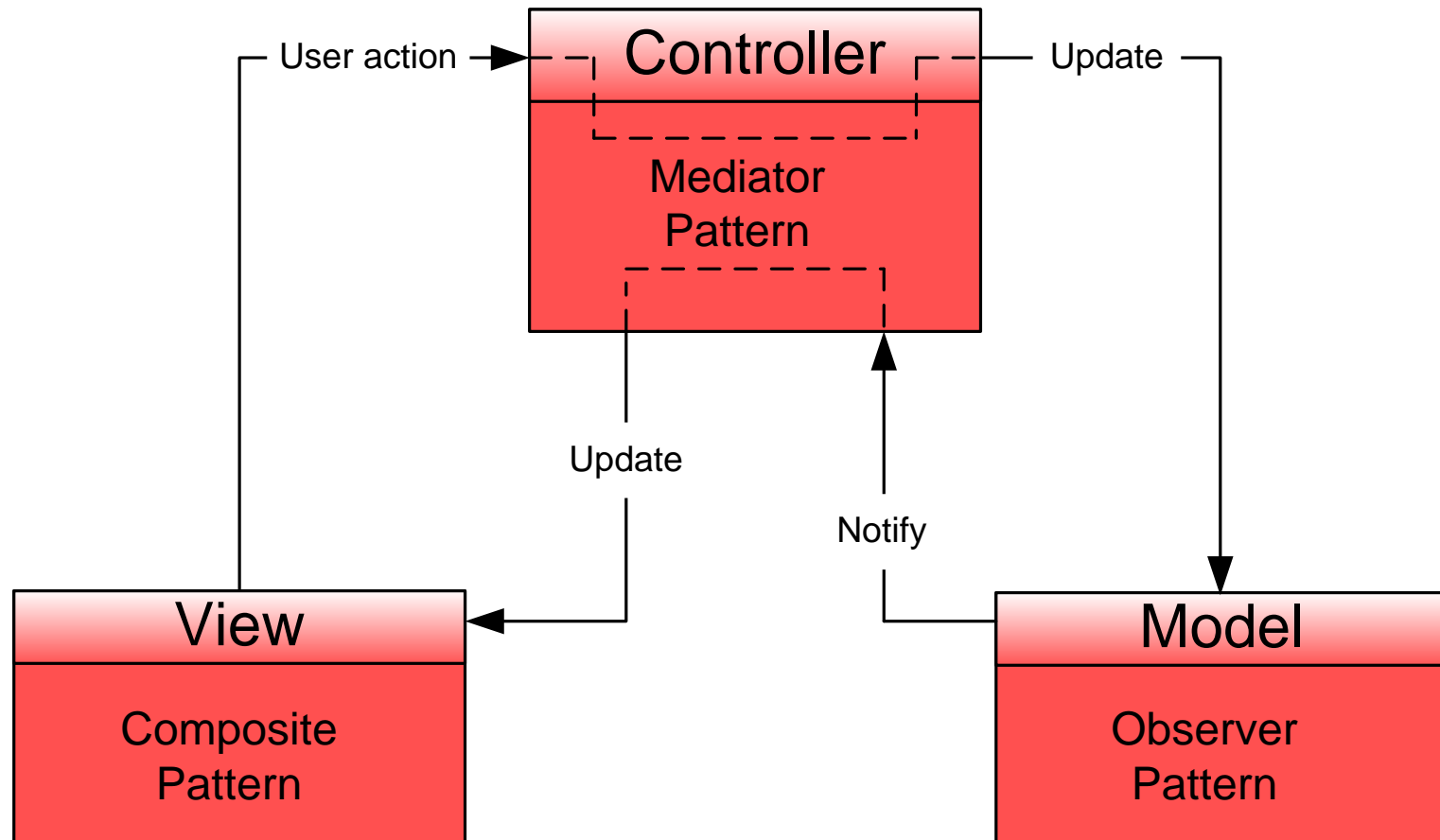
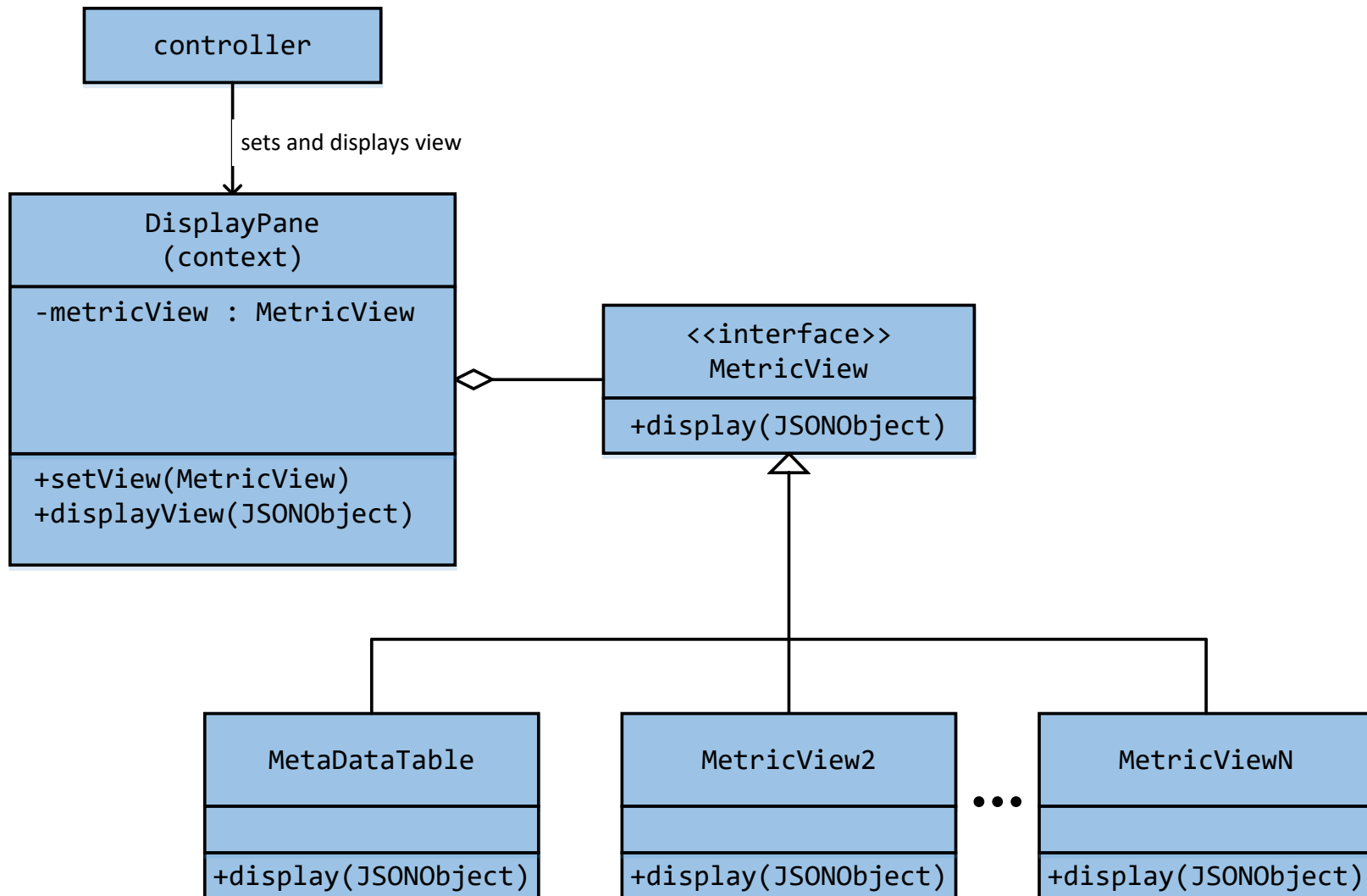


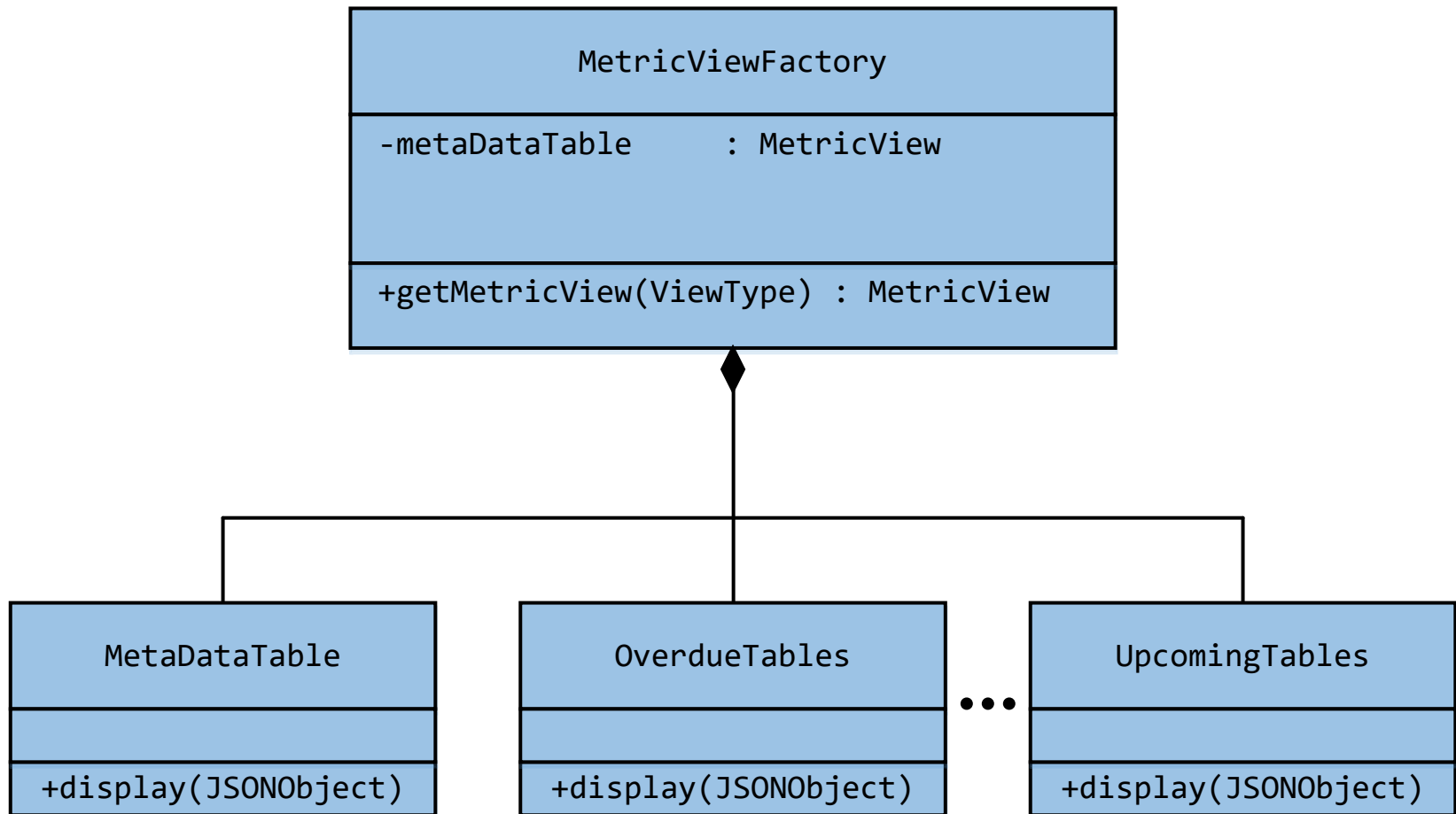
Modified Model-View-Control Design Pattern



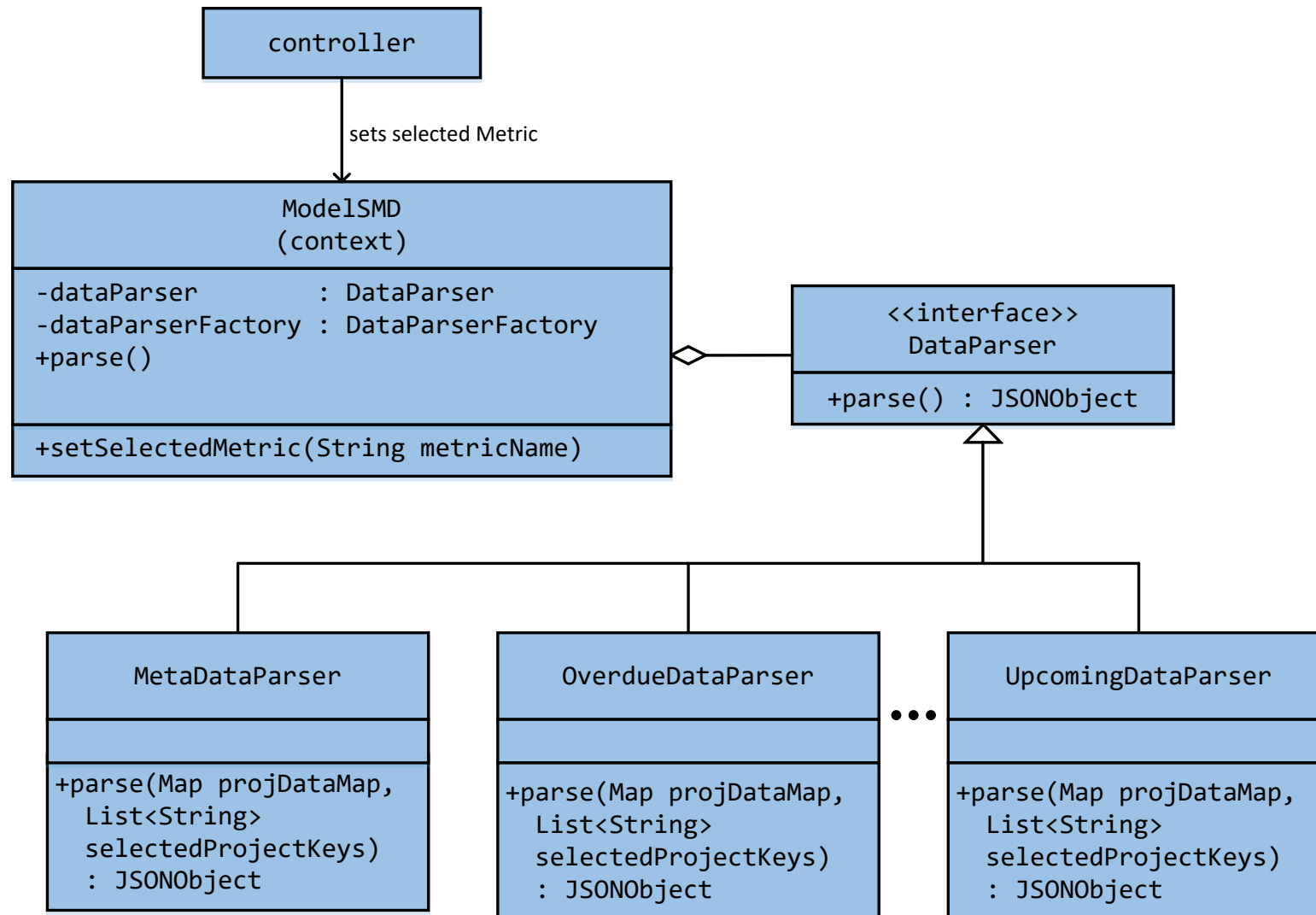
SMD Strategy Design Pattern for Metric Displays



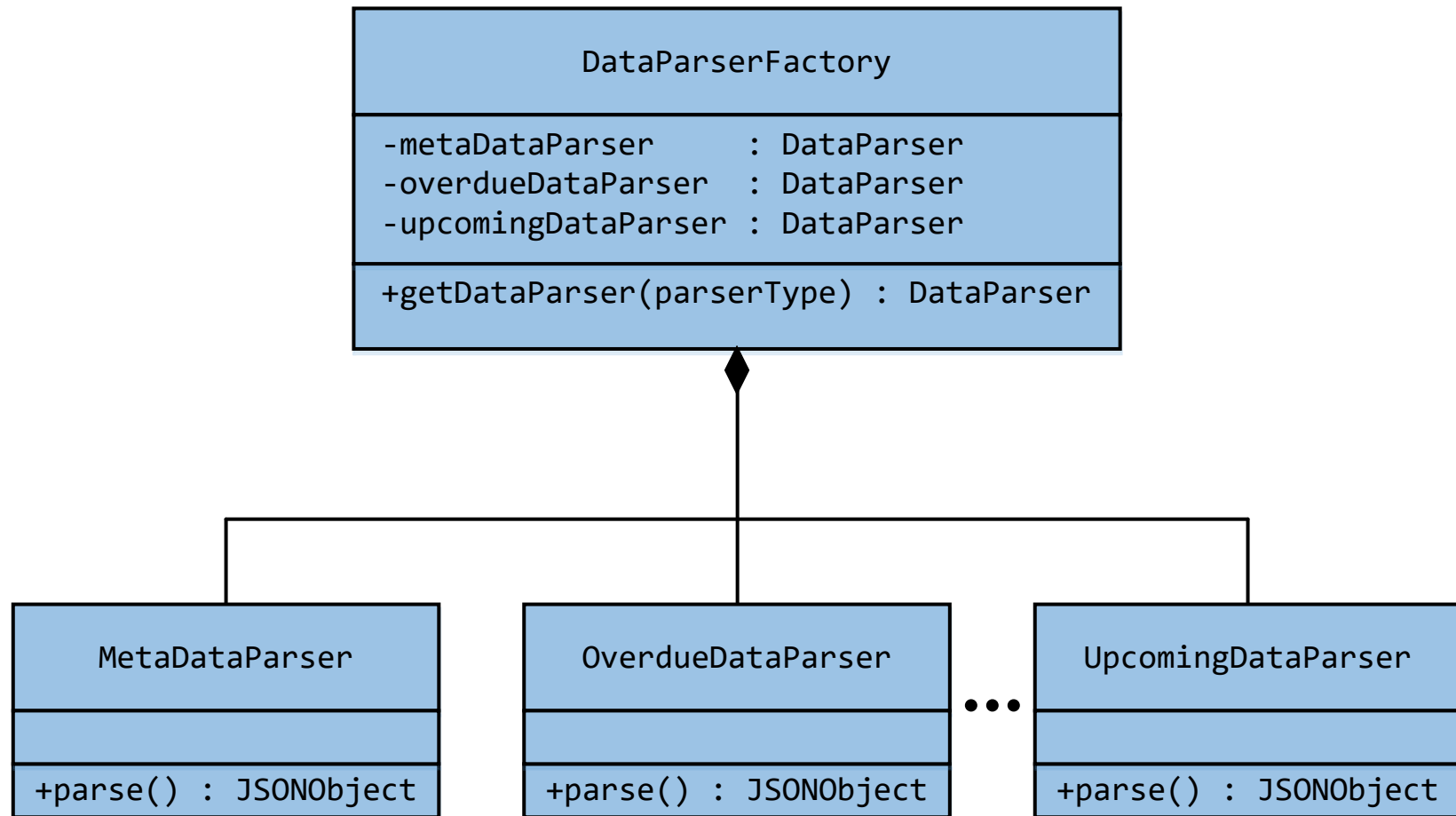
SMD Factory Design Pattern for JSON Data Parsing



SMD Strategy Design Pattern for JSON Data Parsing



SMD Factory Design Pattern for JSON Data Parsing



SAPE Metric Dashboard Classes

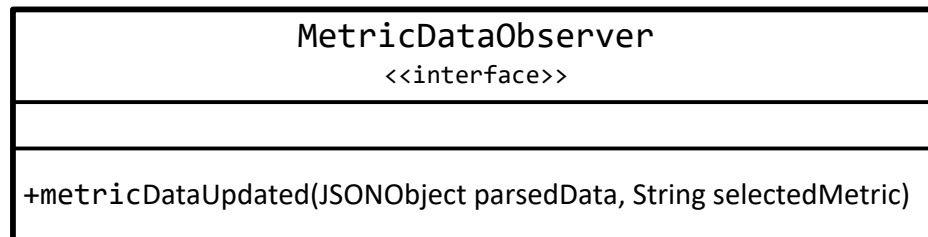
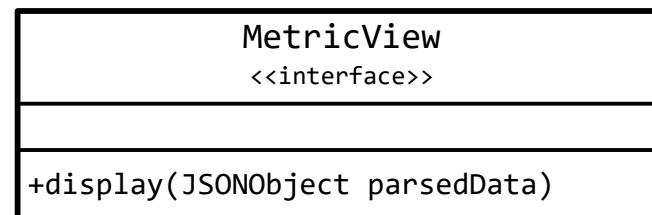
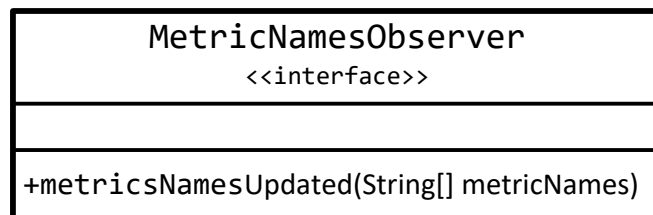
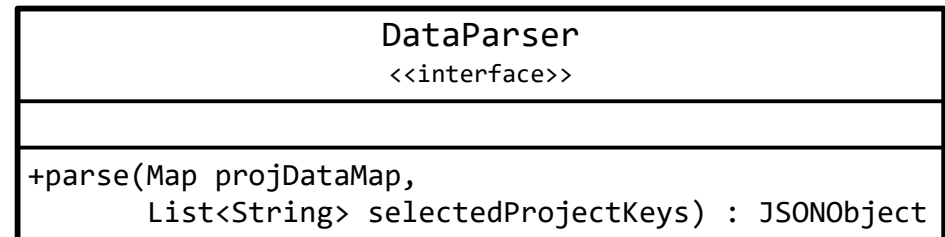
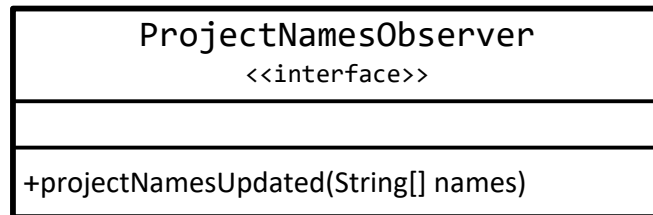
ModelSMD	
-projKeysMap	: HashMap<String, String>
-projFullNamesMap	: HashMap<String, String>
-projDataMap	: HashMap<String, List<String>>
-customFieldsIdMap	: HashMap<String, String>
-selectedProjectKeys	: List<String>
-cookieHeader	: Map<String, String>
-projectNamesObservers	: List<ProjectNamesObserver>
-metricNamesObservers	: List<MetricNamesObserver>
-metricDataObservers	: List<MetricDataObserver>
-username	: String
-password	: String
-serverName	: String
-jqlStatementsMap	: HashMap<String, String[]>
-selectedMetric	: String
-dataParserFactory	: DataParserFactory
-parsedData	: JSONObject
-instance	: ModleSMD static
+logout() : boolean	
+getInstance() : ModelSMD	
+registerProjectNamesObserver(ProjectNamesObserver observer)	
+registerMetricNamesObserver(MetricNamesObserver observer)	
+registerMetricDataObserver(MetricDataObserver observer)	
+setCredentials(String un, String pw, String server)	
+setSelectedMetric(String metricName)	
+setSelectedProjectKeys(List<String> selectedProjectTruncatedNames)	
-authenticate() : boolean	
-getProjectNames()	
-callJqlOfMetric()	
-getMetricsNamesAndJqls()	
-getCustomFieldIds()	

ProjectsGrid
(Implements ProjectNamesObserver)
+projectNamesUpdated(String[] names)

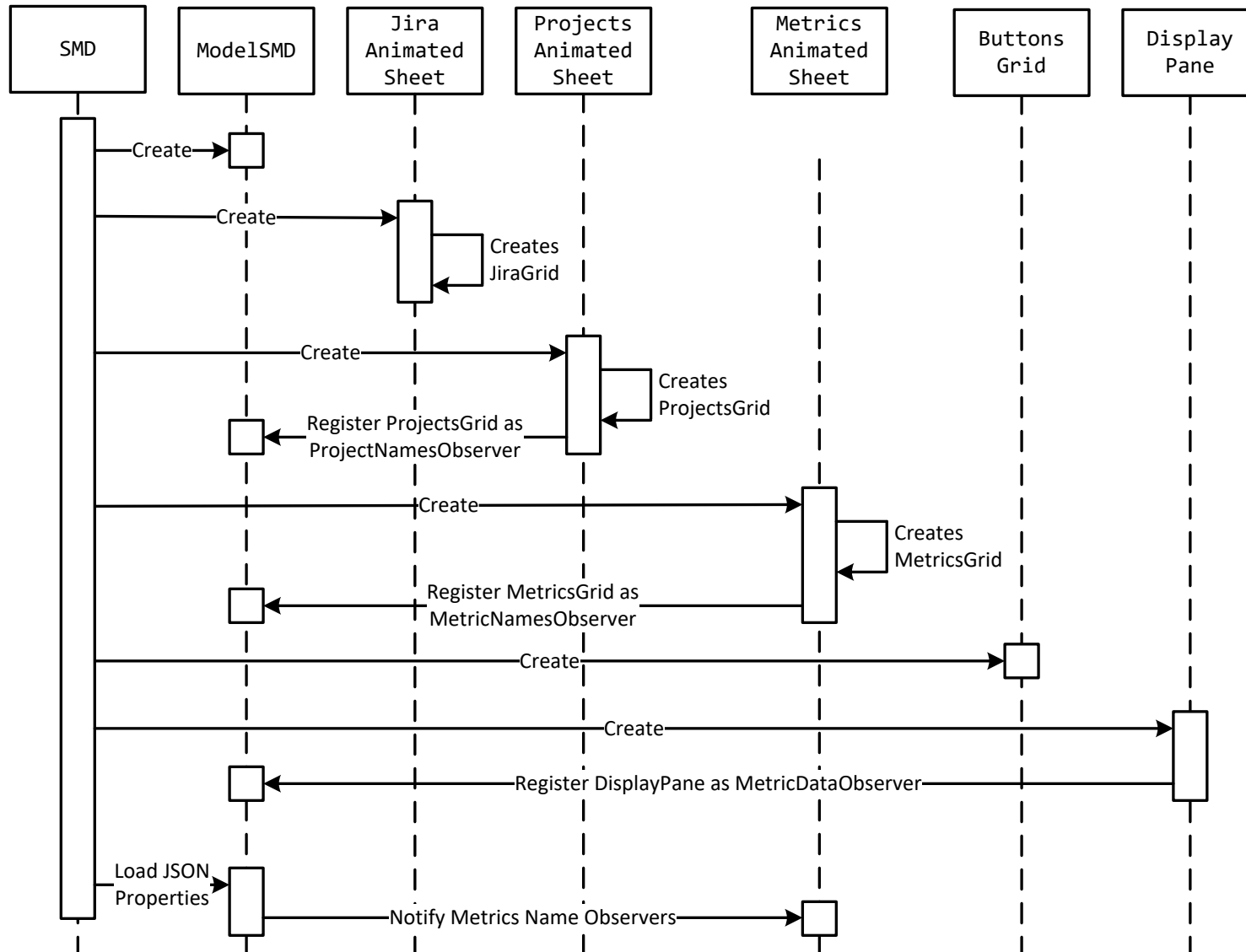
MetricsGrid
(Implements MetricNamesObserver)
+metricNamesUpdated(String[] metricNames)

DataParserFactory
-metaDataParser : DataParser
+getDataParser(parserType) : DataParser

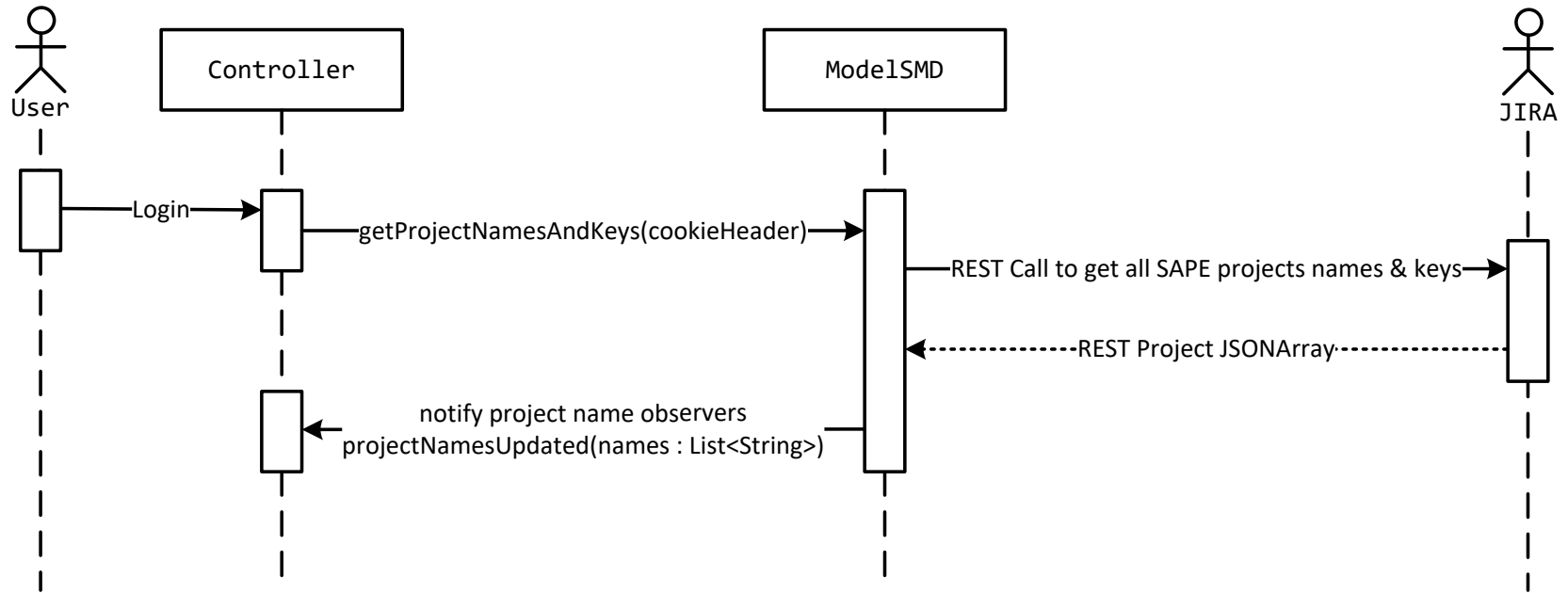
SAPE Interfaces



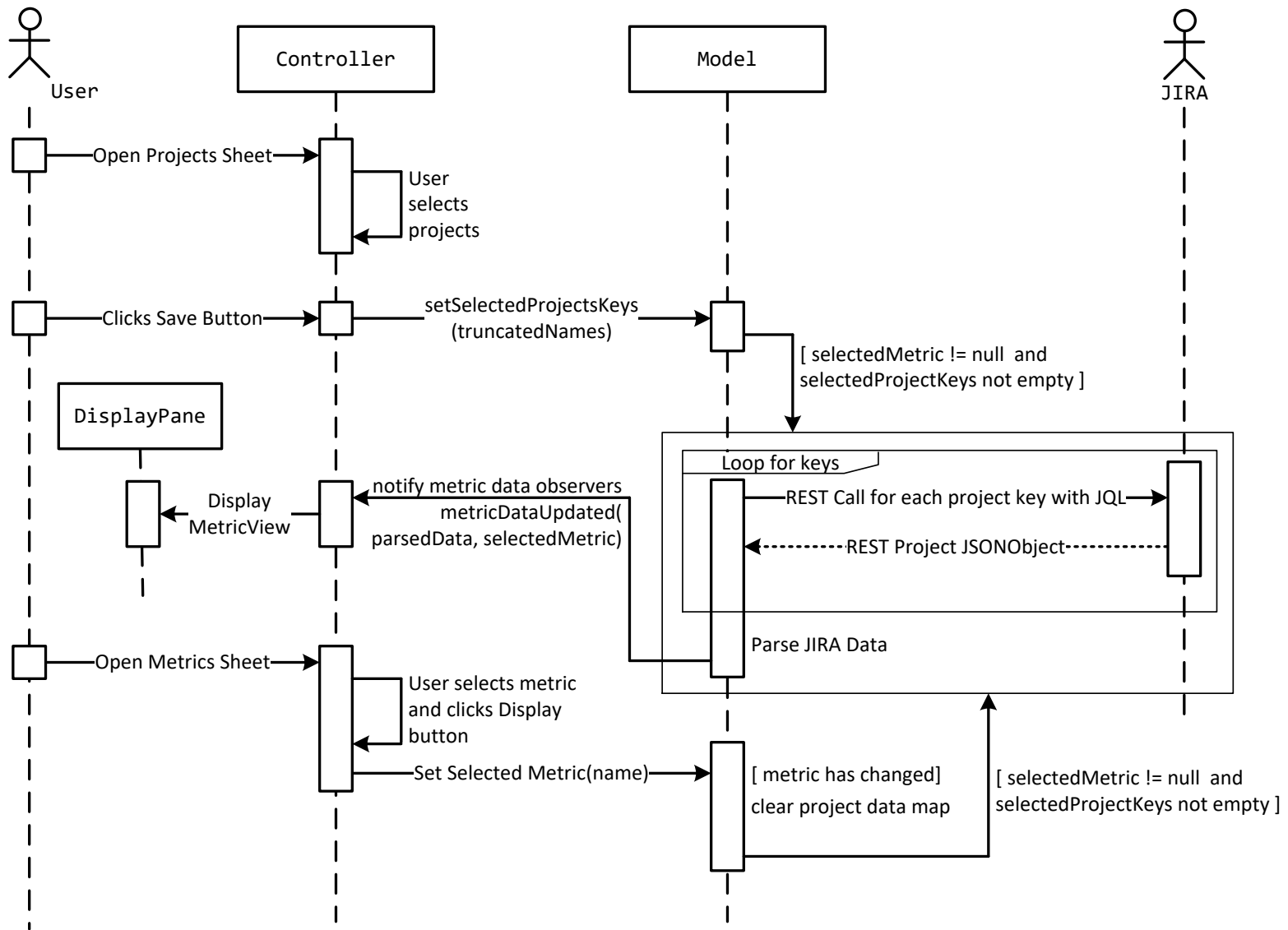
Startup Sequence Diagram



Login Sequence Diagram

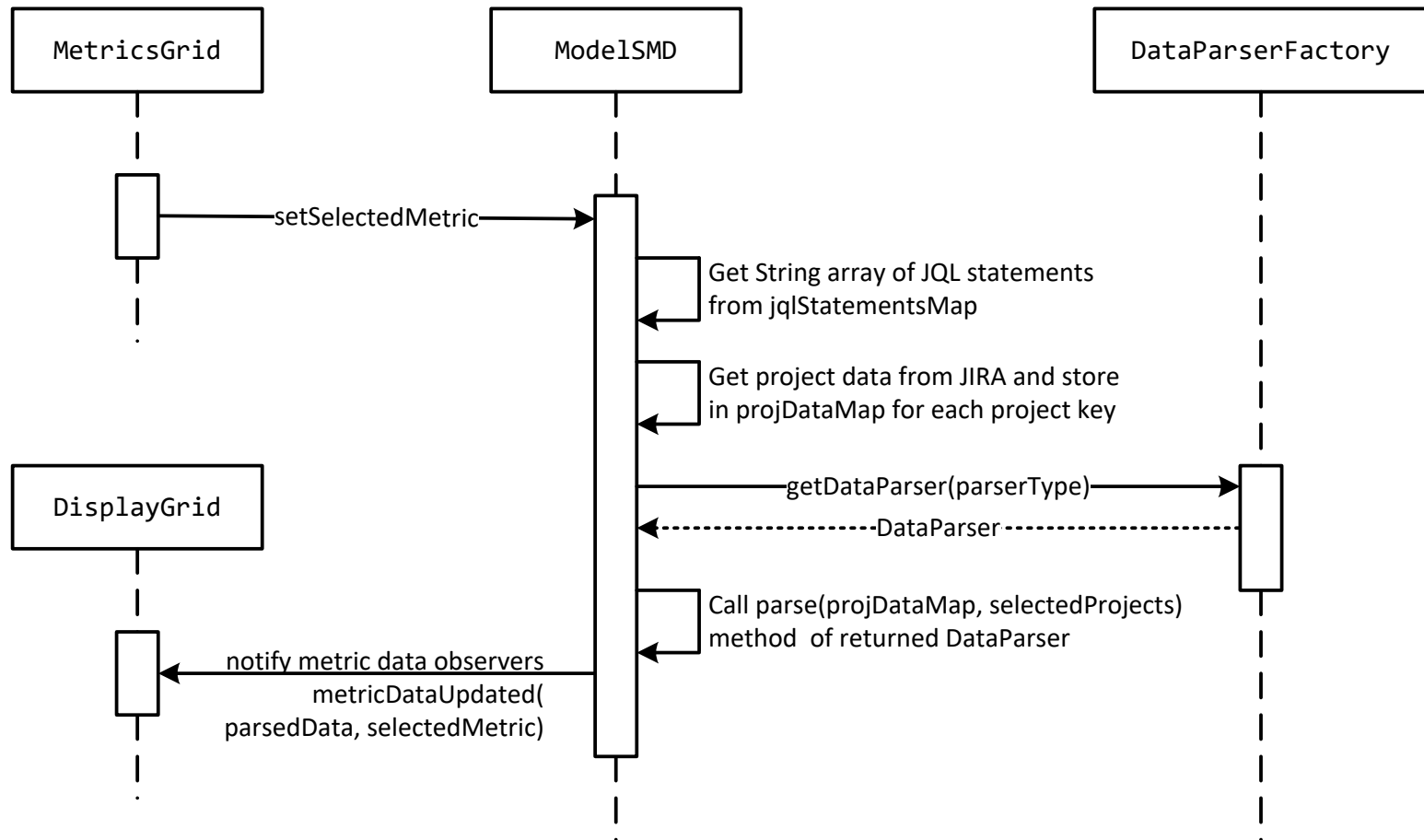


Select Sequence Diagram



Data Parsing Sequence Diagram

Assume user has selected projects and then selected a metric



SAPE Metrics Dashboard

JIRA 

Projects

Metrics

Past Due Activities

Tasks	Audits	Findings		
Project Name	Key	Summary	Days Overdue	Estimated Finding Closure Date
Lunar Prospector	LP-100	SAM Finding #1	18	2017-06-30
Lunar Prospector	LP-90	PPQA Finding #2	31	2017-06-17
Constellation	CONS-142	REQM Finding #1	1	2017-07-17
Constellation	CONS-104	SAM Finding #3	8	2017-07-10
Solar Probe Plus	SPP-107	CM Finding #2	2	2017-07-16
Solar Probe Plus	SPP-101	SAM Finding #2	17	2017-07-01
Solar Probe Plus	SPP-97	PPQA Finding #1	31	2017-06-17
Mars 2020	MARS-141	REQM Finding #2	35	2017-06-13
Mars 2020	MARS-98	PPQA Finding #3	9	2017-07-09
Mars 2020	MARS-97	PPQA Finding #2	41	2017-06-07

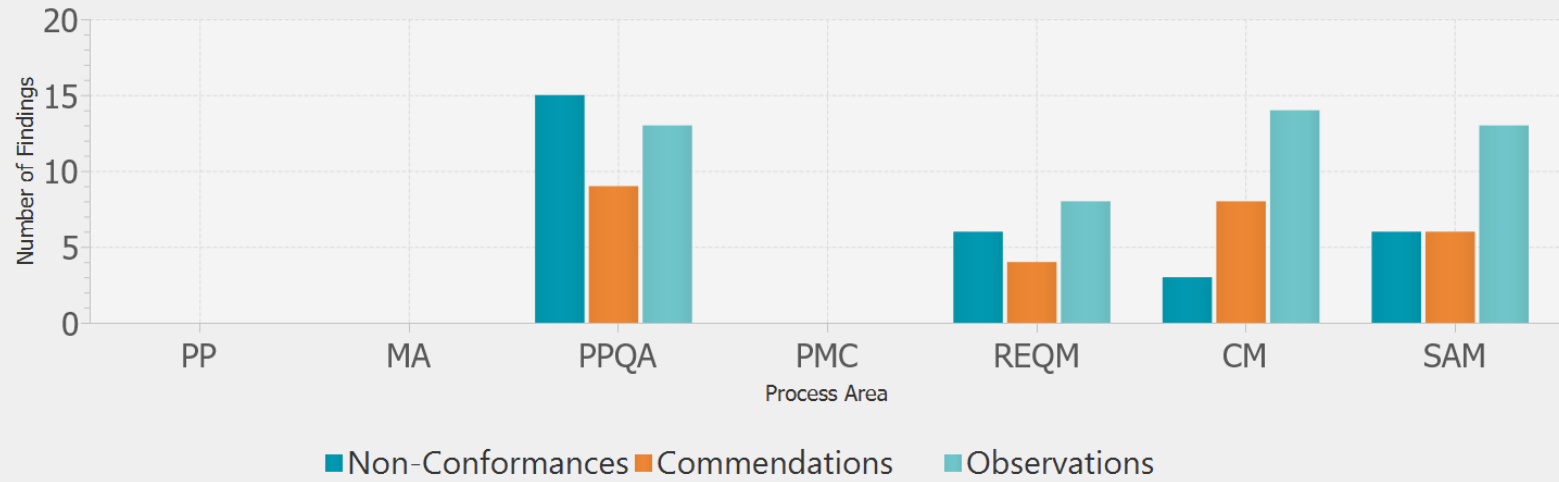
SAPE Metrics Dashboard

JIRA ●

Projects

Metrics

Findings per Process Area



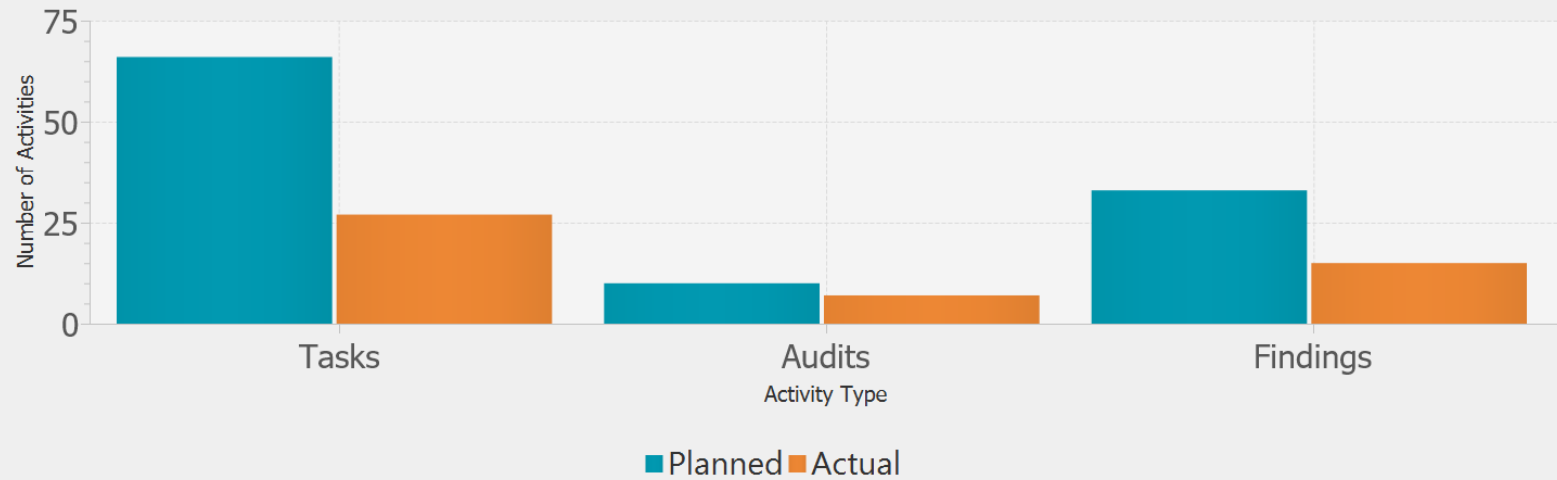
SAPE Metrics Dashboard

JIRA ●

Projects

Metrics

Activities Planned vs. Actual



SAPE Metrics Dashboard

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Projects

Metrics

Project Meta-Data

Project Name	Risk Level	Software Class	Phase Brought onto Project	SA Type	SA Source	SA Lead Engineer	Total Task Hours	Safety Critical
NEXT-C	4-Marginal	C	Phase A	Acquirer	SMA	Phuoc Thai	0.0	No
Deep Space One	4-Marginal	C	Phase C	Acquirer and Provider	Project	-	340.0	Yes
SFSD	-	C	Pre-Phase A	Acquirer and Provider	SMA	Thong Luu	18.0	No
Lunar Prospector	3-Moderate	C	Phase D	Acquirer	SMA	-	340.0	Yes
Human Research Program	1-High	A	Pre-Phase A	Acquirer	SMA	Richard Plastow	52.0	Yes
Integrated Medical Model	4-Marginal	D	Phase A	Acquirer	SMA	Kyle Gee	12.0	No
Radio Frequency Mass Ga...	-	C	Phase C	Acquirer and Provider	SMA	Tim Ferlin	0.0	No
EVA PAS 2.0	-	D	Phase A	Acquirer and Provider	SMA	-	0.0	No
20W/20K Cryocooler	-	D	Phase A	Acquirer	SMA	-	4.0	Yes
Constellation	2-Medium	E	Phase A	Acquirer	SMA	-	340.0	TBD
Digital Astronaut Project	-	E	-	Acquirer	SMA	Phuoc Thai	0.0	No

SAPE Metrics Dashboard

JIRA 

Projects

Metrics

Upcoming Activities (30 Days)

Tasks	Audits	Findings		
Project Name	Key	Summary	Days Until Due	Due Date
Deep Space One	DSO-144	Track Problems to Closure for Deep Space One #4	14	2017-08-02
Deep Space One	DSO-134	Ensure SA Record Management for Deep Space One #3	9	2017-07-28
Deep Space One	DSO-133	Ensure SA Record Management for Deep Space One #2	10	2017-07-29
Deep Space One	DSO-120	Other SA for Acquisition Activitty for Deep Space One	3	2017-07-22
Deep Space One	DSO-84	Assure Problems With Products Found From Testing, Peer Review...	20	2017-08-08
Deep Space One	DSO-79	Support Code and Formal Inspection for Deep Space One #2	5	2017-07-24
Deep Space One	DSO-78	Support Code and Formal Inspection for Deep Space One #1	3	2017-07-22
Deep Space One	DSO-77	Perform Software Safety Assurance for Deep Space One	6	2017-07-25
Lunar Prospector	LP-138	Ensure SA Record Management for Lunar Prospector #3	7	2017-07-26
Lunar Prospector	LP-124	Other SA for Acquisition Activitty for Lunar Prospector	6	2017-07-25

