

# AE METROGRID WEBPART

Introduction & Usage



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## WEB PART DESCRIPTION

The SharePoint 2010/2013 "Metro Grid" web part displays links in Metro Tile Grid format.

Like Windows 8? Love the new Metro Grid (or whatever they are calling it now)? Then this is your lucky day! Introducing the new SharePoint Metro Grid web part. A flexible SharePoint web part that provides click-able links in the shape of rectangular tiles.

Super easy to configure and customize, just add the web part to a page and click "Add link" to get started.

All interaction is AJAXed provided by jQuery and jQuery UI plugins.

Inspired by the new Windows 8 UI and also the SharePoint 2013 Team Site template, this modern tile style is catching on and is a great way to present linked content.

It comes with over 200 icons or use your own images.

## WEB PART FEATURES

- Packaged as a SharePoint Sandbox Solution, can be installed as a farm solution or sandbox solution on premise or in the cloud.
- Compatible with SharePoint 2010 (including Foundation), SharePoint 2013 (on premises), and SharePoint Online.
- Packaged as a Site Collection Feature.
- Slick jQuery Ajax interaction, including dragging and sorting (using jQuery UI).
- Over 200 metro-style icons included. You can also use your own custom images as tile backgrounds.
- jQuery modal dialog window for adding, editing, deleting metro grid tiles, makes user experience very responsive and fast.
- Metro Grid tiles are resizable, default is 150px (via web part properties, all tiles will use this as width/height).
- 30 day trial period. Purchase a license for continued use. Support contract available too.
- List based permissions: grid tiles are saved in a list, the web part uses the current user's permissions to access the items.
- Everything is customizable! All components of web part are available for customization: source files saved in a root web site library (CSS, JavaScript), tile list items are saved in root web custom list (created at feature activation), and tile images are saved in root web custom picture library (created and filled at feature activation).
- Use your own tile images by changing which image library the web part uses (Web Part Properties, Picture List Name); alternative picture list must exist in root web of site collection.
- Anonymous sites supported.

## INSTALLATION

### SOLUTION INSTALLATION

Install the solution WSP as either a Farm Solution (in Central Administration) or as a Sandbox Solution (in Site Collection Settings). This web part was designed to be a Sandbox Solution, but can also be installed as a farm solution. There is no difference in features/usability if deployed as a farm solution over a sandbox solution.

### FARM SOLUTION INSTRUCTIONS:

1. Using STSADM or PowerShell, add the solution to the farm.

```
STSADM.EXE -o addsolution -filename "AEMetroGrid.wsp"
```

2. Using STSADM, PowerShell or Central Administration, deploy the solution.

*Recommend to manually deploy the solution using Central Administration web pages, instead of using STSADM or PowerShell, since it's easier to target the web applications.*

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## SANDBOX SOLUTION INSTRUCTIONS:

1. Open the Site Collection that you want to add the web part.
2. Open Site Settings (must be a site admin or owner to do this).
3. Open the Solution Gallery.
4. Add the MetroGrid Sandbox Solution (WSP File) to the gallery.
5. Active the solution.

## FEATURE ACTIVATION

Once the WSP has been deployed a feature will be added to the Site Collection. Open the Site Collection where deployed, open Site Settings, open Site Collection Features (under Site Collection Administration), and activate the feature named “AEMetroGridWebPart”.

## WEB PART USAGE

The Site Collection feature must be activated in each site collection where the web part will be used. Sometimes there is confusion about what is a Site Collection, versus what is a Site or Web. A Site Collection contains one or more “Sites” (aka “Webs”). You can’t browse to a Site Collection, but instead browse to the root Site (Web) of the Site Collection. The names “site” and “web” are synonymous and can be used interchangeably. In the SharePoint Object Model API, “site” usually refers to “site collection” and web usually refers to a single “site”. A “site” is a collection of “webs” and is not a thing that is actually hosted/browsed.

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## EXAMPLES:

<http://localhost>: Usually the first Site Collection created in a new SharePoint Web Application. This Site Collection contains a root site (web) which is what is navigated when opened in a browser. You would activate the MetroGridWebPart site collection feature here.

<http://localhost/sites/HR>: Later, another Site Collection can be added. This is a separate site collection than <http://localhost> and therefore needs the MetroGridWebPart site collection feature activated again.

<http://localhost/subsite1>: This is a site (web) or sub-site (sub-web) created inside the <http://localhost> site collection. Its parent web (or root web) is <http://localhost>. If the MetroGridWebPart site collection feature is already activated in <http://localhost>, then it does NOT need to be activated again.

<http://localhost/sites/HR/subsite1>: This is a site (web) or sub-site (sub-web) created inside <http://localhost/sites/HR>. Its parent web (or root web) is <http://localhost/sites/HR>. If the MetroGridWebPart site collection feature is already activated in <http://localhost/sites/HR>, then it does NOT need to be activated again.

**TIP:** *New site collections are usually created in Central Administration. Some thought is used to determine storage capacity, content database location, quotas, templates, permissions, etc. New sites (webs) are created while browsing/managing existing sites (webs), and are created in almost the same way that new Document Libraries and Lists are created.*

## LICENSING

The product is available as a 30 day trial or per front-end server license. You can download and install the web part and evaluate for 30 days before a license is needed for continued usage. After 30 days you will be prompted to license the product. Each license is valid for each front-end server in your SharePoint Farm. The web part can then be used as many times as needed on each front-end server. You can enter the license key in two ways:

1. Enter license key in each Metro Grid Web Part property:



2. For on premise deployments you can optionally enter the license key in a **web.config** file. This is the preferred method if you will be using the web part in many locations, so that you can enter the key once and be done.
  - o You will enter the license key in an “appSetting” configuration section in the web.config file:  

```
<appSettings><add key="AEMG" value="MY_LICENSE_KEY_VALUE" /></appSettings>
```
  - o For Farm Solutions, use web.config here: **C:\inetpub\wwwroot\wss\VirtualDirectories\YOURSITE\web.config**
  - o For Sandbox Solutions, use web.config here: **C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\UserCode\web.config**

## UPGRADING FROM FREE VERSION TO PAID VERSION

The Metro Grid web part was previously released as a separate free solution for both Farm and Sandbox deployments. This free solution is no longer offered or supported by AMREIN. The paid version offers many bug fixes, new features, list based storage and permissions, and better browser compatibility.

If you are upgrading from the free version to the paid version, unfortunately there is no direct approach. The first reason is they are two separate SharePoint solutions that could exist side-by-side in a farm. This means that the web parts are completely different products that cannot be “upgraded” as usual. The second reason is that the free version saved the tile information in the site collection property bag. The paid version saves the tile information in a List in the root site of the site collection.

The recommended approach to upgrade from the free version to the paid version is to document your current tile configuration and then completely uninstall the free Metro Grid version from your farm. This should include the following steps in order:

1. Delete all Metro Grid web parts in use on all pages in your farm.
2. Deactivate the Metro Grid site collection feature(s) in all site collections in your farm.
3. Retract and then delete the Metro Grid web part using Central Administration, STSADM, or PowerShell.
4. (Alternatively, if you installed the free Sandbox solution and installed it as a sandbox solution in a site collection, then just deactivate and delete it after step #2.)

The following tool was created to assist in upgrading from the free version to the paid version. It will find all saved Metro Grid tile data in your entire farm when run from the Central Administration server (farm admin should run the program, and farm admin account will need at least read permissions on all site collections where web part was installed). You still need to remove the existing version completely, but this can be used to document the current tile information (labels, description, urls, colors, etc).

<https://metrogridupdatetool.codeplex.com>

## WEB PART PERMISSIONS

### GENERAL PERMISSIONS

The Web Part uses list based permissions. Tiles are saved in a list (created on Site Collection Feature Activation) named “AEMetroGridItems”. Other lists can be used, but by default this is the list that is used to save the tiles. Therefore, the user will

have the same permissions that the list has configured. List item creator? Then you can add tiles. List Item editor? Then you can edit tiles. This permits very granular permissions to be configured.

NOTE: You can set permissions on each item for general viewing and security trimming, but for users to be able to add/edit/delete the user must have those permissions set at the list level. For instance, if you would like only certain users to see list item #1 (a specific tile), then this is OK. But, you cannot designate a user to be able to administer (edit/delete) this specific tile.


ROOT SITE PERMISSIONS

The Web Part uses resources located in the root web of the site collection. This includes all CSS, JavaScript, images, and also the location of the tile list and image list. This architecture cannot be changed. Therefore, if you plan on using the web part in sub-sites (sites under the root site in a site collection), then the user must have read access (at a minimum) to the root web and its contents. Specifically, the “AEMetroGridAssets” list, the tile list “AEMetroGridItems”, and the image list “AEMetroGridPicLib”.

SOLUTION CONTENTS

FEATURE

The package includes a single Site Collection Feature. This needs to be activated to add the Metro Grid Web Part to any page in the site (or sub-site).

**AEMetroGridWebPart**

Amrein Engineering Metro Grid Web Part Site Collection feature (sandbox solution). On activation will create site columns, a content type, a custom list (for grid tiles), and a picture list (for grid images) in root site of site collection. Root web of site collection "SiteAssets" list is used to hold all web part custom resources (js, css, etc).

Deactivate

Active

SITE COLUMNS

When the Feature is activated, the following new Site Columns are created (the new Site Content Type uses them).

Site Column	Type
<b>AEMetroGridSiteCols</b>	
mgcolor	Single line of text
mgdescr	Single line of text
mgfliptextcolor	Number
mgimgbg	Single line of text
mgimgbgalt	Single line of text
mgimgsize	Number
mglabelpos	Number
mgnewwin	Number
mgpos	Number
mgtilespan	Number
mgurl	Single line of text
mgwpid	Single line of text

SITE CONTENT TYPE

When the Feature is activated, the following new Site Content Type is created. The Metro Grid Web Part is designed to read its “tiles” (list items) from any list that has this content type added. By default the Web Part uses the list “AEMetroGridItems” which is created on feature activation.

Site Content Type	Parent
<b>AEMetroGridContentTypes</b>	
<a href="#">AEMetroGridContentType</a>	Item

## SITE COLLECTION ROOT SITE LISTS

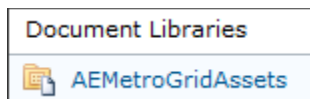
The following lists are created when the Feature is activated. These lists are created in the root web of the site collection. “AEMetroGridItems” is a custom list that uses the “AEMetroGridContentType”. “AEMetroGridPicLib” is a picture library that contains the default images.



## WEB PART RESOURCES

When the Feature is activated a new library is created in the root web of the site collection, “AEMetroGridAssets”. This library contains the JavaScript and CSS files used by the Web Part. These can be customized to change the user experience.

**WARNING:** Changes to the JavaScript files may break the web part. It is recommended to back-up the files before changes are made.



## WEB PART USAGE

### METRO GRID WEB PART

This is what it looks like when added to a new page. Click the “Add link” hyperlink to get started. You must have “add items” permission on the tile list to see this link.



## ADDING A TILE

After clicking the “Add link” hyperlink, a modal/dialog window will appear. Use this to quickly configure and add your tile.

Description of fields:

- Size slider: use this to change the image size (this uses CSS3 background-size property, which may not be compatible with your browser). Sizes are 32, 48, 64, 80, 96, 112 (in pixels, 112 is default size).
- Image slider: use this to select which image to use in the tile. The images found in the Metro Grid Image Library (configured in web part properties, by default is “AEMetroGridPicLib”) will be preloaded and select-able.

- Color slider: use this to select which background color the tile will use. The style class names are hard coded; however, you can override the style colors in CSS to match your own color scheme. Color CSS class names are: sky, watermelon, raspberry, marine, lime, pineapple, apple, teal, apricot, wood, plum, cottoncandy, sunset, grape, cloudy, licorice, alpine.
- Alt Image Url: enter a URL to any image that will be used as the background image for the tile. You can still select a background color for the tile. It is recommended to use images that use transparency.
- Label: the tile title/label, required.
- Url: when the tile is clicked, this is the URL used, required.
- Description: when the mouse hovers the tile, this is the text that is displayed, required.
- Label Alignment: this is the location that the tile label/title will be displayed: bottom left is default.
- Tile Span: You can make your tile wider by changing this value. The tile can span 1 or more tile widths. Example: The default tile width is 150px (configured in Web Part Properties). The default padding between tiles is 8px. Changing the "tile span" to 2 will make the tile  $150*2+8*1=308$  pixels wide. Changing to 3 will make the tile  $150*3+8*2=466$  pixels wide...
- Open in New Window: option to have the URL opened in a new window instead of current window.
- Flip text color: adds a CSS class to the tile title, to change the color from white to black. The colors can be overridden using CSS. This is useful if you use a custom tile image that has a light background. The default white text will be invisible, so you can check this box to change the text color to black.

Size

<<  >>


Image

<<  >>

Color

<<  >>

Image Preview:



Alt Image Url:

Clear

Label:

Url: (must be a valid url)

Description:

Label Alignment:

☐ ☐ ☐  
☐ ☐ ☐  
☒ ☐ ☐

Tile Span (1 or more):

☐ Open In New Window

☐ Flip text color (from light to dark)



Size

<<

>>

Image

<<


>>

Color

<<

>>

Image Preview:



Alt Image Url:

Clear

Label:

Darth

Url: (must be a valid url)

/

Description:

I am your father.

Label Alignment:

☐
☐
☐

☐
☐
☐

☐
☐
☒


Tile Span (1 or more):

2


☐ Open In New Window

☐ Flip text color (from light to dark)

AEMetroGridWebPart




Fett



Darth

Add link

Updated...

Image Preview:


Alt Image Url:

Label:

Url: (must be a valid url)

Description:

Label Alignment:

☐ ☐ ☐

☐ ☐ ☐


☒ ☐ ☐

Tile Span (1 or more):

☐ Open In New Window


☒ Flip text color (from light to dark)

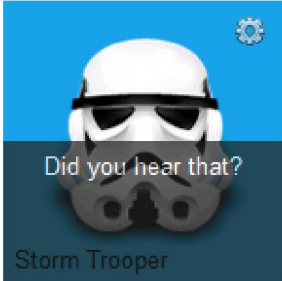
AEMetroGridWebPart



Fett

Darth





Did you hear that?

Storm Trooper

Add link

## TILES SAVED TO LIST

The tiles are saved to the tile list, located in the root web of the site collection. Any list that uses the AEMetroGridContentType can be used as the tile list. However, the list must be located in the root site of the site collection.


AEMetroGridItems ▸ All Items ▾						
<input type="checkbox"/>		Title	mgcolor	mgimgbg	mgimgbgalt	mgdesc
<input type="checkbox"/>		<b>Fett</b> NEW	watermellon	/sites/AEMetroGrid4/Lists /AEMetroGridPicLib /gs_starwars_0Boba Fett.png		/ Intergalactic Bounty Hunter
<input type="checkbox"/>		<b>Darth</b> NEW	apple	/sites/AEMetroGrid4/Lists /AEMetroGridPicLib /gs_starwars_2DarthVader.png		/ I am your father.
<input type="checkbox"/>		<b>Storm Trooper</b> NEW	sky	/sites/AEMetroGrid4/Lists /AEMetroGridPicLib /gs_starwars_1clone-old.png		/ Did you hear that?
<input type="checkbox"/>		<b>R2</b> NEW	teal		<a href="https://cdn1.iconfinder.com/data/icons/starwars/icons/128/R2-D2.png">https://cdn1.iconfinder.com /data/icons/starwars/icons /128/R2-D2.png</a>	/ Beep boop beep!
Add new item						

## USING ALT IMAGE URL

Enter an image URL into the “Alt Image Url” field to automatically load and display the image. This image will be positioned in the center of the tile as a background image. The size cannot be changed using the dialog window. The background color can still be used. The image should use transparency.

Color <<  >>

Image Preview:



Alt Image Url:

Clear

Label:

Url: (must be a valid url)

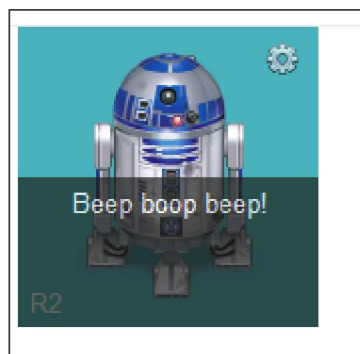
Description:

Label Alignment:

☐ ☐ ☐  
☐ ☐ ☐  
☒ ☐ ☐

Tile Span (1 or more):

☐ Open In New Window  
☐ Flip text color (from light to dark)



## WEB PART PROPERTIES

The Metro Grid Web Part also uses standard SharePoint Web Part Properties. These settings apply to all the tiles in the web part and the web part itself.

- License Key: enter your Amrein Engineering product license key after you have evaluated the web part.
- Grid Square Width: the default height/width of each tile in the web part. The default size is 150px, but this can be changed to make smaller or larger tiles. You can use this in combination with the “tile span” field in each tile to make the tile a wide rectangle instead of a square.
- Grid Square Padding: this is the space between each tile, default is 8px right and bottom. All tiles will share this padding.
- Web Part Id: Use this to change which list items the web part will load from the Metro Grid item list. You can clone and move web parts with this feature.

- List Name: Name of the list where the metro grid list items are saved. If field is empty, then the default list is used, AEMetroGridItems. Can be changed to another list in the root site, as long as that list uses the Metro Grid content type.
- Picture List Name: Name of the list where the icons are located. If field is empty, then the default list is used, AEMetroGridPicLib. Can be changed to another list in the root site. All pictures found will be available in slider (recursive search).
- Extra Css Url: Specify a Url to a CSS file, which can be used to customize the look and feel of the Metro Grid tiles.
- Extra Css Inline: Enter inline CSS here, which can be used to customize the look and feel of the Metro Grid tiles.

AEMetroGridWebPart

MetroGrid Settings

License Key: [\[?\]](#)

Grid Square Width: [\[?\]](#)

Grid Square Padding: [\[?\]](#)

Web Part Id: [\[?\]](#)

List Name: [\[?\]](#)

Picture List Name: [\[?\]](#)

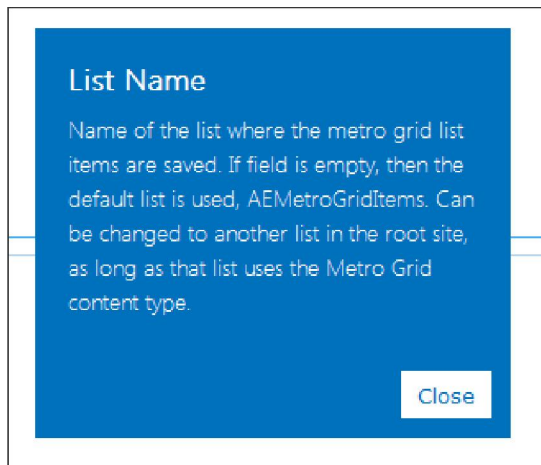
Extra Css Url: [\[?\]](#)

Extra Css Inline: [\[?\]](#)

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MetroGrid Web Part v2.2 ([Details..](#))  
30 day Evaluation period: 24 days left.

## WEB PART PROPERTY TIPS

Click on the “[?]” next to each web part property custom setting to get a description of what it does.

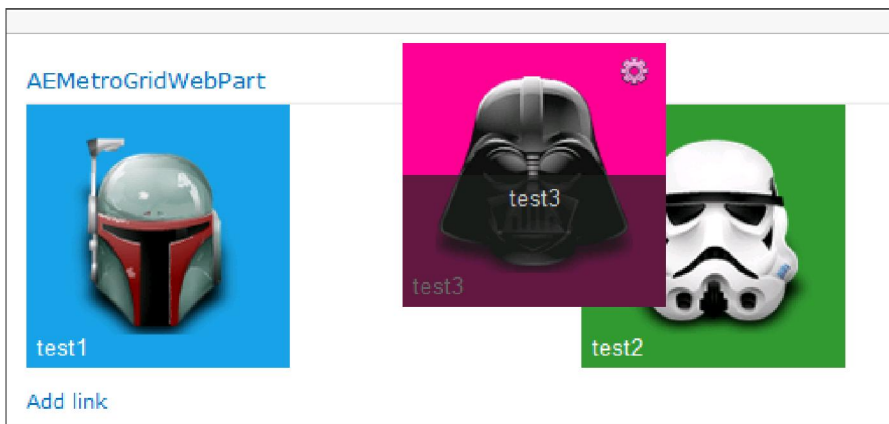


## ADVANCED TIPS

### DRAGGING/SORTING TILES

You can use your mouse and drag/drop the tiles to sort them in the web part. This requires “edit list item” permission on the tile list since it updates the list item when dropped. You can quickly rearrange your tiles using this feature.

Here, a tile is being dragged from right to left and will be dropped in the middle.



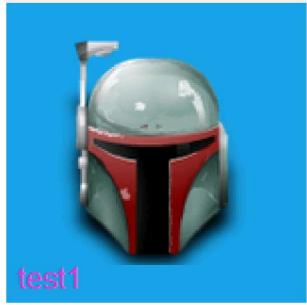
### CHANGING CSS DEFAULTS

Use the Metro Grid Web Part Properties to change the default CSS. You can either add inline CSS directly into the properties window or use a CSS file and link it using the “Extra CSS Url” field.

In this example I created a separate CSS file in my site, and added the URL to the web part properties.

It changed the tile label/title color to pink.

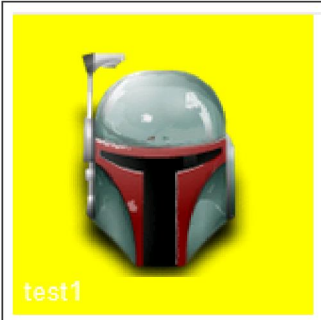
```
ul.metro_sortable li a,  
ul.metro_sortable li a:link,  
ul.metro_sortable li a:visited,  
ul.metro_sortable li a:active  
{  
    color: #FF33CC;  
    font-size: 15px;  
}
```



## CHANGING TILE COLORS

Here I can change the background color of the “sky” color to be yellow. The name of the class remains “sky”, but the color used in the web part and modal/dialog editor changes.

```
ul.metro_sortable .sky, .mg_sky { background-color: yellow; }
```



## MOVING/CLONING WEB PART

Every time a tile is created it is saved to the tile list in the root web of the site collection (in either the default list or a custom list specified by the user in web part properties). When it is added to the list the web part ID saved in the Web Part Properties is used to associate the list item to the correct web part, since all the tiles are saved in the same list. The web part properties “web part id” field uses the default web part ID which is a long GUID-like string.

If you want to clone or move a web part to another page in your site collection, then change the web part ID in the Metro Grid Web Part properties to match the web part ID saved in the tile list “mgwpid” field.


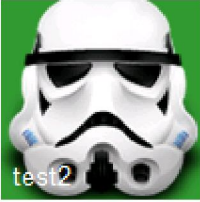



## CHANGING GRID SQUARE SIZE

You can change the tile grid square size in the web part properties. By default it is 150px. All the tiles use this size as its width/height. (You can make rectangular tiles by changing the “tile span” field.)

### SMALL TILES:


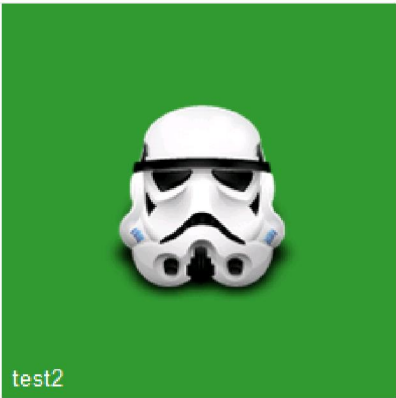
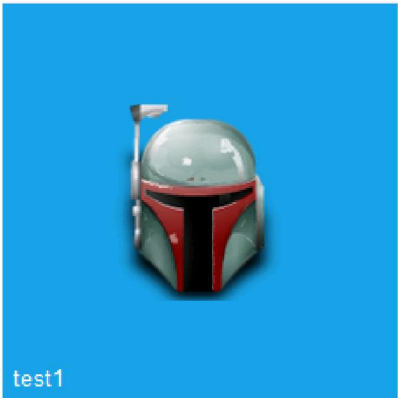
[AEMetroGridWebPart](#)



[Add link](#)

### LARGE TILES:

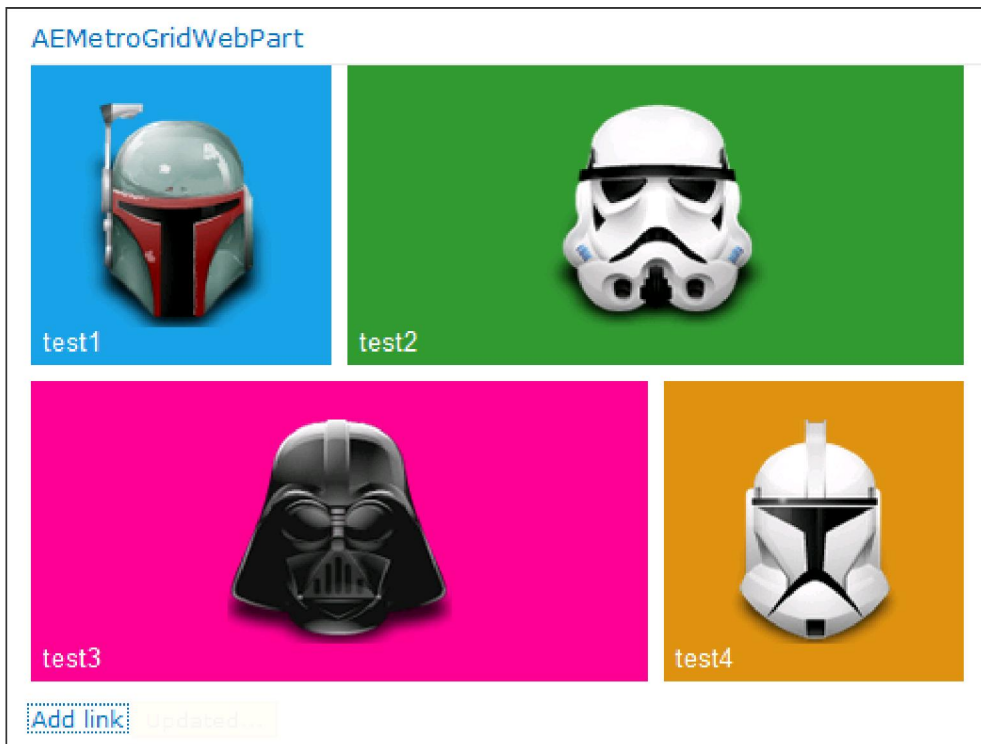
[AEMetroGridWebPart](#)



[Add link](#)

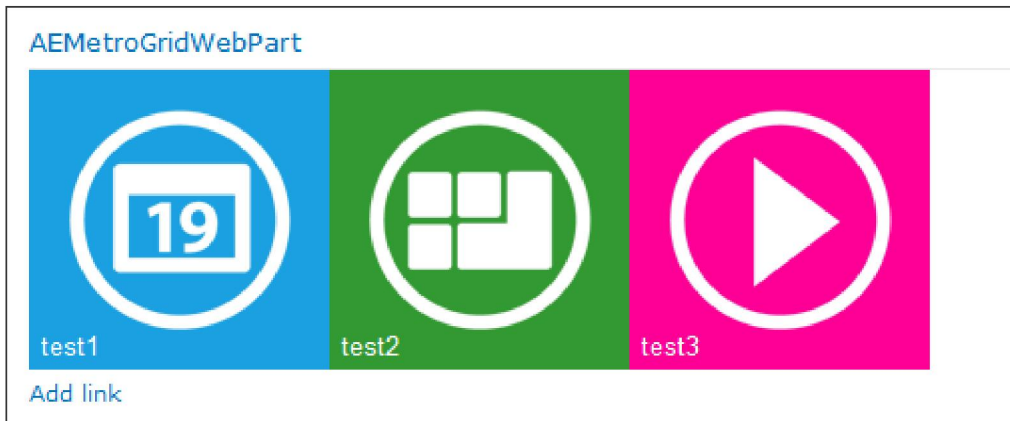
## CHANGING GRID SQUARE DIMENSIONS (SPAN)

You can make a tile span more than one tile square by using the “tile span” field.



## CHANGING GRID SQUARE PADDING

You can change the padding between tiles, which is 8px by default. For example, this is what it looks like when setting the padding to 0px.



## CHANGING WEB PART SIZE

You can edit the Web Part Properties and change the out-of-box SharePoint Web Part width property to control the Metro Grid Web Part tile wrapping. Each tile is essentially a floating “<li>” HTML element. It will wrap to its parent container.

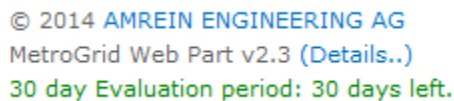
## ADDING MORE THAN ONE WEB PART INSTANCE TO A PAGE

A recent release has enabled the SharePoint Metro Grid Web Part to be added to a page more than once. The web parts will be in read-only mode, but can be managed much like SharePoint List Views, where the actual web parts being rendered are on other pages. This is possible by using the “cloning” technique described above, copying and pasting the web part IDs found in the Metro Grid web part properties. For a full explanation and demonstration, see the following YouTube video:

<http://youtu.be/gyG9-547Tqk>

## VERSIONS AND CHANGE LOG

The Metro Grid web part was previously released as a free product, but has since been converted into a paid solution. The paid solution is a completely new product (unique SharePoint Solution). With this change the version number changed from 1.x to 2.x. You can find the Metro Grid web part version number by editing the web part properties, as shown below:



© 2014 AMREIN ENGINEERING AG  
MetroGrid Web Part v2.3 (Details..)  
30 day Evaluation period: 30 days left.

## CHANGE LOG:

- 2.0:
  - New paid product version number.
- 2.1:
  - Missing Type="GhostableInLibrary" in modules, so Resources folder and picture folder were filled but not visible in SP list.
- 2.2:
  - Many changes to make web part work when added more than once to page (but only in read only mode).
  - Changed location of MetroGridResources, moved from Site Assets to dedicated new list (publishing sites built on publishing portal template don't have Site Assets library by default)
  - Replaced ExecuteOrDelayUntilScriptLoaded with SP.SOD.executeFunc, in SP2013 the sp.js is not loaded by default on published pages.
  - Added new web part property to change grid square padding/margin (space between tiles).
  - Fixed "null" titles, prevent spaces from being valid user input for labels, descriptions, and urls.
- 2.3:
  - When web part is on page more than once, custom grid square width wasn't applying, fixed.
  - Hiding the web part tips markup by default using inline style since web part CSS wasn't loading when first added to page.
- 2.4:
  - Fixed IE8 compatibly issue, tiles use background-size CSS3 attribute to resize the thumbnails, but this is not supported in early version of IE. Instead, when this early browser version is detected, some JavaScript DOM manipulation code is run that removes the incompatible CSS and replaces using div and img elements.
  - Updated JavaScript code to replace improper usage or “replace()” functions.
  - Added web.config license key checking. See “Licensing” section for more information.
  - Added support for public anonymous SharePoint sites. SharePoint Client Object Model does not support function “getItems” when user is not logged in. So, if the web part detects that you are not logged in it will use a CodePlex project called SPServices to read the tiles.
  - Fixed sortable and settings icon permissions issue. Previously only site admins could sort the tiles or click on the “gear” settings icon on each tile.
  - Added transparent gif (5x5 pixels), added button to tile edit form "use transparent gif" which sets the alt bg img to this gif. Use this button if you don't want the tile to have a background image.

## GALLERY

### SAMPLE 1



#### WEB PART PROPERTIES:

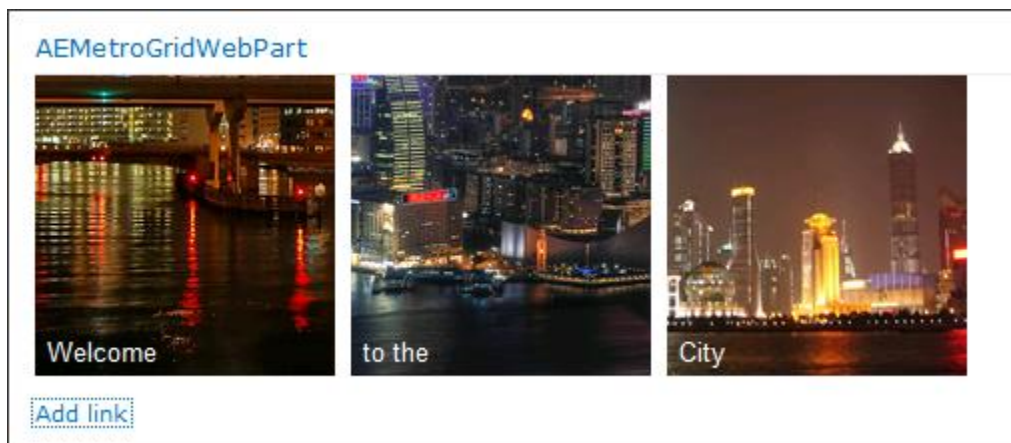
---

1. Grid Square Width: 80
2. Appearance: Width: 350 pixels

#### TILES:

---

1. Tile Span: 3
2. Alt Image Url: [static url to social media icon]
  - a. Example: <http://www.iconsdb.com/icons/preview/white/twitter-3-xl.png>



Using alternative image URLs, everything else default.



Using alternative image URLs, setting Web Part Properties web part width to 500 pixels (to ensure tiles wrap after 3 are displayed), changing tile link location (top row only).

The image was a single large image, using an image editor it was split into 6 separate images. 6 tiles were created, each tile using one of the split images.