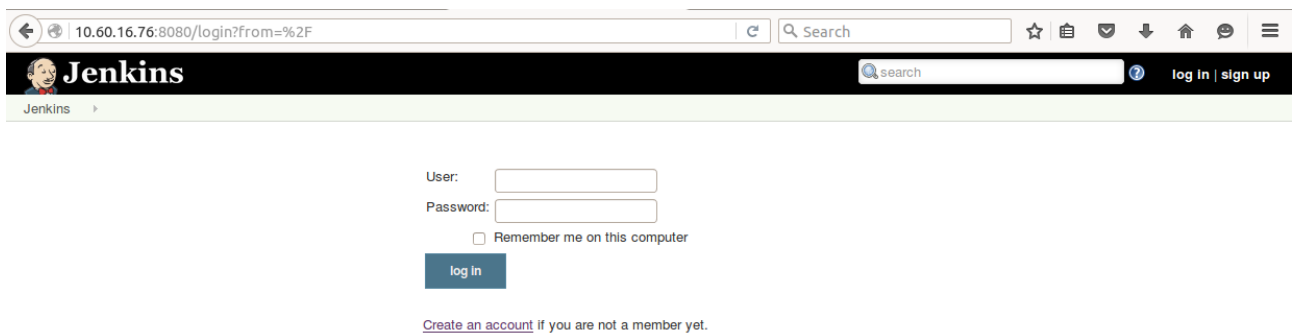


Jenkins configuration:

1. Signing in:

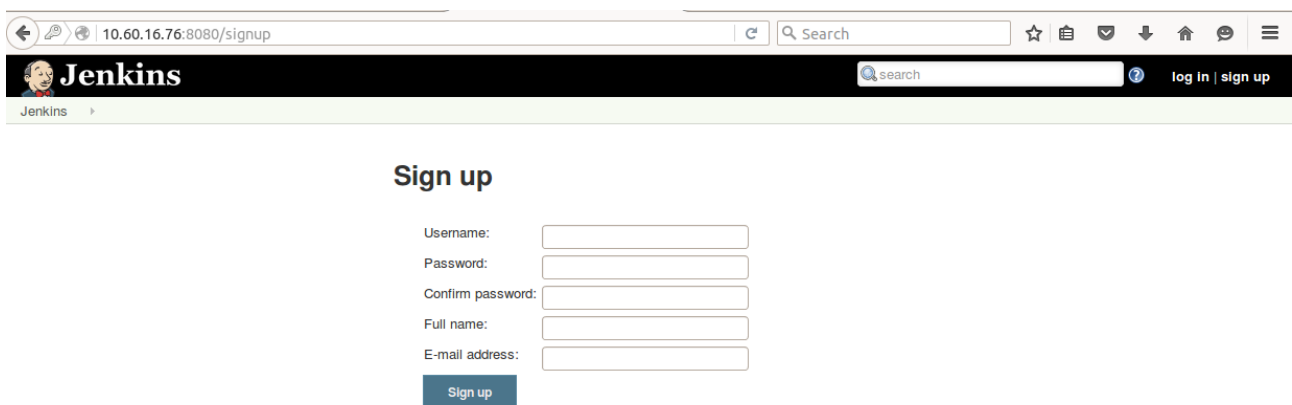
- Go to Jenkins page <http://10.60.16.76:8080/login?from=%2F>
- Use your username and password from Cybercom inside to log in or click on **create an account** and go to the next point

A screenshot of the Jenkins web interface. The browser's address bar shows the URL '10.60.16.76:8080/login?from=%2F'. The Jenkins logo is in the top left, and a search bar is in the top right. Below the header, there is a login form with fields for 'User:' and 'Password:'. A checkbox labeled 'Remember me on this computer' is below the password field. A blue 'log in' button is at the bottom of the form. Below the button, there is a link that says 'Create an account if you are not a member yet.'

Pic 1 Signing in or creating new account.

2. Adding new users:

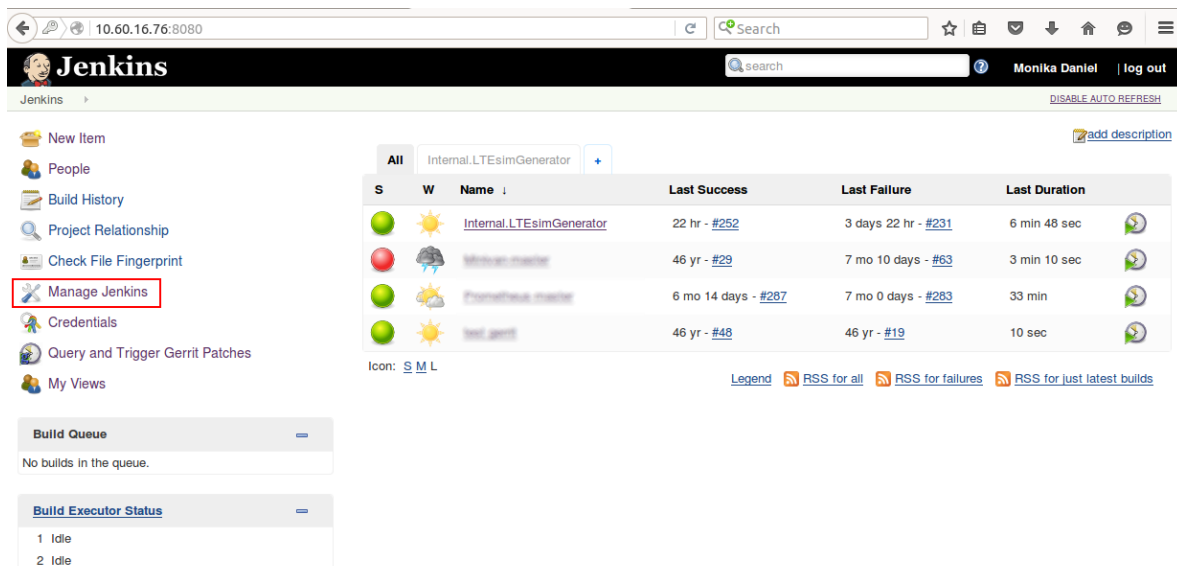
To add new user you have to fill a form and then administrator has to give you an access to a project. Use data from Cybercom inside it will help you to keep regularity with users identifications between Gerrit and Jenkins.

A screenshot of the Jenkins 'Sign up' page. The browser's address bar shows the URL '10.60.16.76:8080/signup'. The Jenkins logo is in the top left, and a search bar is in the top right. Below the header, the title 'Sign up' is centered. There is a form with five fields: 'Username:', 'Password:', 'Confirm password:', 'Full name:', and 'E-mail address:'. A blue 'Sign up' button is at the bottom of the form.

Pic 2 Creating new account.

Now administrator has to add some rights to your account in your board of projects. Log in as administrator and follow the steps:

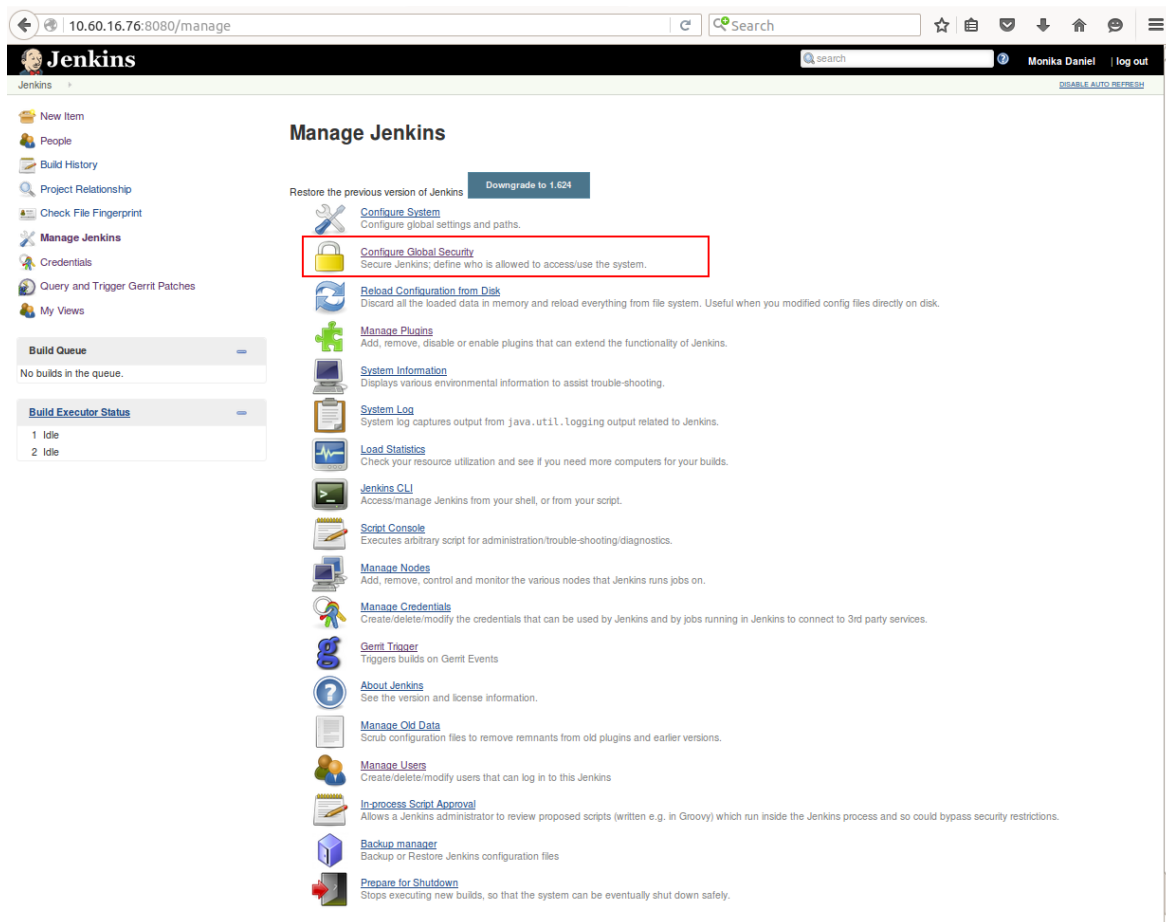
- Choose *Manage Jenkins* -> *Configure Global Security*



The screenshot shows the Jenkins main menu. The left sidebar contains a list of navigation options: New Item, People, Build History, Project Relationship, Check File Fingerprint, **Manage Jenkins** (highlighted with a red box), Credentials, Query and Trigger Gerrit Patches, and My Views. The main content area displays a table of build jobs. The table has columns for S (Status), W (Weather icon), Name, Last Success, Last Failure, and Last Duration. The jobs listed are Internal.LTEsimGenerator, Jenkins-master, Prometheus-master, and test_gerrit. Below the table, there are links for S, M, and L views, and RSS feeds for all, failures, and latest builds.

S	W	Name	Last Success	Last Failure	Last Duration
Green	Sunny	Internal.LTEsimGenerator	22 hr - #252	3 days 22 hr - #231	6 min 48 sec
Red	Cloudy	Jenkins-master	46 yr - #29	7 mo 10 days - #63	3 min 10 sec
Green	Sunny	Prometheus-master	6 mo 14 days - #287	7 mo 0 days - #283	33 min
Green	Sunny	test_gerrit	46 yr - #48	46 yr - #19	10 sec

Pic 3 Main menu.



The screenshot shows the 'Manage Jenkins' menu. The left sidebar contains the same navigation options as the previous screenshot. The main content area is titled 'Manage Jenkins' and contains a list of configuration options. The 'Configure Global Security' option is highlighted with a red box. The options listed are: Configure System, Configure Global Security, Reload Configuration from Disk, Manage Plugins, System Information, System Log, Load Statistics, Jenkins CLI, Script Console, Manage Nodes, Manage Credentials, Gerrit Trigger, About Jenkins, Manage Old Data, Manage Users, In-process Script Approval, Backup manager, and Prepare for Shutdown.

Pic 4 Manage Jenkins menu.

10.60.16.76:8080/configureSecurity/
Search
Jenkins
search
Monika Daniel
log out

Configure Global Security

☒ Enable security
 TCP port for JNLP slave agents
 ☐ Fixed :
 ☒ Random
 ☐ Disable

☐ Disable remember me

Access Control

Security Realm
☐ Delegate to servlet container
 ☒ Jenkins' own user database
 ☒ Allow users to sign up
 ☐ LDAP

Authorization
☐ Anyone can do anything
 ☐ Legacy mode
 ☐ Logged-in users can do anything
 ☒ Matrix-based security

User/group	Overall	Credentials	Gerrit	Slave	Job	Run
Administrator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
system:root	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
system:anonymous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
system:authenticated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
system:authenticated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
system:authenticated	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
masam1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
mateusz.fraszczynski	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
modan1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
tomad1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anonymous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Save

Apply

Pic 5 Global security menu.

- In **user/group to add label** write username and click **add button**

User will appear in the table of access. Now all you have to do is choose actions which user will be able to do. Then click **save button**.

The screenshot shows the Jenkins 'Configure Global Security' page. The 'Matrix-based security' option is selected. Below it is a table with columns for permissions: Overall, Credentials, Gerrit, Slave, Job, and Run. The rows list various users and groups. The user 'masam1' is highlighted with a red box, and the 'Add' button next to the 'User/group to add:' field is also highlighted with a red box. The 'Save' and 'Apply' buttons are at the bottom.

User/group	Overall	Credentials	Gerrit	Slave	Job	Run
Anonymous						
...						
masam1						
mateusz.fraszczynski						
modan1						
tomad1						

Pic 6 Adding user label and access table.

3. Creating new projects:

To create new project you have to sign in and follow the instructions:

- Choose in main menu *New Item* -> *Freestyle project* and click **OK button**.

Item name: demo

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

☐ **Maven project**
Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

☐ **External Job**
This type of job allows you to record the execution of a process run outside Jenkins, even on a remote machine. This is designed so that you can use Jenkins as a dashboard of your existing automation system. See [the documentation for more details](#).

☐ **Multi-configuration project**
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

☐ **Copy existing Item**
Copy from:

OK

Pic 7 Creating new project.

Project name: demo

Description:

[Safe HTML] [Preview](#)

☐ Discard Old Builds

☐ This build is parameterized

☐ Disable Build (No new builds will be executed until the project is re-enabled.)

☐ Execute concurrent builds if necessary

Advanced Project Options [Advanced...](#)

Source Code Management

☒ None

☐ CVS

☐ CVS Projectset

☐ Git

☐ Subversion

Build Triggers

☐ Trigger builds remotely (e.g., from scripts)

☐ Build after other projects are built

☐ Build periodically

☐ Gerrit event

☐ Poll SCM

Build Environment

☐ SSH Agent

Build

Post-build Actions

Pic 8 Project configuration.

4. Project configuration:

This step needs a lot of work and our attention to make Gerrit and Jenkins work with each other.

In first section we have to pick **this build is parameterized checkbox**, than you should click **add parameter button** and choose **String parameter** from list. Fill **Name label** with **GERRIT_REFSPEC** and **Default value label** with **master**.

The screenshot shows the Jenkins web interface for configuring a project named 'Internal.LTEsimGenerator'. The left sidebar contains navigation links: Back to Dashboard, Status, Changes, Workspace, Build with Parameters, Delete Project, Configure, and qTest Plugin. Below these is a 'Build History' section showing a list of recent builds with their IDs and timestamps. The main configuration area includes a 'Project name' field with the value 'Internal.LTEsimGenerator' and a large 'Description' text area. Below the description, there are two checkboxes: 'Discard Old Builds' (unchecked) and 'This build is parameterized' (checked). Under the 'This build is parameterized' section, a 'String Parameter' is configured with the name 'GERRIT_REFSPEC' and a default value of 'master'. There is also a 'Description' text area for this parameter. At the bottom, there is an 'Add Parameter' button and two more checkboxes: 'Disable Build (No new builds will be executed until the project is re-enabled.)' (unchecked) and 'Execute concurrent builds if necessary' (unchecked). A red 'Delete' button is located at the bottom right of the parameter configuration section.

Pic 9 Project configuration - parameterized build.

Next we need to configure **Source code management** section. Choose **Git** and fill like in the picture 10.

The screenshot shows the Jenkins configuration page for the job 'Internal.LTEsimGenerator'. The 'Source Code Management' section is configured with 'Git' as the source code management system. The repository URL is 'ssh://jenkins@10.60.16.74:29418/Internal.LTEsimGenerator'. The credentials are set to 'jenkins'. The name field is empty, and the refspec is '\$GERRIT_REFSPEC'. The branches to build section has a branch specifier of 'origin/\$GERRIT_BRANCH'. The repository browser is set to '(Auto)'. Under additional behaviours, 'Create a tag for every build' is checked, 'Strategy for choosing what to build' is set to 'Gerrit Trigger', and 'Wipe out repository & force clone' is checked. There are buttons to add or delete repositories and branches. A 'Subversion' option is also visible at the bottom left.

Pic 10 Project configuration - source code management.

In build trigger section, you can choose **build periodically** to make some builds on specified hour.

The screenshot shows the 'Build Triggers' section in Jenkins. The 'Build periodically' checkbox is checked. The 'Schedule' field contains the cron expression '12 15 * * *'. A warning message states: 'Spread load evenly by using \'H 15 * * *\' rather than \'12 15 * * *\''. Below the warning, it says: 'Would last have run at niedziela, 21 luty 2016 15:12:58 CET; would next run at poniedzialek, 22 luty 2016 15:12:58 CET.'

Pic 11 Build trigger periodically.

To start Gerrit and Jenkins cooperation you need to choose also **gerrit trigger** as shown below:

Gerrit Trigger

Choose a Server:

Advanced...

Silent Mode: ☐

Trigger on:

- ☐ Patchset Created
- ☐ Exclude Drafts
- ☐ Exclude Trivial Release
- ☒ Exclude No Code Change
- ☐ Change Merged
- ☐ Change Restored
- ☐ Comment Added
 - Verdict Category:
 - Value:
- ☐ Ref Updated

Add

Dynamic Trigger Configuration: ☐

Gerrit Project		Branches	
Type	Pattern	Type	Pattern
Plain	Internal LTeXimGenerator	Plain	master

Add Topo

Add File path

Add Forbidden File path

Disable Strict Forbidden File Verification: ☐

Add Project

Pic 12 Gerrit trigger.

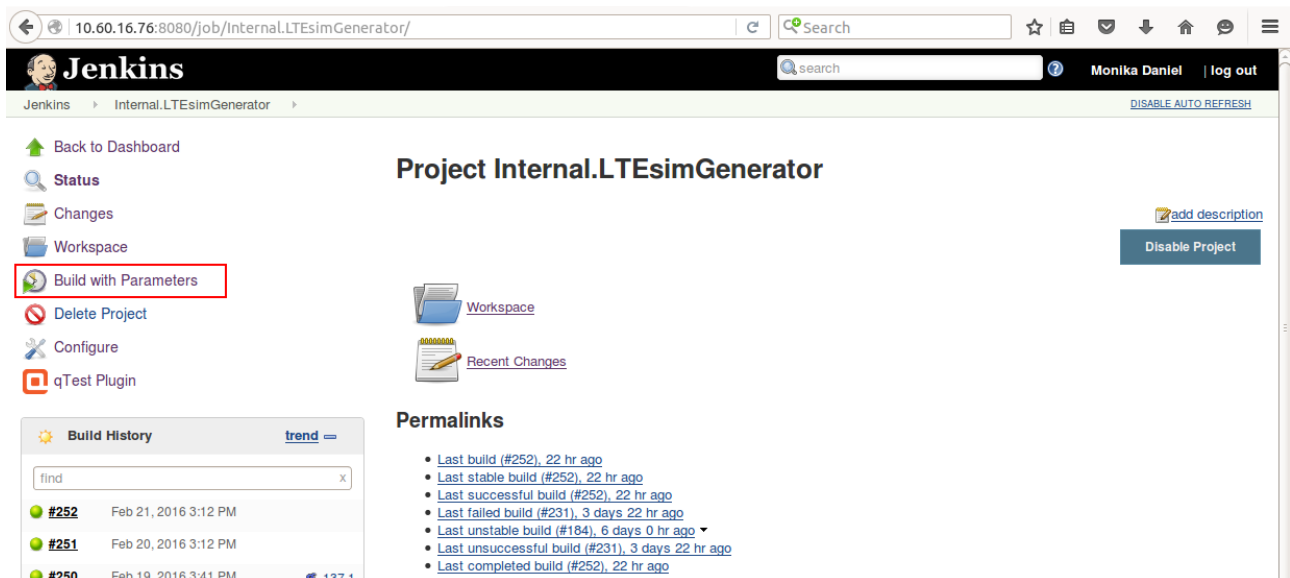
Next section **Build** is described in point 5 of this document.

To use **Post build actions** you need to install **Text Finder plugin** which is also described in point 6 of this document.

5. Initial build:

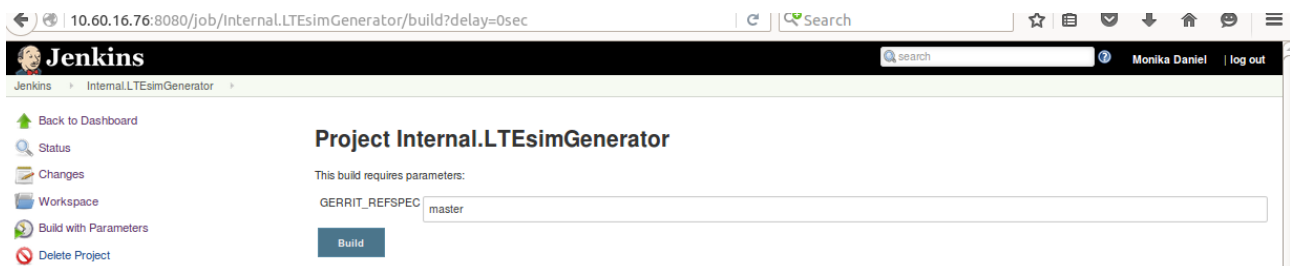
Before you add some script and post build actions you need to make an initial build with project on your repository.

- Go to your project
- Choose *Build with parameters*



Pic 13 Build with parameters.

Then check if in **GERRIT_REFSPEC** label is written **master** and click on **Build** button:



Pic 14 Building with parameters.

6. Builds:

Click on your build to see the result:

The screenshot shows the Jenkins interface for the project 'Internal.LTEsimGenerator'. The left sidebar contains navigation links: Back to Dashboard, Status, Changes, Workspace, Build with Parameters, Delete Project, Configure, and qTest Plugin. The main area displays the project name and a 'Workspace' icon. Below this is a 'Permalinks' section with a list of build links. The 'Build History' table is visible, with build #252 highlighted by a red box. The table has columns for build number, date, and duration.

Build	Date	Duration
#252	Feb 21, 2016 3:12 PM	137.1
#251	Feb 20, 2016 3:12 PM	
#250	Feb 19, 2016 3:41 PM	

Pic 15 List of builds.

The screenshot shows the Jenkins interface for build #252. The left sidebar contains navigation links: Back to Project, Status, Changes, Console Output, Edit Build Information, Delete Build, Parameters, Git Build Data, No Tags, and Previous Build. The main area displays the build number and date. Below this is a 'Changes' section with a list of changes. The 'Console Output' link is highlighted by a red box. The 'Changes' section shows a list of changes, with the first change highlighted by a red box.

Build #252 (Feb 21, 2016 3:12:11 PM)

Started 22 hr ago
Took 6 min 48 sec

Changes

- Added HandoverData class and tests (detail)

Started by timer

Revision: 8ad4f5e7c0946981a2cb54230d415fa33b46e33b

- origin/\$GERRIT_BRANCH

Pic 16 Build 252.

Now you can see details:

The screenshot shows the Jenkins interface for the 'Changes' page. The left sidebar contains navigation links: Back to Project, Status, Changes, Console Output, Edit Build Information, Delete Build, Polling Log, Retrigger, Parameters, Git Build Data, No Tags, Previous Build, and Next Build. The main area displays the 'Changes' section with a list of changes. The 'Summary' section shows the commit details, including the commit message, author, and change ID. The 'Changes' section shows a list of changes, with the first change highlighted by a red box.

Changes

Summary

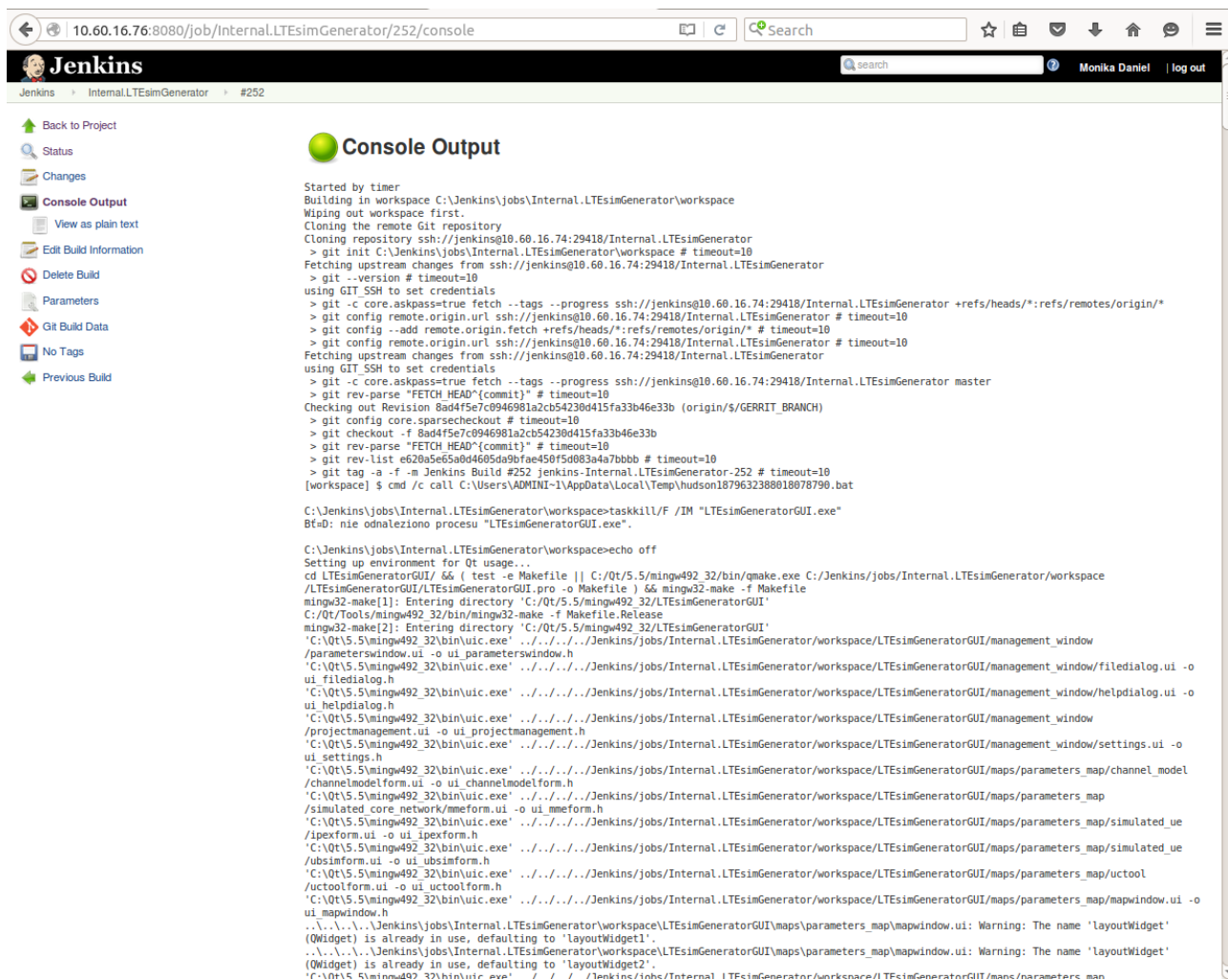
- Added reading parameters method (details)

Commit 9bd83cd4065be5cb8430adb19a5bc1c956001f by Tomasz Madej
Added reading parameters method
Change-Id: Id2ff4bc2b1f2697eaa6f22202f943d542869c981

- LTesimGeneratorGUI/maps/traffic_map/data_objects/handoverdata.cpp
- LTesimGeneratorGUI/maps/traffic_map_test/data_objects_test/handoverdata_test.cpp
- LTesimGeneratorGUI/maps/traffic_map_test/data_objects_test/handoverdata_test.h

Pic 17 Build details.

or Console Output:



10.60.16.76:8080/job/Internal.LTEsimGenerator/252/console

Jenkins Internal.LTEsimGenerator #252

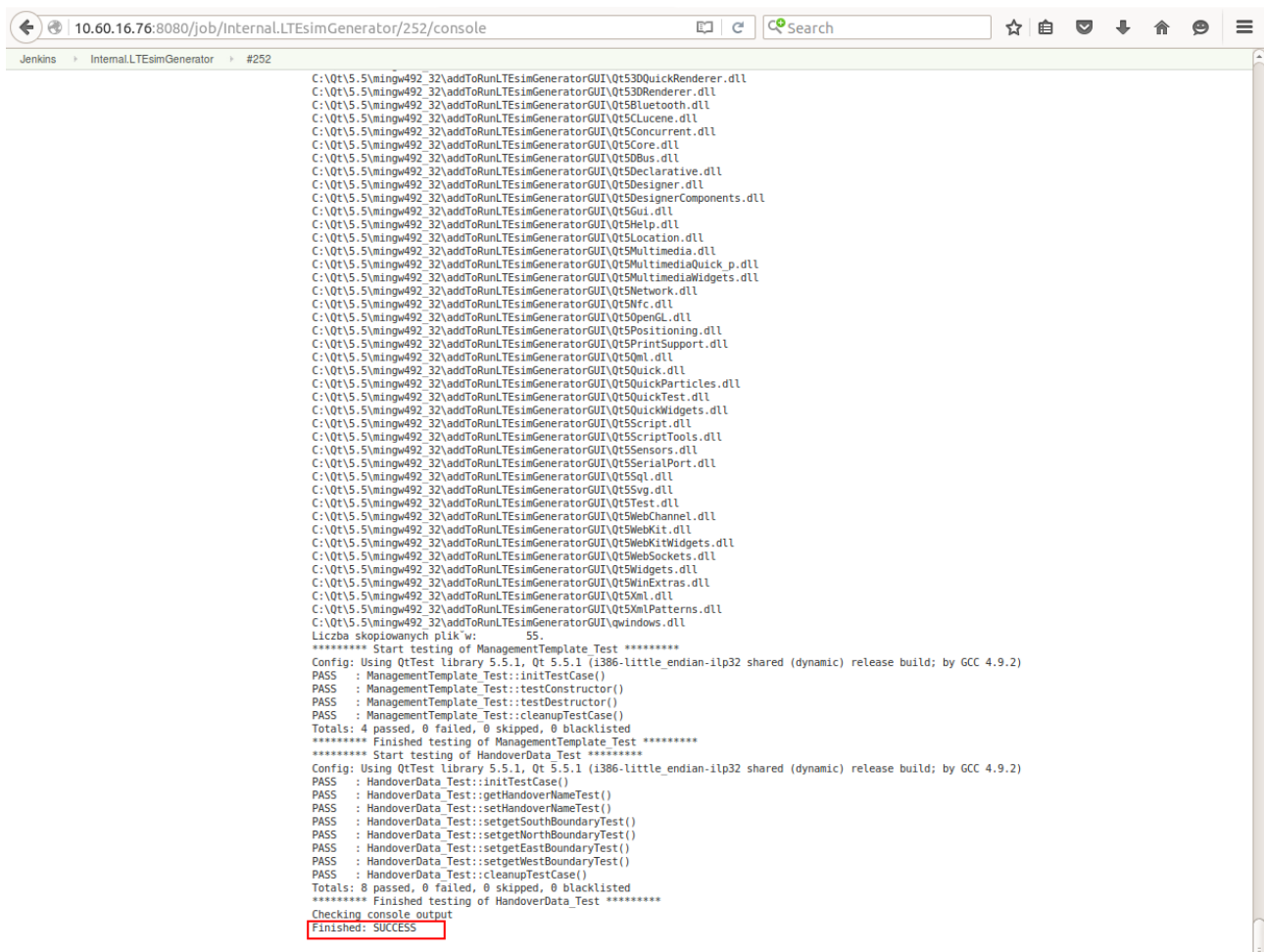
Console Output

```
Started by timer
Building in workspace C:\Jenkins\jobs\Internal.LTEsimGenerator\workspace
Wiping out workspace first.
Cloning the remote Git repository
> git init C:\Jenkins\jobs\Internal.LTEsimGenerator\workspace # timeout=10
Fetching upstream changes from ssh://jenkins@10.60.16.74:29418/Internal.LTEsimGenerator
> git --version # timeout=10
using GIT_SSH to set credentials
> git -c core.askpass=true fetch --tags --progress ssh://jenkins@10.60.16.74:29418/Internal.LTEsimGenerator +refs/heads/*:refs/remotes/origin/*
> git config remote.origin.url ssh://jenkins@10.60.16.74:29418/Internal.LTEsimGenerator # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url ssh://jenkins@10.60.16.74:29418/Internal.LTEsimGenerator # timeout=10
Fetching upstream changes from ssh://jenkins@10.60.16.74:29418/Internal.LTEsimGenerator
using GIT_SSH to set credentials
> git -c core.askpass=true fetch --tags --progress ssh://jenkins@10.60.16.74:29418/Internal.LTEsimGenerator master
> git rev-parse "FETCH HEAD^{commit}" # timeout=10
Checking out Revision 8ad4f5e7c0946981a2cb54230d415fa33b46e33b (origin/$GERRIT_BRANCH)
> git config core.sparsecheckout # timeout=10
> git checkout -f 8ad4f5e7c0946981a2cb54230d415fa33b46e33b
> git rev-parse "FETCH HEAD^{commit}" # timeout=10
> git rev-list e620a5e65a0d4605da9bfae450f5d083a4a7bbb # timeout=10
> git tag -a -f -m Jenkins Build #252 jenkins-Internal.LTEsimGenerator-252 # timeout=10
[workspace] $ cmd /c call C:\Users\ADMINI~1\AppData\Local\Temp\hudson1879632388018078790.bat

C:\Jenkins\jobs\Internal.LTEsimGenerator\workspace>taskkill /F /IM "LTEsimGeneratorGUI.exe"
Bf0D: nie odnaleziono procesu "LTEsimGeneratorGUI.exe".

C:\Jenkins\jobs\Internal.LTEsimGenerator\workspace>echo off
Setting up environment for Qt usage...
cd LTEsimGeneratorGUI/ && ( test -e Makefile || C:/Qt/5.5/mingw492_32/bin/qmake.exe C:/Jenkins/jobs/Internal.LTEsimGenerator/workspace
/LTEsimGeneratorGUI/LTEsimGeneratorGUI.pro -o Makefile ) && mingw32-make -f Makefile
mingw32-make[1]: Entering directory 'C:/Qt/5.5/mingw492_32/LTEsimGeneratorGUI'
C:/Qt/Tools/mingw492_32/bin/mingw32-make -f Makefile.Release
mingw32-make[2]: Entering directory 'C:/Qt/5.5/mingw492_32/LTEsimGeneratorGUI'
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\management_window
/parameterswindow.ui -o ui_parameterswindow.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\management_window\filedialog.ui -o
ui_filedialog.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\management_window\helpdialog.ui -o
ui_helpdialog.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\management_window
/projectmanagement.ui -o ui_projectmanagement.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\management_window/settings.ui -o
ui_settings.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map/channel_model
/channelmodelform.ui -o ui_channelmodelform.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map
/simulated_core_network/mmeform.ui -o ui_mmeform.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map/simulated_ue
/ipexform.ui -o ui_ipexform.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map/simulated_ue
/ubsinform.ui -o ui_ubsinform.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map/uctool
/uctoolform.ui -o ui_uctoolform.h
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map\mapwindow.ui -o
ui_mapwindow.h
.....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map\mapwindow.ui: Warning: The name 'layoutWidget'
(Widget) is already in use, defaulting to 'layoutWidget1'.
.....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map\mapwindow.ui: Warning: The name 'layoutWidget'
(Widget) is already in use, defaulting to 'layoutWidget2'.
'C:\Qt\5.5\mingw492_32\bin\ui.c.exe' .....\Jenkins\jobs\Internal.LTEsimGenerator\workspace\LTEsimGeneratorGUI\maps\parameters_map
```

Pic 18 Console output - start.



```
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt530QuickRenderer.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt530Renderer.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Bluetooth.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5CLucene.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Concurrent.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Core.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5DBus.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Declarative.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Designer.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5DesignerComponents.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Gui.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Help.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Location.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Multimedia.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5MultimediaQuick.p.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5MultimediaWidgets.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Network.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Nfc.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5OpenGL.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Positioning.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5PrintSupport.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Sql.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Quick.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5QuickParticles.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5QuickTest.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5QuickWidgets.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Script.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5ScriptTools.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Sensors.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5SerialPort.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Sql.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Svg.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Test.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5WebChannel.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5WebKit.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5WebKitWidgets.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5WebSockets.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Widgets.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5WinExtras.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5Xml.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\Qt5XmlPatterns.dll
C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI\qwindows.dll
55.
Liczba skopiowanych plik'w:
***** Start testing of ManagementTemplate_Test *****
Config: Using QtTest Library 5.5.1, Qt 5.5.1 (i386-little_endian-ilp32 shared (dynamic) release build; by GCC 4.9.2)
PASS : ManagementTemplate_Test::initTestCase()
PASS : ManagementTemplate_Test::testConstructor()
PASS : ManagementTemplate_Test::testDestructor()
PASS : ManagementTemplate_Test::cleanupTestCase()
Totals: 4 passed, 0 failed, 0 skipped, 0 blacklisted
***** Finished testing of ManagementTemplate_Test *****
***** Start testing of HandoverData_Test *****
Config: Using QtTest Library 5.5.1, Qt 5.5.1 (i386-little_endian-ilp32 shared (dynamic) release build; by GCC 4.9.2)
PASS : HandoverData_Test::initTestCase()
PASS : HandoverData_Test::getHandoverNameTest()
PASS : HandoverData_Test::setHandoverNameTest()
PASS : HandoverData_Test::setGetSouthBoundaryTest()
PASS : HandoverData_Test::setGetNorthBoundaryTest()
PASS : HandoverData_Test::setGetEastBoundaryTest()
PASS : HandoverData_Test::setGetWestBoundaryTest()
PASS : HandoverData_Test::cleanupTestCase()
Totals: 8 passed, 0 failed, 0 skipped, 0 blacklisted
***** Finished testing of HandoverData_Test *****
Checking console output
Finished: SUCCESS
```

Pic 19 Build result.

When a circle is **green** it means that a result is **SUCCESS**, **red** one means **FAIL** and yellow **UNSTABLE** build.

If a circle is **blinking** it means that Jenkins is already **building repository**.

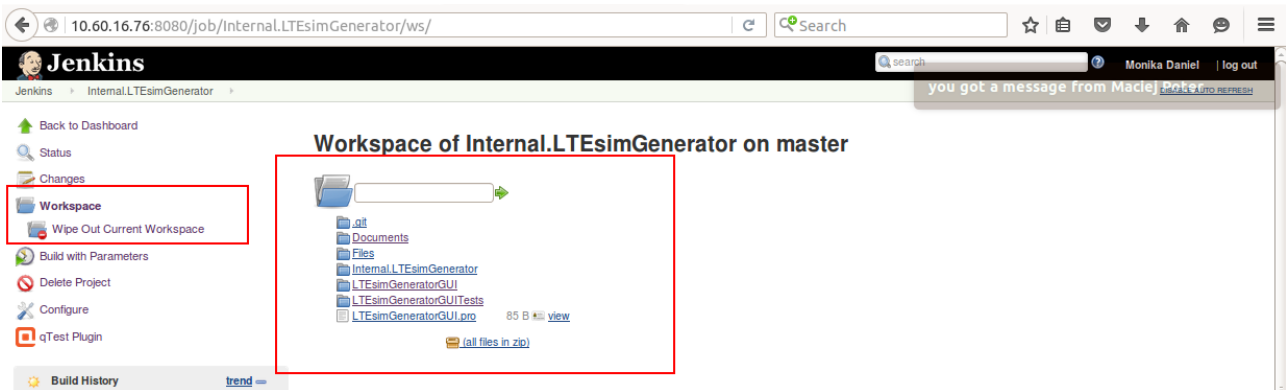
You can also read from a build history why were they triggered, on which branch or commit and Patch Set.

Build History			trend ==
<input type="text" value="find"/>			X
#252	Feb 21, 2016 3:12 PM		Build made on MASTER triggered by clock or user.
#251	Feb 20, 2016 3:12 PM		
#250	Feb 19, 2016 3:41 PM	137.1	
#249	Feb 19, 2016 3:19 PM		
#248	Feb 19, 2016 3:12 PM	Ref Updated	Build triggered by gerrit commit was updated to a master branch.
#247	Feb 19, 2016 3:05 PM	136.4	
#246	Feb 19, 2016 2:58 PM	136.4	Build triggered by gerrit changes on commit 136 Patch Set 1.
#245	Feb 19, 2016 2:11 PM	136.3	
#244	Feb 19, 2016 1:24 PM	136.2	
#243	Feb 19, 2016 11:19 AM	136.1	Build triggered by gerrit on commit 136 Patch Set 1.
#242	Feb 19, 2016 10:26 AM	Ref Updated	
#241	Feb 19, 2016 10:20 AM	135.2	
#240	Feb 18, 2016 4:37 PM	135.2	
#239	Feb 18, 2016 4:30 PM	135.1	
#238	Feb 18, 2016 4:23 PM	133.1	
#237	Feb 18, 2016 4:09 PM	134.1	
#236	Feb 18, 2016 4:02 PM	134.1	
#235	Feb 18, 2016 3:44 PM	133.1	
#234	Feb 18, 2016 3:25 PM	Ref Updated	
#233	Feb 18, 2016 3:18 PM	132.1	

Pic 20 How to recognize builds.

7. Workspace:

When your initial build will succeed go to your project and workspace to see if it is complete:



Pic 21 Workspace.

If you have some problems you can also **wipe out** your **current workspace** and build again to make again a new one.

8. Script for tests:

To write scripts to tests you have to add build step **Windows batch command**. Jenkins is installed on Windows 7 server that's why we can't write a shell script.



Pic 22 Build step - Windows batch command.

There is our script shown below with comments:

```
1  ::Batch script Jenkins, Gerrit, Qt, Internal.LTEsimGeneratorGUI
2  ::killing process if is active
3  taskkill/F /IM "LTEsimGeneratorGUI.exe"
4  ::running QT environment
5  echo off
6  echo Setting up environment for Qt usage...
7  set PATH=C:\Qt\5.5\mingw492_32\bin;C:\Qt\Tools\mingw492_32\bin;%PATH%
8  cd /D C:\Qt\5.5\mingw492_32
9  ::removing files from old build
10 rmdir /s /q LTEsimGeneratorGUI
11 ::removing Makefile from old build
12 rm Makefile
13 ::making new Makefile
14 qmake %WORKSPACE%\LTEsimGeneratorGUI.pro
15 ::compile
16 mingw32-make
17 ::copying needed libraries
18 copy C:\Qt\5.5\mingw492_32\addToRunLTEsimGeneratorGUI C:\Qt\5.5\mingw492_32\LTEsimGeneratorGUI\release
19 ::running .exe file with tests using TEST parameter and saving results to a file
20 C:\Qt\5.5\mingw492_32\LTEsimGeneratorGUI\release\LTEsimGeneratorGUI.exe TEST > C:\Users\Administrator\Desktop\file.txt
21 ::displaying results in commandline
22 more C:\Users\Administrator\Desktop\file.txt
```

Pic 23 Script with comments.

9. Text Finder Plugin:

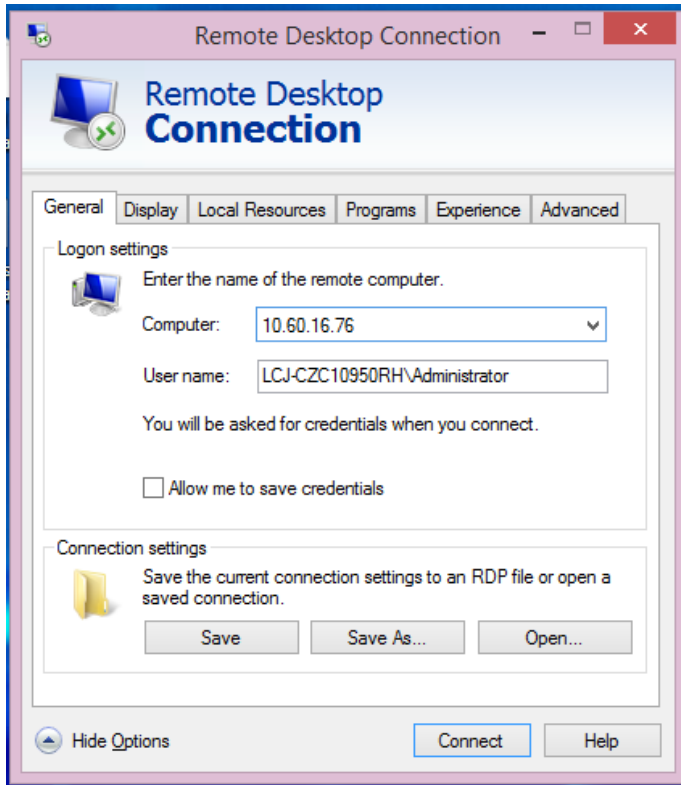
First you need to install this plugin. Go to the projects board and choose **Manage Jenkins, Manage Plugins, Available** and find TextFinder plugin.

entered in project descriptions and the like.		
TextFinder plugin		
<input checked="" type="checkbox"/>	This plugin is used to search for strings in workspace files. The outcome of this search can be used to mark the build as normal or failed.	1.10

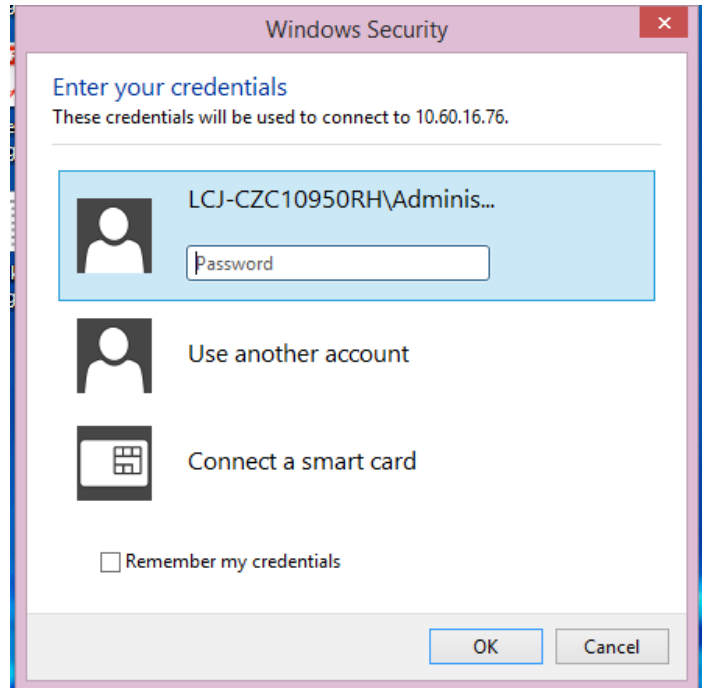
Pic 24 TextFinder plugin.

10. Qt Creator and Jenkins:

Use **Remote Desktop Connection** on your computer to connect to server with Jenkins. As computer use **10.60.16.76** and as user name **LCJ-CZC10950RH\Administrator**. For password ask your superior.

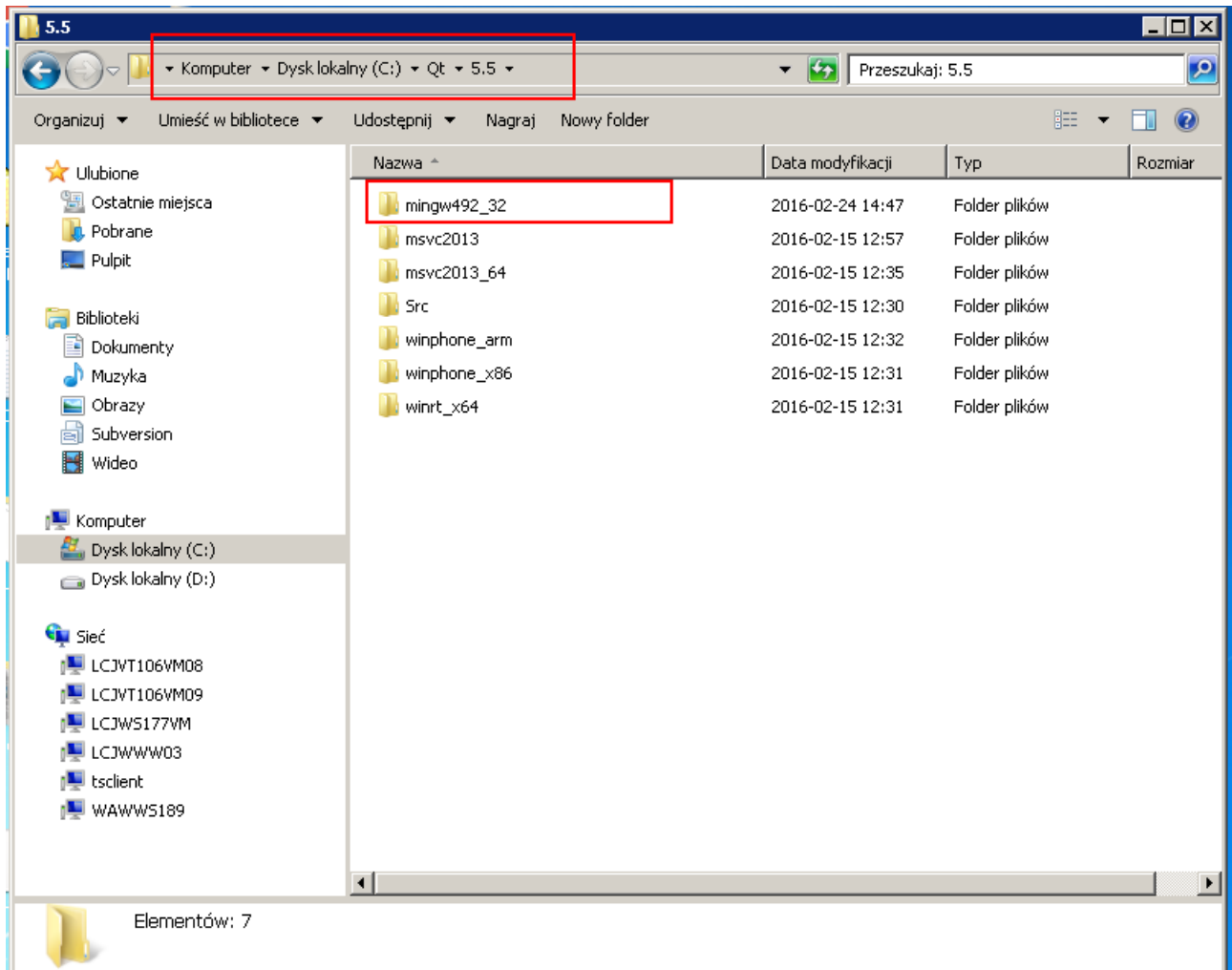


Pic 25 Remote Desktop Connection to a Jenkins server.



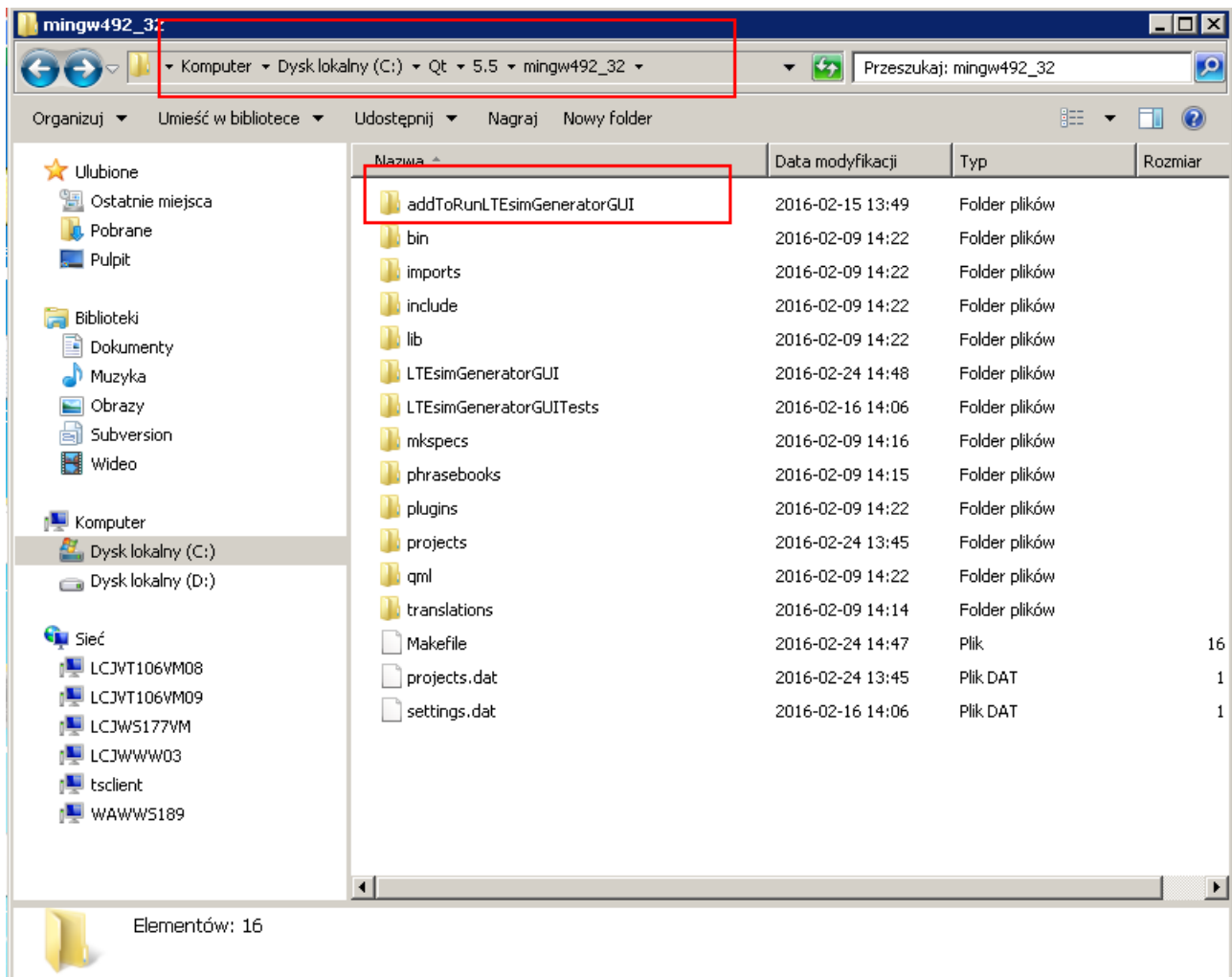
Pic 26 Remote Desktop Connection to a Jenkins server part 2.

Install Qt Creator in **C:\Qt** direction. It should have 5.5 version with **C:\Qt\5.5\mingw492_32** compiler.



Pic 27 Qt Creator destination and compilers.

Create a catalog **addToRunLTESimGeneratorGUI** in **C:\Qt\5.5\mingw492_32** destination and copy all libraries without “d” at the end of name, from **bin** catalog which is locate in the same path.



Pic 28 Catalog with libraries.

Now you can use your Jenkins with Gerrit and Qt without any problems :)

11. Useful sources:

- <https://wiki.jenkins-ci.org/display/JENKINS/Meet+Jenkins>