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Category	■FAQ □SOP	Related OS	N/A
Abstract	IAG_FAQ P2P GCL Processing and Response Time From AI Trigger AO		
Keyword	P2P, GCL, AI Trigger AO, Processing Time		
Related	ADAM-6000 & ADAM-6200 Series		
Product			

Problem Description:

This document explains a common question regarding how much processing or response time will be taken by triggering AI trigger to AO module via P2P or GCL function.

■ Brief Solution - Step by Step:

According to measurement of using oscilloscope, the process time from AI(ADAM-6017) trigger to AO(ADAM-6024) is approximately about 200ms.

The reason of AI-to-AO taking much longer than DI-to-DO is due to complication of A/D & D/A process, for instance:

Sampling of AI \rightarrow MUX \rightarrow A/D \rightarrow CPU \rightarrow P2P Data Transfer \rightarrow CPU \rightarrow D/A \rightarrow AO Output.

So, unlike the pure DI/O mapping, most of time will be consumed by Sampling Process and AD/DA Conversion, which is why it normally takes longer for the output to reflect the behavior of analog input.





