

Here is the checklist generated based on the requirements:

Identity and Purpose

Checklist for Developer

- Has the collected data, training, validation, and test data sets used for the frozen model been managed as configuration items? [Yes/No]
- Are quality and process assurance principles applied to the development of the AI-based system with the required independence level? [Yes/No]

Checklist for Reviewer

- Is it ensured that the collected data, training, validation, and test data sets used for the frozen model have been managed as configuration items? [Yes/No]
- Are quality and process assurance principles applied to the development of the AI-based system with the required independence level? [Yes/No]

Reuse of AI/ML Models

Checklist for Developer

- Has consideration been given to replacing or modifying a previously developed AI/ML constituent or ML model? [Yes/No]
- Have potential challenges such as OD and/or ODD adaptation, data quality, change management including open problem reports, development explainability, and scalability been addressed? [Yes/No]

Checklist for Reviewer

- Has consideration been given to replacing or modifying a previously developed AI/ML constituent or ML model? [Yes/No]
- Have potential challenges such as OD and/or ODD adaptation, data quality, change management including open problem reports, development explainability, and scalability been addressed? [Yes/No]

Inference Model Verification

Checklist for Developer

- Has an evaluation of the performance of the inference model based on the test data set been performed? [Yes/No]
- Have the results of the model verification been documented? [Yes/No]
- Has the final performance with the test data set been measured and fed back to the safety assessment process, linking this evaluation to the metrics defined under Objective SA-01? [Yes/No]

Checklist for Reviewer

- Has an evaluation of the performance of the inference model based on the test data set been performed? [Yes/No]
- Have the results of the model verification been documented? [Yes/No]
- Has the final performance with the test data set been measured and fed back to the safety assessment process, linking this evaluation to the metrics defined under Objective SA-01? [Yes/No]

Inference Model Stability

Checklist for Developer

- Have verification cases addressing anticipated perturbations in the operational phase due to fluctuations in the data input (e.g. noise on sensors) been considered? [Yes/No]
- Has the stability of the inference model throughout the ML constituent ODD, including nominal cases, singular points, edge and corner cases, been verified? [Yes/No]

Checklist for Reviewer

- Have verification cases addressing anticipated perturbations in the operational phase due to fluctuations in the data input (e.g. noise on sensors) been considered? [Yes/No]
- Has the stability of the inference model throughout the ML constituent ODD, including nominal cases, singular points, edge and corner cases, been verified? [Yes/No]

Inference Model Robustness

Checklist for Developer

- Have test cases, including edge or corner cases within the ODD (e.g. weather conditions like snow, fog for computer vision) and OoD test cases, been considered to verify the robustness of the inference model in adverse conditions? [Yes/No]

Checklist for Reviewer

- Have test cases, including edge or corner cases within the ODD (e.g. weather conditions like snow, fog for computer vision) and OoD test cases, been considered to verify the robustness of the inference model in adverse conditions? [Yes/No]

Inference Model Integration

Checklist for Developer

- Has requirements-based verification of the inference model behavior when integrated into the AI/ML constituent been performed? [Yes/No]

Checklist for Reviewer

- Has requirements-based verification of the inference model behavior when integrated into the AI/ML constituent been performed? [Yes/No]