VIRTO SOFTWARE

**Virto SharePoint
Workflow Status Monitor
Release 3.1.11**


**User and Installation Guide**

# Table of Contents

# Virto SharePoint Workflow Status Monitor

## Overview

Virto SharePoint Workflow Status Monitor is provided to display full single list of all business processes running on the site with status information (in progress/error occurred).

SharePoint is a flexible solution that helps to organize team working and resolve lots of management tasks using adjusted business processes. Generally standard solutions include dozens of business processes related to each other, and more complex solutions include hundreds and even thousands. The administrator's task is to organize running of business processes without any failure.

A status of running business process can be tracked manually with opening each of items and business process within it. You can also display statuses of business processes as a special column in the list. However all of these features are not really appropriate since they do not allow you to see the whole picture through the site and perform batch operations with business processes (such as massive refreshing or terminating).

Virto SharePoint Workflow Status Monitor enables to display a full single list of all workflows running on the site and monitor their statuses.

## Features List

| Feature | Version |
|---|---|
| Display of all workflows running on the site | v.1.0 |
| Information about a list and an item where each workflow is running | v.1.0 |
| Quick switch to workflow's details view | v.1.0 |
| General report with statuses of running workflow (general amount, error report) | v.1.0 |
| Wrong workflows are highlighted in red | v.1.0 |
| Ability to sort by any parameters (by list, item, date or status) | v.1.0 |
| High productivity (fast processing of more than 5000 workflows) | v.1.0 |
| Workflow auto termination (based on predefined terms and conditions) | v.1.1 |
| Manual and automatic restart of terminated workflows | v. 2.0 |
| Can be used a s a separate web part on SharePoint site page | v. 2.0 |
| Ability to set maximum quantity of displayed workflows in process | v. 3.0 |
| Added new license system. Added enterprise license. | v. 3.0.1 |
| Support of workflows 2013 | v. 3.0.1 |

# System/Developer Requirements

## Operating System
Microsoft Windows Server 2003, 2008, 2012

## Server
SharePoint Release 2013:

- Microsoft Windows SharePoint Foundation 2013 or Microsoft Office SharePoint Server 2013;

- Microsoft .NET Framework 4.5;


SharePoint Release 2010:

- Microsoft Windows SharePoint Foundation 2010 or Microsoft Office SharePoint Server 2010;

- Microsoft .NET Framework 3.5;


SharePoint Release 3:

- Microsoft Windows SharePoint Services v3 or Microsoft Office SharePoint Server 2007;

- Microsoft .NET Framework 3.5;


*Note: This product is not compatible with SPS 2003 and WSS v2.*

## Browser
Microsoft Internet Explorer 7 or higher.

# Installation and Usage

This section describes how to install, upgrade, uninstall, or contact Support for the Virto SharePoint Workflow Status Monitor.

## *Expected Outage*

The expected outage time is from 2 minutes to several hours depending on your hardware and number of SharePoint sites. Though we recommend all Virto users to upgrade on a weekend.

## *Installing Virto SharePoint Workflow Status Monitor*

Before you begin, you need to make sure you have access to the server and your account must have the appropriate administrative privileges to install applications.

Virto SharePoint Workflow Status Monitor setup program provides links to the various installation components for the calendar.

To access Virto SharePoint Workflow Status Monitor Setup program download **Virto.SharePoint.WorkflowMonitor.X.X.zip** file and unzip it. Run extracted Setup.exe file.

The setup wizard window will appear.
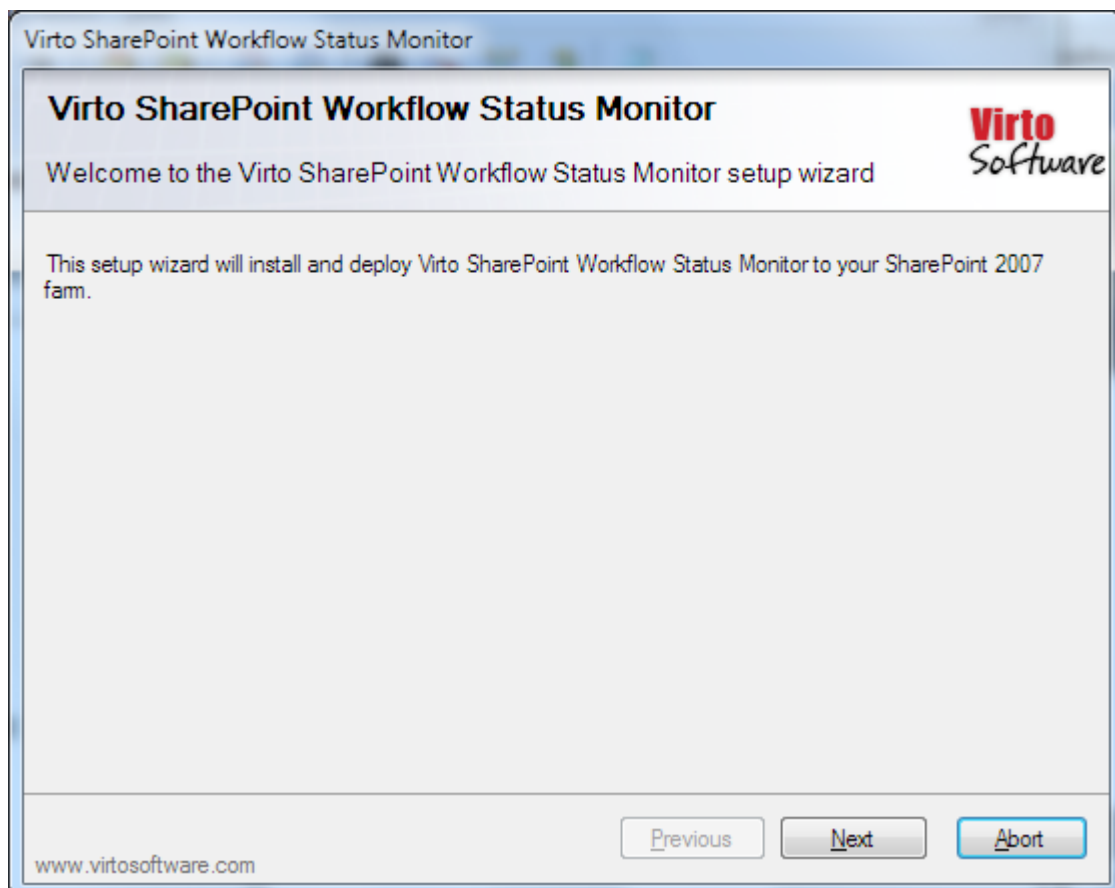
Virto SharePoint Status Monitor wizard performs a system check prior to the installation. All the system checks must be completed successfully in order to proceed with the installation. After the checks have completed, click "Next".
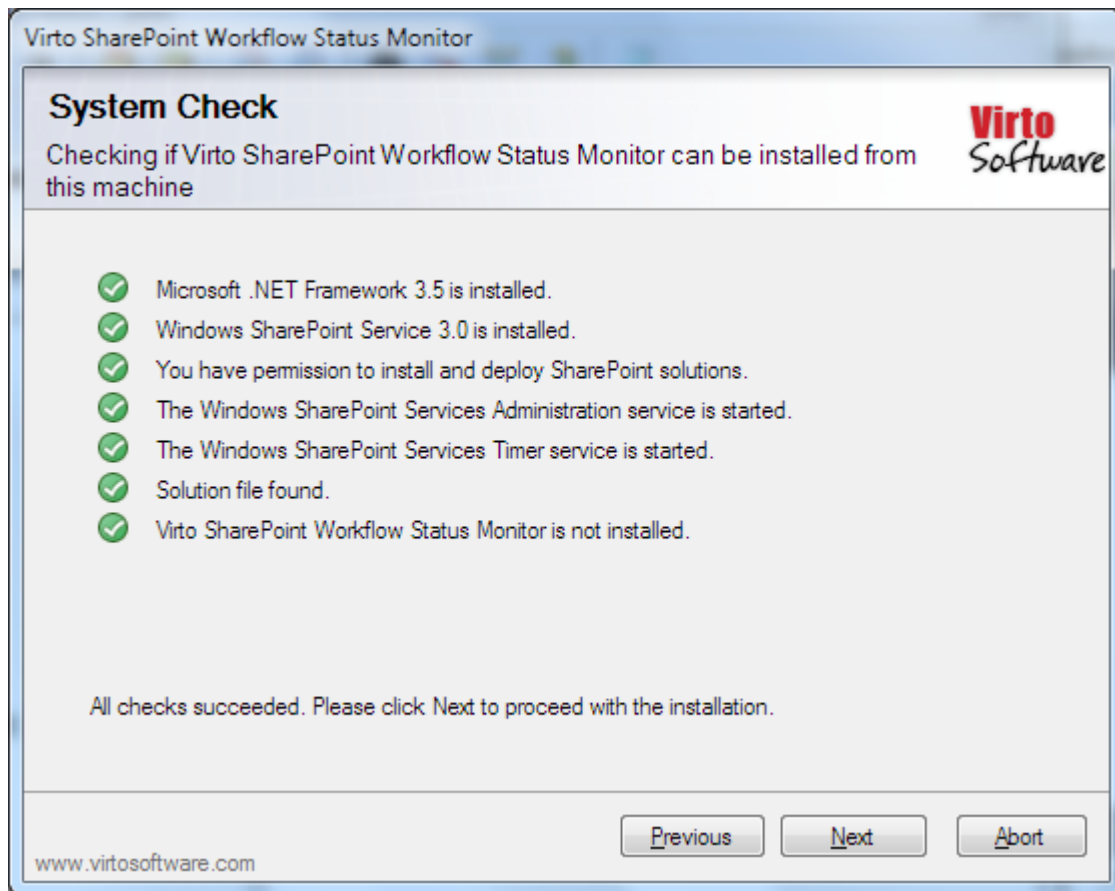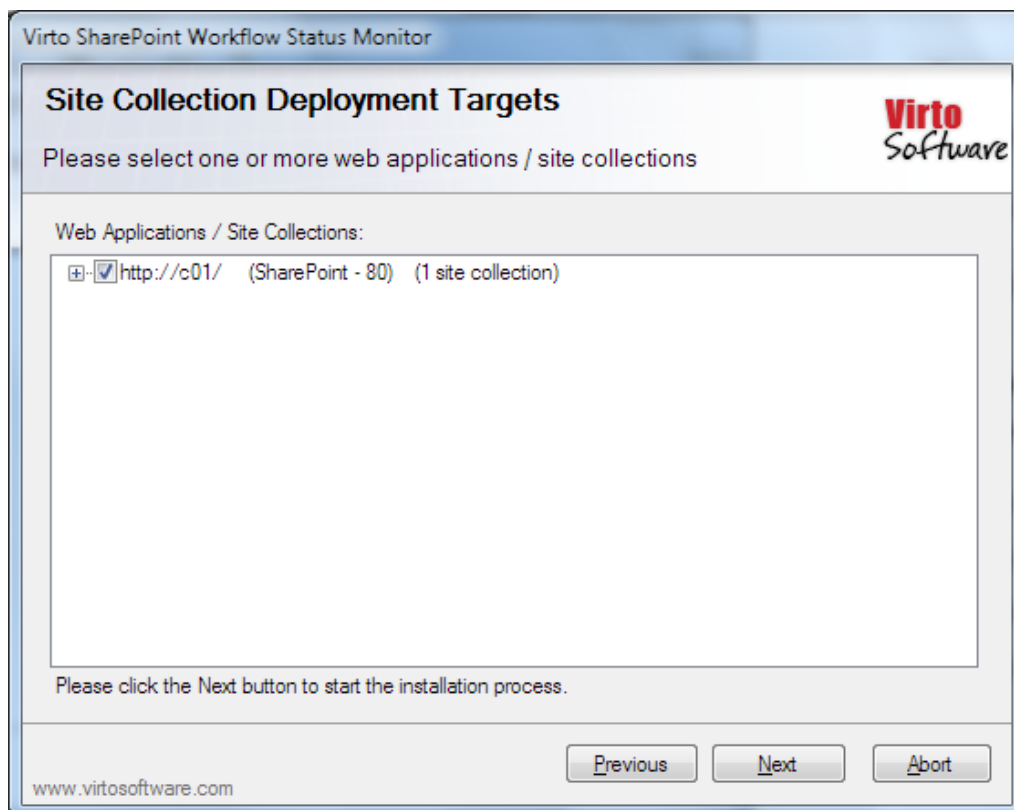


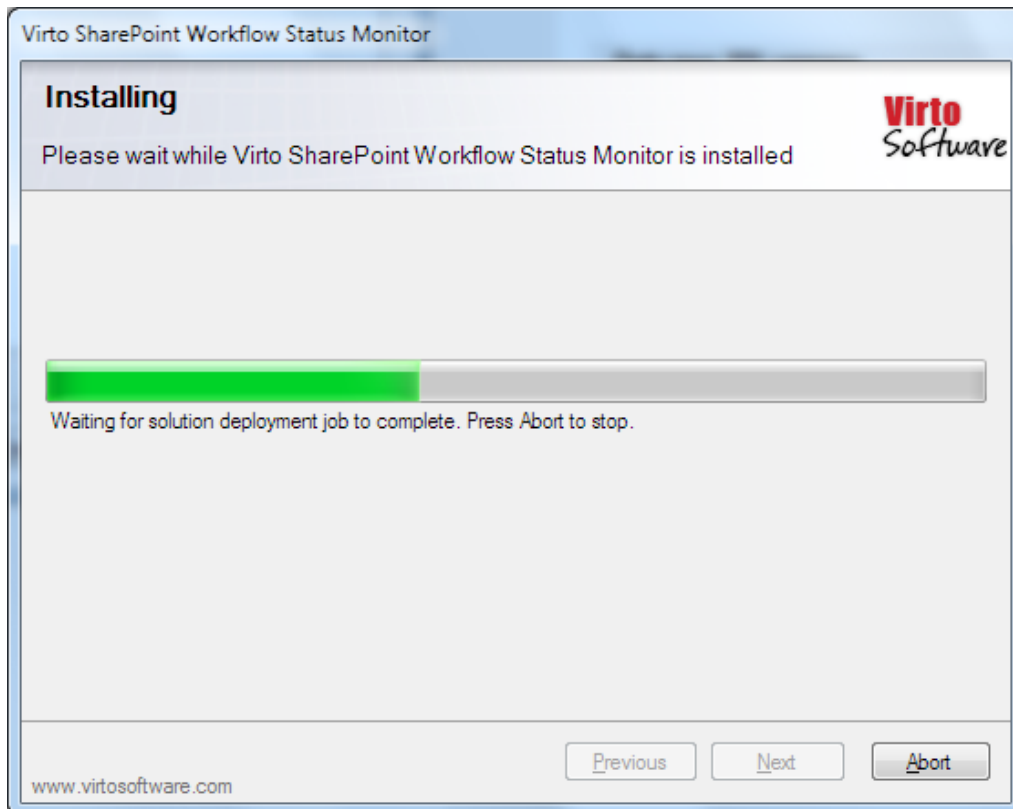Check "I accept the terms in the License Agreement" and click "Next".

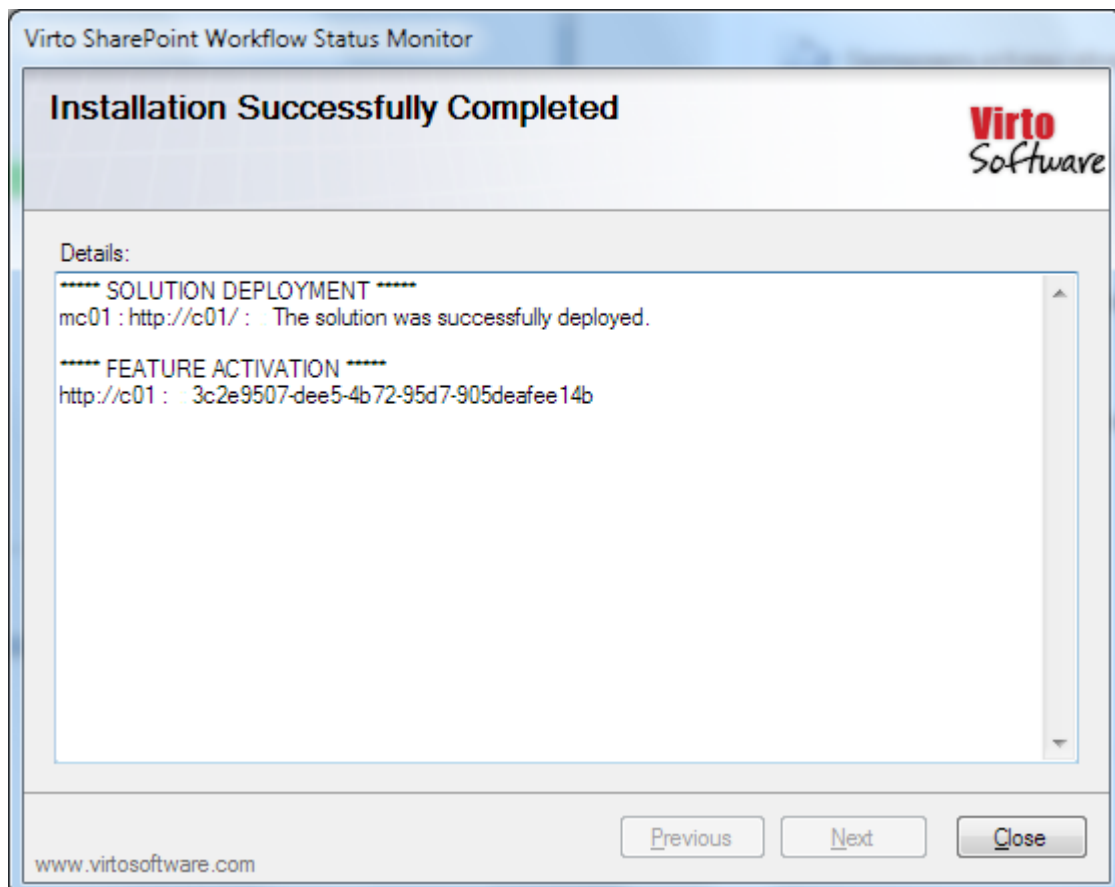Select the web application(s) where you want to install the product.

**Warning**: *You must be logged in to the SharePoint server with a Site Collection Administrator account to automatically activate this feature.*

Then click "Next".



Click "Close" to complete the installation.

*Note*: *installation process is similar for SharePoint 2007, 2010 and 2013.*

## *License Activation*

To see full instruction for successful activation of your component, please download "Virto License Manager" PDF instruction from Downloads section of our site or read it in Wiki.

## *Upgrading Virto SharePoint Workflow Status Monitor*

If you already use Virto SharePoint Workflow Status Monitor and need to upgrade it to the latest version, download the.zip file from http://www.virtosoftware.com. Unzip the file and run setup.exe as it is described in the *Installing Virto SharePoint Workflow Status Monitor* section.

On the step 3 check the box "Upgrade" and click "Next".

*Note*: *if you had activated the license while installing the previous Virto SharePoint Workflow Status Monitor version, you do not need to activate it now.*
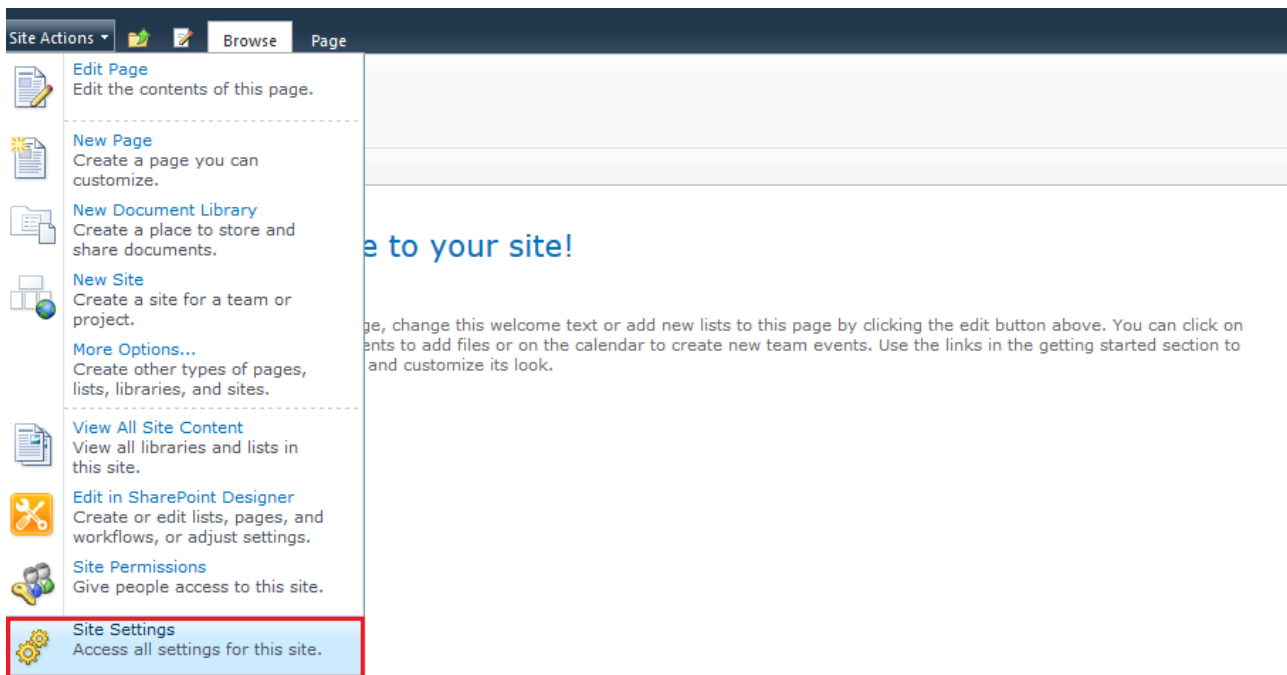
## *Uninstalling Virto SharePoint Workflow Status Monitor*

To uninstall the component:

1. Double click the Setup.exe extracted from downloaded **Virto.SharePoint.WorkflowMonitor.X.X.zip** file.
2. The program performs the system checks again. Once that has successfully completed, the program prompts you to Repair or Remove the solution. Select Remove, and click "Next".

## Viewing Worflow Information with Virto Workflow Status Monitor

Virto SharePoint Workflow Status Monitor allows you to track running business process on your SharePoint site.  Go to a required SharePoint site and find "Site Actions – Site Settings" page.

Then find "Virto SharePoint Workflow Status Monitor" link and follow it.
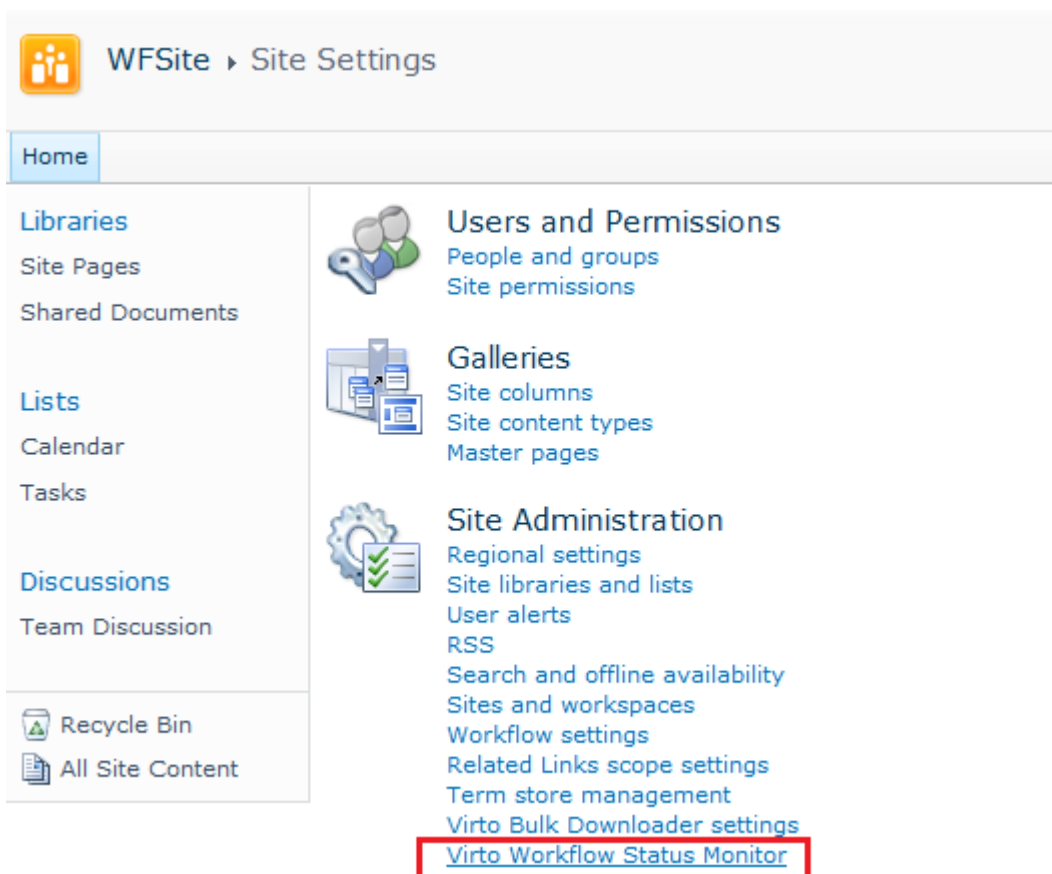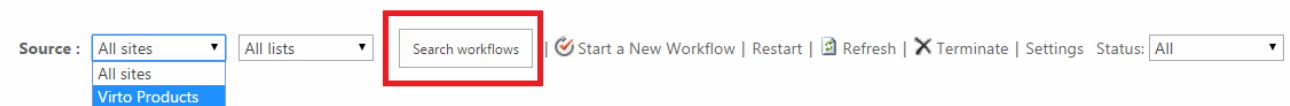


In more recent versions of SharePoint choose "Edit" on the core page, then select "Insert" button on the ribbon and add "SharePoint Workflow Status Monitor" Web Part from the list.
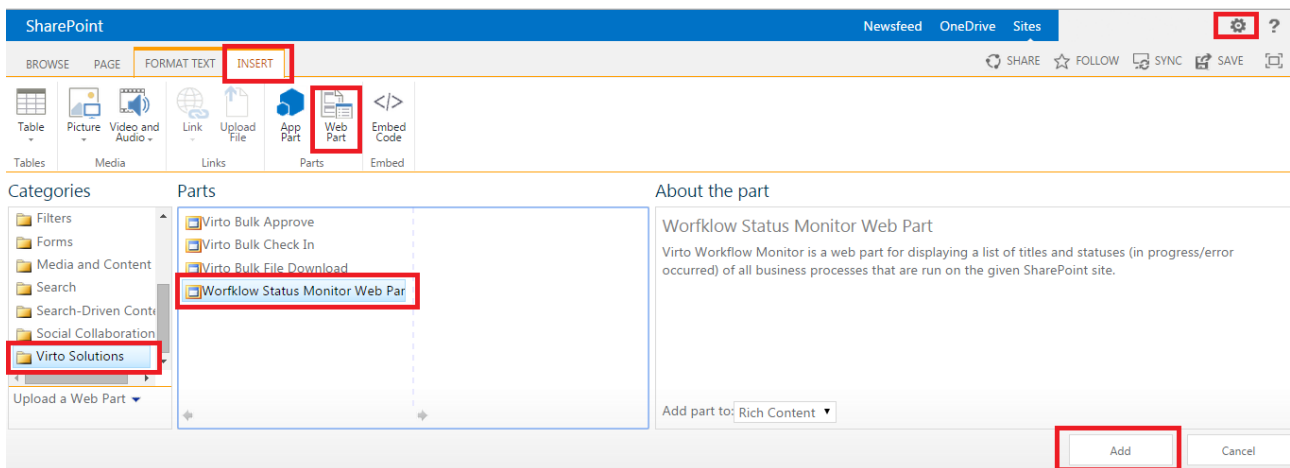
On the workflow monitor page select source (SharePoint site and list) and click "Search Workflows" to view the list of workflows. When the list is loaded, it will be displayed on the page.



1. If you open the main site, you will be able to select any subsite (or all sites) and any list on this site (or all in the list on the site).
2. If you open a subsite, you will be able select only a list or all lists (selection of a sites will be disabled, only current site will be displayed).
3. If you open the list settings page, you won't be able to select any other source of workflows.
4. If status monitor is used as a web part, the first three options are available depending on the web part settings.

Running workflows within the selected source can be in "In progress", "Error occurred", "Completed" or "Canceled" statuses.

The list includes the following fields with data:

- **Workflow** – name of a running workflow;
- **Site/List** – a site or list this workflow belongs to;
- **Item** – an item related to this workflow;
- **Status** – current state of a workflow;
- **Started** – the date when this workflow was started;
- **Initiator** – a person initiated this workflow.

Now with help of Virto SharePoint Workflow Status Monitor there is no need to find an item related to the workflow to view all of this information.

## Starting a New Workflow

To start a new workflow with Virto SharePoint Workflow Status Monitor, use "Start a New Workflow" button.



Now you have to fill out all the required fields on "Start New Workflow" page.

## Start New Workflow ⓘ

**Step 1. Select source list**
Select a list to take data from

Select list:
Documents ▼

**Step 2. Select list items**
Select items that you want to run workflow with

Select workflow for:
◉ All Items
○ Items from List view
All Documents ▼
○ Single list item
Copy List Attachments Example.docx ▼
○ Items selected by CAML query (<Where>...</Where>)

**Step 3. Select workflow**
Select workflow

Select workflow:
Send notification ▼

**Step 4. Event Data (Optional)**
Specify workflow event data

Event data:
<dfs:myFields
xmlns:xsd="http://www.w3.org/2
001/XMLSchema"
xmlns:dms="http://schemas.micr
osoft.com/office/2009/document
Management/types"

First of all select a list from which the data will be taken.

**Step 1. Select source list**
Select a list to take data from

Select list:
Tasks ▼

Then you have to select list items which this workflow will work with:

– **All items**;
– **Items from List View**;
– **Single List Item**;
– Or **Items selected by CAML query**.

**Step 2. Select list items**
Select items that you want to run workflow with

Select workflow for:
○ All Items
◉ Items from List view
All Tasks ▼
○ Single list item
T1 ▼
○ Items selected by CAML query (<Where>...</Where>)

Then select a workflow from the list of available ones.

**Step 3. Select workflow**
Select workflow

Select workflow:
Task Management ▼

Now specify event data (this feature is optional).

Step 4. Event Data (Optional)

Specify workflow event data

Event data:

```
<dfs:myFields
xmlns:xsd="http://www.w3.org/2
001/XMLSchema"
xmlns:dms="http://schemas.micr
osoft.com/office/2009/document
Management/types"
```

OK       Cancel

When you have filled out all the required fields, click "OK" to save new workflow.

Now you can view the result of running workflow.

## Terminating Running Worflows

Using Virto SharePoint Workflow Status Monitor you can terminate running workflows (for example, the ones which has errors). Just check the required workflow and click "Terminate" button. Then click "OK".

| | Workflow↑ | Site/List | Item | Item Id | Status | Started | Initiator | Workflow Version |
|---|---|---|---|---|---|---|---|---|
| ☐ | Move a document in the archive | Documents | No title | 1 | Suspended | 5/18/2015 10:58:59 AM | SHAREPOINT\system | 2013 |
| ☐ | Move a document in the archive | Documents | No title | 2 | Suspended | 5/18/2015 10:59:08 AM | SHAREPOINT\system | 2013 |
| ☑ | Move a document in the archive | Documents | No title | 3 | Terminated | 6/5/2015 4:00:06 PM | Anonymous | 2013 |
| ☑ | Move a document in the archive | Documents | No title | 3 | Terminated | 6/4/2015 4:00:05 PM | Anonymous | 2013 |
| ☑ | Move a document in the archive | Documents | No title | 3 | Terminated | 6/4/2015 6:20:04 AM | Anonymous | 2013 |
| ☐ | Move a document in the archive | Documents | No title | 3 | Suspended | 5/18/2015 10:59:04 AM | SHAREPOINT\system | 2013 |

Refresh the page using "Refresh" button.

## Restarting Terminated Worflows

You can restart terminated workflows (workflows with "Cancelled" status) manually or allow automatic restart.

Check the boxes opposite workflows you need to restart and use "Restart" button.

| | Workflow↑ | Site/List | Item | Item Id | Status | Started | Initiator | Workflow Version |
|---|---|---|---|---|---|---|---|---|
| ☐ | Move a document in the archive | Documents | No title | 1 | Suspended | 5/18/2015 10:58:59 AM | SHAREPOINT\system | 2013 |
| ☐ | Move a document in the archive | Documents | No title | 2 | Suspended | 5/18/2015 10:59:08 AM | SHAREPOINT\system | 2013 |
| ☑ | Move a document in the archive | Documents | No title | 3 | Terminated | 6/5/2015 4:00:06 PM | Anonymous | 2013 |
| ☑ | Move a document in the archive | Documents | No title | 3 | Terminated | 6/4/2015 4:00:05 PM | Anonymous | 2013 |
| ☑ | Move a document in the archive | Documents | No title | 3 | Terminated | 6/4/2015 6:20:04 AM | Anonymous | 2013 |
| ☐ | Move a document in the archive | Documents | No title | 3 | Suspended | 5/18/2015 10:59:04 AM | SHAREPOINT\system | 2013 |

To allow automatic restart, click "Settings" and check the box "Automatic restart of terminated workflows". If a workflow has "Cancelled" status, it will be automatically restarted.

# Virto Workflow Status Monitor Settings ⓘ

**Workflow Timeouts**

Use this option to terminate an error or stop responding workflows automatically. Termination of a workflow will change its status to Canceled and will delete all the tasks created by this workflow.

☐ Terminate workflow if it does not respond more than

Minutes ▼

☐ Terminate workflow if it has 'Error Occurred' state more than

Minutes ▼

☑ Automatic restart terminated workflows(only for SharePoint 2010 workflows)

**Reporting**

Use this option to create reports about workflow results. Report list

☐ Enable

Create a report every        Minutes ▼

Store report for the last        days

**Workflow Limit**

Use this option to set the maximum number of displayed workflows.

Maximum count is    1000   workflows.

OK        Cancel

**Note:** *automatic restart is available only for SharePoint 2010 workflows.*

## Workflow Settings

You can adjust Workflow Monitor according to your needs, for instance set timeouts and display parameters.

First of all you can define after what period of time a workflow must be terminated automatically. Click "Settings" block on Virto SharePoint Workflow Status Monitor page.



You will see the window with Workflow Timeout settings.

# Virto Workflow Status Monitor Settings ⓘ

**Workflow Timeouts**

Use this option to terminate an error or stop responding workflows automatically. Termination of a workflow will change its status to Canceled and will delete all the tasks created by this workflow.

☑ Terminate workflow if it does not respond more than
[30] [Minutes ▼]

☑ Terminate workflow if it has 'Error Occurred' state more than
[6] [Hours ▼]

☑ Automatic restart terminated workflows(only for SharePoint 2010 workflows)

There are two conditions that can be used for automatic terminating.

– *If a workflow does not respond for a period of time;*
– *If a workflow has "An error occurred" state for a period of time.*

Check the box opposite a required condition and enter a required period of time (minutes, hours or days). Click "OK" to save the settings.

☑ Terminate workflow if it does not respond more than
[30] [Minutes ▼]

☑ Terminate workflow if it has 'Error Occurred' state more than
[6] [Hours ▼]
  Minutes
  **Hours**
  Days

☑ Automatic res...flows(only for SharePoint 2010 workflows)

In case a workflow does not respond for the defined period of time (30 minutes in example), it will be terminated automatically. Terminated workflow will disappear from the list of workflows.

You are able to create reports about workflow results and save data in a report list.

Also you can define maximum quantity of displayed and processed workflows. Just enter required value in the field of monitor settings.

**Reporting**

Use this option to create reports about workflow results. Report list

**Workflow Limit**

Use this option to set the maximum number of displayed workflows.

☑ Enable
Create a report every [3] [Hours ▼]
Store report for the last [7] days
Maximum count is [5000] workflows.

[OK] [Cancel]

# Filtering

In case you have very large list of workflows, you can filter them by status. Just select required status in the right corner of the list. The statuses are as follows:

- **All running;**
- **All completed;**
- **All;**
- **In Progress;**
- **Error Occurred;**
- **Canceled;**
- **Completed.**



# Workflow Reports

Virto Workflow Status Monitor allows generating reports containing information about workflows' results.

Click "Settings" to open block of settings.



Check the box "Enable" in the "Reporting" block and define how often reports must be generated and how often the results must be stored.



# Working with Workflow Status Monitor as a Web Part

Starting with 2.0 version Virto Workflow Status Monitor can be used as a feature (described above) or a as a web part.

## Adding Web Part to a SharePoint Site

Go to SharePoint site where you want to add the Virto Workflow Status Monitor and open "Site Actions - Edit page". You will switch to edit mode. Click "Add a Web Part". Select Virto Workflow Status Monitor at the bottom of the list and click "Add".
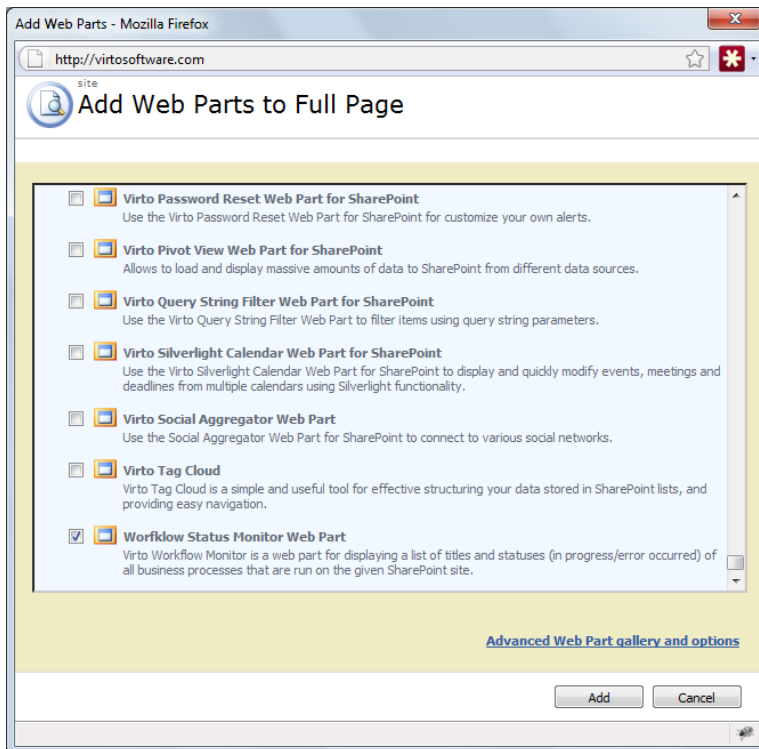


Once you have clicked "Add" button, use "Exit edit mode" button. Added web part will be displayed on page. To adjust it, go to web part settings.

In more recent versions of SharePoint choose "Edit" on the core page, then select "Insert" button on the ribbon and add "SharePoint Workflow Status Monitor" Web Part from the list.
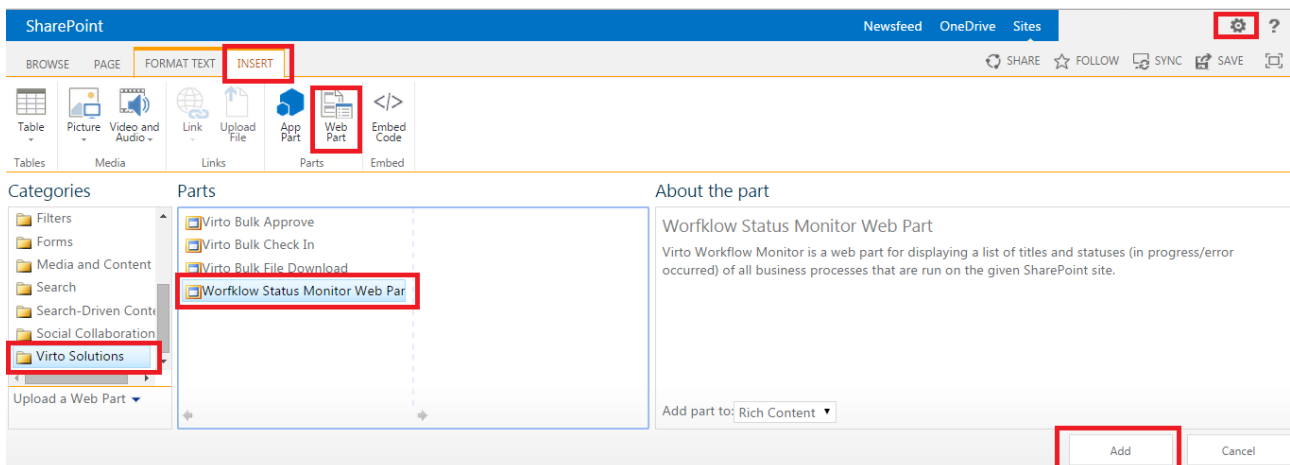


## Status Monitor Web Part Settings

Once web part is added, click "Edit Web Part". The block of web part settings will be displayed.



Define the source for Virto Workflow Status Monitor – **list**, **current site** or **site collection** and enter the title of the web part.

*Note: if Status monitor is used as a web part, you can view workflows' statistics for the whole site collection.*

Click "OK" or "Apply" to save the settings.

The list of features supported is the same as for Virto Workflow Status Monitor used as a feature (in the site settings block). See the sections above to learn how to work with Virto Workflow Status Monitor.

Workflow Statistics

| | | | |
|---|---|---|---|
| Total: | 12 | Completed: | 5 |
| In Progress: | 0 | Canceled: | 4 |
| Error Occurred: | 3 | Failed On Start: | 0 |

If an error occurs or this workflow stops responding, it can be terminated. Terminating the workflow will set its status to Canceled and will delete all tasks created by the workflow. Select items that would be terminated and press Terminate button.

Source : [All sites ▼] [All lists ▼]  [Search workflows]  | ✅ Start a New Workflow | Restart | 🔲 Refresh | ✖ Terminate | Settings        Status: [All ▼]

| Workflow↑ | Site/List | Item | Item Id | Status | Started | Initiator | Workflow Version |
|---|---|---|---|---|---|---|---|
| ☐ Move a document in the archive | Documents | No title | 1 | Suspended | 5/18/2015 10:58:59 AM | SHAREPOINT\system | 2013 |
| ☐ Move a document in the archive | Documents | No title | 2 | Suspended | 5/18/2015 10:59:08 AM | SHAREPOINT\system | 2013 |
| ☐ Move a document in the archive | Documents | No title | 3 | Terminated | 6/5/2015 4:00:06 PM | Anonymous | 2013 |
| ☐ Move a document in the archive | Documents | No title | 3 | Terminated | 6/4/2015 4:00:05 PM | Anonymous | 2013 |
| ☐ Move a document in the archive | Documents | No title | 3 | Terminated | 6/4/2015 6:20:04 AM | Anonymous | 2013 |
| ☐ Move a document in the archive | Documents | No title | 3 | Suspended | 5/18/2015 10:59:04 AM | SHAREPOINT\system | 2013 |
| ☐ Send notification | Documents | Virto License Manager.pdf | 2 | Completed | 5/18/2015 10:46:54 AM | System Account | 2010 |
| ☐ Send notification | Documents | test.txt | 3 | Completed | 5/18/2015 10:46:47 AM | System Account | 2010 |
| ☐ Send notification | Documents | Copy List Attachments Example.docx | 1 | Completed | 5/18/2015 10:46:35 AM | System Account | 2010 |
| ☐ Task Management | Tasks | T2 | 2 | Completed | 5/18/2015 10:44:26 AM | System Account | 2010 |
| ☐ Task Management | Tasks | T1 | 1 | Completed | 5/18/2015 10:44:08 AM | System Account | 2010 |
| ☐ Task Management | Tasks | T2 | 2 | Canceled | 5/18/2015 10:43:52 AM | System Account | 2010 |

## Using Virto Workflow Status Monitor with Virto jQuery Charts

Starting with 2.0 version you can use Virto Workflow Status Monitor can together with Virto jQuery Charts and adjust graph view of workflows started in the list, on the current site or site collection.

You can define reporting settings in **Virto Workflow Status Monitor** that will be stored in **Virto Workflow Monitor Report List.**

This list stores data concerning amount of workflows in **Canceled, In Progress, Error Occurred, Completed** statuses for a predefined period of time.  The column **Total** stores number of all workflows.

There are 4 views in the list: **Today, Last 3 days, Last 7 days, Last month**, that allow users to filter data by different periods of time they were created.

Data from report list can be presented in graph view with help of **Virto jQuery Chart Web Part for SharePoint.** Create new page and add Virto jQuery Chart Web Part to it.

### Sample 1 (Line Chart)

1.  When **Virto jQuery Chart Web Part for SharePoint** is added to the SharePoint site page, go to web part settings block.

2.  Select **Line** type of diagram.

3. Define labels for X and Y axes in **Axes Properties** block.

Then click **Create new data source.**

For instance, we need to create a data source to get information about workflows with "In Progress" status. Enter "In Progress" in "Data source name" field. Select "SharePoint list" as a data source and "Virto Workflow Monitor Report List" in the dropdown. Then select X axis – "Created" and Y axis – "In Progress".



Now select color for displayed line and click "Save".

Create data sources for "Completed", "Canceled", "Error Occurred" and "Total" the same way.

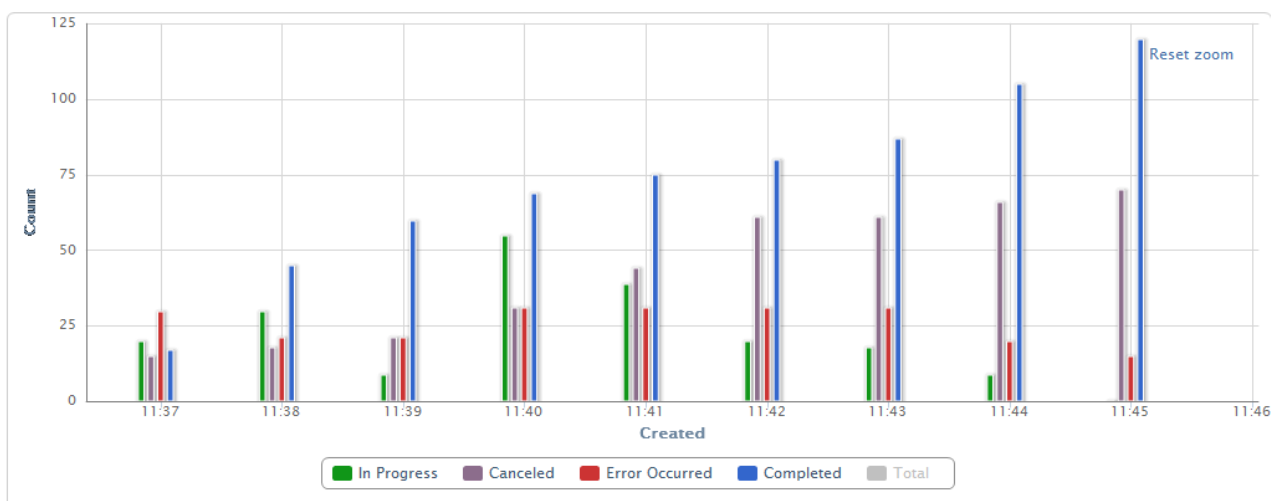**4.** Click "OK" to save all the settings. .

**The example of Chart:**
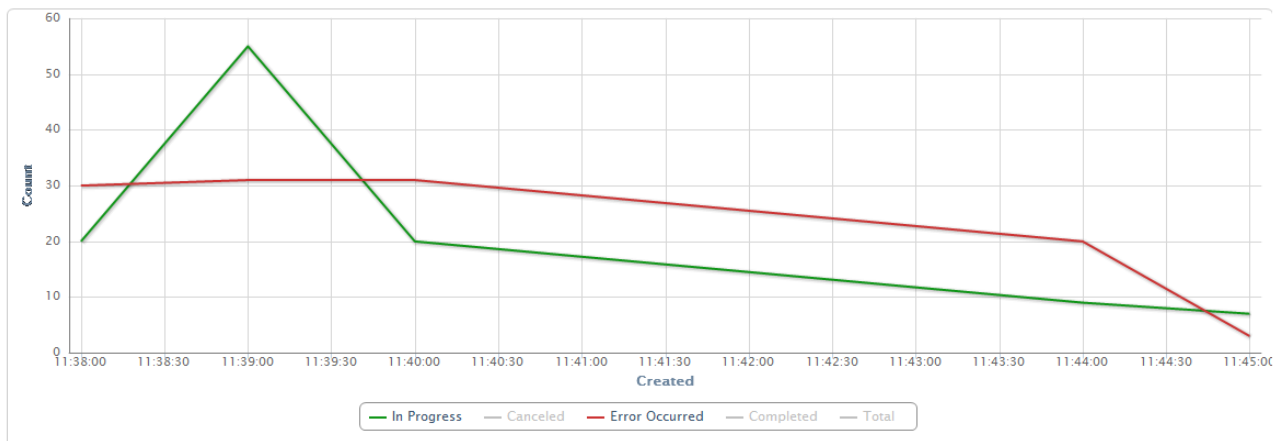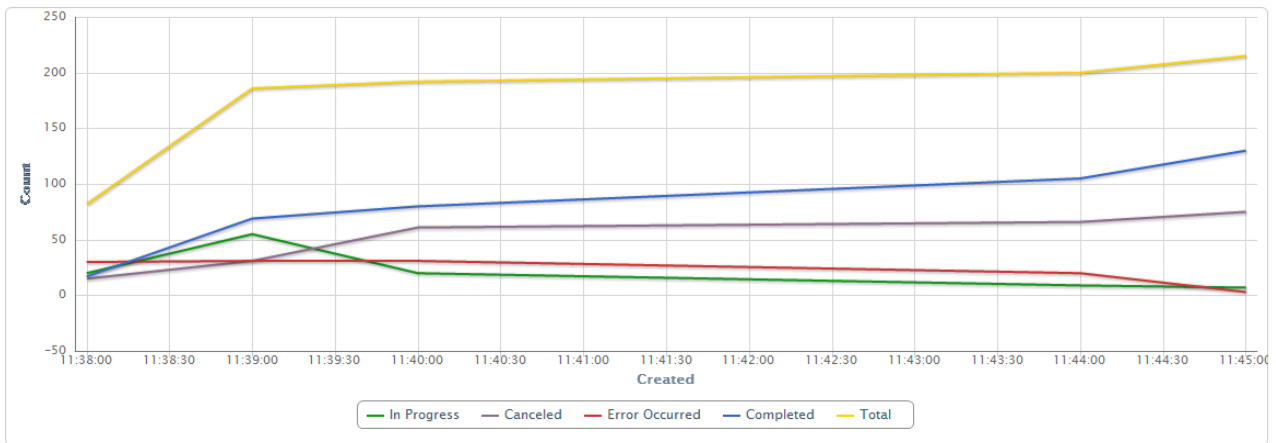
## Sample 2 (Bar Chart)

You can also create a Bar chart of report information. In order to do that you need to define the settings as described abbe and select bar type of chart.

View:

# Version Release History

| Release Date | Version | Description |
|---|---|---|
| 11/19/2020 | v. 3.1.11 | [*] The license manager has been updated. |
| 07/08/2016 | v. 3.1.4 | [-] fixed error with access to the "Start new workflow" page<br>[-] fixed error with terminating a workflow<br>[-] fixed error with restarting a workflow |
| 07/07/2016 | v. 3.1.4 | [-] has been fixed the "Null reference exception" if the workflow platform is not installed |
| 12/22/2015 | v. 3.1.4 | [-] has been fixed the termination of suspended workflows |
| 12/03/2015 | v. 3.1.3 | [-] has been fixed the search workflows 2013 on subsites |
| 10/06/2015 | v. 3.1.2 | [-] has been fixed the "Access Denied" error |
| 09/14/2015 | v. 3.1.1 | [-] has been fixed the "Null reference exception" in the WorkflowFourUtility class |
| 07/15/2015 | v. 3.1.0 | [*] New license manager |
| 06/09/2015 | v. 3.0.3 | [-] Fixed bug with the validation license on the Setting Page |
| 05/19/2015 | v. 3.0.2 | [-] Fixed the path to Web Part control |
| 07/11/2014 | v. 3.0.1 | [-] Fixed bug with data storage in a cache |
| 07/08/2014 | v. 3.0.1 | [*] Support of workflows 2013 |
| 10/02/2013 | v. 3.0.0 | [*] New license manager<br>[*] New interface of workflows<br>[+] Ability to set maximum quantity of displayed workflows in process |
| 02/22/2012 | v. 2.5.5 | [-] List of "Canceled" workflows is not complete |
| 02/02/2012 | v. 2.5.2 | [+] New filter - Failed on Start |
| 12/06/2011 | v. 2.5.1 | [-] Report list link |
| 06/30/2011 | v. 2.0.1 | [-] Fixed minor bugs |
| 04/28/2011 | v. 2.0.0 | [+] Page size option in webpart settings<br>[+] Optimization has been done<br>[+] Manual and automatic restart of terminated workflows<br>[+] Workflow Monitor web part has been added<br>[+] The list of workflow reports |
| 04/06/2011 | v. 1.8.0 | [+] New filters - All, All Running, All Completed, Completed, Canceled<br>[+] Ability to filter workflows by statuses.<br>[+] Ability to view status of workflows for selected list is added. |
| 04/14/2010 | v. 1.2.0 | [+] Start workflow for selected list items. |
| 04/09/2010 | v. 1.1.0 | [+]Workflow Timeout settings. |
| 04/05/2010 | v. 1.1.0 | First public release. |