Introduction

ITER CODAC is a scalable and flexible infrastructure that has been developed over many years. The system has been designed from the ground up to be easily integrated with other systems, and it has been used in a variety of applications, including nuclear fusion research. One of the key features of ITER CODAC is its ability to handle large amounts of data, making it ideal for use in high-performance computing environments. In addition, ITER CODAC is designed to be scalable, allowing it to be used in a wide range of applications, from small-scale experiments to large-scale fusion devices.

EPICS on JET

EPICS is a framework for developing and running control systems for scientific experiments. It is widely used in the field of nuclear fusion research, and it is a key component of the JT-60SA control system. EPICS provides a standardized interface for controlling and monitoring devices, and it is designed to be extensible, allowing it to be used in a wide range of applications.

EPICS on MAST

EPICS is also used on MAST, and it is being used to develop a real-time control system for the plasma heating system. The MAST control system is being developed using the EPICS framework, and it is being used to control and monitor the plasma heating system in real-time. The MAST control system is being designed to be scalable, allowing it to be used in a wide range of applications, from small-scale experiments to large-scale fusion devices.

Future Developments and Possibilities

We have started to introduce EPICS on both JET and MAST. On ITER, we have implemented a proof of principle application to monitor tokamaks. We have also implemented a Central Information Display, which provides the user with an overview of the overall status of the tokamak systems. We plan to extend the use of EPICS to cover all the tokamak systems, including plasma heating, confinement, and diagnostics.

Conclusion

In conclusion, EPICS is a powerful and flexible framework for developing and running control systems for scientific experiments. It is widely used in the field of nuclear fusion research, and it is a key component of the JT-60SA control system. EPICS is being used on both JET and MAST, and it is being used to develop real-time control systems for the plasma heating system. We plan to extend the use of EPICS to cover all the tokamak systems, including plasma heating, confinement, and diagnostics.