

Sample RuBee Introductory Course Agenda

The RuBee DIY Visibility Network

Visible Assets Inc.
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Stratham NH 03885
Demo Center
Problem Phones 603 418 8721, 888 418 8800

Visible Instructor Participants:

Jason August 416 723 2008, Jason@visibleassets.com
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Participants:

Jane Doe
John Doe
Joe Doe
Sam Doe
Alice Doe

Day One

9AM Start Coffee/Muffins
12PM – 1PM Working Lunch
1PM 4PM Afternoon Session
6:30PM - Dinner – The Library Restaurant 401 State Street #5 Portsmouth, NH
(603) 431-5202

Day Two

Start 9 AM – Coffee Muffins
12PM-1PM Working Lunch
1PM-4PM Application Programming HandHeld C++ - Al Crawford
4pm – End and wrap up

- 1 Welcome**
 - 1.1 Introductions**
 - 1.1.1 Instructors: Jason August (JA), Jim Cassidy, Rod Gilchrist (RG), Dave Cramer (DC), Tom Packert (TP) Al Crawford (AC), John Stevens (JS).**
 - 1.1.2 Support: Pete Abell, Craig Weich, Sherry Cole, Bruce Brumblough**
 - 1.2 Customer Project Summary**
 - 1.3 Customer Project Plan**
 - 1.3.1 Timeline**
 - 1.3.2 License Issues**
 - 1.3.3 Support Issues**
 - 1.4 Course Agenda Review**
- 2 The Physics of RuBee (RG, JS)**
 - 2.1 Maxwell's Equations**
 - 2.2 Near Field vs Far Field**
 - 2.3 Range Issues (E vs H)**
 - 2.4 Power Issues (E vs H).**
 - 2.5 Collision Issue**
 - 2.6 Magnetic Photon's**
 - 2.7 Kilometric Space Noise Issues**
 - 2.7.1 Antenna Size**
 - 2.7.2 Antenna Location**
- 3 Tags + Chips – (JS, JA)**
 - 3.1 Basic Tag Design**
 - 3.2 Form Factor Options**
 - 3.3 Battery Size vs Battery Life**
 - 3.4 Tag Firmware**
 - 3.5 Sensor Options**
 - 3.6 Antenna Options**
 - 3.6.1 Ferrite**
 - 3.6.2 Wire Loop**
 - 3.6.3 PC Board Loop**
 - 3.7 Range Options**
 - 3.8 Memory Options**
 - 3.9 Processor Options**
 - 3.10 6800 vs 6300 (PW02)**
 - 3.11 Tag Instruction Set**
 - 3.12 Sensor Options**
- 4 IEEE 1902.1 Standard (RG)**
 - 4.1 Basic Protocol**
 - 4.2 Addressing**
 - 4.3 Packet Definition**
 - 4.4 CRC**
- 5 LapTop Applications Examples (JS, DC. JC)**
 - 5.1 Finder**

- 5.2 R/W
- 5.3 GunSentry
- 6 Blaster Base Station Antennas (JS, JA, RG, DC)
 - 6.1 Basic Design
 - 6.2 Single Phase Antennas
 - 6.3 Multi-Phase Antennas Base Stations
 - 6.4 Ferrite Antenna Options Advanatges
 - 6.5 Loop Antennas Options
 - 6.6 Tuning and Tuning Curves
 - 6.7 Blaster Instruction Set Protocol
- 7 Sidewinder (DC, JC, TP)
 - 7.1 Basic Design
 - 7.2 Arm Board Spec
 - 7.3 Linux Spec.
 - 7.4 Serial Port Options
 - 7.5 USB Options
 - 7.6 Tag Protocol Issues
 - 7.7 Tag Protocol Tools
 - 7.8 VPN Protocols
 - 7.9 Example Code
 - 7.10 ToughPak Demo
- 8 Dot-Tag Visibility Engine (TP, DC)
 - 8.1 Linux
 - 8.2 PostGres SQL vs Oracle
- 9 Application Development Tools (TP, DC)
 - 9.1 Ruby on Rails
 - 9.2 Example Applications
- 10 Part11 Audit Data Analysis (JS)
 - 10.1 Data Miner
 - 10.2 Whitepapers
 - 10.3 Data Log Storage
- 11 Field Plots and Metrics Methods (JS, SC)
 - 11.1 Simple Laser Field Plot
 - 11.2 Tag Field Plots
 - 11.3 Antenna Field Plots
 - 11.4 Examples and Demo
- 12 RuBee Security (RG, JS, DC)
 - 12.1 Physical Layer Security
 - 12.2 Packet Layer RuBee Tag
 - 12.3 Packet Layer Dot-Tag
 - 12.4 Network Layer
 - 12.5 Authentication Base-Tag
 - 12.6 Dynamic Range Management
- 13 RuBee Human Safety (JS, JA)
 - 13.1 OSHA Limits
 - 13.2 JAMA + RFID

- 13.3 RuBee Levels**
- 14 Industrial Safety and Standards (JS, RG)**
 - 14.1 Mil Spec 810F**
 - 14.2 HERO**
 - 14.3 ATEX and UL 913**
 - 14.4 Shock**
- 15 Optional RuBee Noise Instrumentation.**
 - 15.1 Noise What we Know How to Find It.**
 - 15.2 Gauss Meter Expensive**
 - 15.3 Gauss Meter Inexpensive**
 - 15.4 Spectrum Analyzers**
 - 15.5 Scopes**
- 16 Large Scale Multiplexing CLIP**
 - 16.1 Antenna Farms**
 - 16.2 Antenna Sequencing vs CLIP**
- 17 Handheld Programming (AC)**
- 18 RuBee Application Examples**