

# **The process, technology and practice of Continuous Delivery**

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# Agenda

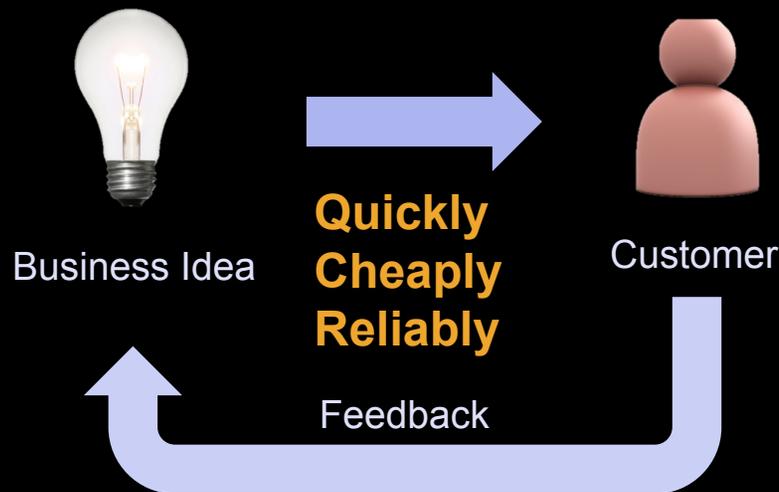
- **What is Continuous Delivery**
- **Continuous Delivery in the real world**
- **Examples of Supporting tools**
- **Q & A**

# What is Continuous Delivery?

*“Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.”*

- **The first principle of the agile manifesto.**
- **The logical extension of continuous integration.**
- **A holistic approach to development.**
- **Every commit creates a release candidate.**
- **Finished means released into production!**

# Why Continuous Delivery ?



But software lifecycles are (typically) ....

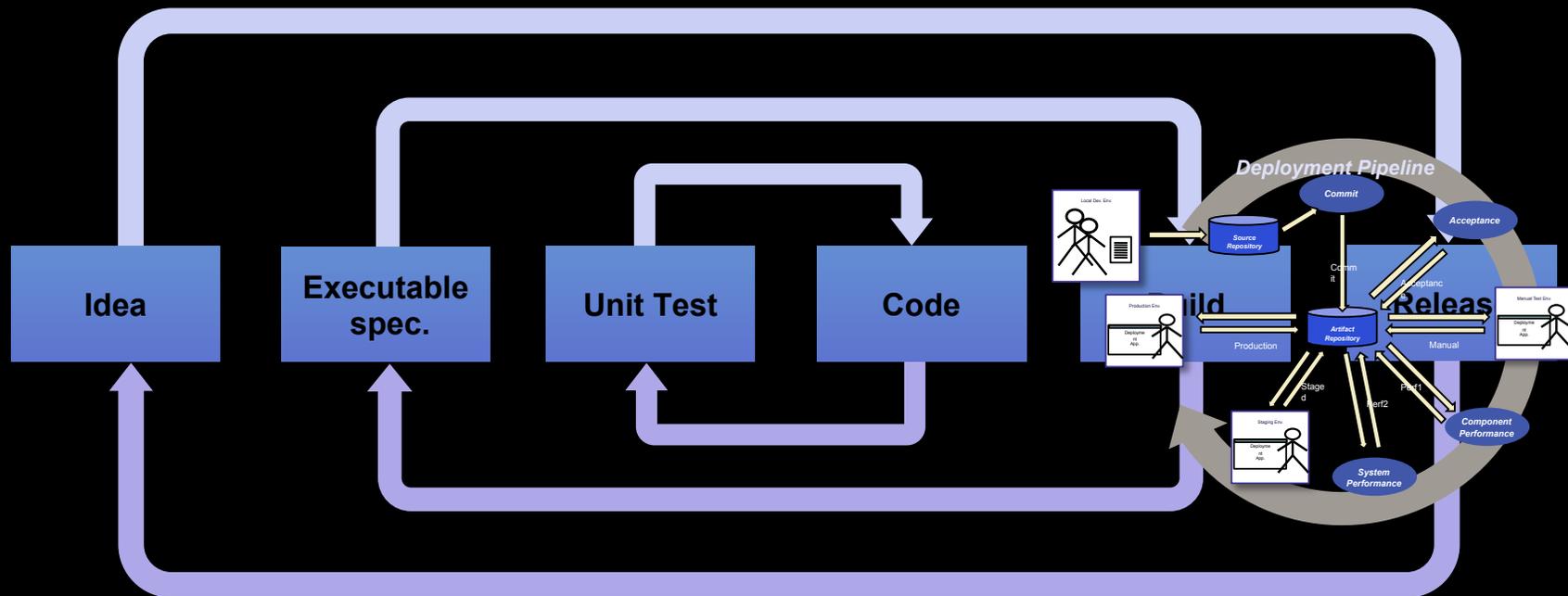
- Slow
- Inflexible
- Expose risk late
- High cost

## Lean Thinking ...

- Deliver Fast
- Build Quality In
- Optimise the Whole
- Eliminate Waste
- Amplify Learning
- Decide Late
- Empower the Team

# The Theory

Smart Automation - a repeatable, reliable process for releasing software



MORE THAN JUST TOOLING ...

# What's in a Story

Story Number

Story Title

Estimate

**123**

**Some Story**

**S**

---

*As a user I want* some behavior  
*so that* I can achieve some benefit

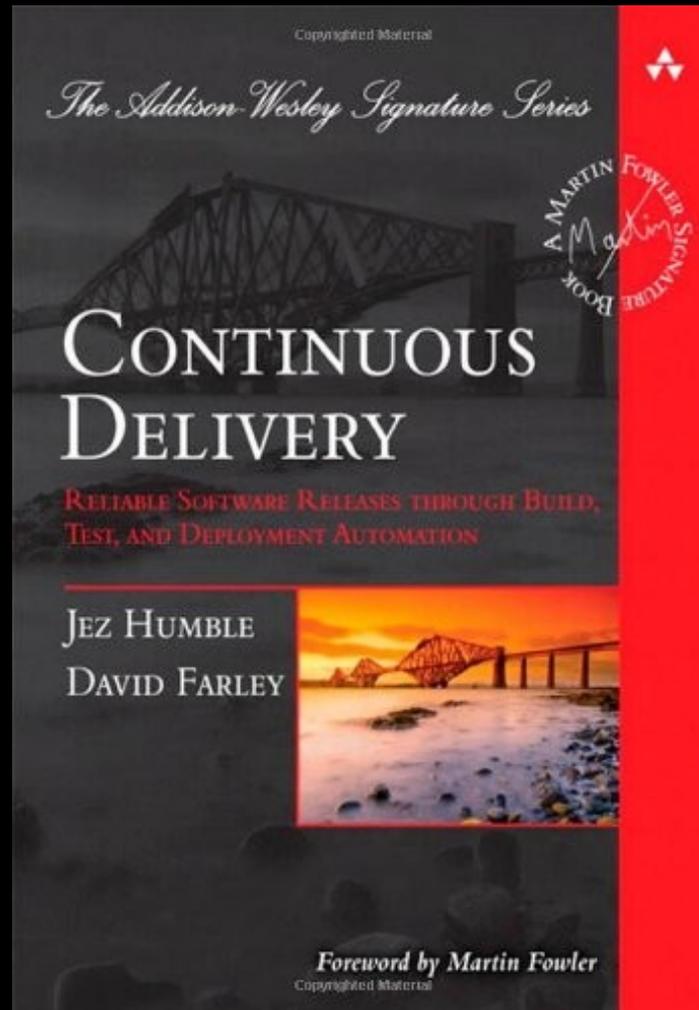
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← Narrative

- *A result that will indicate that the benefit is achieved*
- *Another result to confirm the benefit*

← Acceptance  
Criteria

## Shameless plug



# The Principles of Continuous Delivery

- Create a repeatable, reliable process for releasing software.
- Automate almost everything.
- Keep everything under version control.
- If it hurts, do it more often – bring the pain forward.
- Build quality in.
- Done means released.
- Everybody is responsible for the release process.
- Improve continuously.

# The Practices of Continuous Delivery

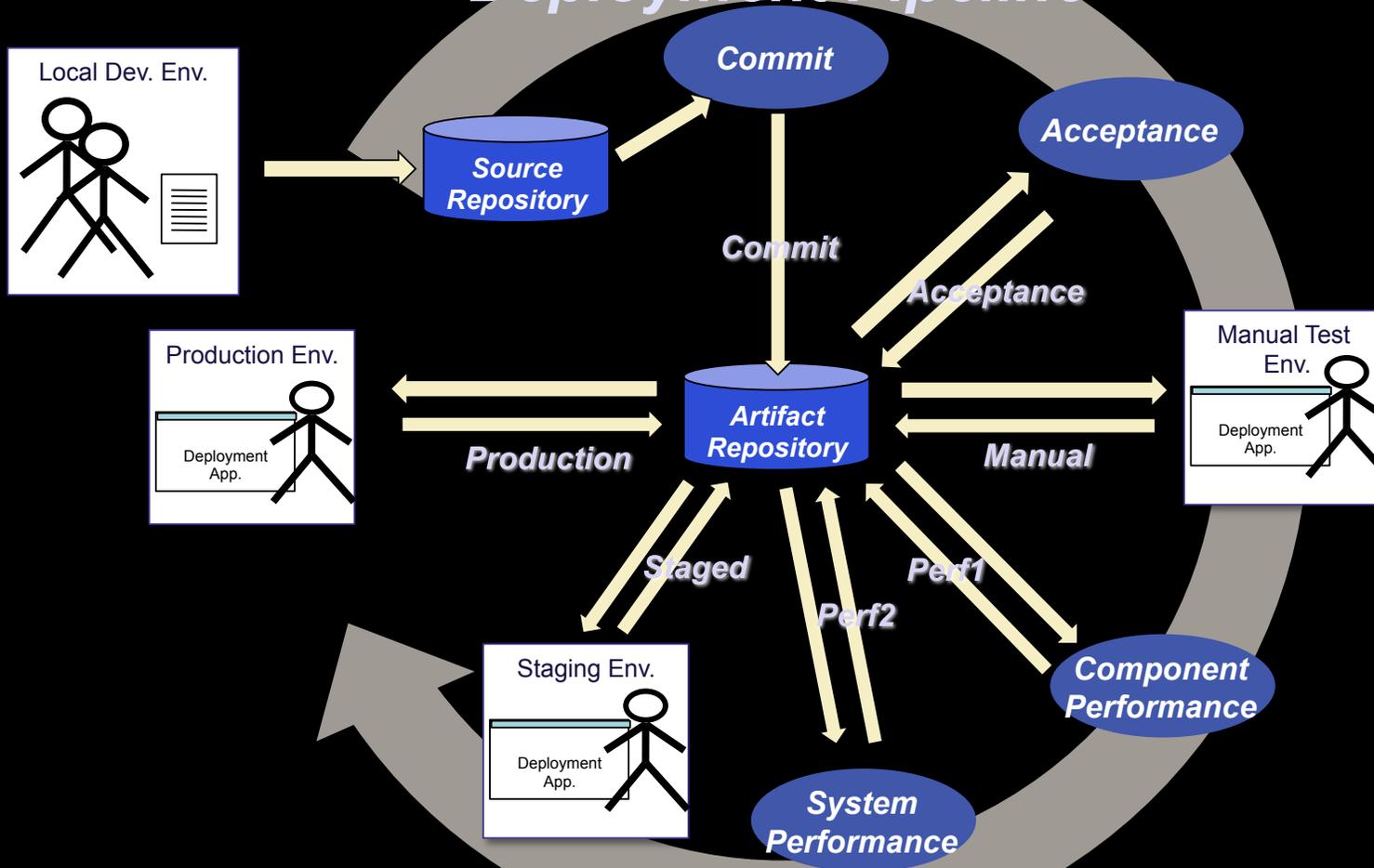
- **Build binaries only once.**
- **Use precisely the same mechanism to deploy to every environment.**
- **Smoke test your deployment.**
- **If anything fails, stop the line**

# **Who/What is LMAX?**

- **A greenfield start-up to build a high performance financial exchange**
- **The London Multi-Asset Exchange**
- **Allow retail traders access to wholesale financial markets on equal terms**
- **LMAX aims to be the highest performance retail financial exchange in the world**

# Example Continuous Delivery Process

## Deployment Pipeline

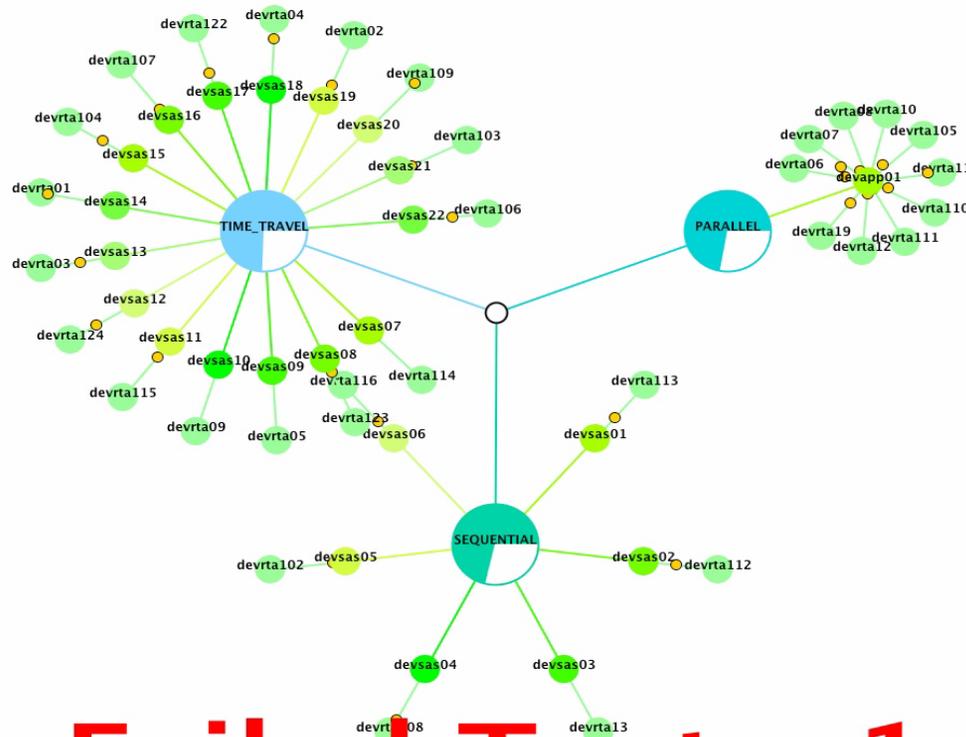




# Romero

Time remaining:

00:18:37

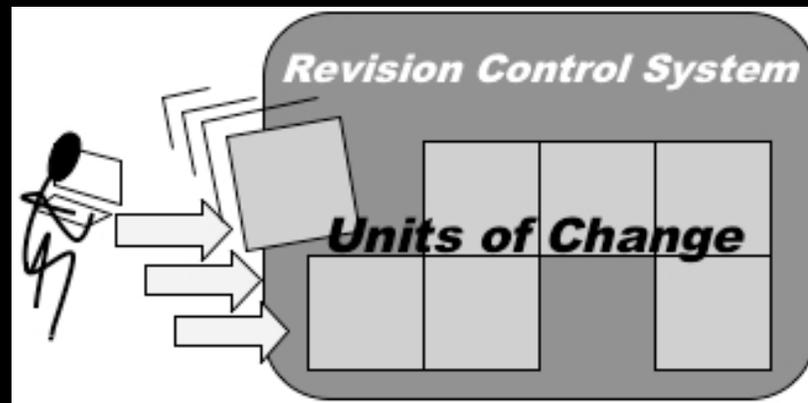
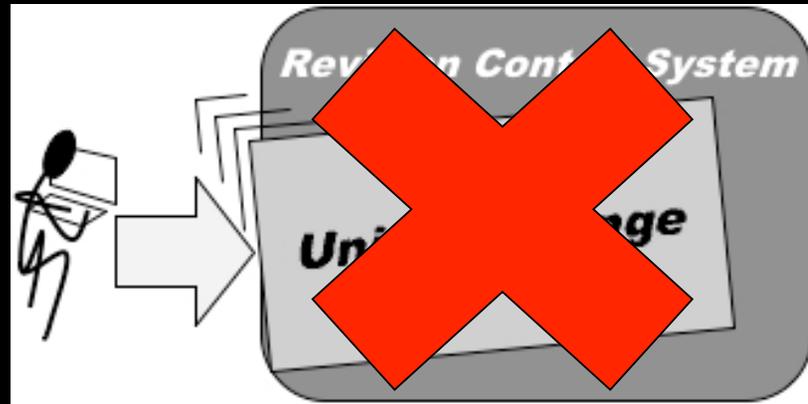


Failed Tests: 1

# Configuration Management

- **Version control is not just for source code**
- **Manage everything**
- **Configuration is source code too!**
- **Start simple**

# Managing Change



# More Change Management

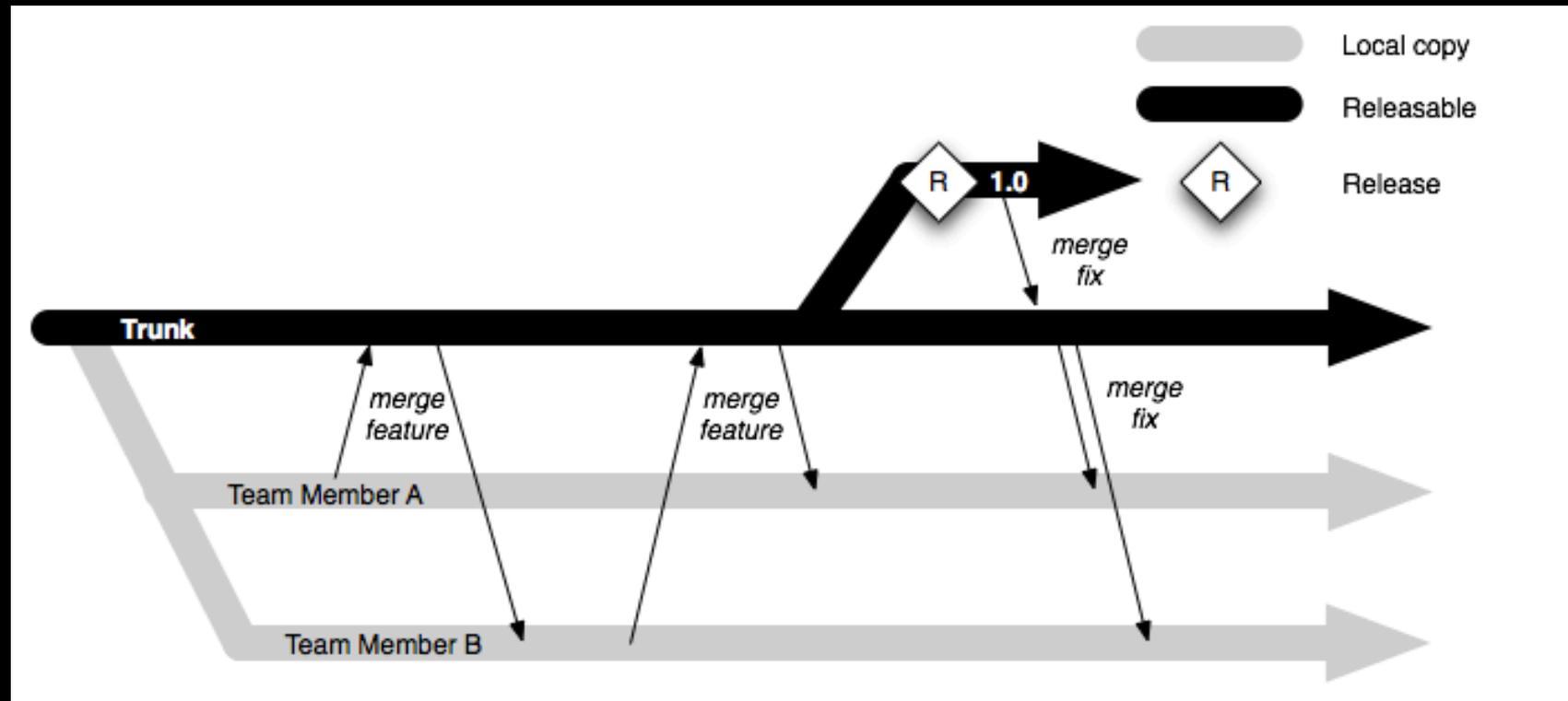
- The first rule of change management is “DON’T BRANCH”
- The second rule of change management is “DON’T BRANCH”  
*(with apologies to “Fight Club”)*
- Traditional VCS Branches compromise Continuous Integration:
  - *For continuous Integration you need to maintain one, and only one, canonical representation of the state of the system. So that each change can be evaluated against that state.*
  - *If you aren’t committing to that single representation AT LEAST once per day, your continuous integration isn’t!*

# Managing Change in Production

- Use branch by abstraction
- Don't wire-up UI changes until ready for release
- Use feature toggles
- Apply an iterative approach to state
  - Always develop state-full parts of the system as a series of deltas
  - Version them
  - Make them idempotent

# Branching ;-)

- Use Branch by abstraction until you can't
- Then do this (branch on release):



# Configuration As Code

- Treat all of your assets as though they were code
  - Ensure that they are versioned
  - Use your design skills on scripts and config as much as on code
  - Think how you could test them

# Configuration As Code - Example

<file:///localhost/Users/dave/dev/ant-project-template.xml>

# HP Laserjet Firmware Team Experience

- Transformation of Development Approach for all LaserJet Firmware Products
- Large Complex Project
- Multiple Products
- Four Year Timeframe
- 10x Developer Productivity Increase

# HP Laserjet Firmware Team

## 2008

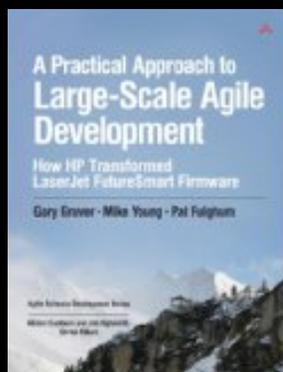
10% Code Integration  
20% Detailed Planning  
25% Porting Code  
25% Product Support  
15% Manual Testing  
**~5% Innovation**

## 2011

2% Continuous Integration  
5% Agile Planning  
15% Architectural Integrity  
10% Unified Support  
5% Automated Testing  
3% Improving Tools  
10% Writing Tests  
**~40% Innovation**

# The Results

- Overall development costs reduced by ~40%
- Programs under development increased by ~140%
- Development costs per program down by 70%
- Resources now driving innovation increased by 5x



*A Practical Approach to Large scale Agile Development (Gruver, Young and Fulgrum)*

# Big Feedback

Build Status - Big Feedback

file:///Users/dave/Documents/Presentations/BigFeedback3.html

Apple Yahoo! Google Maps YouTube Wikipedia News (10) Popular

From: 26/10 To: 08/11 [Set Current Iteration](#)

**Iteration 77**

34552 stewarta  
tfx [AndyS] #4839 Report all trades on Spot Metals to JPM and use correct counterparty when creating JPM trade reports  
15 ignored tests

Rev. 34551	08 Nov 12:14
Rev. 34550	08 Nov 11:59
Rev. 34549	08 Nov 11:33

[Set Embargo](#) [Set News](#) [Message](#)

34552 analysis analysis-db

Rev. 34551	08 Nov 12:24
Rev. 34550	08 Nov 12:09
Rev. 34549	08 Nov 11:44

Rev. 34551	08 Nov 12:24
Rev. 34550	08 Nov 12:09
Rev. 34549	08 Nov 11:44

34551 acceptance

Rev. 34550	08 Nov 12:20
Rev. 34546	08 Nov 11:07
Rev. 34545	08 Nov 10:12

34546 Romero Server  
40 ignored tests

34532 it77 15 ignored tests

Rev. 34531	07 Nov 17:49
Rev. 34524	07 Nov 15:59
Rev. 34520	07 Nov 14:13

34532 it77-acceptance

Rev. 34531	07 Nov 18:16
Rev. 34524	07 Nov 16:22
Rev. 34520	07 Nov 14:47

34532 it77-analysis

Rev. 34531	07 Nov 18:01
Rev. 34524	07 Nov 16:10
Rev. 34520	07 Nov 14:26

**Preview Environment (rev. 34479)**

34489 acceptancesoak

Rev. 34489	06 Nov 20:56
Rev. 34489	06 Nov 20:32
Rev. 34489	06 Nov 20:09

34521 client-library-csharp

Rev. 34508	07 Nov 11:11
Rev. 34503	07 Nov 10:46
Rev. 34301	31 Oct 10:54

34521 client-library-csharp-acceptance

Rev. 34521	08 Nov 10:19
Rev. 34521	08 Nov 09:34
Rev. 34521	08 Nov 08:25

34248 commons

Rev. 34248	02 Nov 21:35
Rev. 34248	01 Nov 12:24
Rev. 34248	28 Oct 14:40

33676 dsparams

Rev. 33676	20 Oct 21:29
Rev. 33676	20 Oct 20:14
Rev. 33676	20 Oct 20:12

# Big Feedback – Showing failures

Build Status – Big Feedback

http://devdisplay01.dev.tradefair:14080/

From: 26/10 To: 08/11 Set Current Iteration

## Iteration 77

34578 stewarta tfx [AndyS] Euthenasing ignored tests 15 Ignored tests	Rev. 34577 08 Nov 17:15 Rev. 34575 08 Nov 16:48 Rev. 34573 08 Nov 16:35	Set Embargo Set News Message	
34577 analysis	Rev. 34575 08 Nov 17:00 Rev. 34573 08 Nov 16:55 Rev. 34572 08 Nov 16:43	34575 analysisdb 8 Ignored tests <b>Failed before tests ran!</b>	Rev. 34572 08 Nov 16:37 Rev. 34558 08 Nov 14:17 Rev. 34553 08 Nov 13:20
34573 acceptance			Rev. 34568 08 Nov 16:06 Rev. 34560 08 Nov 15:18 Rev. 34556 08 Nov 14:14

34573 Romero Server **17 Failures:**

- 76 Ignored tests
- sequential.api.margin.CurrencyMarginCalculationsForUsdAccountAcceptanceTest  
*shouldUseBuyRateForProfitAndLossAndBlendedRateForMarginWhenPositiveCashOffsetsLossesAndPartiallyOffsetsMargin*
- sequential.api.margin.CurrencyMarginCalculationsForEurAccountAcceptanceTest  
*shouldUseBuyRateForProfitAndLossAndBlendedRateForMarginWhenPositiveCashOffsetsLossesAndPartiallyOffsetsMargin*
- sequential.cfdx.ViewAccountProfitAndLossTakingIntoAccountInstrumentCurrencyAcceptanceTest  
*shouldRecalculateAccountProfitLossWhenAWalletBalanceOfACurrencyChangesWhereIHaveAPositionOnAnInstrumentPricedInThatCurrency*
- sequential.cfdx.ViewAccountProfitAndLossTakingIntoAccountInstrumentCurrencyAcceptanceTest  
*shouldUseFXBuyRateForPositiveWalletAvailableToTradeContribution*
- sequential.cfdx.ViewAccountProfitAndLossTakingIntoAccountInstrumentCurrencyAcceptanceTest  
*shouldRecalculateAccountProfitLossWhenAccountCashBalanceChanges*
- sequential.api.margin.CurrencyMarginCalculationsForGbpAccountAcceptanceTest  
*shouldUseBlendedRateForProfitAndLossAndSellRateForMarginWhenPositiveCashPartiallyOffsetsLossesButNotMargin*
- sequential.api.margin.CurrencyMarginCalculationsForGbpAccountAcceptanceTest  
*shouldSelectRatesToUseIndependentlyByCurrency*
- sequential.api.margin.CurrencyMarginCalculationsForGbpAccountAcceptanceTest  
*shouldUseBlendedRateForProfitAndLossAndMarginWhenProfitsOffsetNegativeCashAndPartiallyOffsetMargin*
- sequential.fix.tradereporting.LchTradeReportingAcceptanceTest  
*shouldRecordAcceptedAckFromClearingDestination*
- sequential.cfdx.DealTicketEstimatedMarginAcceptanceTest  
*shouldUpdateEstimatedMarginOnEachKeyPressInQuantityField*
- sequential.cfdx.DealTicketEstimatedMarginAcceptanceTest  
*shouldUpdateEstimatedMarginInAccountCurrencyWhenExchangeRatesChangeForMarketOrder*
- sequential.cfdx.DealTicketEstimatedMarginAcceptanceTest  
*shouldUpdateEstimatedMarginValuesAndEstimatedNotionalValueWhenValuationPricesChangeForMarketOrder*
- sequential.api.ApplyFXRatesToWalletWhenRealisingProfitAcceptanceTest

**System Alert** Nerts! The last Romero Server build with fewer than 10 failures was 34568.

# AutoTrish

AutoTrish - Big Feedback

devdisplay01.dev.lmax/autotrish.html

Google Mail CruiseControl.rb Big Feedback Google Maps Movies Slashdot DailyTech TradeFair Mail Intranet TFX - Trac Other Bookmarks

## AutoTrish™

By Rank By Flavour By Error Message

timetravel.DownloadAccountTransactionsTimeTravelAcceptanceTest.shouldIncludeTransactionsInLast24HoursForPrevious24HoursDownload  
25345 25348 25351 25356 25357 Pass: 0.00 Intermittent: 0.25 TrishRank™: 🍌🍌🍌

timetravel.InstrumentListTradedPricesOnCloseOrSuspendAcceptanceTest.shouldDisplayTradedPricesForGoodUntilCancelledOrderOnClose  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.07 Intermittent: 0.33 TrishRank™: 🍌🍌🍌  
*I suspect rev. 25341-25345: gravesd, hounslowd, barnesm, smithe, No nvix for you.*

timetravel.FxSweepUsesCorrectDaysRateForSafeguardDefect3467AcceptanceTest.shouldUseTheCorrectDaysRatesForSafeguard  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.08 Intermittent: 0.11 TrishRank™: 🍌🍌🍌  
*I suspect rev. 25341-25345: gravesd, hounslowd, barnesm, smithe, A greener build contributes to a greener environment*

timetravel.InitiateFundingRunForPositionsOverMultipleDaysOnNonFxInstrumentAcceptanceTest.shouldApplyNonFxFundingOnLatestSnapshot  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.08 Intermittent: 0.11 TrishRank™: 🍌🍌🍌  
*I suspect rev. 25341-25345: gravesd, hounslowd, barnesm, smithe, Fix is not just a protocol name.*

timetravel.InstrumentListTradedPricesOnCloseOrSuspendAcceptanceTest.shouldDisplayTradedPricesOnSuspension  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.08 Intermittent: 0.11 TrishRank™: 🍌🍌🍌  
*I suspect rev. 25341-25345: gravesd, hounslowd, barnesm, smithe, OK. Lets fix this.*

timetravel.ScheduleWalletSnapshotAcceptanceTest.shouldSnapshotWalletsEveryDayAtSpecificSnapshotTime  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.08 Intermittent: 0.11 TrishRank™: 🍌🍌🍌  
*I suspect rev. 25341-25345: gravesd, hounslowd, barnesm, smithe, Make it go green*

timetravel.UseMarketClosePriceAsValuationInSnapshotAcceptanceTest.shouldUseAverageOfUpToOneHundredBidAndAskPricesPlacedInFiveMinutesUpToClose  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.08 Intermittent: 0.11 TrishRank™: 🍌🍌🍌  
*I suspect rev. 25341-25345: gravesd, hounslowd, barnesm, smithe, A greener build contributes to a greener environment*

timetravel.EncumberedFundsReportTimeTravelAcceptanceTest.shouldReportDebtWhenLiquidatedAndOverExposed  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.43 Intermittent: 0.44 TrishRank™: 🍌

timetravel.DownloadOrderHistoryTimeTravelAcceptanceTest.shouldNotIncludeOrderPlacedOver30DaysAgoInLast30DaysDownload  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.36 Intermittent: 0.33  
*I suspect rev. 25356: barkerm, Fix is not just a protocol name.*

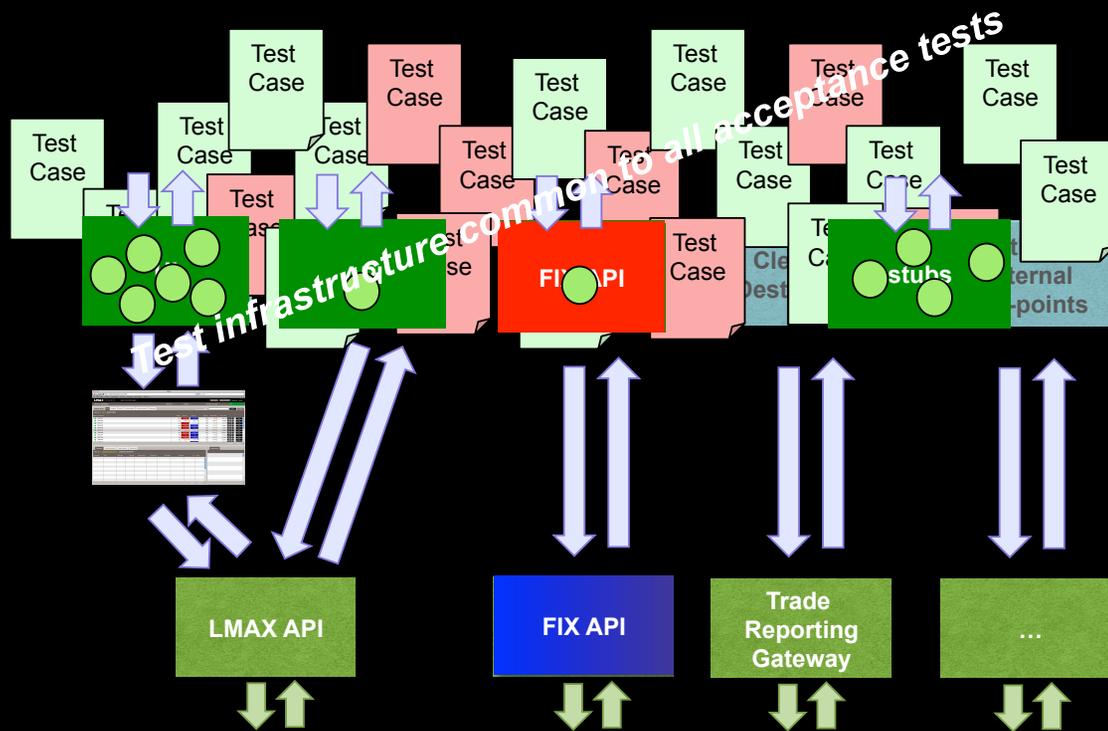
timetravel.EncumberedFundsReportTimeTravelAcceptanceTest.shouldReportDisaggregatedUnrealisedProfitAndLoss  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.46 Intermittent: 0.44 TrishRank™: 🍌

timetravel.EncumberedFundsReportTimeTravelAcceptanceTest.shouldReportFxFundingAndHaircutSeparately  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.46 Intermittent: 0.44 TrishRank™: 🍌

timetravel.EncumberedFundsReportTimeTravelAcceptanceTest.shouldReportOpeningAndClosingBalancesForClosingAccountsWithoutTradingActivity  
25330 25334 25335 25338 25340 25345 25348 25351 25356 25357 Pass: 0.46 Intermittent: 0.44 TrishRank™: 🍌

timetravel.EncumberedFundsReportTimeTravelAcceptanceTest.shouldReportDebtAndDebtClearEncumberedFundsOnSameTradingDay

# Acceptance Testing



# Acceptance Testing – DSL

@Test

```
public void shouldSupportPlacingValidBuyAndSellLimitOrders()
{
    tradingUI.showDealTicket("instrument");
    tradingUI.dealTicket.placeOrder("type: limit", "bid: 4@10");
    tradingUI.dealTicket.checkFeedbackMessage("You have successfully sent a limit order to buy 4.00 contracts at 10.0");
    tradingUI.dealTicket.dismissFeedbackMessage();

    tradingUI.dealTicket.placeOrder("type: limit", "ask: 4@9");
    tradingUI.dealTicket.checkFeedbackMessage("You have successfully sent a limit order to sell 4.00 contracts at 9.0");
}
```

@Test

```
public void shouldSuccessfullyPlaceAnImmediateOrCancelBuyMarketOrder()
{
    fixAPIMarketMaker.placeMassOrder("instrument", "ask: 11@52", "ask: 10@51", "ask: 10@50", "bid: 10@49");

    fixAPI.placeOrder("instrument", "side: buy", "quantity: 4", "goodUntil: Immediate", "allowUnmatched: true");
    fixAPI.waitForExecutionReport("executionType: Fill", "orderStatus: Filled",
        "side: buy", "quantity: 4", "matched: 4", "remaining: 0",
        "executionPrice: 50", "executionQuantity: 4");
}
```

@Before

```
public void beforeEveryTest()
{
    adminAPI.createInstrument("name: instrument");
    registrationAPI.createUser("user");
    registrationAPI.createUser("marketMaker", "accountType: MARKET_MAKER");
    tradingUI.loginAsLive("user");
}
```

# Acceptance Testing – DSL

```
public void placeOrder(final String... args)
{
    final DslParams params =
        new DslParams(args,
            new OptionalParam("type").setDefault("Limit").setAllowedValues("limit", "market", "StopMarket"),
            new OptionalParam("side").setDefault("Buy").setAllowedValues("buy", "sell"),
            new OptionalParam("price"),
            new OptionalParam("triggerPrice"),
            new OptionalParam("quantity"),
            new OptionalParam("stopProfitOffset"),
            new OptionalParam("stopLossOffset"),
            new OptionalParam("confirmFeedback").setDefault("true"));

    getDealTicketPageDriver().placeOrder(params.value("type"),
        params.value("side"),
        params.value("price"),
        params.value("triggerPrice"),
        params.value("quantity"),
        params.value("stopProfitOffset"),
        params.value("stopLossOffset"));

    if (params.valueAsBoolean("confirmFeedback"))
    {
        getDealTicketPageDriver().clickOrderFeedbackConfirmationButton();
    }

    LOGGER.debug("placeOrder(" + Arrays.deepToString(args) + ")");
}
```

# Acceptance Testing – DSL

```
public void placeOrder(final String... args)
{
    final DslParams params = new DslParams(args,
        new RequiredParam("instrument"),
        new OptionalParam("clientOrderId"),
        new OptionalParam("order"),
        new OptionalParam("side").setAllowedValues("buy", "sell"),
        new OptionalParam("orderType").setAllowedValues("market", "limit"),
        new OptionalParam("price"),
        new OptionalParam("bid"),
        new OptionalParam("ask"),
        new OptionalParam("symbol").setDefault("BARC"),
        new OptionalParam("quantity"),
        new OptionalParam("goodUntil").setAllowedValues("Immediate", "Cancelled").setDefault("Cancelled"),
        new OptionalParam("allowUnmatched").setAllowedValues("true", "false").setDefault("true"),
        new OptionalParam("possibleResend").setAllowedValues("true", "false").setDefault("false"),
        new OptionalParam("unauthorised").setAllowedValues("true"),
        new OptionalParam("brokeredAccountId"),
        new OptionalParam("msgSeqNum"),
        new OptionalParam("orderCapacity").setAllowedValues("AGENCY", "PRINCIPAL", "").setDefault("PRINCIPAL"),
        new OptionalParam("accountType").setAllowedValues("CUSTOMER", "HOUSE", "").setDefault("HOUSE"),
        new OptionalParam("accountClearingReference"),
        new OptionalParam("expectedOrderRejectionStatus").
            setAllowedValues("TOO_LATE_TO_ENTER", "BROKER_EXCHANGE_OPTION", "UNKNOWN_SYMBOL", "DUPLICATE_ORDER"),
        new OptionalParam("expectedOrderRejectionReason").setAllowedValues("INSUFFICIENT_LIQUIDITY", "INSTRUMENT_NOT_OPEN",
            "INSTRUMENT_DOES_NOT_EXIST", "DUPLICATE_ORDER",
            "QUANTITY_NOT_VALID", "PRICE_NOT_VALID", "INVALID_ORDER_INSTRUCTION",
            "OUTSIDE_VOLATILITY_BAND", "INVALID_INSTRUMENT_SYMBOL",
            "ACCESS_DENIED", "INSTRUMENT_SUSPENDED"),
        new OptionalParam("expectedSessionRejectionReason").setAllowedValues("INVALID_TAG_NUMBER", "REQUIRED_TAG_MISSING",
            "TAG_NOT_DEFINED_FOR_THIS_MESSAGE_TYPE",
            "UNDEFINED_TAG", "TAG_SPECIFIED_WITHOUT_A_VALUE",
            "VALUE_IS_INCORRECT_FOR_THIS_TAG", "INCORRECT_DATA_FORMAT_FOR_VALUE",
            "DECRYPTION_PROBLEM", "SIGNATURE_PROBLEM",
            "COMPID_PROBLEM", "SENDING_TIME_ACCURACY_PROBLEM",
            "INVALID_MSG_TYPE"),
        new OptionalParam("idSource").setDefault(EXCHANGE_SYMBOL_ID_SOURCE));
```

# Acceptance Testing – DSL

```
@Test
public void shouldSupportPlacingValidBuyAndSellLimitOrders()
{
    tradingUI.showDealTicket("instrument");
    tradingUI.dealTicket.placeOrder("type: limit", "bid: 4@10");
    tradingUI.dealTicket.checkFeedbackMessage("You have successfully sent a limit order to buy 4.00 contracts at 10.0");
    tradingUI.dealTicket.dismissFeedbackMessage();
}

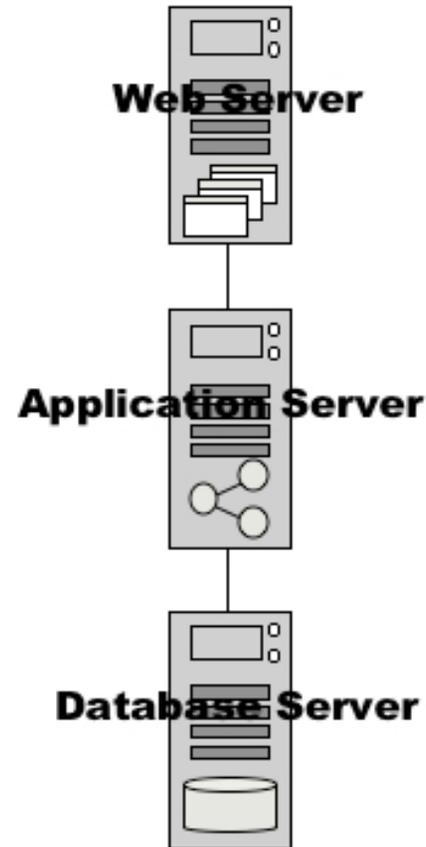
@Channel(fixAPI, dealTicket, publicAPI)
@Test
public void shouldSuccessfullyPlaceAnImmediateOrderAndCancelBuyMarketOrder()
{
    tradingUI.dealTicket.checkFeedbackMessage("You have successfully sent a limit order to sell 4.00 contracts at 9.0");
    trading.placeOrder("instrument", "side: buy", "price: 123.45", "quantity: 4", "goodUntil: Immediate");

    trading.waitForExecutionReport("executionType: Fill", "orderStatus: Filled",
    public void shouldSuccessfullyPlaceAnImmediateOrCancelBuyMarketOrder()
    {
        "side: buy", "quantity: 4", "matched: 4", "remaining: 0",
        fixAPIMarketMaker.placeMassOrder("instrument", "price: 110525", "executionQuantity: 50", "bid: 10@49");
    }
    fixAPI.placeOrder("instrument", "side: buy", "quantity: 4", "goodUntil: Immediate", "allowUnmatched: true");
    fixAPI.waitForExecutionReport("executionType: Fill", "orderStatus: Filled",
        "side: buy", "quantity: 4", "matched: 4", "remaining: 0",
        "executionPrice: 50", "executionQuantity: 4");
}
}
```

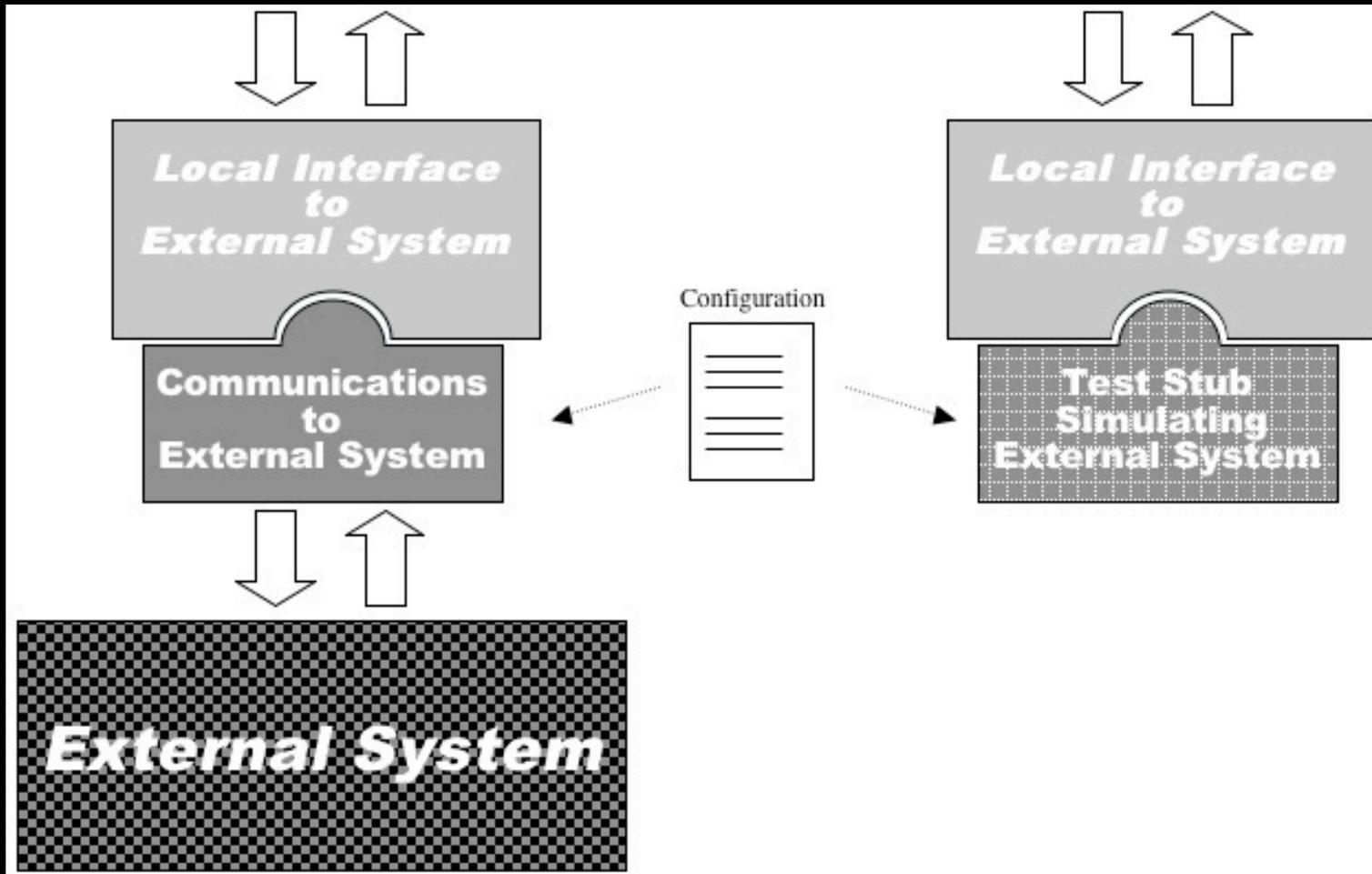
# Acceptance Testing – Simple DSL

- Now Open Source...
  - <https://github.com/LMAX-Exchange/Simple-DSL>

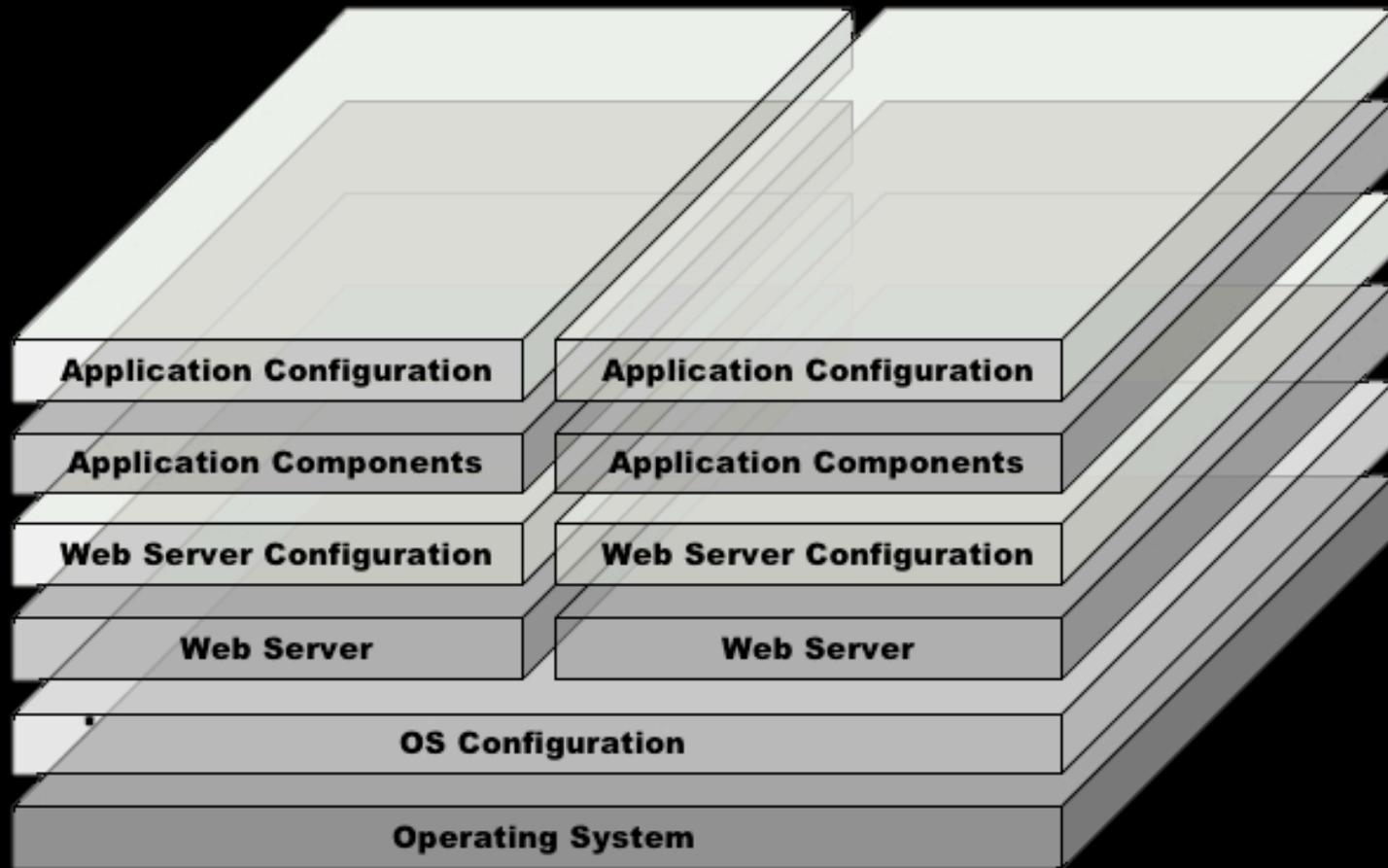
# Designing an Acceptance Test Environment



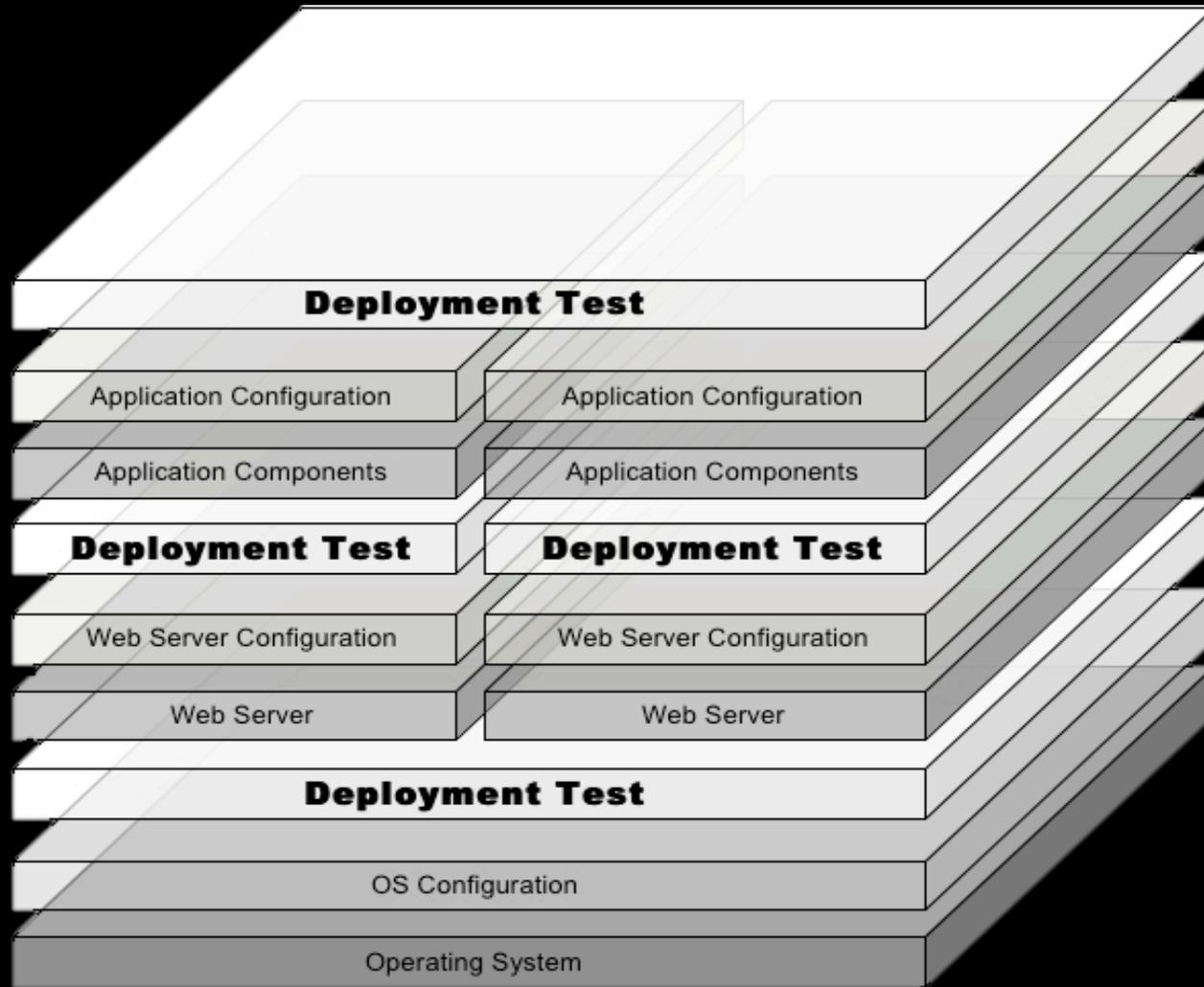
# Stubbing in Acceptance Test Environments



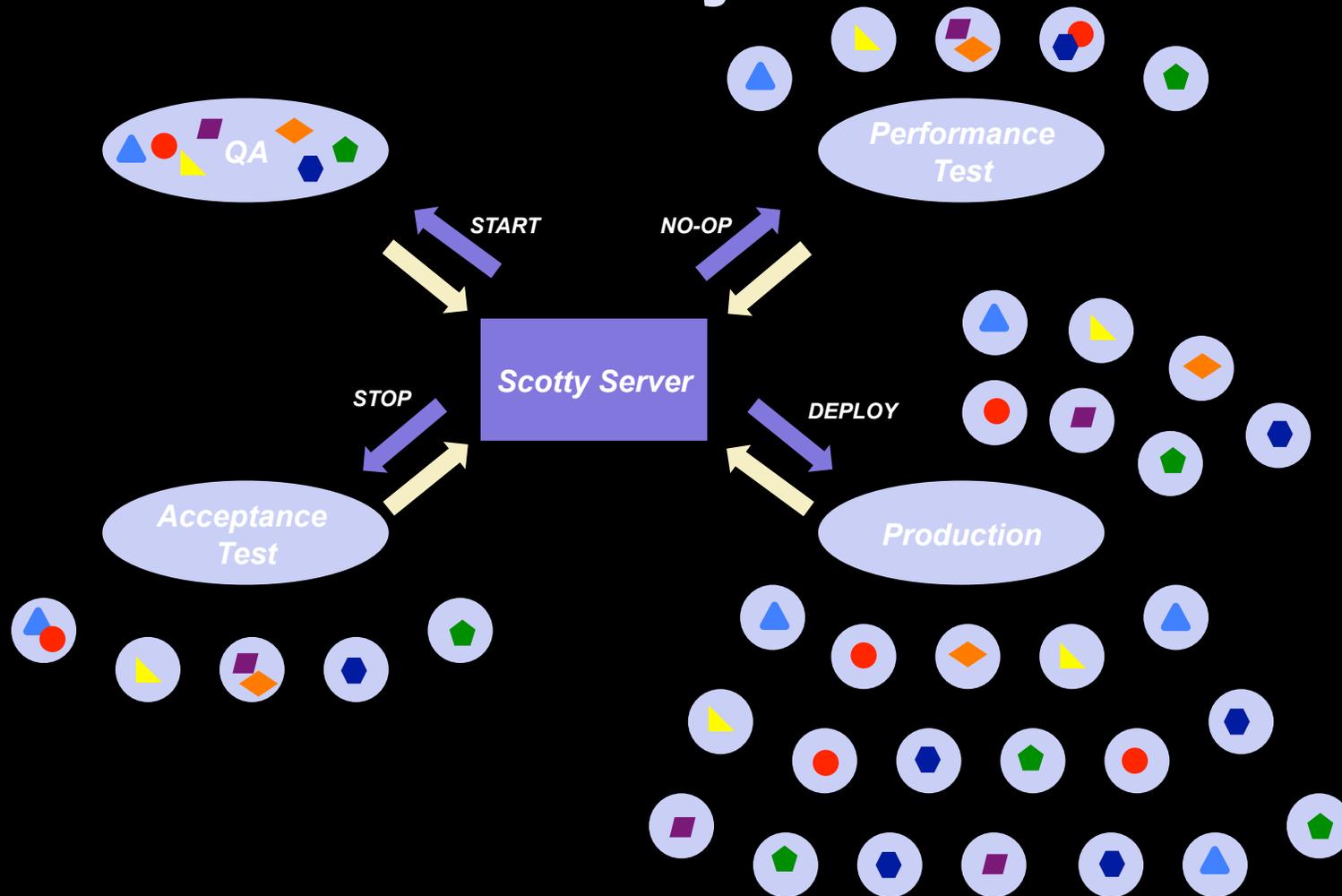
# Deployment



# Deployment Testing



# Scotty



# Scotty – Performing a release

The screenshot shows a web browser window titled "Scotty Status" with the URL [http://tfdeploy01.dev.tradefair/scotty/revisions\\_deploy.html?env=devqas106](http://tfdeploy01.dev.tradefair/scotty/revisions_deploy.html?env=devqas106). The page content includes a breadcrumb "devqas106" and an "Actions:" dropdown menu with a "Do it" button. Below this is a table with three columns: "Revision", "Branch", and "Approvals". To the right of the table is a "Revision Actions" column containing "Upgrade" dropdown menus and "Do it" buttons for each row.

Revision	Branch	Approvals	Revision Actions
34579	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34578	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34577	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34576	it77	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34575	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34573	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34572	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34571	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34570	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34568	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34565	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34563	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34561	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34560	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it
34559	trunk	OPERATIONS (0/1) , FUNCTIONAL_TEST (0/3)	Upgrade [dropdown] Do it

# Scotty – Environment Detail

Scotty cpf Status

http://tfdeploy01.dev.tradefair/scotty/env.html?env=cpf

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Summary	IDLE	WORKING	COMPLETED	FAILED
NO_OP	15	0	0	0

Environments Stop Auto-Refresh

cpf Deployment Environment Actions (rev. 34579):  Do it Reset Env

Host	Command	UA Status	Installed Revision	Role	Health	Last Check-in (UTC)	Host Action
cpfac01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	account-svc	account-svc: Server: OK, PRIMARY	2011-11-08 18:11:18	<input type="text"/> Do it
cpfad01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	database-adb-live	database: OK	2011-11-08 18:11:13	<input type="text"/> Do it
cpfsh01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	web-admin	web-admin: Server: OK, PRIMARY	2011-11-08 18:11:15	<input type="text"/> Do it
cpfcsv01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	contact-svc	contact-svc: Server: OK, PRIMARY	2011-11-08 18:11:18	<input type="text"/> Do it
cpfins01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	instrument-svc	instrument-svc: Server: OK, PRIMARY	2011-11-08 18:11:17	<input type="text"/> Do it
cpfpgw01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	payment-gateway	payment-gateway: Server: OK, PRIMARY	2011-11-08 18:11:12	<input type="text"/> Do it
cpfpvs01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	payment-svc	payment-svc: Server: OK, PRIMARY	2011-11-08 18:11:15	<input type="text"/> Do it
cpftrs01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	broker-fix-trading-gateway	broker-fix-trading-gateway: Server: OK, PRIMARY	2011-11-08 18:11:22	<input type="text"/> Do it
cpfwdb01.dev.tradefair scotty build 32756	NO_OP	IDLE Zzzz...	34579	database-wdb-live	database-logging: OK	2011-11-08 18:11:19	<input type="text"/> Do it
pf1ems01.dev.tradefair scotty build 32756	NO_OP	IDLE PROMOTING_AS_CONFIGURED	34579	ems1	ems1: Server: OK, PRIMARY	2011-11-08 18:11:17	<input type="text"/> Do it
pf1ems02.dev.tradefair scotty build 32756	NO_OP	IDLE PROMOTING_AS_CONFIGURED	34579	ems2	ems2: Server: OK, SECONDARY	2011-11-08 18:11:18	<input type="text"/> Do it
pf1evs01.dev.tradefair scotty build 32756	NO_OP	IDLE PROMOTING_AS_CONFIGURED	34579	ev1	ev1: Server: OK, PRIMARY	2011-11-08 18:11:17	<input type="text"/> Do it
pf1evs02.dev.tradefair scotty build 32756	NO_OP	IDLE PROMOTING_AS_CONFIGURED	34579	ev2	ev2: Server: OK, SECONDARY	2011-11-08 18:11:22	<input type="text"/> Do it

# Scotty – Single Server Environment

Scotty qas104 Status

http://tfdeploy01.dev.tradefair/scotty/env.html?env=qas104

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Summary	IDLE	WORKING	COMPLETED	FAILED
NO_OP	1	0	0	0

Environments Stop Auto-Refresh

**qas104** Deployment Environment Actions (rev. 34555):  Do it Reset Env

Dashboard Details

Host	Command	UA Status	Installed Revision	Role	Health	Last Check-in (UTC)	Host Action
devqas104.dev.tradefair scotty build 32756	NO_OP	IDLE PROMOTING_AS_CONFIGURED	34555	all-primaries-except-market-monitoring	account-svc: Server: OK, PRIMARY broker-fix-trading-gateway: Server: OK, PRIMARY contact-svc: Server: OK, PRIMARY data-export: Server: OK, PRIMARY database: OK ems1: Server: OK, PRIMARY_AT_RISK ev1: Server: OK, PRIMARY_AT_RISK fix-gateway: Server: OK, PRIMARY fix-trade-reporting-gateway: Server: OK, PRIMARY identity-check-gateway: Server: OK, PRIMARY instrument-svc: Server: OK, PRIMARY market-data-svc: Server: OK, PRIMARY mmbot: Server: OK, PRIMARY payment-gateway: Server: OK, PRIMARY payment-svc: Server: OK, PRIMARY registration-gateway: Server: OK, PRIMARY stub-ftp-server: OK (NO OP) treasury-svc: Server: OK, PRIMARY trs: Server: OK, PRIMARY web-admin: Server: OK, PRIMARY web-latencyMonitor: OK: Server returned HTTP 200 web-public: Server: OK, PRIMARY web-stub: Server: OK, PRIMARY	2011-11-08 18:12:44	<input type="text" value="-----"/> Do it

>> Show History

# Wrap up Q & A

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