EDK2Code: VSCODE Extension for EDK2

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Meet the Presenter

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Graduated from Tecnológico de Monterrey in 2012, Guadalajara, Mexico as an Electrical Engineer and has a Masters in Computer Science.

Has worked as a UEFI FW Engineer at Intel for more than 12 years developing UEFI FW for server products.

Lives in Austin, Texas.
Agenda

• Motivation
• Overview
• Installation
• Features
• Benefits
• Demo
Motivation

• UEFI projects can be massive and navigating through the source code is challenging
• Missing tools available in other development environments
• Visual Studio Code is one of the most popular editors
Installation

Install directly from VSCODE marketplace searching for “edk2code”

Documentation available through project repository wiki page:

https://github.com/intel/Edk2Code/wiki
Types of Source Index Accuracy

These levels describe how the source code index is created. This gives the user the ability to start using the extension by just opening a source folder **or** to get very accurate information from the **build folder**

<table>
<thead>
<tr>
<th>Source Index</th>
<th>Description</th>
<th>Index Build</th>
<th>Injected Defines</th>
<th>Compilation Database</th>
<th>User Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get build information with compile information</td>
<td>• EDK2 build command with: -Y COMPILER_INFO -y BuildReport.log</td>
<td>DSC parsing</td>
<td>✔</td>
<td>✔</td>
<td>★★★★★</td>
</tr>
<tr>
<td></td>
<td>• Specify a build folder in EDK2Code extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get build information</td>
<td>• Specify a build folder in EDK2Code extension</td>
<td>DSC parsing</td>
<td>✔</td>
<td></td>
<td>★★★★★</td>
</tr>
<tr>
<td>Configure specific DSC files</td>
<td>• Manually setup a DSC file in EDK2Code extension</td>
<td>DSC parsing</td>
<td></td>
<td></td>
<td>★★</td>
</tr>
<tr>
<td>Parse workspace with no configuration</td>
<td>• Just open a folder in Vscode</td>
<td>None</td>
<td></td>
<td></td>
<td>★</td>
</tr>
</tbody>
</table>
# Features

<table>
<thead>
<tr>
<th>Feature Type</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>Status Bar</td>
<td>Displays a warning in the status bar if the opened file has been compiled or not.</td>
</tr>
<tr>
<td>Global Commands</td>
<td>EDK2: Open Library</td>
<td>Shows a list of all the libraries compiled. Accessible via the command palette.</td>
</tr>
<tr>
<td>Global Commands</td>
<td>EDK2: Open Module</td>
<td>Shows a list of all the modules compiled. Accessible via the command palette.</td>
</tr>
<tr>
<td>Global Commands</td>
<td>EDK2: Rebuild Index Database</td>
<td>Cleans up the current source index and creates a new one.</td>
</tr>
<tr>
<td>Global Commands</td>
<td>EDK2: Rescan Index Database</td>
<td>Recreates the index without changing the workspace settings using the previous index configuration.</td>
</tr>
<tr>
<td>EDK2 Language Support</td>
<td>INF Files</td>
<td>Provides syntax highlighting, outline tree, source go to definition, auto completion, go to DSC declaration, and library tree.</td>
</tr>
<tr>
<td>EDK2 Language Support</td>
<td>DSC Files</td>
<td>Provides syntax highlighting, outline tree, variable defines resolution, go to definition, and go to DSC inclusion.</td>
</tr>
<tr>
<td>EDK2 Language Support</td>
<td>DEC Files</td>
<td>Provides syntax highlighting and outline.</td>
</tr>
<tr>
<td>EDK2 Language Support</td>
<td>C Files</td>
<td>Provides call hierarchy, go to INF, and go to definition.</td>
</tr>
<tr>
<td>EDK2 Language Support</td>
<td>VFR</td>
<td>Provides syntax highlighting and outline.</td>
</tr>
<tr>
<td>EDK2 Language Support</td>
<td>ACPI</td>
<td>Provides syntax highlighting, outline, help, and auto complete.</td>
</tr>
</tbody>
</table>
Benefits

1. **Improved Productivity**: The extension provides a variety of features such as syntax highlighting, auto-completion, and go to definition, which can speed up coding and debugging processes.

2. **Better Code Navigation**: Features like call hierarchy, outline tree, and go to definition make navigating through complex EDK2 files much easier.

3. **Enhanced Understanding**: The extension provides help to understand complex EDK2 projects.

4. **Ease of Use**: The extension integrates seamlessly with VSCode. The user can decide the level of configuration/accuracy they want.

5. **Real time feedback**: Users can detect configuration/build errors while they edit the code instead of catching them after compilation.
Demo

• Index creation
• Reference tree
• Task bar
• C improvements
• Search improvements
• EDK files
• ACPI support
Questions?
More Questions?

Following today’s webinar, join the live, interactive WebEx Q&A for the opportunity to chat with the presenter

• **Visit this link to attend:** [https://bit.ly/424FX8r](https://bit.ly/424FX8r)
• **Meeting number:** 2557 426 6742
• **Password:** YvubrsZ93f7 (98827799 from phones and video systems)
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