

## Contact details

Name: Donald Simpson  
E-mail: donaldsimpson(at)Gmail(dot)com  
Website: <https://www.donaldsimpson.co.uk/>  
LinkedIn: <https://www.linkedin.com/in/donaldsimpson>  
Meetup: <https://www.meetup.com/Automated-IT-Solutions/>  
Location: Edinburgh, Scotland, UK

## Summary

DevOps Engineer, Site Reliability Engineer, AWS Cloud Engineer, DevSecOps, Build Automation

Published author and technical reviewer of books and video courses on Jenkins, Docker, Continuous Integration and DevOps

Containerisation, Virtualisation and Cloud platforms - Docker, Kubernetes, AWS, OpenShift, Google Cloud

## Key skills and experience

AWS: ECS, EKS, CloudFormation, CloudWatch, Lambda, S3, EC2, IAM, Kinesis, Elasticsearch etc  
Version Control: GitLab/GitHub, Bitbucket, Subversion, Rational Team Concert, Perforce  
Automation/Build: Jenkins, AWS CodeBuild/CodePipeline, Docker, GitlabCI, ArgoCD, JFrog, Gradle, Artifactory  
Testing tools: JMeter, Sonar, FitNesse, Selenium, EMMA, Cucumber, Thucydides, WebDriver, JUnit, DBUnit etc  
Monitoring & Logging: Elasticsearch, AWS Opensearch, DataDog, Kibana, Grafana, Prometheus, Influx

- Designing and implementing Continuous Integration, Continuous Delivery and Continuous Deployment pipelines for both code build & deployment and platform provisioning processes with Docker, AWS, VMWare, Kubernetes and OpenShift
- Introducing and implementing DevOps and DevSecOps solutions for a range of Agile projects, creating secure fully automated build, deployment, monitoring, testing and reporting solutions

## Career Profile

## Shell

April 2023 – present

Role: **Senior DevOps Engineer**

- Developing pipelines with GitHub workflows to manage and deploy infrastructure and applications
- Kubernetes on AWS/EKS
- Working with and supporting platforms for global development teams
- Developing shared code and tooling components, working with AWS consultants
- Setting up and implementing observability with Dynatrace; synthetics, monitoring, logging and alerting

## Ubloquity

Nov 2022 – April 2023

Role: **Senior DevOps Engineer**

- Blockchain with Multichain
- Kubernetes with Rancher on AWS/EKS and on bare metal with OVH
- Setting up centralised logging platform with AWS OpenSearch and Rancher/Fluentd
- CI/CD and Docker pipelines and workflows with ArgoCD and Dockerhub

## RS Components

Mar 2022 – Nov 2022

Role: **Lead DevOps Engineer**

- HashiCorp Terraform with Terragrunt - developing and maintaining Terraform modules used by development teams to deploy and manage AWS resources
- Developing CI/CD pipelines with GitLab CI to build, test, promote and deploy core services and docker images used by multiple dev teams
- Gitlab Pipelines & Runners on AWS ECS/Fargate and HashiCorp Nomad
- Migrating on-prem services to AWS, converting pipelines from Jenkins to GitLabCI & containerising applications
- Integrating DevSecOps tooling and practices, centralising logging and monitoring with Datadog

## Registers of Scotland (RoS)

Jan 2020 – Mar 2022

Role: **AWS/Cloud DevOps Engineer**

- AWS-focused DevOps - using the AWS Cloud Development Kit (CDK), Troposphere and CloudFormation to develop tooling and platform automation
- Combining Agile methodologies with the AWS platform to develop processes that ensure quality, security and auditability, enabling frequent delivery of quality working software

## Curriculum Vitae

Donald Simpson

- Enabling & supporting development teams migrating & onboarding to AWS, providing PaaS and SaaS solutions
- Using the AWS Code suite - CodeCommit, CodeBuild, CodeDeploy and CodePipeline from AWS CDK to create self-mutating Code Pipelines that automatically build, test and deploy other AWS CDK Stacks
- Automating AWS resources with CloudFormation Stacks, StackSets and StepFunctions for Route53, S3, EC2, Config Rules, Cognito, API Gateway, Lambda, CloudFront, WAF, IAM roles and AWS account management
- Design and Build of an AWS Elasticsearch & Kibana solution using Kinesis Data Firehose, Lambda, S3 and Cognito to provide a secure centralised logging platform across multiple accounts for a wide range of services
- Integrating and automating DevSecOps processes and practices combining tools like Prisma Cloud, Twistlock, CFNGuard with AWS Services; Security Hub, Inspector, WAF, GuardDuty, Config Rules, Shield Advanced etc
- Designing and implementing DDoS and WAF/WAFv2 solutions to meet governance and security standards, integrating DevSecOps solutions with AWS Shield Advanced and Prisma Cloud, working with & onboarding Product Teams to the platform and tooling
- Developing Application and Platform monitoring using Grafana, CloudWatch, CloudTrail, Kinesis Delivery Streams and Data Firehose, AWS native logging and Elasticsearch
- Producing and maintaining documentation, options assessments and Architectural Decision Records
- Working closely with Technical Architects, Stakeholders, Product Owners & Managers on priorities, governance, roadmaps and the product backlog

## Royal Bank of Scotland (RBS)

Oct 2019 – Jan 2020

Role: **DevOps Engineer**

Environment: Kubernetes, Pivotal Cloud Foundry, Docker, Jenkins, VMWare, CI/CD

- Providing "Containers as a Service", automating Kubernetes provisioning with Pivotal Cloud Foundry on VMWare
- Introducing Continuous Integration and containerisation principles and best practice to multiple product teams, introducing and onboarding them to Kubernetes, Docker and Jenkins pipelines
- Developing tooling and automation for platforms, containers and build & deployment pipelines
- Delivering DevSecOps best practices using Twistlock in with build and deploy pipelines

## People's Postcode Lottery

April 2019 – Oct 2019

Role: **DevOps Engineer**

Environment: AWS stack, DevSecops, Docker, Jenkins, VMWare, CI/CD

- AWS migration - on-prem VMWare ESX hosts to AWS, building and provisioning AWS resources - EC2, Load Balancers, Security Groups, Route53 etc
- Automating backup and recovery processes with Serverless/Lambda
- CI/CD Jenkins and Docker build, test, deploy processes and pipelines in AWS
- Automating provisioning and scaling using SpotFleet, ECS and Fargate tasks
- DevSecOps - security auditing of AWS environments with prowler, cfn\_nag
- Integrating Twistlock container scanning and reporting to Jenkins pipelines
- developing build processes and pipelines to provide and maintain secure Docker images

## Tesco Bank

November 2018 to April 2019

Role: **DevOps/Engineering Lead**

Environment: AWS with automated provisioning using Cloudformation, Troposphere, Lambda, Ansible and Jenkins

- Working with Development and Test teams to create fully automated CI/CD Pipelines using AWS and Jenkins
- Automating and integrating test tools – JMeter, Accessibility and Security Testing tools, Selenium, Cucumber
- Introducing pipeline and automation best practices, putting together an introduction to Docker and Kubernetes on AWS

## Registers of Scotland

August 2016 to November 2018

Role: **DevOps Engineer**

Environment: Jenkins, Docker, Kubernetes/OpenShift, Red Hat, Java

- Creating and maintaining containerised and fully automated CI/CD processes for multiple projects
- Using Docker, Jenkins, VMWare, RHEL, Satellite, OpenShift, Kubernetes, Artifactory, Ansible & GitLab
- Developing Docker images and pipelines to support Development and Testing Teams; distributed Jenkins, Selenium and JMeter images, all feeding in to central ElasticSearch, Logstash and Kibana stacks for Logging and Prometheus and Grafana for Monitoring and Alerting
- Working closely with architecture, development, test, security and IT Services teams
- Providing Monitoring, Logging and Alerting services using Elasticsearch and the ELK stack, Prometheus TSDB and Grafana
- Developing scripts for build, deployment, maintenance and related tasks using Jenkins, Maven, Python and Bash

## Royal Bank of Scotland (RBS)

November 2015 to August 2016

Role: **DevOps Engineer**

Environment: Jenkins, Docker, Vagrant, Red Hat Satellite, Java, JSON, API

- Introducing DevOps and Agile processes, implementing and developing solutions that enable Development and Operations teams to build, deploy, monitor and test applications and environments
- Implementing monitoring and reporting solutions across a range of environments and platforms
- Evaluating and advising on virtualization and containerization solutions
- Environment provisioning solutions using Docker, Vagrant, Red Hat Satellite
- Setting up and introducing Continuous Deployment processes and advising on best practice

**Packt Publishing** - November 2015 to Jan 2016 (part time projects)

Role: Author of the book "Extending Jenkins"

Link: <https://www.amazon.com/Extending-Jenkins-Donald-Simpson/dp/178528424X/>

Sample: <https://www.donaldsimpson.co.uk/ExtendingJenkinsChapter8Sample.pdf>

Role: Author of the video course "Beginning Docker"

Link: <https://www.packtpub.com/application-development/beginning-docker-video>

Sample: <https://www.youtube.com/watch?v=Md0CKAAxBEA>

**HSBC**

June 2014 to October 2015

Role: **Build Manager and Automation Consultant**

Environment: Ant, Maven, Nexus, SonarQube, VM Ware, Docker, IBM Rational Team Concert, Oracle, Jenkins

- Designing, implementing and supporting Continuous Integration and Continuous Delivery processes for development teams working World wide
- Design and development of an automated database release process using Liquibase, Ant, Nexus and Rational Team Concert
- Automated provisioning, building and deployment of Oracle, Sybase and Middleware environments using Jenkins, VM Ware and Docker
- Developing custom reporting tools and automated monitoring and alerting for builds and environments
- Supporting and managing the IBM Jazz suite for teams of developers working around the World

**Packt Publishing** - September 2014 to Feb 2015 (part time projects)

Role: **Technical Reviewer:** "Build your own PaaS with Docker"

Link: <https://www.packtpub.com/virtualization-and-cloud/build-your-own-paas-docker>

Role: **Technical Reviewer:** "Jenkins Continuous Integration Cookbook"

Link: <https://www.packtpub.com/application-development/jenkins-continuous-integration-cookbook-second-edition>

**British Sky Broadcasting - BSkyB**

April 2011 to June 2014

Role: **Build Automation and Configuration Manager**

Environment: Jenkins, Subversion, Continuous Integration, DevOps, Agile, Maven, Nexus, Ant, Java, UNIX/Linux, VM Ware

- Introducing and implementing Continuous Integration principles and practices for the Billing Development Team using Jenkins & JNLP Nodes, Sonatype Nexus, Subversion, VMWare, ClearQuest, JUnit, DBFit, FitNesse, Atlassian JIRA
- Developing automated process for builds and deployments; Jenkins, Ant, Maven, Sonatype Nexus, Shell Script, Perl, Java
- Set up and maintained fully automated Build and Test processes for Apple iOS and Android devices
- Creating and managing Development and Continuous Integration Environments using VMWare ESX, automated through Jenkins using PXE boot, Perl and the VM Ware CLI, also involved in several projects setting up builds using Katello, Foreman, Puppet and Chef
- System and User Administration – responsible for the maintenance of DHCP, DNS, LDAP, AD and NFS services on Windows and Red Hat Enterprise Linux in Development environments
- Automating the installation, deployment and maintenance of Middleware Application Servers to RHEL Development and Test Environments on VMWare ESX
- Creating bespoke tools to support and enable Continuous Integration, Continuous Deployment and system monitoring/reporting; using JSP and Shell Scripts with a MySQL database, harvesting data from various sources and API's (Spark, Remedy, ClearQuest etc) to provide consolidated and automated live reports
- Developed systems to enable baselining and tracking of different types of Reference Data; automated the creation and labeling and adding to version control, then set up push-button deployments from Subversion to Oracle Databases via Jenkins and JNLP Nodes, with full auditing and user authentication and authorisation provided by the corporate Active Directory

**Tesco Bank**

Jan 2010 to April 2011

Role & Project: **Software Configuration Manager and Build Automation Consultant**

Responsible for defining, designing, and implementing SCM processes and solutions for a new Bank  
Implementing fully automated and distributed environment builds and deployments for a Greenfield site  
Providing Version Control with Subversion and Automated Build & Deployments with Jenkins

## Curriculum Vitae

Donald Simpson

Environment: Windows and Linux VM's on Xen, iSeries and OpenVMS, Hudson, Subversion, Arcot, Tibco, WebSphere, WebLogic, JBoss and Tomcat

- Working with Enterprise Architects, Project Managers, Vendors, Developers and Deployment Managers to define and implement a Software Configuration Management solution for a new Bank
- Leading a small team of Deployment and Build Engineers
- Automating the deployment and build of Application Servers across multiple environments, technologies and platforms
- Installation of Tomcat, WebSphere & WebLogic environments, MDM Server, InfoSphere IHS, and Arcot WebFort and RiskFort
- Designing and creating a resilient SCM Infrastructure from scratch – Subversion and Hudson integrated with Active Directory/LDAP, and orchestrating SCCM and Satellite deployments and host builds to serve every part of the Bank

### British Sky Broadcasting - BSkyB

March 2009 – Jan 2010

Role & Project: **Integration Build Manager** designing, creating and managing Continuous Integration Environments

Environment: Linux, Solaris, Hudson, Subversion, WebSphere Portal and Process Server, SOA, Agile

- Creating a fully Automated Build and Deployment Platform and coordinating code builds, promotions and orchestrated deployments using Hudson and Subversion
- Automating the management and creation of Application Servers, resources and database deployments
- Developing Ant, Maven and Shell scripts to automatically compile, package, deploy and test J2EE applications to a variety of WebSphere platforms – BPM, MQ, ESB, Portal etc
- Writing Ant, Shell, JACL and Jython scripts to automatically configure integration and test environments, including deploying WAR and EAR files, stopping and starting Application Servers and processes and dynamically creating server profiles/instances and defining resources (MQ connections etc) as and when required
- Administration and creation of Hudson jobs, including automatic generation, reporting and alerting of test and code metrics (JUnit, PMD, FitNesse, Emma etc), build failures and build status indicators, and information radiators

### Cognizant Technology Solutions (for Sky)

October 2008 – March 2009

Role & Project: **Build and Automation Engineer**

Environment: Linux, ESX, VM Ware, Hudson, Subversion, WebSphere Portal Server, Process Server and MQ

- automating code builds, server deployments and fully automated testing for WebSphere Portal and Process Server Teams
- automating the deployment of MQ Queue Managers, MQ Infrastructure and ESB code
- providing automatic alerting and reporting on code quality and code coverage (EMMA, JUnit, WebDriver, FitNesse etc) using Hudson

### Intelligent Finance

Various roles from September 2000 to July 2008

Role & Project: **Middleware Specialist**, Midrange Platform Migration

Environment: Solaris and HP-UX, WebLogic Application Server, Veritas, Clustering and Shell Scripting

- Automating the creation of WebLogic Application servers instances, providing processes to automate configuration/restoration and backups
- Automating compilation, testing and archiving of builds and code changes
- Using Korn shell, Perl and CVS (Harvest) Version Control to automate deployment of J2EE applications to Mid Tier platforms
- Porting build processes, build platforms and servers from Solaris over to HP-UX, updating and enhancing existing build and deployment scripts to increase automation and efficiency and reduce errors
- Migration of the entire Intelligent Finance code base and Mid Tier Platform from Solaris to HP-UX, and Java 1.3 to Java 5
- Working with Senior Service and Business managers, and colleagues based throughout HBOS/UK and offshore
- Designing and implementing new features such as Application Server clustering, Apache load-balancing and O/S level performance monitoring, tuning and reporting
- Automating Performance monitoring and alerting, and tuning the J2EE Mid Tier code base and platform using HP's JMeter
- Developing and coordinating modifications to the Bank's internal and external interfaces, including Connect:Direct, NFS shares, SAMBA mounts and transport protocols

### Intelligent Finance (continued)

Role & Project: **Lead Developer**, WebLogic Application Server Platform Upgrade

Environment: Solaris 9, J2EE, WebLogic Server 6.1 and 9.2

- Upgrading the Banks WebLogic Server platform and Domains from version 6 to version 9 on Windows and Solaris platforms
- JVM Performance tuning and monitoring on UNIX and Windows; performing load, duration, and stress tests while gathering performance statistics for various memory configurations and garbage collection strategies and advising on appropriate configurations for differently sized UNIX and Windows hosts – completed BEA's Advanced Administration course
- Porting Korn Shell Scripts and creating new Ant scripts used for server administration and application builds and deployments
- Large scale re-factoring of Mid Tier Java code base for the move from JDK 1.3 to Java 5
- Perl and MS/DOS scripting to create new J2EE desktop deployment functionality enabling desktop builds for developers, allowing rapid feedback on changes and introducing basic Build Automation and Continuous Integration processes

**Previous projects** with Intelligent Finance as a **Senior Analyst/Developer** include:

- Development of Web Services and Web Service Clients using combinations of Apache Axis, Java and C#
- Acting as a mentor to new contractors and developers. Some project management and Technical/Team Leading experience
- Senior Developer for a Documentation Project which involved using a combination of XSLT, Java and C to produce and render PostScript files from XML data.
- Design, Development and Unit Testing of Mid Tier Java solutions
  - Numerous projects combining Java, SOAP, JSP, ASP, WebLogic, XML/XSLT and Oracle
  - Development and design of new Contact Centre applications, using Java and XML/XSLT talking to an Oracle database through JDBC and to an ASP Front Tier via SOAP

### **3Dms Ltd**

February 1999 to Sept 2000

Role: **Senior Analyst/Developer**

3Dms specialize in Dynamic Document Design and Managed Services

Responsibilities and Achievements:

- Research, Design and Development of a new Enterprise-level E-mail scanning and filtering application using a combination of the Microsoft Mail API (MAPI), Collaborative Data Objects (CDO and CDONTS) and Visual BASIC running on Microsoft Exchange Server
- Responsible for the development and maintenance of both corporate and customer web sites using a variety of web technologies including ASP, JSP, HTML and JavaScript with an SQL backend and a mix of IIS, Apache and Tomcat Front Tier
- Providing maintenance, support, Disaster Recovery and security for the company network, data and Servers
- Mentoring and leading a small team of Developers

## Education and Qualifications

### **Arcot WebFort and RiskFort Administration**

Training from Arcot

### **Advanced Weblogic Administration**

Training from BEA

### **Microsoft Certified Professional (MCP)**

### **Microsoft Certified Systems Engineer (MCSE)**

Training from Microsoft

### **Postgraduate in Information Systems**

Napier University, Edinburgh

### **Bachelor of Land Economy**

University of Aberdeen

## Hobbies and Interests

A keen woodworker and woodturner: <https://www.donaldsimpson.co.uk/category/wood/>

I run and write material for a popular Edinburgh Tech Meetup: <https://www.meetup.com/Automated-IT-Solutions/>

I also play guitar and enjoy driving and maintaining cars and motorbikes

Any remaining time is usually spent experimenting on my home Lab, where I mostly focus on Kubernetes and related technologies

- currently adding Machine Learning with facial recognition to my home CCTV network, and dabbling in Blockchain development

References are available on request