

iOS App Development at DESY

TINE User Meeting
06/07/2012



Frank Mayet

Outline

- Introduction
- TINE & iOS
- iOS Development
- iOS App Deployment

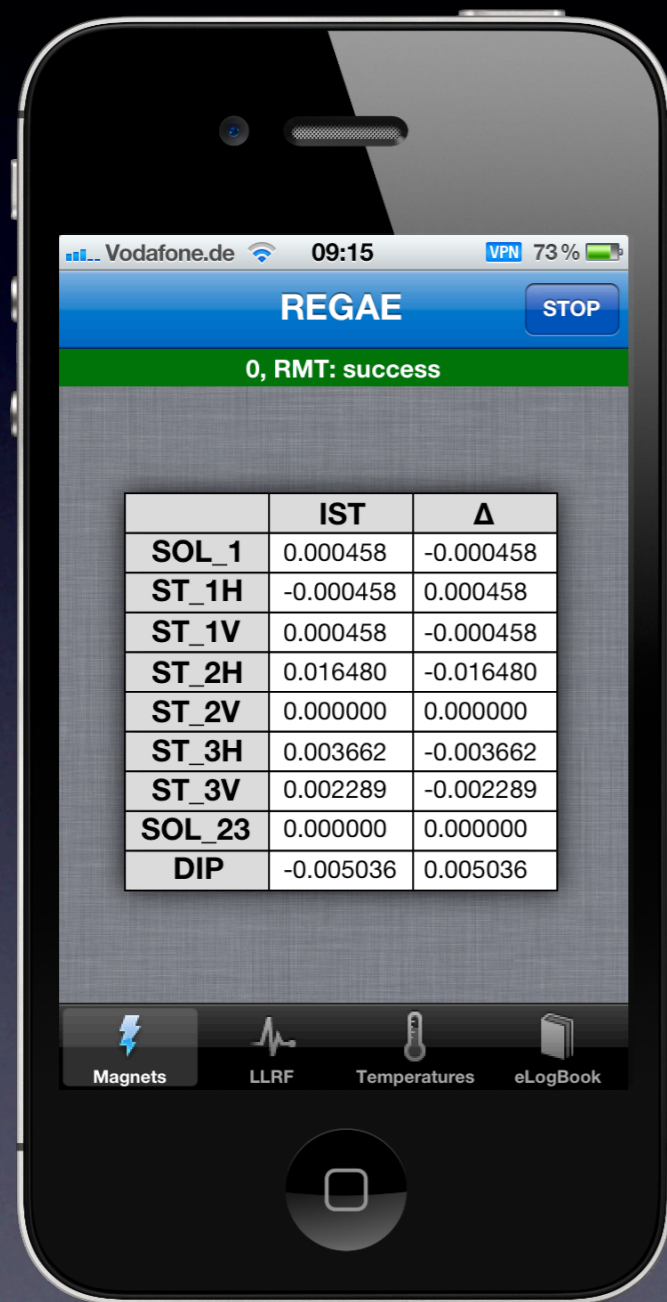
Introduction

The REGAE iPhone App



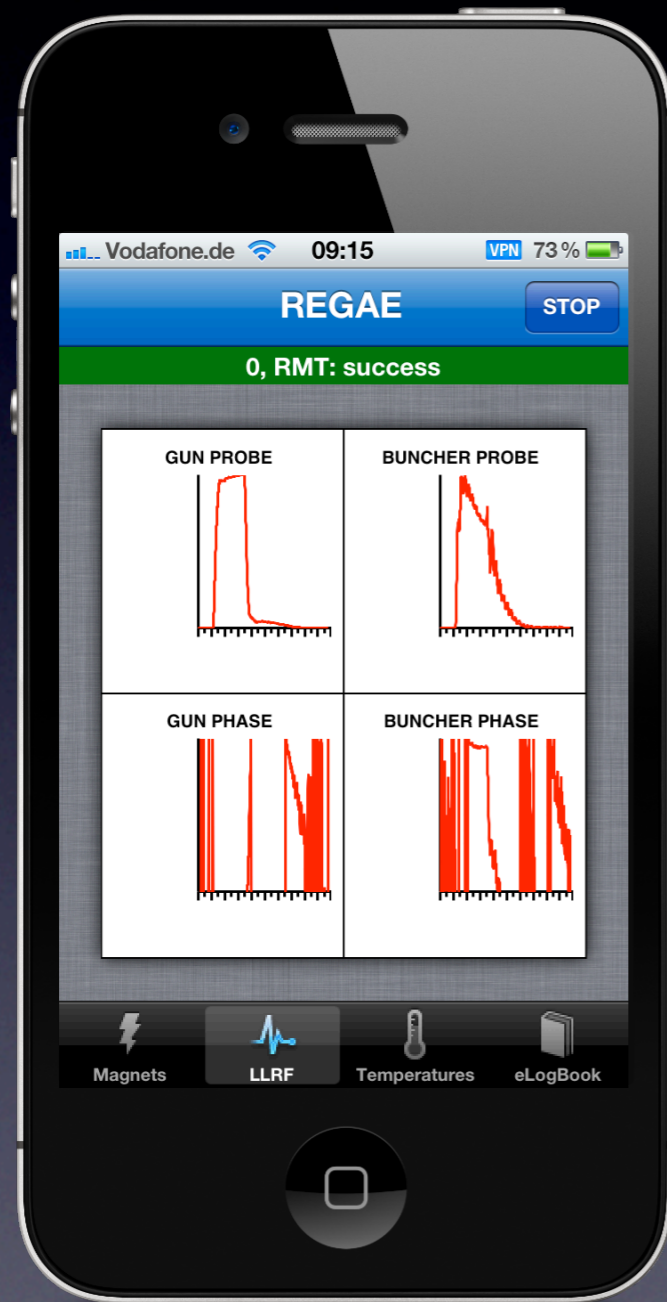
- “proof of concept“
- reads out REGAE machine data
- uses TINE C source 4.2.10
- native!

The REGAE iPhone App



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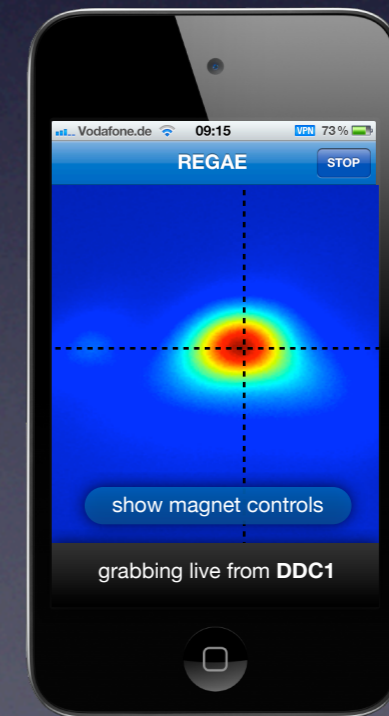
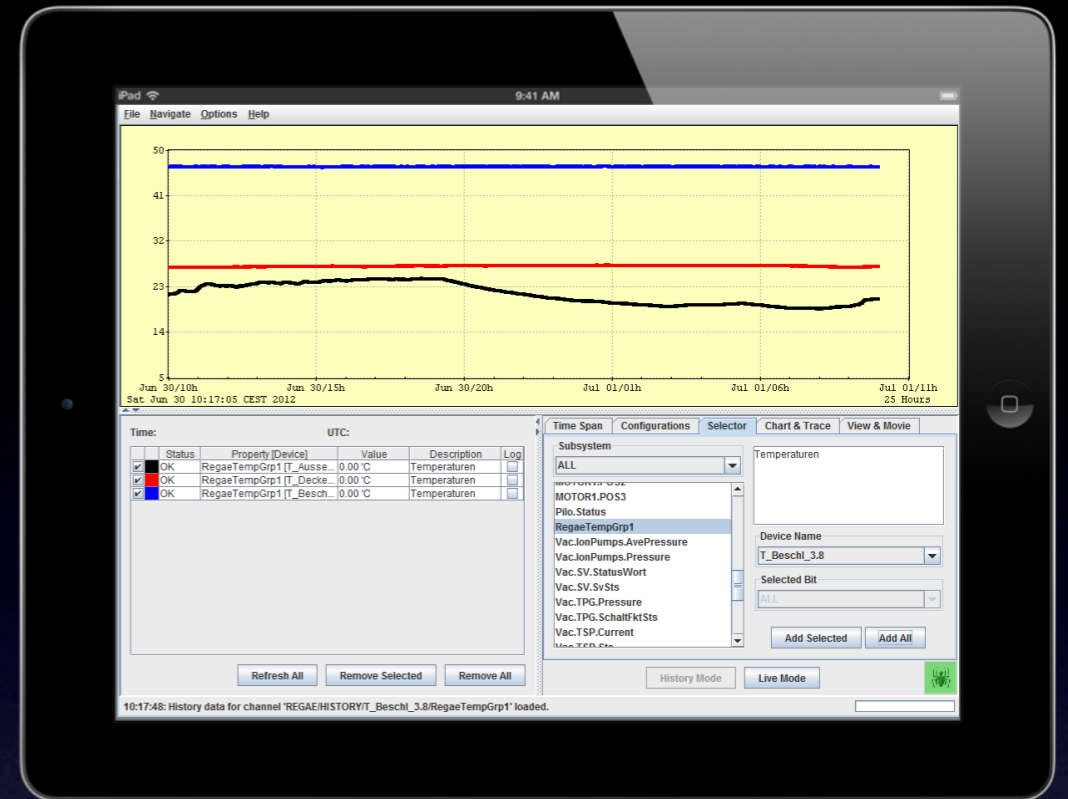
- ✓ fast
- ✓ efficient
- ✓ easy access to OS features
 - gesture recognizers
 - push notifications
 - ...
- ✓ easy access to hardware features
 - device rotation
 - location services (geo fencing...)
 - ...

TINE & iOS

some ideas

TINE & iOS

- native version of “Archive Viewer”
- iOS versions of panels
 - alarms and event via push-notifications
- panel design toolbox for the iPad
 - create your own control/monitoring panels
 - assign controls using standard TINE addresses
 - assign “push-notification outlets” to certain events
 - grab video streams
 - iOS 6: restrict devices to a single app (*kiosk mode*)
 - ...
- native eLogBook apps



iOS Development

a (very) short primer

iOS Development

current OS	iOS 5.1.1
IDE	Xcode 4.3
language	Objective-C 2.0



iOS Development



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IDE	Xcode 4.3
language	Objective-C 2.0

Position Jul 2012	Position Jul 2011	Delta in Position	Programming Language	Ratings Jul 2012	Delta Jul 2011	Status
1	2	↑	C	18.331%	+1.05%	A
2	1	↓	Java	16.087%	-3.16%	A
3	6	↑↑↑	Objective-C	9.335%	+4.15%	A
4	3	↓	C++	9.118%	+0.10%	A
5	4	↓	C#	8.662%	-0.10%	A

REGAE > iPhone 5.1 Simulator

REGAE

- 1 target, iOS SDK 5.1
 - Default.png
 - Default@2x.png
 - logodesy.png
 - logodesy@2x.png
 - REGAE
 - CorePlot
 - FAppDelegate.h
 - FAppDelegate.m
 - FFirstViewController.h
 - FFirstViewController.m
 - FSecondViewController.h
 - FSecondViewController.m
 - FThirdViewController.h
 - FThirdViewController.m
 - FMLogBookViewController.h
 - FMLogBookViewController.m
 - FMLogBookViewController.xib
 - FFirstViewController.xib
 - FSecondViewController.xib
 - FThirdViewController.xib
 - Images
 - REGAE_TempGrid.png
 - REGAE_TempGrid@2x.png
 - REGAE_LLRFGrid.png
 - REGAE_LLRFGrid@2x.png
 - 96-book.png
 - 93-thermometer.png
 - 77-ekg.png
 - 64-zap.png
 - REGAE_MagnetGrid.png
 - REGAE_MagnetGrid@2x.png
 - Supporting Files
 - REGAE-Info.plist
 - InfoPlist.strings
 - main.m
 - REGAE-Prefix.pch
 - Frameworks
 - Products
 - REGAE.app
 - CorePlot-CocoaTouch.xcodeproj
 - 3 targets, iOS SDK 5.1
 - TINELib.xcodeproj
 - 1 target, iOS SDK 5.1

```

//
//  FMLogBookViewController.m
//  REGAE
//
//  Created by Frank Mayet on 16.05.12.
//  Copyright (c) 2012 Uni-Hamburg / Allthirds. All rights reserved.
//

#import "FMLogBookViewController.h"

@interface FMLogBookViewController ()
@end

@implementation FMLogBookViewController

@synthesize webView, segmentedControl, refreshButton;

- (id)initWithNibName:(NSString *)nibNameOrNil bundle:(NSBundle *)nibBundleOrNil
{
    self = [super initWithNibName:nibNameOrNil bundle:nibBundleOrNil];
    if (self) {
        self.title = NSLocalizedString(@"eLogBook", @"eLogBook");
        self.tabBarItem.image = [UIImage imageNamed:@"96-book"];
    }
    return self;
}

- (void)viewDidLoad
{
    [super viewDidLoad];
    webView.scalesPageToFit = YES;

    NSString *urlAddress = @"http://ttfinfo.desy.de/REGAEeLog/index.jsp";

    //Create a URL object.
    NSURL *url = [NSURL URLWithString:urlAddress];

    //URL Request Object
    NSURLRequest *requestObj = [NSURLRequest requestWithURL:url];

    //Load the request in the UIWebView.
    [webView loadRequest:requestObj];

    // Do any additional setup after loading the view from its nib.
}

- (void)viewDidUnload
{
    [super viewDidUnload];
    // Release any retained subviews of the main view.
    // e.g. self.myOutlet = nil;
}

- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    return (interfaceOrientation == UIInterfaceOrientationPortrait);
}

- (IBAction)reloadButtonPressed:(id)sender {

    [webView reload];

}

- (IBAction)segmentedControlPressed:(UISegmentedControl *)sender {

    switch (sender.selectedSegmentIndex) {
        case 0:

            [webView goBack];

            break;

            display!

            [webView goBack];

        case 1:

            [webView goBack];

            break;

            display!

            [webView goBack];

        case 2:

            [webView goBack];

            break;

            display!

            [webView goBack];

        case 3:

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        case 97:

            [webView goBack];

            break;

            display!

            [webView goBack];

        case 98:

            [webView goBack];

            break;

            display!

            [webView goBack];

        case 99:

            [webView goBack];

            break;

            display!

            [webView goBack];

    }
}
    
```

Quick Help

FMSecondViewController : UIViewController

Name: UIViewController

Availability: iOS (2.0 and later)

Abstract: The UIViewController class provides the fundamental view-management model for all iOS apps. You rarely instantiate UIViewController objects directly. Instead, you instantiate subclasses of the UIViewController class based on the specific task each subclass performs. A view controller manages a set of views that make up a portion of your app's user interface. As part of the controller layer of your app, a view controller coordinates its efforts with model objects and other controller objects—controllers—so your app presents user interface.

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Controller Catalog

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ton - Intercepts touch an action message to a n it's tapped.

ontrol - Displays s, each of which crete button.

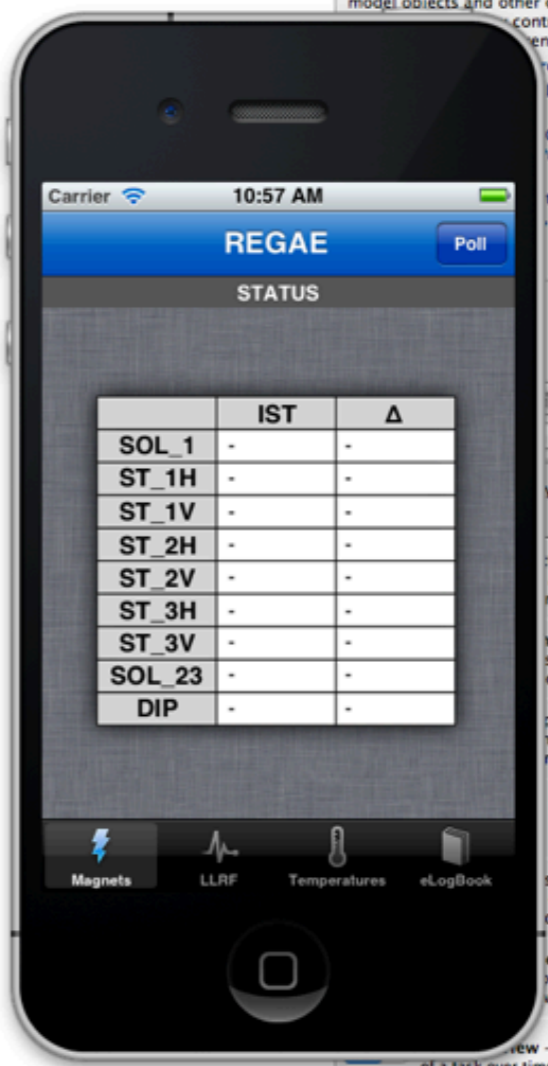
plays editable text and message to a target rn is tapped.

a continuous range of the selection of a

s an element showing of a value. Allows ol to toggle the value.

or View - Provides progress of a task or wn duration.

view - Depicts the progress of a task over time.



iOS Development

- ✓ Mac
- ✓ Apple Developer Account

Simulator	<i>free</i>
Device	80€/year

iOS Development

✓ Mac

✓ Apple Developer Account

Simulator

free

Device

80€/year

The screenshot shows the iOS Dev Center website interface. At the top, there's a navigation bar with the Apple Developer logo and links for Technologies, Resources, Programs, Support, and Member Center. Below this is a secondary navigation bar with 'iOS Dev Center', 'Mac Dev Center', and 'Safari Dev Center'. The main content area is divided into several sections: 'Resources for iOS 5' with links for Downloads, Getting Started Videos, Getting Started Documents, iOS Developer Library, iAd JS Developer Library, Coding How-To's, and Sample Code; 'Featured Content' with links for Create Apps for iOS 5.1, What's New in iOS 5.1, iCloud for Developers, Newsstand for Developers, Game Center for Developers, Start Developing iPad Apps, In-App Purchase Programming Guide, Supporting Multitasking In Your Applications, and Apple Push Notification Service Programming Guide; and 'iOS Developer Program' with links for iOS Provisioning Portal, iTunes Connect, Apple Developer Forums, Developer Support Center, App Store Resource Center, Prepare for App Submission, App Store Approval Process, Managing Apps on the App Store, Marketing Resources, and iAd Network. The browser's address bar shows the URL https://developer.apple.com/devcenter/ios/index.action.

iOS App Deployment

iOS App Deployment

App Store



B2B



In-House



iOS App Deployment

App Store



B2B



In-House



iOS App Deployment



- 299€/year
- custom *Enterprise App Store*
- no Apple review!
- apps are hosted on internal servers
- over-the-air push via MDM servers

iOS App Deployment



The screenshot shows the Apple Configurator application window. At the top, the title bar reads "Apple Configurator" and contains three icons: a box for "Prepare", a smartphone for "Supervise", and two people for "Assign". Below the title bar are three main sections, each with an icon, a title, a brief description, and a "Learn more" link.

Prepare Devices
Prep your iOS devices for mass deployment.
Configure your organization's devices. Quickly update them to the latest iOS version, install profiles, install free and volume purchased apps, or restore a device backup. [Learn more](#)

Supervise Devices
Enforce a standard configuration on your iOS devices.
Maintain control over groups of devices that share common apps, settings, and profiles. Automatically restore devices to the specified configuration when reconnected. [Learn more](#)

Assign Devices
Assign iOS devices to users in your organization.
Create and manage users and groups. Assign supervised devices to individual users, back up and restore users' content and settings, and distribute and retrieve users' documents. [Learn more](#)

Welcome to Apple Configurator
iOS device configuration, supervision and assignment made easy.

[Start Preparing Devices](#)

Thank you!

Thank you!

Questions?