
Development in an Agile Environment

Craig Judson

Who are Codeweavers?

Small Company

Started in 2001 to develop an in-house Finance Broker System

Primarily in Motor Finance

Focus on delivering quality software, fast

One of a handful of companies in the UK implementing Agile to this extent





A Brief History

2001 - 2007 In Chaos

Moved to Scrum and introduced TDD

KanBan (Work in Progress Boards)

The Goal

Theory of Constraints <http://theoryofconstraints.blogspot.co.uk/2007/06/toc-stories-2-blue-light-creating.html>

Single Piece Flow

Kaizen

Identifying Chaos

I.T. driving business

Time wasted "fire-fighting"

Not working on most valuable deliverables

Deployment Gremlins

Unable to scale or predict projects

Knowledge Silos



What is Agile?

The Manifesto:

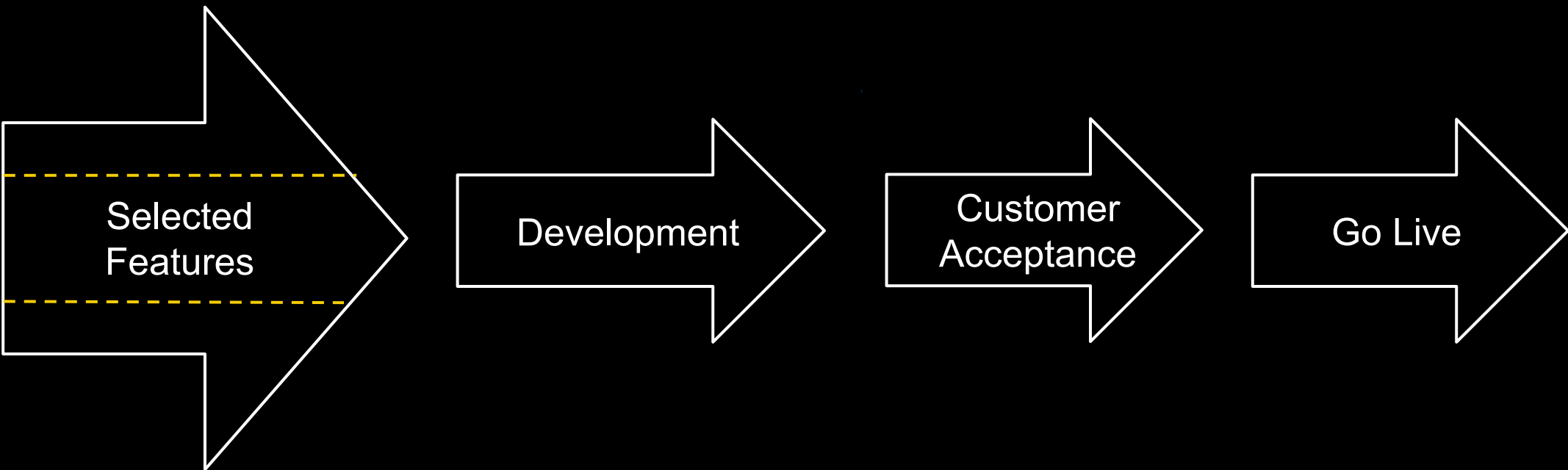
Individuals & interactions over processes & tools

Working software over comprehensive documentation

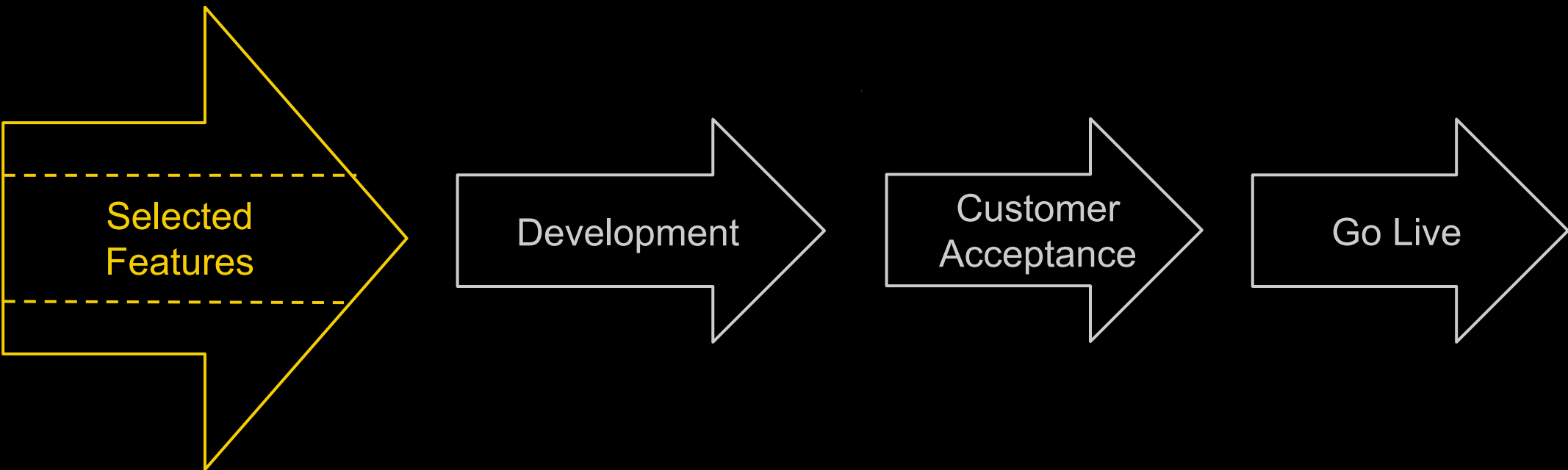
Customer collaboration over contract negotiation

Responding to change over following a plan

The Process



The Process - Selecting Features



The Process - Selecting Features

Various forms

- Legislation changes
- Email
- Internal improvements

High level prioritised backlog

Organised by operations



Example MMF

Showroom

£10000.00

As a dealer I would like the finance quote to update when a different term is entered.

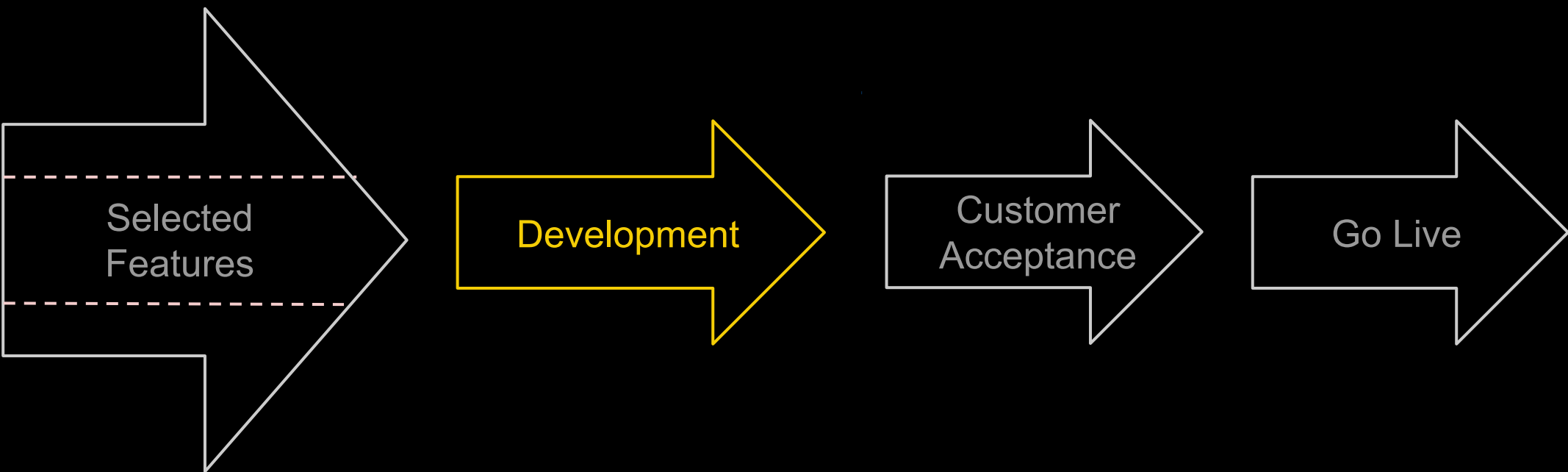
C: 01 / 01

S: 03 / 01

F: 05 / 01

L: 05 / 01

The Process - Development



The Process - Development Cycle

Planning (CRC, card up tasks)

Development

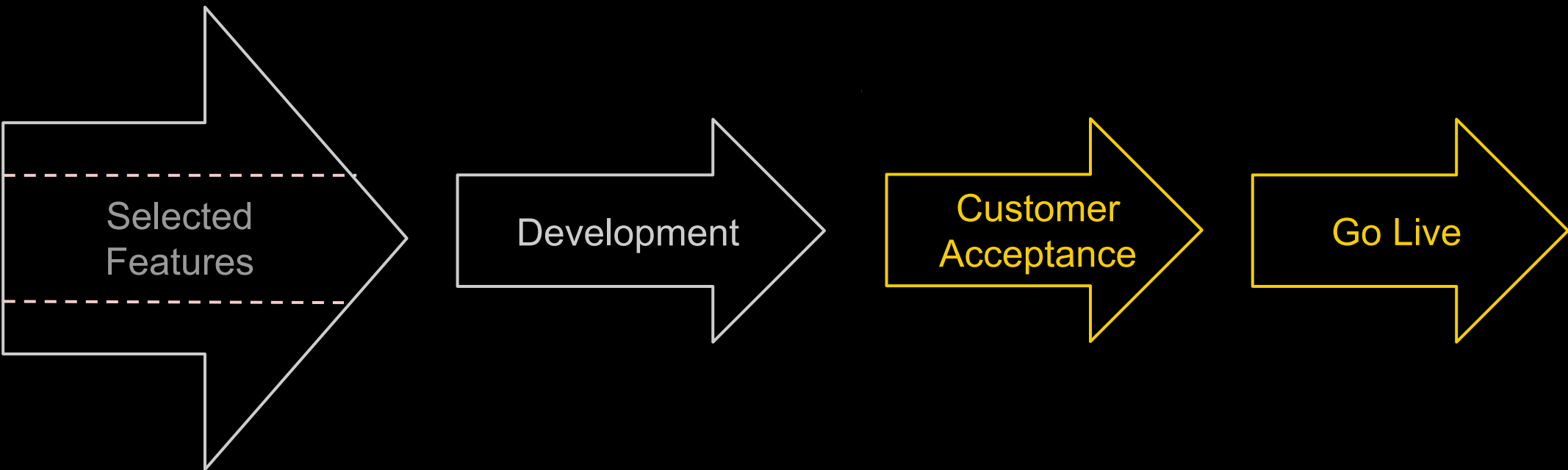
Demonstrate Work

Customer Acceptance

Live Deployment

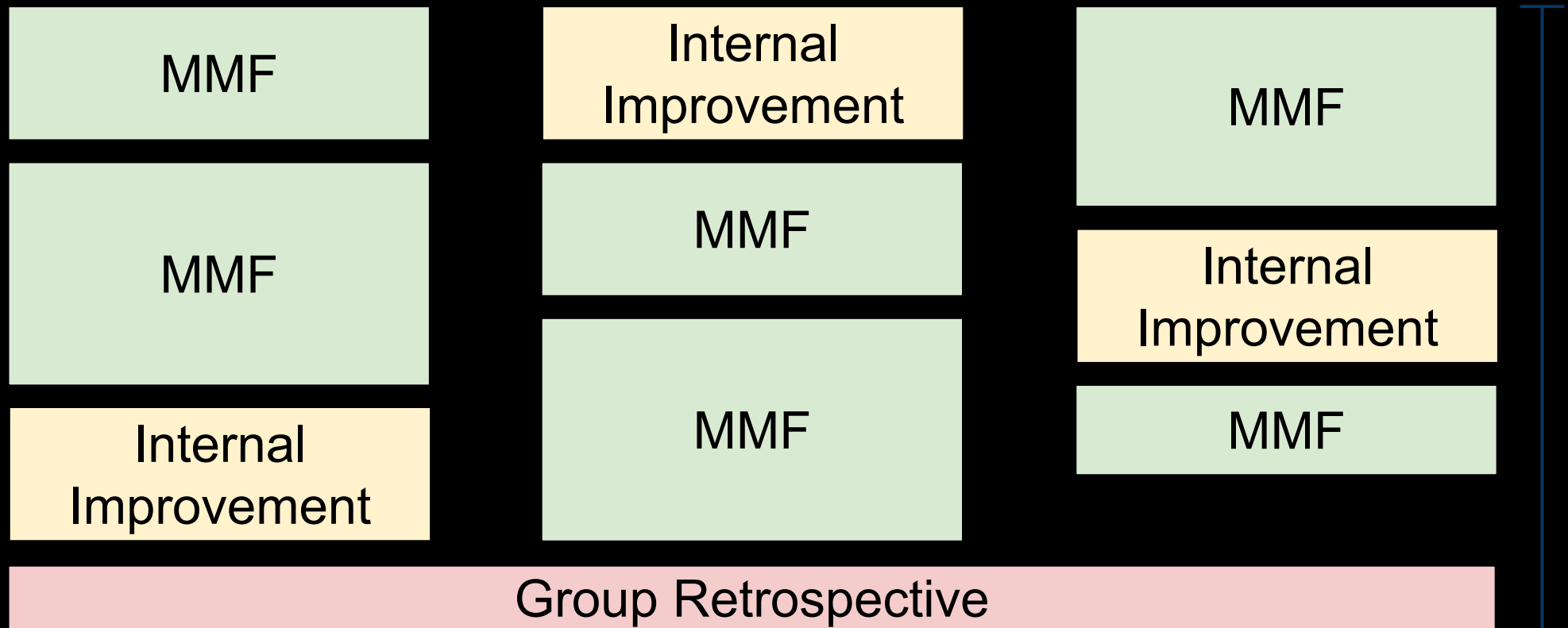
Defects

The Process - Deployment





The Process - Development Cells



Development Techniques

Source control

Pair programming

Test Driven Development

Regular Commits

Continuous Integration

Deployment Zen



Source Control

If it's not in source control it doesn't exist

No branches

Pair Programming

2 perspectives on problems

Shares knowledge

Code reviews for QA



Test Driven Development

Red -> Green -> Refactor

Unit tests (Behaviour driven development)

Integration Tests

Acceptance / Regression Tests

Refactoring



Commit Regularly

Commit every 10 minutes

Rapid feedback

Refactor Tool

Enforces consistent formatting

Quicker restructuring of code

Object Oriented Development

Small Classes with a single responsibility

Encapsulation of behaviour

Immutable objects

No Getters or Setters

Composition rather than inheritance

ewwwwww an 'if' statement

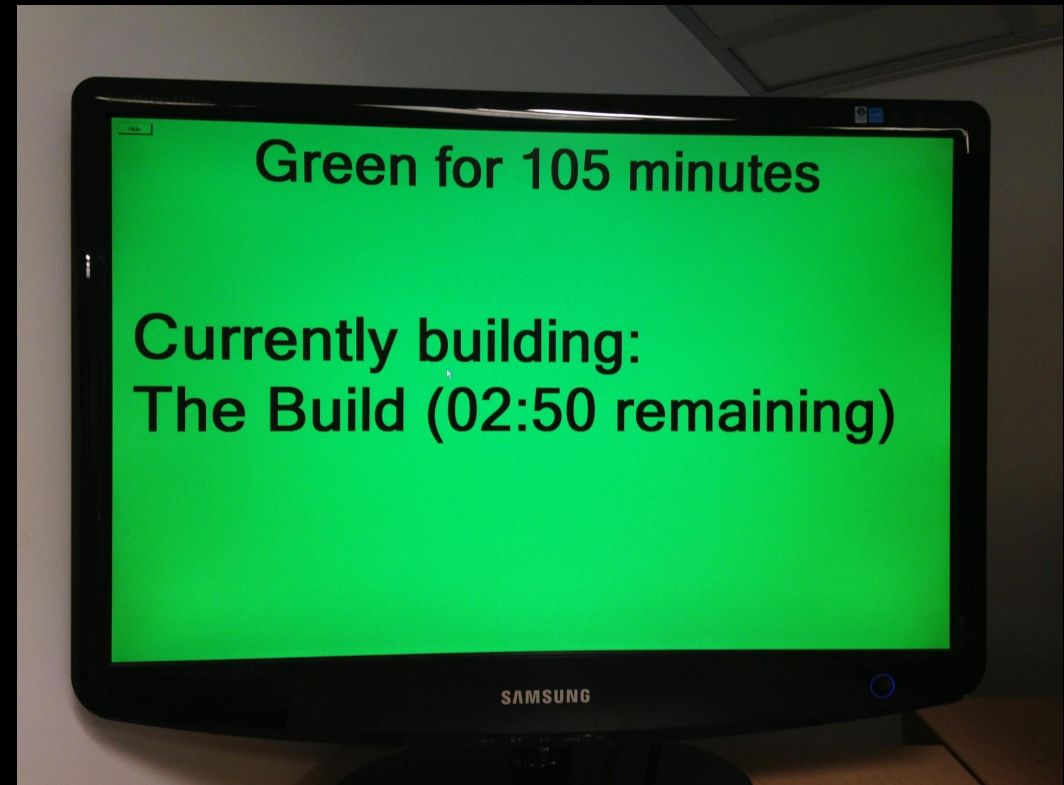
Continuous Integration

Ensures committed code builds

Runs all tests every commit

Tags code on success

Tracks build performance



Projects -- TeamCity

ci:8181

Oops! Google Chro...

Codeweavers Wiki H...

Mail

Tactile CRM

Events

Projects

My Changes

Agents 3

Build Queue 2

Codeweavers Developer

Administration

Hide Successful Configurations

Configure Visible Projects

The Build

no hidden

1. The World

Run

#6192

Tests passed: 10445, ignored: 15

No artifacts

bg (1)

1m:13s left

Stop

#6191

Tests passed: 14896, ignored: 15

No artifacts

Chris Knight (1)

11 minutes ago (6m:57s)

2. Tools

Run

#402

Tests passed: 229, ignored: 1

No artifacts

Changes (2)

52 minutes ago (53s)

3. Nightly

Run

#150

Success

No artifacts

No changes

4 hours ago (13s)

CodeweaversTools

no hidden

ThirdPartyServices

Run

#21945

Tests passed: 1, ignored: 1

No artifacts

bg (2)

29 minutes ago (1m:04s)

LiveServicesTests

Run

#38414

Running

No artifacts

bg (1)

9m:41s left

Stop

#38413

Tests passed: 114, ignored: 17

No artifacts

Changes (2)

3 minutes ago (12m:55s)

DemoServicesTests

Run

#16735

Tests failed: 1, passed: 70, ignored: 18

No artifacts

No changes

1m:09s left

Stop

#16734

Tests failed: 2, passed: 89, ignored: 40

No artifacts

Chris Knight (1)

7 minutes ago (8m:11s)

Live Deployment

Live Deployment

no hidden

Deployinator Live Deploy

Run

#4

Success

No artifacts

No changes

3 months ago (1s)

Vehicle Scraper Live Deploy

Run

#69

Success

No artifacts

No changes

8 months ago (21s)

Help

Feedback

TeamCity Enterprise 7.1.1 (build 24074)

Get new version!

License agreement

Deployment Zen

Deploy -> Test -> Activate

<https://servicemonitor.codeweavers.net/>

One click deploys

Only Green

Solid Monitoring



[Farm Report](#)
[Download CCTray](#)
[Administer Dashboard](#)

[Refresh status](#)

Servers

[CI](#)

Categories (All)

[Carlisle Deployment](#)
[Close Deployment](#)
[DEMO Deployment](#)
[Drainstop](#)
[Jigsaw Deployment](#)
[LIVE Deployment](#)
[Ycl Deployment](#)

Server ^	Project Name ^	Last Build Status ^	Last Build Time ^	Next Build Time ^	Last Build Label ^	CCNet Status ^	Activity ^	Messages	Admin
CI	Allium Live Deploy	Success	2013-06-10 17:06:58	Force Build Only	490	Running	Sleeping	• Failing Tasks : EmailPublisher	Force Stop
CI	AutoBlip Live Deploy	Success	2013-05-30 16:18:03	Force Build Only	55	Unknown	Sleeping		Force Start
CI	Data Mining Live Deploy	Success	2013-06-10 15:13:40	Force Build Only	329	Running	Sleeping		Force Stop
CI	Document Services Live Deploy	Success	2013-05-30 12:16:11	Force Build Only	4	Running	Sleeping		Force Stop
CI	Finance Control Panel Live Deploy	Success	2013-06-07 13:30:14	Force Build Only	35	Unknown	Sleeping		Force Start
CI	Finance Forms Live Deploy	Success	2013-06-10 17:16:31	Force Build Only	135	Running	Sleeping		Force Stop
CI	Finance Website Live Deploy	Success	2013-05-30 16:40:00	Force Build Only	26	Running	Sleeping		Force Stop
CI	Live Server Recycle	Success	2013-06-10 12:01:00	2013-06-11 06:30:00	785	Running	Sleeping		Force Stop
CI	MotorCreditCheck Live Deploy	Success	2013-06-10 17:13:27	Force Build Only	1	Running	Sleeping	• Failing Tasks : EmailPublisher	Force Stop
CI	Orqanami Live Deploy	Success	2013-06-04 10:39:11	Force Build Only	77	Running	Sleeping		Force Stop
CI	Payment Search Live Deploy	Success	2013-05-30 11:14:48	Force Build Only	112	Running	Sleeping		Force Stop
CI	Plutus Live Deploy	Success	2013-06-10 16:03:45	Force Build Only	107	Running	Sleeping		Force Stop
CI	PMS Migrations Live Deploy	Success	2013-06-10 17:05:12	Force Build Only	57	Running	Sleeping		Force Stop
CI	Propono Live Deploy	Success	2013-06-10 15:54:16	Force Build Only	54	Running	Sleeping		Force Stop

Training

Dojos

Innovation Friday

Supporting Customers

Make it easy to give feedback

Make problems visible

Continuous feedback



Codeweavers Help Desk - x

https://codeweavers.zendesk.com/agent/#/filters/33823878

Oops! Google Chro... Codeweavers Wiki H... Mail Tactile CRM Events

+ add

Views

Codeweavers Work Queue21

Recently updated tickets~40

Recently solved tickets~86

All unsolved tickets21

Defects21

Big Table0

Suspended tickets0

Your views

Infrastructure0

More »

Codeweavers Work Queue (21)

Start

ASSIGNEE	PRIORITY	ID	SUBJECT	REQUESTER	CURRENT STATUS	UPDATER	REQUESTED	UPDATED	ORGANIZATION
Current Status Awaiting Action									
Client Support	Urgent	#49716	Finance forms using SQL for quotes	Developers	Awaiting Action	Agent	Friday 09:29	4 minutes ago	Codeweavers Limited
Current Status Awaiting Reply									
Client Support	Urgent	#49639	Jigsaw work queue vanishing	support	Awaiting Reply	Agent	Wednesday 12:33	about 1 hour ago	Codeweavers Limited
Client Support	Urgent	#49603	FW: File - 8 Year Old Vehicle Exceptions ...	Tracy Wain	Awaiting Reply	Agent	Tuesday 14:41	about 1 hour ago	-
Client Support	Urgent	#49590	FW: Your case has been resolved [CallID:...	Sarah Perkin	Awaiting Reply	Agent	Jun 04	Today 11:03	-
Client Support	Urgent	#49310	Jigsaw - Barclaycard Integration Docume...	Neil	Awaiting Reply	Agent	May 28	Jun 03	Codeweavers Limited
Client Support	Urgent	#49307	Issues With MINI Keys	Bmw Support	Awaiting Reply	Agent	May 28	Friday 16:11	-
Client Support	Urgent	#49151	FW: New Policy Documents	Tom Bowen	Awaiting Reply	Agent	May 23	May 31	-
Client Support	Urgent	#48898	AUC Calculator Query	Gemma Ford	Awaiting Reply	Agent	May 16	Friday 12:12	-
Client Support	Urgent	#48833	DataMining Import Error (BRINDLEY MOT...	Neil Watkiss	Awaiting Reply	Agent	May 15	about 1 hour ago	Codeweavers Limited
Client Support	Urgent	#48806	Acceptance & Docs for Barclays	Claire Kelsall	Awaiting Reply	Agent	May 13	39 minutes ago	-
Client Support	Urgent	#48790	Macrae and Dick (Organisation: Macrae ...	Manheim dealersupport	Awaiting Reply	Agent	May 11	about 1 hour ago	Manheim
Client Support	Normal	#49814	What address do you want on the bank ...	David Tomlinson	Awaiting Reply	Agent	29 minutes ago	13 minutes ago	-
Client Support	Normal	#49812	Close login page	support	Awaiting Reply	Agent	Today 10:38	Today 10:46	Codeweavers Limited
Client Support	Normal	#49811	Re: Commercial vehicles	Alex Davis	Awaiting Reply	Agent	Today 10:21	Today 10:39	Codeweavers Limited
Client Support	Normal	#49810	Failed proposal	Support	Awaiting Reply	Agent	Today 09:56	Today 10:33	-
Client Support	Normal	#49807	Error Importing Vehicle Stock File in Data...	Grace Ford	Awaiting Reply	Agent	Today 06:25	Today 10:32	GForces Web Managemen
Client Support	Normal	#49727	Toomey Payment Search issues	Alex Davis	Awaiting Reply	Agent	Friday 12:47	Friday 14:04	Codeweavers Limited
Client Support	Normal	#49718	For testing	Angela Webb	Awaiting Reply	Agent	Friday 10:35	Friday 12:09	-
Client Support	Normal	#49689	For Test	Angela Webb	Awaiting Reply	Agent	Thursday 14:56	about 1 hour ago	-
Client Support	Normal	#49596	Codeweavers Interactive Finance Calculat...	Ross Olsen	Awaiting Reply	Agent	Jun 04	39 minutes ago	GForces Web Managemen
Client Support	Normal	#49554	Vehicle Quotes	Andy Crane	Awaiting Reply	Agent	Jun 03	Friday 12:19	Responsive Digital

CODWEAVERS

Recommended Reading

