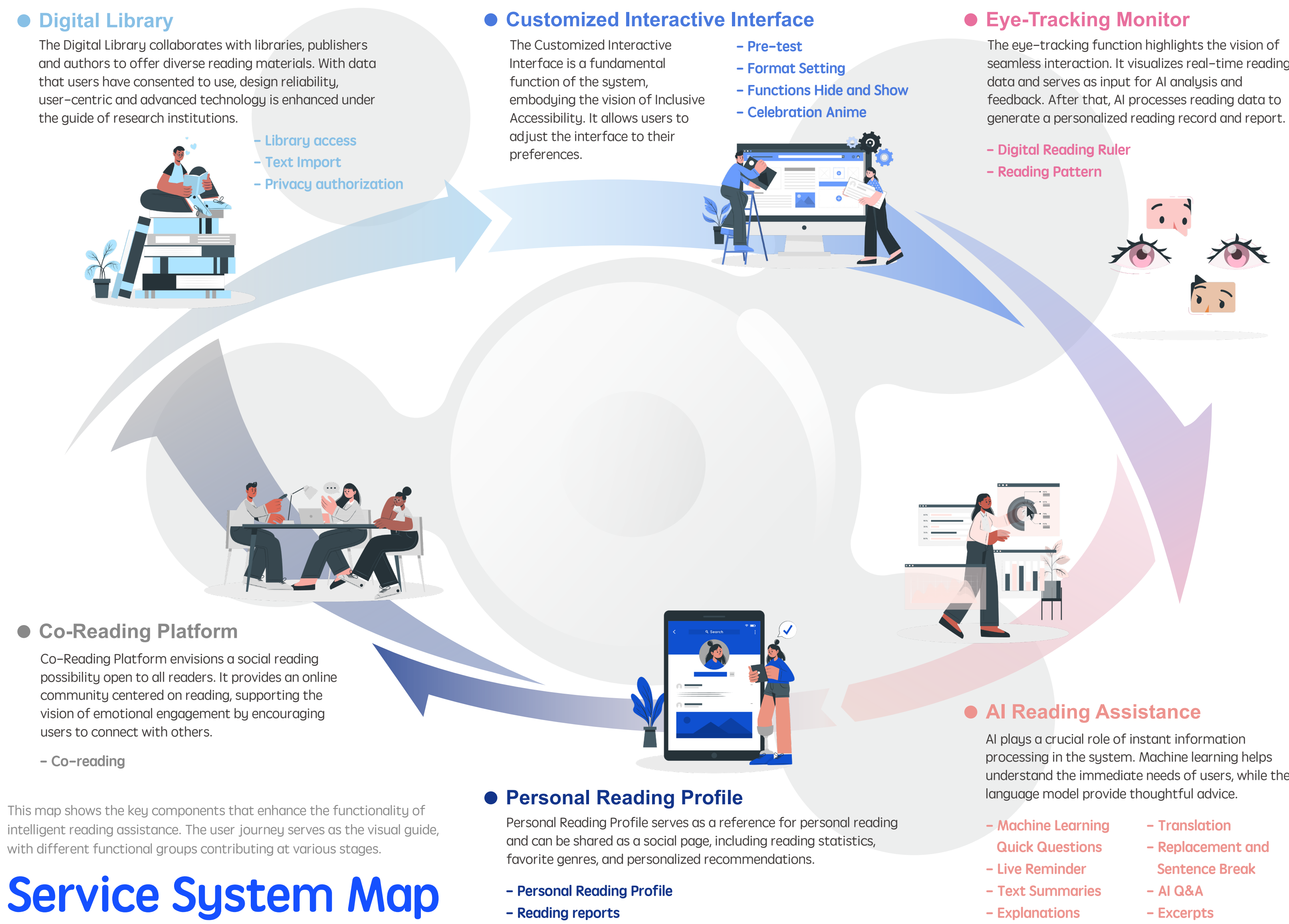


# Universal Reading: Digital Reading Experience Enhancement for People with Dyslexia

This project presents an interactive reading assistance system aimed at enhancing the reading experience for individuals with dyslexia. The research involved a comprehensive iterative design process, incorporating insights from functional tests, expert interviews, and a technical focus group. A notable innovation is the full utilization of reading data from eye movements, integrated with AI to provide real-time, personalized reading assistance. To ensure the project's feasibility, a comprehensive strategic roadmap and system map were also designed.

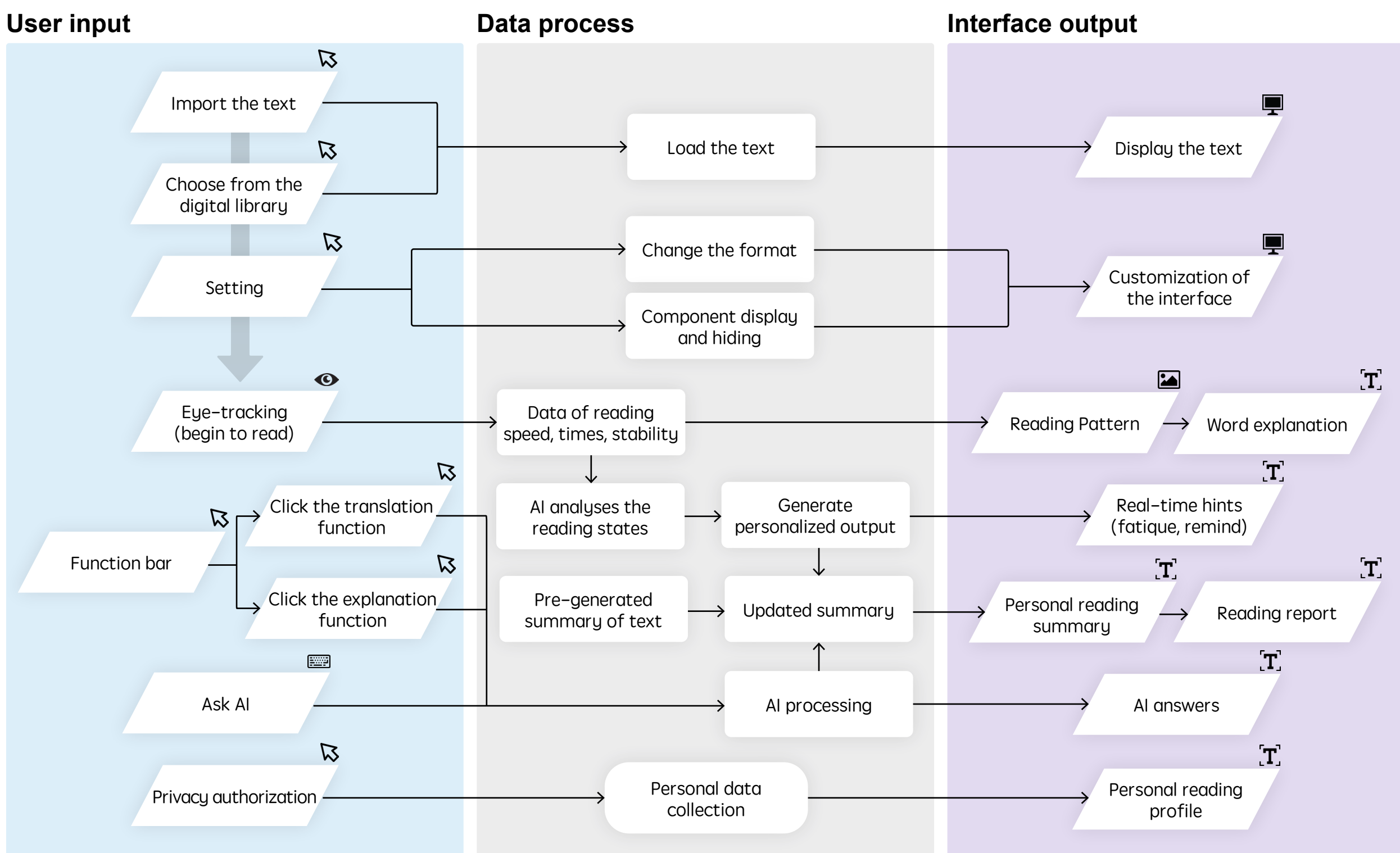


## Service System Map

Following the vision of "Creating an inclusive, intuitive, and intelligent digital reading environment that empowers all visual readers, especially those with dyslexia, to read effortlessly with greater comprehension and motivation," the strategic roadmap and system map were developed. The Three Horizons model provides an overall framework for future storytelling. The first horizon emphasizes seamless interaction. Eye-tracking data serves as coordinate input, substituting for the mouse in certain operations. This helps users quickly locate their reading position and streamline interactions. The second horizon introduces intelligent assistance. Eye gaze serves as input for AI analysis, enabling personalized reading experiences based on the results of AI analysis. The third horizon explores social reading and multi-platform collaboration. We are committed to building an inclusive online

reading platform that integrates various content resources and accommodates diverse user needs, bringing more possibilities to future reading.

A set of interaction design proposals was developed based on the system structure, which includes platform frameworks and the main reading interface. The following diagram illustrates the information workflow, effectively integrating user inputs, data processing, and interface outputs in the reading page. This comprehensive interactive platform is designed to enhance the reading experience by incorporating advanced features such as customizable interfaces, eye-tracking technology, smart AI, and a co-reading platform. The workflow seamlessly integrates user inputs, data processing, and interface outputs to create a personalized, interactive, and supportive reading environment.



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