

KWizCom Corporation



Repeating Rows App

User Guide

Copyright © 2005-2015 KWizCom Corporation. All rights reserved.

Company Headquarters

KWizCom

95 Mural Street, Suite 600

Richmond Hill, ON

L4B 3G2 Canada

E-mail: info@KWizCom.com

Web site: <http://www.kwizcom.com>

Sales

E-mail: sales@KWizCom.com

Telephone: +1-905-370-0333

CONTENTS

Contents	3
introduction	4
General	4
Product Overview	5
Key Features	6
Installation	7
Software Requirements	7
Server Requirements	7
Client Requirements	7
Installation Procedure	7
Administration Guide	8

INTRODUCTION

GENERAL

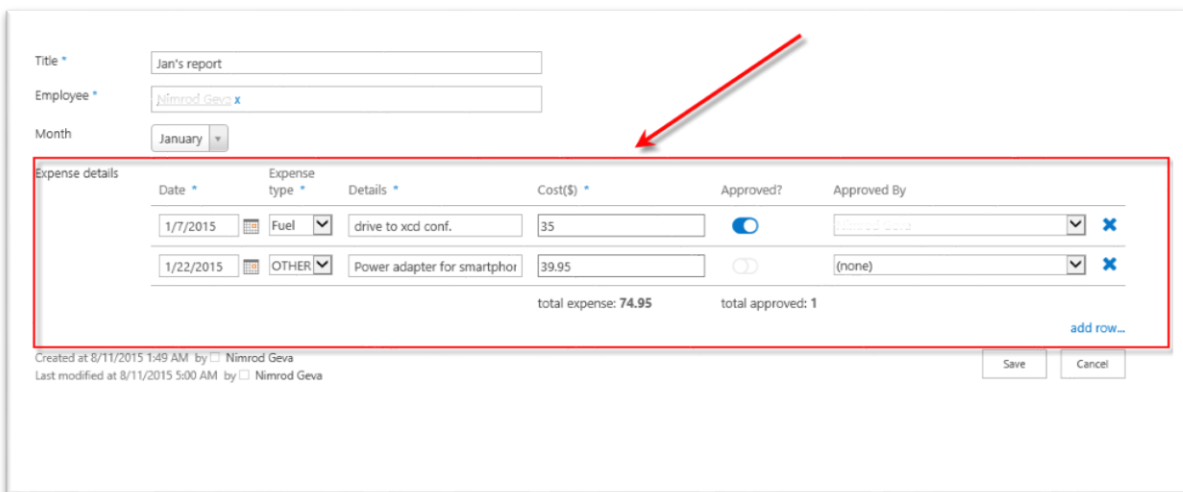
This document provides all the information needed to install, evaluate and deploy this KWizCom product:

- Product Overview
- Installation Guide
- Administration Guide

PRODUCT OVERVIEW

The *SharePoint Repeating Rows app* enables you to easily create multi-row forms (such as expense forms) by simply using SharePoint’s out-of-the-box list forms.

Once you add the Repeating Rows app to your site, you’ll be able to add a new type of Repeating Rows column to your lists, which allows you to have multiple rows in your list form:



The screenshot shows a SharePoint form with the following fields: Title (Jan's report), Employee (Nimrod Geva), and Month (January). Below these is a table titled 'Expense details' with columns: Date, Expense type, Details, Cost(\$), Approved?, and Approved By. The table contains two rows of expense data. A red box highlights the table, and a red arrow points to it from above.

Date	Expense type	Details	Cost(\$)	Approved?	Approved By
1/7/2015	Fuel	drive to xcd conf.	35	<input checked="" type="checkbox"/>	Nimrod Geva
1/22/2015	OTHER	Power adapter for smartphor	39.95	<input type="checkbox"/>	(none)

total expense: 74.95 total approved: 1

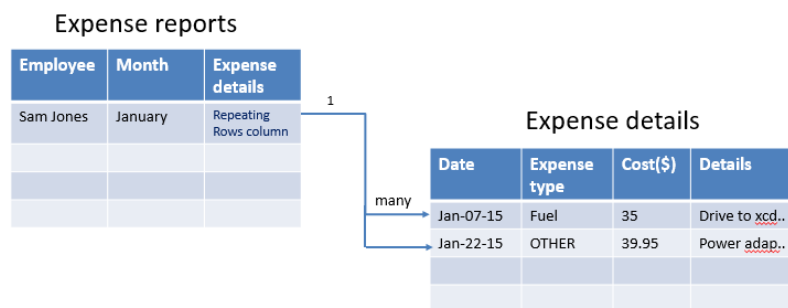
Created at 8/11/2015 1:49 AM by Nimrod Geva
Last modified at 8/11/2015 5:00 AM by Nimrod Geva

So, how does this work?

When you add a Repeating Rows column to your list, you actually create a lookup column that connects your list to another list, creating a relation of one-to-many between the lists.

In the screenshot above we have a list called “Expense reports” where each item is a single employee’s monthly report. Each expense report include several expenses, these expenses are stored in a second list called “Expense details”.

This is how the data model looks like:



Now comes the magic: In the example above, we have created a Repeating Rows column called “Expense details” that connects every expense item to many expense details items. The Repeating Rows column renders as multi-row UI, enabling the user to fill-out multiple expenses in one form; the expense details items are stored in the connected “Expense details” list.

To learn how to install and configure this app, please review the next sections in this guide.

KEY FEATURES

Feature	KWizCom Repeating Rows app
A new column type that enables you to add/edit a list item along with multiple connected items from a remote list.	✓
Connect between a “Master” list and “Details” list (such as “Expenses” and “Expense details”).	✓
Connected lists can be located in different sites.	✓
Configurable amount of empty rows in “New” form	✓
Configurable summary calculated fields	✓
Cascaded delete: When you delete the master item, its connected items are also deleted from the remote/child list so you won’t end-up with “orphan” list items.	✓
Cross-browser	✓

INSTALLATION

SOFTWARE REQUIREMENTS

SERVER REQUIREMENTS

- SharePoint Server/Foundation 2013 configured for app hosting
- SharePoint online (Office 365)

CLIENT REQUIREMENTS

- Windows 7+
- Microsoft Internet Explorer 9+, Mozilla Firefox (Latest version), Google Chrome (Latest version).

INSTALLATION PROCEDURE

To download and install this app please follow these steps:

1. Browse the product page on Microsoft's Office app store:
<https://store.office.com/kwizcom-PN104003805.aspx?assetid=PN104003805>
2. Add the product to your site/s. This FREE evaluation version is fully functional, just displays a message letting you know that this is a trial version.
3. When you go into the app's settings page for the 1st time, it will ask you to install the *KWizCom Apps Foundation* app. This app is a utility app that provides services to all KWizCom apps, and needs to be installed in your app catalog by your tenant admin (requires tenant trust).
For more details about *KWizCom Apps Foundation* [visit our website](#).

ADMINISTRATION GUIDE

SETTING-UP A REPEATING ROWS COLUMN

The Repeating Rows is a new type of column that allows you to edit a list item along with multiple rows of connected items.

In this section we'll use the *Expense Report* example to explain how to configure the column.

STEP 1: PREPARE YOUR LISTS

Before you create a Repeating Rows column, you need to have your connected lists – a “Master” list and a “Details” list.

In our example, we have the following 2 lists:

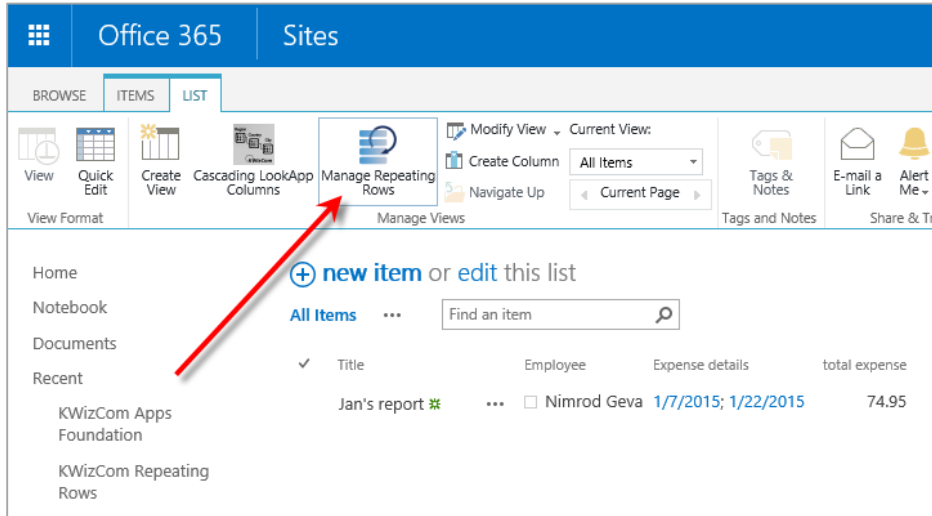
- **Expense reports** list – This is the “Master” list. Each item in this list is an expense report item, made by some employee.
The list includes the following columns:
 - Employee
 - Month
- **Expense details** list – This is the “Details” list. For each expense item in the *Expense reports* list, we have here multiple *expense details* items.
The list includes the following columns:
 - Date
 - Cost(\$)
 - Expense type
 - Expense details

Ok, so once you have your data model ready, it's time to create your Repeating Rows column.

STEP 2: CREATE THE REPEATING ROWS COLUMN

In the “Master” list (Expense reports), create a Repeating Rows column that will display multiple rows from the “Details” list.

To do that, click the “Manage Repeating Rows” button to open the list’s Repeating Rows settings page:



IMPORTANT COMMENT:

The Repeating Rows app relies on services provided by the *KWizCom Apps Foundation* app. When you browse the Repeating Rows settings page and KWizCom Apps Foundation is not installed, you will be prompted to install it.

For more details, please review the installation procedure section in this user guide.

Once you click the ribbon button, you’ll see the following settings page:

KWizCom Repeating Rows Column
Version 1 build 01

Repeating Rows app > Expense Reports > Manage Repeating Rows

Use this settings page to create and manage repeating rows columns in your list.

Column configuration ▾

Select a repeating rows column

create a new column ▾

New column title

new column title

Configure Totals & Preview ▾

Start configuring your column to see the preview here ...

© 2015 KWizCom

CANCEL

STEP 3: CONFIGURE THE REPEATING ROWS COLUMN

Configuring a Repeating Rows column is done by following the steps:

1. Select a repeating rows column

Column configuration ▾

Select a repeating rows column

create a new column ▾

New column title

Expense details

You can create new Repeating Rows column, or edit existing ones (if created before).
If you create a new column, type its name in the “New column title” textbox.

2. Decide how many rows should be displayed by this column by default

How many rows should this column have for new items?

When you create a new item, the Repeating Rows column will display 3 empty rows by default, you can change that to any other number.

3. Decide if you want to allow end-users to add rows

Allow users to add rows?

 add row...

You can allow users to add rows to the Repeating Rows column when they add/edit items. If you choose to allow users to add rows, you can also rename/translate the caption of the “add row” link that will appear below the Repeating Rows column in new/edit item forms.

4. Connect the Repeating Rows column to a target list

Select a target list

i This list will store the rows of this column.

Select a list to which you want to connect your Repeating Rows column. In our example that would be the “Expense details” list.

5. Select which columns should be displayed in the Repeating Rows column

Select columns to see in repeating rows

Date Expense type Details Cost(\$)

i Once you select a column, it will be added to the preview below.

i You can configure totals in the preview table.

Click the box to add columns from the target list (“Expense details” list in our example) to the Repeating rows column. These column will be displayed according to the order that they were

added.

6. Configure totals and preview

Configure Totals & Preview ▾

Preview:

Date	Expense type	Details	Cost(\$)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Totals function: None ▾
 Totals function: None ▾
 Totals function: None ▾
 Totals function: Sum ▾

[add row...](#)

Now you can see how the Repeating Rows column will look like (column order) by looking at the preview section at the bottom of the settings page. You can also add summary fields to selected columns. In the screenshot above you can see we have added a summary field for the Cost(\$) column, so this summary field will show the total cost for all the reported expenses. Each summary field will be also available as a Number column that can be displayed in the list views.

7. Save your settings

That’s it! Now you need to click “Update” to save your settings.

STEP 4: CHECK YOUR REPEATING ROWS COLUMN IN RUN-TIME

After you’ve created the Repeating Rows column it is time to check your configuration by simply creating a new item in your “Master” list.

In our example, we’ll create a new “Expense report” item:

Repeating Rows app EDIT LINKS

Expense Reports

Title *

Employee *

Month

Expense details			
Date *	Expense type *	Details *	Cost(\$) *
<input type="text" value=""/>	<input type="text" value="Fuel"/>	<input type="text" value=""/>	<input type="text" value=""/>
<input type="text" value=""/>	<input type="text" value="Fuel"/>	<input type="text" value=""/>	<input type="text" value=""/>
<input type="text" value=""/>	<input type="text" value="Fuel"/>	<input type="text" value=""/>	<input type="text" value=""/>

total expense: 0 [add row...](#)

[Add Row](#) | [Update totals](#)

So, now you can create/edit an expense report along with connected expense details rows. Once you click the “Save” button the Expense report item will be saved, along with the expense details rows that will be saved in the “Expense details” list in our example.

COMMENT1

Upon clicking Save, empty rows will automatically be removed before the form data is saved.

COMMENT2

You should NOT edit “Details” items directly in the “Details” list, but only by using the Repeating Rows column in the “Master” list. If you edit these items directly in the “Details” list, they summary fields will not display correctly.

One more thing for you to check, is the existence of the summary fields as new columns available for list views:

Repeating Rows app EDIT LINKS

Expense Reports

+ new item or edit this list

All Items Find an item

✓	Title	Employee	Expense details	total expense	total approved
✓	Jan's report #	Nimrod Geva	1/7/2015; 1/22/2015	74.95	1

So, you can display these summary fields in your list views just like any other column in your list.

OK, SO HOW DOES IT WORK?

This section provides some more details about the solution's structure.

A REPEATING ROWS COLUMN IS ACTUALLY A LOOKUP COLUMN

When you create a Repeating Rows column in your list, the result is actually a lookup column that connects your "Master" list to a "Details" list.

Looking at our "Expense Reports" list columns, you can see that the "Expense Details" column that displays multiple rows in the list forms, is actually a regular Lookup columns:

Column (click to edit)	Type	Required
Title	Single line of text	✓
Employee	Person or Group	✓
Month	Lookup	
Expense details	Lookup	
total expense	Number	
total approved	Number	

This enables us to link between an item in the "Master" list and its connected multiple items in the "Details" list.

But that's not all:

If you open one of the "Details" item, in our example an item in the "Expense details" list you will see a "Master Item" Lookup column:

Repeating Rows app EDIT LINKS

Expense Details

Date	1/7/2015
Expense type	Fuel
Details	drive to xcd conf.
Cost(\$)	\$35.0
Approved?	Yes
Master Item	Jan's report

This reverse Lookup column is automatically created in the “Details” list when you create the Repeating Rows column. We create it to enable you to navigate from a “Details” item to its “Master” item, or in our example: you can navigate from any expense details item to its expense report item.

A SUMMARY FIELD IS A NUMBER-TYPE COLUMN

When you configure a Repeating Rows column you can create summary fields for selected fields.

In the screenshot below you can see that we have configured a summary field below the “Cost(\$)” column:

Configure Totals & Preview ▾

Preview:

Date	Expense type	Details	Cost(\$)

Totals function: None ▾ Totals function: None ▾ Totals function: None ▾ Totals function: Sum ▾

total expense

[add row...](#)

The result of this configuration, besides the fact that users will see this summary field while they create/edit and item, is that a Number-type column is created in the list for each summary field, so you can add these summary column to your list views.

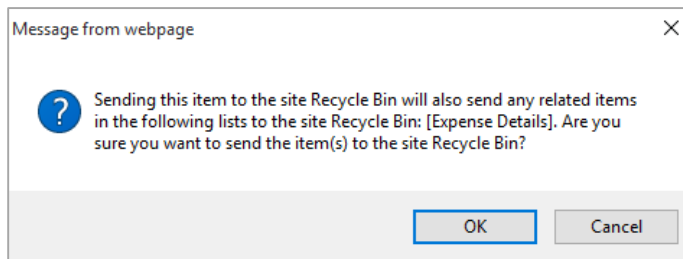
COMMENT

Summary fields are updated when you use the Repeating Rows column. If you bypass it by updating the “Details” items directly from the “Details” list, the summary fields in the “Master” item will not get updated.

WHAT HAPPENS WHEN YOU DELETE AN ITEM?

There are several cases to consider:

1. What happens when you delete a “Master” item?
 2. What happens when you delete a “Details” item in the Repeating Rows column?
- When you delete a “Master” item, you will be prompted with the following message:



Meaning: we do cascaded delete, so if you delete a “Master” item, we will delete all its connected items in the “Details” list (no point in leaving orphan items, right?)

- When you delete a “Details” item in the Repeating Rows column, it actually does not get deleted right away in the “Details” list. What happens instead is that its reverse Lookup that connects its “Master” item gets deleted, so it becomes orphan.

Why do we do it?

Because we cannot know for sure we really need to delete it until the user commits his action by saving the “Master” item form. If instead, he clicks “Cancel” after deleting a “Details” item, then we need to revert that deletion.

So, what we do is use a **remote event receiver**. That event handler will run the next time someone updates an item in the list, and will check for all orphan items in the “Details” list that need to be deleted, or need to be reconnected with their “Master items”.

So why are we telling this to you?

So you won’t be surprised to see that “Details” items that you deleted, are still there. Don’t worry, they will be deleted after several minutes, and will not appear in your forms anyway.