

Management Control

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Amendment Record

Issue	Date	Description
5	29/10/1999	Converted to Word format by AEA Technology Rail. Same as issue 4.3. Issue 4.3 included amendments that are not yet approved for use.
5.1	14/12/1999	Section 7.3 – new section on the use of the MVME172-213a board added. References to the Protocol Converter Subsystem (PCS) and Remote Display Facility (RDF) have been removed as these modules are no longer supported.
5.2	28/03/2000	References to MVME172-213a amended to MVME172-213. Section 7.2 amended to state that MVME172 is preferred retrofit option. Section 7.3 amended to include other hardware, recovery of displaced boards, and reference to retrofitting guide. SAO-OBR-UG-1 amended to SAO-OBR-UG-8, and Retrofitting DIS title and issue amended in References section.
6	23/5/2001	Sections 5.1.6, 6.1.1, 7 and 8 amended to cover installation, retrofitting and commissioning of the CD-ROM facility.
7	21/03/2003	Railtrack amended to Network Rail. Sections 7.2 and 7.3 amended to refer to MVME172 board instead of MVME172-213 board. New sections 7.8 and 7.9 added for PC SPAD Monitor and IECC SPAD Alarm respectively. Section 7.6 (ECS) deleted in accordance with SAO-IEC-D14. Reviewed for SAO-IEC-D32, as a result of which the following changes were made: section 2.2 ICS and SIM deleted from subsystem list, section 2.3 final paragraph added, section 3 reference to TTP FCT User Guide corrected to IECC 8005, section 4.1 revised and final paragraph added.
8	30/01/2004	Sections 7.8 and 7.9 amended to include the IECC PC Logger (IPL). New section 7.10 added for IPL. Section 8 document references updated where necessary and issue numbers and dates removed.

Author	Approved	Date	Authorised	Date
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SAO-IEC-HP-13 Issue 8

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I Introduction

I.1 PURPOSE AND SCOPE OF DOCUMENT

The purpose of this document is to outline the management issues connected with an IECC scheme.

The accent is on passing on experience from all the schemes complete or under way at the time of writing.

I.2 SECTION CONTENTS

Section 2 discusses the changes from the traditional approach and how best to realise the benefits offered by IECC.

Section 3 discusses how the work can be broken into packages for contracting out.

Section 4 discusses configuration management.

Section 5 defines all the different types of IECC test and makes a recommendation as to their use.

Section 6 lists several work items that are difficult to schedule as they cross boundaries of responsibility.

Section 7 discusses retrofitting.

Section 8 lists the document references.

2 Managing An IECC Scheme Implementation

2.1 OUTLINE OF TRADITIONAL PRACTICE

The development of a traditional mosaic panel controlled relay based signalling scheme was essentially an incremental job. It involved the creation of the scheme plans and control tables necessary to safely signal the railway and a gradual incremental development of the associated panel. The individual parts of the interlocking and its associated panel were discrete entities and a change could be inserted into one of these parts with little or no effect on the programme for the rest of the job. The incremental approach worked very well as long as the size of the job was estimated well and started in sufficient time.

In addition, the development of stage works could be accomplished by masking off parts of the panel or adding an extension as and when required. The operating requirements for the scheme and the Train Descriptor and information systems could be developed separately by a different section as they had little real connection with the panel apart from simple parameters such as the number of operating positions and the number and location of the berths displayed on the panel.

Once the system is commissioned, changes become more difficult. Some changes can involve dismantling parts of the panel to make the alterations. Changes to a traditional free wired interlocking can also make a lot of re-testing necessary as the contacts for some relays are used for many different functions. The lead-time on the specially engineered tiles for the panel can also be a problem.

2.2 MAIN DIFFERENCES IN APPROACH

The declared advantages of the IECC/SSI/RII approach are:

- reduced equipment and building costs;
- reduced installation and maintenance costs;
- improved train regulation and responsiveness to operating incidents;
- greater flexibility to meet changes in business demands; and
- off-line testing of changes.

In order to realise these benefits, a different approach has to be taken to the management of a scheme including an IECC.