



CMS Calorimeter Trigger Read-out and Control Project

Overview



Project Overview

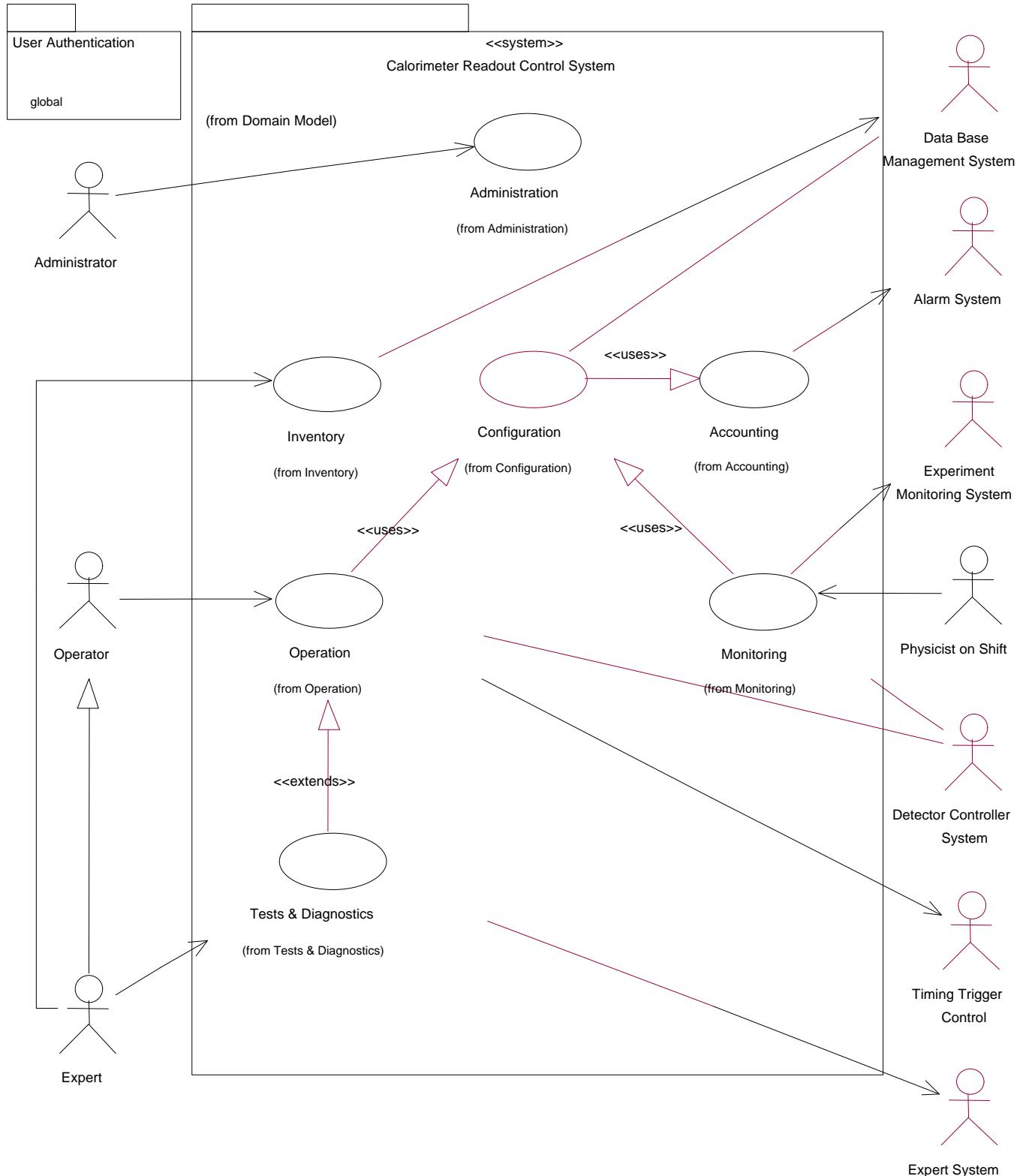
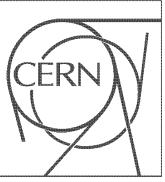
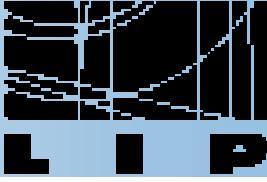
Architecture Overview

Prototype Description

Ecal FE model

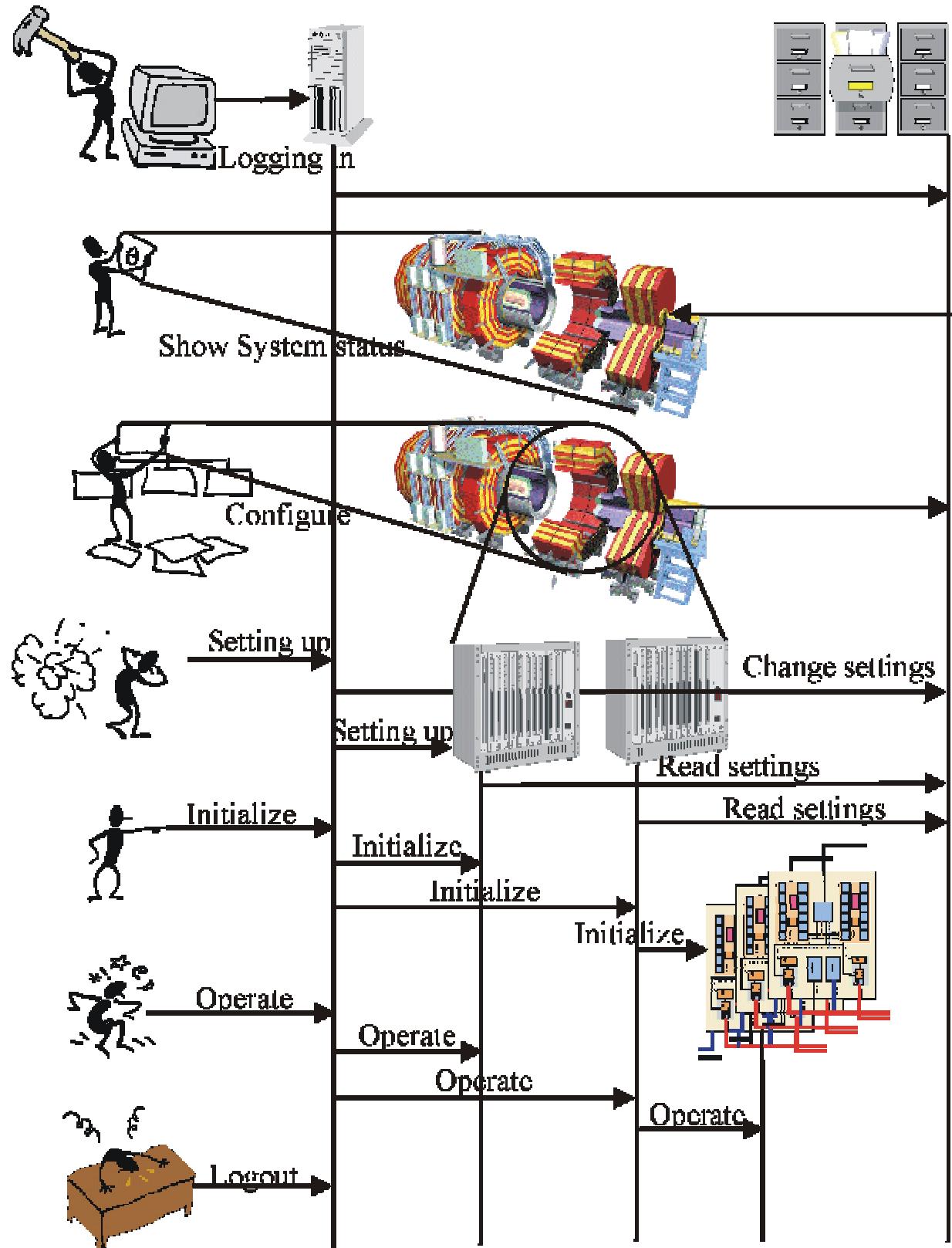
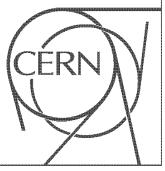
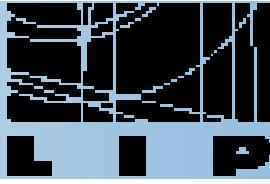


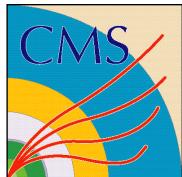
Use Cases



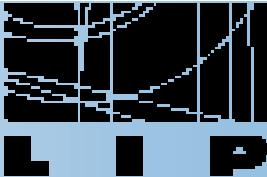


Use scenario example

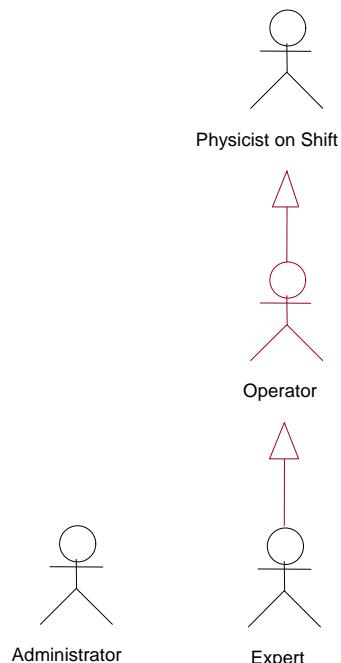




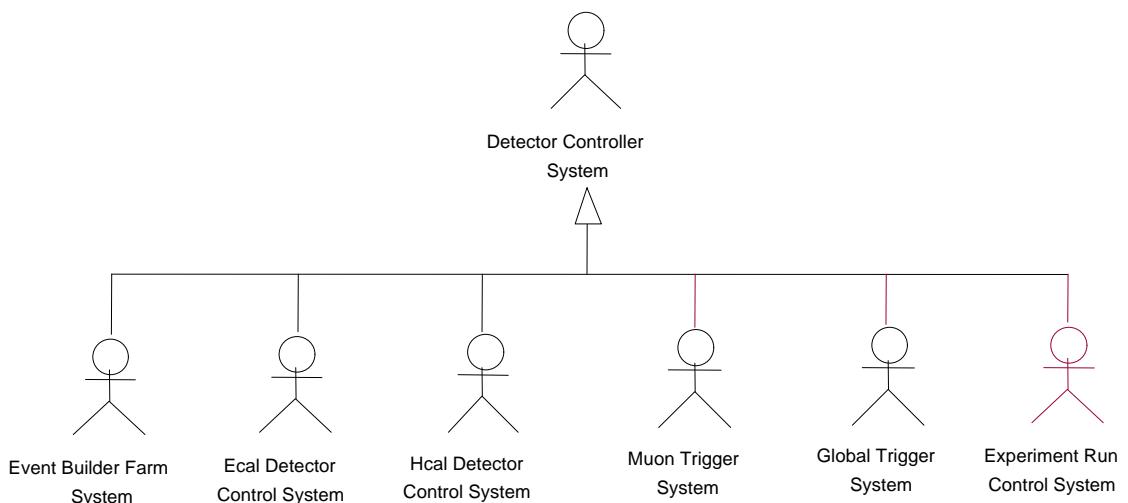
Actors



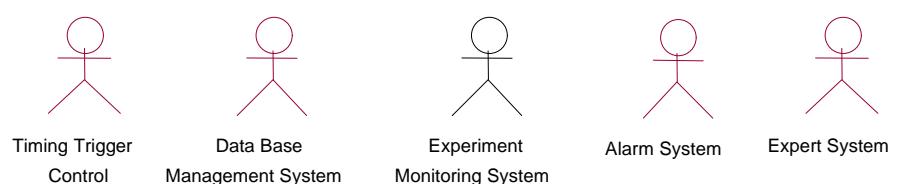
Calorimeter Read-out Control System users



Calorimeter Read-out Control System ancillary service providers



Calorimeter Read-out Control System global service providers





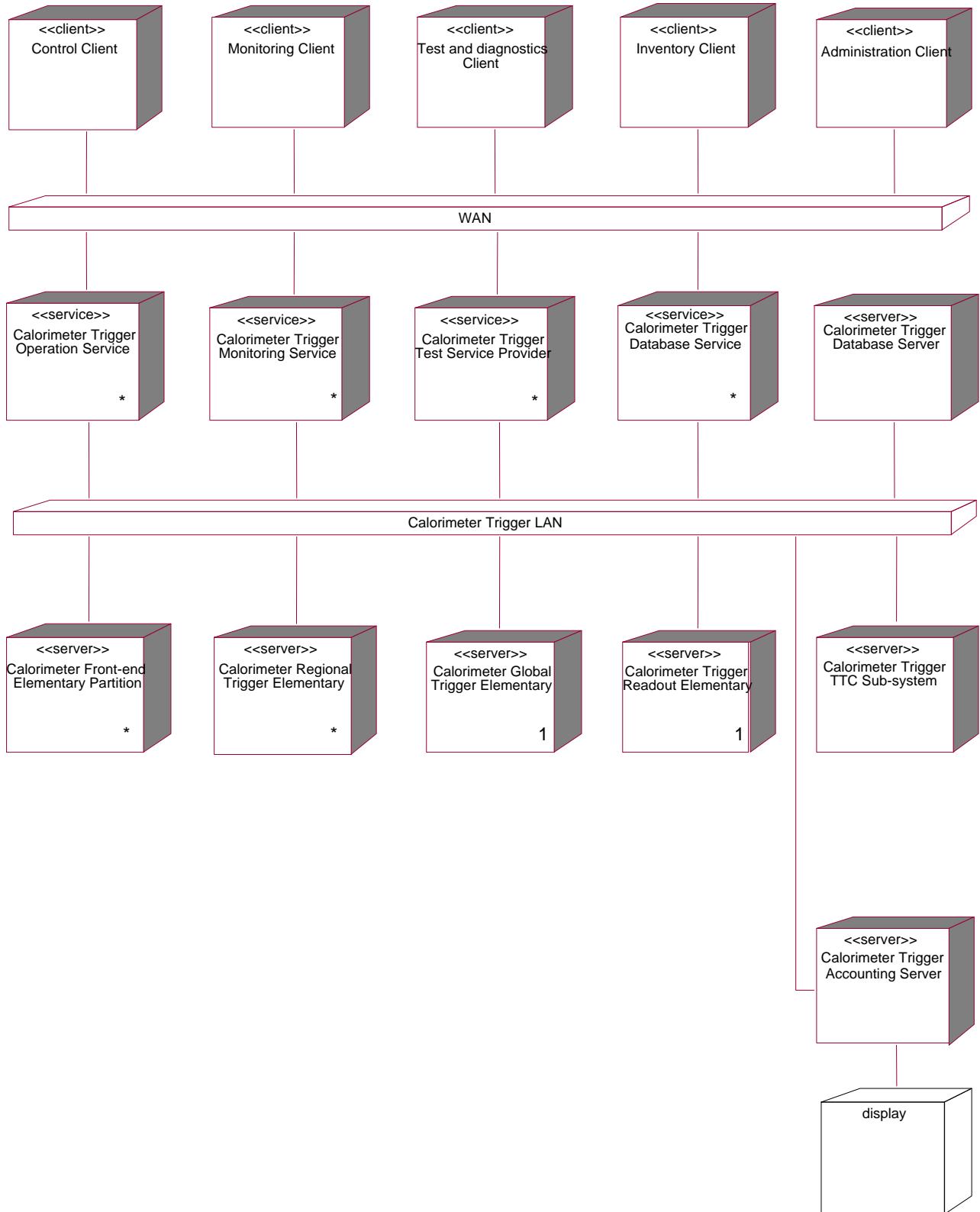
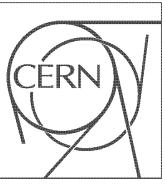
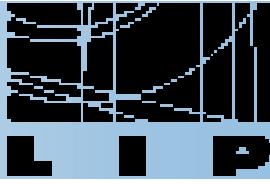
Events



Category	<i>Id</i>	Event	Description	Event Input Data	Direction	Detection Mechanism (Arrival Pattern)
<i>User Authentication</i>		<i>Login</i>				
<i>Administration</i>		<i>Add New Group</i>				
		<i>Modify Existing Group</i>				
		<i>Remove Group</i>				
		<i>Add New User</i>				
		<i>Modify Existing User</i>				
		<i>Remove User</i>				
<i>Inventory</i>		<i>Add New Device</i>				
		<i>Modify Existing Device</i>				
		<i>Remove Device</i>				
		<i>Add New Component</i>				
		<i>Modify Existing Component</i>				
		<i>Remove Component</i>				
<i>Configuration</i>		<i>Book</i>		<i>Elementary Partition.Elementary Partition Id</i>		<i>Episodic</i>
		<i>Configure</i>		<i>Elementary Partition.Elementary Partition Id</i>	<i>System</i>	<i>Episodic</i>
		<i>Release</i>		<i>N/A</i>		<i>Episodic</i>
		<i>Change Settings</i>		<i>Elementary Partition.Elementary Partition Id</i>	<i>System</i>	<i>Episodic</i>
		<i>Change VFE Operation</i>		<i>Device.Device Id</i>		<i>Episodic</i>
		<i>Change VFE Thresholds</i>		<i>Device.Device Id</i>		<i>Episodic</i>
<i>Operation Control</i>		<i>Change Pedestals</i>		<i>Device.Device Id</i>		<i>Episodic</i>
		<i>Initiate</i>		<i>N/A</i>	<i>System</i>	<i>Episodic</i>
		<i>Start</i>		<i>N/A</i>	<i>System</i>	<i>Episodic</i>
		<i>Trigger</i>		<i>Trigger Type</i>	<i>System</i>	<i>Episodic</i>
		<i>Clear</i>		<i>N/A</i>	<i>System</i>	<i>Episodic</i>
		<i>Reset</i>		<i>N/A</i>	<i>System</i>	<i>Episodic</i>
<i>Tests & Diagnostics</i>		<i>Stop</i>		<i>N/A</i>	<i>System</i>	<i>Episodic</i>
		<i>Resynchronize</i>		<i>N/A</i>	<i>System</i>	<i>Episodic</i>
<i>Accounting</i>		<i>Report system activity</i>				<i>Periodic</i>
		<i>Log system activity</i>				<i>Periodic</i>
		<i>Info Report</i>		<i>Info Type</i>	<i>Partition</i>	<i>Periodic</i>
		<i>Info Request</i>		<i>Info Type</i>	<i>Operator</i>	<i>Episodic</i>
		<i>Malfunction</i>				<i>Episodic</i>
<i>Monitoring</i>		<i>Pedestal Report</i>		<i>N/A</i>	<i>Detector Control System</i>	<i>Periodic</i>
		<i>Pedestal Request</i>		<i>N/A</i>	<i>Operator</i>	<i>Episodic</i>
		<i>Temperature Report</i>		<i>N/A</i>	<i>Detector Control System</i>	<i>Periodic</i>
		<i>Temperature Request</i>		<i>N/A</i>	<i>Operator</i>	<i>Episodic</i>
		<i>Current Report</i>		<i>N/A</i>	<i>Detector Control System</i>	<i>Periodic</i>
		<i>Current Request</i>		<i>N/A</i>	<i>Operator</i>	<i>Episodic</i>
		<i>Event Report</i>		<i>N/A</i>	<i>Partition</i>	<i>Periodic</i>
		<i>Event Request</i>		<i>N/A</i>	<i>Operator</i>	<i>Episodic</i>
		<i>Histogram Request</i>		<i>N/A</i>	<i>Display</i>	<i>Episodic</i>
		<i>Display Event</i>			<i>Display</i>	<i>Episodic</i>
<i>GUI</i>		<i>User cursor movement</i>				
		<i>User screen command</i>				

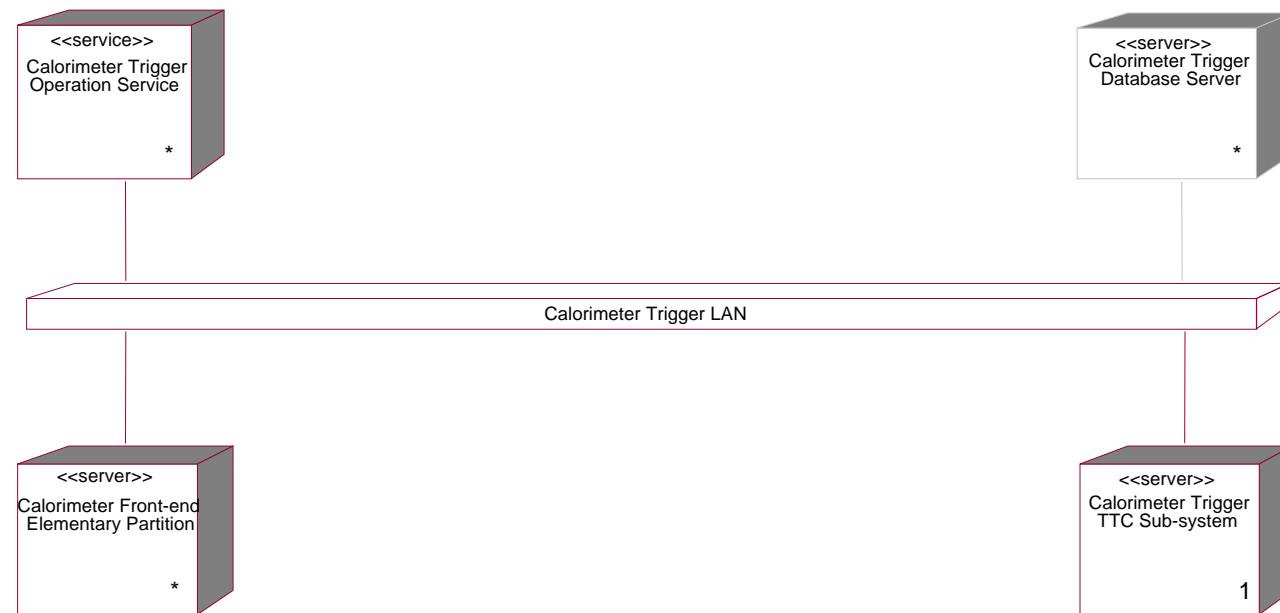
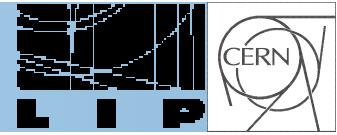


Architecture



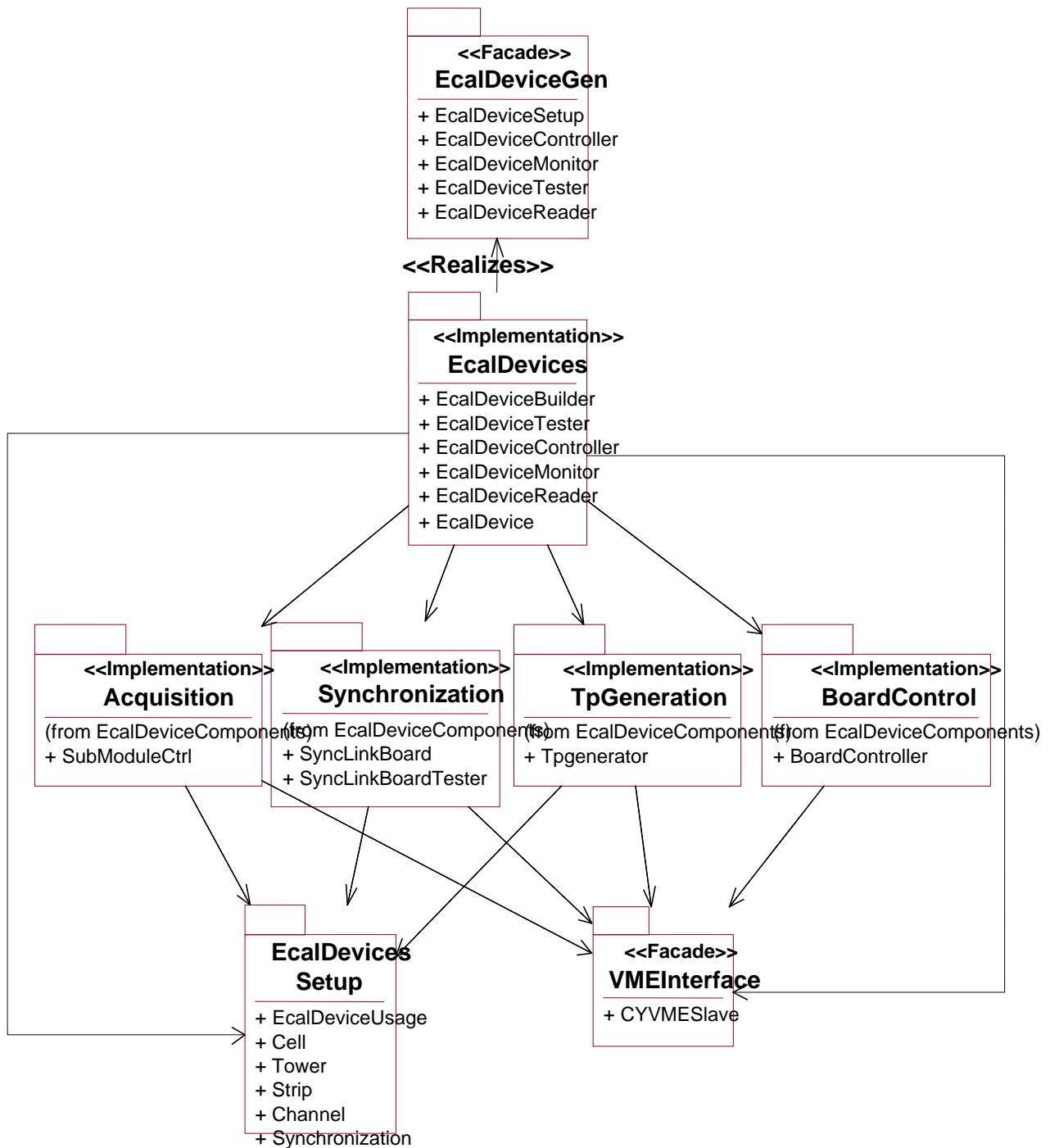
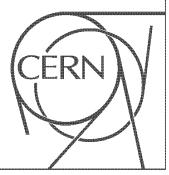
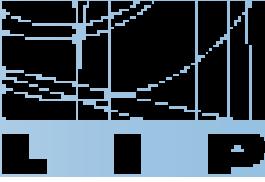


Prototype Architecture



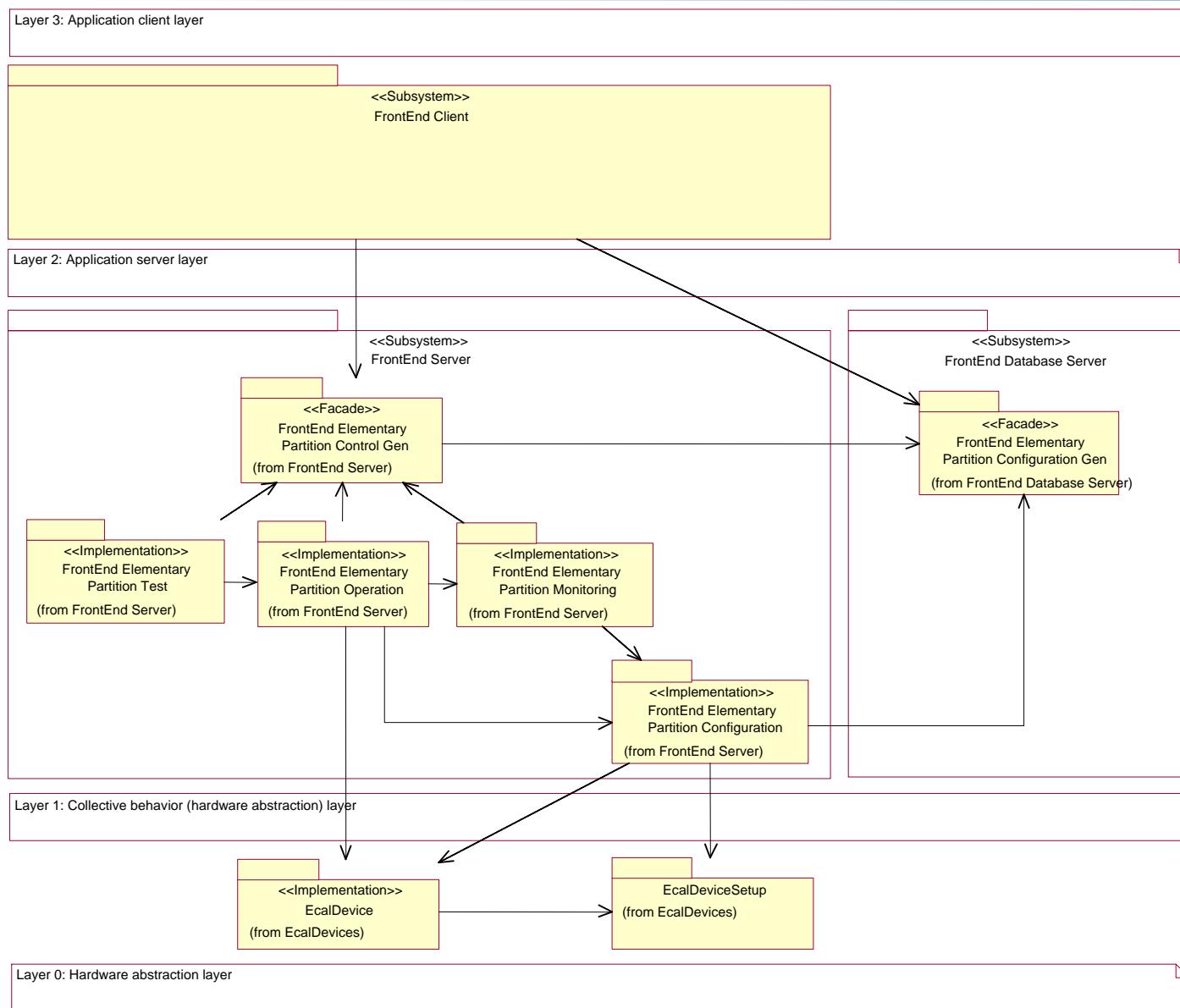
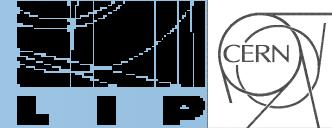


Ecal Device model



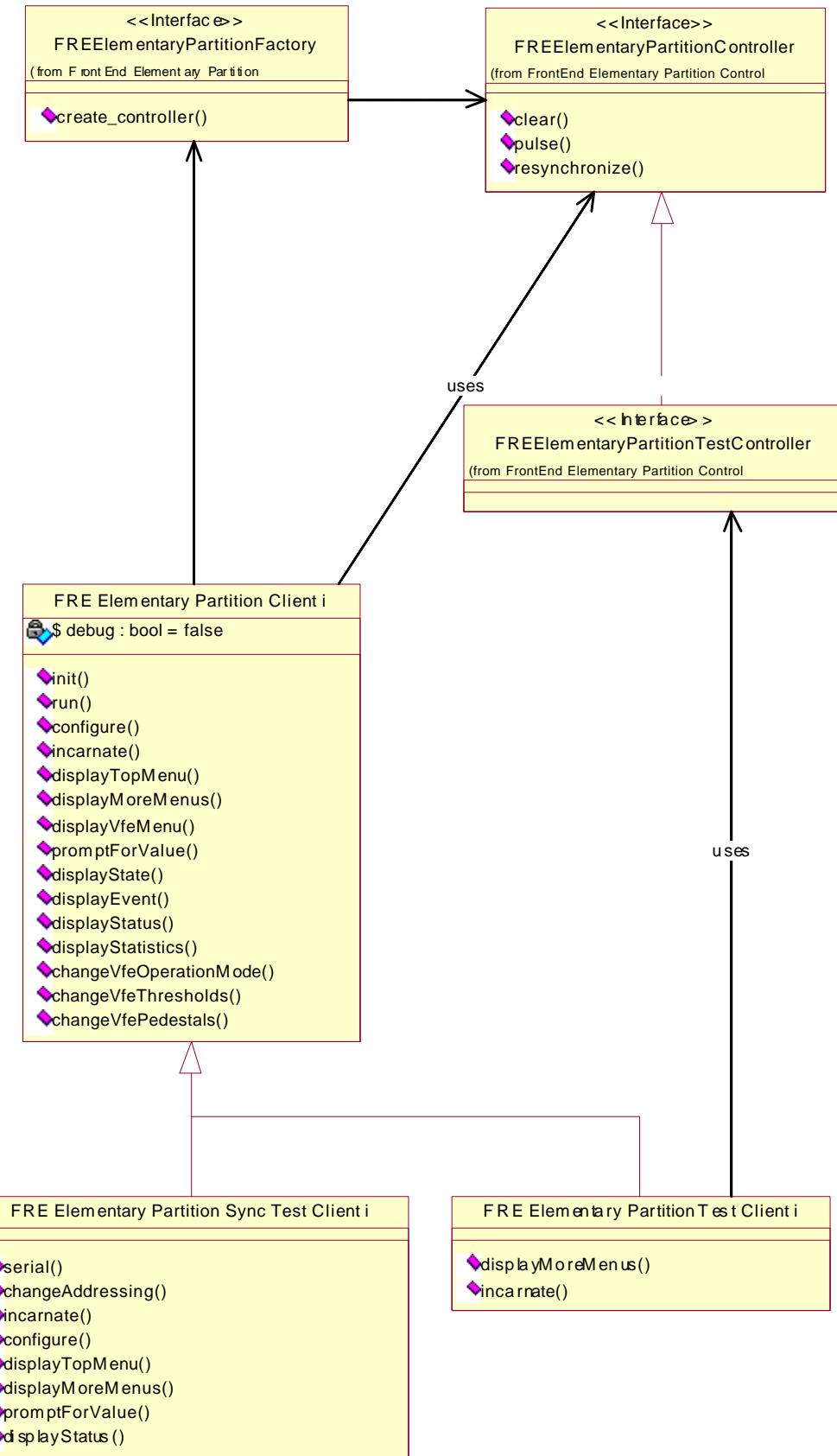
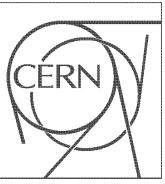
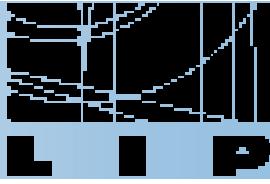


Front-end Sub-system (Packag'ng)



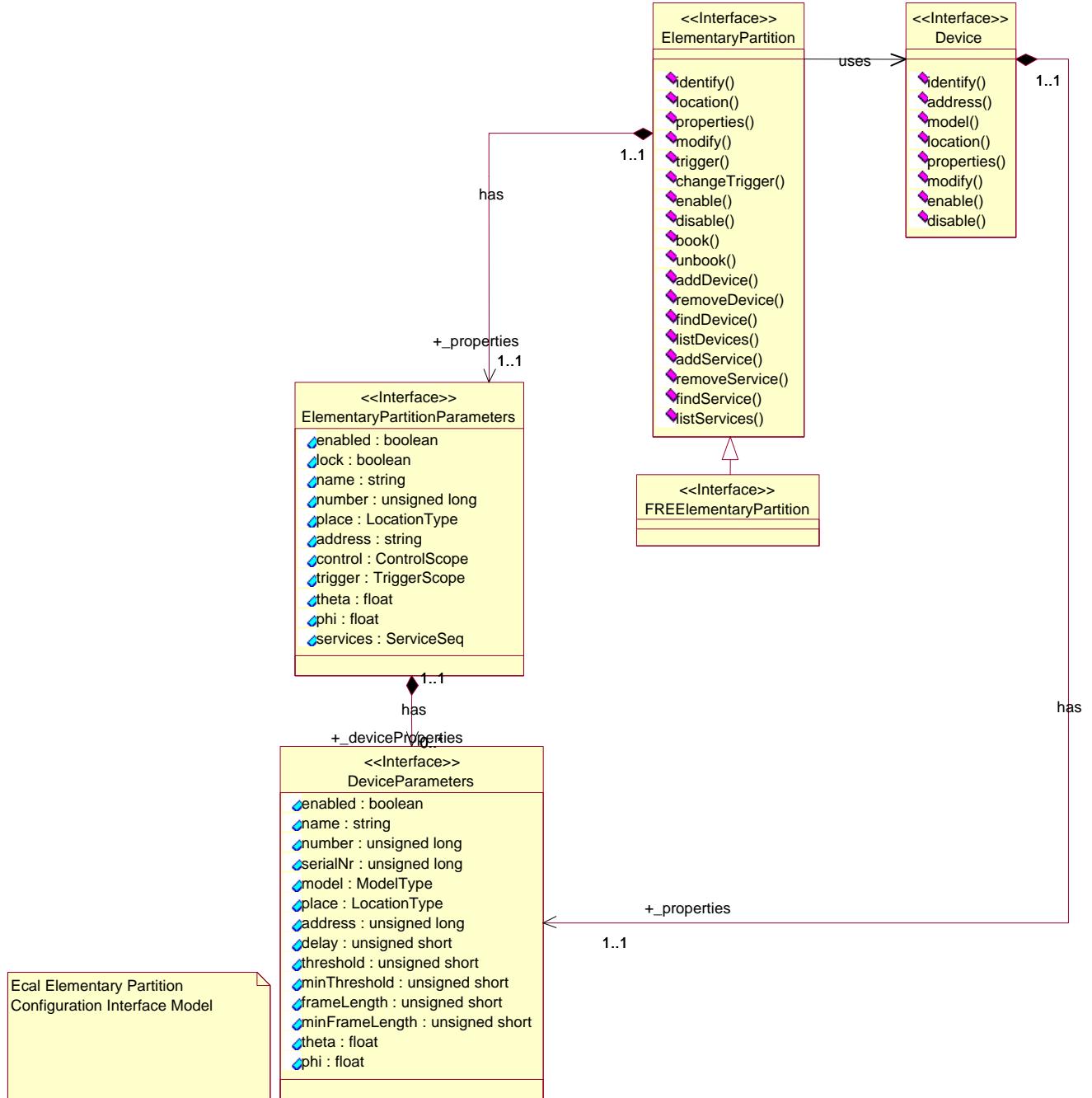


Interface client model



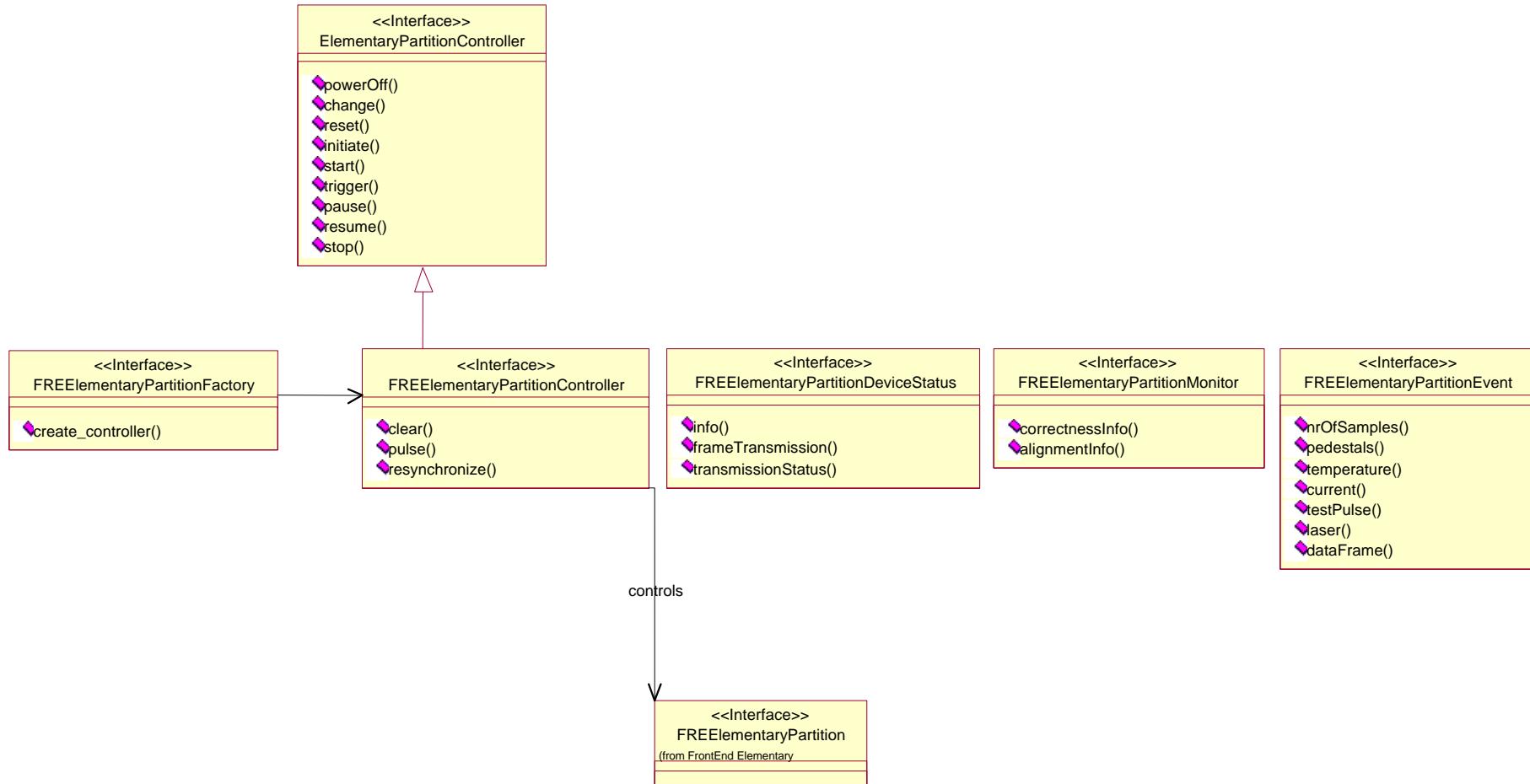


Interface configuration model



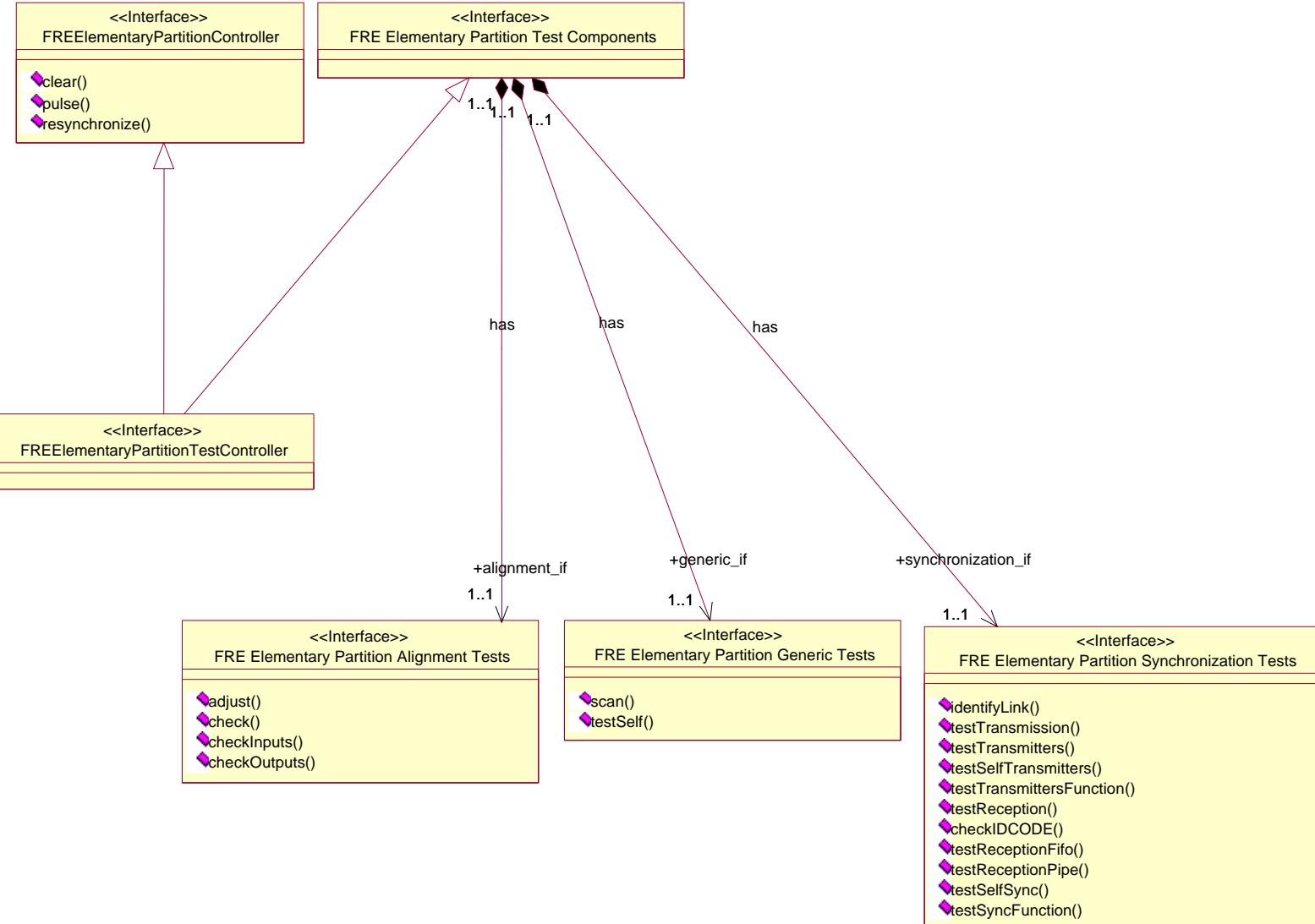
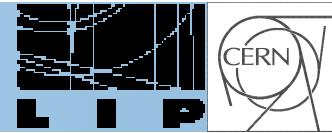


Interface operation cntrl model





Interface test cntrl model





Operation model

