

## N9H20 emWin HMI Change Log

### Document Information

<b>Abstract</b>	Introduce N9H20 emWin HMI change log.
<b>Apply to</b>	N9H20 series

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# 1 Introduction

This document describes the files meaning in BSP/ThirdParty/emWin/Doc folder and Nuvoton N9H20 emWin HMI library change log.

Note: “Official” means this document comes from SEGGER emWin.

File Name	Description
Changelog.pdf	Nuvoton N9H20 emWin HMI Change log
UM_Font_Architect_EN_Rev1.02.pdf	Nuvoton emWin HMI font tool
UM_Font_Architect_TC_Rev1.02.pdf	Nuvoton emWin HMI font tool
AN03002_Custom_Widget_Type.pdf	Official application note
Release.html	Official change history
UM03001_emWin.pdf	Official user manual

## 2 N9H20 emWin HMI Change History

This chapter introduces N9H20 emWin HMI change log in the Nuvoton N9H20 BSP.

### 2.1 Change Log

N9H20 emWin HMI version	Description
<b>V6.10f.2</b>	<ul style="list-style-type: none"> <li>● Nuvoton emWin HMI library comes from SEGGER emWin version V6.10f.</li> <li>● Supported RGB565 or RGB888 rotation. (Source or destination)</li> </ul>
<b>V5.48k.8</b>	<ul style="list-style-type: none"> <li>● Enabled "per-pixel alpha-blending" BitBlt feature to draw source format is ARGB8888 bitmap.</li> </ul>
<b>V5.48k.6</b>	<ul style="list-style-type: none"> <li>● Added H/W BitBlt. (draw bitmap)</li> <li>● GUI_DRAW_BMPM565 in 32-bit ARGB8888 frame buffer. (MSB is dummy byte)</li> <li>● GUI_DRAW_BMPM8888I bitmap in 32-bit ARGB8888 frame buffer (MSB is dummy byte).</li> <li>● GUI_DRAW_BMPM8888I bitmap in 16-bit RGB565 frame buffer.</li> </ul>
<b>V5.48k.4</b>	<ul style="list-style-type: none"> <li>● Added GCC version library "libNUemWin_ARM9_GCC.a".</li> </ul>
<b>V5.48k.2</b>	<ul style="list-style-type: none"> <li>● Nuvoton emWin HMI library comes from SEGGER emWin version V5.48k.</li> <li>● Updated definition GUI_NUM_LAYERS from 1 to 4. (SoftLayer)</li> </ul>
<b>V5.46h.2</b>	<ul style="list-style-type: none"> <li>● Initially created, Nuvoton emWin HMI library comes from SEGGER emWin version V5.46h.</li> <li>● Updated definition GUI_USE_ARGB from 0 to 1.</li> <li>● Updated touch from INT to POLL mode.</li> <li>● Added H/W JPEG. (decoder)</li> <li>● Added H/W BitBlt. (Rotation, Scaling and Translation)</li> <li>● Added H/W BitBlt. (alpha blending)</li> </ul>

## Revision History

Date	Revision	Description
2020.03.31	1.00	1. Initially issued.

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