

The Kentico Portal engine allows you to create dynamic web pages without any programming. With the Portal engine, you do not need to use Visual Studio or any other web development tool. Instead, you create reusable page templates directly in your web browser.

Every page on a Kentico website, with the exception of pages based on [content only](#) page types, is based on a **page template**. Page templates consist of a layout and instances of web parts. The system stores portal engine page templates in the database.

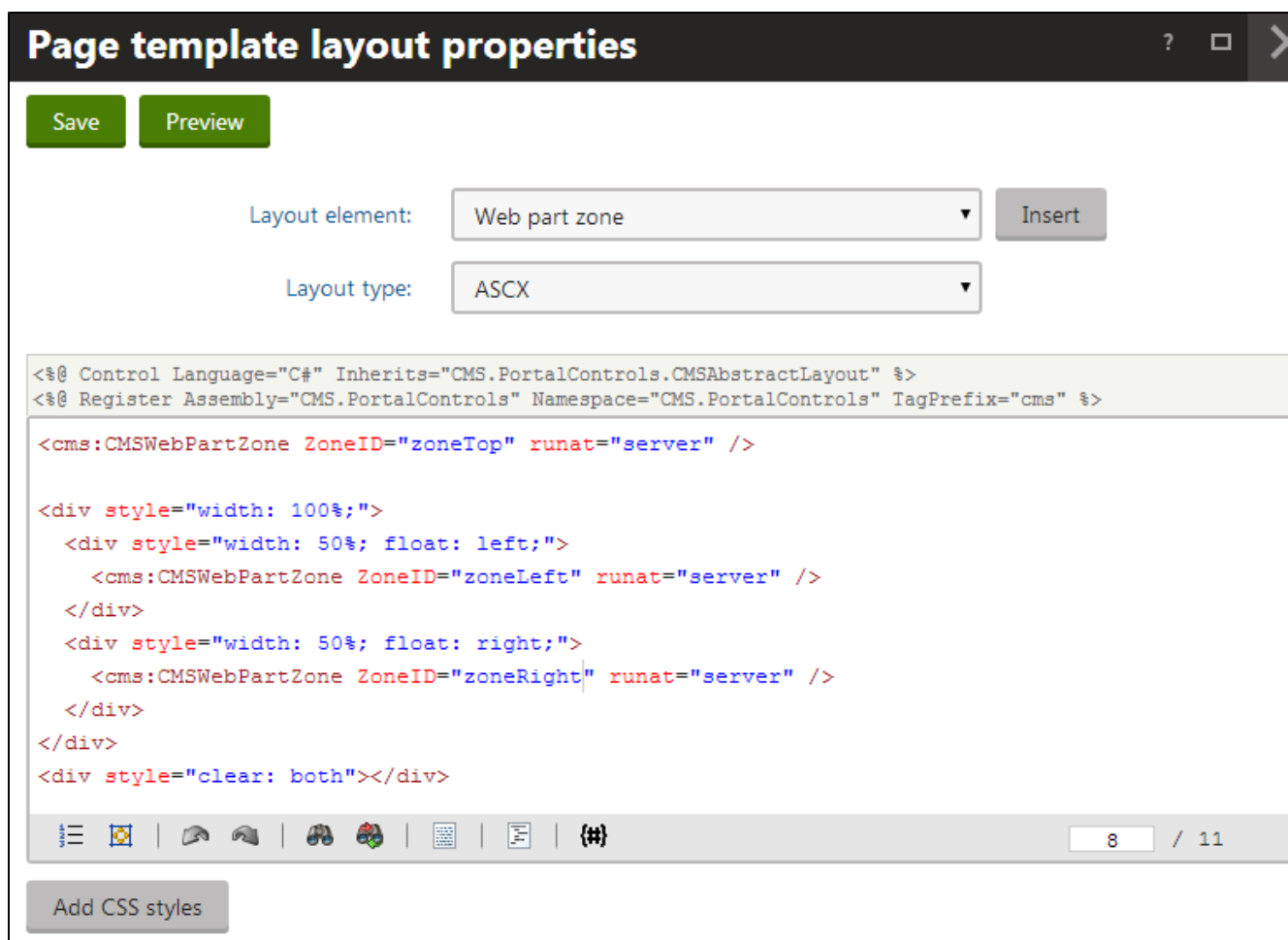
The structure of each page template is determined by its **page layout**, which you can either define through full ASCX markup or standard HTML code. The code allows you to set up any layout that you require for your pages. Portal engine page layouts need to contain special markup tags that define **web part zones** — areas where developers place web parts. Each web part zone can contain any number of web part instances.

**Web parts** (called "servlet", "portlet" or "module" in other solutions) are components that display some type of content or provide background functionality. From a technical point of view, web parts are standard [ASP.NET user controls](#) with a predefined portal engine interface.

The following figures show the components of a sample page — the page layout, web part zones and web parts on the page template, and the output in various view modes.

## The page layout of the template

The following image shows the layout code of a page template that defines three sections: top, left and right. Each section contains a `CMSWebPartZone` tag representing a web part zone.



**Page template layout properties**

Save Preview

Layout element: Web part zone Insert

Layout type: ASCX

```
<%@ Control Language="C#" Inherits="CMS.PortalControls.CMSAbstractLayout" %>
<%@ Register Assembly="CMS.PortalControls" Namespace="CMS.PortalControls" TagPrefix="cms" %>

<cms:CMSWebPartZone ZoneID="zoneTop" runat="server" />

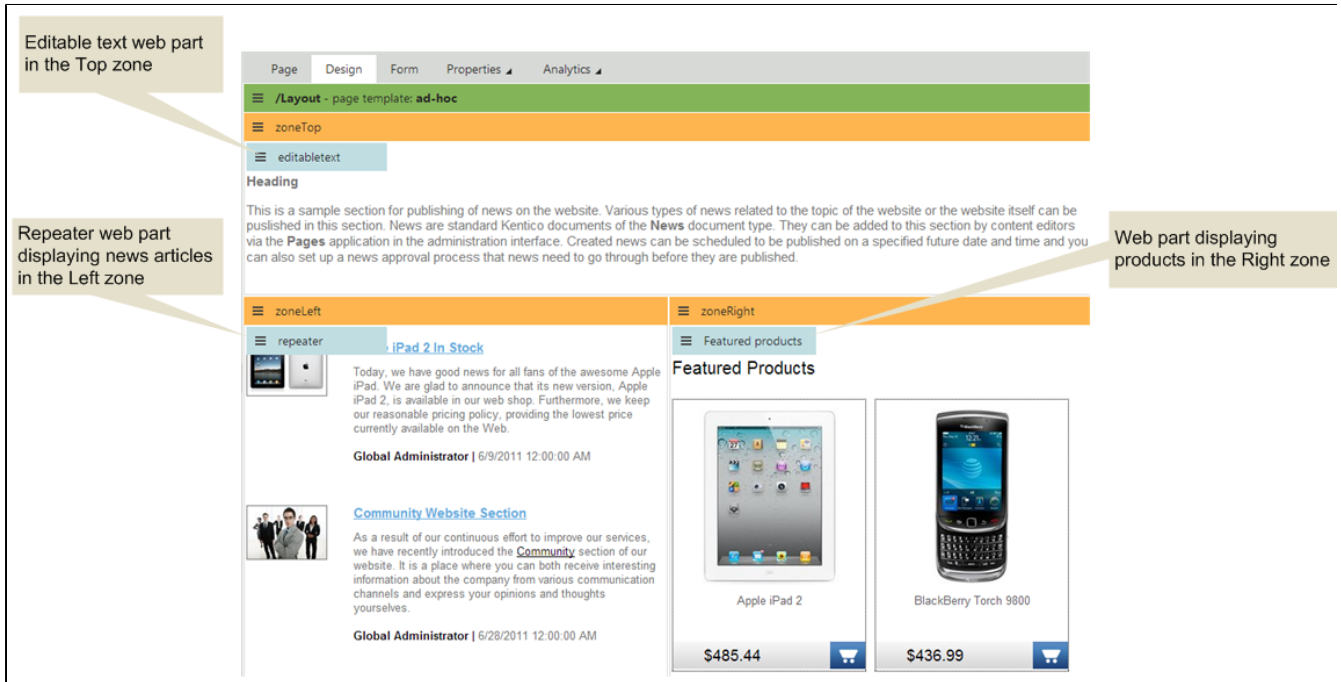
<div style="width: 100%;">
  <div style="width: 50%; float: left;">
    <cms:CMSWebPartZone ZoneID="zoneLeft" runat="server" />
  </div>
  <div style="width: 50%; float: right;">
    <cms:CMSWebPartZone ZoneID="zoneRight" runat="server" />
  </div>
</div>
<div style="clear: both"></div>
```

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Add CSS styles

## The page template on the Design tab

The following shows a template that uses the sample page layout on the **Design** tab of the **Pages** application. The template consists of three web part zones: **zoneTop**, **zoneLeft** and **zoneRight**. The web part zones contain individual instances of web parts.

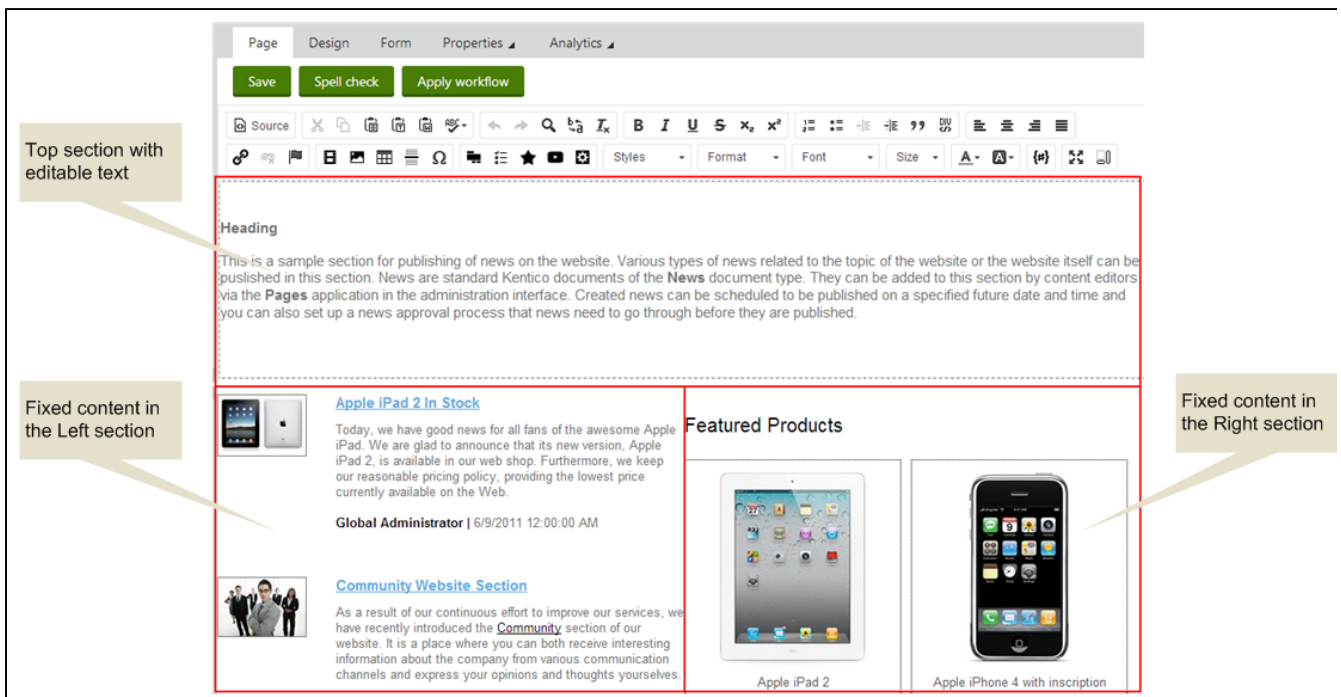


The screenshot shows the Kentico Design tab interface. The page template is named 'ad-hoc'. It features three main zones:

- zoneTop:** Contains an 'editabletext' web part with a heading and a paragraph of text.
- zoneLeft:** Contains a 'repeater' web part displaying news articles, including 'iPad 2 In Stock' and 'Community Website Section'.
- zoneRight:** Contains a 'Featured products' web part displaying two products: 'Apple iPad 2' and 'BlackBerry Torch 9800'.

## The page in editing mode

When viewing a page that uses the sample template on the **Page** tab of the **Pages** application, editors can enter text and other content into the editable text region in the top section. Non-editable web parts (such as lists of news and products) appear as fixed content.



The screenshot shows the same page template in editing mode on the Page tab. The interface includes a toolbar with options like 'Save', 'Spell check', and 'Apply workflow'. The content is divided into three sections:

- Top section with editable text:** The heading and paragraph text are highlighted with a red dashed border.
- Fixed content in the Left section:** The news articles, including 'Apple iPad 2 In Stock' and 'Community Website Section', are highlighted with a red dashed border.
- Fixed content in the Right section:** The 'Featured Products' section, showing 'Apple iPad 2' and 'Apple iPhone 4 with inscription', is highlighted with a red dashed border.

## The page on the live site

On the live site, the page displays content according to the template's layout and web parts.

