

# WIKI

ROSCon 2012

# WIKI = EDITABLE



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**ROSCon 2012**  
May 19-20

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## Documentation

ROS (Robot Operating System) provides libraries and tools to help software developers create robot applications. It provides hardware abstraction, device drivers, libraries, visualizers, message-passing, package management, and more. ROS is licensed under an open source, BSD license.

ROS:

### [Install](#)

Install ROS on your machine.

### [Getting Started](#)

[Tutorials](#), technical overview, and links to [getting help](#). Also, check out the  [ROScheatsheet.pdf](#)

### [Contribute](#)

How to contribute to the ROS community, such as submitting your own [repository](#). See the  [ROS Planet](#) for what others are doing

### [Support](#)

What to do if something doesn't work as expected.

### [Mirrors](#)

Mirrors of this wiki.

### Wiki

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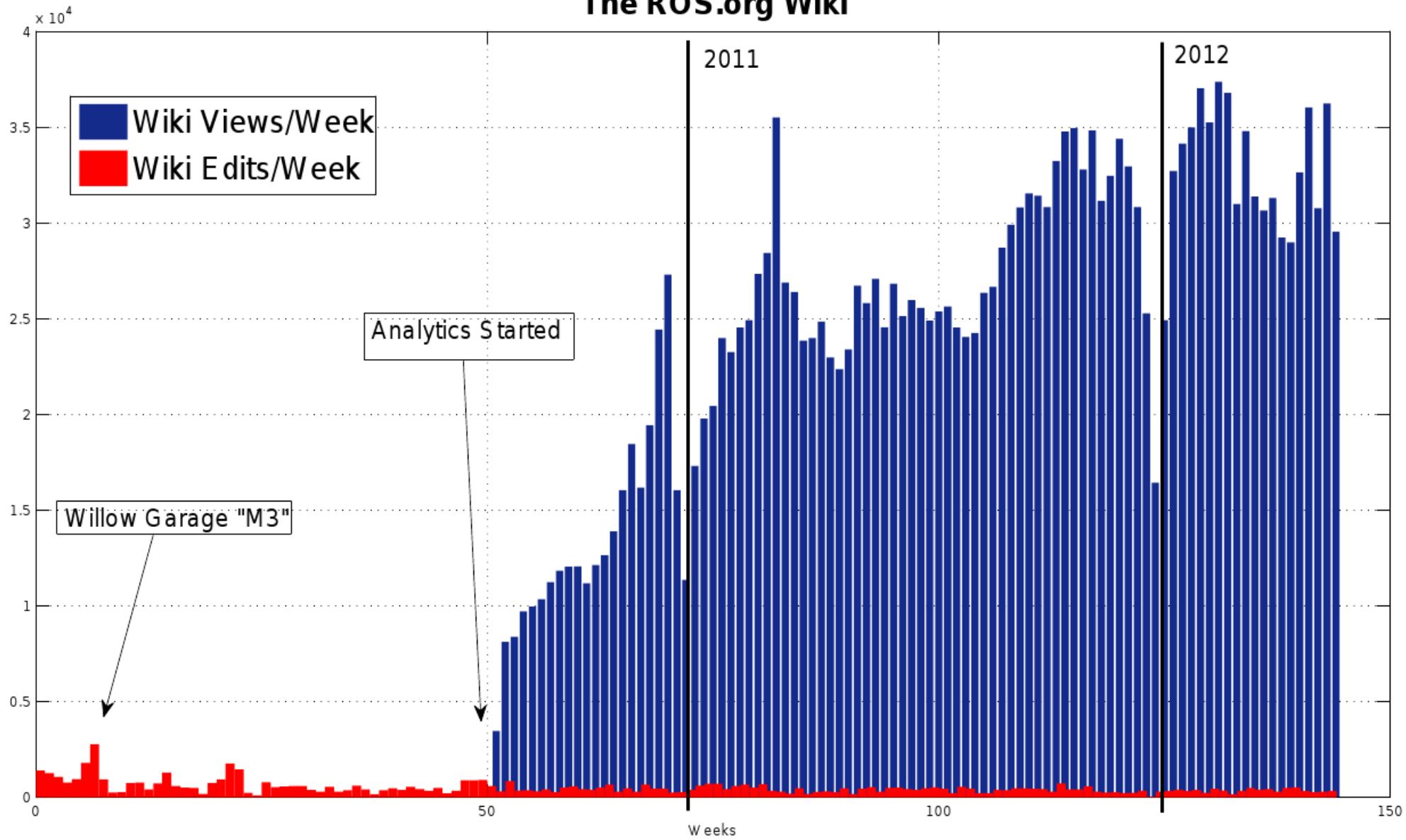
[Attachments](#)

[More Actions:](#)

### User

[Login](#)

## The ROS.org Wiki



IF YOU SEE SOMETHING  
~~SAY SOMETHING~~  
FIX IT!



# Package/Stack Naming

- The wiki has a flat name space
  - Look before you collide
- Be specific
  - Avoid utils, common, etc
- Try not to use acronyms
  - If you insist, document with relevant key words

# Documentation

- Fill out the manifest.xml/stack.xml
- Don't create a wiki page if you're not going to create documentation
  - ROS Browse will help others find packages without documentation
- Follow the wiki style guide
  - <http://ros.org/wiki/StyleGuide>

[geometry](#) | [angles](#) | [eigen\\_conversions](#) | [tf](#) | [tf\\_conversions](#)

## 1. Package Summary

tf is a package that lets the user keep track of multiple coordinate frames over time. tf maintains the relationship between coordinate frames in a tree structure buffered in time, and lets the user transform points, vectors, etc between any two coordinate frames at any desired point in time.

- Author: Tully Foote, Eitan Marder-Eppstein, Wim Meeussen
- License: BSD
- Repository: [wg-kforge](#)
- Source: hg <https://kforge.ros.org/geometry/geometry>

### Contents

1. [Package Summary](#)
2. [What does tf do? Why should I use tf?](#)
3. [Tutorials](#)
4. [Code API Overview](#)
5. [Frequently asked questions](#)
6. [Command-line Tools](#)
  1. [tf monitor](#)
  2. [tf echo](#)
  3. [static\\_transform\\_publisher](#)
  4. [view\\_frames](#)
  5. [ros tf plugin](#)
7. [Nodes](#)

### Package Links

#### Code API

- [diamondback](#)
- [electric](#)
- [fuerte](#)
- [unstable](#)

#### Msg/Srv API

- [diamondback](#)
- [electric](#)
- [fuerte](#)
- [unstable](#)

#### Tutorials

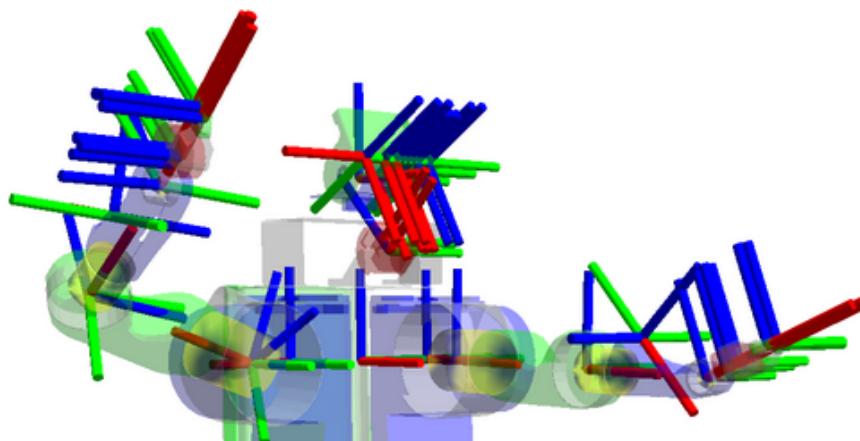
#### Troubleshooting

#### FAQ

[Reviews](#) (doc reviewed)

### Dependencies (10)

### Used by (721)



# Wiki Macros

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<http://ros.org/wiki/WikiMacros>

- GetTaggedCode
- Version
- Clearsilver/IncludeCSTemplate
- SeeSaw
- Linking

# GetTaggedCode

---

```
<<GetTaggedCode(code_uri,code_tag,show_
uri,no_tag_newlines,global_lines)>>
```

In Comment use:

%Tag(TAG)%

%EndTag(TAG)%

# Version

---

<<Version()>>

## [win\\_ros](#)

[win\\_ros](#): [mingw\\_cross](#) | [msvc\\_hudson](#) | [msvc\\_runtime](#) | [msvc\\_sdk](#) | [win\\_appupdater](#) | [win\\_boost](#) | [win\\_bzip2](#) | [win\\_empty](#) | [win\\_patches](#) | [win\\_pymercurial](#) | [win\\_pyyaml](#) | [win\\_osc](#) | [win\\_oscpp\\_tutorials](#) | [win\\_rosinstall](#)

### 1. Stack Summary

Setup and utilities for ros on windows.

- Author: Maintained by Daniel Stonier
- License: BSD
- Repository: [yujin-ros-pkg](#)
- Source: git [https://github.com/stonier/win\\_ros.git](https://github.com/stonier/win_ros.git)

[cturtle](#) [diamondback](#) [electric](#) [fuerte](#)

#### Stack Links

[Tutorials](#)  
[Roadmap](#)  
[Reviews](#) (experimental)

[Dependencies \(4\)](#)

# Version

---

<<Version(release\_name)>>

## Diamondback Example:

Options:

- l, --latch **New in Diamondback**  
Enable latch mode. Latching mode is the *default* when using command-line arguments.
- r RATE  
Enable *rate mode*. Rate mode is the *default* (10hz) when using piped or file input.
- 1, --once  
Enable *once mode*.
- f FILE **New in Diamondback**  
Read message fields from YAML file. YAML syntax is equivalent to output of `rostopic echo`. Messages are separated using YAML document separator ---. To use only the first message in a file, use the `--latch` option.

# Clearsilver

---

## #!clearsilver parser\_location

### example NodeAPI (#!clearsilver CS/NodeAPI):

#### 2. Nodes

##### 2.1 photo\_node

The usb camera node interfaces with standard USB cameras (e.g. the Logitech Quickcam) using libusb\_cam and publishes images as sensor\_msgs::Image.

###### 2.1.1 Services

`get_config (photo/GetConfig)`

queries the value of a parameter

`set_config (photo/SetConfig)`

sets the value for a given parameter

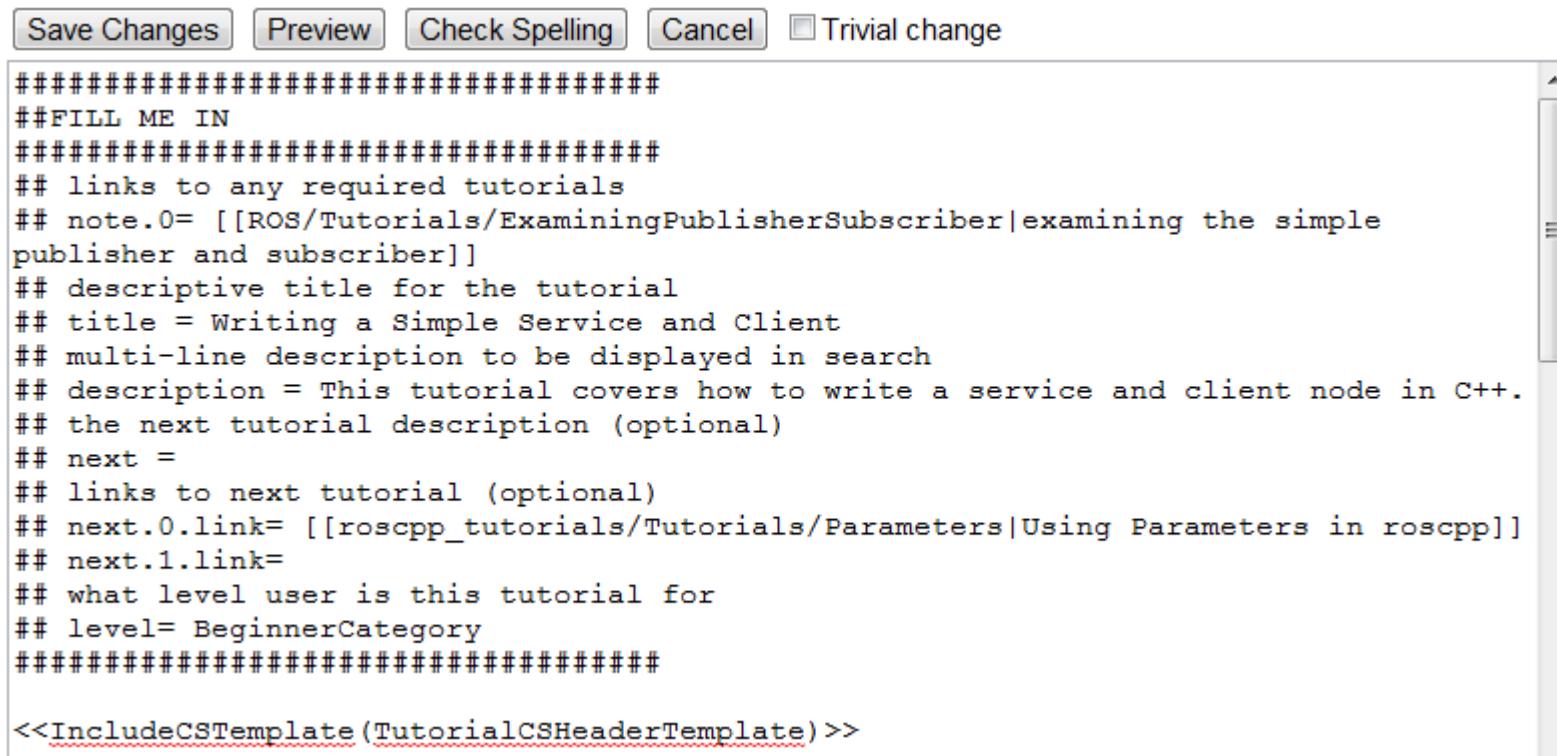
`capture (photo/Capture)`

Image width

# IncludeCSTemplate

<<IncludeCSTemplate(template\_location)>>

## Tutorial Example:



The screenshot shows a text editor window with the following interface elements at the top:

- Save Changes
- Preview
- Check Spelling
- Cancel
- Trivial change

The main content area contains a C++ code template for a ROS tutorial. The code includes comments indicating where to fill in information and links to other tutorials. At the bottom of the template, there is a placeholder for another template inclusion.

```
#####
##FILL ME IN
#####
## links to any required tutorials
## note.0= [[ROS/Tutorials/ExaminingPublisherSubscriber|examining the simple
publisher and subscriber]]
## descriptive title for the tutorial
## title = Writing a Simple Service and Client
## multi-line description to be displayed in search
## description = This tutorial covers how to write a service and client node in C++.
## the next tutorial description (optional)
## next =
## links to next tutorial (optional)
## next.0.link= [[roscpp_tutorials/Tutorials/Parameters|Using Parameters in roscpp]]
## next.1.link=
## what level user is this tutorial for
## level= BeginnerCategory
#####

<<IncludeCSTemplate (TutorialCSHeaderTemplate)>>
```

# Seesaw

---

Allows you to toggle content visibility

```
<<SeeSaw(section="sshhelp1",toshow="(ssh  
help)")>>
```

```
{{{#!wiki seesaw sshhelp1  
<<Include(turtlebot/help/ssh)>><<BR>>  
}}}
```

# Linking

<<MsgLink(package/name)>>

<<SrvLink(package/name)>>

<<KforgeTracLink(repo package)>>

<<TracLink(repo package)>>

<<LurkerLink(message/blah)>>

# ROS Promotions

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Promotions are a feature of Google custom search on the ROS wiki

## Search Results

Refine results: [All results](#) [ros-users](#) [ros reps](#) [ros api docs](#) [ros answers](#) [ros wiki docs](#) [all ros.org](#)

---

About 33,700 results (0.16 seconds)



### [Looking for a transformation library?](#)

tf maintains the relationship between coordinate frames in a tree structure buffered in time.  
<http://www.ros.org/wiki/tf>

### [tf/Tutorials](#)

[www.ros.org/wiki/tf/Tutorials/Introduction%20to%20tf](http://www.ros.org/wiki/tf/Tutorials/Introduction%20to%20tf)

Labeled [all ros.org](#) [ros wiki docs](#)

### [tf](#)

[www.ros.org/wiki/tf](http://www.ros.org/wiki/tf)

Labeled [all ros.org](#) [ros wiki docs](#)