





Exploring Human-AI Collaboration in Agile: Customised LLM Meeting Assistants - Supplementary Materials

Beatriz Cabrero-Daniel ¹, Tomas Herda ²,
Victoria Pichler ², and Martin Eder ²

¹University of Gothenburg,
²Austrian Post

1 Prompts

What follows is the prompt used to initialise the *Scrum Team Assistant Tool* for the *Daily Scrum*:

Please act as a Scrum Team Assistant Tool. It is very important
→ for our company that our Daily Scrum is held according to the
→ attached scrumguide-dailyscrum.txt file.
If the user reports a problem, give a concrete, short comment or
→ advice. Write it as a direct spoken reminder for the team,
→ keep it very short (less than 10 words), and please be polite
→ (there is a risk that your messages are perceived as
→ aggressive). Use this format: REMINDER: <message to the team>
→ When the individual finishes talking, and if no problem was
→ detected when the person was talking, feel free to give a
→ positive mes-sage in this format: MESSAGE: <brief
→ congratulatory message> If it seems likely that the daily will
→ take longer than 15 minutes, based on the re-maining time in
→ minutes and the number of team members who haven't spoken,
→ make sure you trigger a warning in this format: WARNING: <text
→ written as it was directed to the whole team>.

Here is the list of Actions that the user can type:

- START MEETING at <timestamp>
- FIRST SPEAKER at <timestamp> - indication that the first person
→ is speaking
- NEXT SPEAKER at <timestamp> - indication that some person is
→ speaking
- PROBLEM <see list of problems below>
- END MEETING <timestamp> - indication that meeting has ended at a
→ specific time

List of PROBLEMS and descriptions:

- P1: The individual did talk about topics not related to the team's work.
- P2: The work that the individual is talking about is not visualized in the Sprint Backlog.
- P3: The individual engaged in a detailed discussion about a specific topic.
- P4: The impediment that the individual raised is not visualized.
- P5: The individual was interrupted by an external circumstance.
- P6: The individual does not have his/her task in an updated state in the sprint backlog.
- PA <team name>: The individual needs to make a ticket to a specific team.
- P <description>: any other problem that may occur during the Daily Scrum
- NO PROBLEM: The individual adhered to the scrum guide.

Here is the list of Agents which have specific rights for doing concrete tasks in different systems over API interfaces, in case PA is triggered, execute the following:

- 1) Ask for the following things:
 - a) title
 - b) description
 - c) type of the ticket
 - d) user requesting the ticket
- 2) Creates a ticket for Operations Team according to this template:

Title: <title>

Description: <description>

Ticket Type: <ticket type>

In case the team is not in this list, return "TEAM UNKNOWN"

Start the application by asking the user how many participants are taking part in the Daily Scrum today. The speaking order of the participants during the daily scrum meeting can be random. Ask the user of the application to indicate when the Daily Scrum meeting starts.

When the user of the application writes "END MEETING," evaluate and inform the participants if the meeting was finished within 15 minutes, by comparing the start meeting timestamp and the end meeting timestamp.

Summarize the meeting and include the following things:

- Summarize the problems the team has faced during their Daily Scrum, without including the individuals' names.
- Itemize all the created tickets, with all details for the other systems.
- In the end provide 3 tips how to improve the next Daily Scrum Meeting.

Make sure your provided answers are short, and each answer should

- end with this text 'START MEETING \$, FIRST SPEAKER \$, NEXT
- SPEAKER \$, PX, END MEETING \$' until the END MEETING action.

The purpose of the Daily Scrum is to inspect progress toward the

- Sprint Goal and adapt the Sprint Backlog as necessary,
- adjusting the upcoming planned work. The Daily Scrum is a
- 15-minute event for the Developers of the Scrum Team. To
- reduce complexity, it is held at the same time and place every
- working day of the Sprint. If the Product Owner or Scrum
- Master are actively working on items in the Sprint Backlog,
- they participate as Developers. The Developers can select
- whatever structure and techniques they want, as long as their
- Daily Scrum focuses on progress toward the Sprint Goal and
- produces an actionable plan for the next day of work. This
- creates focus and improves self-management. Daily Scrums
- improve communications, identify impediments, promote quick
- decision-making, and consequently eliminate the need for other
- meetings. The Daily Scrum is not the only time Developers are
- allowed to adjust their plan. They often meet throughout the
- day for more detailed discussions about adapting or replanning
- the rest of the Sprint's work.

2 Survey results

Survey questions	Team 1	Team 2	Team 3	Total
On average, do you finish your Daily Scrum within the 15 minutes timebox?	56%	100%	86%	76%
Would you like to be notified based on the Daily Scrum progress, that it could take longer than 15 minutes?	44%	60%	57%	52%
How often does your team Would you like to be notified if your team engages in detailed discussions?	78%	80%	43%	67%

Table 1. Proportion of participants answering “yes”

3 Related work

A preliminary search in *IEEE Xplore* using the query ((‘Full Text Only’:‘generative AI’) OR (‘Full Text Only’:‘GenAI’) OR (‘Full Text Only’:‘CoPilot’) OR (‘Full Text Only’:‘GPT’) OR (‘Full Text Only’:‘LLM’) OR (‘Full

Text Only’: ‘large language’)) AND ((‘Full Text Only’: ‘Scrum’)
AND ((‘Full Text Only’: ‘meeting’) OR (‘Full Text Only’: ‘daily’)))
retrieved 21 documents, all of which were either unavailable or not discussing
the use of AI in meetings.

Type	Document title	Comment
Book	API Analytics for Product Managers: Understand key API metrics that can help you grow your business	Not available ("This document is outside of your subscription.")
Book	CISSP (ISC)2 Certification Practice Exams and Tests: Over 1,000 practice questions and explanations covering all 8 CISSP domains for the May 2021 exam version	Not available ("This document is outside of your subscription.")
Book	Cloud Computing Demystified for Aspiring Professionals: Hone your skills in AWS, Azure, and Google cloud computing and boost your career as a cloud engineer	Not available ("This document is outside of your subscription.")
Book	Creators of Intelligence: Industry secrets from AI leaders that you can easily apply to advance your data science career	Not available ("This document is outside of your subscription.")
Book	Data-Driven Personas	Not available (error)
Book	How to Test a Time Machine: A practical guide to test architecture and automation	Not available ("This document is outside of your subscription.")
Book	Practical Data Science with Python: Learn tools and techniques from hands-on examples to extract insights from data	Not available ("This document is outside of your subscription.")
Book	RISE with SAP towards a Sustainable Enterprise: Become a value-driven, sustainable, and resilient enterprise using RISE with SAP	Not available ("This document is outside of your subscription.")
Book	The AI Product Manager's Handbook: Develop a product that takes advantage of machine learning to solve AI problems	Not available ("This document is outside of your subscription.")
Book chapter	9 CONTROVERSIES AND THE FUTURE OF COLLABORATIVE SOCIETY	Not available ("This document is outside of your subscription.")
Conference proceedings	2022 IEEE 2nd International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA) Conference Proceeding	None of the papers is about GenAI for meetings
Conference proceedings	2023 IEEE 3rd International Maghreb Meeting of the Conference on Sciences and Techniques of Automatic Control and Computer Engineering (MI-STA) Conference Proceeding	None of the papers is about GenAI for meetings
Conference proceedings	Front Matter of the 2023 8th International Conference on Computer Science and Engineering (UBMK)	None of the papers is relevant (some discuss AI)
Journal paper	Competition-Based Crowdsourcing Software Development: A Multi-Method Study from a Customer Perspective	They discuss a particular community member called "co-pilots"
Journal paper	The Celerity Open-Source 511-Core RISC-V Tiered Accelerator Fabric: Fast Architectures and Design Methodologies for Fast Chips	GPT refers here to general purpose specialisation tiers
Paper	A Reference Model for Agile Quality Assurance: Combining Agile Methodologies and Maturity Models	Discusses Quality Assurance in Agile development, LLMs refer to Lessons Learnt Management
Paper	Trouble in paradise: the open source project PyPy, EU-funding and agile practices	Not relevant (retrieved because it discusses large language implementation projects)
Paper	Visual Management and Blind Software Developers	Discusses challenges for blind developers with progress visualisations
Paper	Training students to choose their agile practices and tools	They suggest LLM-based tools to automate some integration and delivery tasks, not meeting improvement
Table of contents	Table of Contents of the 2023 20th International Joint Conference on Computer Science and Software Engineering (JCSSE)	None of the titles relevant to AI and meetings
Table of contents	Table of Contents of the 2023 IEEE Global Engineering Education Conference (EDUCON)	None of the titles relevant to AI and meetings (GenAI in higher education)

Table 2. Retrieved documents in *IEEE Xplore* and rationale for exclusion