

You can use [event handlers](#) to automatically synchronize [content staging](#) and [integration bus](#) tasks. Use the API to synchronize the required tasks during the following events:

- **StagingEvents.LogTask.After**
- **IntegrationEvents.LogInternalTask.After**
- **IntegrationEvents.LogExternalTask.After**

✓ **Tip:** Access the data of the synchronization task through the **Task** property of the event handler's **StagingLogTaskEventArgs** or **IntegrationTaskEventArgs** parameter.

## Example

The following example demonstrates how to automatically synchronize staging tasks and outgoing integration tasks:

1. Open your Kentico project in Visual Studio (using the **WebSite.sln** or **WebApp.sln** file).
2. Create a [custom module class](#).
  - Either add the class into a custom project within the Kentico solution (recommended) or directly into the Kentico web project (into a custom folder under the **CMSApp** project for *web application* installations, into the **App\_Code** folder for *web site* installations).
3. Override the module's **OnInit** method and assign handlers to the **StagingEvents.LogTask.After** and **IntegrationEvents.LogInternalTask.After** events.



```
using CMS;
using CMS.DataEngine;
using CMS.Synchronization;
using CMS.SynchronizationEngine;

// Registers the custom module into the system
[assembly: RegisterModule(typeof(LogTaskHandlerModule))]

public class LogTaskHandlerModule : Module
{
    // Module class constructor, the system registers the module under the
    name "LogTaskHandlers"
    public LogTaskHandlerModule()
        : base("LogTaskHandlers")
    {
    }

    // Contains initialization code that is executed when the application
    starts
    protected override void OnInit()
    {
        base.OnInit();

        // Assigns a handler to the StagingEvents.LogTask.After event
        // This event occurs after the system creates content staging
        synchronization tasks (separately for each task)
        StagingEvents.LogTask.After += LogStagingTask_After;

        // Assigns a handler to the IntegrationEvents.LogInternalTask.
        After event
        // This event occurs after the system creates outgoing
        integration tasks (separately for each task)
        IntegrationEvents.LogInternalTask.After +=
        LogIntegrationTask_After;
    }
}
```

4. Define the handler methods (inside the custom module class):



```
// Automatically synchronizes staging tasks
private void LogStagingTask_After(object sender, StagingTaskEventArgs e)
{
    if (e.Task != null)
    {
        // Gets the identifiers of the staging servers for which the task
        was created
        var taskServerIds = SynchronizationInfoProvider.
        GetSynchronizations()
        .Column("SynchronizationServerID")
        .WhereEquals("SynchronizationTaskID", e.Task.TaskID);

        // Gets the task's staging servers based on the retrieved
        identifiers
        var targetServers = ServerInfoProvider.GetServers().WhereIn
        ("ServerID", taskServerIds);

        // Processes the task for all relevant servers
        foreach (ServerInfo server in targetServers)
        {
            // Synchronizes the processed staging task to the target
            server
            new StagingTaskRunner(server.ServerID).RunSynchronization
            (e.Task.TaskID);
        }
    }
}

// Automatically synchronizes outgoing integration tasks
private void LogIntegrationTask_After(object sender, IntegrationTaskEventArgs e)
{
    // Gets the info object for an integration connector
    IntegrationConnectorInfo connectorInfo = IntegrationConnectorInfoProvider.
    GetIntegrationConnectorInfo("MyConnector");

    if ((connectorInfo != null) && (e.Task != null))
    {
        // Gets an instance of the integration connector class
        BaseIntegrationConnector connector = IntegrationHelper.
        GetConnector(connectorInfo.ConnectorName) as BaseIntegrationConnector;

        // Synchronizes the processed integration task
        connector.ProcessInternalTask(e.Task);
    }
}
```

5. Save the class.

The handlers ensure that the system immediately synchronizes:

- All staging tasks to all relevant target servers
- All outgoing integration tasks using a specified connector