



# SCUtils Knowledge Awareness Guide

Solution for Microsoft System Center 2012 Service Manager

---

Published: 25<sup>th</sup> November 2016

Version: 1.3

**Authors:**

Marat Kuanyshev

**Feedback:**

[support@scutils.com](mailto:support@scutils.com)

## Contents

1. Getting started.....	3
2. Compatibility.....	4
2.1. Try before buy .....	4
2.2. Feedback.....	4
3. Requirements .....	5
4. Installation .....	6
4.1. Online activation.....	6
4.2. Offline activation .....	7
5. Uninstallation.....	8
6. Configuration .....	9
6.1. Keyword.....	9
6.2. Web Content Server URL .....	9
6.3. Mail Template.....	10
6.4. Number of links .....	10
6.5. Sorting Links By.....	11
6.6. Insert Links As .....	11
6.7. Select Knowledge Article Group (optional) .....	11
6.8. Replacement Text If No Articles Found .....	11
6.9. Send an Email If No Articles Found.....	11
6.10. Is Enabled.....	11
7. How SCUtils Knowledge Awareness performs a full-text search to find knowledge articles.....	12
8. Logging, known issues and troubleshooting .....	13
8.1. How to Enable Logging .....	13

## 1. Getting started

SCUtils Knowledge Awareness is an extension for Microsoft System Center 2012 Service Manager that helps to provide the relevant self-service knowledge to end users. The solution automates the process by sending email notifications with the direct links to knowledge articles that may help the users resolve their incidents without the IT analyst's assistance.

The links to the knowledge articles are generated based on the search results of the incident's title. For example, if an end user sends an email to Service Desk with a subject "**I cannot print on Xerox Phaser 5550**", the incident is automatically created with the same title. SCUtils Knowledge Awareness workflow searches in the Service Manager knowledge base and sends an email message to the affected user with the direct links including the link to the article that explains how to install the required Xerox printer drivers.

## 2. Compatibility

SCUtils Knowledge Awareness has been designed and tested for the following versions of Microsoft System Center 2012 Service Manager:

- Microsoft System Center 2012 Service Manager;
- Microsoft System Center 2012 Service Manager SP1;
- Microsoft System Center 2012 Service Manager R2.

### 2.1. Try before buy

SCUtils Knowledge Awareness has a unified installer for trial and full versions and can be obtained on <https://www.scutils.com/> on the Download page. We highly recommend to evaluate the software in a testing lab before the implementing in the production environment.

The free 15-day trial version is fully functional and offers every feature of the product. Please become familiar with this guide before starting to use SCUtils Knowledge Awareness and do not hesitate to contact us at [support@scutils.com](mailto:support@scutils.com). You are also more than welcome to our [YouTube channel](#) where you will find videos about SCUtils Knowledge Awareness and other our products.

### 2.2. Feedback

Our team is always on the way of the improvement of our solutions. We highly appreciate every feedback from our customers. Please send us your thoughts, complains, and feature requests at [support@scutils.com](mailto:support@scutils.com).

### 3. Requirements

SCUtils Knowledge Awareness requires the Service Manager self-service portal. At the moment of this release, February 2016, two types of the SCSM self-service portal exist:

1. SharePoint-based portal that was included in the first release of System Center 2012 Service Manager;
2. HTML5-based portal that was introduced in the end of 2015 for System Center 2012 R2 Service Manager.

Starting from the release 1.1, SCUtils Knowledge Awareness supports both types.

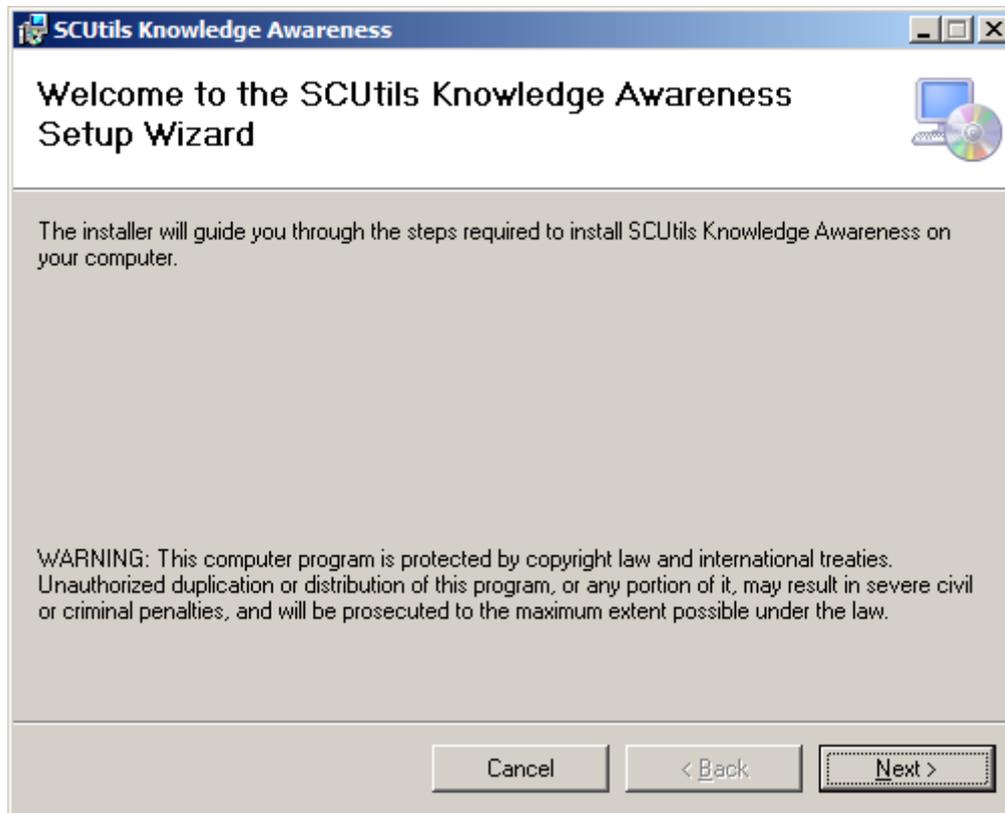
SCUtils Knowledge Awareness can be used with SCUtils Knowledge Base but only with knowledge articles with “Published” status.

## 4. Installation

Download the installation package **SCUtils Knowledge Awareness Setup.msi** from Download page of [www.scutils.com](http://www.scutils.com). Copy the installation package to the Service Manager management server (this is usually the first installed server).

**Close (!) all instances of the Service Manager console opened on this server.**

Run **SCUtils Knowledge Awareness Setup.msi** file on the server.



*Fig.1 Installing*

Follow the installation wizard steps (Fig.1). On the **Select Installation Folder** page you can change the location in which SCUtils Knowledge Awareness will be installed.

After the successful setup close the installation wizard.

After the installation you have to activate your copy of the software. There are two ways to activate the product: online (recommended) and offline.

### 4.1. Online activation

Run the Service Manager console under an administrative account on the computer connected to the Internet. Open **SCUtils Knowledge Awareness Settings** to activate the copy of the product:

1. In the Service Manager console, select **Administration**.
2. In the **Administration** pane, expand **Administration**.
3. In the **Administration** view, in the **Settings** area, click **SCUtils Knowledge Awareness Settings**.
4. In the **Tasks** pane, under **SCUtils Knowledge Awareness Settings**, click **Settings**.
5. **SCUtils Knowledge Awareness Settings** window will be opened (Fig.2).

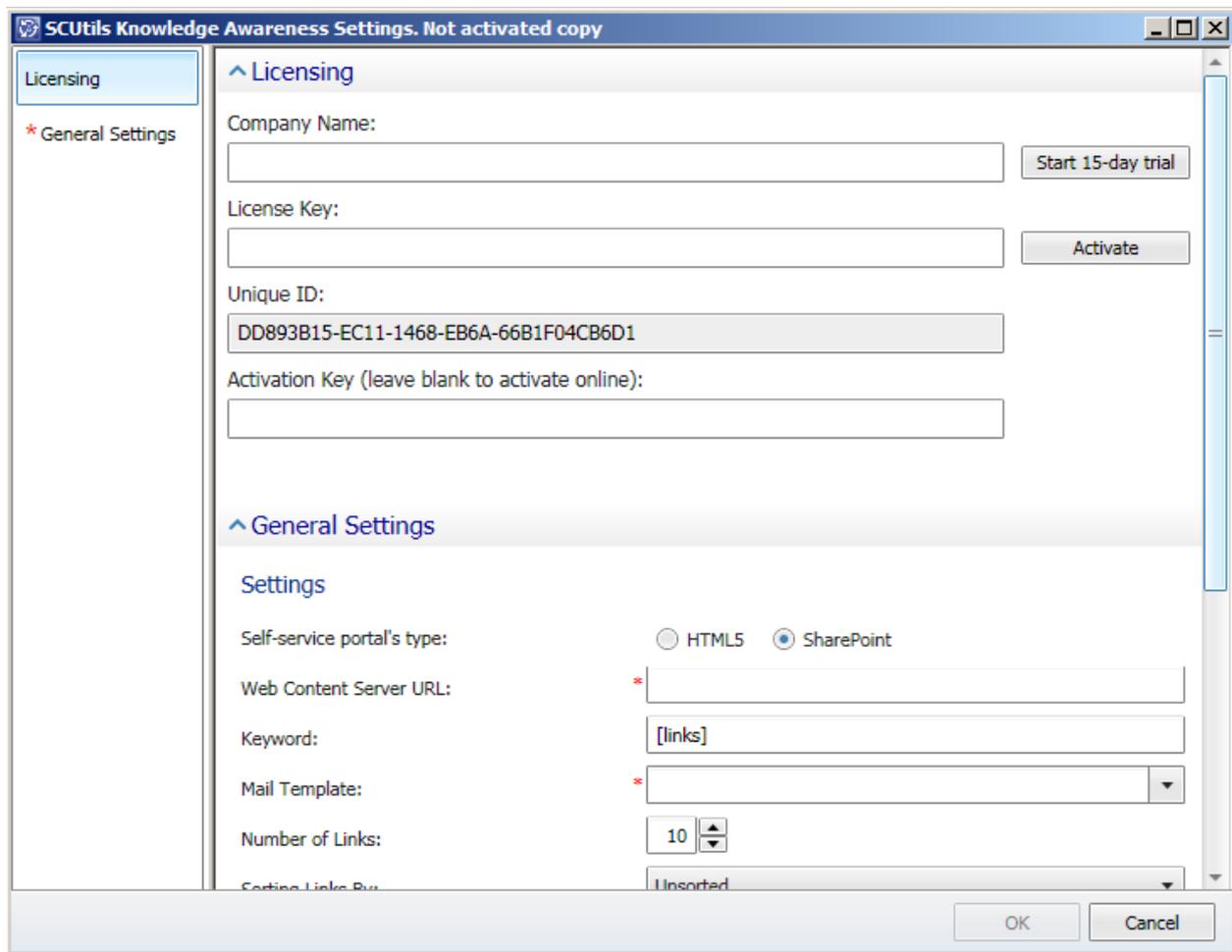


Fig.2 SCUtils Knowledge Awareness Settings

If you want to evaluate the product, click on **Start 15-day trial** button.

If you want to activate a full version, fill **Company Name** and **License Key** (exactly as in the license), then click on **Activate** button.

If you have any issues with the activation process, please send your **Unique ID** at [support@scutils.com](mailto:support@scutils.com) and we will provide you with an offline **Activation Key**.

## 4.2. Offline activation

If you prefer to activate offline or for some reasons you are not able to use the online activation, send your **Unique ID** at [support@scutils.com](mailto:support@scutils.com) and note what activation type you need (trial or full) and we will provide you with offline **Activation Key**.

After you receive the Activation Key, fill out **Company Name**, **License Key**, and **Activation Key**, then click on **Activate** button.

## 5. Uninstallation

To uninstall SCUtils Knowledge Awareness log in the Service Manager management server, make sure that all SCSM consoles closed. Open **Control Panel**, click on **Uninstall a program**, select **SCUtils Knowledge Awareness**, and click on **Uninstall**.

## 6. Configuration

Before the first use you have to revise and configure settings of **SCUtils Knowledge Awareness**.

To edit Settings:

1. In the Service Manager console, click **Administration**.
2. In the **Administration** pane, expand **Administration**, and then click **Settings**.
3. In the Settings pane, select **SCUtils Knowledge Awareness Settings**.
4. In the **Tasks** pane, under **SCUtils Knowledge Awareness Settings**, click **Properties**.

On the **General Settings** page of the wizard you find settings that define the behavior of the solution. Some settings are predefined but you can change their values if required.

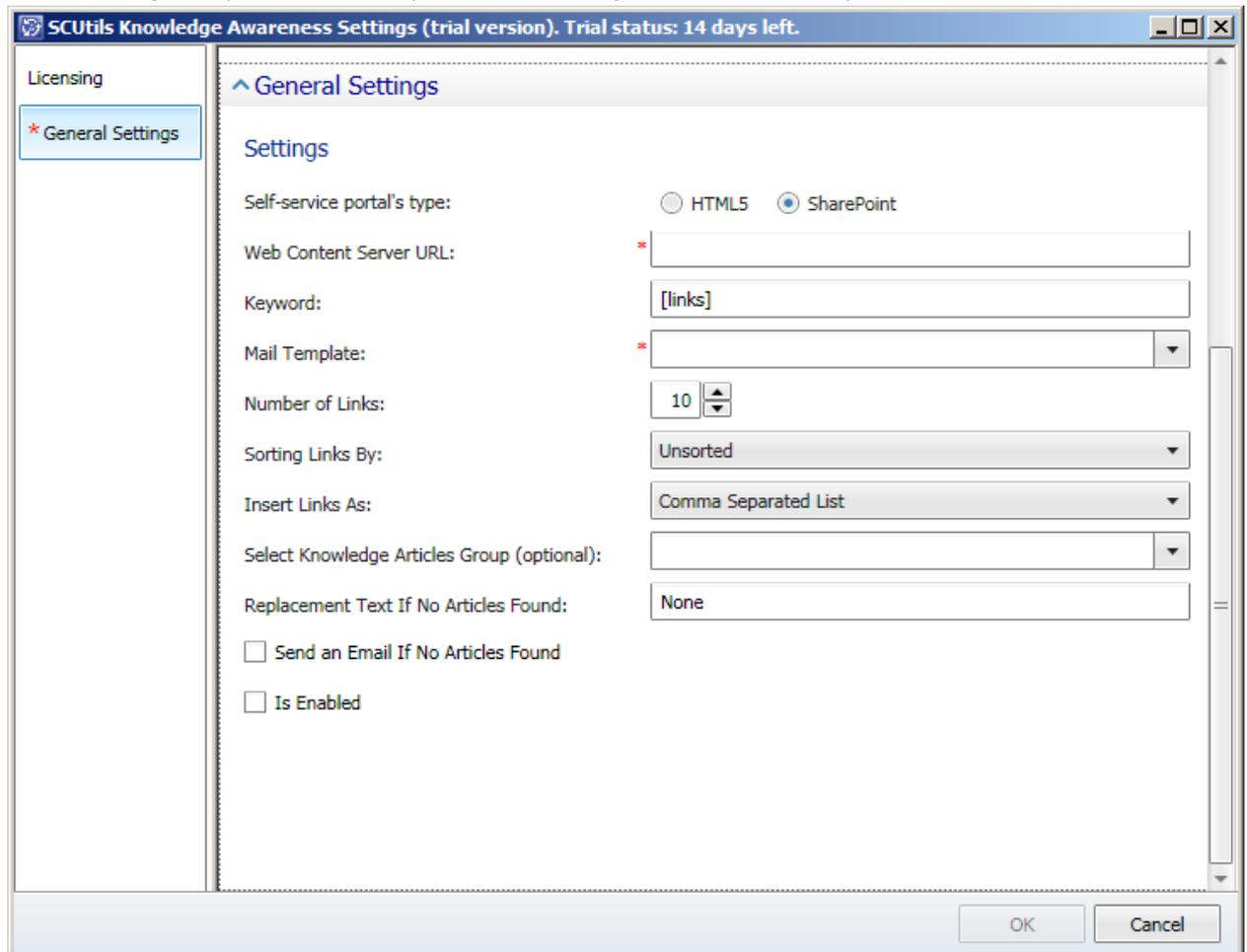


Fig. 3 Settings

### 6.1. Self-service portal's type

You have to define the type of the Service Manager self-service portal. The default value is SharePoint. Check HTML5 option if you use the HTML5 self-service portal.

### 6.2. Self-service portal URL or Web Content Server URL

Depending on the portal type you choose in the first setting, you have to define **Self-service portal URL** or **Web Content Server URL**.

#### 6.2.1. Self-service portal URL

For HTML5 self-service portal, the solution generates direct links to knowledge articles like:

<http://ssp/KnowledgeBase/article/KA645>

The link includes three parts:

1. **http://ssp** – Self-service portal URL;
2. **/KnowledgeBase/article/** – a constant part;
3. **KA645** – a variable code (a knowledge article's ID) that is unique for each knowledge article.

The **Self-service portal URL** setting defines the address of the HTML5 self-service portal.

### 6.2.2. Web Content Server URL

For SharePoint-based self-service portal, the solution generates direct links to knowledge articles like:

<http://ssp:81/ContentHost/ClientBin/KnowledgeArticleViewer.aspx?ArticleId=5DBD016B-3D1A-CCF4-40ED-19D263146376>

The link includes three parts:

4. **http://ssp2:81** – Web Content Server URL;
5. **/ContentHost/ClientBin/KnowledgeArticleViewer.aspx?ArticleId=** – a constant part;
6. **A0CE640F-9131-3CD8-3EAC-63BE8AFE348D** – a variable code (Guid) that is unique for each knowledge article.

The **Web Content Server URL** setting defines the address of Web Content Server of the self-service portal (to get more information about the Web Content Server please refer to “Deployment Guide for System Center 2012 - Service Manager” or [Microsoft TechNet Library](#)).

If you doubt what server is the Service Manager Web Content Server, check in Internet Information Services (IIS) Manager on the server for the web site named **SCSMWebContentServer**. In the IIS you can also check the used port number.

### 6.3. Keyword

The solution sends an email notification to affected users using a notification template that you have to create manually in the Service Manager console (to find out how to create a notification template please refer to the “Administrators Guide for System Center 2012- Service Manager” or [Microsoft TechNet Library](#)).

The **Keyword** setting defines a keyword that will be replaced in each occurrence in the notification template by the code with the links to knowledge articles. The default value is **[links]**.

You have to include the selected **Keyword** value in the body of the notification template.

### 6.4. Mail Template

As we stated in p.6.1 you have to create the notification template (or modify the existing one) with the specified keyword (default value is **[links]**) in the body of the template.

In the **Mail Template** setting you have to set the notification template that will be used to send a message to affected users. The template can be in HTML (recommended) or plain text format and **must include the keyword phrase** for all used language configurations.

### 6.5. Number of links

The **Number of Links** setting defines the maximum number of the links to include in the email message. The value varies from **1** to **20**.

## 6.6. Sorting Links By

The links can be sorted before including in the message. The **Sorting Links By** setting defines the method of the sorting:

1. Unsorted – no sorting;
2. Rating – descending sorting by average knowledge article's rating;
3. Created Date – sorting by knowledge article's Created Date value from newest to oldest;
4. Last Modified Date – sorting by knowledge article's Last Modified value from newest to oldest.

## 6.7. Insert Links As

The links in a HTML template are organized using a method specified by **Insert Links As** setting:

1. Comma Separated List – the links are separated with a comma;
2. Simplified List – each link is presented in a new line;
3. Numbered List – links are set as a numbered list;
4. Bulleted List – links are set as a bulleted list;
5. Circle Bulleted List – links are set as a circle bulleted list;
6. Square Bulleted List – links are set as a square bulleted list.

If the notification template is in a plain text format, all above mentioned options will be ignored and each link will be formatted in new line as the knowledge article's title and link text separated by a space.

## 6.8. Select Knowledge Article Group (optional)

By default, the solution looks for knowledge articles with **Published** status. You can define your own area of the search in your own group of knowledge articles. If you create a Service Manager group that includes the knowledge articles and select this group in **Select Knowledge Article Group (optional)** setting, the solution will generate the link only for the knowledge articles from that group.

Please note that the default self-service portal shows on the Help Articles page **only Published** articles. Using a direct link the affected user can open a knowledge article with **ANY** status if you define this setting. It might be an unwanted behavior but you can filter **non Published articles** in the group settings.

Clear the setting field if you want to return to the default behavior.

## 6.9. Replacement Text If No Articles Found

If no articles found, the keyword will be replaced with the value of **Replacement Text If No Articles Found** setting. You can empty the field and the keyword will be simply erased from the body of the notification message.

## 6.10. Send an Email If No Articles Found

**Send an Email If No Articles Found** settings defines the behavior when no articles are found. It might be useful to send a notification with no links if this notification is used as a first mail communication after the ticket has been registered.

## 6.11. Is Enabled

The **Is Enabled** setting enables or disables the notification.

## 7. How SCUtils Knowledge Awareness performs a full-text search to find knowledge articles

The solution uses the following logic to find knowledge articles related to the registered incidents:

1. The solution engine takes the title of the incident and query a database using a full-text search with **AND** condition. For instance, for the title '**My notebook keeps freezing**' the search line will be - "**My**" AND "**notebook**" AND "**keeps**" AND "**freezing**". The SQL full-text will ignore Stop Words like "my", "its", "is", etc. and try to find the articles that contain all the meaningful words from the search line among the knowledge articles keywords, then titles, then end user contents.
2. If the search has returned some articles, the engine sorts the article list if required, then drop the knowledge articles above the specified limit and send the notification.  
If the search request hasn't found any article, the engine tries to query the database with **OR** condition. For instance, for the above mentioned title the search line will be - "**My**" OR "**notebook**" OR "**keeps**" OR "**freezing**". For **OR** condition it is enough to find at least one meaningful word.
  - a. The first query with **OR** condition will be executed among the knowledge article's **keywords**. If the search request returns at least one result, the engine will stop searching and then send the notification.
  - b. If no article is found, the second full-text query will be performed among the knowledge article's **titles**. If the search request returns at least one result, the engine will stop searching and then send the notification.
  - c. And finally, if no article is found among the titles, the last query will be executed among the knowledge article's **end user contents**. If the search request returns at least one result, the engine will stop searching and then send the notification.  
If no article is found, the engine will complete the search and sends/does not send the notification depending on the **Send an Email If No Articles Found** setting.

## 8. Logging, known issues and troubleshooting

Here we describe the known issues. If you haven't found a solution in this section, please contact us at [support@scutils.com](mailto:support@scutils.com).

### 8.1. How to Enable Logging

When the SCUtils Knowledge Awareness workflow runs it is logging events in the Operations Manager event log. The source of these event is **SCUtils Knowledge Awareness**. In the installation folder (default path is *C:\Program Files\SCUtils\SCUtils Knowledge Awareness*) you can find a registry file named **SCUtils Knowledge Awareness Registry settings.reg**. After running it and adding the required folder and key in the registry (path **HKEY\_LOCAL\_MACHINE\SOFTWARE\SCUtils\SCUtils Knowledge Awareness**) you can edit the value of **LoggingLevel** that defines the level of the logging. By default, the connector logs only error events into the Operations Manager event log. You could set the **LoggingLevel** value from 1 (lowest level) to 4 (highest level).

If the registry value does not exist, the default logging level is set to 1 (only errors logging).