



UNDERSTANDING TREE

INSTALLATION & CONFIGURATION GUIDE

Authors: **Satish Chinta, Praveen Kondasani**

Confidential Information

This document contains confidential information. The contents of this document may not be transmitted or reproduced for use or distributed without express permission of Conferra Technologies Pvt Ltd.

Report History

Revision History

Revision date	Author	Version	Summary of Changes	Changes marked
Oct 12, 2015	Satish Chinta	V0	Initial draft	

Approvals

This document requires the following approvals:

Name	Title	Date of Issue	Version

Distribution

This document has additionally been distributed to:

Name	Title	Date of Issue	Status

Table of Contents	Page
Report History _____	2
Revision History _____	2
Approvals _____	2
Distribution _____	2
Purpose _____	4
Requirements _____	4
Installation Procedure _____	4
Install MongoDB database _____	4
Install NodeJS _____	4
Install Understanding Tree _____	4
Customization _____	7
Appendix _____	8

Purpose

The purpose of this document is to provide step-by-step procedure for Understanding Tree web application (henceforth referred as **uTree**) setup.

Requirements

uTree needs following software to be installed on the windows server:

Item	Version	Installer Name	Download URL
NodeJS	Node JS v0.12.7 NPM 2.11.3	Windows Installer (64bit) v4.2.1	https://nodejs.org/en/download/
Mongodb	3.0.6	Windows 64bit 2008R2	https://www.mongodb.org/downloads#production

Installation Procedure

Install MongoDB database

1. Download MongoDB Windows 64bit 2008R2 from <https://www.mongodb.org/downloads#production>
2. Choose Custom Install option and install it into c:\mongodb folder (preferably). *Note: Do not install MongoDB under Program Files folder.*

Install NodeJS

1. Download and install NodeJS Windows Installer (64bit) v4.2.1 from <https://nodejs.org/en/download/>
Note: By default NodeJS use port 3000. In-case if you are using port 3000 for some other need, please alter the port number of existing app, and dedicate port 3000 for uTree application.

Install Understanding Tree

1. Copy uTree source code into c:\uTree folder (preferably), and do the necessary configuration changes:
 - a. Web Service URI path: Go to `..\application\dist\index.js` and change the value of urlDomain in Global parameters section. e.g.,

```
var urlDomain = "http://localhost:3000/users/";
```

 → for local database

```
var urlDomain = "http://54.175.159.77:3000/users/";
```

 → for non-local database, replace the ip address with your concerned hosting server address
2. Setup needed NodeJS libraries:
 - a. Go to `..\application\` folder and run the following command in the command prompt window.

```
c:\utree\appliance> npm install
```

Run uTree Application

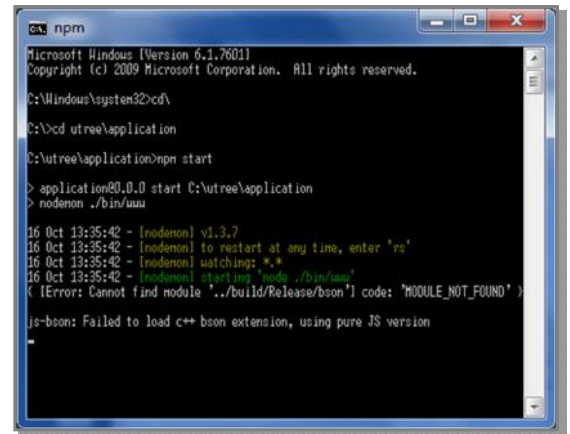
Follow the steps below to bring up the Understanding Tree web application:

1. Run NodeJS service

- Open Command prompt window with Run as Administrator privileges
 - Click Start, click All Programs, and then click Accessories.
 - Right-click Command prompt, and then click Run as administrator.
 - If the User Account Control dialog box appears, confirm that the action it displays is what you want, and then click Continue.

- Go to `c:\utree\application` folder

- Start NodeJS service at command prompt using
`c:\utree\application> npm start`



```

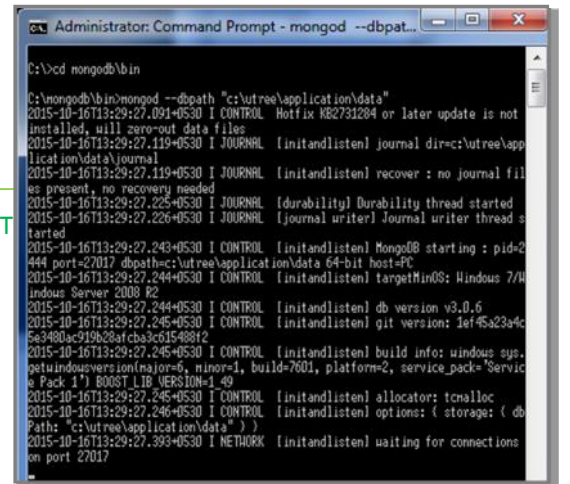
C:\utree\application> npm start
application0.0.0 start C:\utree\application
nodemon ./bin/www
16 Oct 13:35:42 - [nodemon] v1.3.7
16 Oct 13:35:42 - [nodemon] to restart at any time, enter 'rs'
16 Oct 13:35:42 - [nodemon] watching: *.*
16 Oct 13:35:42 - [nodemon] starting 'node ./bin/www'
[Error: Cannot find module '../build/Release/boom' code: 'MODULE_NOT_FOUND']
js-boom: Failed to load c++ boom extension, using pure JS version
  
```

2. Run MongoDB service

- Open Command prompt window with Run as Administrator privileges
 - Click Start, click All Programs, and then click Accessories.
 - Right-click Command prompt, and then click Run as administrator.
 - If the User Account Control dialog box appears, confirm that the action it displays is what you want, and then click Continue.

- Go to MongoDB home folder i.e., `c:\mongodb\bin`

- Start service using using `> mongod -dbpath "c:\utree\application\data"`



```

C:\mongodb\bin> mongod --dbpath "c:\utree\application\data"
2015-10-16T13:29:27.091+0530 I CONTROL Hotfix KB2731284 or later update is not
installed, will zero-out data files
2015-10-16T13:29:27.119+0530 I JOURNAL [initandlisten] journal dir=c:\utree\app
lication\data\journal
2015-10-16T13:29:27.119+0530 I JOURNAL [initandlisten] recover: no journal fil
es present, no recovery needed
2015-10-16T13:29:27.225+0530 I JOURNAL [durability] Durability thread started
2015-10-16T13:29:27.226+0530 I JOURNAL [journal writer] Journal writer thread s
tarted
2015-10-16T13:29:27.243+0530 I CONTROL [initandlisten] MongoDB starting : pid=2
444 port=27017 dbpath=c:\utree\application\data 64-bit host=PC
2015-10-16T13:29:27.244+0530 I CONTROL [initandlisten] targetMinOS: Windows 7/W
indows Server 2008 R2
2015-10-16T13:29:27.244+0530 I CONTROL [initandlisten] db version v3.0.6
2015-10-16T13:29:27.245+0530 I CONTROL [initandlisten] git version: 1ef45a23a4c
6e3480ac919b28afcba3c61548812
2015-10-16T13:29:27.245+0530 I CONTROL [initandlisten] build info: windows sys.
getuindowsversion(major=6, minor=1, build=7601, platform=2, service_pack='Servic
e Pack 1') BOOST_LIB_VERSION=1_49
2015-10-16T13:29:27.245+0530 I CONTROL [initandlisten] allocator: tcmalloc
2015-10-16T13:29:27.246+0530 I CONTROL [initandlisten] options: { storage: { db
Path: "c:\utree\application\data" } }
2015-10-16T13:29:27.393+0530 I NETWORK [initandlisten] waiting for connections
on port 27017
  
```

You have successfully kick started all the needed services for uTree.

3. Access uTree web application

You can start accessing uTree web application using the following url in any internet browsers :
Chrome, Firefox.

uTree URL: `<ipaddress>/utree/application/index.html`

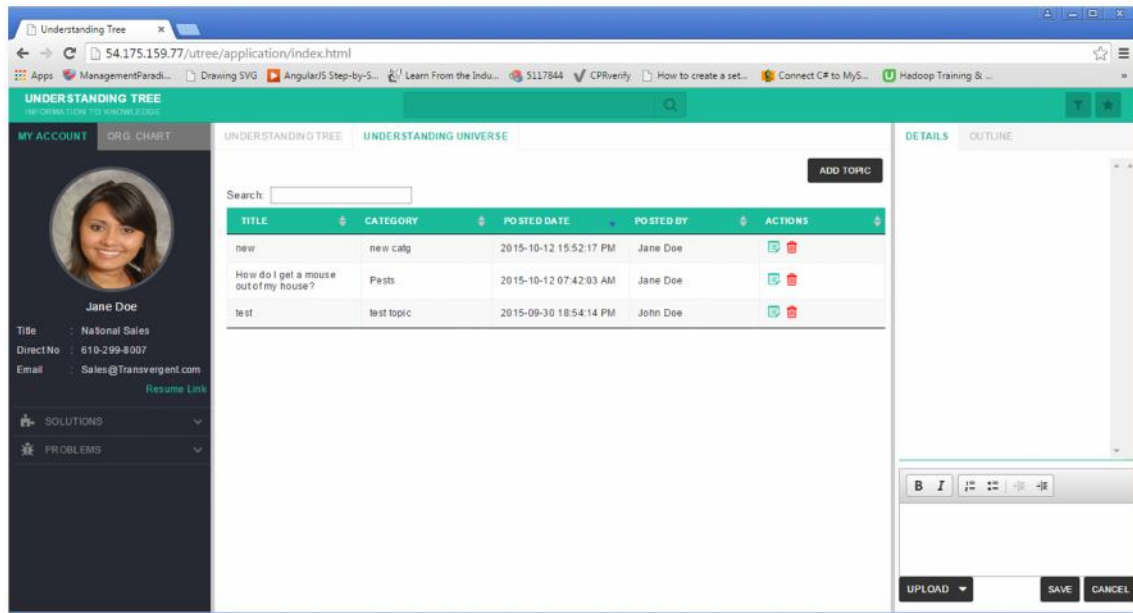


Figure: Main page for Understanding Tree web application

4. Stop Understanding Tree system

1. Close NodeJS service
 - a. Go to NodeJS command window and press **CTRL + C** to close the NodeJS service
2. Close MongoDB service
 - a. Go to MongoDB command window and press **CTRL + C** to close the database service

Customization

System allows customizing following features/attributes:

Description	File Location	Data Field	Supported Values
Show/hide the branch title	..\application\dist\index.js	showNodeText	True False
Show or hide the branch links	..\application\dist\index.js	showLinks	True False
Show or hide nodes in the tree	..\application\dist\index.js	showNodes	True False
Alter the diagonal branch length	..\application\dist\index.js	diagonalLength	Integer e.g., 600
Alter the divergent branch length	..\application\dist\index.js	divergentLength	Integer e.g., 400
Alter the Voting (standard) scale values	..\application\dist\index.js	votingScale	Array of 5 integer values
Alter the Dampening (Solution) Voting scale values	..\application\dist\index.js	votingDampeningScale	Array of 5 integer values
Alter the labels in Voting pop-up's	..\application\index.html	Range Slider section: Items, Items2, Items3, Items4	

Appendix

Linux:

Item	Name / Version		Download URL
NodeJS	Linux Binaries (.tar.gz) 64-bit		https://nodejs.org/en/download/
Mongodb	Ubuntu 12.4 Linux 64-bit		https://www.mongodb.org/downloads#production