

TFS 2010 Enterprise Installation and Configuration Steps Guide



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93 Videos



TABLE OF CONTENTS

1	INTRODUCTION	4
1.1	OVERVIEW	4
1.2	CONSIDERATIONS	5
2	PHYSICAL MACHINES PREPARATION	6
2.1	PHYSICAL NETWORK MAP	6
2.2	PREPARE PC1 (DCHOME).....	7
2.3	PREPARE PC2 (TFSINFRA).....	8
2.4	PREPARE PC3 (HYPERV1).....	9
3	VIRTUAL MACHINES PREPARATION	10
3.1	VIRTUAL NETWORK MAP	10
3.2	PREPARE VM (GENERAL).....	11
3.3	PREPARE VM1 (TFS10)	12
3.4	PREPARE VM2 (SHAREPOINT10).....	13
3.5	PREPARE VM3 (BUILDSERVER10).....	14
3.6	PREPARE VM4 (TESTSERVER10)	15
3.7	CONFIGURE DYNAMIC RAM.....	15
4	TFS INSTALLATION AND CONFIGURATION	16
4.1	CREATE SERVICE ACCOUNTS AND GROUPS	16
4.2	INSTALL IIS AND SQL	16
4.3	INSTALL AND CONFIGURE SHAREPOINT 2010.....	16
4.4	INSTALL AND CONFIGURE TFS 2010	17
5	BUILD SERVER INSTALLATION AND CONFIGURATION.....	17
6	INSTALL SERVICE PACK AND CUMULATIVE UPDATES.....	18
7	LAB MANAGEMENT INSTALLATION AND CONFIGURATION	19

8	TEST CONTROLLER INSTALLATION AND CONFIGURATION.....	20
9	VIRTUAL ENVIRONEMENT INSTALLATION AND CONFIGURATION.....	21
9.1	PREPARE TEMPLATE WIN 2008R2 (AS DB SERVER- WEB SERVER-ETC.)	21
9.2	PREPARE TEMPLATE WIN 7 ULTIMATE (AS WEB CLIENT-DESKTOP CLIENT) ..	24
10	PREPARE TFS ULTIMATE CLIENT (DEV-TEST).....	27
11	ADDITIONAL INSTALLATION AND CONFIGURATION.....	29
11.1	ADDITIONAL FOR TFS10	29
11.2	ADDITIONAL FOR BUILDSERVER10	29
11.3	ADDITIONAL FOR SHAREPOINT10	31
11.4	ADDITIONAL FOR LAB MANAGEMENT	31
12	SUMMARY	32
13	ABOUT THE AUTHOR.....	33
14	FEEDBACK	34
15	APPENDIX.....	35
15.1	SOFTWARE USED	36
15.2	LINKS.....	37



1. Introduction

1.1. Overview

This guide introduce the real scenario of enterprise installation and configuration of TFS 2010, the reason of creating this guide to reduce the time needed to implement real enterprise scenario of TFS by organizing and predefine all needed steps, this guide didn't answer why question, it just show you the full steps from the beginning to the end in very deep details, this guide follow specific scenario and didn't has any branching or conditions

You can use this guide as **checklist** to your implementation so you can perform concurrent and multiple installation and configuration at the same time without losing the focus and forget what you do or didn't do for a specific machine, so my advice to you is, just customize this guide according to your requirements and start using it as a **checklist** for the whole environment





1.2. Considerations

The installation and configuration follow the TF Installation guide **June2011**

(TFSInstall-SP1-June2011)

Sometimes the sequence of this guide is very important and sometimes is not, it is prefer to follow this guide with its sequence unless you know exactly what you are doing

Remember that you may need to perform additional tasks or fewer tasks depend on you're:

- Environment
- Hardware
- OS versions and editions
- Software versions and editions



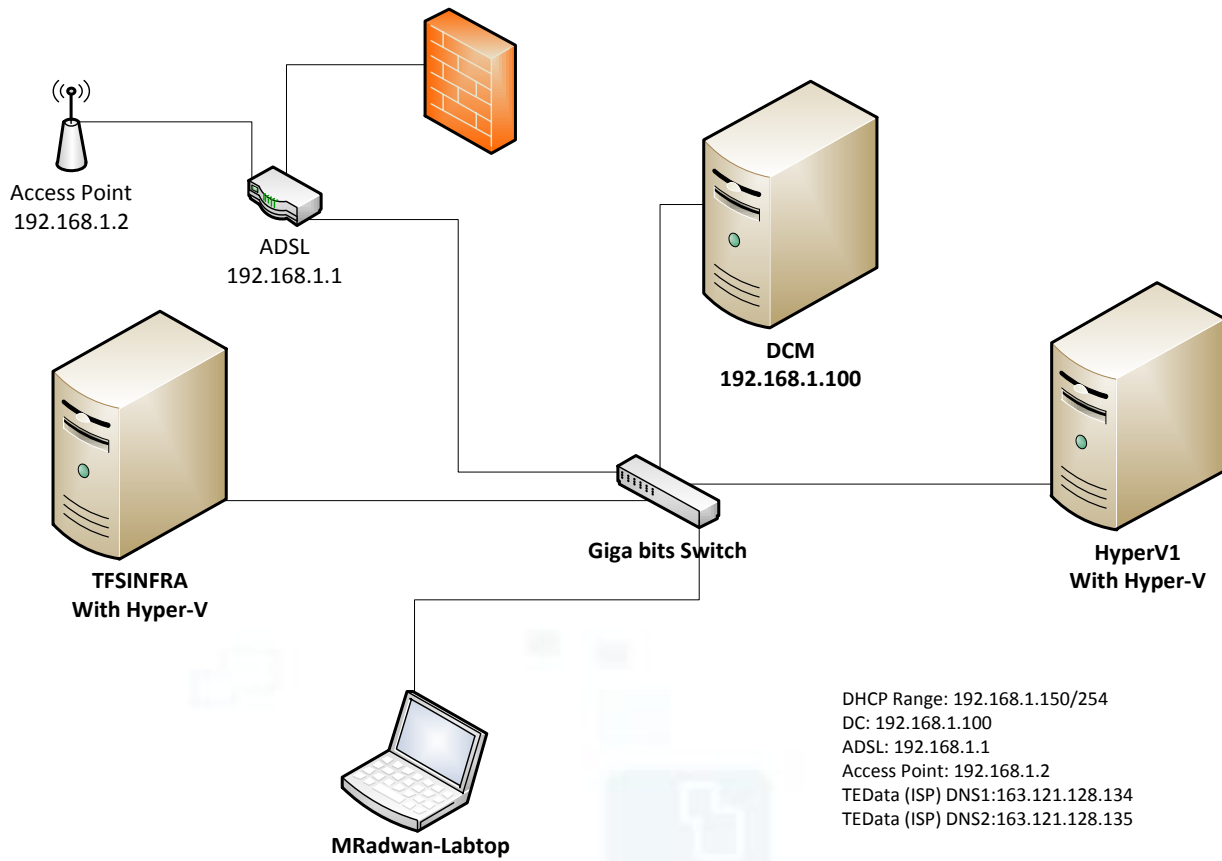
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2. Physical Machines Preparation

2.1. Physical Network Map



2.2. Prepare PC1 (DCHome)







1. Install windows 2008 R2
2. Install windows 2008 R2 SP1
3. Update windows until there is no update available
4. Install .NET Framework 4.0 (prerequisite for FEP 2010)
5. Install FEP (Forefront Endpoint Protection 2010)and Update virus definition 
6. Create Ghost image (Clean one)
7. Change PC name to be DCM (Domain Controller Machine) 
8. Disable IPV6.0 
9. Configure static IP 192.168.1.100 of IPV4.0 
10. Install AD (Active Directory) Role with DNS with name DCHome.com 
11. Configure DNS 
12. Configure Forward DNS for Local ISP 
13. Disable DHCP of the ADSL Router 
14. Configure DCHP on the DCHome.com 
15. Create Domain Admin account (MRadwan) and login using this account 

2.3. Prepare PC2 (TFSINFRA)

1. Install windows 2008 R2
2. Install windows 2008 R2 SP1
3. Update windows until there is no update available
4. Install .NET Framework 4.0 (prerequisite for FEP 2010)
5. Install FEP (Forefront Endpoint Protection 2010)and Update virus definition
6. Create Ghost image (Clean one)
7. Change PC name to be TFSINFRA and Join the Domain
8. Restart and login with Domain Admin account (MRadwan)
9. Configure NIC to work with virtual network in Hyper V
10. Install Hyper-V Role
11. Exclude Hyper V processes and directories from antivirus
12. Reserve memory for Hyper-V host server

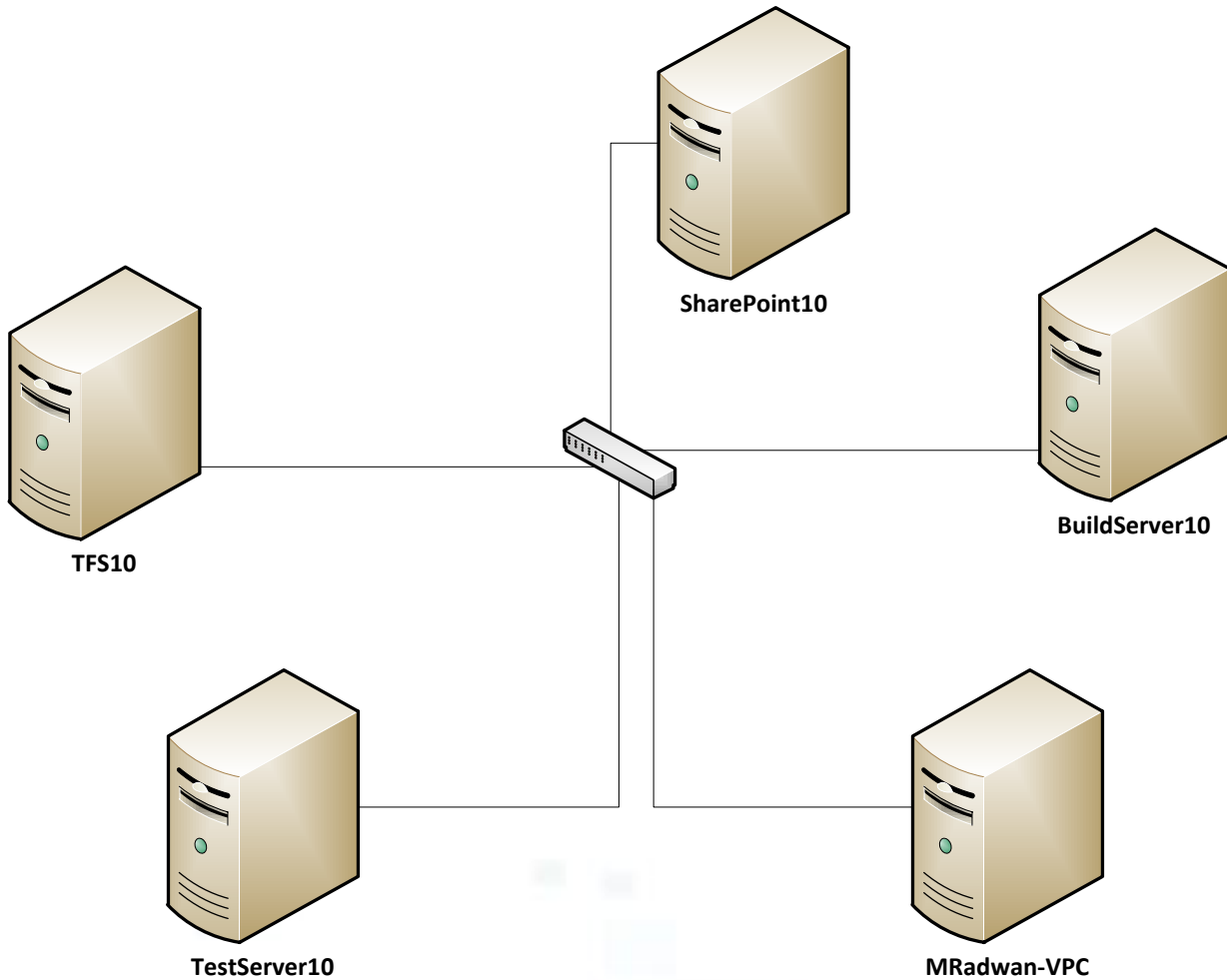


2.4. Prepare PC3 (HyperV1)

1. Install windows 2008 R2
2. Install windows 2008 R2 SP1
3. Update windows until there is no update available
4. Install .NET Framework 4.0 (prerequisite for FEP 2010)
5. Install FEP (Forefront Endpoint Protection 2010) and Update virus definition 
6. Create Ghost image (Clean one)
7. Change PC name to be HyperV1 and Join the Domain 
8. Restart and login with Domain Admin account (MRadwan)
9. Configure NIC to work with virtual network in Hyper V 
10. Install Hyper-V Role 
11. Exclude Hyper-V processes and directories from antivirus 
12. Reserve memory for host server 

3. Virtual Machines Preparation

3.1. Virtual Network Map










3.2. Prepare VM (General)

1. Create VM using HV Manager with name General
2. Install windows 2008 R2
3. Install windows 2008 R2 SP1
4. Update windows until there is no update available
5. Stop the VM and copy the VHD to be used for all other VMs



3.3. Prepare VM1 (TFS10)

1. Copy & paste VHD of VM (General) in separate HDD and rename to **TFS10** 
2. Create Virtual Network using separate NIC for **TFS10** 
3. Create VM using HV Manager with name **TFS10** and Attach its VHD 
4. Change PC name to be **TFS10** and Join the Domain 
5. Restart and login with Domain Admin account (MRadwan)
6. Take a snapshot (Clean)
7. Install .NET Framework 4.0 (prerequisite for FEP 2010)
8. Install FEP (Forefront Endpoint Protection 2010) and Update virus definition 

3.4. Prepare VM2 (SharePoint10)

1. Copy VHD of VM (General) in separate HDD and rename to **SharePoint10**
2. Create Virtual Network using separate NIC for **SharePoint10**
3. Create VM using HV Manager with name **SharePoint10** and Attach its VHD
4. Change PC name to be **SharePoint10** and Join the Domain
5. Restart and login with Domain Admin account (MRadwan)
6. Take a snapshot (Clean)
7. Install .NET Framework 4.0 (prerequisite for FEP 2010)
8. Install FEP (Forefront Endpoint Protection 2010) and Update virus definition








3.5. Prepare VM3 (BuildServer10)

1. Copy VHD of VM (General) in separate HDD and rename to **BuildServer10**
2. Create Virtual Network using separate NIC for **BuildServer10**
3. Create VM using HV Manager with name **BuildServer10** and Attach its VHD
4. Change PC name to be **BuildServer10** and Join the Domain
5. Restart and login with Domain Admin account (MRadwan)
6. Take a snapshot (Clean)
7. Install .NET Framework 4.0 (prerequisite for FEP 2010)
8. Install FEP (Forefront Endpoint Protection 2010) and Update virus definition



3.6. Prepare VM4 (TestServer10)




1. Copy VHD of VM (General) in separate HDD and rename to **TestServer10** 
2. Create Virtual Network using separate NIC for **TestServer10** 
3. Create VM using HV Manager with name **TestServer10** and Attach its VHD 
4. Change PC name to be **TestServer10** and Join the Domain 
5. Restart and login with Domain Admin account (MRadwan)
6. Take a snapshot (Clean)
7. Install .NET Framework 4.0 (prerequisite for FEP 2010)
8. Install FEP (Forefront Endpoint Protection 2010) and Update virus definition 

3.7. Configure Dynamic RAM




1. Configure Dynamic RAM for all VMs on HV 

4. TFS Installation and Configuration






4.1. Create Service Accounts and Groups

1. Create Service Accounts 
2. Create SharePoint security group with users 
3. Configure policy and permission for service accounts 





4.2. Install IIS and SQL

1. Install IIS on **TFS10** 
2. Install .NET framework 3.5 (enable feature) on **TFS10** 
3. Install SQL Server 2008 R2 (DB, Analysis Service, Reporting Service) on **TFS10** 

4.3. Install and Configure SharePoint 2010

1. Install SharePoint2010 on **SharePoint10** 
2. Open SQL port on **TFS10** (DB for SharePoint) 
3. Configure SharePoint Product 2010 
4. Prepare SharePoint for Dashboard Compatibility with Excel Service 
5. Install and Configure SharePoint Extension on **SharePoint10** 










4.4. Install and Configure TFS 2010

1. Install TFS2010 on **TFS10** 
2. Configure TFS2010 
3. Configure SharePoint Extension on **SharePoint10** and integrate with TFS2010 
4. Test SharePoint Dashboard compatibility with Excel Service for reports 












5. Build Server Installation and Configuration

1. Install and Configure TFS Build 2010 on **BuildServer10** 




6. Install Service Pack and Cumulative Updates

1. Install TFS 2010 SP1 on **TFS10** 
2. Install TFS2010 SP1 Cumulative Update1(8-8 2011)on **TFS10** 
3. Configure Windows Update to Install Update for other MS Products on **TFS10** 
4. Check and install updates until there is no update available on **TFS10**
5. Install TFS 2010 SP1 on **SharePoint10** 
6. Install TFS2010 SP1 Cumulative Update1(8-8 2011) on **SharePoint10** 
7. Configure Windows to Install Update for other MS Products on **SharePoint10** 
8. Check and install updates until there is no update available on **SharePoint10**
9. Install TFS 2010 SP1 on **BuildServer10** 
10. Install TFS2010 SP1 Cumulative Update1(8-8 2011) on **BuildServer10** 
11. Configure Windows to Install Update for other MS Products on **BuildServer10** 
12. Check and install updates until there is no update available on **BuildServer10**

7. Lab Management Installation and Configuration












1. Install SCVMM Server on **TFSINFRA** 
2. Install SCVMM Admin Console on **TFSINFRA** 
3. Add Hyper-V hosts (**TFSINFRA**, **HyperV1**) 
4. Assign TFSService Account Admin Privilege for SCVMM on **TFSINFRA** 
5. Configure Windows to Install Update for other MS Products on **TFSINFRA** 
6. Check and install updates until there is no update available on **TFSINFRA**
7. Install SCVMM Admin Console on **TFS10** 
8. Prepare SCVMM to Lab Management 
9. Install Lab Update on **TFS10** 
10. Install Lab Update on **BuildServer10** 
11. Configure TFS Lab Management on **TFS10** 
12. Test Lab Management 

8. Test Controller Installation and Configuration

1. Install and Configure Test Controller on **TestServer10** 
2. Install Lab Update on **TestServer10** 
3. Configure Windows to Install Update for other MS Products on **TestServer10** 
4. Check and install updates until there is no update available on **TestServer10**

9. Virtual Environment Installation and Configuration

9.1. Prepare Template Win 2008R2 (As DB Server- Web Server-etc.)

1. Copy VHD of VM (General) and rename to Win2008R2 
2. Create VM using HV Manager with name Win2008R2 and Attach its VHD 
3. Change PC name to be Win2008R2-Lab Ready and Join the Domain 
4. Install HV integration service 
5. Enable .Net Framework 3.5 Feature on Win2008R2 
6. Add TFSLab To Local Administrator Group 
7. Install Lab Agent 
8. Install Build Agent 
9. Configure Build Agent. To Be Ready For Lab Management 
10. Install Test Agent 
11. Configure Test Agent as Service using TFSLab 

12. Install TFS 2010 SP1



13. Install TFS2010 SP1 Cumulative Update1 Published 8-8-2011



14. Install Lab Update



15. Configure Windows to Install Update for other MS Products



16. Check and install updates until there is no update available

17. Log Off The Domain And Join Workgroup



18. Allow Remote Connection



19. Disable Password Complexity and Clear Administrator Password



20. Remove Any CD in VM Drive



21. Clone The VM and name to Win2008R2-Lab Ready and Deploy to the HV Host



22. Shutdown The VM and Change VHD name to be Win2008R2-Lab Ready.VHD

23. Delete Any Snapshot of the Clone Machine



24. Wait For Merge Deleted Snapshots(Very Important)



25. Create Template from VM



26. Test Import Template and Create Environment Form Win2008R2 Template



9.2. Prepare Template Win 7 Ultimate (As Web Client-Desktop Client)

1. Create VM using HV Manager with name Win7Ultimate-Lab
2. Install windows 7 ultimate with SP1 and Let Admin Account be Radwan
3. Update windows until there is no update available
4. Change PC name to be Win7Ultimate-Lab Ready and Join the Domain
5. Install HV integration service
6. Add TFSLab To Local Administrator Group
7. Install Lab Agent
8. Install Build Agent
9. Configure Build Agent. To Be Ready For Lab Management
10. Install Test Agent
11. Configure Test Agent as Interactive Process using TFSLab
12. Restart VM and Review Auto Login with TFSLab
13. Install Visual Studio 2010 SP1



14. Install TFS 2010 SP1



15. Install TFS2010 SP1 Cumulative Update1 Published 8-8-2011



16. Install Lab Update



17. Install VS 2010 Video Diagnostic Data Adapter



18. Install VS Feature Pack 2

19. Install Expression Encoder 4.0 with SP1



20. Configure Windows to Install Update for other MS Products



21. Check and install updates until there is no update available



22. Log Off The Domain And Join Workgroup



23. Allow Remote Connection



24. Disable Password Complexity and Clear Radwan (Administrator) Password



25. Remove Any CD in VM Drive



26. Clone VM and name to **Win7Ultimate-Lab Ready** and Deploy to the HV Host



27. Shutdown The VM and Change VHD name to be Win7Ultimate-Lab Ready .VHD

28. Delete Any Snapshot of the Clone Machine



29. Wait For Merge Deleted Snapshots(Very Important)



30. Create Template from VM



31. Test Import Template and Create Environment Form Win7Ultimate Template





10. Prepare TFS Ultimate Client (Dev-Test)

1. Create VM using HV Manager with name Win7Ultimate
2. install windows 7 ultimate with SP1
3. Update windows until there is no update available
4. Change PC name to be Win7Ultimate and Join the Domain
5. Install HV integration service
6. Install Visual Studio 2010 Ultimate
7. Install Visual Studio 2010 SP1
8. Install Latest TFPT
9. Install VS 2010 SP1 MFC Security Update
10. Install Lab Update
11. Install QFE for Visual Studio 2010 Test Tools
12. Visual Studio 2010 SP1 TFS Compatibility GDR
13. Install Expression Encoder 4.0 with SP1



14. Install VS 2010 Video Diagnostic Data Adapter



15. Install VS 2010 Feature Pack 2



16. Configure Windows Update to Install Update for other MS Products



17. Check and install updates until there is no update available

18. Install MS Office 2010

19. Install MS Project 2010



11. Additional Installation and Configuration

11.1. Additional For TFS10

1. Install Team Explorer on TFS10
2. Install Latest TFPT on TFS10
3. Install StyleCop Check-in Policy on TFS10
4. Configure TFS SMTP
5. Test Email Alert of TFS



11.2. Additional For BuildServer10

1. Install Visual Studio 2010 Ultimate
2. Install Visual Studio 2010 SP1
3. Install VS 2010 SP1 MFC Security Update
4. Install Lab Update
5. Install QFE for Visual Studio 2010 Test Tools



6. Visual Studio 2010 SP1 TFS Compatibility GDR



7. Install Expression Encoder 4.0 with SP1



8. Install VS 2010 Video Diagnostic Data Adapter



9. Install VS 2010 Feature Pack 2



10. Configure Windows to Install Update for other MS Products



11. Check and install updates until there is no update available

12. Install SQL SP3



13. Install MVC 3



14. Install Microsoft Ajax Minifier



15. Install Metrics PowerTool



11.3. Additional For SharePoint10

1. Configure SharePoint SMTP
2. Test Email Alert of SharePoint
3. Install Sync Framework
4. Install MS Office Web Apps 2010 on **SharePoint10**
5. Start MS Office Web Apps on **Sharepoint10**
6. Activate and Test MS Office Web Apps on **TFS10**



11.4. Additional For Lab Management

1. Install SQL Management Studio after SCVMM on **TFSINFRA**
2. Set Host Group to Aggressive
3. Create VM from another VM and Store it on a Library Sever



12. Summary

We saw a step by step guide on how to build an enterprise TFS infrastructure; we can use this guide as pocket guide to remember the steps needed for each phase and machine.

I will try to enhance this guide in ongoing process and add many features and scenarios, like Network Isolation, TFS with VPN, TFS Proxy, etc.



13. About the Author



M.Radwan is a Lead Architect, Configuration Manager and Build Engineer, with more than 9 years of software architecture, design, development, and management experience, specializing in Microsoft technologies and Agile methodology. Consulting and coaching clients in Egypt, KSA, Libya and Kuwait.

M.Radwan Focus on :C# / .NET, ASP.NET, MVC, JQuery, Test-Driven Development, MS Build, TFS, MS Team build, Application Architectures, Agile, Process Automation And Improvement, Configuration Management, Automation all tasks related to software development activities, this include but not limited for Development, Build, Configuration, Deployment, Test, etc.

M.Radwan is M.Sc. of computer sciences and information technology in Agile Methodology

M.Radwan holds number of Microsoft certifications including MCT, MCPD, MCITP in EPM, MCTS (7), MCSD, MCAD and CIW

M.Radwan believes that we have to learn from our mistakes and this what we called experience and the only way for productivity is to automate this experience.



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<http://stackoverflow.com/users/386323/m-radwan>



<http://www.youtube.com/user/MRadwanMSF>



<http://www.facebook.com/M.Radwan.TFS>

14. Feedback

I would love to hear about what I do well and how I can improve, if there is anything you don't like or have an idea or enhancement, please email me on mrادwan.automationplanet@gmail.com or contribute to the CodePlex discussions page for this guide page, if you would like to contribute to this guide as a architect, technical writer, or any other role please let me know.

Thanks

M.Radwan

15. Appendix

Next Version.....

