

Trackers features in Tiki

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In this Tiki Express Tutorial I'll talk about one of main the feature in Tiki, the Trackers and I'll explain:

- What is the Trackers feature
- I'll show you how to enable the Trackers
- How to create your first Tracker
- To create a page to collect information for a tracker
- I'll describe quickly the basic tracker field types
- How to enable the tracker advanced field types
- I'll demonstrate the Mathematical calculation field
- We'll do a quick review of the Trackers global options
- As well as we'll review the tracker properties (another set of option for each tracker)
- Finally we'll use a plugin list to display a catalog from a tracker in a wiki page

Defining Trackers has never been an easy task, and this is because Trackers is not, like a forum or a blog, a ready-to-use feature where you only set a few parameters and options. Trackers is closer to Microsoft Access or Apple FileMaker Pro. As simply as I can put it: Trackers is a toolbox and a set of components built to interact directly with values in a database, both reading and writing. It can be used as a standalone feature or integrated with other Tiki features, such as wiki pages. This may sound like a rather abstract definition – and maybe it is – but let's continue, and later I'll show you examples so you can really understand what is possible with Tiki Trackers.

Historically, one of Tiki's advantages has been its ability to combine the best of two worlds: wiki and database. By using Trackers together with wiki pages, Tiki has been able to deliver a "structured wiki". As the internet evolved into what we know today, this simple core idea naturally expanded. Many improvements and technological breakthroughs by the Tiki developers have turned Trackers, embedded within Tiki, into a web application builder. Trackers is powerful and extremely flexible, and to help you better understand it, I will show you how it works.

By the way, I received a lot of messages and questions about a previous Tiki Express Tutorial] and the way I integrated a Bootstrap-designed website into Tiki. People asked me to keep doing this so they can get better ideas about how to design their own Tiki. However, I really feel it's better to show how to set up and configure Tiki using the default installation. It would be very confusing for beginners if I did everything on a customised Tiki. So, sorry to the Tikiers who asked, but I'll use the standard default install...

You know what? I'll compromise: I'll demonstrate the last chapter of this tutorial using a customised Tiki, so we keep everybody happy. ☐

How to enable the Trackers

So, I log in as Admin, go to the Settings menu, which opens the Control Panels page, set my default to Advanced for the preference filters, click on the Features panel and activate the Trackers feature. If you feel that I did all that too quickly for you, I suggest you watch the tutorial I made about Administration Tips in Tiki, where enabling a feature is explained in detail.

The Trackers menu is now available and, first things first, let's create our first tracker.

How to create your first Tracker

To create our first tracker, we have to go to the main Trackers page, accessible under the List trackers menu item.

We click on the Create button and it opens a modal. First, I set a name for my new tracker. I add a description to help users understand what they are supposed to do, and I check the Description is wiki-parsed checkbox so I can add Wiki markup. That's enough for this demonstration and I'll quickly review the other options with you later in the video.

Back on my Trackers page, I see the tracker I just created. It is empty for now and even "blank", meaning no fields have been defined yet. To do so, you can click on the Actions menu under the wrench (which also provides many other possible actions), or you can click on the tracker name. As I was saying, nothing to see yet.

I click on the Fields button to create my first fields.

I click on Add Field and it opens the Add Field modal.

I set the Name of my field and leave the default Text field type.

My first field is set; let's add more with different field types.

I add a Text area, and as I set it, I would like to show you that for each field type you have specific options. For the Text area, I set the field to display a toolbar above it.

I add a Date field to store a birthday. I don't need the time, so just the date will be fine.

I add an Email field,
a Radio buttons field,
and a Country field.

As you can see, by default there are already enough field types to create a complex tracker.

OK, done. Let's populate the first item.

Just fantastic! In less than a minute we created what would have taken an hour to be built by a programmer and—just as important—it is embedded in Tiki, a web publishing framework. This means it is ready to be used. With a few permissions set, this can already be a working tool for your company or your organisation.

How to create a page to collect information for a tracker

We now have a tracker ready to store information, so let's quickly create a form on a wiki page to populate this tracker.

I create a wiki page: My contact form.

I add a title using heading 3: "Please fill the form below".

I go to the plugin help, available after clicking on the question mark button in the toolbar.

I filter the plugin list with the word "tracker". From the long list of available tracker plugins, I select Tracker, and you can see from the description that this is what I need.

I fill the Tracker ID field by selecting the right tracker.

I select the fields I want the user to fill.

I leave everything else as it is by default, but again, there are a lot of options and possibilities for you to match exactly your needs. At the bottom, I add some text to confirm that the information was saved—or better, a remarksbox plugin so it looks nice too:

Now, back on the page, let's pretend I'm a user and I have to fill this form.

Save... and we're all good.

Let's check in the tracker now, and I can see that my item was saved properly.

Let's review some of the other field types.

Quick description of the basic tracker field types

To do this, and to show you another way to access the fields of my tracker, I go back to the Trackers page. On the same line as my tracker, on the far right, there is a wrench icon with an Actions menu. I select Fields, and back on the Fields page I click on Add field. Let's check together what is available by default:

- Checkbox – lets you define several checkboxes for a multi-select option.
- Country selector – we saw it already, nothing special to explain.
- Date and time – we've seen this one.
- Date and time using a date picker.
- Dropdown – you can manually define the options.
- Email – also a field we've seen.
- Files – interacts with File Galleries to attach documents like images to an item.
- Header – a static title using HTML heading sizes. It can also be used as a toggle to show or hide all the fields after it.

- Icon – lets you add an icon to an item.
- Item link – gives you the ability to cross-reference information between two different trackers, a bit like a foreign key.
- Location – shows a map and a marker for the location. Note that to use this field you have to enable the Maps feature; otherwise nothing will be displayed.
- Multiselect – lets you select several options in a single field.
- Numeric field – to store numbers, especially if you need them as numeric values for calculations.
- Page selector – to select a wiki page or create one that will be linked to this tracker item. I have to say that I don't remember using this field, as there is also a Wiki page field that does much the same, as we'll see a little later. Maybe it's a legacy field.
- Radio buttons – we've used this already and it's pretty obvious.
- Static text – like Header but without formatting or toggling.
- Text area – we've seen this.
- Text field – this one too.
- URL – to enter a URL and use it as a link.
- User selector – to link or relate an item to an existing or future Tiki user.
- Wiki page – to enter content in a tracker that will be saved as a wiki page.

How to enable the tracker advanced field types

Those are available by default, but there are many more, and they'll give you an incredible number of tools to create your forms, reports, or applications.

Let me show you how to activate them:

Settings → Control Panels, then click on the Trackers tile. As usual, plenty of options, but let's focus on the Field types, so I click on the last tab and it displays a huge list:

- Articles
- Attachment
- Auto-Increment
- Category
- Computed Field
- Currency Field
- Dropdown selector with "Other" field
- Dynamic Items List
- Geographic Feature
- Group Selector
- In Group
- IP Selector
- Items List
- Kaltura Video
- Language
- LDAP
- Mathematical Calculation

- Rating
- Relations
- Tags
- User Groups
- User Preference
- User Subscription
- Webservice

A lot of stuff here. You can see a short description by moving the mouse over the help tooltips. I'll let you discover most of them by yourself, but not this one:

The power of Trackers and the mathematical calculation field

To quickly show you a bit more of what's possible, let me enable the Mathematical calculation field and go back to our tracker.

You remember we had a birth date that the user is supposed to enter. But what if, instead of displaying the date, we need to display the age of the user? In that case, the user can be someone registering for a service—for example medical, insurance, medication—where the person using Tiki needs to have this information right away.

So let's calculate the age of the contact entered in this tracker item. We'll use the birth date they entered.

First, we take the current date and subtract the user's birth date to get the difference. Now, computers and programs are based on a calendar where everything starts on 1 January 1970.

So, to get the right difference, we divide the result by this year's timestamp (in seconds). We round the result to 0 decimals, as we don't want fractions of years in the age. And finally, we add a text string to make it look nicer.

Saving.

Now let's add a new item so the field is calculated.

Tada!

We could also add some conditions in case I add this field after some items have already been created, for example:

"Age was not calculated yet, please review and save it"

Or, if the birth date is not a mandatory field and can be empty, something like:

"Age can't be calculated without a birth date."

It's not super easy, but it's far from complicated, and it's very powerful. You get plenty of functions, the syntax is clear, and most of the time what can fail is just a logic error or a typo.

Please refer to the Tiki documentation at:

<https://doc.tiki.org/Calculations>

The Trackers global options

By clicking the General tab, you will see an impressive list of options and parameters. It's up to you to review them and investigate or experiment according to your needs.

The tracker properties

More options and parameters per tracker are available in the Trackers section:

- Features – mainly for the Comments feature. The others are kept for legacy purposes but have been better integrated into Trackers.
- Display – options for sorting and tracker item information. It is common to use the Status, so let's activate it.
- Section format – to use templates to display a tracker. I don't use this because I really prefer using the Plugin List and the unified index in conjunction with Trackers for maximum flexibility in design (I'll show you).
- Status – to decide the item status on creation or modification, which can trigger cascading actions.
- Notification – if someone needs to be notified when something is changed in the tracker, or to publish an RSS feed from this tracker.
- Permissions – a special set of permissions just for Trackers in Tiki. It's straightforward to understand when you read through it.

I save, and you can see now there is a status for each of my items.
Very useful.

How to display a catalog in a wiki page

Now that we understand Trackers better, let's see how we can use them to create an online catalog for a shop or anything similar.

I go to a Bootstrap-based website I created for this.

As you can see, I have an area for featured products, products that have an old price and a new, discounted price. These items are coming directly from a tracker and are, in fact, tracker items.

Let's look at the tracker first.

As we learned, I need to go to my Trackers menu, which on this website is at the bottom.
Trackers → Products.

Here I have a very simple tracker made with four fields:

Name, Picture (which is a Files field type), and two Currency field types.

Let's edit an item.

Instead of Simple Table, let's call this item "La table", which is French for "the table", and with this new name it looks much more attractive and (of course!) justifies the price.

Back on my Home page, I can see the item has been updated.

This is all done using a few components that come out of the box with Tiki.

I'm getting a bit outside the scope of this tutorial, but I really think it's worth having a look at the plugin settings and templates I used for this. So let's edit the page.

First, there is a Plugin List on the wiki page and, as you can already see, it doesn't require a lot of typing.

There is pagination, because I want only 6 items here.

There are some filters:

- One to display items from a specific tracker.
- One to display only items where the old price field is not empty.

Then we have the syntax for the fields and the format in which we want the values to be displayed.

And, to nicely integrate this plugin output into my design, I used a wiki page as a Smarty template.

Let's have a quick look, just so you get an idea:

HTML syntax, CSS classes, and the item with its object reference name.

Below that, the code for the modal.

Again, not a lot of work for a great result that will simplify your life and help you – or the organisation you work for – save a lot of money.

That's it for today with this XL video.

Of course, there is much more to say about Trackers, tracker field types, tracker plugins, Plugin List, or Smarty templates.

But you've got the basics, and I've already planned more advanced tutorials for all the treasures you can find in Tiki related to Trackers.

I hope you've enjoyed this Tiki Express Tutorial.

To help me continue making these, I need your support!

Click on the Like icon below the video and share it everywhere you think it should be.

I don't have enough time to work, make the tutorials, and also make sure that every Tikier has the opportunity to watch them. So please, help make them available where they're needed.

If you don't want to miss my next tutorial and want to be notified when I publish a new one, just click on the subscribe button here.

Thanks again for watching, and may the power of Tiki be with you!

Some other interesting links:

<https://tiki.org/Trackers>

<https://doc.tiki.org/Trackers>

<https://doc.tiki.org/Creating-a-Tracker>

<https://doc.tiki.org/Tracker-Field-Type>

<https://doc.tiki.org/Tracker-Admin>

<https://doc.tiki.org/PluginList>

<https://doc.tiki.org/Tutorial---Display-Tracker-Data-with-Plugin-List>

<https://doc.tiki.org/PluginList-advanced-output-control-block>