

# ASAM ACI 1.3 Specification

Summary

ASAM-TAB Chemnitz, July 11, 2006

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# Deliverables

- Released by ACI group, Plenum June 27, 2006
  - Specification 1.3
  - Programmers Reference Guide (API description)
  - UML description (Rational mdl file, html file)
  - Interface description in Corba-IDL
    - Basis for API library generation (Java, C++, Python, ...)
  - Corba Reference Implementation (Corba guideline)
  - Test catalogue (test cases for server certification)

# What's new in ACI 1.3

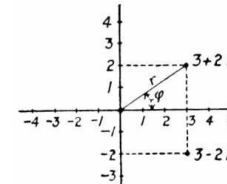
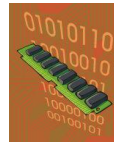
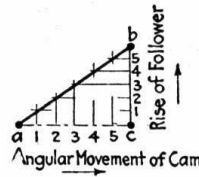
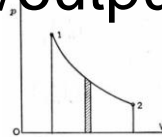
➤ ACI 1.2 only input/output channels for float data

➤ ACI 1.3 input/output channels for

↪ Float data

↪ Integer data

↪ Digital i/o



↪ Additional data types possible without API modification

➤ Inspection of channel range (from...to)

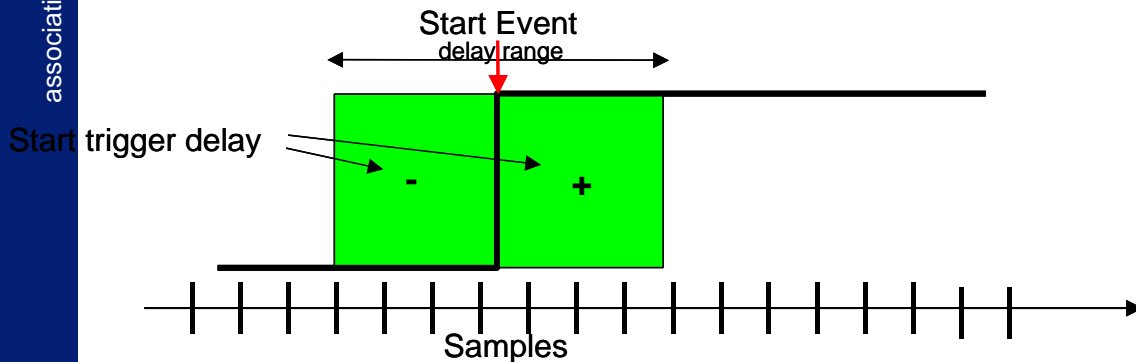
# What's new in ACI 1.3

- ACI 1.2 steady state measurement
- ACI 1.3 transient measurement support
  - ↳ Events to synchronize data sampling period
    - ↳ Start of a measurement
    - ↳ Stop of a measurement
    - ↳ Start & stop of a measurement
  - ↳ Event processing with pre- and post delays
  - ↳ Each measuring object has its own independent trigger
  - ↳ Measurement data supplied with time stamps

# Synchronization with 1 Trigger

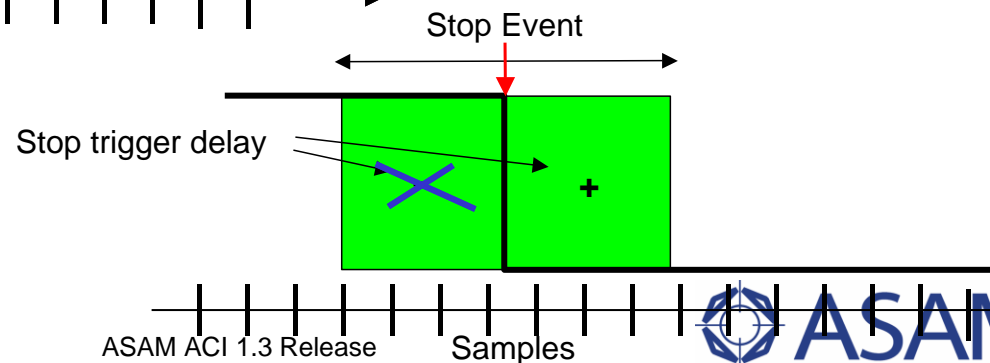
## Data sampling synchronized by Start Trigger Event

- persistent data sampling triggered by start event (+/- delay)
- persistent data sampling period terminates when buffer full
- data buffer size and sampling rate depend on AuSy  
(configurable within AuSy's capability limits)



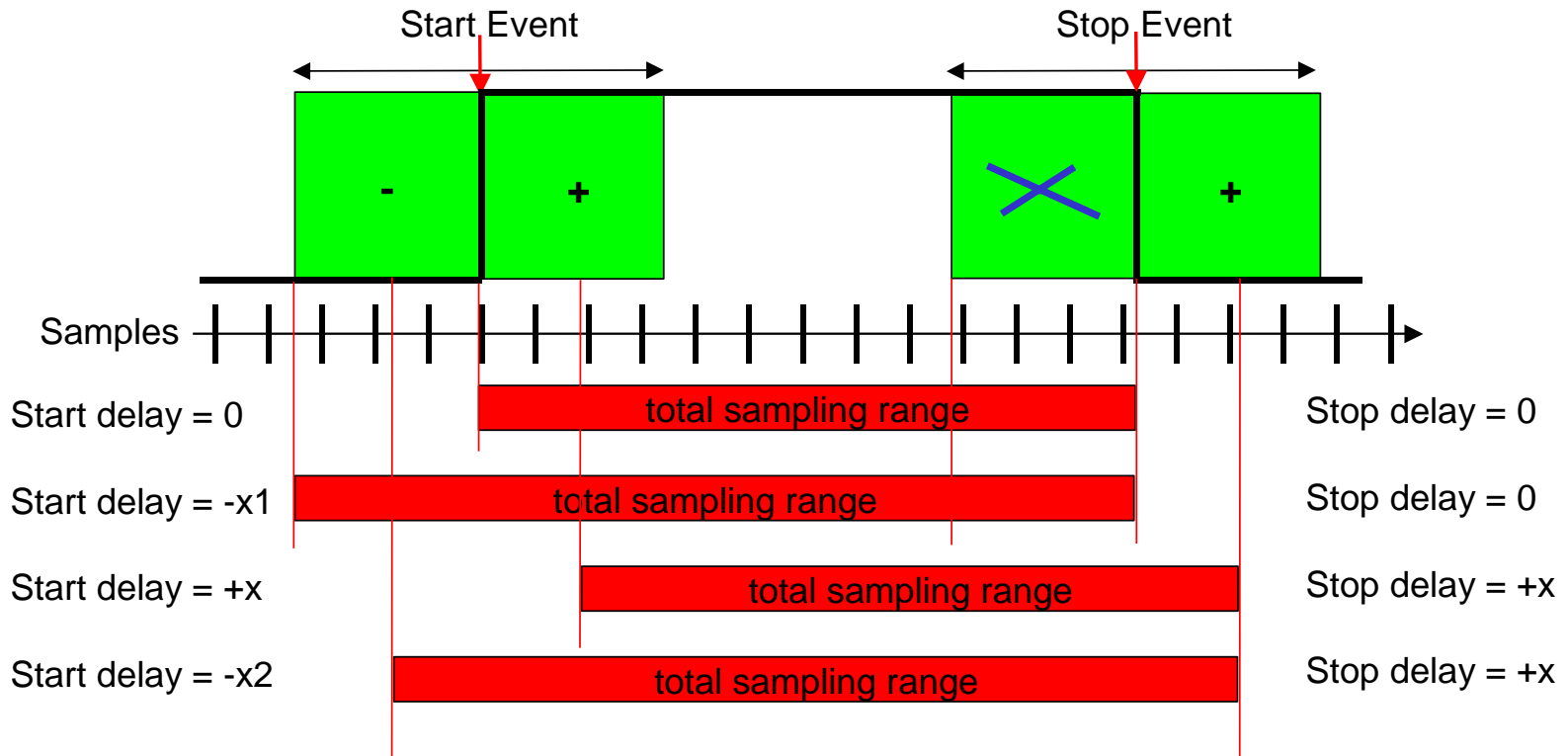
## Data sampling synchronized by Stop Trigger Event

- similar to Start Trigger Event
- only +delay allowed



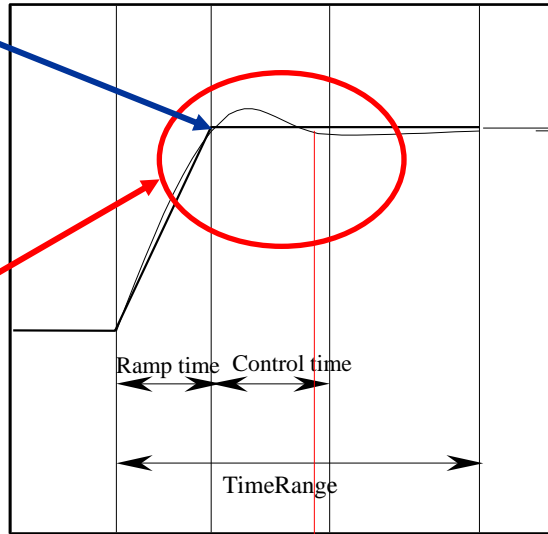
# Synchronization with 2 Triggers

## (Start Trigger & Stop Trigger)



# A Concrete Application

demand value



## Example

- Analyse control oscillation
- Start measurement  
e.g. keep measuring data persistent  
2 sec before demand value
- Stop persistent data sampling when buffer full
- Measuring data supplied with time stamps
- Additional time stamp for event occurrence

