**ClassGenerator.exe – How to Generate Wrappers**

This Guide shows you how to generate wrappers for your customized screens inside Acumatica.

Note the special parameters required to - generic inquiry screens, Screens with required parameters, and all other possible configurations of the ClassGenerator

**Basic Steps to config and run ClassGenerator.exe**

1. You must Generate the wrappers for every **ALL** screens you use for your tests
2. Run the GenerateWrappers() method in your Visual Studio Test solution

public void GenerateWrappers()

{

string projectPath = Directory.GetParent(Environment.CurrentDirectory).Parent.Parent.FullName;

string wrapperPath = String.Format(projectPath + @"\Wrappers\");

ClassGenerator.ClassGenerator WG = new ClassGenerator.ClassGenerator(physicalSitePath, wrapperPath);

WG.Username = "admin"; //Admin@Company for multi-Tenant

WG.Namespace = "GeneratedWrappers.SOLUTIONNAME"; // Replace SOLUTIONNAME with your solution name

// PL and GI screens are added like this, get the "URL" from the site map screen.

WG.Screens.Add("IN2025PL", "~/GenericInquiry/GenericInquiry.aspx?id=e4352bbd-a53a-42c4-9b96-e9f0fda070c7");

WG.Run("SCREENID1, SCREENID2, CA306000, CS100000, GL102000, SM204505, SO301000"); // add all screens here you need to use in your test

// All wrappers will need an extension file created to access the UI elements of the screen wrapper.

// The namespace of your Extension.cs files will be "using GeneratedWrappers.ISVSOLUTIONNAME;"

}

**Note:** The ClassGenerator.exe command prompt will take 5+ mins to show progress, don’t worry it is not frozen, just keep waiting for the first screen wrapper to generate then they start going quickly. Do not close the window, the command prompt window must close on its own to complete the process. Closing classgenerator.exe early will break the sites web.config. If the website becomes unavailable you must go to the site flder and find the backup web config and save it over the broken site web.config.

**Screens that require initial configuration:**

If your screen is inaccessible on the website, Wrapper Generation will skip the screen. So you must ensure the website is configured to have all screens accessible

There are a few ways to set up your site before Wrapper Generation using automated code.

**1) For existing unmodified acumatica screens:** Use GeneratedWrappers.Acumatica wrappers

**2) For modified acumatica screens:** Use DynamicControl to interact with the new fields before a updated wrapper exists.

**3) For New Custom screens:** Use Customization Plug-in to configure the data

<https://github.com/Acumatica/Test-SDK-Starter-Guide/blob/master/ISVTestSDK/Customization%20PlugIn%20Guide.docx>

<https://riptutorial.com/acumatica/example/29435/implementation-of-a-customization-plug-in-to-update-multiple-companies>

<https://www.acumatica.com/blog/customization-plugin-packages-configuration/>

**Numbered Examples from above:**

**1)** Use GeneratedWrappers.Acumatica to enter data for UNMODIFIED Acumatica screens

Features.OpenScreen();

Features.Insert();

Features.Summary.SalesQuotes.SetTrue();

Features.Summary.DynamicControl<CheckBox>("Multicurrency Accounting").SetTrue();

Features.RequestValidation();

**2)** Using DynamicControl to interact with customization added fields before a updated wrapper exists

The text is the fields label text.

SetupGl.OpenScreen();

SetupGl.general.DynamicControl<CheckBox>("Generate Consolidated Batches").SetTrue();

SetupGl.Save();

**PagesWithParameters.txt**

<add key="PagesParameters" value="PagesWithParameters.txt"/>

Specifies the file that contains the list of forms that **require** some parameters to open.

|  |
| --- |
| CR306010 ?TaskID=29&RefNoteID=764  CR306015 ?TaskID=30&RefNoteID=764&NotificationID=4517FCC3-98A7-4521-B4C7-1BD80B2846E6 |

**GenericInquiriesWithParameters.txt**

<add key="GenericInquiryParameters" value="GenericInquiriesWithParameters.txt"/>

Specifies the file that contains the list of generic inquiries that require some parameters to open.

**To add Generic Inquiries to the list for wrapper generation,** you must use a txt file with the format below. You can get the GI screen ID from the Site Map screen inside Acumatica, these ID’s do not change.

Graphical user interface, text, application

Description automatically generated with medium confidence

|  |
| --- |
| GI000001 ?Name=Currency Rates History  CR3010PL ?ID=20e4ab0d-0631-4759-a48d-6ec20ac78291  CR3060PL ?ID=24d48139-cf11-4be6-9bd3-57ee86893778  CR3040PL ?ID=a95a50d6-6892-4052-b6aa-8e769efa2bfc |

**All possible ClassGenerator.exe.config Variables:**

You can use the following keys in the *ClassGenerator.exe.config* file to configure the generation of page wrappers.

|  |  |  |  |
| --- | --- | --- | --- |
| **Key**  **Name** | **Key**  **Description** | **Mandatory/**  **Optional** | **Usage**  **Example** |
| SitePhysicalPath | Specifies the local path to the installation directory of an Acumatica ERP instance. | **Mandatory** | <add key="SitePhysicalPath" value="C:\Program Files (x86)\Acumatica ERP\demo"/> |
| GenResultPath | Specifies the directory where the generated page wrappers should be saved. | **Mandatory** | <add key="GenResultPath" value="C:\Output"/> |
| UserName | Specifies the user name to be used to log in to the Acumatica ERP instance.  If you need to log in to a specific company, you should specify the user name in the following format: UserName@CompanyName, where UserName is replaced with the name of the user, and CompanyName is replaced with the name of the company to which you want to log in. | **Mandatory** | <add key="UserName" value="admin"/> |
| <add key="UserName" value="admin@Company"/> |
| FileNameFilter | Specifies the IDs of the forms for which you want to generate page wrappers.  You can use two-letter prefix of the Acumatica ERP module name as the value of this key to generate wrappers for all forms of the module.  You can use *\** as the value of this key to generate wrappers for all pages. | **Mandatory** | <add key="FileNameFilter" value="GL301000, GL501000"/> |
| <add key="FileNameFilter" value="GL301000, CR"/> |
| <add key="FileNameFilter" value="\*"/> |
| PagesList | Specifies the file that contains the list of IDs of the forms that should be included in or excluded from the page wrapper generation. | Optional | <add key="PagesList" value="[PagesList.txt](https://wiki.acumatica.com/display/TS/ClassGenerator.exe.config#ClassGenerator.exe.config-PagesList.txt)"/> |
| PagesListAttribute | Specifies whether the forms that are specified in the PagesList key should be included in or excluded from the page wrapper generation.  You can set the value of this key to include to include the forms in the page wrapper generation.  You can set the value of this key to exclude to exclude the forms from the page wrapper generation. | Optional | <add key="PagesListAttribute" value="include"/> |
| <add key="PagesListAttribute" value="exclude"/> |
| ClearOutput | Specifies whether all files in the output directory, which is specified in the GenResultPath key, should be removed before the page wrapper generation starts.  You can set the value of this key to true to remove all files from the output folder before page wrapper generation.  You can set the value of this key to false to not delete the files from the output folder before page wrapper generation. | **Mandatory** | <add key="ClearOutput" value="true"/> |
| <add key="ClearOutput" value="false"/> |
| Namespace | Specifies the namespace where page wrapper classes should be defined.  We recommend that you use the following template for the namespace name: GeneratedWrappers.<PartnerName>. | Optional | <add key="Namespace" value="GeneratedWrappers.Acumatica"/> |
| PagesParameters | Specifies the file that contains the list of forms that require some parameters to open. | Optional | <add key="PagesParameters" value="[PagesWithParameters.txt](https://wiki.acumatica.com/display/TS/ClassGenerator.exe.config#ClassGenerator.exe.config-PagesWithParameters.txt)"/> |
| GenericInquiryParameters | Specifies the file that contains the list of generic inquiries that require some parameters to open. | Optional | <add key="GenericInquiryParameters" value="[GenericInquiriesWithParameters.txt](https://wiki.acumatica.com/display/TS/ClassGenerator.exe.config#ClassGenerator.exe.config-GenericInquiriesWithParameters.txt)"/> |
| CorrectCTL01 | Specifies whether the entries of ctl01 should be replaced with ctl00 in the generated page wrappers.  You can set the value of this key to true to replaces entries of ctl01 with ctl00 in the generated page wrappers.  You can set the value of this key to false to not replace entries of ctl01 with ctl00 in the generated page wrappers. | Optional | <add key="CorrectCTL01" value="true"/> |
| <add key="CorrectCTL01" value="false"/> |
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