

Link Analysis Tool	Version: 1.4
Acceptance Test Plan	Date: 2010-12-19

Link Analysis Tool Acceptance Test Plan

Version 1.4

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Revision History

Date	Version	Description	Author
2010-12-07	1.0	Initial Draft	Seyed Morteza Hosseini
2010-12-09	1.1	Adding test cases	Seyed Morteza Hosseini
2010-12-11	1.2	Small editing	Seyed Morteza Hosseini
2010-12-15	1.3	Adding test case	Seyed Morteza Hosseini
2010-12-19	1.4	Renaming some test case and add some other test case	Seyed Morteza Hosseini

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Introduction

1.1 Purpose of this document

The purpose of this document is providing information testing related to link analysis tool project. All test requirements list and test cases and result are gathered in this document.

1.2 Intended Audience

This document intended to:

- Team members(testing, fixing bugs)
- Customer(review all functionalities)
- Project Supervisor(Check all achievement)
- Future students

1.3 Scope

The scope of covering by this document is all test cases related to link analysis tool units and final project.

1.4 Definitions and acronyms

1.4.1 Definitions

Keyword	Definitions
Visualize Transactions	Graphically represent the calls or data transfer between different users.
Search Depth	No of hops from a certain user or Subscriber
Activity Matrix	A table representing certain transactions over a period of Time
GlassFish	WebServer
PostgreSQL	PostgreSQL is a DBMS (Database Management System)

1.4.2 Acronyms and abbreviations

Acronym or Abbreviation	Definitions
LAT	Link Analysis Tool
ISDN	Integrated Services Digital Network
SIM Card	Subscriber Identification Module Card
MSISDN Number	Mobile Subscriber Integrated Services Digital Network Number
IMEI Number	International Mobile Equipment Identity Number
IE	Internet Explorer

1.5 References

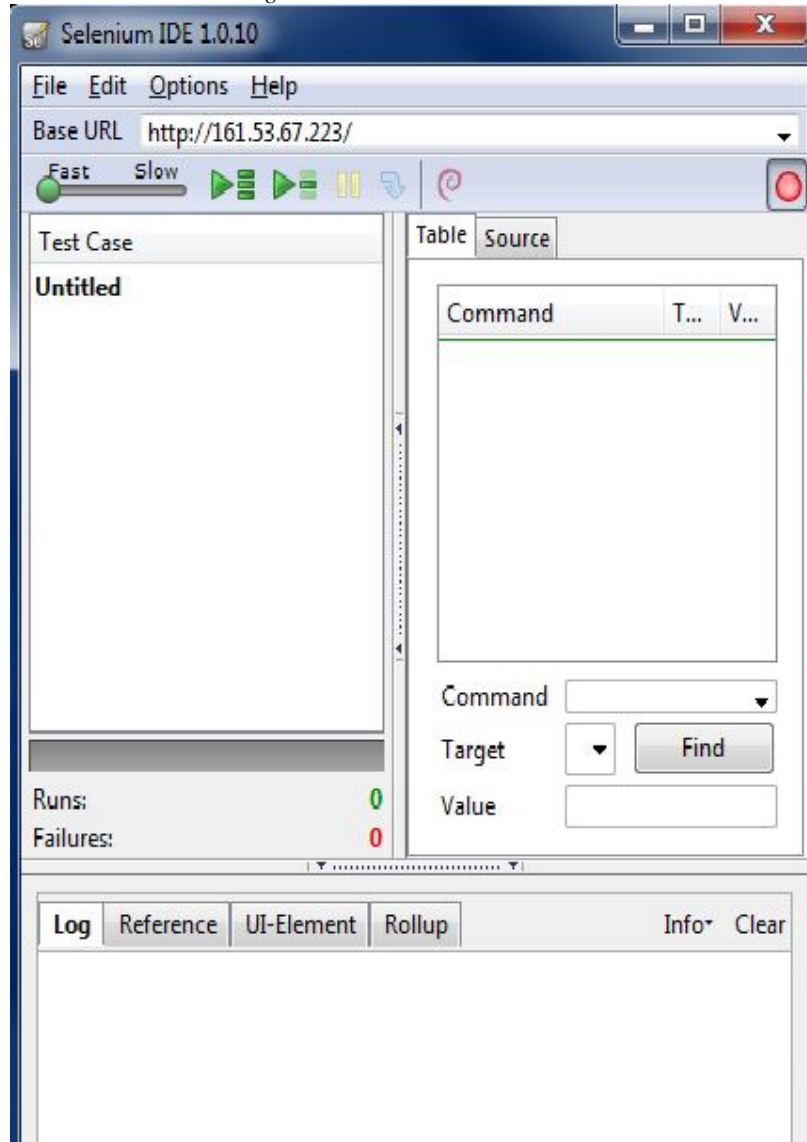
All document related to project and other documents relevant for testing are:

- Design description
- Requirements definition
- Presentation slides.
- Use case description

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2. Test-plan introduction

First step of our project testing started before writing code by developers. Each developer wrote his test class for his class, then wrote main and after that tested written class, it means test plan has started with unit testing in beginning of project by developer. After writing modules by developer and integrated again they tested functionality of their codes, this integration testing was done manually. New phase of testing started when project almost is completed, so in this phase manual testing and automatic testing will be done including integrated testing, acceptance testing and using some test techniques such as positive testing, negative testing, monkey testing, stress testing etc. Also in case of change in any class or method regression test is done and will be done. Automatic testing will do with Selenium IDE.



3. Test items

3.1 Transaction Graph

This graph is the main component of this tool so it should be tested thoroughly. All the requirements should be met by the graph such as it should be clickable, it should be zoom-able and so on.

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3.2 Activity Matrix

The activity matrix displays the summary of the transactions from the transaction graph. So it should also be tested properly.

3.3 Control Panel

Control panel is the part of the tool which allows the user to configure and customize the research criteria. It will be tested to ensure the customization ability of the tool.

3.4 Zoomed-out Graph

Zoomed-out graph will be the complete graph of the transactions. It will also be tested to check if it works properly or not.

4. Features to be tested

List of features that should be tested:

- Basic functionality
 - Search by name
 - Search MSISDN number
 - Search by IMEI number
 - Search in different depth
 - Search in different period
- Security features
 - Login page
- Network functionality
 - Data retrieving speed
- Advance functionality
 - Features related to transaction.
 - Graph
 - Activity matrix

5. Features not to be tested

All topics related to server or internet connection (speed, bandwidth).

6. Approach

Different kinds of testing approach will use to do testing including unit testing, random testing ,integrated testing and also different type of test technique will use and at last manual testing and automatic testing will use for automatic testing we will use selenium , after each change in module aggressive testing performed by developers, also developers are responsible for unit testing , team test is responsible for random testing and automatic testing.

6.1 Approach to configuration and installation

For unit testing developers are responsible for every testing requirements.

Project leader is responsible for configuration and installation all requirements before testing.

7. Item pass/fail criteria

Criteria for each test case is according to output definition in that test case and it is different from one test case to another and from one type of test case to another type.

7.1 Installation and Configuration

Installation and configuration of the tool is not a big task because the application is a web based ,so users just

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need to be connected through an URL so it will not affect the testing process.

7.2 Documentation problems

As most of test cases extract from documentation in case of not existing any documentation, some test cases can be not in test case list ,then in lately phases to explore that test case it cost much in both aspect time and cost .

8. Suspension criteria and resumption requirements

- *GUI bugs and adjustments*
- *Page navigation bugs*
- *Bugs related to page refresh.*

9. Environmental needs

9.1 Hardware

*A computer (laptop or pc)
Linux Debian (Virtual Machine)*

9.2 Software

*GlassFish
PostgreSQL DB
Operating system(Windows XP, Windows 7 and Mac OS 10.6.5)
Any browser for internet such as IE, Mozilla, Google Chrome*

9.3 Other

An internet connection.

10. Test procedure

10.1 Test case specifications

10.1.1 Login- L1

Test cases related to login.

10.1.1.1 AllLoginFieldsHaveValue – L1.1

Description:

A valid user is going to login and fill username and password filed correctly.

Test type:

Test type – “positive” (login existence user to the application must succeed under stated preconditions).

Preconditions:

*A browser should already be installed on client.
A proper internet connection exists.
User with username and password should already created.*

Input definition:

*Fill in username and password correctly.
Click on generate button.*

Output definition:

User should be login.

Remarks:

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To be register the user need to contact the administrator of the web site .

10.1.1.2 AllLoginFieldsAreBlank – L1.2

Description:

Login without filling username and password filed.

Test type:

Test type – “negative”.

Preconditions:

A browser should already be installed on client.

A proper internet connection exists.

User with empty username and password should not exist.

Input definition:

Leave username and password empty.

Click on generate button.

Output definition:

Username textbox should be active and both should be colorful and a proper message should alert to enter username and password.

Remarks:

No remarks.

10.1.1.3 UsernameBlank – L1.3

Description:

User is going to login just by filling password field without entering username.

Test type:

Test type – “negative”.

Preconditions:

A browser should already be installed on client.

A proper internet connection exists.

User with empty username should not exist.

Input definition:

Leave username empty.

Fill password field.

Click on generate button.

Output definition:

Username textbox should be active and colorful and a proper message should alert to enter username password or user with blank username dose not exist.

Remarks:

No remarks.

10.1.1.4 PasswordBlank – L1.4

Description:

User is going to login just by filling username field without entering password.

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Test type:

Test type – “negative”.

Preconditions:

A browser should already be installed on client.

A proper internet connection exists.

User with empty password should not exist.

Input definition:

Leave password field empty.

Fill username field.

Click on generate button.

Output definition:

Password textbox should be active and colorful and a proper message should alert to enter password.

Remarks:

No remarks.

10.1.1.5 InvalidUsername – L1.5

Description:

User is going to login with invalid username.

Test type:

Test type – “negative”.

Preconditions:

A browser should already be installed on client.

A proper internet connection exists.

User with this username should not exist.

Input definition:

Fill username field with invalid username

Fill password field.

Click on generate button.

Output definition:

Username textbox should be active and colorful and a proper message should alert that user with this username does not exist.

Remarks:

No remarks.

10.1.1.6 InvalidPassword – L1.6

Description:

User is going to login with invalid password.

Test type:

Test type – “negative”.

Preconditions:

A browser should already be installed on client.

A proper internet connection exists.

User with this username and inserted password should not exist.

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Input definition:

*Fill username field with valid username
Fill password field wrongly.
Click on generate button.*

Output definition:

Password textbox should be active and colorful and a proper message should alert that password is not correct.

Remarks:

No remarks.

10.1.2 Compatible- Com1

Test cases related to compatible program with different browser.

10.1.2.1 MainPageGoogleChromeCompatible – Com1.1

Description:

Testing project is compatible with Google chrome browser.

Test type:

Test type – “positive”.

Preconditions:

*Google chrome browser should already be installed on client.
A proper internet connection exists.*

Input definition:

*Open Google chrome browser.
Enter project address in address bar.
Press enter.*

Output definition:

Main page should be displayed.

Remarks:

No remarks.

10.1.2.2 MainPageInternetExplorerCompatible – Com1.2

Description:

Testing project is compatible with IE browser.

Test type:

Test type – “positive”.

Preconditions:

*Internet Explorer browser should already be installed on client.
A proper internet connection exists.*

Input definition:

*Open IE browser.
Enter project address in address bar.
Press enter.*

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Output definition:

Main page should be displayed.

Remarks:

No remarks.

10.1.2.3 *MainPageMozillaCompatible – Com1.3*

Description:

Testing project is compatible with Mozilla Firefox browser.

Test type:

Test type – “positive”.

Preconditions:

*Mozilla browser should already be installed on client.
A proper internet connection exists.*

Input definition:

*Open Mozilla browser.
Enter project address in address bar.
Press enter.*

Output definition:

Main page should be displayed.

Remarks:

No remarks.

10.1.2.4 *Search By MSISDN Number Level One in Mozilla – Com1.4*

Description:

Testing project searching by MSISDN number on depth level one is compatible with Mozilla Firefox browser.

Test type:

Test type – “positive”.

Preconditions:

*Mozilla browser should already be installed on client.
A proper internet connection exists.
A transaction with MSISDN number exist.*

Input definition:

*Open Mozilla browser.
Enter project address in address bar.
Press enter.
Enter username and password.
Click on login button.
Select search by MSISDN number.
Enter 505350507 as MSISDN number.
Select level one for depth.
Enter a date including 2010-09-15 or 2010-09-16
Click on generate button.*

Output definition:

Graph should be displayed.

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Remarks:

No remarks

10.1.2.5 Search By MSISDN Number Level One in IE – Com1.5

Description:

Testing project searching by MSISDN number on depth level one is compatible with IE browser.

Test type:

Test type – “positive”.

Preconditions:

*IE browser should already be installed on client.
A proper internet connection exists.
A transaction with MSISDN number 505350507 exist.*

Input definition:

*Open IE browser.
Enter project address in address bar.
Press enter.
Enter username and password.
Click on login button.
Select search by MSISDN number.
Enter 505350507 as MSISDN number.
Select level one for depth.
Enter a date including 2010-09-15 or 2010-09-16
Click on generate button.*

Output definition:

Graph should be displayed.

Remarks:

No remarks

10.1.2.6 Search By MSISDN Number Level One in Google chrome – Com1.6

Description:

Testing project searching by MSISDN number on depth level one is compatible with Google chrome browser.

Test type:

Test type – “positive”.

Preconditions:

*Google chrome browser should already be installed on client.
A proper internet connection exists.
A transaction with MSISDN number 505350507 exist.*

Input definition:

*Open Google chrome browser.
Enter project address in address bar.
Press enter.
Enter username and password.
Click on login button.
Select search by MSISDN number.*

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*Enter 505350507 as MSISDN number.
 Select level one for depth.
 Enter a date including 2010-09-15 or 2010-09-16
 Click on generate button.*

Output definition:

Graph should be displayed.

Remarks:

No remarks

10.1.3 LoginSecurity- LSec1

Test cases related to suspected login

10.1.3.1 NumberOfEffortLogin_IE – LSec1.1

Description:

Enter wrong username or password 3 times.

Test type:

Test type – “negative”.

Preconditions:

*IE browser should already be installed on client.
 Proper internet connection exists.
 User with “test” username and password should not exist.*

Input definition:

*Open IE browser.
 Enter project address in address bar.
 Press enter.
 Fill in username and password for 3 times.*

Output definition:

Username and password field should be colorful and proper message should alert that username and password are not correct , so a security image should be displayed and give a message to user enter security code is showed in related place.

Remarks:

No remarks.

10.1.3.2 NumberOfEffortLogin_Mozilla – LSec1.2

Description:

Enter wrong username or password 3 times.

Test type:

Test type – “negative”.

Preconditions:

*Mozilla browser should already be installed on client.
 Proper internet connection exists.
 User with “test” username and password should not exist.*

Input definition:

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*Open Mozilla browser.
Enter project address in address bar.
Press enter.
Fill in username and password for 3 times.*

Output definition:

Username and password field should be colorful and proper message should alert that username and password are not correct , so a security image should be displayed and give a message to user enter security code is showed in related place.

Remarks:

No remarks.

10.1.3.3 NumberOfEffortLogin_Google chrome – LSec1.3

Description:

Enter wrong username or password 3 times.

Test type:

Test type – “negative”.

Preconditions:

*Google Chrome browser should already be installed on client.
Proper internet connection exists.
User with “test” username and password should not exist.*

Input definition:

*Open Google Chrome browser.
Enter project address in address bar.
Press enter.
Fill in username and password for 3 times.*

Output definition:

Username and password field should be colorful and proper message should alert that username and password are not correct , so a security image should be displayed and give a message to user enter security code is showed in related place.

Remarks:

No remarks.

10.1.3.4 SQLInjectionLogin – LSec1.4

Description:

Enter username or password with SQL Injection phrase.

Test type:

Test type – “negative”.

Preconditions:

*Proper browser should already be installed on client.
Proper internet connection exists.*

Input definition:

Open browser.

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*Enter project address in address bar.
Press enter.
Fill in username or password with a SQL Injection phrase.
Click on login button.*

Output definition:

Proper message should be alert that username or password is not correct and login should not be done.

Remarks:

No remarks.

10.1.4 Searching- Sh1

Test cases related to searching by different items.

10.1.4.1 FindingUserByValidMSISDN – Sh1.1

Description:

Find user by MSISDN number.

Test type:

Test type – “positive”.

Preconditions:

User with inserted MSISDN number should exist.

Input definition:

*Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter MSISDN number.
Select depth level.
Select start and end date for period.
Click on generate button.*

Output definition:

Activity matrix should be display.

Remarks:

No remarks.

10.1.4.2 FindingUserByInvalidMSISDN – Sh1.2

Description:

Find user by MSISDN number.

Test type:

Test type – “negative”.

Preconditions:

User with inserted MSISDN number should not exist.

Input definition:

*Open browser.
Enter project address in address bar.*

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*Press enter.
Fill in username and password.
Enter MSISDN number.
Select depth level.
Select start and end date for period.
Click on generate button.*

Output definition:

Proper message should be alert that this MSISDN number is not valid.

Remarks:

No remarks.

10.1.4.3 FindingUserByValidIMEI – Sh1.3

Description:

Find user by IMEI number.

Test type:

Test type – “positive”.

Preconditions:

User with inserted IMEI number should exist.

Input definition:

*Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter IMEI number.
Select depth level.
Select start and end date for period.
Click on generate button.*

Output definition:

Activity matrix should be display.

Remarks:

No remarks.

10.1.4.4 FindingUserByInvalidIMEI – Sh1.4

Description:

Find user by invalid IMEI number.

Test type:

Test type – “negative”.

Preconditions:

User with inserted IMEI number should not exist.

Input definition:

*Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.*

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*Enter IMEI number.
Select depth level.
Select start and end date for period.
Click on generate button.*

Output definition:

Proper message should alert that this IMEI number is not valid.

Remarks:

No remarks.

10.1.4.5 *FindingUserByValidName – Sh1.5*

Description:

Find user by name.

Test type:

Test type – “positive”.

Preconditions:

User with inserted name should exist.

Input definition:

*Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter name.
Select depth level.
Select start and end date for period.
Click on generate button.*

Output definition:

Activity matrix and graph should be display.

Remarks:

No remarks.

10.1.4.6 *FindingUserByInvalidName – Sh1.6*

Description:

Find user by name number.

Test type:

Test type – “negative”.

Preconditions:

User with inserted name should not exist.

Input definition:

*Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter name.
Select depth level.*

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*Select start and end date for period.
Click on generate button.*

Output definition:

Proper message should alert that this name is not valid.

Remarks:

No remarks.

10.1.4.7 FindingUserInDifferentDepth – Sh1.7

Description:

Find user in different depth level.

Test type:

Test type – “positive”.

Preconditions:

User has all depth level.

Input definition:

*Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Click on login button.
Enter all require fields.
Select depth level(one to five).
Select start and end date for period.
Click on generate button.*

Output definition:

Graph should display.

Remarks:

No remarks

10.1.4.8 FindingUserInDifferentPeriod – Sh1.8

Description:

Find user in different dates.

Test type:

Test type – “positive”.

Preconditions:

User has activity in certain period.

Input definition:

*Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Click on login button.
Enter all require fields.
Select depth level.*

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Select start and end date for period.
Click on generate button.

Output definition:

Graph should display.

Remarks:

No remarks

10.1.5 Advance- Adv1

Test cases related to advance features.

10.1.5.1 Zoom-InGraph – Adv1.1

Description:

After searching and showing the graph user can zoom in the graph .

Test type:

Test type – “positive”.

Preconditions:

User with inserted MSISDN number should exist and transaction for that user should exist.

Input definition:

Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter MSISDN number.
Select depth level.
Select start and end date for period.
Click on generate button.
Zoom in the graph by mouse wheel.

Output definition:

The graph should zoom in.

Remarks:

No remarks.

10.1.5.2 Zoom-OutGraph – Adv1.2

Description:

The graph will zoom out in smaller size.

Test type:

Test type – “positive”.

Preconditions:

User with inserted MSISDN number should exist and transaction for that user should exist.

Input definition:

Open browser.

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Enter project address in address bar.
Press enter.
Fill in username and password.
Enter MSISDN number.
Select depth level.
Select start and end date for period.
Click on generate button.
Zoom out the graph by mouse wheel.

Output definition:

The graph should zoom out.

Remarks:

No remarks.

10.1.5.3 *RemoveNode – Adv1.3*

Description:

Removing a node from the graph.

Test type:

Test type – “positive”.

Preconditions:

User with inserted MSISDN number should exist and transaction for that user should exist.

Input definition:

Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter MSISDN number.
Select depth level.
Select start and end date for period.
Click on generate button.
Click on delete sign beside the node.

Output definition:

The node will remove from node.

Remarks:

No remarks.

10.1.5.4 *UserDetails – Adv1.4*

Description:

Details of user information such as fullname, address, etc will be showed.

Test type:

Test type – “positive”.

Preconditions:

User with inserted MSISDN number should exist and transaction for that user should exist.

Input definition:

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Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter MSISDN number.
Select depth level.
Select start and end date for period.
Click on generate button.
Click on a node.

Output definition:

Details of selected user will be showed in separate window.

Remarks:

No remarks.

10.1.5.5 *ShowTransactionsVisually – Adv1.5*

Description:

Transactions of clicked node will show and lines and other nodes that have transaction with selected node are bolded.

Test type:

Test type – “positive”.

Preconditions:

User with inserted MSISDN number should exist and transaction for that user should exist.

Input definition:

Open browser.
Enter project address in address bar.
Press enter.
Fill in username and password.
Enter MSISDN number.
Select depth level.
Select start and end date for period.
Click on generate button.
Click on a node.

Output definition:

Lines between selected node and other nodes will be bold.

Remarks:

No remarks.

10.1.5.6 *HideTransactionsVisually – Adv1.6*

Description:

Transactions of clicked node will hide and lines and other nodes that have transaction with selected node will return to normal form.

Test type:

Test type – “positive”.

Preconditions:

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User with inserted MSISDN number should exist and transaction for that user should exist.

Input definition:

*Open browser.
 Enter project address in address bar.
 Press enter.
 Fill in username and password.
 Enter MSISDN number.
 Select depth level.
 Select start and end date for period.
 Click on generate button.
 Click on a node.
 Transactions will be showed.
 Click on same node again.*

Output definition:

Lines between selected node and other nodes will return to normal form.

Remarks:

No remarks.

10.2 Test plan

The test case order should be do in this order

- *Unit testing(by developer)*
- *Tests related to Compatible group.*
- *Login*
 - *Tests related to login security*
 - *Other login tests*
- *Searching (search by all items in any order).*
- *Tests related to activity matrix, graph ,cells, transaction (in any order)*

11. Responsibilities

11.1 Developers

- *Study carefully and understand test plan completely.*
- *Read error reports.*
- *Fix the bugs.*
- *Unit testing of own class or method.*
- *Doing regression testing of repaired application.*

11.2 User representative

- *User should use the tool as a beta product and then report back the bugs.*

12. Risks and contingencies

Risks related to testing process are:

- *Problems with internet browsers except those ones that we tested with.*
- *Problem with older version of browsers.*

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13. Approvals

Name	Title	Date yyyy-mm-dd	Signature