

BS 8587:2012



BSI Standards Publication

Guide to facility information management

bsi.

...making excellence a habit.
AVA Documents™
Document Sharing Hub

Publishing and copyright information

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2012

Published by BSI Standards Limited 2012

ISBN 978 0 580 78216 9

ICS 01.040.03 | 03.080.99 | 91.040.01

The following BSI references relate to the work on this standard:

Committee reference FMW/1

Draft for comment 12/30259858 DC

Publication history

First (present) edition, October 2012

Amendments issued since publication

Date	Text affected
------	---------------

Contents

Foreword *ii*

Introduction *1*

- 1** Scope *2*
- 2** Normative references *2*
- 3** Terms, definitions and abbreviations *2*
- 4** Primary processes *5*
- 5** Information and data *14*

Annexes

Annex A (informative) Example RASCI chart *31*

Annex B (informative) Typical building manual contents *32*

Annex C (informative) Typical building user guide contents *33*

Bibliography *35*

List of figures

Figure 1 – Information categorization *9*

Figure 2 – Steps in the information management process *11*

List of tables

Table A.1 – Typical tasks and allocated roles *31*

Summary of pages

This document comprises a front cover, an inside front cover, pages i to ii, pages 1 to 36, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 October 2012. It was prepared by Technical Committee FMW/1, *Facilities Management*. A list of organizations represented on this committee can be obtained on request to its secretary.

Information about this document

The initial drafting of this British Standard was produced in association with the Department for Business, Innovation and Skills as part of its on-going programme of support for standardization.

Use of this document

As a guide, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification or a code of practice and claims of compliance cannot be made to it.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The guidance in this standard is presented in roman (i.e. upright) type. Any recommendations are expressed in sentences in which the principal auxiliary verb is “should”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

In particular, attention is drawn to the following specific Acts and Regulations:

The Equality Act 2010 [1]

The Transfer of Undertakings (Protection of Employment) (Amendment) Regulations 2009 [2]

The Freedom of Information Act 2000 [3]

The Health and Safety at Work etc. Act 1974 [4]

The Construction (Design and Management) Regulations 2007 [5]

The Data Protection Act 1998 [6]

Introduction

The efficient and effective management of facility-related information is necessary for owners and operators in order to comply with requirements of the organization and financial obligations and duties, as well as being able to derive optimal use and benefit from their facilities. The breadth of information to be managed can be substantial and demands a structured approach to its collection, maintenance, updating, communication and control. The starting point for owners, as the primary organization with an interest in information about a facility, is to be able to understand the various types of information and data that are needed for the day-to-day management of their facility throughout its life. The purpose of this British Standard is to assist with the identification, structuring and compilation of information and data required for a wide range of purposes and needs. These requirements can take the form of a facility handbook containing legal, commercial, financial, technical and managerial information which is made available to personnel with the appropriate authority. The facility handbook is a medium for providing relevant and comprehensive information and data necessary to sustain the facility's operations into the future.

Building log-books and, increasingly, building manuals and building user guides are prepared for facilities. Ownership and management of a facility brings with it the responsibility for safe and correct operation, which extends to the well-being of occupants and other users. These undertakings go beyond concerns about the technical aspects of the facility to cover myriad issues for which owners, and those acting on their behalf, have specific responsibilities and accountabilities. Information and data needed for these purposes might be found in different parts of the organization; in some cases, information might simply be unavailable. Knowing which information and data an organization needs to collect, maintain, update, communicate and control can prove challenging. Since facilities are the physical assets that an organization possesses there is the need to protect, even enhance, the value of that investment. Knowledge about facilities has real value; moreover, the cost of delivering the asset in the first instance includes the cost of producing and managing information and data. In the case of a new facility, an information asset is delivered alongside the physical asset. The relationship between the two has to be understood if the facility is to be delivered as promised and if it is to serve its intended purpose well into the future.

Information management, in particular facility information management, provides a focus for addressing the previously mentioned concerns and interests. By considering the totality of the information and data required to support the safe, correct, efficient and effective operation of a facility, owners and operators can better understand their current and likely future obligations and commitments. Owners, in particular, might already be aware of the extent of their legal obligations, but might not fully comprehend demands or requirements in other areas affecting their facilities such as those of a commercial, financial and managerial nature. A further dimension of facility information management is to ensure that the right information is communicated to the right people at the right time in the right format. It is, however, important to stress that information management is not primarily an information technology issue. Technology can significantly improve the integrity of information and data and the speed at which it is communicated. Before that can happen there has to be a sufficiently developed understanding of the principles and practices embodied in information management and how information and data can be managed in the best interests of the organization managing the facility.

1 Scope

This British Standard provides owners, operators, tenants, facility managers and property managers with guidance and recommendations in regard to the management of information and data concerning the facilities they own and/or operate. The standard is applicable to organizations managing an existing facility as well as those planning the delivery of a new facility. Whilst primarily intended for organizations in the private sector, the standard might have benefits for public sector bodies.

This standard does not cover the information and data required to deliver the operational asset, but includes recommended actions to assist in safe, correct, efficient and effective operation of the asset.

COMMENTARY ON CLAUSE 1

Matters in regard to operability require provision to be made within the asset delivery process; however, no account is taken in the standard for these requirements. The use of building information models (BIM) in the delivery process for a new facility is, however, anticipated by the recommendations embodied in the standard. The emphasis is on the management of information for existing facilities irrespective of whether or not the organization is contemplating the retrospective application of BIM. Information requirements in regard to the design and construction of a facility are therefore not covered. Nonetheless, this standard has been drafted to take into account the technology and application of BIM. BS 8536 recommends actions regarding the incorporation of information and data for operation of the facility in prior lifecycle phases, particularly design.

For the purpose of this British Standard, the terms “information” and “data” are used to differentiate between structured data from which meaning can be derived by the person receiving it and raw or unstructured data such as statistics, facts and transactions. Similarly, “documents” and “records” are used to differentiate between structured information that is exchanged between people and systems and information that is created, received and maintained.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards publications

BS EN 15221-1, *Facility management – Part 1: Terms and definitions*

BS ISO 10845-1, *Construction procurement – Part 1: Processes, methods and procedures*

BS ISO 10845-2, *Construction procurement – Part 2: Formatting and compilation of procurement documentation*

Other publications

[N1] RIBA. *Uniclass: Unified Classification for the Construction Industry*. London: RIBA Publishing, 1997.

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this British Standard, the terms and definitions given in BS EN 15221-1, BS ISO 10845-1, BS ISO 10845-2 and the following apply.

3.1.1 as-built information

expression of the design, its working detail, construction works and/or installations, functions, operations and maintenance needs of a facility in a form suitable for use in managing that facility

[BS 8536:2010, 3.5]

3.1.2 asset cost breakdown

itemization of the capital cost of a facility asset in terms of its constituent parts

3.1.3 asset register

collection of records holding information about facility assets in terms of their manufacturer, vendor, make, model, specifications, date of acquisition, initial cost, maintenance cost and requirements, accumulated depreciation and written-down value

3.1.4 building information model (BIM)

shared digital representation of physical and functional characteristics of any built object (including buildings, bridges, roads, etc.) which forms a reliable basis for decisions

[BS ISO 29481-1:2010, 2.2]

3.1.5 building log-book

operations and maintenance information used to improve energy management within a building

3.1.6 building manual

guidance to assist in making the best use of the design features, services and systems of a building or other facility

3.1.7 business continuity management (BCM)

holistic management process that identifies potential threats to an organization and the impacts to business operations that those threats, if realized, might cause, and which provides a framework for building organizational resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand and value-creating activities

[BS 25999-1:2006, 2.3]

3.1.8 computer-aided facilities management (CAFM)

systems, applications and tools that automate functions needed to support the core business in its efficient and effective use of facilities

3.1.9 critical activities

activities which have to be performed in order to deliver the key products and services which enable an organization to meet its most important and time-sensitive objectives

[BS 25999-1:2006, 2.12]

3.1.10 data drop

data that are deliverable at a defined gateway in a stage-gated process

3.1.11 data element

basic unit of information that is quantifiable and measurable

3.1.12 document

fixed and structured amount of information that can be managed and interchanged as a unit between users and systems

[BS ISO 29845:2011, 3.11]

- 3.1.13 facility handbook**
organized collection of documentation covering the operation of a facility
[BS 8536:2010, 3.24]
- 3.1.14 facility-related service**
service supporting the primary activities of an organization, delivered by an internal or external provider
[BS 8572:2011, 3.1.9]
- 3.1.15 flawless start-up**
fault-free commencement of operations
- 3.1.16 green lease**
use of incentives to align parties toward sustainable business practices within the terms of a lease agreement
- 3.1.17 information handover plan**
statement of intentions and timings for the delivery of information assets
- 3.1.18 information management**
processing and storage of information in a controlled manner
[BS 10008:2008, 3.6]
- 3.1.19 information management plan**
statement of intention for the collection, maintenance, updating, communication and control of information and data
- 3.1.20 manual of authorities**
document containing the authorities and authority holders within an organization relating to its business, functions and legal entities
- 3.1.21 post-implementation review**
study of the effects of a system after it has reached a stabilized state of operational use
[BS ISO 2382-20:1990, 20.02.09]
NOTE Examples of systems include a management system for organizing jobs or an engineering system for controlling the internal environment.
- 3.1.22 post-occupancy evaluation**
process of evaluating a building or other facility in a systematic and rigorous manner after it has been built and occupied
- 3.1.23 RASCI chart**
responsible, accountable, supported, consulted and informed chart that is used to summarize the roles and functions performed in a process and the activities within it
[BS 8572:2011, 3.1.20]
- 3.1.24 record**
information created, received and maintained as evidence by an organization or person
- 3.1.25 space utilization**
measure of whether and how space is being used
- 3.1.26 sustainable space provision**
appropriate and affordable space requirement of an organization

NOTE It is advisable that future needs for space are planned for, taking into account the finances required for maintenance and upkeep.

3.2 Abbreviations

For the purposes of this British Standard, the following abbreviations apply.

BIM	Building information modelling
BREEAM	Building Research Establishment Environmental Assessment Method
CAD	Computer-aided design
CAFM	Computer-aided facilities management
CAPEX	Capital expenditure
CIBSE	Chartered Institution of Building Services Engineers
CO ₂ -eq	Carbon dioxide equivalent
COBie	Construction Operations Building information exchange
DEC	Display energy certificates
EPC	Energy performance certificates
ERP	Enterprise resource planning
IT	Information technology
LEED	Leadership in Energy and Environmental Design
OPEX	Operational expenditure
PEEP	Personal emergency evacuation plans
PPM	Planned preventive maintenance
RASCI	Responsible, accountable, supported, consulted and informed

4 Primary processes

4.1 Information management

4.1.1 General

The organization should determine the extent and nature of its process for managing facility-related information and, in particular, the relationship with existing processes including those for facilities management. Where facility information management does not form an explicit part of the organization's facilities management strategy, the organization should consider making allowance for it at the next available opportunity, for example when updating the strategy.

The facilities management strategy should be aligned with the organization's business strategy with attention paid to any shared information and data that might be involved. Information and data that are shared should be consistent, particularly when updating one or other strategy.

NOTE 1 Facility information management can offer benefits beyond the collection, maintenance, updating, communication and control of information and data. It can provide an important element in the basic infrastructure for facilities management. The efficient and effective use of information is the cornerstone of successful facilities management, enabling the organization to plan ahead by proactively supporting its core business.

A plan for facility information management should be prepared and kept up-to-date. This plan should include a definition of the information management process, the functions or activities within it, the information flows between functions or activities and the controls that have to be applied. Consideration should be given to the use of an IT-based methodology and tools for designing, developing and implementing information management systems so that changes can be tested and their likely impact determined before they are applied. Account should be taken of formal policies and procedures, where they exist, in regard to the use of IT-based systems. The organization should identify those functions or activities that are subject to statutory or other regulatory oversight.

NOTE 2 Attention is drawn to BS 10008.

4.1.2 Information management strategy

The organization should prepare an information management strategy for its facility-related needs and keep it up-to-date. The strategy should set out in broad terms the organization's requirements for collecting, maintaining, updating, communicating and controlling information and data. Sources of information and data, processes, functions or activities and the levels of authority associated with each for the purpose of access should be recorded. Consideration should be given to the use of a manual of authorities to define levels of authority, approvals and access to information and data. Interfaces between the organization and external bodies should be agreed in terms of the information flows between the respective parties. The information management strategy should avoid specifying the detailed content of functions or activities and information flows. Where IT-based systems are currently used or are expected to be used to support facility information management, arrangements should be documented. Roles and responsibilities should be outlined with regard to the levels of authority assigned to them (see 4.1.7).

The information management strategy should be based on the principle of inclusiveness and the needs of existing and anticipated future occupants and other users should be taken into account, particularly those of disabled people. Where considered necessary, the need for training of personnel should be set out in the information management strategy and detailed in the policy (see 4.1.3) and procedure (see 4.1.4) derived from it.

NOTE 1 Attention is drawn to The Equality Act 2010 [1], BS 8878 and the need to implement IT-based systems and equipment that are accessible by all persons, particularly disabled people and those with differing levels of IT literacy.

Account should be taken of the different modes and formats of communication and information required to support the inclusive use of the facility and any training of personnel that might be necessary to assist disabled people.

NOTE 2 A variety of modes and formats exist for communication and information and these include British Sign Language, Makaton, ¹⁾ lip reading, captioning, signage, audio description, Braille, tactile wayfinding, technically-assisted wayfinding, induction loops and infrared communication.

¹⁾ Makaton is a trade mark owned by The Makaton Charity, Manor House, 46 London Road, Blackwater, Camberley, Surrey GU17 0AA. Further information regarding Makaton can be accessed via <http://www.makaton.org>. This information is purely informative and is given for the convenience of users of this standard. It does not constitute an endorsement by BSI of the system named. Equivalent systems may be used if they can be shown to lead to the same results.

4.1.3 Information management policy

A policy (or policies) for implementing the facility information management strategy should be prepared in consultation with the organization's stakeholders. It is important to identify individual stakeholders and stakeholder groups in order to take into account their legitimate interests, and how those interests should be prioritized. Any relevant legislation and/or codes of practice should be identified and incorporated into the policy (or policies).

4.1.4 Information management procedure

The organization should prepare a procedure (or procedures) governing the implementation of policy (see 4.2) in accordance with the facility information management plan (see 4.1.1). The procedure (or procedures) should include definition of the form, structure and content of a facility handbook (see 4.1.5) that is amenable to electronic storage and retrieval, as well as printing, wherever practicable. The form of the facility handbook should allow content to be updated easily and for versions of it to be recorded and controlled. Where there are existing arrangements for document storage and version control, these should be taken into account to promote a consistent approach to document storage and version control across the organization.

4.1.5 Facility handbook

A facility handbook should be regarded as a primary resource for facilities management and as the main deliverable of facility information management. The facility handbook should be prefaced with the information management strategy, policy and procedure and should contain the following sections as a minimum:

- a) legal information (see 5.1);
- b) commercial information (see 5.2);
- c) financial information and data (see 5.3);
- d) technical information and data (see 5.4); and
- e) managerial information (see 5.5).

The organization should identify information from within a) to e) that is likely to assist occupants and other users in their day-to-day use of the facility and to ensure safe and correct operation of the facility. Consideration should be given to extracting this information and incorporating it into a facility user guide. This guide should be based on information in the facility handbook. Changes to any information in the facility user guide should be as a consequence of updates and changes to the information within the facility handbook. Occupants should be involved in compiling and updating the facility user guide so that it seeks to anticipate and address (as opposed to assuming) their needs, particularly the needs of disabled people.

NOTE Building manuals and building user guides, BG 26/2011 [7] contains guidance to assist occupants and other users in making the best use of the design features, services and systems of a facility to aid its safe, correct, efficient and effective operation (see 5.4.4).

Where the facility handbook is print-based and not held electronically, consideration should be given to the need to update its contents easily. A loose-leaf binder or binders might be appropriate for this purpose.

The organization should provide training for personnel involved in facility information management, particularly regarding the maintenance, updates, communication and control of information and data. Training should be considered for occupants and other users in order to derive the most benefit from the facility user guide.

The contents of the sections within the facility handbook are the subject of further and more detailed consideration in 4.2 and Clause 5.

4.1.6 Information security and data protection

The organization should maintain a policy and associated procedure for securely storing information and data. Documents and records should be held in a location that has controlled access and under conditions which preserve the condition and integrity of information and data (such as with the use of fire prevention and management systems). Duplicate copies of all records should be maintained and these should be kept in a location other than the facility to which they relate.

The organization should consider undertaking a risk assessment before determining the arrangements for secure storage of information and data.

NOTE Attention is drawn to The Data Protection Act 1998 [6] in regard to the duties relating to information held by an organization, to BS 10008 and to The Freedom of Information Act 2000 [3] in regard to access to information held by an organization.

4.1.7 Roles, responsibilities and accountabilities

The roles, responsibilities and accountabilities of personnel involved in managing the facility and information relating to it should be defined and incorporated within the facility information management policy and/or procedure or held as a separate document or record. In either case, the functions or activities defined in the facility information management process should be listed with their assigned responsibilities and accountabilities. Where practicable, other roles (such as personnel required to be consulted or informed and those who are required to act in support) should be identified.

Where external bodies are involved in managing the facility, including delivering facility-related services and supplies, details should be recorded in the facility handbook. Details of external bodies, their key personnel and lines of communication between them and the organization's personnel should be defined.

The use of RASCI charts should be considered for the purpose of summarizing roles, responsibilities and accountabilities. Annex A gives an example RASCI chart covering typical tasks and allocated roles within the facility information management process.

4.2 Facility-related information and data

4.2.1 General

The organization should state the class to which its facility belongs in accordance with the Uniclass classification system [N1] for structuring project information and data.

NOTE 1 Uniclass Table D (Facilities) [N1] provides a classification that covers most types of facility. Close alignment with the Uniclass system in general offers benefits in areas such as cost accounting, maintenance, repair work and benchmarking (see 5.5.15). Whilst intended for new facilities, adoption of the system can prepare the organization for those occasions where alteration or extension of the facility is necessary.

The organization should consider the ways and extent to which it needs to categorize its information and data to align with corporate accounting policy and procedures or other requirements and arrangements. Measures should be implemented to avoid duplication of data and the risks that can arise from maintaining separate or stand-alone systems. Consideration should be given to utilizing the organization's cost and management accounting systems when determining the most appropriate arrangement to be used. The impact upon the facility handbook of arrangements that effectively centralize cost and management accounting should be examined carefully and the decision as to which arrangement is adopted should be recorded.

NOTE 2 The extent to which facility information management is IT-based is likely to have a greater or lesser impact upon the controls that can be put in place for sharing or restricting access to information and data. Similar concerns, if they do exist, in regard to projects for the delivery of physical assets can be treated likewise. A more important distinction concerns whether or not the assets are to be maintained at their current level of operation and use or if they are to be enhanced in some way. Such a situation might occur where an upgrade to an existing facility is undertaken or contemplated to increase asset utility and/or value.

A distinction should be drawn between information and data that are related to facility assets and information and data that are related to projects. A further distinction should be drawn between information and data that are to be shared amongst a number of parties or individuals and information and data that are restricted. Figure 1 illustrates these information categories.

Figure 1 – Information categorization

