

China Seed Market To Hit \$3.9 Billion!

Shandong Zhouyuan Seed and Nursery Co., Ltd (SZSN)
\$0.28 UP 16.6%

China is the second largest seed market in the world. China's current market is \$2.9 Billion annually and experts forecast it to hit \$3.9 Billion in the next 2.5 years. SZSN is already expanding to keep ahead of the demand. Read the news, and watch for more Monday. Get on SZSN!

As this article mentioned earlier, Ajax enables the high responsiveness of many web applications.

Using the ImageSearcher Class The demo application provides a search field. For simplicity, this demo always asks for the first page of matching results. Maintaining a responsive application involves creating and managing separate threads that can run independently from the EDT.

Using SwingWorker, you can perform the same tasks without delaying the EDT, which will improve your application's performance.

For example, a demonstration of the autocompletion component in the Java Blueprints Solutions Catalog shows it in use with a name and address form.

The retrieveImage method shown earlier creates an ImageRetriever and provides a JLabel reference that the worker thread will use to display an image.

Read the SwingWorker documentation.

It parses an XML file from the web service.

Here is the correct way to instantiate your application's UI: public class MainFrame extends javax.swing.JFrame {

The application demo's MainFrame class uses an ImageRetriever worker thread whenever the user selects a thumbnail from the JList component.

These methods and others like them should not run on the EDT.

The T type indicates that an implementation's doInBackground and get methods will return values of T type.

As the worker thread executes, it can publish results of V type.

The method is asynchronous, which means that the call will return immediately to the calling thread.

You can also combine approaches.

Here are two common ways to call this method: SwingUtilities.invokeLater(() -> {

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The done method provides the best opportunity for the check, and you can avoid updating the GUI if the user has canceled or started a new search.

By indicating the Icon type in the class definition, you are telling the compiler that both the doInBackground and get methods will return an Icon object.

A SwingWorker thread updates both the progress bar and the label image.

At the other end of the spectrum, you take advantage of techniques that allow you

u to build Ajax into a web page with little or no JavaScript coding.

The correct way to use a `SwingWorker` is to instantiate it, add any property change listeners that might need status event notification from the thread, then execute the thread.

Because the Swing framework itself uses `SwingUtilities` frequently, your use of `SwingUtilities` does not pull any extra class code into your application.

If you don't find components or widgets that provide the Ajax functionality you need, you must do a lot more JavaScript coding yourself.

That means that you can interact with Swing components and their models.

Despite these tasks, your UI can remain snappy and responsive to the user.

After creating the UI, however, many initial threads have little or nothing further to do.

The listener will receive notification of all `SwingWorker` thread events.

Tasks on the event queue must complete quickly, or they will prevent other tasks from running.

However, the component model is extensible so that a component developer can add custom components.

The `retrieveImage` method shown earlier creates an `ImageRetriever` and provides a `JLabel` reference that the worker thread will use to display an image.

Of course, you have to specify the intermediate data type in the class declaration as described earlier.

Project Dynamic Faces, the runtime part of the JSF Extensions project, allows you to Ajax-enable standard JavaServer Faces components as you use them in a web page.

Both of these handlers access a web service, which can take many seconds to respond.

Instead, use the worker object's `execute` method to schedule execution.

The JavaScript function also specifies a JavaScript callback function.

Using `invokeAndWait` from the EDT would create the same response delays that you should avoid.

This event handler then calls the `retrieveImage` method.

A managed bean is a JavaBeans technology component that is managed by the JavaServer Faces framework.

Because the class constructor uses a list model, you know that the worker thread will probably update the model directly.

JavaServer Faces technology includes standard libraries for a basic set of UI components.

This article will not describe the `doInBackground`, `done`, `get`, and `setProgress` methods further because they are essentially the same as those in the other classes.

When a user enters an image search term, the `MainFrame` class responds by creating an `ImageSearcher` instance.

One advantage of using JavaServer Faces technology is that it allows you to use one or more components on a web page without having to know the details of how the component is implemented.

Read the `ImageIO` documentation.

This is a good place to call the `get` method because you know that the thread's work is finished when this method executes.

The listener updates a progress bar.

Ajax has different implications for developers working in different roles.

Once you execute the worker thread, it will search and retrieve thumbnail images.

This demo uses worker threads to search and download images from the Flickr image web site.

As you will see later, it does.

Tasks on the event queue must complete quickly, or they will prevent other tasks from running.

Note that the autocompletion actions are performed asynchronously.

For example, the `onkeyup` attribute triggers the JavaScript function `doCompletion` every time a user enters a character in the `State` field.

This event handler then calls the `retrieveImage` method. You could also add a listener to respond to worker state changes. It will execute the `Runnable` task on the EDT, but it will not return to the caller until the task has finished. This extensibility allows a component developer to create custom components that have Ajax functionality or add Ajax functionality to existing components. The `ImageRetriever` subclass demonstrates a simple implementation of the `SwingWorker` class. When the user clicks on a thumbnail, the list selection changes, which generates a list selection event.