



Real-Time Bridge Monitoring Installation Guide

Version 1.1

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

Revision History

Date	Version	Description	Author
2002-00-00	0.01	Initial Draft	
2013-12-12	1.0	First Setup of the document	Andrea Bottoli
2014-01-06	1.1	Added prerequisites, configuration chapter	Lorenzo Pagliari
2014-01-13	1.2	Added Database-Setup	Jörn Tillmanns

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

Table Of Contents

1. Introduction.....	4
1.1 Purpose of this document.....	4
1.2 Document organization.....	4
1.3 Intended Audience.....	4
1.4 Scope.....	4
1.5 Definitions and acronyms.....	4
1.6 References.....	5
2. Prerequisites.....	6
2.1 System Requirements.....	6
Minimum.....	6
2.2 Software Requirements.....	6
3. Installing the application	6
4. Configuration.....	6
4.1 Database.....	6
4.2 Tomcat Server.....	6
4.3 Source folder configuration.....	7
4.4 Connection RTBM-SITE with DB.....	8
5. SQL-Script.....	9

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

1. Introduction

1.1 Purpose of this document

The purpose of this document is to provide a first guide to the installation of our product and help to the first system configuration.

1.2 Document organization

The document is organized as follows:

- Section 1, *Introduction*, describes contents of this guide, used documentation during developing process etc.
- Section 2, *Prerequisites*, describes the minimum and recommended system requirements needed to run the product.
- Section 3, *Linux OS (Debian based)*, describes how to install the product on a machine whit a Linux Debian based Operating System.
- Section 4, *Windows OS*, describes how to install the product on a machine whit a Windows Operating System.
- Section 5, *Configuration*, describes how to configure the various part of the system.
- Section 6, *SQL-Script*, contains the full sql-script.

1.3 Intended Audience

The intended audience is:

- The customers
- Anyone that want to install and configure this product

1.4 Scope

The purpose of this document is to provide a first guide to the installation of our product and help to the first system configuration. This document doesn't talk about how to use the product and its functionalities; for that consult the user manual.

1.5 Definitions and acronyms

1.5.1 Definitions

Keyword	Definitions

1.5.2 Acronyms and abbreviations

Acronym or abbreviation	Definitions
NTR	Nothing to Report. There is no information to a specific topic available or necessary.
IF	Installation folder. Is the folder in which the system has been installed.
DSP	Default Sources Path. Is the default path to the sources folder.

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

1.6 References

Apache-Tomcat:

- <http://tomcat.apache.org/>

MySQL:

- <http://www.mysql.it/>

Quartz Schedule:

- <http://www.quartz-scheduler.org/>

Java:

- <http://www.java.com/it/>

Java Technologies:

- <http://www.oracle.com/technetwork/java/index.html>

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

2. Prerequisites

2.1 System Requirements

Minimum

- CPU: Desktop cpu Quad Core
- Hard Disk: 50 GB
- RAM: 4 GB
- Media: CD-ROM
- Interfaces: Gigabit Ethernet
- Input: USB ports
- Network: 2Mbps Symmetric connection

Recommended

- CPU: Server cpu Quad Core
- Hard Disk: 100 GB
- RAM: 16 GB
- Media: CD-ROM
- Interfaces: Gigabit Ethernet, Wireless b/g/n
- Input: USB ports
- Network: 4Mbps Symmetric connection

2.2 Software Requirements

- Apache-Tomcat web server 6.0 or newest
- Java version 1.6 or newest
- JRE version 6 or newest
- Javascript version 1.0 or newest
- MySQL Server version 5.0 or newest
- Quartz version 2.2 or newest

3. Installing the application

1. Deploy the BridgeMonitoring.war to tomcat server
2. Restore the MySQL database from BridgeMonitoringReduced.sql dump file
3. Configure server.xml and context.xml files as described in the next steps.

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

4. Configuration

4.1 Database

After the MySQL-Server is successfully installed, you have to create on special User for the RTBM-Site. You should then restore the database from the BridgeMonitoringReduced.sql if you already didn't do it in the previous step. The contents of the file are given at the end of this document.

4.2 Tomecat Server

First add the *mysql-connector-java-5.1.27-bin.jar*¹ to the lib-folder of your tomcat-server.

Also you need to modify your server.xml in order to use the UserAuthentication. Please insert following xml-item:

```
<Realm
    className="org.apache.catalina.realm.JDBCRealm"
    driverName="com.mysql.jdbc.Driver"
    connectionURL="jdbc:mysql://server-adress:3306/RTBM"
    connectionName="db-user-name"
    connectionPassword="db-user-password"
    userTable="users"
    userNameCol="username"
    userCredCol="password"
    userRoleTable="users_roles"
    roleNameCol="role" />
```

Please make sure only to change the connectionURL, the connectionName and the connectionPassword.

4.3 Source folder configuration

To configure the source folder, you have to edit the configuration file of the system. Go to the **IF** and then go into the "*EngineConfig*" folder; here there will be the configuration file named "*source_path.cfg*". Edit this file with a text editor and change the source path folder that you want.

If you edit wrong the path, the system will be setup again the source folder path to the default source path.

DSP: "<IF> / Sources"

Wrong edit means:

Delete or forgot to insert a path

- Insert something that is not a path
- Insert a "new line" character before the path
- Insert a not valid path.

In all these cases the system will put the source path at the **DSP**.

Also in cases of:

- "*source_path.cfg*" file missing
 - the configuration file is real missing into the folder
 - the configuration file has been renamed
- "*EngineConfig*" folder missing
 - the folder is real missing

¹ <http://dev.mysql.com/downloads/connector/j/>

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

- the folder has been renamed

the system will create again the missing folder and the missing configuration file, and will set the source path to the **DSP**.

N.B.: Do not put any newline after the comments and before the source path, do not put space before the path, do not put any numerical characters before the path, do not put any alphabetic character before the path if is not part of the path, otherwise the system will not detect the path and will set the path to the DSP. Is recommended to not delete or modify the configuration folder and configuration file.

4.4 Connection RTBM-SITE with DB

For the connection between the RTBM-Site and the Database you have to change the SQL-Data in *WebContent/META-INF/context.xml*.

The necessary configuration for the communication between the tomcat-server and the MySQL-Server is described in chapter 4.2.

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

5. SQL script BridgeMonitoringReduced.sql

```

CREATE DATABASE IF NOT EXISTS `rtbm` /*!40100 DEFAULT CHARACTER SET latin1 */;
USE `rtbm`;
-- MySQL dump 10.13 Distrib 5.6.13, for Win32 (x86)
--
-- Host: localhost Database: rtbm
-----
-- Server version 5.6.14

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;
/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
/*!40103 SET TIME_ZONE='+00:00' */;
/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
/*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
/*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;

--
-- Table structure for table `m_n_domain`
--

DROP TABLE IF EXISTS `m_n_domain`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `m_n_domain` (
  `ID` int(10) NOT NULL AUTO_INCREMENT,
  `N` float NOT NULL,
  `M` float NOT NULL,
  PRIMARY KEY (`ID`)
) ENGINE=MyISAM AUTO_INCREMENT=32 DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `m_n_domain`
--

LOCK TABLES `m_n_domain` WRITE;
/*!40000 ALTER TABLE `m_n_domain` DISABLE KEYS */;
INSERT INTO `m_n_domain` VALUES (1,-2029.78,0),(2,-1895.17,96.4807),(3,-1673.87,254.95),(4,-1401.65,446.55),(5,-1078.88,660.403),(6,-241.319,1188.31),(7,3104.27,2887.33),(8,4622.78,3468.79),(9,7466.71,4210.28),(10,13342.2,4572.35),(11,15880.5,4222.35),(12,18998.7,3480.02),(13,22632.8,2136.98),(14,24958.6,1016.27),(15,26441,293.541),(16,27023,0),(17,26441,-293.541),(18,24958.6,-1016.27),(19,22632.8,-2136.98),(20,18998.7,-3480.02),(21,15880.5,-4222.35),(22,13342.2,-4572.35),(23,7466.71,-4210.28),(24,4622.78,-3468.79),(25,3104.27,-2887.33),(26,-241.319,-1188.31),(27,-1078.88,-660.403),(28,-1401.65,-446.55),(29,-1673.87,-254.95),(30,-1895.17,-96.4807),(31,-2029.78,0);
/*!40000 ALTER TABLE `m_n_domain` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `movies`
--

```

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```

DROP TABLE IF EXISTS `movies`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `movies` (
  `ID` int(11) NOT NULL AUTO_INCREMENT,
  `path` varchar(250) NOT NULL,
  `type` smallint(3) NOT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  `camera` tinyint(4) NOT NULL,
  PRIMARY KEY (`ID`),
  UNIQUE KEY `path` (`path`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `movies`
--

LOCK TABLES `movies` WRITE;
/*!40000 ALTER TABLE `movies` DISABLE KEYS */;
/*!40000 ALTER TABLE `movies` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `parameter_data`
--

DROP TABLE IF EXISTS `parameter_data`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `parameter_data` (
  `ID` int(11) NOT NULL AUTO_INCREMENT,
  `parameters_id` int(11) NOT NULL,
  `value` float NOT NULL,
  `user_id` int(11) NOT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  PRIMARY KEY (`ID`),
  KEY `timestamp_index` (`timestamp`)
) ENGINE=InnoDB AUTO_INCREMENT=841 DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `parameter_data`
--

LOCK TABLES `parameter_data` WRITE;
/*!40000 ALTER TABLE `parameter_data` DISABLE KEYS */;
INSERT INTO `parameter_data` VALUES (62,59,1.5,1,'2013-11-20 08:02:58'),(63,60,9.5,1,'2013-11-20
08:02:58'),(64,61,17.5,1,'2013-11-20 08:02:58'),(65,62,10,1,'2013-11-20 08:02:58'),(66,63,7.3,1,'2013-11-20
08:02:58'),(67,64,7.5,1,'2013-11-20 08:02:58'),(68,65,3.65,1,'2013-11-20 08:02:58'),(69,66,0,1,'2013-11-20
08:02:58'),(70,67,8.5,1,'2013-11-20 08:02:58'),(71,68,6,1,'2013-11-20 08:02:58'),(72,69,2,1,'2013-11-20
08:02:58'),(73,70,1.2,1,'2013-11-20 08:02:58'),(74,71,168,1,'2013-11-20 08:02:59'),(75,72,177,1,'2013-11-20
08:02:59'),(76,73,1,1,'2013-11-20 08:02:59'),(77,74,0.5,1,'2013-11-20 08:02:59'),(78,75,2.25,1,'2013-11-20

```


Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```
23:26:03'),(825,113,3.3,1,'2013-12-17 23:26:04'),(826,113,3.3,1,'2013-12-17 23:26:04'),(827,113,3.3,1,'2013-12-17 23:26:04'),(828,113,3.3,1,'2013-12-17 23:26:04'),(829,113,3.3,1,'2013-12-17 23:26:04'),(830,113,3.3,1,'2013-12-17 23:26:04'),(831,113,3.3,1,'2013-12-17 23:26:04'),(832,113,3.3,1,'2013-12-17 23:26:04'),(833,113,3.3,1,'2013-12-17 23:26:04'),(834,113,3.4,1,'2013-12-17 23:33:43'),(835,113,3.3,1,'2013-12-17 23:34:25'),(836,113,3.4,1,'2013-12-17 23:37:01'),(837,113,3.3,1,'2013-12-17 23:47:55'),(838,113,3.4,1,'2013-12-17 23:50:56'),(839,113,3.3,1,'2013-12-17 23:51:08'),(840,112,206,1,'2013-12-23 19:31:50');
```

```
/*!40000 ALTER TABLE `parameter_data` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `parameters`
--
```

```
DROP TABLE IF EXISTS `parameters`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `parameters` (
  `ID` int(11) NOT NULL AUTO_INCREMENT,
  `name` varchar(100) NOT NULL,
  `abbreviation` varchar(30) NOT NULL,
  `unit` varchar(20) NOT NULL,
  `constant` tinyint(1) NOT NULL,
  `category` int(4) NOT NULL,
  PRIMARY KEY (`ID`),
  UNIQUE KEY `paramter` (`name`)
) ENGINE=InnoDB AUTO_INCREMENT=114 DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
-- Dumping data for table `parameters`
--
```

```
LOCK TABLES `parameters` WRITE;
/*!40000 ALTER TABLE `parameters` DISABLE KEYS */;
INSERT INTO `parameters` VALUES (59,'Diameter of the pylon','Dpylon','m',0,6),(60,'Distance between two line of pylon','cspan','m',0,6),(61,'Height of the lower beam','hbeam','m',0,6),(62,'Height of the reference of the bottom of the river','bottom_ref','m',0,6),(63,'Distance between the pulvino and the inferior beam','h1','m',0,6),(64,'Distance between the inferior beam and the bottom_ref','h2','m',0,6),(65,'Mean value of h1','(h1)/2','m',0,6),(66,'Sinking of the joints over the ground','k','m',0,6),(67,'Width of the chassis','d','m',0,6),(68,'Planimetric anticlockwise inclination of the bridge form the north','α','°',0,5),(69,'Drag planking coefficient','CDwi','',0,5),(70,'Air density','pair','Kg/m3',0,5),(71,'Planking area exposed to the wind pressure','Astack','m2',0,5),(72,'Surface of traffic exposed to the wind pressure','Atraf','m2',0,5),(73,'Coefficient of reduction for A1 and A2 traffic scenarios','β1','',0,5),(74,'Coefficient of reduction for A3 traffic scenario','β2','',0,5),(75,'Thrust center due to longitudinal asymmetry, only of SVplank','r','m',0,5),(76,'arm for bending moment of SVplank','eplank','m',0,5),(77,'arm for bending moment of SVtraf','etraf','m',0,5),(78,'Drag planking coefficient (D=0)','CD0wa','',0,4),(79,'Drag planking coefficient (D=1)','CD1wa','',0,4),(80,'Water density','pwater','Kg/m3',0,4),(81,'Area reduction for D=1','βA','',0,4),(82,'Coefficient a for the relation Vwater([IDRO1])','a','',0,4),(83,'Coefficient b for the relation Vwater([IDRO1])','b','',0,4),(84,'Coefficient c for the relation Vwater([IDRO1])','c','',0,4),(85,'Height limit of the river for parameters a1,b1,c1','hwater1','m',0,4),(86,'Coefficient a1 for Q(h) when [IDRO1] < hwater1','a1','',0,4),(87,'Coefficient b1 for Q(h) when [IDRO1] < hwater1','b1','',0,4),(88,'Coefficient c1 for Q(h) when [IDRO1] < hwater1','c1','',0,4),(89,'Height limit of the river for parameters a2,b2,c2','hwater2','m',0,4),(90,'Coefficient a2 for Q(h) when [IDRO1] < hwater2','a2','',0,4),(91,'Coefficient b2 for Q(h) when [IDRO1] < hwater2','b2','',0,4),(92,'Coefficient c2 for Q(h) when [IDRO1] < hwater2','c2','',0,4),(93,'Max height level of river and limit for use parameter a3,b3,c3','hmax','m',0,4),(94,'Coefficient a3 for Q(h) when hwater2 < [IDRO1] < hmax','a3','',0,4),(95,'Coefficient b3 for Q(h) when
```


Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```

hwater2 < [IDRO1] < hmax,'b3',",0,4),(96,'Coefficient c3 for Q(h) when hwater2 < [IDRO1] < hmax,'c3',",0,4),
(97,'Plank weight on the stack','Pp','kN',0,3),(98,'Weight of single pulvino','Ppu','kN',0,3),(99,'Weight of the
trunk of pylon','Ptp','kN',0,3),(100,'Weight of the single beam','Pb','kN',0,3),(101,'Weight per meter of
pylon','Ppy','kN/m',0,3),(102,'Moment generated by asymmetry','Mt','kNm',0,3),(103,'Axial load for load
combination A1','N(A1)','kN',0,2),(104,'Bending moment xx for load combination A1','Mxx(A1)','kNm',0,2),
(105,'Bending moment yy for load combination A1','Myy(A1)','kNm',0,2),(106,'Axial load for load combination
A2','N(A2)','kN',0,2),(107,'Bending moment xx for load combination A2','Mxx(A2)','kNm',0,2),(108,'Bending
moment yy for load combination A2','Myy(A2)','kNm',0,2),(109,'Axial load for load combination
A3','N(A3)','kN',0,2),(110,'Bending moment xx for load combination A3','Mxx(A3)','kNm',0,2),(111,'Bending
moment yy for load combination A3','Myy(A3)','kNm',0,2),(112,'Value of the force due to the vehicle
braking','Fr','kN',0,1),(113,'arm for the vehicle braking moment','n','m',0,1);
/*!40000 ALTER TABLE `parameters` ENABLE KEYS */;
UNLOCK TABLES;

```

```

--
-- Table structure for table `parsed_input_files`
--

```

```

DROP TABLE IF EXISTS `parsed_input_files`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `parsed_input_files` (
  `ID` int(11) NOT NULL AUTO_INCREMENT,
  `name` varchar(100) NOT NULL,
  `type` tinyint(4) NOT NULL,
  `stored_path` varchar(200) NOT NULL,
  `successfully_parsed` tinyint(1) NOT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  PRIMARY KEY (`ID`),
  UNIQUE KEY `name` (`name`),
  KEY `timestamp_index` (`timestamp`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

```

```

--
-- Dumping data for table `parsed_input_files`
--

```

```

LOCK TABLES `parsed_input_files` WRITE;
/*!40000 ALTER TABLE `parsed_input_files` DISABLE KEYS */;
/*!40000 ALTER TABLE `parsed_input_files` ENABLE KEYS */;
UNLOCK TABLES;

```

```

--
-- Table structure for table `pictures`
--

```

```

DROP TABLE IF EXISTS `pictures`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `pictures` (
  `ID` int(11) NOT NULL AUTO_INCREMENT,
  `path` varchar(500) NOT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,

```

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```

`camera` int(11) NOT NULL,
PRIMARY KEY (`ID`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `pictures`
--

LOCK TABLES `pictures` WRITE;
/*!40000 ALTER TABLE `pictures` DISABLE KEYS */;
/*!40000 ALTER TABLE `pictures` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `sensor_data_10_min`
--

DROP TABLE IF EXISTS `sensor_data_10_min`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `sensor_data_10_min` (
  `ID` int(10) NOT NULL AUTO_INCREMENT,
  `wind_speed` float DEFAULT NULL,
  `wind_direction` float DEFAULT NULL,
  `wind_speed_max` float DEFAULT NULL,
  `wind_direction_max` float DEFAULT NULL,
  `hydrometer` float DEFAULT NULL,
  `hydrometer_variance` float DEFAULT NULL,
  `sonar` float DEFAULT NULL,
  `sonar_variance` float DEFAULT NULL,
  `sonar_perc_correct` float DEFAULT NULL,
  `sonar_perc_wrong` float DEFAULT NULL,
  `sonar_perc_outOfWater` float DEFAULT NULL,
  `sonar_perc_error` float DEFAULT NULL,
  `sonar_perc_uncertain` float DEFAULT NULL,
  `safety_factor_00` float DEFAULT NULL,
  `safety_factor_01` float DEFAULT NULL,
  `safety_factor_10` float DEFAULT NULL,
  `safety_factor_11` float DEFAULT NULL,
  `water_speed` float DEFAULT NULL,
  `water_flow_rate` float DEFAULT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  PRIMARY KEY (`ID`),
  KEY `timestamp_index` (`timestamp`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `sensor_data_10_min`
--

LOCK TABLES `sensor_data_10_min` WRITE;
/*!40000 ALTER TABLE `sensor_data_10_min` DISABLE KEYS */;
/*!40000 ALTER TABLE `sensor_data_10_min` ENABLE KEYS */;

```

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

UNLOCK TABLES;

--

-- Table structure for table `sensor_data_1_day`

--

DROP TABLE IF EXISTS `sensor_data_1_day`;

/*!40101 SET @saved_cs_client = @@character_set_client */;

/*!40101 SET character_set_client = utf8 */;

CREATE TABLE `sensor_data_1_day` (

`ID` int(10) NOT NULL AUTO_INCREMENT,

`wind_speed` float NOT NULL,

`wind_direction` float NOT NULL,

`wind_speed_max` float NOT NULL,

`wind_direction_max` float NOT NULL,

`hydrometer` float NOT NULL,

`hydrometer_variance` float DEFAULT NULL,

`sonar` float DEFAULT NULL,

`sonar_variance` float DEFAULT NULL,

`sonar_perc_correct` float DEFAULT NULL,

`sonar_perc_wrong` float DEFAULT NULL,

`sonar_perc_outOfWater` float DEFAULT NULL,

`sonar_perc_error` float DEFAULT NULL,

`sonar_perc_uncertain` float DEFAULT NULL,

`safety_factor_00` float DEFAULT NULL,

`safety_factor_01` float DEFAULT NULL,

`safety_factor_10` float DEFAULT NULL,

`safety_factor_11` float DEFAULT NULL,

`water_speed` float DEFAULT NULL,

`water_flow_rate` float DEFAULT NULL,

`timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE

CURRENT_TIMESTAMP,

PRIMARY KEY (`ID`),

KEY `timestamp_index` (`timestamp`)

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/*!40101 SET character_set_client = @saved_cs_client */;

--

-- Dumping data for table `sensor_data_1_day`

--

LOCK TABLES `sensor_data_1_day` WRITE;

/*!40000 ALTER TABLE `sensor_data_1_day` DISABLE KEYS */;

/*!40000 ALTER TABLE `sensor_data_1_day` ENABLE KEYS */;

UNLOCK TABLES;

--

-- Table structure for table `sensor_data_1_hour`

--

DROP TABLE IF EXISTS `sensor_data_1_hour`;

/*!40101 SET @saved_cs_client = @@character_set_client */;

/*!40101 SET character_set_client = utf8 */;

CREATE TABLE `sensor_data_1_hour` (

`ID` int(10) NOT NULL AUTO_INCREMENT,

`wind_speed` float DEFAULT NULL,

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```

`wind_direction` float DEFAULT NULL,
`wind_speed_max` float DEFAULT NULL,
`wind_direction_max` float DEFAULT NULL,
`hydrometer` float DEFAULT NULL,
`hydrometer_variance` float DEFAULT NULL,
`sonar` float DEFAULT NULL,
`sonar_variance` float DEFAULT NULL,
`sonar_perc_correct` float DEFAULT NULL,
`sonar_perc_wrong` float DEFAULT NULL,
`sonar_perc_outOfWater` float DEFAULT NULL,
`sonar_perc_error` float DEFAULT NULL,
`sonar_perc_uncertain` float DEFAULT NULL,
`safety_factor_00` float DEFAULT NULL,
`safety_factor_01` float DEFAULT NULL,
`safety_factor_10` float DEFAULT NULL,
`safety_factor_11` float DEFAULT NULL,
`water_speed` float DEFAULT NULL,
`water_flow_rate` float DEFAULT NULL,
`timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
PRIMARY KEY (`ID`),
KEY `timestamp_index` (`timestamp`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `sensor_data_1_hour`
--

LOCK TABLES `sensor_data_1_hour` WRITE;
/*!40000 ALTER TABLE `sensor_data_1_hour` DISABLE KEYS */;
/*!40000 ALTER TABLE `sensor_data_1_hour` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `sensor_data_raw`
--

DROP TABLE IF EXISTS `sensor_data_raw`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `sensor_data_raw` (
  `ID` int(10) NOT NULL AUTO_INCREMENT,
  `wind_speed` float NOT NULL,
  `wind_direction` float NOT NULL,
  `hydrometer` float NOT NULL,
  `sonar` float NOT NULL,
  `sonar_type` int(2) NOT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
PRIMARY KEY (`ID`),
KEY `timestamp_index` (`timestamp`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--

```

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```
-- Dumping data for table `sensor_data_raw`
--
```

```
LOCK TABLES `sensor_data_raw` WRITE;
/*!40000 ALTER TABLE `sensor_data_raw` DISABLE KEYS */;
/*!40000 ALTER TABLE `sensor_data_raw` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `settings`
--
```

```
DROP TABLE IF EXISTS `settings`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `settings` (
  `ID` int(11) NOT NULL,
  `name` varchar(100) NOT NULL,
  `value` varchar(100) NOT NULL,
  PRIMARY KEY (`ID`),
  UNIQUE KEY `name` (`name`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
-- Dumping data for table `settings`
--
```

```
LOCK TABLES `settings` WRITE;
/*!40000 ALTER TABLE `settings` DISABLE KEYS */;
/*!40000 ALTER TABLE `settings` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `users`
--
```

```
DROP TABLE IF EXISTS `users`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `users` (
  `ID` int(11) NOT NULL AUTO_INCREMENT,
  `username` varchar(50) NOT NULL,
  `surename` varchar(50) DEFAULT NULL,
  `lastname` varchar(50) DEFAULT NULL,
  `password` varchar(250) NOT NULL,
  `email` varchar(50) DEFAULT NULL,
  PRIMARY KEY (`ID`),
  UNIQUE KEY `username` (`username`)
) ENGINE=InnoDB AUTO_INCREMENT=13 DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
-- Dumping data for table `users`
--
```

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```

LOCK TABLES `users` WRITE;
/*!40000 ALTER TABLE `users` DISABLE KEYS */;
INSERT INTO `users` VALUES (3,'admin','bridge','monitoring','dsdbestteam','mail@example.com');
/*!40000 ALTER TABLE `users` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `users_roles`
--

DROP TABLE IF EXISTS `users_roles`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `users_roles` (
  `ID` int(11) NOT NULL AUTO_INCREMENT,
  `username` varchar(50) NOT NULL,
  `role` varchar(50) NOT NULL,
  `userID` int(11) NOT NULL,
  PRIMARY KEY (`ID`)
) ENGINE=InnoDB AUTO_INCREMENT=13 DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `users_roles`
--

LOCK TABLES `users_roles` WRITE;
/*!40000 ALTER TABLE `users_roles` DISABLE KEYS */;
INSERT INTO `users_roles` VALUES (2,'mate','Administrator',2),(4,'engineer','Engineer',3),(5,'user','User',4),
(6,'user','User',5),(8,'test','User',8),(9,'test1','Administrator',9),(10,'test2','Administrator',10),
(11,'ROBERTTHEBEST','Administrator',11),(12,'nikolaSUCKS','User',12);
/*!40000 ALTER TABLE `users_roles` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `worst_case_00`
--

DROP TABLE IF EXISTS `worst_case_00`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `worst_case_00` (
  `ID` int(10) NOT NULL AUTO_INCREMENT,
  `pylon_number` int(11) NOT NULL,
  `N` float NOT NULL,
  `Tx` float NOT NULL,
  `Ty` float NOT NULL,
  `Mx` float NOT NULL,
  `My` float NOT NULL,
  `M` float NOT NULL,
  `cs` float NOT NULL,
  `comb_number` int(11) DEFAULT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
  PRIMARY KEY (`ID`),
  KEY `timestamp_index` (`timestamp`)

```

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```

) ENGINE=MyISAM DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `worst_case_00`
--

LOCK TABLES `worst_case_00` WRITE;
/*!40000 ALTER TABLE `worst_case_00` DISABLE KEYS */;
/*!40000 ALTER TABLE `worst_case_00` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `worst_case_01`
--

DROP TABLE IF EXISTS `worst_case_01`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `worst_case_01` (
  `ID` int(10) NOT NULL AUTO_INCREMENT,
  `pylon_number` int(11) NOT NULL,
  `N` float NOT NULL,
  `Tx` float NOT NULL,
  `Ty` float NOT NULL,
  `Mx` float NOT NULL,
  `My` float NOT NULL,
  `M` float NOT NULL,
  `cs` float NOT NULL,
  `comb_number` int(11) DEFAULT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  PRIMARY KEY (`ID`),
  KEY `timestamp_index` (`timestamp`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `worst_case_01`
--

LOCK TABLES `worst_case_01` WRITE;
/*!40000 ALTER TABLE `worst_case_01` DISABLE KEYS */;
/*!40000 ALTER TABLE `worst_case_01` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `worst_case_10`
--

DROP TABLE IF EXISTS `worst_case_10`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `worst_case_10` (
  `ID` int(10) NOT NULL AUTO_INCREMENT,
  `pylon_number` int(11) NOT NULL,

```

Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

```

`N` float NOT NULL,
`Tx` float NOT NULL,
`Ty` float NOT NULL,
`Mx` float NOT NULL,
`My` float NOT NULL,
`M` float NOT NULL,
`cs` float NOT NULL,
`comb_number` int(11) DEFAULT NULL,
`timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
PRIMARY KEY (`ID`),
KEY `timestamp_index` (`timestamp`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

```

```

--
-- Dumping data for table `worst_case_10`
--

```

```

LOCK TABLES `worst_case_10` WRITE;
/*!40000 ALTER TABLE `worst_case_10` DISABLE KEYS */;
/*!40000 ALTER TABLE `worst_case_10` ENABLE KEYS */;
UNLOCK TABLES;

```

```

--
-- Table structure for table `worst_case_11`
--

```

```

DROP TABLE IF EXISTS `worst_case_11`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `worst_case_11` (
  `ID` int(10) NOT NULL AUTO_INCREMENT,
  `pylon_number` int(11) NOT NULL,
  `N` float NOT NULL,
  `Tx` float NOT NULL,
  `Ty` float NOT NULL,
  `Mx` float NOT NULL,
  `My` float NOT NULL,
  `M` float NOT NULL,
  `cs` float NOT NULL,
  `comb_number` int(11) DEFAULT NULL,
  `timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
PRIMARY KEY (`ID`),
KEY `timestamp_index` (`timestamp`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;
/*!40101 SET character_set_client = @saved_cs_client */;

```

```

--
-- Dumping data for table `worst_case_11`
--

```

```

LOCK TABLES `worst_case_11` WRITE;
/*!40000 ALTER TABLE `worst_case_11` DISABLE KEYS */;
/*!40000 ALTER TABLE `worst_case_11` ENABLE KEYS */;

```


Real-Time Bridge Monitoring	Version: 1.1
Installation Guide	Date: 2013-12-12

UNLOCK TABLES;

--

-- Dumping routines for database 'rtbm'

--

/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;

/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;

/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;

/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;

/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;

/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;

-- Dump completed on 2014-01-13 23:20:06