

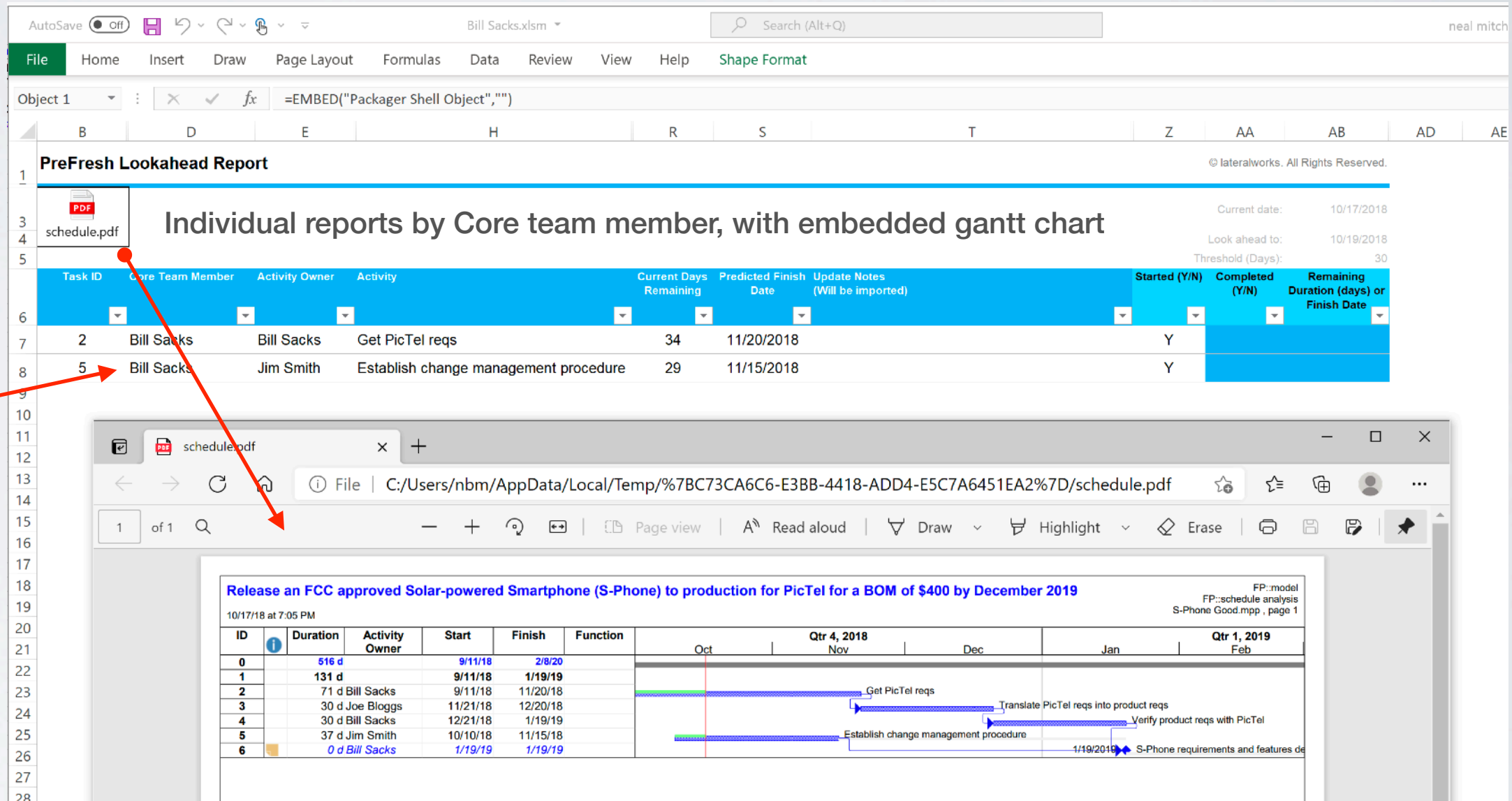
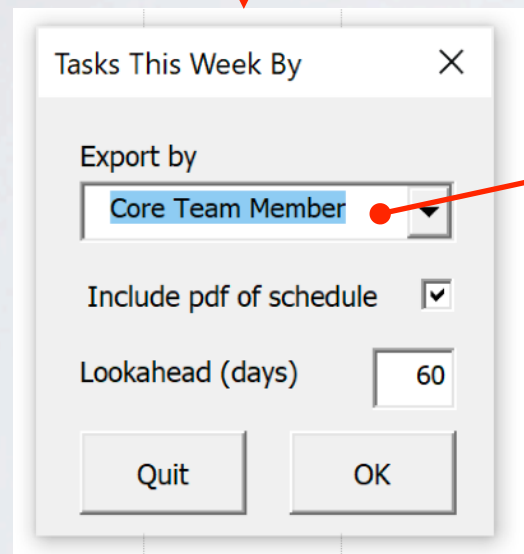
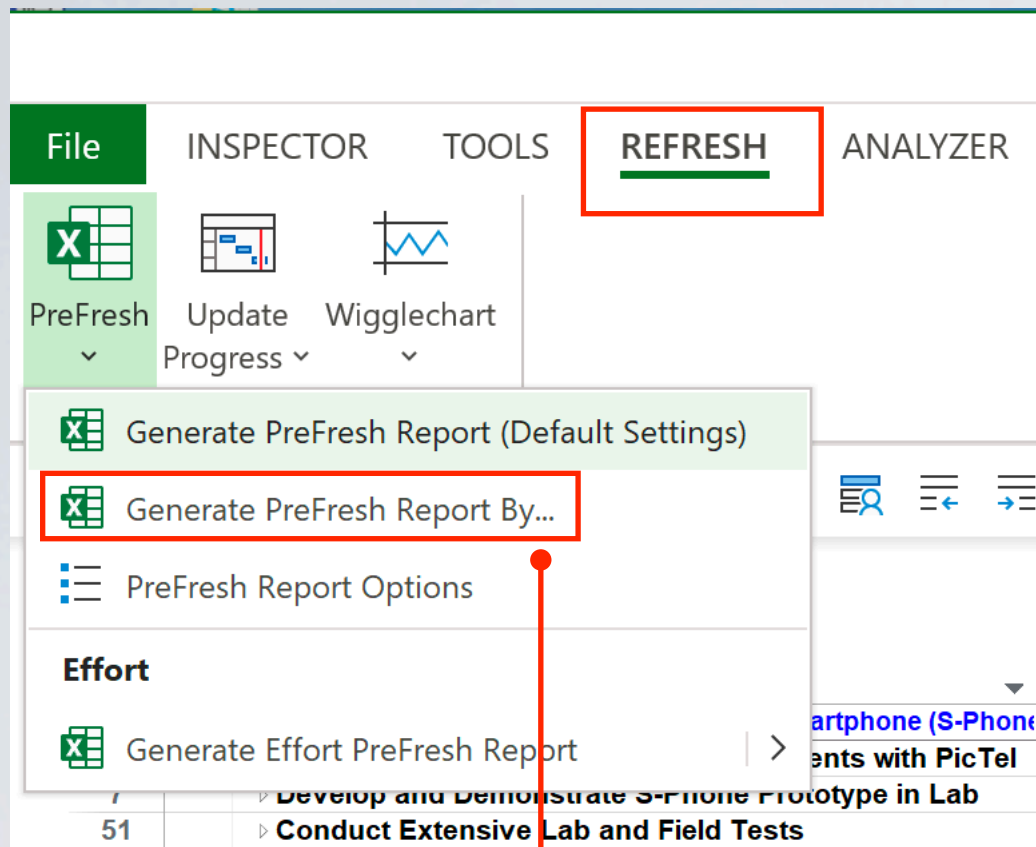
# Reporting & Analysis Seminar

## Topics

- Day before the Refresh meeting
- Immediately after Update
- During Refresh meeting
- After Refresh meeting (same day)
- [An example report set](#)
- How to create example report set
- CP Analysis (with Gantt)
- Additional analysis reports
- Acceleration Questions
- Low Overhead Reporting - concepts

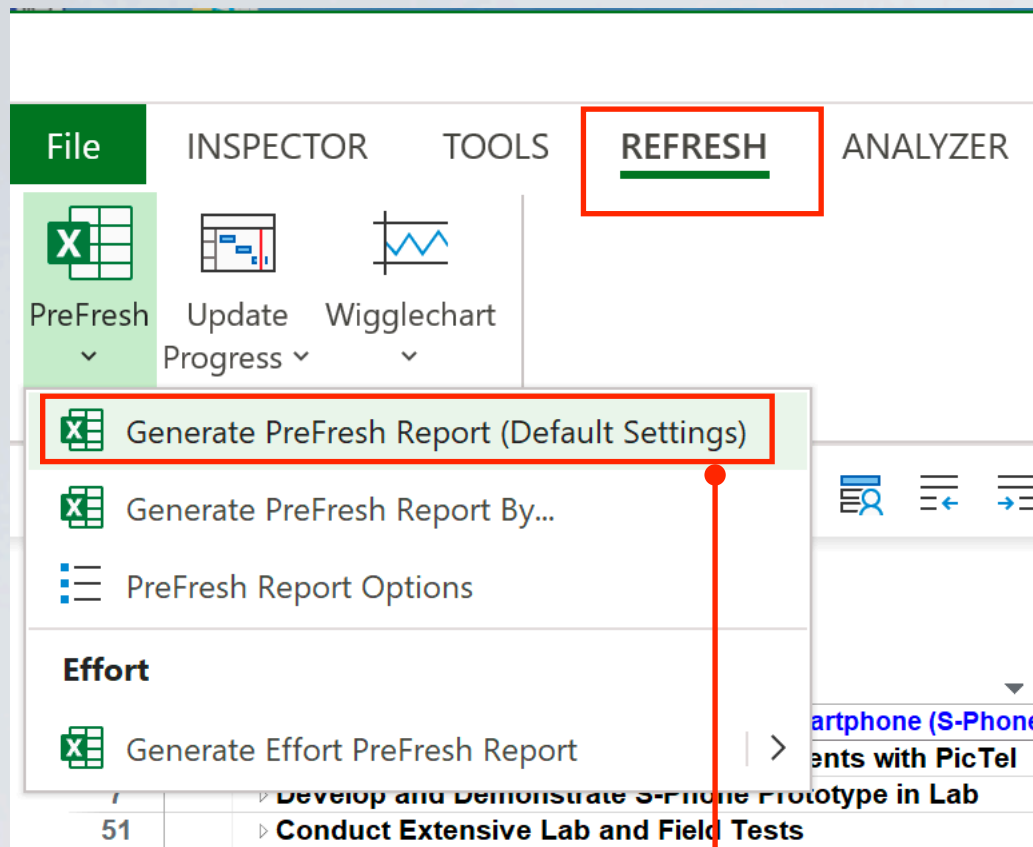
# Day before the Refresh meeting

# PreFresh Report (by Core Team Member)



- Can be posted on, for example Google Docs for shared access or emailed to each owner
- Posted or sent day before Refresh meeting; owners can update the Google Doc or come prepared to the Refresh meeting with updates

Note: When posted to a cloud shared service, embedded PDF gantt charts do not work



## PreFresh Report (all)

### Use cases:

1. Send day before meeting, Core Team Members use to collect updates from their team members and come prepared to Refresh meeting
2. Post to cloud day before meeting, Core Team Members collect updates from their team members and input to online sheet by close of business day before Refresh. PM downloads and imports before the Refresh meeting
3. Post or send day before meeting, then use as an input device to collect updates from Core Team Members during Refresh meeting
4. Post or send day before meeting, then use as an input device to collect updates from Core Team Members during Refresh meeting when using the Update Progress wizard

AutoSave  Off prefresh\_report\_template1 - Read-Only - Excel

File Home Insert Draw Page Layout Formulas Data Review View Help

AA24

PreFresh Lookahead Report										
Task ID	Activity Owner	Activity	Current Days Remaining	Predicted Finish Date	Update Notes (Will be imported)	Started (Y/N)	Completed (Y/N)	Remaining Duration (days) or Finish Date		
© lateralworks. All Rights Reserved.										
						Current date:	10/17/2018			
						Look ahead to:	10/19/2018			
						Threshold (Days):	30			
2	Bill Sacks	Get PicTel reqs	34	11/20/2018		Y	n	5		
5	Jim Smith	Establish change management procedure	29	11/15/2018		Y				
10	Brian P	Voice: Procure hardware development platform	9	10/26/2018		Y	y			
16	Neil	Voice: Setup development environment	4	10/21/2018		Y	n	10		
22	Paul B	Video/Data: Implement new data protocol features	74	12/30/2018		Y	n	80		
41	John M	Video/Data: Evaluate and procure development platform	29	11/15/2018		Y				
43	John M	Video/Data: Applications received from customer						2/28/2019		

# PreFresh Report (all)

After importing, click "Next" to be presented with CP to next target with baseline before update, note schedule change

After importing, status is written back to report

## PreFresh Lookahead Report

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Current date: 10/17/2018  
Look ahead to: 10/19/2018  
Threshold (Days): 30

Task ID	Activity Owner	Activity	Current Days Remaining	Predicted Finish Date	Update Notes (Will be imported)	Started (Y/N)	Completed (Y/N)	Remaining Duration (days) or Finish Date	Import Report
2	Bill Sacks	Get PicTel reqs	34	11/20/2018		Y	n	5	Finish date pulled-in by 23 days
5	Jim Smith	Establish change management procedure	29	11/15/2018		Y	n	10	Finish date pulled-in by 13 days
10	Brian P	Voice: Procure hardware development platform	9	10/26/2018		Y	n	15	Finish date slipped by 12 days
16	Neil	Voice: Setup development environment	4	10/21/2018		Y	n	10	Finish date slipped by 12 days
22	Paul B	Video/Data: Implement new data protocol features	74	12/30/2018		Y	n	80	Finish date slipped by 12 days
41	John M	Video/Data: Evaluate and procure development platform	29	11/15/2018		Y			NO STATUS: Assume not finished. No change
43	John M	Video/Data: Applications received from customer						2/28/2019	NO STATUS: Assume not completed. No change

Immediately after Update

# After Update is finished...analyze schedule change

Presented with CP to next target with baseline before update, note schedule change

File INSPECTOR TOOLS REFRESH ANALYZER

First S-Phone prototype demonstrated to customer in the lab

12 day slip 55 days late

Target: 6/30/2019

Finish: 8/24/2019

Prob of Hitting Target

Select Target or Task

Project

- First S-Phone prototype demonstrated to customer in the lab
- S-Phone field tests passed and approved by PicTel
- S-Phone released to manufacturing

Selected Task

Targets

Review Targets

S-Phone Good.mpp - Project Professional

INSPECTOR TOOLS REFRESH ANALYZER REPORT RESOURCES FACEBOOK Task Resource Report Project View Develop

Target: 6/30/2019

Finish: 8/24/2019

Prob of Hitting Target

Peel Back Peel Forward

Critical Path (CP1)

CP1 Finish: 8/24/2019

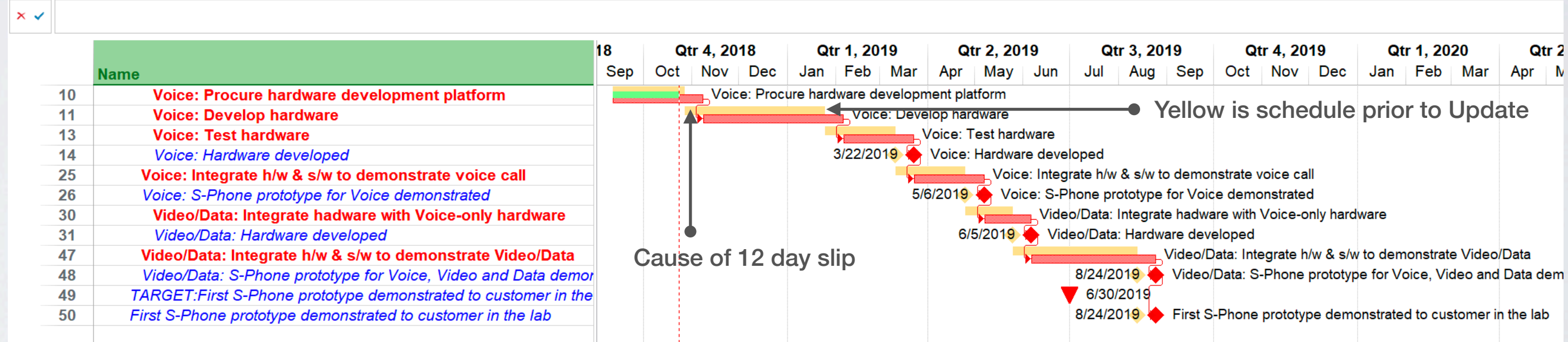
CP Analysis

Predecessors All Preds

Successors All Succs

Logic Peel

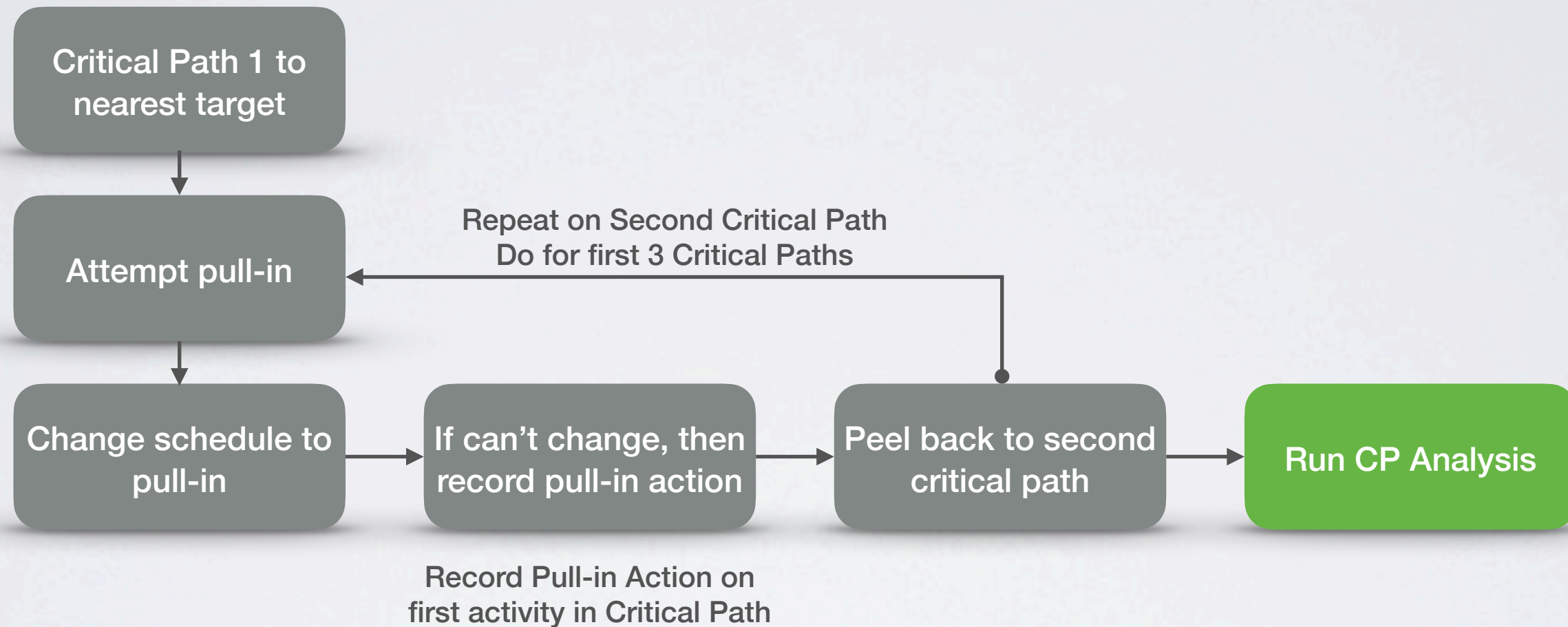
Use to see more tasks in the window





# During Refresh meeting

# Workflow Record Pull-in Actions



# Record Pull-in Action(s)

Critical Path to first target

INSPECTOR TOOLS REFRESH ANALYZER REPORT RESOURCES FACEBOOK Task Resource Report Project View

File INSPECTOR TOOLS REFRESH ANALYZER REPORT RESOURCES FACEBOOK Task Resource Report Project View

Target: 6/30/2019  
Finish: 8/24/2019  
55 days late  
Prob of Hitting Target

Critical Path (CP1)  
CP1 Finish: 8/24/2019

Predecessors  
All Preds  
Logic Peel

FP::incomplete

Name	Duration	Activity	Owner
Voice: Procure hardware development platform	58 d	Brian P	Brian P
Voice: Develop hardware	90 d	Brian P	Brian P
Voice: Test hardware	45 d	Brian P	Brian P
Voice: Hardware developed	0 d	Brian P	Brian P
Voice: Integrate h/w & s/w to demonstrate voice call	45 d	Susan Peters	Susan Peters
Voice: S-Phone prototype for Voice demonstrated	0 d	Brian Andersor	Brian Andersor
Video/Data: Integrate hardware with Voice-only hardware	30 d	Susan Peters	Susan Peters
Video/Data: Hardware developed	0 d	Susan Peters	Susan Peters
Video/Data: Integrate h/w & s/w to demonstrate Video/Data	80 d	Brian Anderso	Brian Anderso
Video/Data: S-Phone prototype for Voice, Video and Data	0 d	Brian Andersor	Brian Andersor
TARGET:First S-Phone prototype demonstrated to customer in the lab	0 d	Jim Smith	Jim Smith
First S-Phone prototype demonstrated to customer in the lab	0 d	Jim Smith	Jim Smith

Right mouse click

Record Pull-in Action to right of date stamp, then use "Owner:" to identify responsible person

Use date stamp to record more than one action

# Pull-in Action Critical Path Analysis Report

## Critical Path Analysis: First S-Phone prototype demonstrated to customer in the lab

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S-Phone Good.mpp

Generated: 5/21/2021 7:52:16 AM

CP	Driving Task(s)	Owner	Days from CP1	Gap	End Date
1	Voice: Procure hardware development platform	Brian P	0	(55)	8/24/2019
2	Voice: Setup development environment	Neil	10	(45)	8/14/2019
3	Video/Data: Develop hardware	Susan Peters	15	(40)	8/9/2019
4	Voice: Develop test software	Susan Peters	30	(25)	7/25/2019
5	Video/Data: Applications received from customer > Video/Data: Port new applications	John M	37	(18)	7/18/2019
6	Video/Data: Implement new data protocol features	Paul B	41	(14)	7/14/2019
7	Video/Data: Evaluate and procure development platform	John M	52	(3)	7/3/2019
8	Get PicTel reqs	Bill Sacks	70	15	6/15/2019
9	Video/Data: Implement new firmware features (unit test)	Steve B	75	20	6/10/2019
10	Translate PicTel reqs into product reqs	Joe Bloggs	85	30	5/31/2019

Target: 6/30/2019

CP1 to first target

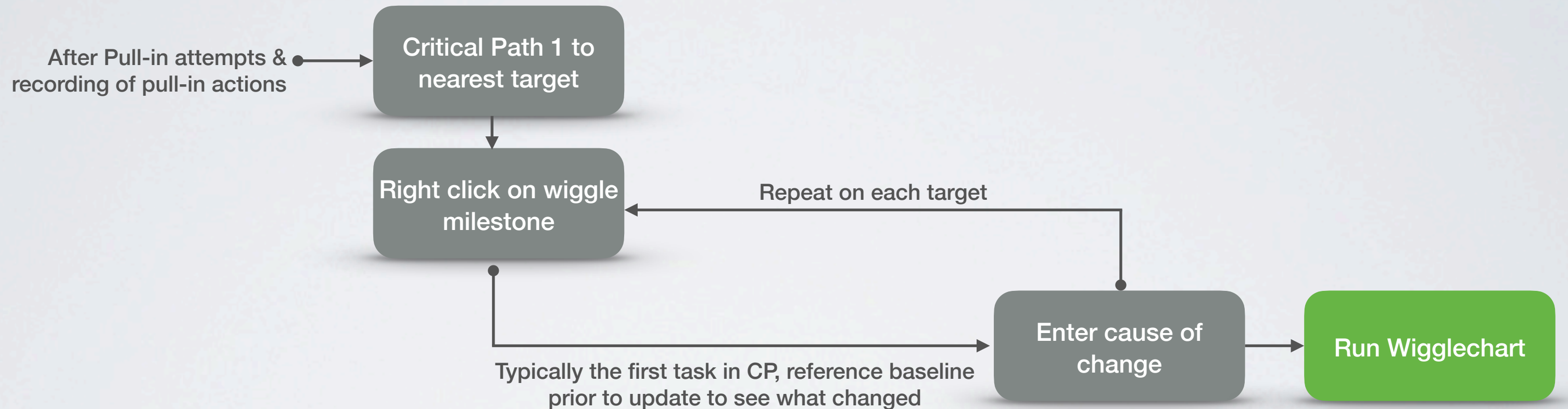
### Pull-in Action displayed on first task in CP1

Pull-in Actions

Owner

1	Escalate terms discussion with supplier and internal legal team through meeting tomorrow	Mark
2		
3		
4		
5	Attempt to get actions on first 3 CPs	
6		
7		
8		
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29		
30		

# Workflow Record Cause of Schedule Change



# Cause of Schedule Change

Start with first target, repeat for each target

S-Phone Good.mpp - fastProject

File INSPECTOR TOOLS REFRESH ANALYZER REPORT RESOURCES FACEBOOK Task Resource Report Project View Develop

First S-Phone prototype demonstrated to customer in the lab

Target: 6/30/2019  
Finish: 8/24/2019  
55 days late  
Prob of Hitting Target

Critical Path (CP1)  
CP1 Finish: 8/24/2019

Peel Back Peel Forward

Predecessors All Preds Successors All Succs

FP::incomplete

First S-Phone prototype demonstrated to customer in the lab

Name	Duration	Activity Owner	8	Qtr 4, 2018	Qtr 1, 2019	Qtr 2, 2019	Qtr 3, 2019	Qtr 4, 2019
Voice: Procure hardware development platform	58 d	Brian P						
Voice: Develop hardware	90 d	Brian P						
Voice: Test hardware	45 d	Brian P						
Voice: Hardware developed	0 d	Brian P						
Voice: Integrate h/w & s/w to demonstrate voice call	45 d	Susan Peters						
Voice: S-Phone prototype for Voice demonstrated	0 d	Brian Andersor						
Video/Data: Integrate hardware with Voice-only hardware	30 d	Susan Peters						
Video/Data: Hardware developed	0 d	Susan Peters						
Video/Data: Integrate h/w & s/w to demonstrate video call	0 d	Brian Andersor						
Video/Data: S-Phone prototype for Voice, Video and Data demonstrated	0 d	Brian Andersor						
TARGET: First S-Phone prototype demonstrated to customer in the lab	0 d	Jim Smith						

Right click on wiggly milestone

First S-Phone prototype demonstrated to customer in the lab

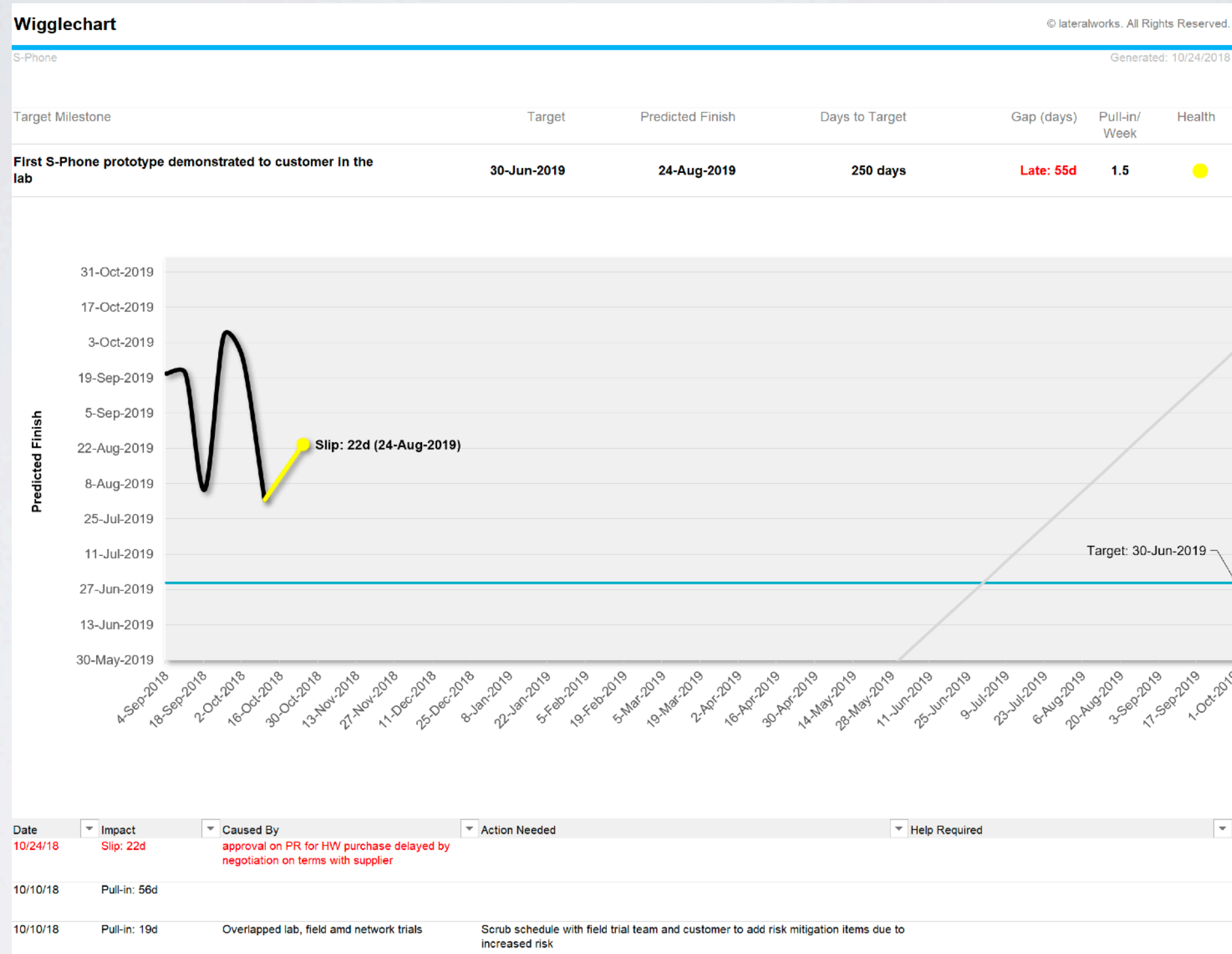
Oct 24 - approval on PR for HW purchase delayed by negotiation on terms with supplier

Doneness Criteria:

- Prototype S-phone hardware available
- Voice-only software developed and demonstrated to PicTel
- Video capability developed and demonstrated to PicTel

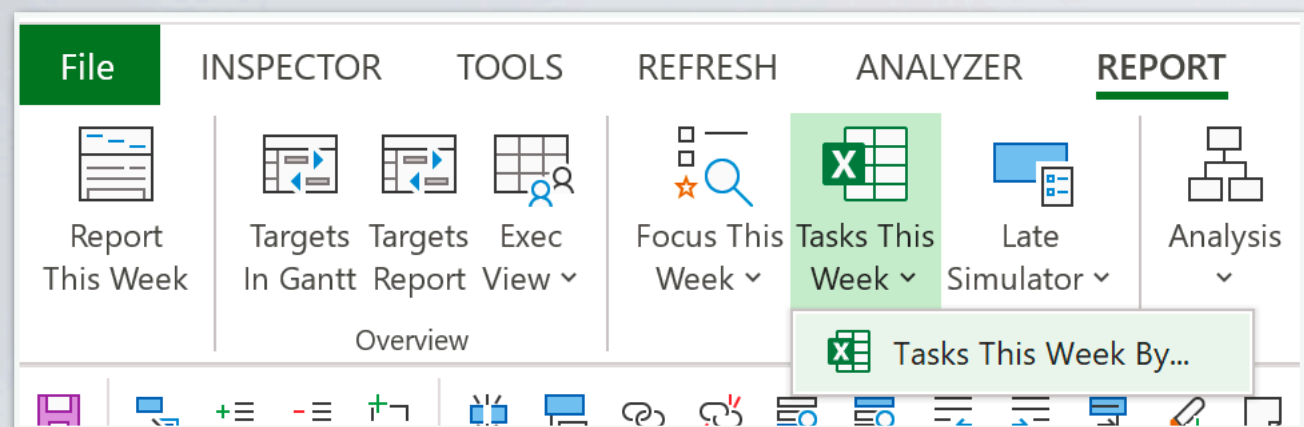
Record cause of schedule change to right of date stamp

# Cause of Schedule Change Wigglechart



After Refresh meeting (same day)

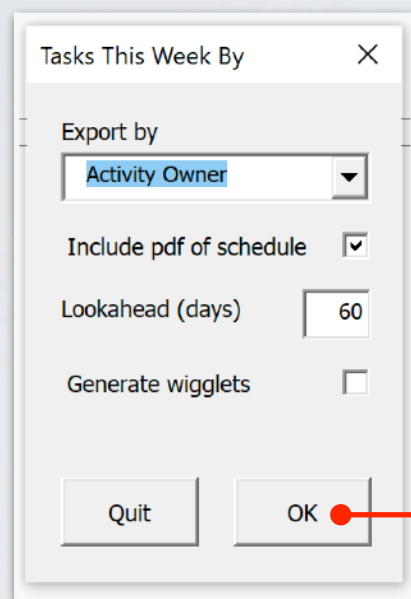




## Report This Week (by owner)

Used as a task list for each owner for the coming week

Generates individual reports by owner, this is an example of one owner's report



Individual reports by owner, with embedded gantt chart

- Can be posted on, for example Google Docs for shared access or emailed to each owner
- Posted or sent after Refresh meeting, for tasks in the coming week (per owner)

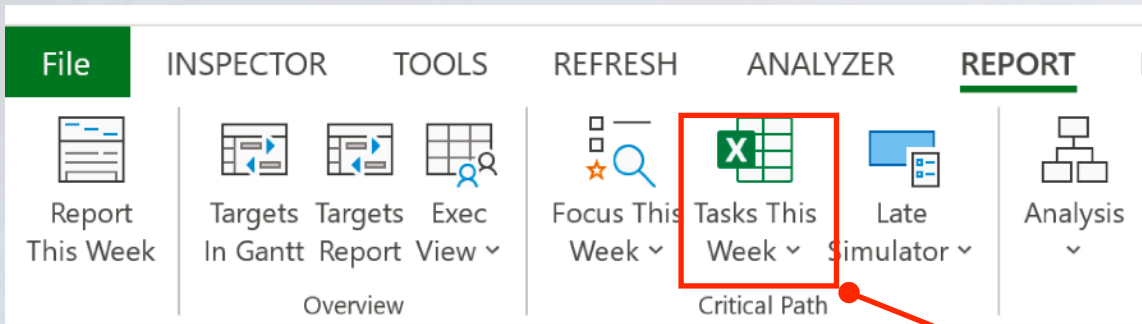
The screenshot shows an Excel spreadsheet with a 'Week Report: John M' section. A table lists tasks with columns for ID, Activity Owner, Activity, Days Remaining, Predicted Finish Date, Days from Critical Path, and Finish by. An embedded PDF viewer is open, showing a Gantt chart for the task 'Video/Data: Evaluate and procure development platform'.

ID	Activity Owner	Activity	Days Remaining	Predicted Finish Date	Days from Critical Path	Finish by	Notes
41	John M	Video/Data: Evaluate and procure development platform	23	11/15/2018	40		
43	John M	Video/Data: Applications received from customer		2/28/2019	25		

The embedded PDF viewer shows a Gantt chart for the task 'Video/Data: Evaluate and procure development platform' with a duration of 516 days, starting on 9/11/18 and finishing on 2/8/20. The chart shows the task progress across the months of October, November, and December.

Note: When posted to a cloud shared service, embedded PDF gantt charts do not work

# Report This Week (all)



ID	Activity Owner	Activity	Days Remaining	Predicted Finish Date	Days from Critical Path	Finish by 10/30/2018	Notes
2	Bill Sacks	Get PicTel reqs	0	10/28/2018	70	<input checked="" type="checkbox"/>	
3	Joe Bloggs	Translate PicTel reqs into product reqs	30		85		
5	Jim Smith	Establish change management procedure	3	11/2/2018	140		
10	Brian P	Voice: Procure hardware development platform	8	11/7/2018	0		
16	Neil	Voice: Setup development environment	3	11/2/2018	10		
22	Paul B	Video/Data: Implement new data protocol features	73	1/11/2019	40.75		
33	Steve B	Video/Data: Implement new firmware features (unit test)	100		75		
37	Mike P	Video/Data: Implement new data protocol features (unit test)	100		70		
41	John M	Video/Data: Evaluate and procure development platform	16	11/15/2018	52		
43	John M	Video/Data: Applications received from customer		2/28/2019	37		

- Can be posted on, for example Google Docs for shared access or emailed to Core Team Members
- Posted or sent after Refresh meeting, for tasks in the coming week (per owner)

Filter by owner

Touch-point to watch

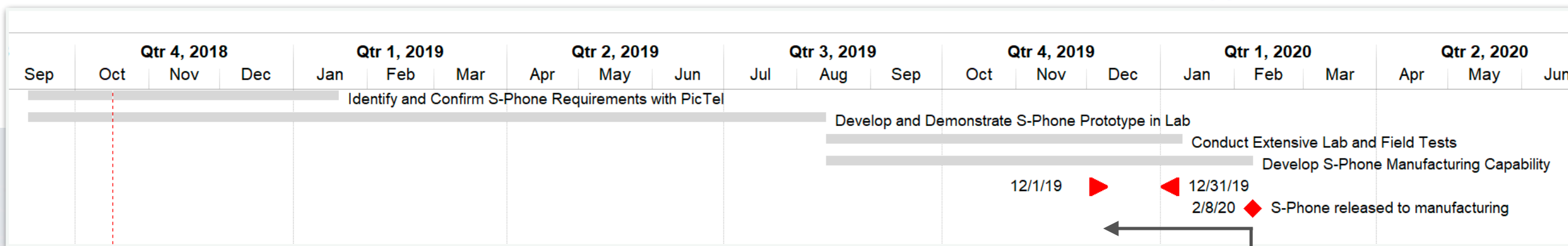
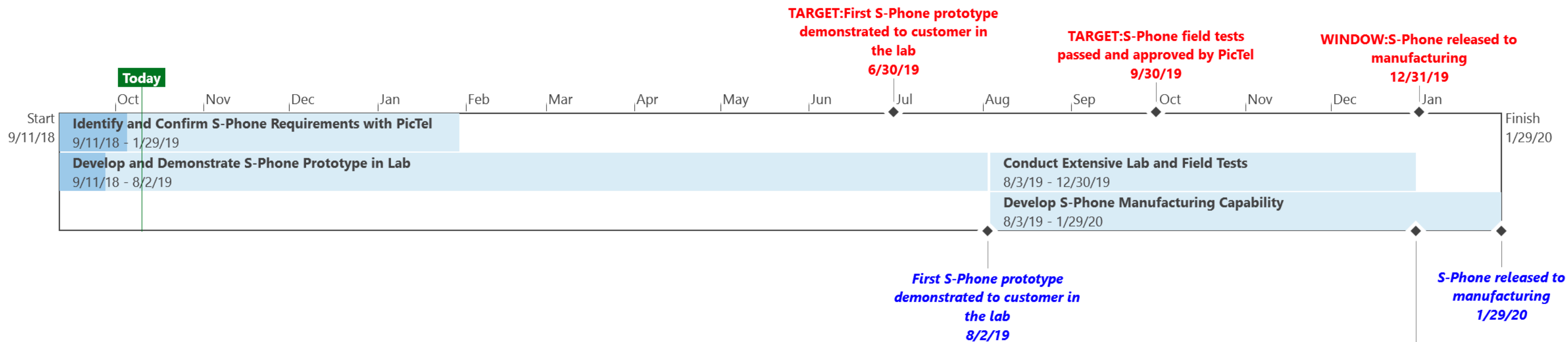
Critical Path task

Record notes during week for import day before Refresh meeting

Indicates should be complete by next refresh

# An example report set

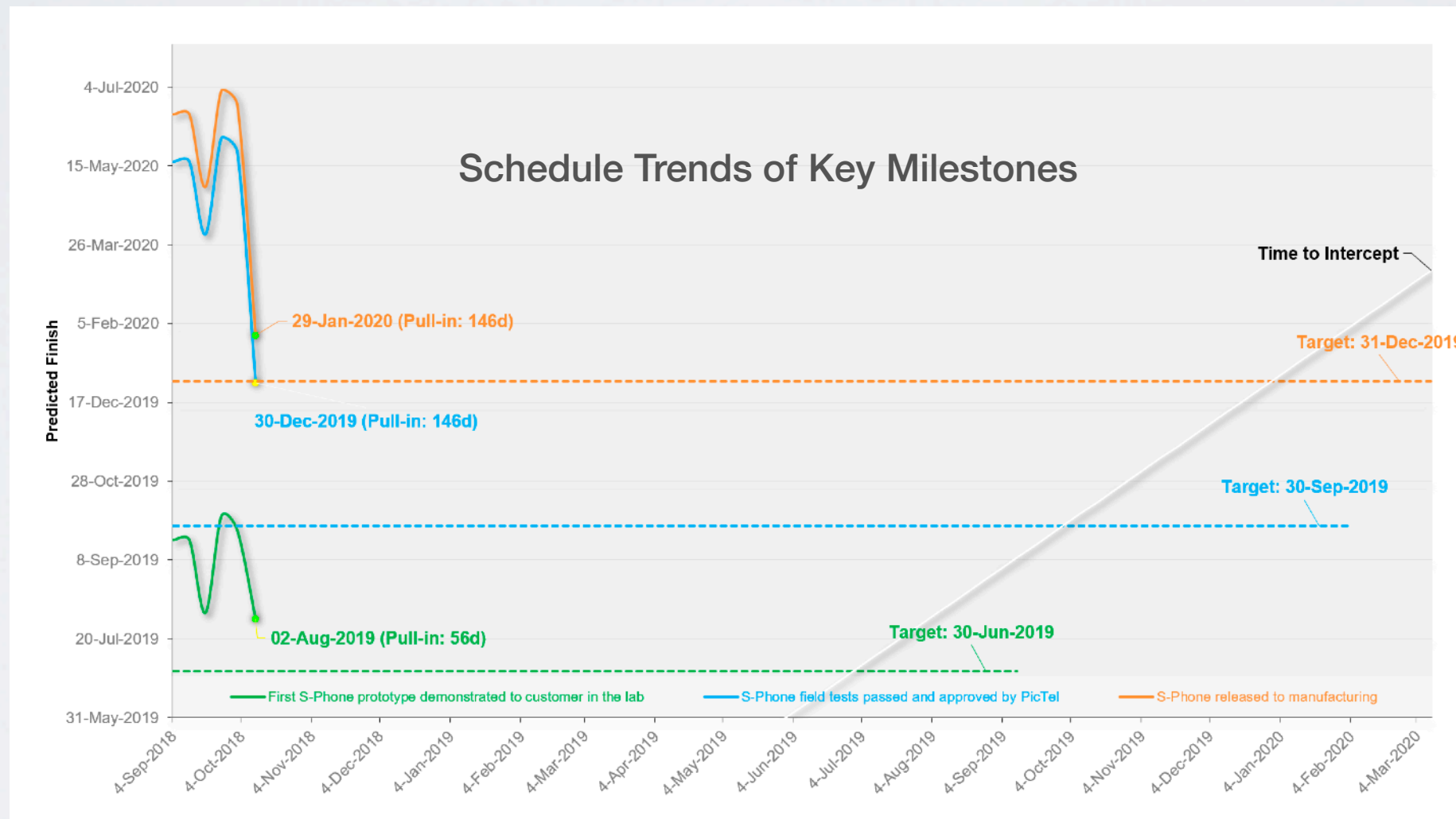
# Schedule Overview



29 days late, with <1 day a week pull-in needed

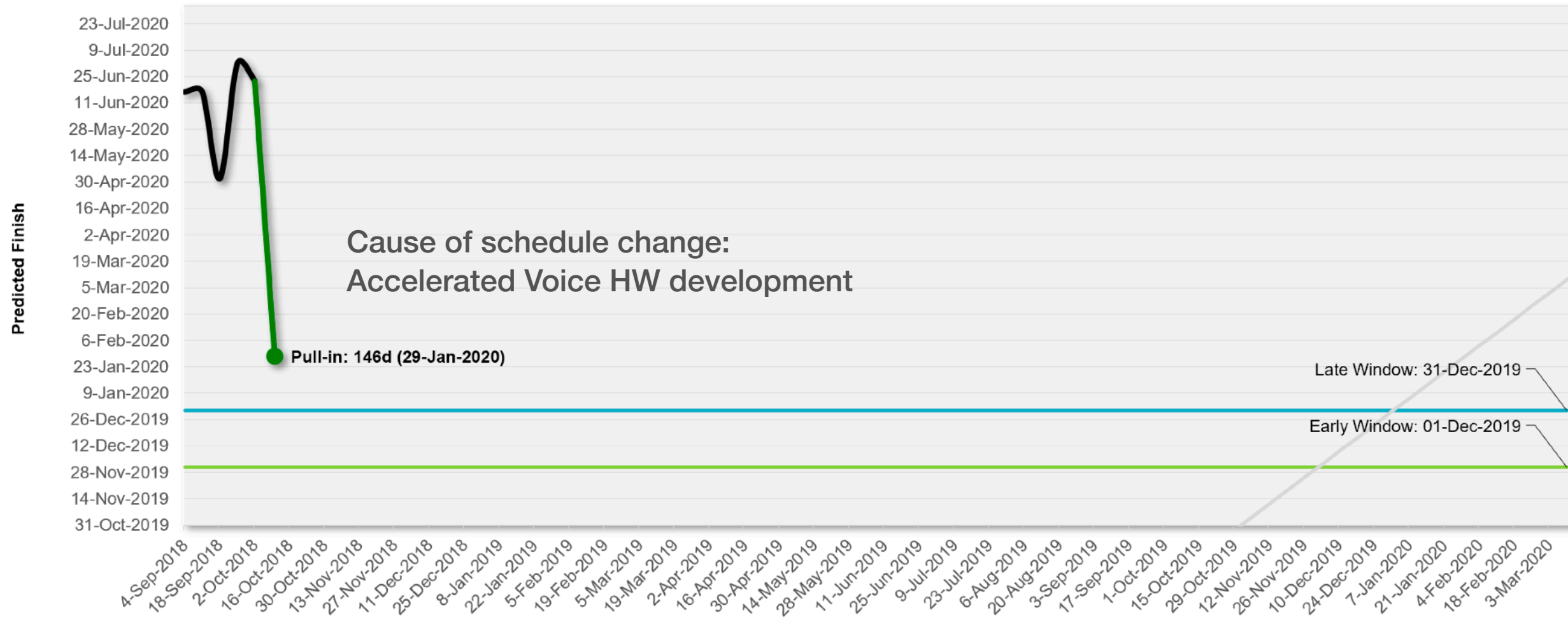
# Current Schedule Relative to Target Commitments

Qtr 4, 2018			Qtr 1, 2019			Qtr 2, 2019			Qtr 3, 2019			Qtr 4, 2019			Qtr 1, 2020			Qtr 2, 2020		
Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
									6/30/19											
									8/12/19	◆ First S-Phone prototype demonstrated to customer in the lab										
									8/15/19	▼			9/30/19							
															1/9/20	◆ S-Phone field tests passed and approved by PicTel				
													12/1/19	▶		12/31/19				
																2/8/20	◆ S-Phone released to manufacturing			

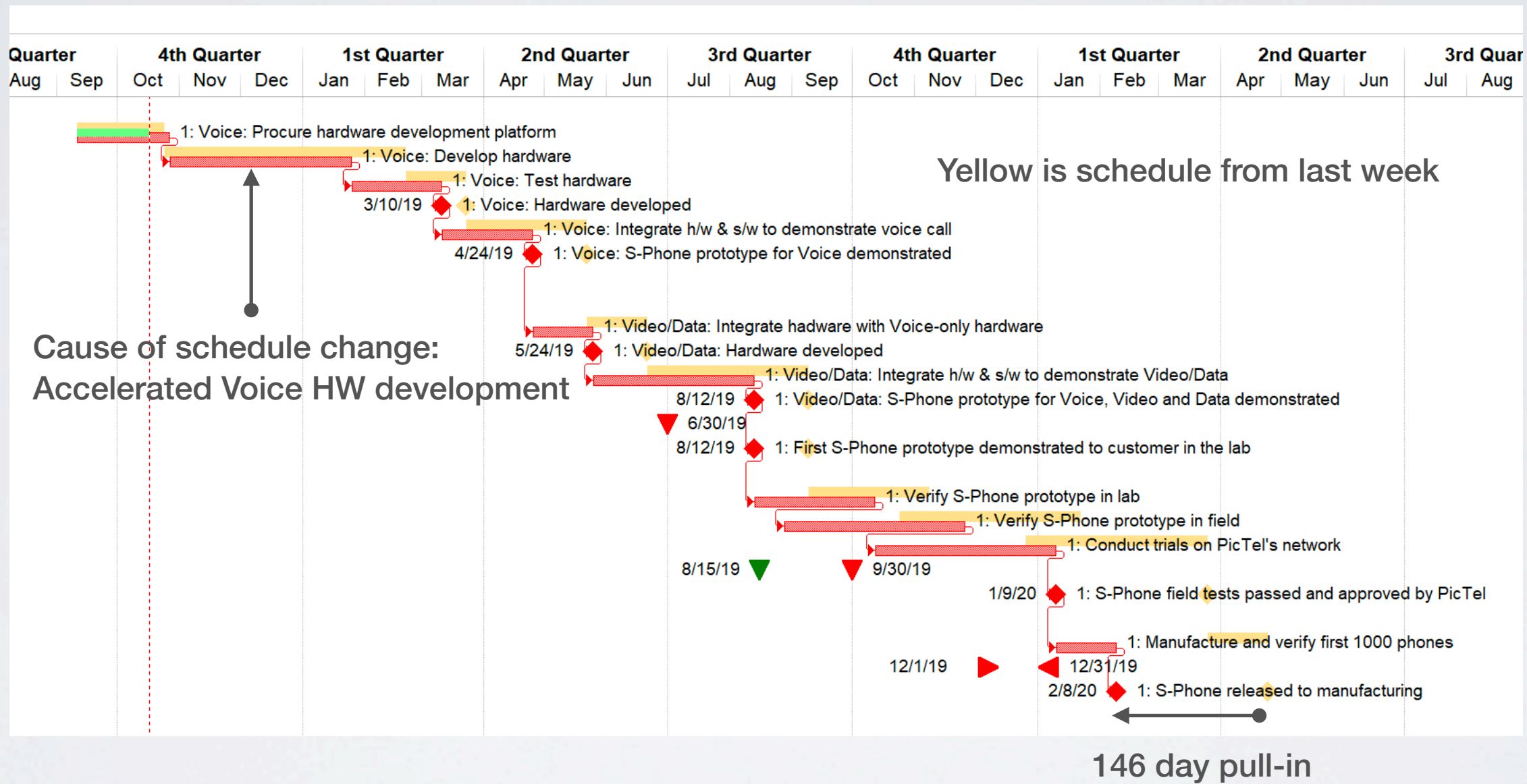


# Release to Manufacturing Schedule Trend

Target Milestone	Target	Predicted Finish	Completed On	Gap (days)	Pull-in/ Week	Health
S-Phone released to manufacturing	31-Dec-2019	29-Jan-2020		Late: 29d	0	●



# Critical Path to Release to MFG Final Milestone

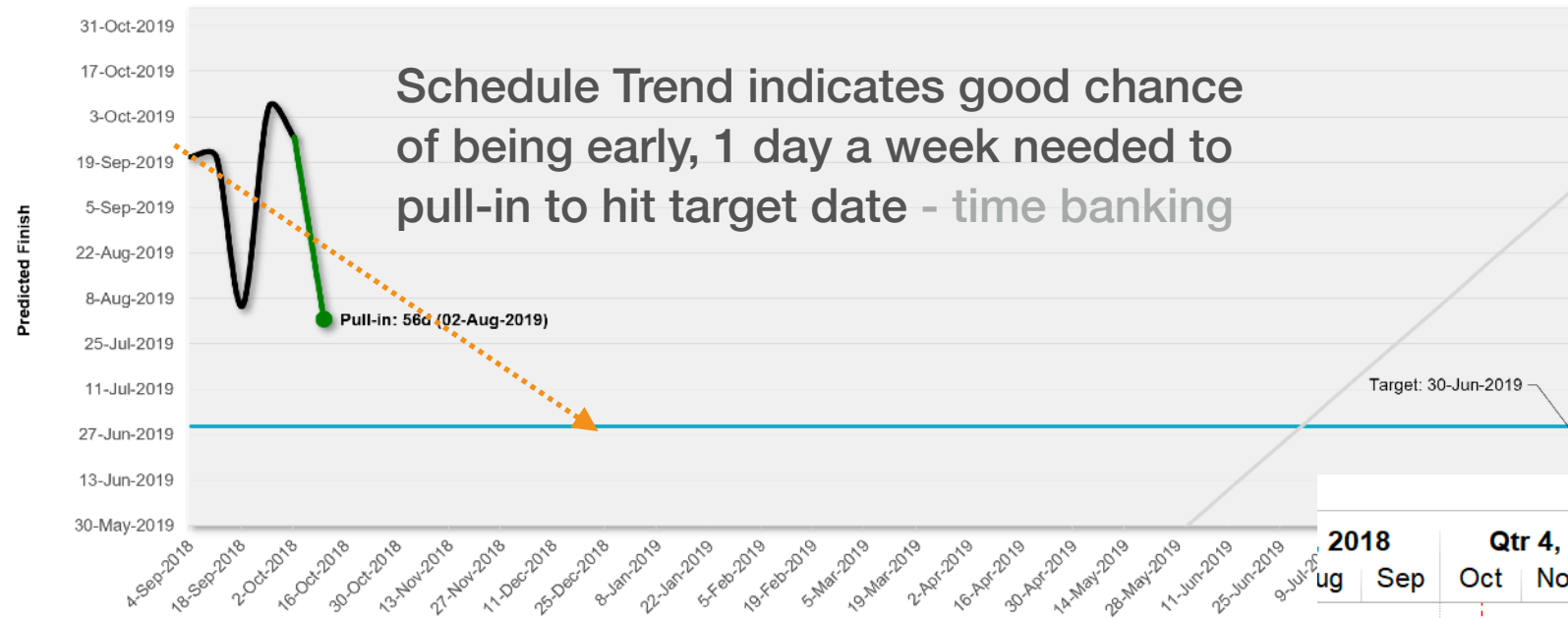


Focus on next target milestone  
project within the project



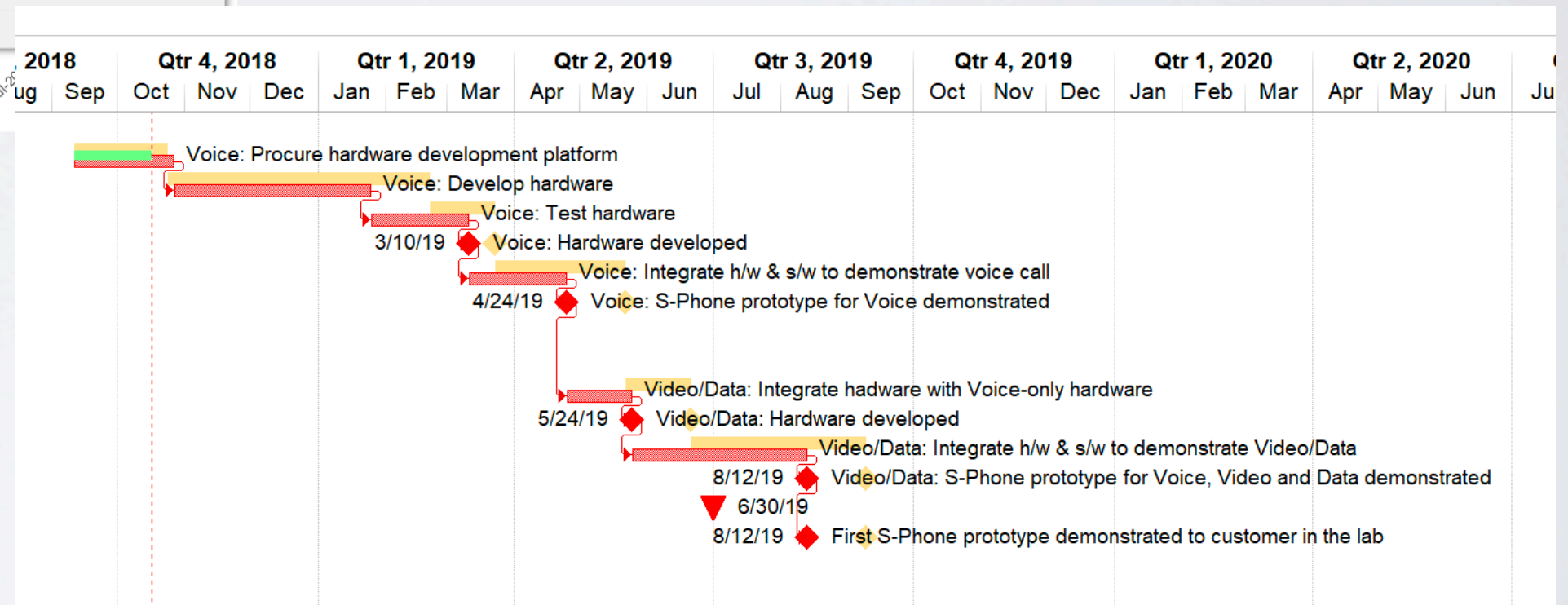
# Next Milestone: Prototype Demonstrated in Lab

Target Milestone	Target	Predicted Finish	Completed On	Gap (days)	Pull-in/ Week	Health
First S-Phone prototype demonstrated to customer in the lab	30-Jun-2019	2-Aug-2019		Late: 33d	1	●



Schedule Trend of Protos Demo'd in Lab

Critical path to Protos Demo'd in Lab  
This is the next key milestone



# Schedule Trends of Critical Path Tasks to Proto Demonstrated in Lab

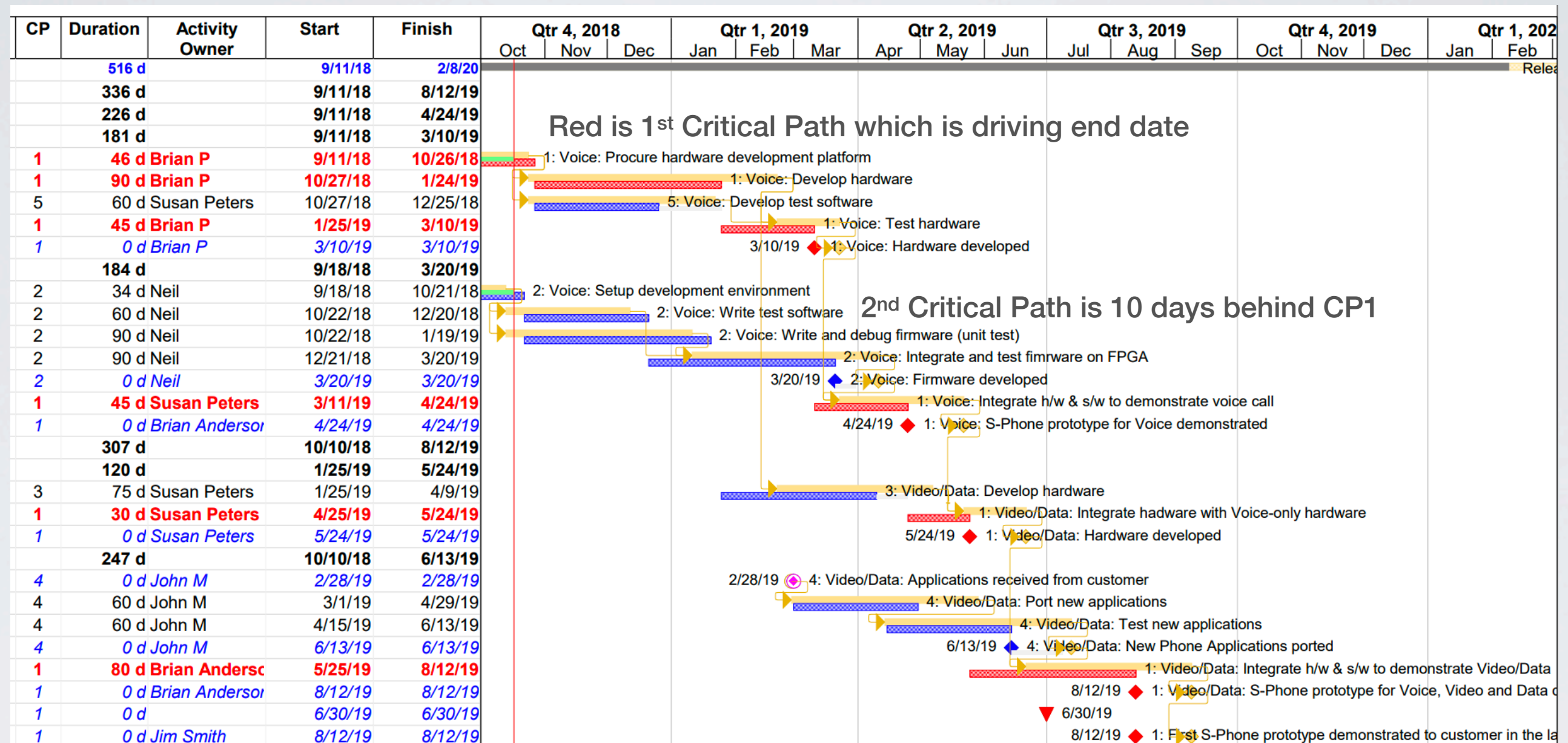
Wigglets	Trend Since 9/11/2018 (days/week)	Trend (days/timeframe)	Days From Critical Path
 Voice: Integrate h/w & s/w to demonstrate voice call	10.3	Slipped 53 days over the past 36 days	0
 Video/Data: Integrate h/w & s/w to demonstrate Video/Da	5.3	Slipped 27 days over the past 36 days	0
 Voice: Procure hardware development platform	4.3	Slipped 18 days over the past 29 days	0
 Voice: Test hardware	0.5	Slipped 2 days over the past 29 days	0
 Voice: Develop hardware	3.1	Pulled-in 13 days over the past 29 days	0
 Video/Data: Integrate hadware with Voice-only hardware	3.1	Pulled-in 13 days over the past 29 days	0
 Video/Data: Hardware developed	3.1	Pulled-in 13 days over the past 29 days	0

Significant slippage on these critical path tasks

# Critical Paths to Proto Demo'ed in Lab with pull-in actions

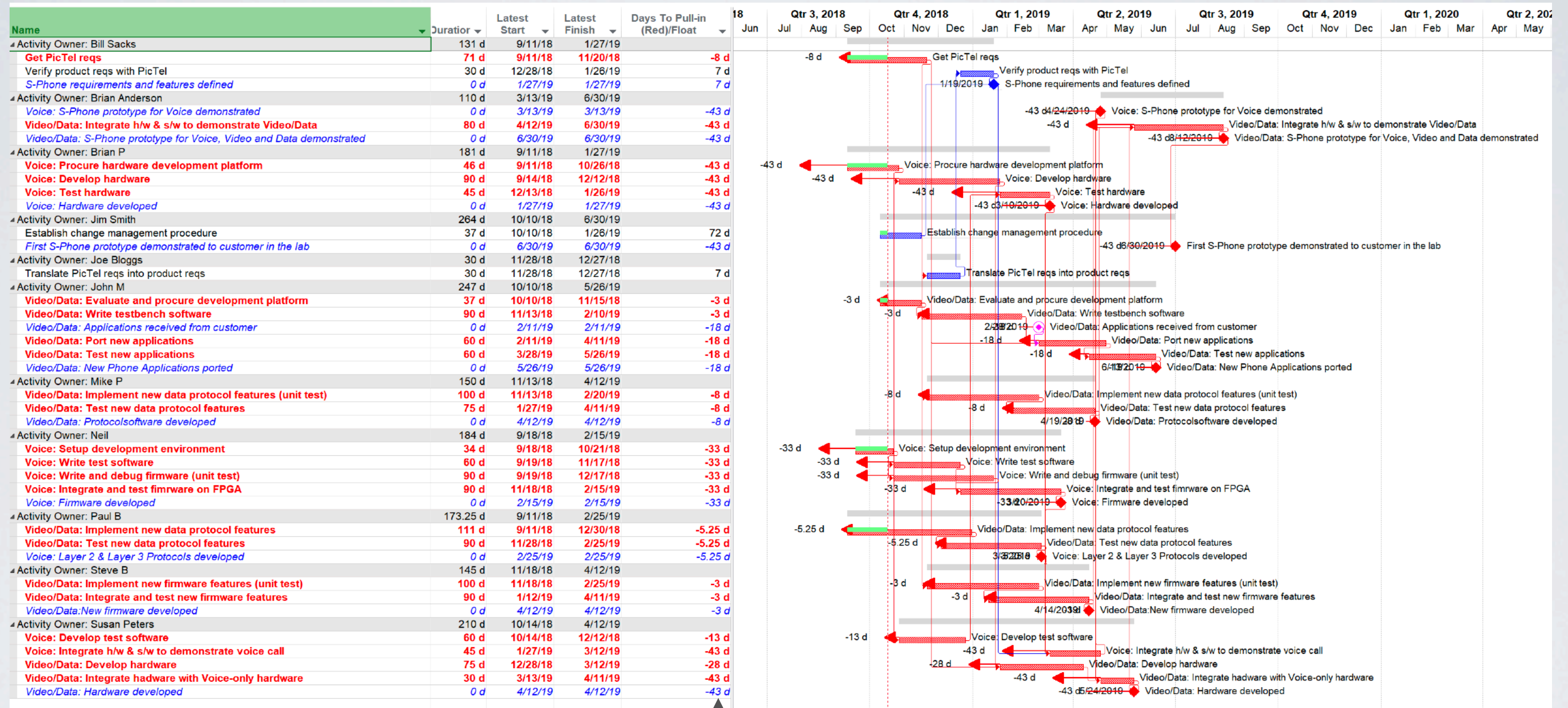


# Critical Paths to Proto Demo'ed in Lab - first 5 paths



Critical Path Priorities

# Late Simulation Proto Demo'd in Lab

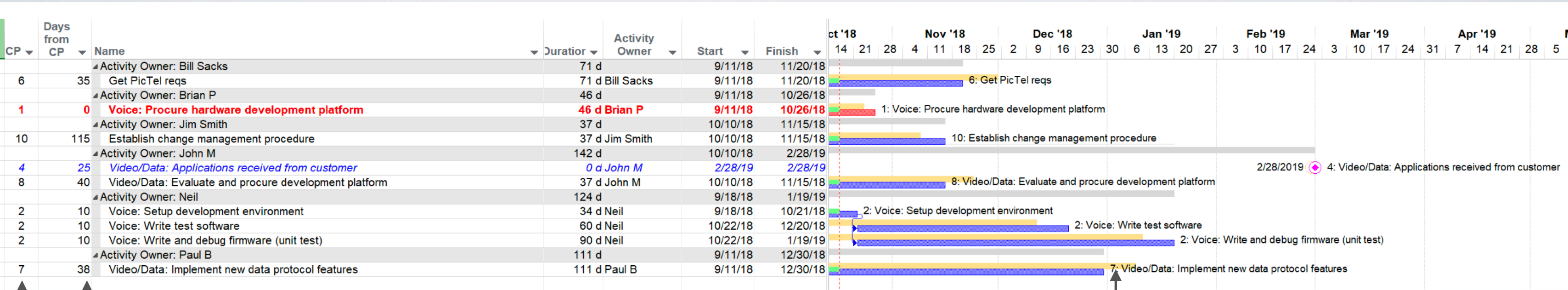


Days needed to be pulled-in to hit target date on time

# Acceleration Priorities Proto Demo'd in Lab

Name	Activity Owner	Function	Completion Group	Needed Date	Current Date	Days Late/Early
Voice: Procure hardware development platfo	Brian P			9/14/2018	10/26/2018	(43)
Voice: Develop hardware	Brian P			12/12/2018	1/24/2019	(43)
Voice: Test hardware	Brian P			1/26/2019	3/10/2019	(43)
Voice: Hardware developed	Brian P			1/27/2019	3/10/2019	(43)
Voice: Integrate h/w & s/w to demonstrate vi	Susan Peters			3/12/2019	4/24/2019	(43)
Voice: S-Phone prototype for Voice demonsi	Brian Anderson			3/13/2019	4/24/2019	(43)
Video/Data: Integrate hadware with Voice-or	Susan Peters			4/11/2019	5/24/2019	(43)
Video/Data: Hardware developed	Susan Peters			4/12/2019	5/24/2019	(43)
Video/Data: Integrate h/w & s/w to demonsti	Brian Anderson			6/30/2019	8/12/2019	(43)
Video/Data: S-Phone prototype for Voice, Vi	Brian Anderson			6/30/2019	8/12/2019	(43)
First S-Phone prototype demonstrated to cu	Jim Smith			6/30/2019	6/30/2019	(43)
Voice: Setup development environment	Neil			9/19/2018	10/21/2018	(33)
Voice: Write test software	Neil			11/17/2018	12/20/2018	(33)
Voice: Write and debug firmware (unit test)	Neil			12/17/2018	1/19/2019	(33)
Voice: Integrate and test fimrware on FPGA	Neil			2/15/2019	3/20/2019	(33)
Voice: Firmware developed	Neil			2/15/2019	3/20/2019	(33)
Video/Data: Develop hardware	Susan Peters			3/12/2019	4/9/2019	(28)
Video/Data: Applications received from cust	John M			2/11/2019	2/28/2019	(18)
Video/Data: Port new applications	John M			4/11/2019	4/29/2019	(18)
Video/Data: Test new applications	John M			5/26/2019	6/13/2019	(18)
Video/Data: New Phone Applications ported	John M			5/26/2019	6/13/2019	(18)
Voice: Develop test software	Susan Peters			12/12/2018	12/25/2018	(13)
Get PicTel reqs	Bill Sacks			11/13/2018	11/20/2018	(8)
Video/Data: Implement new data protocol fe	Mike P			2/20/2019	2/28/2019	(8)
Video/Data: Test new data protocol features	Mike P			4/11/2019	4/19/2019	(8)
Video/Data: Protocolsoftware developed	Mike P			4/12/2019	4/19/2019	(8)
Video/Data: Implement new data protocol fe	Paul B			12/25/2018	12/30/2018	(5)
Video/Data: Test new data protocol features	Paul B			2/25/2019	3/3/2019	(5)
Voice: Layer 2 & Layer 3 Protocols develop	Paul B			2/25/2019	3/3/2019	(5)
Video/Data: Implement new firmware feature	Steve B			2/25/2019	2/28/2019	(3)
Video/Data: Integrate and test new firmware	Steve B			4/11/2019	4/14/2019	(3)
Video/Data:New firmware developed	Steve B			4/12/2019	4/14/2019	(3)
Video/Data: Evaluate and procure developm	John M			11/13/2018	11/15/2018	(3)
Video/Data: Write testbench software	John M			2/10/2019	2/13/2019	(3)
Translate PicTel reqs into product reqs	Joe Bloggs			12/27/2018	12/20/2018	7
Verify product reqs with PicTel	Bill Sacks			1/26/2019	1/19/2019	7
S-Phone requirements and features defined	Bill Sacks			1/27/2019	1/19/2019	7
Establish change management procedure	Jim Smith			1/26/2019	11/15/2018	72

# What to focus on in the coming week



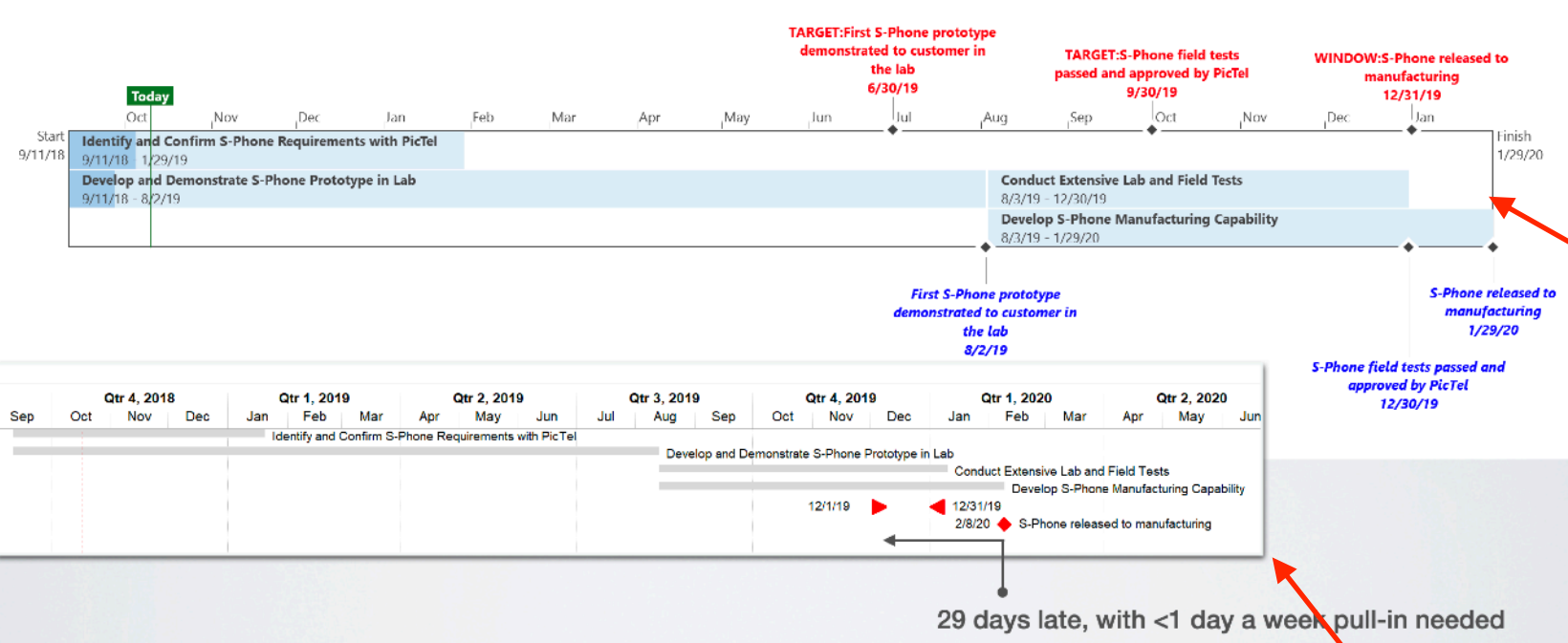
● Critical Path Priorities  
 ● Amount of float time

Yellow is baseline from last week

# How to create example report set



# Schedule Overview



File INSPECTOR TOOLS REFRESH ANALYZER **REPORT** RESOURCES FACEBOOK Task Resource Report Project View

Report This Week Targets Targets Exec Focus This Tasks This Late Analysis

Overview Critical Path

Report This Week

Overview

1 Timeline High-level timeline of the project

2 Targets Schedule relative to Targets

3 Level 1 Show High level tasks of the project

4 Wigglechart Trend of all project milestones

5 Wigglechart 3 on 1 Trend of 3 most important milestones

Critical Path

6 Critical Path Critical path to Target. How has it changed? What caused the change?

7 Critical Path Analysis Top 10 critical paths to Target

8 Focus This Week Focus for the coming week for the top 10 critical paths

9 Tasks This Week Project task list for the coming week

First S-Phone prototype demonstrated to custom

Report This Week

Overview

1 Timeline High-level timeline of the project

2 Targets Schedule relative to Targets

3 Level 1 Show High level tasks of the project

4 Wigglechart Trend of all project milestones

5 Wigglechart 3 on 1 Trend of 3 most important milestones

Critical Path

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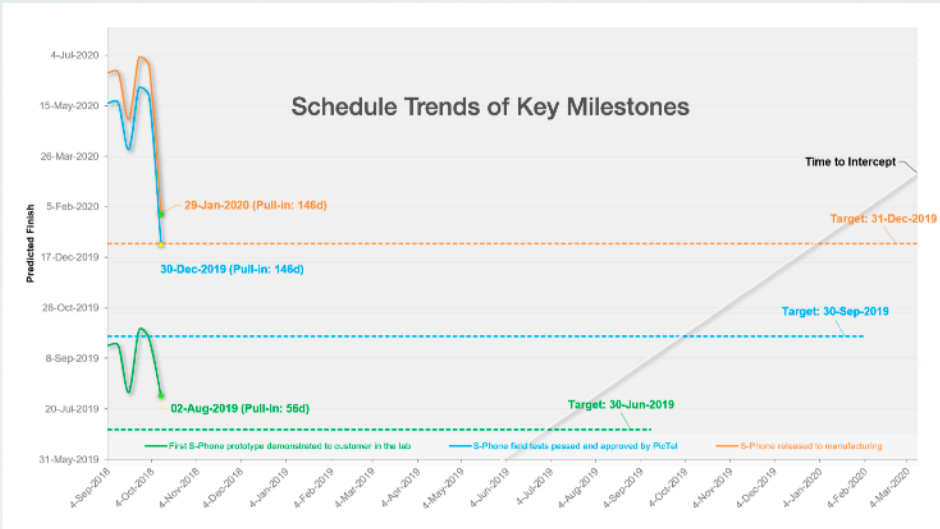
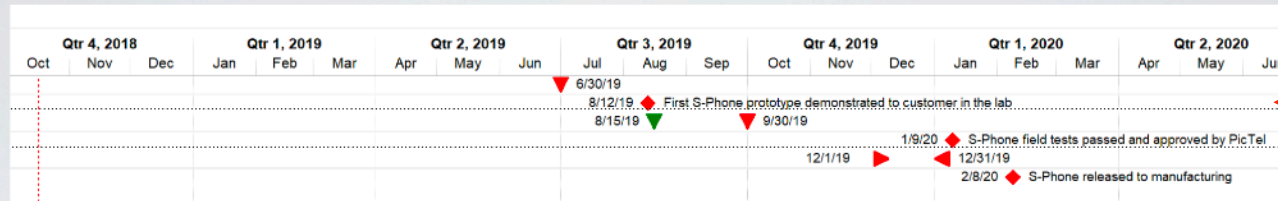
8 Focus This Week Focus for the coming week for the top 10 critical paths

9 Tasks This Week Project task list for the coming week

First S-Phone prototype demonstrated to custom

Purpose: Overview of top-down schedule project relative to the final target

# Current Schedule Relative to Target Commitments



Report This Week

Overview

- Timeline: High-level timeline of the project
- Targets: Schedule relative to Targets**
- Level 1 Show: High level tasks of the project
- Wigglechart: Trend of all project milestones
- Wigglechart 3 on 1: Trend of 3 most important milestones

Critical Path

- Critical Path: Critical path to Target. How has it changed? What caused the change?
- Critical Path Analysis: Top 10 critical paths to Target
- Focus This Week: Focus for the coming week for the top 10 critical paths
- Tasks This Week: Project task list for the coming week

First S-Phone prototype demonstrated to custom

Report This Week

Overview

- Timeline: High-level timeline of the project
- Targets: Schedule relative to Targets
- Level 1 Show: High level tasks of the project
- Wigglechart: Trend of all project milestones
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First S-Phone prototype demonstrated to custom

Wiggle Chart 3

Milestone 1: First S-Phone prototype demonstrated

Milestone 2: S-Phone field tests passed and approv

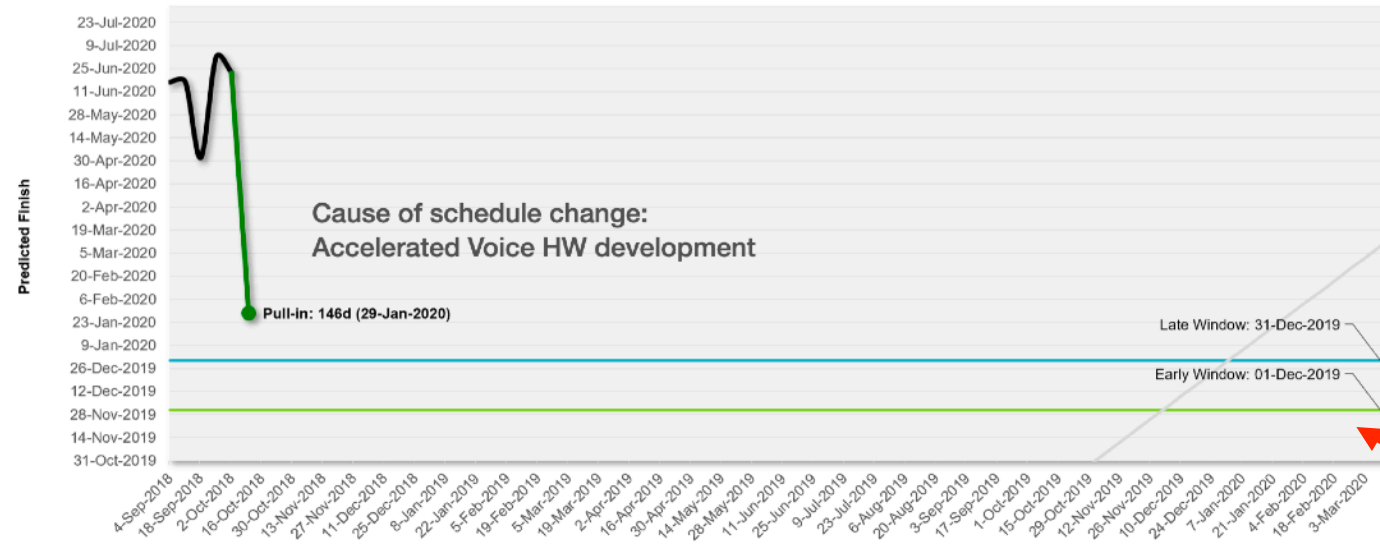
Milestone 3: S-Phone released to manufacturing

Cancel OK

Purpose: Schedule relative to targets with how each is trending

# Release to Manufacturing Schedule Trend

Target Milestone	Target	Predicted Finish	Completed On	Gap (days)	Pull-in/ Week	Health
S-Phone released to manufacturing	31-Dec-2019	29-Jan-2020		Late: 29d	0	●



Report This Week

Overview

- Timeline
- Targets
- Level 1 Show
- Wigglechart**
- Wigglechart 3 on 1
- Critical Path
- Critical Path Analysis
- Focus This Week
- Tasks This Week

AutoSave Off | S-Phone Wigglechart1 - Excel | Search (Alt+Q)

File Home Insert Draw Page Layout Formulas Data Review View Help

E7

### Wigglechart

S-Phone

Target Milestone	Target	Predicted Finish	Completed On	Gap (days)	Pull-in/ Week	Health
S-Phone released to manufacturing	31-Dec-2019	29-Jan-2020		Late: 29d	0	●

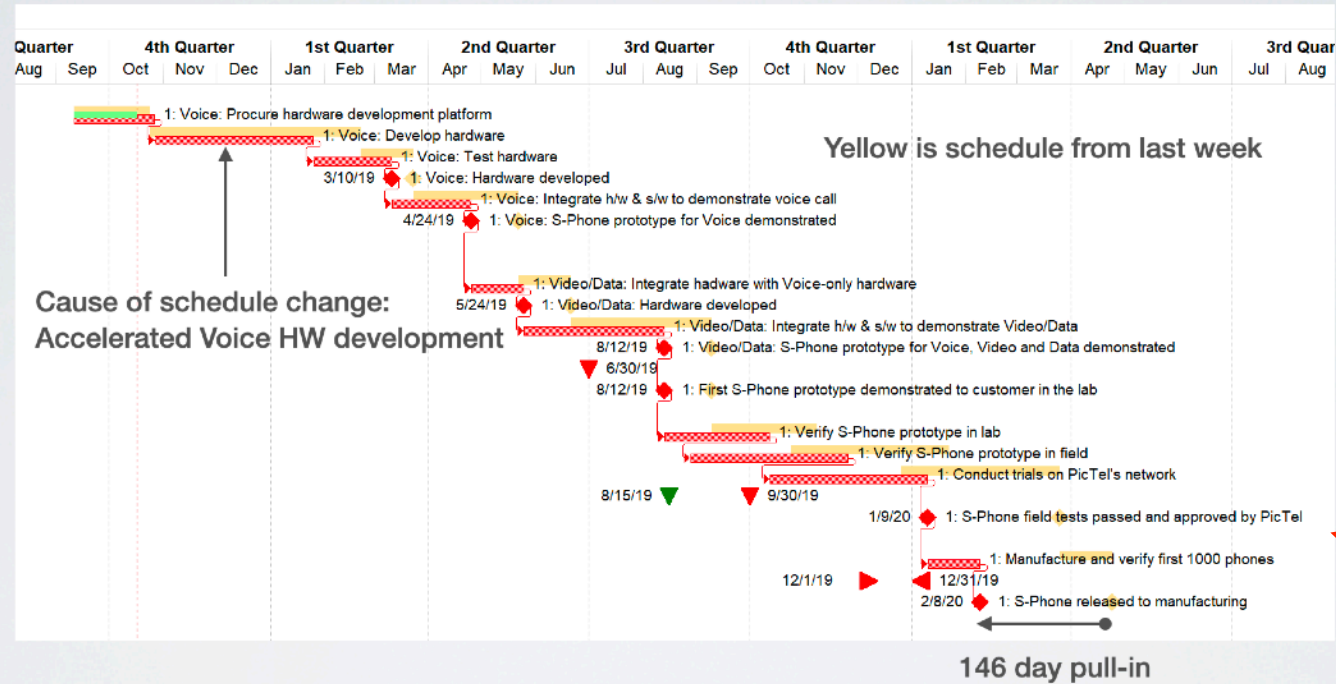
Doneness Criteria  
- Logistics in place with suppliers  
- First 1000 phones built on production line with >95% pass rate

Date	Impact	Caused By	Action Needed	Help Required
10/16/18	Pull-in: 146d			
10/16/18	Pull-in: 61d	Overlap of field and network trials	Scrub schedule with field trial team and customer to add risk mitigation items due to increased risk	
10/02/18	Pull-in: 9d	Breakdown of firmware tests		
09/25/18	Slip: 61d	Custom delay Phone app delivery	Scrub schedule with customer	
09/18/18	Pull-in: 46d	Breakdown of hardware tests		
09/11/18	No change	Breakdown of protocol tasks	Breakdown near term further	Need to get resources assigned to project immediately as on the critical path

Dashboard | Prototype demonstrated | Field tests passed | **Released to manufacturing** | Chart Area

Purpose: Focus on final project target and how it is trending. Indicates overall health of the project.

# Critical Path to Release to MFG Final Milestone



## Use to reduce the vertical height of the Gantt Chart

File INSPECTOR TOOLS REFRESH ANALYZER **REPORT** RESOURCES FACEBOOK Task Resource Report Project View

Report This Week Targets Targets Exec Focus This Tasks Late Analysis  
In Gantt Report View Week Week Simulator

Report This Week

Overview

1 Timeline High-level timeline of the project

2 Targets Schedule relative to Targets

3 Level 1 Show High level tasks of the project

4 Wigglechart Trend of all project milestones

5 Wigglechart 3 on 1 Trend of 3 most important milestones

**6 Critical Path** Critical path to Target. How has it changed? What caused the change?

7 Critical Path Analysis Top 10 critical paths to Target

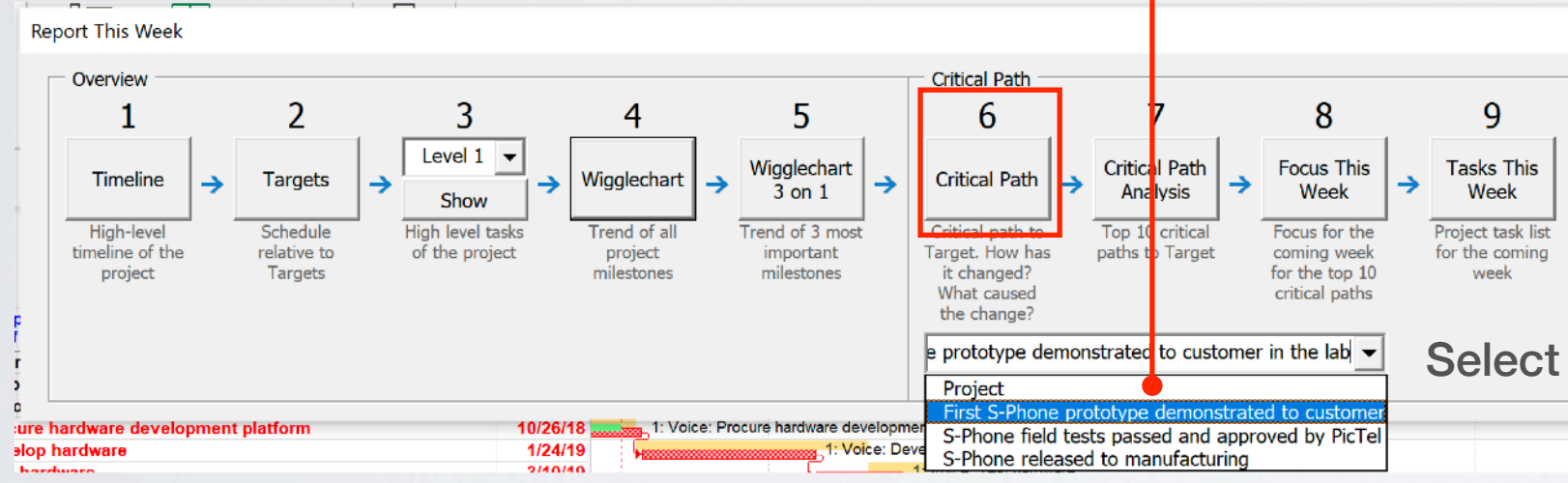
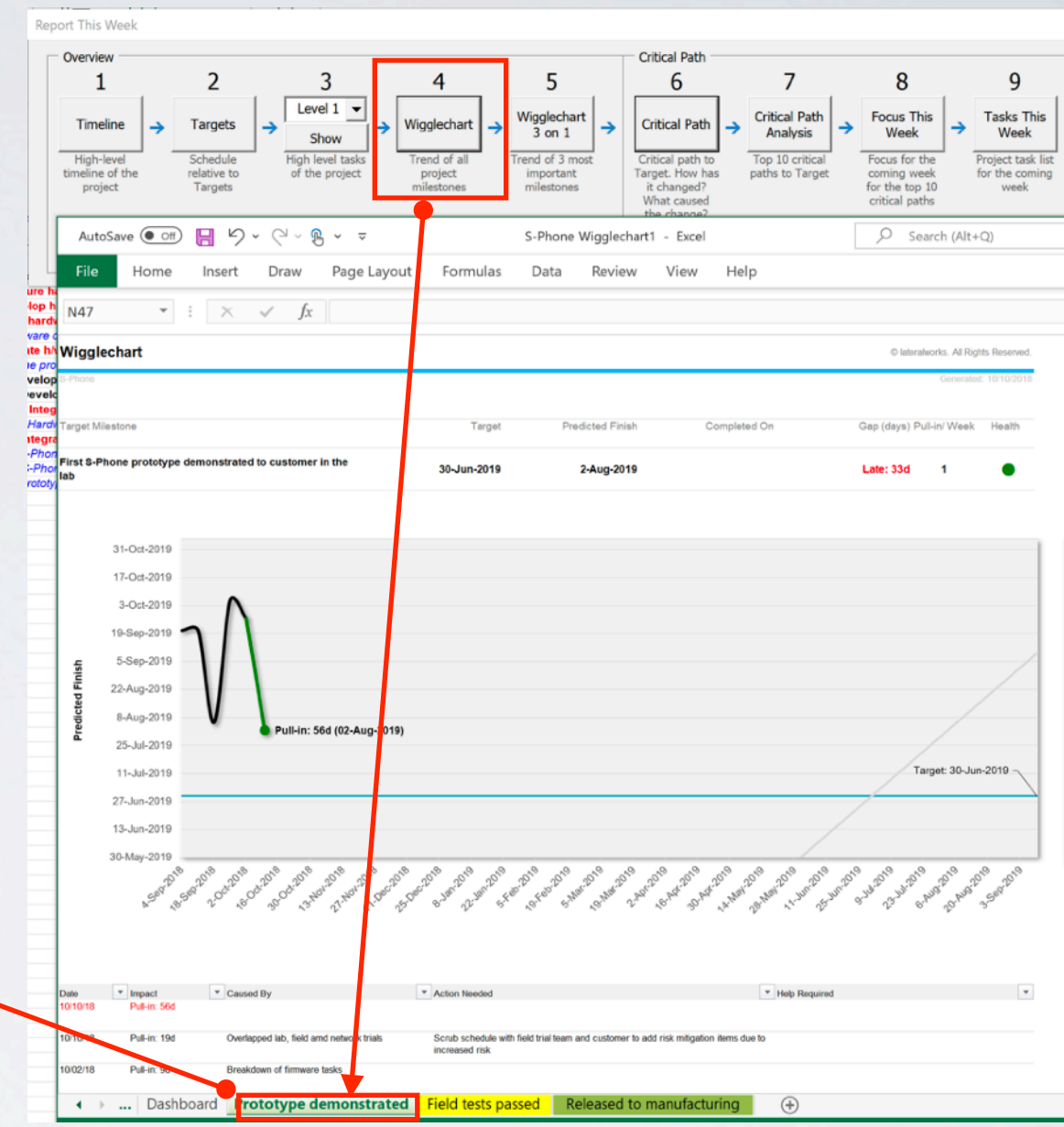
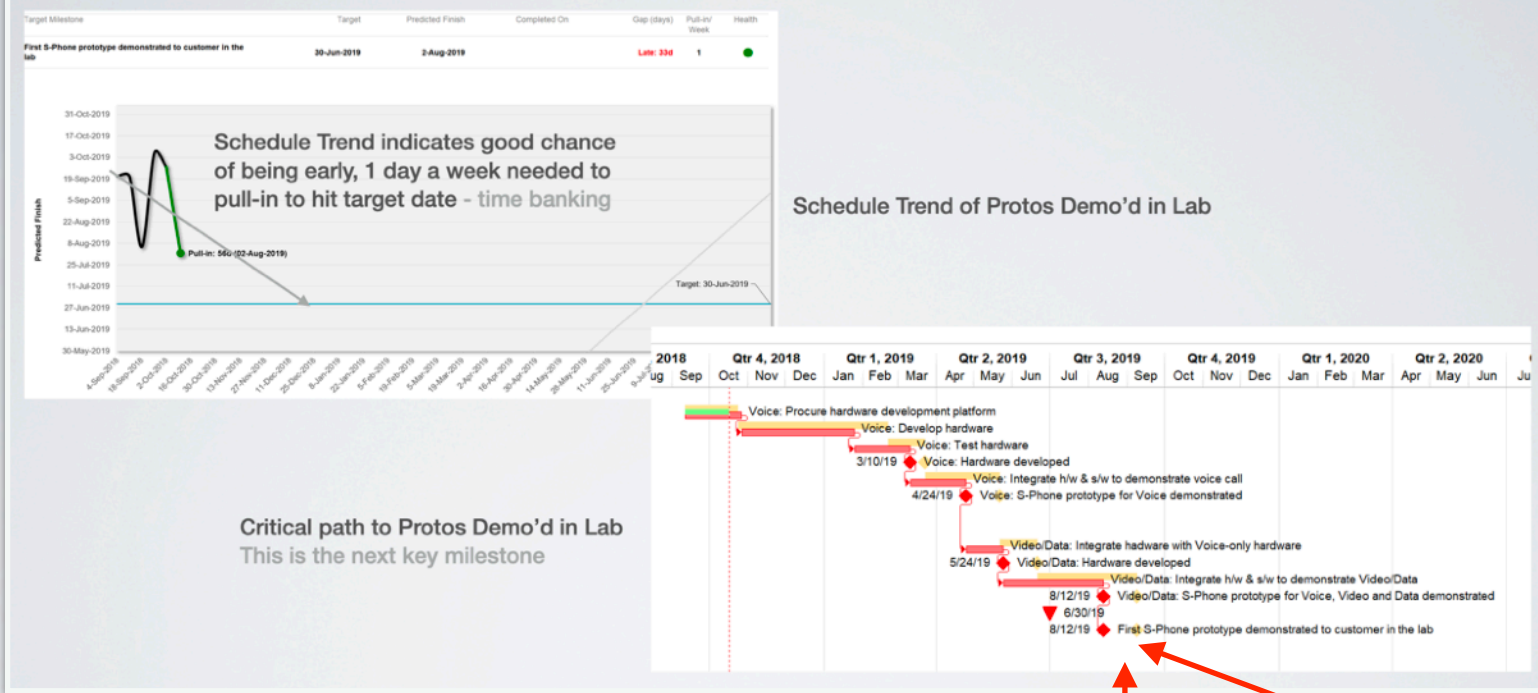
8 Focus This Week Focus for the coming week for the top 10 critical paths

9 Tasks This Week Project task list for the coming week

Project  
First S-Phone prototype demonstrated to customer in the lab  
S-Phone field tests passed and approved by PicTel  
S-Phone released to manufacturing

Purpose: Shows the critical path drivers pushing out the final target milestone. Cause of current schedule.

# Next Milestone: Prototype Demonstrated in Lab



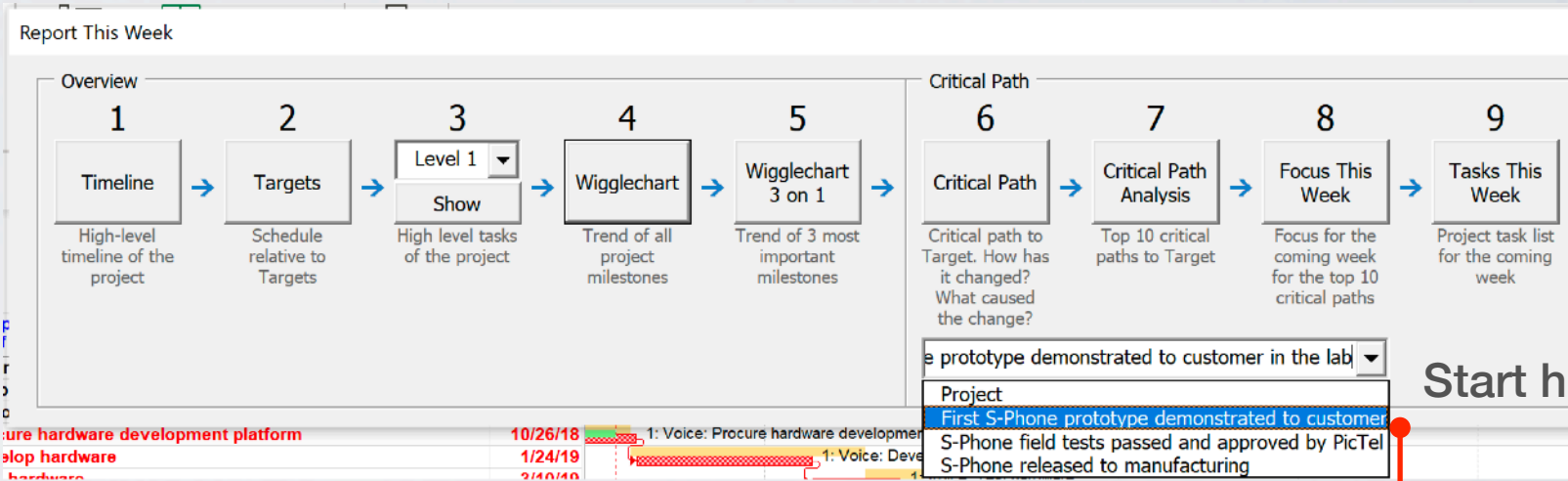
Purpose: Focuses on next nearest target showing schedule trend and driving critical path tasks. Focus on near term pull-in.

# Schedule Trends of Critical Path Tasks to Proto Demonstrated in Lab

Wigglets	Trend Since (days/week)	Trend (days/timeframe)	Days From Critical Path
Voice: Integrate h/w & s/w to demonstrate voice call	10.3	Slipped 53 days over the past 36 days	0
Video/Data: Integrate h/w & s/w to demonstrate Video/Da	5.3	Slipped 27 days over the past 36 days	0
Voice: Procure hardware development platform	4.3	Slipped 18 days over the past 29 days	0
Voice: Test hardware	0.5	Slipped 2 days over the past 29 days	0
Voice: Develop hardware	3.1	Pulled-in 13 days over the past 29 days	0
Video/Data: Integrate hardware with Voice-only hardware	3.1	Pulled-in 13 days over the past 29 days	0
Video/Data: Hardware developed	3.1	Pulled-in 13 days over the past 29 days	0

Significant slippage on these critical path tasks

Sorted by trend



Start here

S-Phone Good.mpp - Project Professional

File INSPECTOR TOOLS REFRESH ANALYZER **REPORT** RESOURCES FACEBOOK Task Resource Report Project View Developer Help

Report This Week Targets In Gantt Report Targets Exec View Focus This Week Tasks This Week Late Simulator Analysis

Video/Data: Integrate h/w & s/w to demonstrate Video/Data

Name	Start	End
0 Release an FCC approved Solar-powered Smartphone (S-Phone) to production		
7 Develop and Demonstrate S-Phone Prototype in Lab		
8 Voice: Develop S-Phone prototype		
9 Voice: Develop hardware		
10 Voice: Procure hardware development platform		
11 Voice: Develop hardware		
13 Voice: Test hardware		
14 Voice: Hardware developed		
25 Voice: Integrate h/w & s/w to demonstrate voice call		
26 Voice: S-Phone prototype for Voice demonstrated		
27 Video/Data: Develop S-Phone prototype		
28 Video/Data: Develop hardware		
30 Video/Data: Integrate hardware with Voice-only hardware		
31 Video/Data: Hardware developed		
47 Video/Data: Integrate h/w & s/w to demonstrate Video/Data		
48 Video/Data: S-Phone prototype for Voice, Video and Data demonstrated		
49 TARGET: First S-Phone prototype demonstrated to customer in the lab		
50 First S-Phone prototype demonstrated to customer in the lab		

Qtr 4, 2018 Qtr 1, 2019 Qtr 2, 2019 Qtr 3, 2019

Task: Voice: Procure hardware development platform

Task: Voice: Develop hardware

Task: Voice: Test hardware

Task: Voice: Hardware developed

Task: Voice: Integrate h/w & s/w to demonstrate

Task: Voice: S-Phone prototype for Voice dem

Task: Video/Data: Integrate hardware with

Task: Video/Data: Hardware develop

Task: Video/Data:

Task: Video/Data:

Task: Video/Data:

Task: First S-Pho

Highlight tasks

Purpose: Drill down of schedule trends of the critical path tasks to the next nearest target. Indication of health of critical path and likelihood of future slip.

# Critical Paths to Proto Demo'ed in Lab with pull-in actions



- Type pull-in actions into CP Analysis chart during Refresh Meeting with team members present, follow-up next meeting to confirm they got done
- Take actions on at least the first 3 critical paths

Report This Week

Overview

1 Timeline → 2 Targets → 3 Level 1 Show → 4 Wigglechart → 5 Wigglechart 3 on 1 → 6 Critical Path → 7 Critical Path Analysis → 8 Focus This Week → 9 Tasks This Week

Start here... select target:

CP Analysis and Actions1 - Excel

File Home Insert Draw Page Layout Formulas Data Review View Help

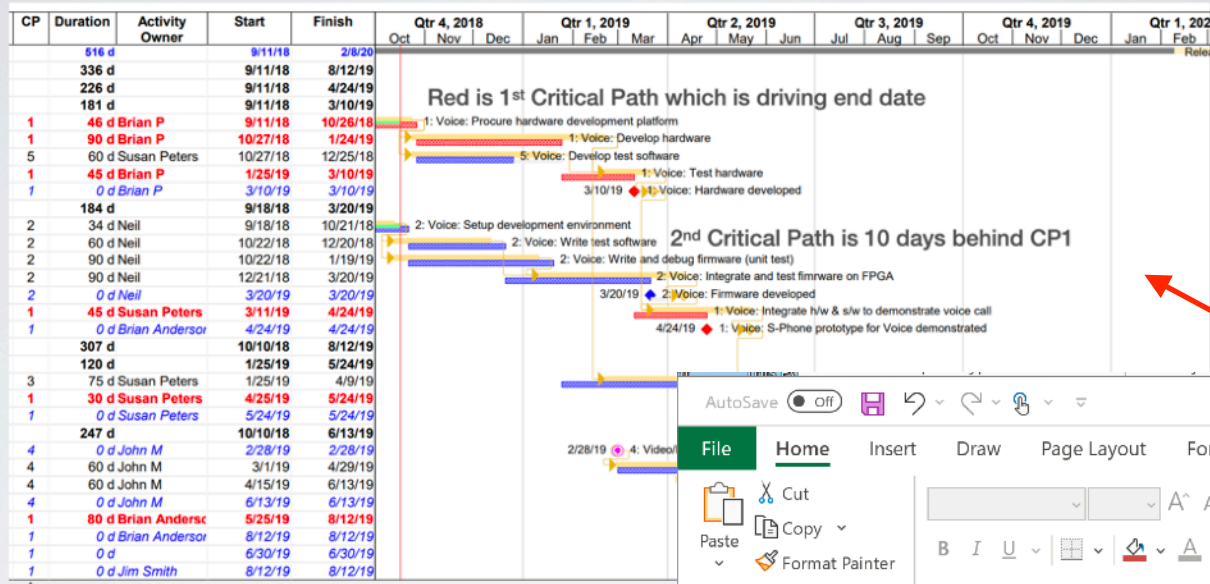
DF8

Critical Path Analysis: First S-Phone prototype demonstrated to customer in the lab

CP	Driving Task(s)	Owner	Days from CP1	Gap	End Date
1	Voice: Procure hardware development platform	Brian P	0	(43)	8/12/2019
2	Voice: Setup development environment	Neil	10	(33)	8/2/2019
3	Video/Data: Develop hardware	Susan Peters	15	(28)	7/28/2019

Purpose: The top critical paths leading to the next nearest milestone. Indicates where to focus after the first critical path.

# Critical Paths to Proto Demo'd in Lab - first 5 paths



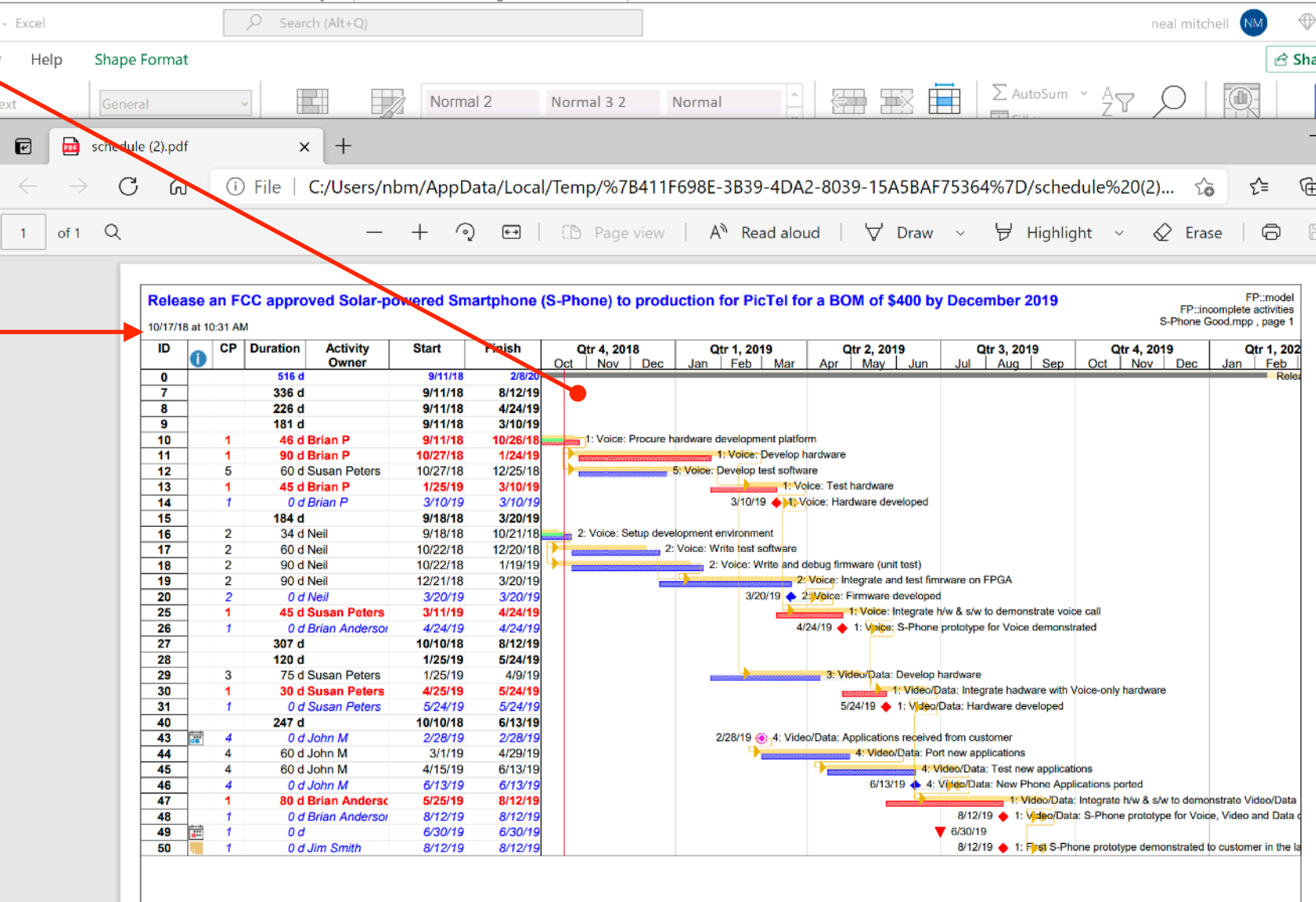
Critical Path Priorities

Automatically embeds the Gantt PDF of the target that was selected (see previous slide)

## Critical Path Analysis: First S-Phone prototype demonstrated to customer in

CP	Driving Task(s)	Owner	Days from CP1	Gap
1	Voice: Procure hardware development platform	Brian P	0	(43)
2	Voice: Setup development environment	Neil	10	(33)
3	Video/Data: Develop hardware	Susan Peters	15	(28)
4	Video/Data: Applications received from customer > Video/Data: Port new applications	John M	25	(18)
5	Voice: Develop test software	Susan Peters	30	(13)
6	Get PicTel reqs	Bill Sacks	35	(8)
7	Video/Data: Implement new data protocol features	Paul B	38	(5)

Purpose: Gantt Chart representation of top 5 critical paths to next nearest milestone.





# Late Simulation Proto Demo'd in Lab

- Select target
- Can select specific tasks (task criteria)
- Group by task owner
- Select generate Report (see next slide)

Name	Duration	Latest Start	Latest Finish	Days To Pull-in (Red)/Float
Activity Owner: Bill Sacks	131 d	9/11/18	1/27/19	
Get PicTel reqs	71 d	9/11/18	11/20/18	-8 d
Verify product reqs with PicTel	30 d	12/28/18	1/26/19	7 d
S-Phone requirements and features defined	0 d	1/27/19	1/27/19	7 d
Activity Owner: Brian Anderson	110 d	3/13/19	6/30/19	
Voice: S-Phone prototype for Voice demonstrated	0 d	3/13/19	3/13/19	-43 d
Video/Data: Integrate h/w & s/w to demonstrate Video/Data	80 d	4/12/19	6/30/19	-43 d
Video/Data: S-Phone prototype for Voice, Video and Data demonstrated	0 d	6/30/19	6/30/19	-43 d
Activity Owner: Brian P	181 d	9/11/18	1/27/19	
Voice: Procure hardware development platform	46 d	9/11/18	10/26/18	-43 d
Voice: Develop hardware	90 d	9/14/18	12/12/18	-43 d
Voice: Test hardware	45 d	12/13/18	1/26/19	-43 d
Voice: Hardware developed	0 d	1/27/19	1/27/19	-43 d
Activity Owner: Jim Smith	264 d	10/10/18	6/30/19	
Establish change management procedure	37 d	10/10/18	1/26/19	72 d
First S-Phone prototype demonstrated to customer in the lab	0 d	6/30/19	6/30/19	-43 d
Activity Owner: Joe Bloggs	30 d	11/28/18	12/27/18	
Translate PicTel reqs into product reqs	30 d	11/28/18	12/27/18	7 d
Activity Owner: John M	247 d	10/10/18	5/26/19	
Video/Data: Evaluate and procure development platform	37 d	10/10/18	11/15/18	-3 d
Video/Data: Write testbench software	90 d	11/13/18	2/10/19	-3 d
Video/Data: Applications received from customer	0 d	2/11/19	2/11/19	-18 d
Video/Data: Port new applications	60 d	2/11/19	4/11/19	-18 d
Video/Data: Test new applications	60 d	3/28/19	5/26/19	-18 d
Video/Data: New Phone Applications ported	0 d	5/26/19	5/26/19	-18 d
Activity Owner: Mike P	150 d	11/13/18	4/12/19	
Video/Data: Implement new data protocol features (unit test)	100 d	11/13/18	2/20/19	-8 d
Video/Data: Test new data protocol features	75 d	1/27/19	4/11/19	-8 d
Video/Data: Protocol software developed	0 d	4/12/19	4/12/19	-8 d
Activity Owner: Neil	184 d	9/18/18	2/15/19	
Voice: Setup development environment	34 d	9/18/18	10/21/18	-33 d
Voice: Write test software	60 d	9/19/18	11/17/18	-33 d
Voice: Write and debug firmware (unit test)	90 d	9/19/18	12/17/18	-33 d
Voice: Integrate and test firmware on FPGA	90 d	11/18/18	2/15/19	-33 d
Voice: Firmware developed	0 d	2/15/19	2/15/19	-33 d
Activity Owner: Paul B	173.25 d	9/11/18	2/25/19	
Video/Data: Implement new data protocol features	111 d	9/11/18	12/30/18	-5.25 d
Video/Data: Test new data protocol features	90 d	11/28/18	2/25/19	-5.25 d
Voice: Layer 2 & Layer 3 Protocols developed	0 d	2/25/19	2/25/19	-5.25 d
Activity Owner: Steve B	145 d	11/18/18	4/12/19	
Video/Data: Implement new firmware features (unit test)	100 d	11/18/18	2/25/19	-3 d
Video/Data: Integrate and test new firmware features	90 d	1/12/19	4/11/19	-3 d
Video/Data: New firmware developed	0 d	4/12/19	4/12/19	-3 d
Activity Owner: Susan Peters	210 d	10/14/18	4/12/19	
Voice: Develop test software	60 d	10/14/18	12/12/18	-13 d
Voice: Integrate h/w & s/w to demonstrate voice call	45 d	1/27/19	3/12/19	-43 d
Video/Data: Develop hardware	75 d	12/28/18	3/12/19	-28 d
Video/Data: Integrate hardware with Voice-only hardware	30 d	3/13/19	4/11/19	-43 d
Video/Data: Hardware developed	0 d	4/12/19	4/12/19	-43 d

Days needed to be pulled-in to hit target date

Purpose: Indicates the number of days needed to be pull-ed in to hit the next nearest target on time.

## Acceleration Priorities Proto Demo'd in Lab

Name	Activity Owner	Function	Completion Group	Needed Date	Current Date	Days Late/Early
Voice: Procure hardware development platfo	Brian P			9/14/2018	10/26/2018	(43)
Voice: Develop hardware	Brian P			12/12/2018	1/24/2019	(43)
Voice: Test hardware	Brian P			1/26/2019	3/10/2019	(43)
Voice: Hardware developed	Brian P			1/27/2019	3/10/2019	(43)
Voice: Integrate h/w & s/w to demonstrate w	Susan Peters			3/12/2019	4/24/2019	(43)
Voice: S-Phone prototype for Voice demonst	Brian Anderson			3/13/2019	4/24/2019	(43)
Video/Data: Integrate hadware with Voice-or	Susan Peters			4/11/2019	5/24/2019	(43)
Video/Data: Hardware developed	Susan Peters			4/12/2019	5/24/2019	(43)
Video/Data: Integrate h/w & s/w to demonst	Brian Anderson			6/30/2019	8/12/2019	(43)
Video/Data: S-Phone prototype for Voice, Vi	Brian Anderson			6/30/2019	8/12/2019	(43)
First S-Phone prototype demonstrated to cu	Jim Smith			6/30/2019	6/30/2019	(43)
Voice: Setup development environment	Neil			9/19/2018	10/21/2018	(33)
Voice: Write test software	Neil			11/17/2018	12/20/2018	(33)
Voice: Write and debug firmware (unit test)	Neil			12/17/2018	1/19/2019	(33)
Voice: Integrate and test firmware on FPGA	Neil			2/15/2019	3/20/2019	(33)
Voice: Firmware developed	Neil			2/15/2019	3/20/2019	(33)
Video/Data: Develop hardware	Susan Peters			3/12/2019	4/9/2019	(28)
Video/Data: Applications received from cust	John M			2/11/2019	2/28/2019	(18)
Video/Data: Port new applications	John M			4/11/2019	4/29/2019	(18)
Video/Data: Test new applications	John M			5/26/2019	6/13/2019	(18)
Video/Data: New Phone Applications ported	John M			5/26/2019	6/13/2019	(18)
Voice: Develop test software	Susan Peters			12/12/2018	12/25/2018	(13)
Get PicTel reqs	Bill Sacks			11/13/2018	11/20/2018	(8)
Video/Data: Implement new data protocol fe	Mike P			2/20/2019	2/28/2019	(8)
Video/Data: Test new data protocol features	Mike P			4/11/2019	4/19/2019	(8)
Video/Data: Protocolsoftware developed	Mike P			4/12/2019	4/19/2019	(8)
Video/Data: Implement new data protocol fe	Paul B			12/25/2018	12/30/2018	(5)
Video/Data: Test new data protocol features	Paul B			2/25/2019	3/3/2019	(5)
Voice: Layer 2 & Layer 3 Protocols develop	Paul B			2/25/2019	3/3/2019	(5)
Video/Data: Implement new firmware feature	Steve B			2/25/2019	2/28/2019	(3)
Video/Data: Integrate and test new firmware	Steve B			4/11/2019	4/14/2019	(3)
Video/Data: New firmware developed	Steve B			4/12/2019	4/14/2019	(3)
Video/Data: Evaluate and procure developm	John M			11/13/2018	11/15/2018	(3)
Video/Data: Write testbench software	John M			2/10/2019	2/13/2019	(3)
Translate PicTel reqs into product reqs	Joe Bloggs			12/27/2018	12/20/2018	7
Verify product reqs with PicTel	Bill Sacks			1/26/2019	1/19/2019	7
S-Phone requirements and features defined	Bill Sacks			1/27/2019	1/19/2019	7
Establish change management procedure	Jim Smith			1/26/2019	11/15/2018	72

Late Simulator ✕

Target  

 All Targets

Task Criteria

Sort By

Group By

Show Summary Tasks  
 Include Completed  
 Export Report

Purpose: Lists the tasks that need to be accelerated based on the number of days they need to be accelerated to hit the next target on time.

# What to focus on in the coming week

CP	Days from CP	Name	Duration	Activity Owner	Start	Finish
		Activity Owner: Bill Sacks	71 d		9/11/18	11/20/18
6	35	Get PicTel reqs	71 d	Bill Sacks	9/11/18	11/20/18
		Activity Owner: Brian P	46 d		9/11/18	10/26/18
1	0	Voice: Procure hardware development platform	46 d	Brian P	9/11/18	10/26/18
		Activity Owner: Jim Smith	37 d		10/10/18	11/15/18
10	115	Establish change management procedure	37 d	Jim Smith	10/10/18	11/15/18
		Activity Owner: John M	142 d		10/10/18	2/28/19
4	25	Video/Data: Applications received from customer	0 d	John M	2/28/19	2/28/19
		Activity Owner: Neil	124 d		9/18/18	1/19/19
8	40	Video/Data: Evaluate and procure development platform	37 d	John M	10/10/18	11/15/18
		Activity Owner: Neil	124 d		9/18/18	1/19/19
2	10	Voice: Setup development environment	34 d	Neil	9/18/18	10/21/18
		Activity Owner: Neil	60 d		10/22/18	12/20/18
2	10	Voice: Write test software	60 d	Neil	10/22/18	12/20/18
		Activity Owner: Paul B	111 d		9/11/18	12/30/18
7	38	Video/Data: Implement new data protocol features	111 d	Paul B	9/11/18	12/30/18

Report This Week

Overview

- Timeline
- Targets
- Level 1 Show
- Wigglechart
- Wigglechart 3 on 1
- Critical Path
- Critical Path Analysis
- Focus This Week**
- Tasks This Week

Critical Path

6 Critical path to Target. How has it changed? What caused the change?

7 Top 10 critical paths to Target

**8 Focus for the coming week for the top 10 critical paths**

9 Project task list for the coming week

Focus Now

Target: Project

End of Window: 10/23/2018

Critical Path:  Num of Critical Paths: 10  Days from Critical Path: 30

Task Criteria: All Tasks

Group By: No Group

Show Summary Tasks

Sort by Critical Path

Exit Generate

**INSPECTOR** TOOLS REFRESH ANALYZER REP

Window: 12/1/2019-12/31/2019

Finish: 2/8/2020

75 day pull-in 39 days late

Prob of Hitting Target

Change since

- 05/11 (now) - No change
- 05/11 (after update/pull-in) - 10 day slip
- 10/10 (before update on 05/11) - 85 day pull-in

Week-to-week change

- 10/02-10/10 - 61 day pull-in
- 09/25-10/02 - 9 day pull-in

Included baseline from before the Refresh meeting

In this case, grouped by task owner

Purpose: Focuses team on what they need to do in the coming week, prioritized by nearness to the critical path of the project.

# CP Analysis (with Gantt)

# CP Analysis - default

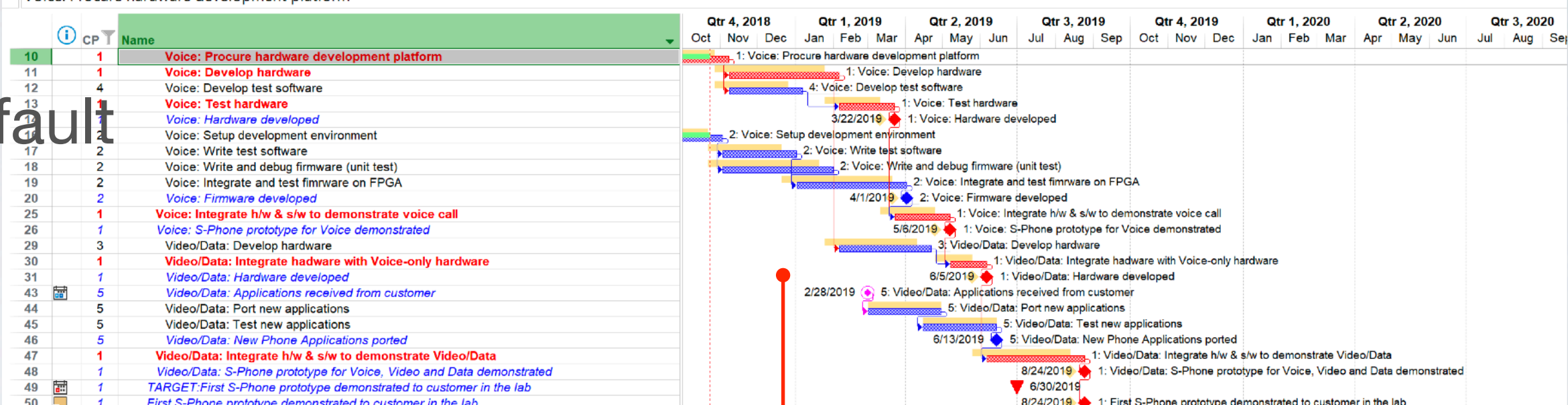
CP Analysis report is based on the Target selected

The screenshot displays a software interface with a menu bar at the top containing 'File', 'INSPECTOR', 'TOOLS', 'REFRESH', 'ANALYZER', 'REPORT', 'RESOURCES', 'FACEBOOK', 'Task', 'Resource', 'Report', 'Project', 'View', and 'Developer'. The 'INSPECTOR' menu is highlighted with a red box. Below it, a task is listed: 'First S-Phone prototype demonstrated to customer in the lab'. A red arrow points from this task to the 'CP Analysis' option in the 'Resource' menu, which is also highlighted with a red box. The 'CP Analysis' dropdown menu is open, showing options: 'Critical Path Analysis', 'Critical Path Analysis With Schedule (PDF) and Wigglechart', 'Critical Path Analysis Advanced', and 'Change Name/Location'. The 'Critical Path Analysis' option is highlighted with a red box. Below the menu is a toolbar with various icons. The main area shows a Gantt chart with a task list on the left. The task list includes:
 

- 10 Voice: Procure hardware development platform
- 11 Voice: Develop hardware
- 13 Voice: Test hardware
- 14 Voice: Hardware developed
- 25 Voice: Integrate h/w & s/w to demonstrate voice call
- 26 Voice: S-Phone prototype for Voice demonstrated
- 30 Video/Data: Integrate hardware with Voice-only hardware
- 31 Video/Data: Hardware developed
- 47 Video/Data: Integrate h/w & s/w to demonstrate Video/Data
- 48 Video/Data: S-Phone prototype for Voice, Video and Data demor
- 49 TARGET:First S-Phone prototype demonstrated to customer in the
- 50 First S-Phone prototype demonstrated to customer in the lab

 The Gantt chart shows a timeline from Qtr 4, 2018 to Qtr 2, 2019. A red diamond indicates a target date of 6/30/2019. A yellow bar indicates a finish date of 8/24/2019. A red arrow points from the target date to the 'CP Analysis' menu option.

# CP Analysis - default



Automatically generates Gantt with the 5 critical paths and the Excel chart of the first 10 critical paths to the selected target

AutoSave Off CP Analysis and Actions1 - Excel Search (Alt+Q) neal mitchell NM Share

## Critical Path Analysis: First S-Phone prototype demonstrated to customer in the lab

CP	Driving Task(s)	Owner	Days from CP1	Gap	End Date	Actions	Owner
1	Voice: Procure hardware development platform	Brian P	0	(55)	8/24/2019	1 action 1 2 action 2	person 1 person 1
2	Voice: Setup development environment	Neil	10	(45)	8/14/2019	1 action 1	person 2
3	Video/Data: Develop hardware	Susan Peters	15	(40)	8/9/2019	1 action 1	person 3
4	Voice: Develop test software	Susan Peters	30	(26)	7/25/2019		
5	Video/Data: Applications received from customer > Video/Data: Port new applications	John M	37	(18)	7/18/2019		
6	Video/Data: Implement new data protocol features	Paul B	41	(14)	7/14/2019		
7	Video/Data: Evaluate and procure development platform	John M	52	(3)	7/3/2019		
8	Get PicTel reqs	Bill Sacks	70	15	6/15/2019		
9	Video/Data: Implement new firmware features (unit test)	Steve B	75	20	6/10/2019		
10	Translate PicTel reqs into product reqs	Joe Bloggs	85	30	5/31/2019		

Days behind Critical path 1

Gap from target date

Record pull-in actions for first 3 critical paths during Refresh meeting with team present to confirm, distribute report after meeting

# CP Analysis - with embedded gantt

CP Analysis report is based on the Target selected

The screenshot shows a software interface with a menu bar at the top containing 'File', 'INSPECTOR', 'TOOLS', 'REFRESH', 'ANALYZER', 'REPORT', 'RESOURCES', 'FACEBOOK', 'Task', 'Resource', 'Report', 'Project', 'View', and 'Developer'. The 'INSPECTOR' menu is highlighted with a red box. Below it, a task is listed: 'First S-Phone prototype demonstrated to customer in the lab'. A red arrow points from this task to the 'CP Analysis' option in the 'Resource' menu, which is also highlighted with a red box. The 'CP Analysis' dropdown menu is open, showing options: 'Critical Path Analysis', 'Critical Path Analysis With Schedule (PDF) and Wigglechart' (highlighted with a red box), 'Critical Path Analysis Advanced', and 'Change Name/Location'. Below the menu is a 'Peel Mode' section with radio buttons for 'Critical path and current peel', 'Critical path and all peels' (checked), 'Current peel only', and 'Show Near-term Critical Paths Only'. The main area displays a Gantt chart with a task list on the left. The task list includes items like 'Voice: Procure hardware development platform', 'Voice: Develop hardware', 'Voice: Test hardware', etc. The Gantt chart shows a timeline from Qtr 4, 2018 to Qtr 2, 2019, with a red diamond indicating a target date of 6/30/2019 and a yellow diamond indicating a finish date of 8/24/2019. A red arrow points from the 'INSPECTOR' menu to the 'CP Analysis' option in the 'Resource' menu.

# CP Analysis - with embedded gantt

- Embedded PDF of first 5 critical paths
- Includes wiggglechart to target that was selected in the Inspector
- CP Analysis report is based on the Target selected
- This Excel file is an excellent report to send to Core Team Members (one stop shop that requires only one click to get)

AutoSave  Off | CP Analysis and Actions1 - Excel | Search (Alt+Q)

File Home Insert Draw Page Layout Formulas Data Review View Help Shape Format

EMBED("Packager Shell Object","")

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### Critical Path Analysis: First S-Phone prototype demonstrated to customer in the lab

Target: 6/30/2019

CP	Driving Task(s)	Owner	Days from CP1	Gap	Start	Finish
1	Voice: Procure hardware development platform	Brian P	0	(55)	8/24/2019	8/24/2019
2	Voice: Setup development environment	Neil	10	(45)	8/14/2019	8/14/2019
3	Video/Data: Develop hardware	Susan Peters	15	(40)		
4	Voice: Develop test software	Susan Peters	30	(25)		
5	Video/Data: Applications received from customer > Video/Data: Port new applications	John M	37	(18)		
6	Video/Data: Implement new data protocol features	Paul B	41	(14)		
7	Video/Data: Evaluate and procure development platform	John M	52	(3)		
8	Get PicTel reqs	Bill Sacks	70	15		
9	Video/Data: Implement new firmware features (unit test)	Steve B	75	20		
10	Translate PicTel reqs into product reqs	Joe Bloggs	85	30		

Target Milestone: First S-Phone prototype demonstrated to customer in the lab | Target: 30-Jun-2019

Predicted Finish: 02-Aug-2019 (Pull-In: 56d)

schedule (2).pdf

### Release an FCC approved Solar-powered Smartphone (S-Phone) to production for PicTel for a BOM of \$400 by December 2019

10/24/18 at 3:32 PM

ID	CP	Duration	Activity Owner	Start	Finish	Function
10	1	58 d	Brian P	9/11/18	11/7/18	
11	1	90 d	Brian P	11/8/18	2/5/19	
12	4	60 d	Susan Peters	11/8/18	1/6/19	
13	1	45 d	Brian P	2/6/19	3/22/19	
14	1	0 d	Brian P	3/22/19	3/22/19	
16	2	46 d	Neil	9/18/18	11/2/18	
17	2	60 d	Neil	11/3/18	1/1/19	
18	2	90 d	Neil	11/3/18	1/31/19	
19	2	90 d	Neil	1/2/19	4/1/19	
20	2	0 d	Neil	4/1/19	4/1/19	
25	1	45 d	Susan Peters	3/23/19	5/6/19	
26	1	0 d	Brian Anderson	5/6/19	5/6/19	
29	3	75 d	Susan Peters	2/6/19	4/21/19	
30	1	30 d	Susan Peters	5/7/19	6/5/19	
31	1	0 d	Susan Peters	6/5/19	6/5/19	
43	5	0 d	John M	2/28/19	2/28/19	
44	5	60 d	John M	3/1/19	4/29/19	
45	5	60 d	John M	4/15/19	6/13/19	
46	5	0 d	John M	6/13/19	6/13/19	
47	1	80 d	Brian Anderson	6/6/19	8/24/19	
48	1	0 d	Brian Anderson	8/24/19	8/24/19	
49	1	0 d		6/30/19	6/30/19	
50	1	0 d	Jim Smith	8/24/19	8/24/19	



# CP Analysis - advanced

CP Analysis report is based on the Target selected

The screenshot displays a project management interface with a Gantt chart and a task list. The task list includes:

ID	Name
10	Voice: Procure hardware development platform
11	Voice: Develop hardware
13	Voice: Test hardware
14	Voice: Hardware developed
25	Voice: Integrate h/w & s/w to demonstrate voice call
26	Voice: S-Phone prototype for Voice demonstrated
30	Video/Data: Integrate hardware with Voice-only hardware
31	Video/Data: Hardware developed
47	Video/Data: Integrate h/w & s/w to demonstrate Video/Data
48	Video/Data: S-Phone prototype for Voice, Video and Data demonstrated
49	TARGET: First S-Phone prototype demonstrated to customer in the lab
50	First S-Phone prototype demonstrated to customer in the lab

The 'CP Analysis' dropdown menu is open, showing the following options:

- Critical Path Analysis
- Critical Path Analysis With Schedule (PDF) and Wigglechart
- Critical Path Analysis Advanced**
- Change Name/Location

The 'Peel Mode' section includes the following options:

- Critical path and current peel
- Critical path and all peels
- Current peel only
- Show Near-term Critical Paths Only

# CP Analysis - advanced

Select how far from the first critical path you would like to see

Narrow or expand number of critical paths

Include add-in reports

Viewing options

Executes choices (above)

Find where multiple critical paths converge, these are the highest leveraged tasks to get pull-ins

The image shows a software dialog box titled "Critical Path Analysis" with a close button (X) in the top right corner. The dialog is divided into several sections:

- Constraints:** Contains three items: "Days to critical path (to task)" with an empty text input field; "Number of critical paths to display" with a text input field containing the number "10"; and "To selected task" with a checked checkbox. Below these is a task name: "First S-Phone prototype demonstrated to customer in".
- Export Additions:** Contains two items: "Add shedule as PDF" and "Add Wigglechart", both with unchecked checkboxes.
- View:** Contains three items: "Generate chart" with a checked checkbox; "Display in Gantt" with an unchecked checkbox; and "Generate report" with an unchecked checkbox.
- Buttons:** At the bottom, there is a button labeled "Critical Path Analysis" (highlighted with a double border), a button labeled "Find Common Critical Paths", and an "Exit" button.

Annotations with arrows point from text on the left to specific elements in the dialog:

- An arrow points from "Select how far from the first critical path you would like to see" to the "Days to critical path (to task)" input field.
- An arrow points from "Narrow or expand number of critical paths" to the "Number of critical paths to display" input field.
- An arrow points from "Include add-in reports" to the "Export Additions" section.
- An arrow points from "Viewing options" to the "View" section.
- An arrow points from "Executes choices (above)" to the "Critical Path Analysis" button.
- An arrow points from "Find where multiple critical paths converge, these are the highest leveraged tasks to get pull-ins" to the "Find Common Critical Paths" button.

# Acceleration Questions

# High level questions...

<p>How far off are we from our target date (+ or -)?</p>	<p><b>What is the schedule trend?</b></p> <ul style="list-style-type: none"><li>• Are you slipping or are you accelerating the schedule?</li><li>• If slipping, do we have enough time remaining to recover?</li><li>• What are your recovery plans?</li><li>• If on schedule, what are you doing to pull-in the schedule?</li><li>• What are the top 3 future slips you are expecting?</li><li>• What are you doing now to mitigate these future slips?</li></ul>
<p><b>Do you have confidence that the team will/can hit the target date?</b></p> <ul style="list-style-type: none"><li>• If not, what do you need to do to increase your confidence level?</li></ul>	<p><b>What factors will be/are barriers to timely delivery (per our customer commitments)?</b></p> <ul style="list-style-type: none"><li>• What are the top 3 technical problems or innovations needed?</li><li>• What are you doing to solve them?</li><li>• How do plan to overcome these barriers?</li><li>• What are the other non-technical barriers that need to be removed in order to go faster?</li></ul>
<p><b>What is the critical path?</b></p> <ul style="list-style-type: none"><li>• What steps are you taking to accelerate the critical path?</li><li>• What can I do to help you accelerate the critical path?</li><li>• What do you need that you are not getting now?</li><li>• What is the 2nd through 5th critical paths?</li><li>• What are you doing to accelerate the 2nd-5th critical paths?</li><li>• What is your management process to continually accelerate the schedule?</li></ul>	

## Strategic questions

- Do we have to “make” it? Could we “buy” it instead?
- Could we establish a development/alliance partner?
- Is it possible to change the product definition/functionality?
- How about re-use and/or use of common parts?
- Can we challenge the base technology assumptions?
- Is there a common reference architecture available (reuse vs. create from scratch)?

## Tactical questions

- Can we eliminate (non-value) activities?
- Could we make more activities take place concurrently?
- Could we find more resources internally?
- Could we find contract resources outside?
- Could we realistically reduce the duration estimates?

## Questions for task owners (Part A: content of schedule)

- Have you defined the right doneness criteria for XYZ target milestone?
  - If yes, do you have all the tasks identified to fulfill the doneness criteria for the next major target milestone?
  - If no, what is missing?
- Are the right tasks in the schedule?
- Do your durations reflect realistic risk and/or the estimated learning cycles needed, etc.?
- Are these the correct dependencies?
  - Within your project, and across to/from other functions?

## Questions for task owners (Part B: acceleration of schedule)

- Could any of your durations be accelerated?
  - What do you need to make them go faster?
- Can you start anything sooner?
- What can be done differently, eliminated, concurrently, or changed to make XYZ go faster?
  - What do you need to make this happen?
- Given your knowledge today, will you meet your schedule?
  - If not, what are the barriers to finishing your part by X target date?



# Low Overhead Reporting - concepts

## Principles:

- All reporting is one page for each topic
- Never let it flow to a second slide
- Minimize overhead, reuse data from project schedule (instead of recreating it)
- Limit filtering, use live data
- Lots of white space, don't fill up the slides
- Should take less than 30 minutes a week/project to generate

## Slide 1 Project Summary

- High level report of current health of the project and where it is trending (4 bullet points)
  - Status / where are we now?
  - Why are we where we are now?
  - What are we doing about it?
  - What help do we need (from executive reviewers)?

## Slide 2 Trends of Key Milestones

- 3-1 Wigglechart or single Wigglecharts
  - Includes status of each milestone + help needed (drawn from wigglechart files)

## Slide 3 Critical Path

- A. Overall project critical path (against last baseline)
- B. Near term path to next major milestone
- Include short description of each path
- Identify problems and any needed help requested

## Slide 4 Peels

- Show 3-5 peels (with wigglets of last milestone in the peel)
- Show Pull-in Actions (by critical path)
- Describe issues and potential problems
- Request any help needed

## Slide 5 Risks

- List and describe open project risks that cause low confidence in the schedule
- For each risk, describe the mitigating actions being implemented
- Retire risks that are closed / resolved

# If you only had one slide...

