolution	+	+	+	+	+	+	+	+	+	+
◦ Load Previous Versions	+	+	+	+	+	+	+	+	+	+
◦ Find Bug Cause	+	+	-	-	+	+	+	+	+	-
◦ Understand Model Evolution	+	+	+	+	+	+	+	+	+	+
◦ Context of Evolution	+	+	-	-	+	+	+	+	+	-
◦ Querying	+	+	-	-	+	+	+	+	+	-
◦ Get Statistics on Evolution	+	+	-	-	+	+	+	+	+	-
◦ Modify	+	+	-	-	+	+	+	+	+	-
◦ Restrict Append and Write Access	+	+	+	+	+	+	+	+	+	-
• Usage Context	+	+	+	+	+	+	+	+	+	+
• Users	+	+	+	+	+	+	+	+	+	+
◦ Versioning Expertise	+	+	-	-	-	-	-	-	-	+
• Artifacts	+	+	+	+	+	+	+	+	+	+
▲ Plain Text	+	+	+	+	+	+	+	+	+	-
▲ Source Code	+	+	-	+	+	+	+	+	+	-
▲ Table	-	-	+	-	+	+	+	+	+	-
▲ Models	-	-	-	-	+	+	+	+	+	+
▲ Files	+	+	+	+	+	+	+	+	+	-
▲ Other	-	-	+	-	+	+	+	+	+	-
• Platform	+	+	+	+	+	+	+	+	+	+
▲ Single	-	-	-	-	-	-	-	-	-	-
▲ Multi	+	+	+	+	+	+	+	+	+	+
• Location	+	+	+	+	+	+	+	+	+	+
▲ Off the Map - Offline	+	-	-	-	+	+	+	+	+	+
▲ On the Road - Unstable Connection	+	+	-	-	+	+	+	+	+	+
▲ In the Office - Stable Connection	+	+	+	+	+	+	+	+	+	+
• Tooling	+	+	+	+	+	+	+	+	+	+
◦ Command Line Interface	+	+	-	-	-	-	-	-	-	-
◦ Graphical User Interface	-	-	-	-	-	-	-	-	-	-
◦ Integrated in Artifact Editor	-	-	+	+	+	+	+	+	+	+
• Quality Requirements	+	+	+	+	+	+	+	+	+	+
◦ Versioning Quality	+	+	+	+	+	+	+	+	+	+
◦ Fast Restore Latest Version	+	+	+	+	+	+	+	+	+	+
◦ Fast Restore Any Version	+	+	+	+	+	+	+	+	+	-
◦ Low Disk Space Usage	-	-	+	+	+	+	+	+	+	-
◦ Low Memory Footprint	+	+	+	+	+	+	+	+	+	-
• Connection Quality	+	+	+	+	+	+	+	+	+	+
▲ Usable With No Connection	+	-	-	-	-	-	-	-	-	+
▲ Usable With Poor Connection	+	+	-	-	+	+	+	+	+	+
▲ Usable With Good Connection	+	+	+	+	+	+	+	+	+	+
• Collaboration Quality	+	+	+	+	+	+	+	+	+	+
◦ Awareness of Collaborators	-	-	+	+	+	+	+	+	+	-
◦ In Real-time	-	-	+	+	+	+	+	+	+	-
◦ Communication with Collaborators	-	-	+	+	+	+	+	+	+	-
◦ Disturbance Free	+	+	-	-	+	+	+	+	+	+
◦ No Accidental Loss of Information	+	+	+	-	+	+	+	+	+	+
◦ Layout Continuity	-	-	-	-	+	+	+	+	+	+
• Solution Space	+	+	+	+	+	+	+	+	+	+
• Capabilities	+	+	+	+	+	+	+	+	+	+
• Collaboration Mode	+	+	+	+	+	+	+	+	+	+
▲ Synchronous	-	-	+	+	+	+	+	+	+	+
◦ User Presence	-	-	+	+	+	+	+	+	+	-
◦ Selected Elements	-	-	+	+	+	+	+	+	+	-
◦ Ghost Cursor	-	-	+	+	+	+	+	+	+	-
◦ Movements	-	-	-	-	+	+	+	+	+	-
▲ Seamless Transition	-	-	-	-	+	+	+	+	+	+
▲ Asynchronous	+	+	-	-	+	+	+	+	+	+
• Direction	+	+	-	-	+	+	+	+	+	+
▲ Publish	+	+	-	-	+	+	+	+	+	+
▲ Receive	+	+	-	-	+	+	+	+	+	+
• Concurrency	+	+	+	+	+	+	+	+	+	+
▲ Concurrent	+	+	+	+	+	+	+	+	+	+
• Merging	+	+	+	+	+	+	+	+	+	+
▲ Append-only Merge	-	-	-	-	-	-	-	-	-	-
◦ 2-way Diff	-	-	-	-	-	-	-	-	-	-
▲ Common Ancestor Merge	+	+	+	+	+	+	+	+	+	+
• Derive deltas	+	+	+	+	+	+	+	+	+	+
◦ 3-way Diff	+	+	-	+	+	+	+	+	+	-
◦ Operation-based Diff	-	-	+	-	+	+	+	+	+	+
• Conflict Resolution	+	+	+	+	+	+	+	+	+	+
◦ Destructive	-	-	+	-	-	-	-	-	-	-
◦ Random	-	-	-	-	-	-	-	-	-	-
◦ Size of Model	-	-	-	-	-	-	-	-	-	-
◦ Time of Change	-	-	+	-	+	+	+	+	+	-
◦ FWW	-	-	-	-	+	+	+	+	+	-
◦ LWW	-	-	+	-	+	+	+	+	+	-
◦ Constructive	-	-	+	+	+	+	+	+	+	+
◦ Concatenation	-	-	+	+	+	+	+	+	+	-
◦ Insert in List	-	-	-	-	+	+	+	+	+	-
◦ Calculation	-	-	-	-	+	+	+	+	+	-
◦ Integrate Conflicts in Model	-	-	-	-	+	+	+	+	+	+
◦ Complex Strategy	-	-	-	-	+	+	+	+	+	-
◦ Heuristics	-	-	-	-	+	+	+	+	+	-
◦ Domain-specific	-	-	-	-	+	+	+	+	+	-
◦ Avoid Inconsistencies	-	-	-	-	+	+	+	+	+	-
◦ Manual	+	+	-	-	+	+	+	+	+	+
◦ Visualization of Conflicts	+	+	-	-	+	+	+	+	+	+
▲ Sequential	-	+	-	-	+	+	+	+	+	-
◦ Pessimistic Locking	-	+	-	-	+	+	+	+	+	-
• Locking Scope.Granularity	-	+	-	-	+	+	+	+	+	-
▲ Locking Scope.Fine	-	-	-	-	+	+	+	+	+	-
▲ Locking Scope.Coarse	-	+	-	-	+	+	+	+	+	-
◦ Branching Support	+	+	+	+	+	+	+	+	+	+
▲ Explicit	+	+	-	-	+	+	+	+	+	+
▲ Implicit	+	+	+	+	+	+	+	+	+	+
◦ Compare Two Versions	+	+	+	+	+	+	+	+	+	+
• Visualization of Differences	+	+	+	+	+	+	+	+	+	+
◦ Operation-based	-	-	+	-	+	+	+	+	+	+
◦ Diff-based	+	+	+	+	+	+	+	+	+	-
• Metamodel of Deltas	+	+	+	+	+	+	+	+	+	+
◦ File System	+	+	-	-	+	+	+	+	+	-
◦ File	+	+	+	+	+	+	+	+	+	-
◦ Line	+	+	-	+	+	+	+	+	+	-
◦ Syntax	-	-	+	-	+	+	+	+	+	+
◦ Composite / Transactions	-	-	+	+	+	+	+	+	+	+
• Granularity of Changes	+	+	+	+	+	+	+	+	+	+
• Change Scope.Granularity	+	+	+	+	+	+	+	+	+	+
▲ Change Scope.Fine	+	-	+	+	+	+	+	+	+	+
▲ Change Scope.Coarse	+	+	+	+	+	+	+	+	+	-
• VersionInterval.Interval	+	+	+	+	+	+	+	+	+	+
▲ VersionInterval.Immediately	-	-	+	-	+	+	+	+	+	+
▲ VersionInterval.Manually	+	+	-	-	+	+	+	+	+	-
▲ VersionInterval.Time-triggered	-	-	-	+	+	+	+	+	+	-
• PushInterval.Interval	+	+	+	+	+	+	+	+	+	+
▲ PushInterval.Immediately	-	-	+	+	+	+	+	+	+	+
▲ PushInterval.Manually	+	+	-	-	+	+	+	+	+	+
▲ PushInterval.Time-triggered	-	-	-	+	+	+	+	+	+	-
• PullInterval.Interval	+	+	+	+	+	+	+	+	+	+
▲ PullInterval.Immediately	-	-	+	+	+	+	+	+	+	+
▲ PullInterval.Manually	+	+	-	-	+	+	+	+	+	+
▲ PullInterval.Time-triggered	-	-	-	+	+	+	+	+	+	-
◦ History of State	+	+	+	+	+	+	+	+	+	+
• History Persistence	+	+	+	+	+	+	+	+	+	+
▲ Persistent	+	+	+	+	+	+	+	+	+	+
▲ Temporary	-	-	+	-	+	+	+	+	+	-
◦ History of Operations	-	-	-	-	+	+	+	+	+	+
◦ Query History	+	+	-	-	+	+	+	+	+	-
◦ Meta-data	+	+	-	-	+	+	+	+	+	-
◦ in Artifact Versions	+	-	-	-	+	+	+	+	+	-
◦ Retroactive Modification	+	-	+	-	+	+	+	+	+	-
◦ Record Meta-data	+	+	+	+	+	+	+	+	+	-
• ReadsArtifacts.AuthenticationAccessControl	+	+	+	+	+	+	+	+	+	+
• ReadsArtifacts.Access Control	+	+	+	+	+	+	+	+	+	+
▲ ReadsArtifacts.None	+	+	-	-	+	+	+	+	+	+
▲ ReadsArtifacts.Capability-based	-	-	+	+	+	+	+	+	+	-
▲ ReadsArtifacts.ACL	+	+	+	+	+	+	+	+	+	-
• ReadsArtifacts.Authentication	+	+	+	+	+	+	+	+	+	+
▲ ReadsArtifacts.Anonymous	+	+	+	+	+	+	+	+	+	+
▲ ReadsArtifacts.Authenticated	+	+	+	+	+	+	+	+	+	-
• ReadsHistory.AuthenticationAccessControl	+	+	+	+	+	+	+	+	+	+
• ReadsHistory.Access Control	+	+	+	+	+	+	+	+	+	+
▲ ReadsHistory.None	+	+	-	-	+	+	+	+	+	+
▲ ReadsHistory.Capability-based	-	-	-	+	+	+	+	+	+	-
▲ ReadsHistory.ACL	+	+	+	+	+	+	+	+	+	-
• ReadsHistory.Authentication	+	+	+	+	+	+	+	+	+	+
▲ ReadsHistory.Anonymous	+	+	-	+	+	+	+	+	+	+
▲ ReadsHistory.Authenticated	+	+	+	+	+	+	+	+	+	-
• Writes.AuthenticationAccessControl	+	+	+	+	+	+	+	+	+	+
• Writes.Access Control	+	+	+	+	+	+	+	+	+	+
▲ Writes.None	+	+	-	-	+	+	+	+	+	+
▲ Writes.Capability-based	-	-	+	+	+	+	+	+	+	-
▲ Writes.ACL	+	+	+	+	+	+	+	+	+	-
• Writes.Authentication	+	+	+	+	+	+	+	+	+	+
▲ Writes.Anonymous	+	+	+	+	+	+	+	+	+	+
▲ Writes.Authenticated	+	+	+	+	+	+	+	+	+	-
◦ AccessControlGranularity.Granularity	+	+	+	+	+	+	+	+	+	-
▲ AccessControlGranularity.Fine	-	-	-	-	+	+	+	+	+	-
▲ AccessControlGranularity.Coarse	+	+	+	+	+	+	+	+	+	-
◦ Offline Access	+	+	-	-	+	+	+	+	+	+
• Offline Read	+	+	-	-	+	+	+	+	+	+
◦ Read meta-info	+	-	-	-	+	+	+	+	+	-
◦ Offline Write	+	-	-	-	+	+	+	+	+	+
◦ Bi-directional Synchronization CS/AS	-	-	-	-	+	+	+	+	+	+
• Persist Abstract Representation	-	-	-	-	+	+	+	+	+	+
• Layout	-	-	-	-	+	+	+	+	+	+
▲ Deterministic Layout	-	-	-	-	+					