+ / — (de-) selected			Google Docs	eaf		
Feature man./autom. Problem Space Goals	+ + +	H SVN	+ + +	+ + Overleaf	+ HIRIS	+ + Onion
 Supported Collaborators ATwo AUp to Ten 	+	+	+ - +	+ - +	+ - +	+ - +
AHundreds ●Supported CSs ASingle CS	+ + +	+ + +	- + +	- + +	- +	- + -
AMulti CS Layout manually Publish Work	- + ·	- + -	_ _ +	_ _ +	- + +	+
 Restrict ARestrict Read Access Delete Information AObfuscate Information 	+ + + -	+	+ + + + +	+	+ - -	_ _ _
Obluscate information Deal with Evolution Undo Record Evolution	+ + +	+ - +	+ + +	++++	+ - +	+++++++
Load Previous VersionsFind Bug CauseUnderstand Model Evolution	+ + +	+++	+ - +	+ - +	+++++	+ +
Context of EvolutionQueryingGet Statistics on Evolution	+ +	+ +	_ _ _	_ _ _	+	<u>-</u>
ModifyRestrict Append and Write AccessUsage Context	+ + +	- +	- + +	- +	- - +	_ _ +
UsersVersioning ExpertiseArtifacts	+ + +	+ + +	+ + +	+ + +	+ - +	+ + +
APlain Text ASource Code ATable	+ +	+ +	+ - +	+	<u>-</u> -	_ _
AModels AFiles AOther ●Platform	+ -	+ -	++	+	+ - -	+ - -
ASingle AMulti • 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 	- + +	1 + +	- + +	+ +	+ +	+ + +
Fast Restore Latest VersionFast Restore Any VersionLow Disk Space Usage	+ +	+	+++++	++++	+	+
 Low Memory Footprint Connection Quality Usable With No Connection 	+ + +	+	+ + -	+	+	+
AUsable With Poor Connection AUsable With Good Connection ● Collaboration Quality	+ + +	+ + +	- +	- + +	+ + +	+ +
Awareness of CollaboratorsIn Real-timeCommunication with Collaborators	_ _	_ _	+ + +	+++++	+ + +	_ _ _
Disturbance FreeNo Accidental Loss of InformationLayout Continuity	+	+	- + -	- - -	+ +	+ + +
Solution SpaceCapabilitiesCollaboration Mode	+ + +	+ + +	+++++	+ + +	+ + +	+ + +
▲Synchronous ○ User Presence ○ Selected Elements			+ + +	+	+ + +	+
○ Ghost Cursor ○ Movements ▲Seamless Transition			+	+ - -	+ + +	1 +
Asynchronous ● Direction APublish	+ + +	+ + +			+ + +	+ + +
▲Receive Concurrency Concurrent	+ + +	+ + +	- + +	1 + +	+ + +	+ + + +
Merging△Append-only Merge○2-way Diff	+	+	+ - -	+ - -	+ - -	+ - -
ACommon Ancestor Merge • Derive deltas ○ 3-way Diff	+ + +	+ + +	+ + - +	+ + +	+ + + +	+ + - +
Operation-based DiffConflict ResolutionDestructive	+	+	+ + +	+	+	+
∘Random ∘Size of Model ∘Time of Change ∘FWW			- + -		-	-
∘FWW ∘LWW ∘Constructive ∘Concatenation			- + +	 	-	-+
∘Insert in List ∘Calculation	<u> </u>		+ - -	+ - -	_ _ _	<u>-</u>
 Integrate Conflicts in Model Complex Strategy Heuristics 	_ _ _	- -	<u>-</u> -	- -	- -	+ -
○ Domain-specific ○ Avoid Inconsistencies ○ Manual	- +	+ -	<u>-</u> -	<u>-</u>	- +	- +
 ○ Visualization of Conflicts ▲ Sequential ○ Pessimistic Locking 	+	+ + + -	- -	_ _	+	+ - -
 Locking Scope.Granularity ALocking Scope.Fine ALocking Scope.Coarse 	- 1 -	+ - +	_ 	_ _ _	-	
 ○ Branching Support ▲ Explicit ▲ Implicit 	+ + +	+ + +	+ + +	+ + +	+ + +	+ + +
Compare Two VersionsVisualization of DifferencesOperation-based	+ +	+ + -	+ + +	+ -	+ + +	+ + +
Diff-basedMetamodel of DeltasFile System	+ + +	+ + +	+ -	+	+ -	+
∘ File	+ + -	+ -	+ - +	+ -	- +	- +
 Composite / Transactions Granularity of Changes Change Scope.Granularity 	+++	++	+ + +	+ + +	+ + +	+ + +
▲Change Scope.Fine▲Change Scope.Coarse◆VersionInterval.Interval▲VersionInterval.Immediately	+ + +	++	+ + + +	+ + +	+ + +	+ + + +
AVersionInterval.Manually AVersionInterval.Time-triggered ● PushInterval.Interval	+ - +	+ - +	_ _ +	1 + +	_ _ _	- - +
♠PushInterval.Immediately♠PushInterval.Manually♠PushInterval.Time-triggered	+	+	+	+	+	+
● PullInterval.Interval ▲ PullInterval.Immediately ▲ PullInterval.Manually	+ - +	+ - +	+ + -	+ + -	+ + +	+ + +
♠PullInterval.Time-triggered◦ History of State• History Persistence	<u> </u>	- + +	- +	- +	- + +	+
History PersistenceAPersistentATemporaryHistory of Operations	+	+	+ + -	+	+ + + + +	+ - +
 Plistory of Operations Query History Meta-data in Artifact Versions	+ + +	+ +	<u> </u>	<u>-</u>	+ + +	- -
Retroactive ModificationRecord Meta-dataReadsArtifacts.AuthenticationAccessContro	+ + +	- + +	++++	- + +	+ + +	_ _ +
	+ +	+ +	+ - +	+ - +	+ - +	+ +
 ▲ReadsArtifacts.Capability-based ▲ReadsArtifacts.Authentication ▲ReadsArtifacts.Anonymous 	+ + +	+ + +	+ + +	+ + +	- + +	- + +
▲ReadsArtifacts.Authenticated • ReadsHistory.AuthenticationAccessControl • ReadsHistory.Access Control	+ + +	+++	+++++	+++++	- + +	- +
▲ReadsHistory.None▲ReadsHistory.Capability-based▲ReadsHistory.ACL	+ - +	+ + +	- - +	- + +	+	+ - -
 ReadsHistory.Authentication AReadsHistory.Anonymous AReadsHistory.Authenticated 	+ + +	+ + +	+ - +	+++	+ +	+ + -
Writes.AuthenticationAccessControlWrites.Access ControlAWrites.None	+ + +	+ + +	+ -	+ + -	+ + -	+ + + +
▲Writes.Capability-based▲Writes.ACL• Writes.Authentication▲Writes.Apapymays	++-	+ + -	+ + + -	+ + +	+ + +	- +
♠Writes.Anonymous♠Writes.Authenticated○ AccessControlGranularity.Granularity♠AccessControlGranularity.Fine	+ + +	+ + +	+ + + -	+ + +	+ +	+
▲AccessControlGranularity.Fine▲AccessControlGranularity.Coarse○Offline Access●Offline Read	+ + +	+++	+	+	+ + +	- + +
Read meta-info Offline Write Bi-directional Synchronization CS/AS	+ + -	- 1 1	<u> </u>	 - -	+ + +	+ + + +
 Persist Abstract Representation Layout ADeterministic Layout 			<u>-</u>	 - -	+ + -	+ +
Artisan Layout ○Incremental Synchronization ○Persist Concrete Syntax					+ + +	+ + + +
 Operating Environment Editor Integration AStandalone 	+ + +	+ + +	+ +	+	+ + -	+ +
▲Integrated ∘GUI ∘Diff Visualization			+++++	+ + +	+ + +	+ + + +
Level of CSLevel of ASMerge Visualization			+	+	+ + + +	++++++
BranchingReal-Time Change PropagationEdit Operation Information			+	+	+ + +	+ + +
 Network Network Topology ▲Centralized ▲Decentralized 	+ + +	+ + +	+ + +	+ +	+ +	+ + +
▲Decentralized • Communication Protocol ▲Peer-2-Peer ▲Client-Server	+ + +	+ + +	- + - +	- + - +	- + - +	+ - +
▲Client-Server • Design Decision • Data • Location of Data	+ + +	+ + +	+ + + +	+ + + +	+ + + +	+ + + +
Location of Data▲remote▲local○full	+ + + +	+ + -	+	+	+ + + +	+ + + + +
∘full ∘partial ∘Version Data •Primitive History Entries	+ + + +	- + + +	- - + +	- +	+ + +	+ - + +
● Primitive History Entries ▲Snapshots of State ○ Diffing Algorithms ▲Operations	+ + -	+ + -	+ + +	+ +	+ +	+ + + +
▲Operations ○Snapshots for Performance ▲Snapshot Latest Version ▲Snapshot Intermediate Versions		1 1 1	_ _ 	- - -	+ + + +	-
◆Snapshot Intermediate Versions ◆History Structure △Linear △Directed Acyclic Graph	+ - +	+ +	- + -	- + +	+ - +	+ + +
 Version IDs Alncrementing Integers AContent Addressed 	+ - +	+ +	- + -	+	+	+ + - +
ACONTENT Addressed AGUIDs State Data State-based CRDT	+ - + -	1 + 1	- + -	+ +	+ +	- -
State-based CRDTOperations DataOperation-based CRDTMeta Data	 - +	 - - -	- - +	- - +	+ + +	+
∘User	+ + +	+ + +	+ + -	+ +	+ + +	
∘ Timestamp ∘ Context Information		+	+	_	+	
·	++	+	+	+	+	_
Context InformationOther InformationAccess Control	+ +	+ +	_	+	+ - + + +	_ _ _ _
 Context Information Other Information Access Control Centralized Access Control Decentralized Access Control Encryption 	+ + +	+ + - 1 + + 1	_	+ +	+ - + +	- - - + -