

Agile-Waterfall Hybrid Template







Agile-Waterfall Hybrid Template

Agile (and Scrum), and the Waterfall/V-model seem to be fundamentally different methods. They may, however, be complementary in complex, n-tier architecture development. In the case of system of systems development for the Internet of Things, for example, (scaled) Agile/Scrum, Waterfall/V-model and Hybrid release streams may be combined during the development of hardware, software, and service components.



•	Release

Agile-Waterfall Hybrid Template » Trackers								A Views ⊿ II.
Releases #115043								Views ⊿ II.
Item more v							Filter	Advanced
CoolApp v0.1beta late by 61 days (Feb 07)	20 ^{sp} committed	0%	0 ^{co} done	20 57 open		V	Releases	
isere erste coole app	8 items	50%	4 done	4 open			⊿ Plan releases	Show released
	15h planned	140%	21h spent	Oh remaining			CoolApp v0.1beta	
	1 overtime	6h overtime 1 ove	ardue				Release 0.9beta Sprint 0.9.1	
							Sprint 0.9.2 Release 1.0	
Release 0.9beta due in 12 days (Apr 22)	2 sprints	0%	0 closed	2 open		V	Sprint 1.0.1 Sprint 1.0.2	
rst beta release	72 ^{5P} committed	0%	0 ^{se} done	72 se open			Release 1.1	
	28 items	71%	20 done	8 open			Sprint 1.1.1	
	5h planned	2%	Oh spent	4h remaining				
overtime 0 overdue								
Sprint 0.9.1 late by 107 days (Dec 23 2013)	32 ^{sr} committed	0%	0 ^{se} done	32 17 open		V		
first sprint for release 0.9b	24 items	79%	19 done	5 open				
	5h planned	2%	0h spent	4h remaining				
0 overtime 0 overdue								
Sprint 0.9.2 late by 78 days (Jan 21)	40 ^{5P} committed	0%	0 ^{se} done	40 ^{se} open		¥		
second sprint for release 0.9b	3 items	0%	0 done	3 open				
	0 overtime	0 overdue						
Release 0.9beta Backlog	5P committed	%	5P done	0 [™] open				
	1 items	100%	1 done	0 open				



The main elements of Codebeamer's Agile-Waterfall Hybrid Template

- Software user stories are used in Agile/Scrum to define the basic unit of work for the Agile development team. Tasks generated from user stories can be attached to sprints, and assigned to team members.
- **System requirements** (requirements of hardware & architecture, as well as software requirements) describe the basic system architecture and design, both hardware and software.
- Change Request and Bugs are requests coming from Product Owners or Users to fix bugs or change certain features. A user-friendly Service Desk option is available to help users conveniently submit issues.

Sprint

- Test Management features cover requirementsbased testing (traceability from requirements to test cases) and parametrized testing on multiple hardware and software configurations. Test
 cases may be saved and re-used, executed manually or automatically, and their results as well as the test coverage of all requirements analyzed.
- **Release and Sprint planning** is supported by the Agile Planning Board with release statistics and Gantt charts. The planner offers a convenient drag & drop feature to create and manage release hierarchies and to edit releases using the Gantt chart.

Start v Projects v Wiki v	Documents Trackers	Reports v	SCM Repositories v	Baseline	s Membe	ers Admin	Tras	1			4
Agile-Waterfall Hybrid Template » Tracker Release 0.9beta » Release statistic:										Views 🧕	₩ ,
Sprint											Filter
Release 0.9beta due in 12 d	lays (Apr 22)	2 sprints			2 open			Rele	ease 0.9beta Burn	n Down	
beta release		28 items		20 done	72 ^{to} open						
		28 items 20 done 8 open 20 5 h planned 2% 0 h spent 4 h remaining 20				· · ·					
vertime 0 overdue		on planned		on spent	4n remaining			15			
Sprint 0.9.1 late by 107 days (Dec 23 2013)		32 ¹² committed	0%	0 ^{sr} done	32 [™] open	' open				····	
first sprint for release 0.9b		24 items	79%	19 done	5 open			5.			
		5h planned	2%	Oh spent	4h remaining			0			· ·
0 overtime 0 overdue									Mar-2013 Jun-2013 Se		
CAR- ≡ 66389 ♥ Transmission	1		NEW		т	gile-Waterfall Hybrid emplate → App tequirements			remainin		
	1		NEW		T F ermann T	emplate → App tequirements gile-Waterfall Hybrid emplate → User		Membe	remainin		Resolved/Close
STORY- 66355 Monte feature	n			Ack	T F Sermann T S	emplate → App tequirements gile-Waterfall Hybrid emplate → User ttories		Membe	remainin rs	ng ideal	
	,			Ack	ermann T S no- A veloper T	emplate → App tequirements gile-Waterfall Hybrid emplate → User stories gile-Waterfall Hybrid emplate → Test Run	15		remainin rs	ng ideal Open	Resolved/Close
= 66389 Image: Transmission = STORY- 66385 Image: Transmission = TESTRUN- 63675 Image: Testrun- 63675 = STORY- 5100 Image: Testrun- 5100			торо	Ack Der Dev	rermann T sermann S no- A reloper T no- T	emplate → App tequirements gile-Waterfall Hybrid emplate → User itories gile-Waterfall Hybrid	15	1	remainin rs	ng ideal Open 1	Resolved/Close
66389 Image: Tankmission 66389 Image: Tankmission 66387 Image: Tankmission 65375 Image: Tankmission 65377 Image: Tankmission <td>ication</td> <td></td> <td>TODO</td> <td>Ack Der Dev 22 ^{sp} Der Dev</td> <td>T F F Rermann S S No- A Veloper T T No- T S S Rermann T T</td> <td>amplate → App tequirements iglie-Waterfall Hybrid emplate → User tories glie-Waterfall Hybrid glie-Waterfall Hybrid emplate → User tories glie-Waterfall Hybrid emplate → User</td> <td>15</td> <td></td> <td>remainin re Ackermann Demo-Developer j.koppany</td> <td>Open 1 4 5057</td> <td>Resolved/Close 8 6</td>	ication		TODO	Ack Der Dev 22 ^{sp} Der Dev	T F F Rermann S S No- A Veloper T T No- T S S Rermann T T	amplate → App tequirements iglie-Waterfall Hybrid emplate → User tories glie-Waterfall Hybrid glie-Waterfall Hybrid emplate → User tories glie-Waterfall Hybrid emplate → User	15		remainin re Ackermann Demo-Developer j.koppany	Open 1 4 5057	Resolved/Close 8 6
65399 Image: Tankmission 65399 Image: Tankmission 6537 Image: Tankmission 1 TESTRUN- 5377 Image: Tankmission 1 TESTRUN- 5377 Image: Tankmission 2 TESTRUN- 5377 Image: Tankmission 3 TOTY- 5377 Image: Tankmission 4 Story- 5377 Image: Tankmission 5 Story- 5377 Image: Tankmission 5 Story- 5377 Image: Tankmission	ication		TODO IN PROGRESS IN PROGRESS	Ack Der Dev 22 ^{sp} Der Dev 10 ^{sp} Ack	r T F R Kermann T S No- Peloper T Reloper T S Reloper S S C R R R R R R R R R R R R R R R R R	Template → App tequirements gillo-Waterfall Hybrid emplate → User itories gillo-Waterfall Hybrid emplate → Test Run gillo-Waterfall Hybrid tories gillo-Waterfall Hybrid emplate → User itories	15	1	remainin Ackermann Demo-Developer	Open 1 4 5017 3 6219	Resolved/Close 8 6 0
65389 Image: Tankmission 65389 Image: Tankmission 6537 Image: Tankmission 1 TESTRUN- 65375 Image: Tankmission 1 TESTRUN- 65375 Image: Tankmission 1 TESTRUN- 65375 Image: Tankmission 1 TESTRUN- 65375 Image: Tankmission 2 STORY- 5307 Image: Tankmission 2 STORY- 5307 Image: Tankmission	ication		TODO	Ack Der Dev 22 ^{sp} Der Dev 10 ^{sp} Ack	rrann	amplate → App tequirements iglie-Waterfall Hybrid emplate → User tories glie-Waterfall Hybrid glie-Waterfall Hybrid emplate → User tories glie-Waterfall Hybrid emplate → User	15		remainin re Ackermann Demo-Developer j.koppany	Open 1 4 6007 3 6237 0	Resolved/Close 8 6 0 1

www.intland.com



Typical use cases for Agile-Waterfall Hybrid development

- 1. Product (system of systems) development for the Internet of Things = Hardware + Software + Service development lifecycles.
- 2. N-tier application development with legacy processes: software development is gradually modernized by adopting Agile, while collaboration with hardware teams (still using a Waterfall process) is important.

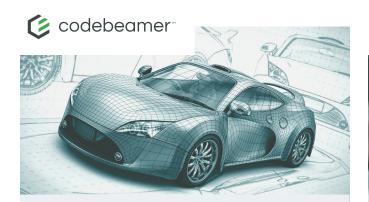
The benefits of using an Agile-Waterfall Hybrid approach in development

- Development units may keep using their tried and tested development methods while collaborating on a single product with other units that are adopting Agile.
- Easier adaptation to changes, with a focus on delivering quality products on time and on budget. The Waterfall/V-model component supports sticking to the predefined plan regarding the basic system architecture. The Agile component improves collaboration and enables teams to flexibly and efficiently adapt to changing requirements.
- Using the Hybrid methodology is greatly supported by our platform's Product Line Engineering functionality. This helps re-use and adapt software code to further variants of the same product, saving time and resources when dealing with a series of largely similar products.

Agile-Waterfall Hybrid Ten	nplate							
Trackers #115054								
Tracker more v								
								Useful Shortcuts
🖌 Work items				Config items				
	Key	Open	Modified at		Key	Open	Modified at	User Stories Tasks ✓
App Requirements	CAR	24	Apr 07 15:56	☆ V Releases	RELEASE	9	Feb 12 20:28	• Bugs 🕷 • Releases Ū
숬 😨 Requirements	REQ	42	Yesterday 13:56	☆ 📔 Test Cases	TESTCASE	39	Apr 07 10:15	
숬 🚱 System Spec	SYSSPEC	21	Today 10:24	☆ 💽 Test Sets	TESTSET	9	Apr 04 16:50	
Portfolio Backlog	PfBlg	6	Mar 19 14:02	Configurations	TESTCONF	7	Jan 09 14:58	Issue Activities
숬 🛆 User Stories	STORY	35	Apr 03 19:01	슈 🖳 Platforms	PLATFORM	0	-	Today
☆ 🛆 Change Requests	CRQ	2	Mar 19 11:43	Summary:		64		Chassis updated by sandor.szabo Modified: Description Today 10:24 + (ISSUE:6203)
📩 🔽 Tasks	TASK	34	Apr 07 15:54					Inductive Charging updated by sandor.szabo Modified: Parent Today 19/23 + IRSUS-82231
샀 🕱 Bugs	BUG	13	Apr 04 16:55					Today 10:23 • [ISSUE:66221]
📩 D Test Runs	TESTRUN	4	Apr 07 10:15					Charger deleted by sandor.szabo Today 10:23 + [ISSUE:66220]
🕁 💽 Timekeeping	WLOG	12	Apr 04 15:26					Charger updated by sandor.szabo Modified: Description Today 10:23 * (ISSUE:#6220)

Trackers





PTC®'s Codebeamer technology is an Engineering and Application Lifecycle Management (EALM) platform for advanced product and software development. The open platform extends ALM functionalities with product line configuration capabilities, and provides unique configurability for complex processes.

Start your free 30-day trial!

TRY NOW ightarrow



Codebeamer X is an Engineering Lifecycle Management (ELM) platform for the development of software-driven products. For life sciences companies, it extends ALM functionalities with regulatory process templates, quality management, and review boards. All this in a single, tightly integrated platform that you can easily configure for your processes. **Try free for 30 days – no strings attached, no credit card required!**

TRY NOW ightarrow

Our solutions are successfully used by:





DIGITAL TRANSFORMS PHYSICAL