

# FSC TO SM MIGRATION VALUE AND FOCUS

## Honeywell Solution for Migration of the legacy Fail Safe Controller

Product Information Note

Fail Safe Controller (FSC) to Safety Manager (SM) migration is a field proven modernization solution to improve plant safety, better protect plant assets, reduce maintenance and expand safety system support longevity with latest technology.

### THE CHALLENGE

The current industry environment becomes more complex with high demands increased safety and environmental protection.

The generations shift from retiring elderly people with in-depth process and technical knowledge to general knowledge new hires; technology obsolescence; and pressure for improved plant operation becomes a valid reason to execute continuous assessment of all aspects of safe operations.

The classical distributed control systems introduced in the second half of the 20th century are using the ageing coaxial technology patented back in 1880. In the same time the Fault Tolerant Ethernet Technology (FTE) has proven to be the driving technology today to manage plant operation.

Honeywell announced in 2015 their plans to phase-out the support of coaxial technology by the end of 2025. This includes as well the coaxial base Fail Safe Controller.

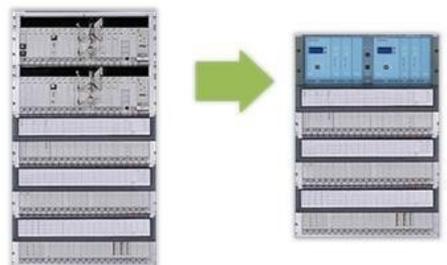
### THE SOLUTION

Safety Manager was the first safety system to achieve Embedded Device Security Assurance (EDSA) certification.

Safety Manager is designed to work on the FTE and qualified to operate with FSC I/O together with Universal Safety I/O. Introduced together with C300 controller, the SM has a proven reliable operational record for a decade in various industries. Ongoing functional enhancements makes the SM one of the best safety controllers in the industry.

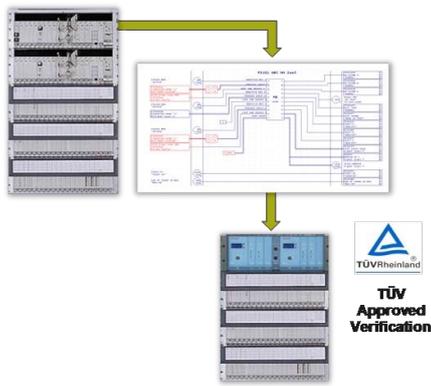
Compared to FSC, the SM provides enhanced safety and reliability at Customer site like:

- Improved Availability and reliability - 50% less controller modules
- New features - safety functions and Universal Safety I/O
- Safety application protection - ISA Secure level 1 certification
- Shorter changeover time - system fault detection for Improved response
- Reduced maintenance cost
- Shorter failure recovery - 30% faster controller scan rate



The solution for migration of the FSC controller to SM enables the exchange of the FSC controller with the Safety Manager controller while maintain the FSC I/O and all related field devices and wiring. Hardware migration kits makes the transition an easy operation.

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## HOW IT WORKS

Preparing for migration of FSC with Safety Manager Module connection to Honeywell system, requires FTE Infrastructure at Customer site. Typically, the Infrastructure Include - switched, firewalls, ethernet cables, fiberoptic equipment and cables. Honeywell (supported by partners) can provide complete design of a new FTE network Infrastructure or evaluate update existing ethernet Infrastructure to support FTE for Honeywell equipment migrations.

The FSC to Safety Manager migration process Includes:

- Safety System Audit and Hardware design
- Supply of required Safety Manager equipment
- Off-site FSC application migration to Safety manager
- Validation of application transfer prior to on-site activities

The on-site changeover of FSC to SM requires process shutdown and the on-site migration is done In 6 simple steps:

1. FSC power down
2. FSC hardware replacement to SM
3. Start-up of Safety Manager
4. SM applications Install
5. Validation/spot-checks
6. Back to operation

The migration does not require field wiring changes and provides 100% IP protection of the safety applications.

The certified Honeywell safety migration engineer can complete up to two FSC controller migrations in a day. When properly planned the speed of on-site changeover activities provided by Honeywell can support FSC to SM migration during unplanned operational shutdowns as well.

## BENEFITS TO CUSTOMERS

Migration of the Legacy FSC controller to SM helps End Users to improve safe operation of their facilities and meet the latest safeguarding regulatory requirements. After migration to SM, users have opportunity to expand plant safety by adding additional signals and advanced safety function.

Additionally, migration of the FSC to SM resolves functional obsolescence and helps increase longevity of support of the installed safety system assets.

The FSC to SM migration solution had a proven multiyear records for robust and flawless implementation withing multiple sites worldwide.

The globally available Honeywell safety certified experts have the ultimate experience in safety assessment, design, FSC migration engineering and on-site installation.

In addition to a smooth hardware migration, the solution provides conversion of the FSC application in an automatic way to a Safety Manager application. A TÜV certified software migration tool enables a one-to-one conversion of the FSC application.

The FSC to SM migration solution was Introduced In 2015 . Since then, hundreds redundant FSC controllers were successfully migrated to the Safety Managers In various Industries worldwide.

The multiyear migration experience enabled Honeywell to develop highly qualified team of experts that efficiently execute flawless safety systems migration.

### For More Information

To learn how Honeywell's Migrations provides economic benefits and flexibility, visit [process.honeywell.com](https://process.honeywell.com) or contact your Honeywell account manager.

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