[Notes]   e-AI Development Environment
for Microcontrollers   e-AI Translator V3.0.0

Outline

When using e-AI Translator V3.0.0, note the following points.

1. Note when using TensorFlow Lite model whose input data format and output data format are 8bit signed int.

1.   Note when using TensorFlow Lite model whose input data format and output data format are 8bit signed int.

1.1   Applicable Products

e-AI Translator V3.0.0

1.2   Applicable Devices

RL78 family, RX family, RA family, RE family, RZ family, and Renesas Synergy™ microcontrollers.

1.3   Details

When converting TensorFlow Lite model whose input data format and output data format are 8bit signed int by e-AI Translator, the translation result is not correct. Build error occurs when building the translated source files.

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1.4   Conditions

   When using PyTorch models or Keras models or Tensorflow models, the problem does not occur. Only when using TensorFlow Lite models, the problem occurs. Additionally, only when both of input data format and output data format of the model are 8bit signed int, the problem occurs. Refer to the following table for the detail.

Table1. Correspondence between AI model and occurrence of the problem

AI model	Input data format	Output data format	Occurrence of the problem
PyTorch model	-	-	No problem
Keras model	-	-	No problem
TensorFlowmodel	-	-	No problem
TensorFlow Lite model	32bit float	32bit float	No problem
TensorFlow Lite model	32bit float	8bit signed int	No problem
TensorFlow Lite model	32bit float	8bit unsigned int	No problem
TensorFlow Lite model	8bit signed int	32bit float	No problem
TensorFlow Lite model	8bit signed int	8bit signed int	Problem occurs only this case
TensorFlow Lite model	8bit signed int	8bit unsigned int	No problem
TensorFlow Lite model	8bit unsigned int	32bit float	No problem
TensorFlow Lite model	8bit unsigned int	8bit signed int	No problem
TensorFlow Lite model	8bit unsigned int	8bit unsigned int	No problem

1.5   Workaround

   Patch program for e-AI Translator V3.0.0 has been prepared.

   Contact to the following e-mail address when the patch program is required.

-    e-mail address: eai_translator@lm.renesas.com

-    e-mail title: [R20TS0949] e-AI Translator V3.0.0 patch program

-    e-mail body: Describe company name, department name, and your name.

1.6   Schedule for Fixing the Problem

   This problem will be fixed in the next version.

Revision History

Rev.	Date	Description	
		Page	**Summary**
1.00	Jun.01.23	-	First edition issued

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Contact information

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