

PUBLISH (and be damned?)

BS EN 50174-1 AND BS EN 50174-2

-

THE NEW BRITISH STANDARDS FOR THE INSTALLATION OF IT CABLING

prepared and delivered
by



14th December 2000



The Cabling Partnership

Presentations 2000

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Design and specification

Cabling and IT cost management

Project management

Audits and arbitration

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Standards

UK

- Fibreoptic Industry Association, Technical Director
- BSI, Chairman, TCT7/-/1: IT Cabling

PD1001: "EMC and Structured Cabling"
BS 7718: CoP "Installation of Fibre Optic Cabling"

Europe

- CENELEC, Convenor, TC215 WG1: IT Cabling

EN 50098-1: "ISDN Basic Access"
EN 50098-2: "ISDN Primary Rate"
EN 50173: "Generic - Design"
EN 50174-1: "Installation: Specification & QA"
EN 50346: "Testing of Installed Cabling"

International

- ISO/IEC, Member, JTC1 SC25 WG3: Generic Cabling

ISO/IEC 11801: "Generic - Design"
ISO/IEC 14763-1: "Administration"
ISO/IEC TR14763-2: "Planning and Installation"
ISO/IEC TR14763-3: "Testing Optical Cabling"
and via IEC SC46A WG2
IEC 61935-1: "Testing Copper Cabling"

Agenda

Session One

BS EN 50174

Structure and status
BS 6701?
BS 7718?

Break

BS EN 50174-1
Specification and
Quality Assurance

Installation Specification
Quality Planning
Administration

Questions

Lunch

Session Two

BS EN 50174-2
Installation planning and
practices inside buildings

Safety
Installation practices
Segregation of circuits

Break

How to use the standards?

Blanket acceptance or
selective application

Questions

BS EN 50174

Session One

BS EN 50174

Structure and status

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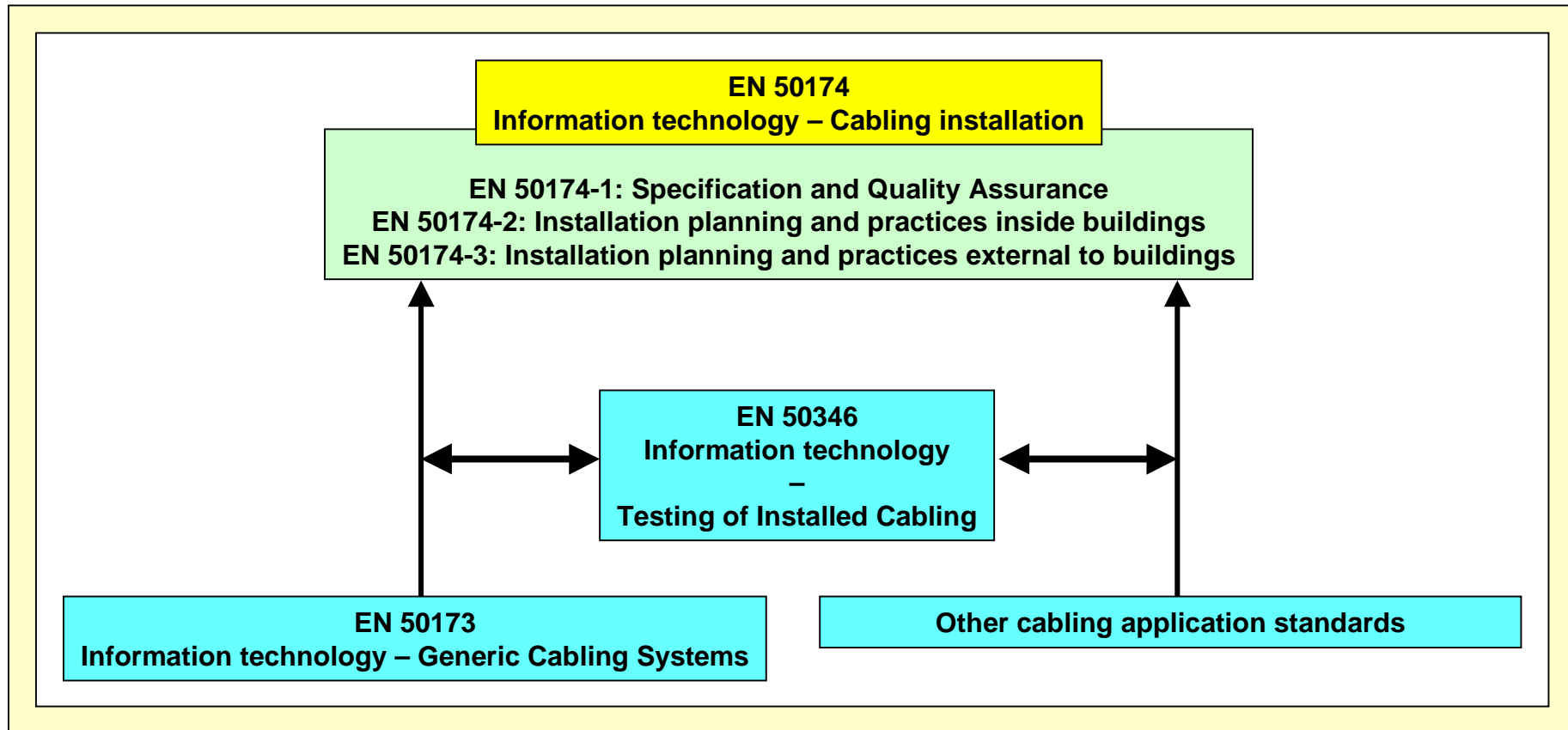
**BS EN 50174-1
Specification and
Quality Assurance**

***Installation Specification
Quality Planning
Administration***

Questions

**EN 50174 Structure
EN 50174 Status
BS 50174 Status
Existing UK Standards
Conformance
Perceived Problems**

EN 50174 Structure



EN 50174 Status

EN 50174

Information technology – Cabling installation

EN 50174-1: Specification and Quality Assurance
APPROVED FOR PUBLICATION

EN 50174-2: Installation planning and practices inside buildings
APPROVED FOR PUBLICATION

EN 50174-3: Installation planning and practices external to buildings
TECHNICAL COMMITTEE ENQUIRY Q3, 2001
PUBLICATION IN 2002

BS EN 50174 Status

BS EN 50174

Information technology – Cabling installation

BS EN 50174-1: Specification and Quality Assurance

PUBLICATION JANUARY 2001

BS EN 50174-2: Installation planning and practices inside buildings

PUBLICATION JANUARY 2001

Existing UK Standards

BS 7718: CoP "Installation of fibre optic cabling"

BS 6701: CoP "Installation of apparatus intended for connection to certain telecommunications systems"

BS 7671: "Requirements for electrical installations. IEE Wiring Regulations. Sixteenth edition"

BS 6701

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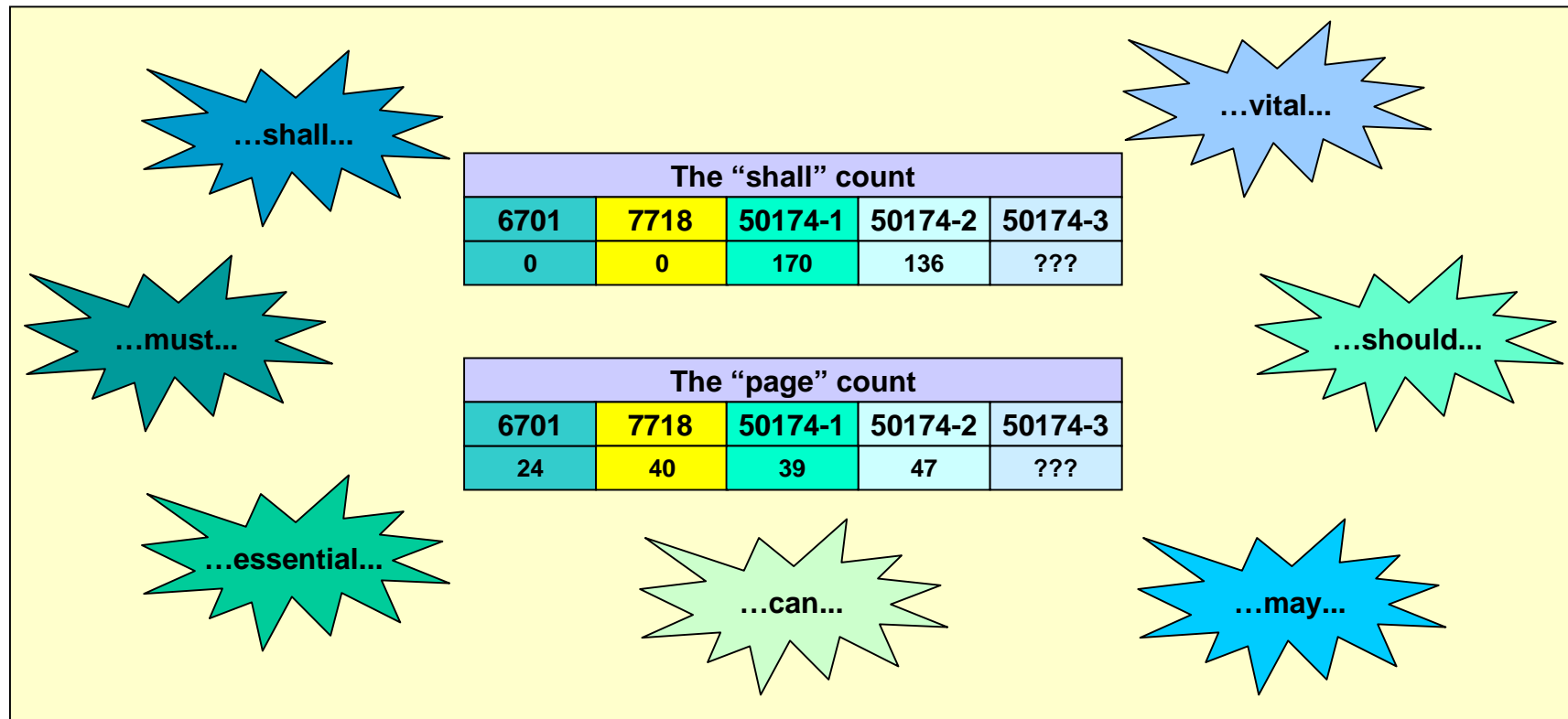
	Clause numbers				Other references
	6701	50174-1	50174-2	50174-3	
Accommodation	6	4			
Cabling, wiring connections and ducting					
General	7.1	4, 7			
Inside	7.2	4	5		
Outside	7.3	4		YES	
Connections	7.4	4, 7			
Junction and distribution boxes	7.5	4, 7			
Conduits	7.6	4, 7	5		
Segregation of circuits	7.7		4, 6.6		
Safety precautions	7.9		4	YES	
Earth connections	7.10		6		
Design	7.11	4	6	YES	
Site conditions, hazards and general safety precautions	7.11	4	4	YES	
Inspection and testing (inc. certification)	9	5	5	YES	EN 50346 (2002)

BS 7718

Presentations 2000

	Clause numbers				Other references
	7718	50174-1	50174-2	50174-3	
Safety (OF)	4		4		FIA Guides
Installation specification	5	5.2			
Quality Plan	6	5.3			
Cabling component acceptance	7	5.3			
Optical cable/closure installation	8		5, 7		
Jointing and termination	9		7		
Final cabling acceptance	10	5.3			
Documentation	11	6			
Repair and maintenance	12	8			
Acceptance test and inspection methods	Annex A				EN 50346 (2002) and FIA Guides
Design guide	Annex B	4			FIA Guides

The Real Difference



Conformance to EN 50173

Presentations 2000

ISO/IEC 11801 Ed.2 (CDV)			EN 50173 Ed.2 (SE)
	FOREWORD		
	INTRODUCTION		
1	SCOPE		1.1
2	NORMATIVE REFERENCES		2
3	DEFINITIONS AND ABBREVIATIONS		3
4	CONFORMANCE		1.2
5	STRUCTURE		4
6	Copper channels and links	PERFORMANCE	Copper and OF channels
8	OF channels and links		
7	Copper	REFERENCE IMPLEMENTATIONS	Copper and OF
8	OF		
9	CABLES		7
10	CONNECTING HARDWARE		8
11	ELECTROMAGNETIC PERFORMANCE		Annex C
12	Screening practices		
13	Administration		
14	CORDS		9
Annex A	Test procedures		
Annex B	Reliability testing for connecting hardware		
Annex C	Acronyms for balanced cables		
Annex D	SUPPORTED APPLICATIONS		Annex B
Annex E	Calculation of links and channels		
Annex F	LINK AND CHANNEL PERFORMANCE REQUIREMENTS OF PREVIOUS EDITIONS		Annex D
Annex G	"CP Link" performance	Link performance	Annex A
Annex H	Bibliography		

Conformance to EN 50174

Presentations 2000

EN 50174-1

- principal contents
 - clause 4: Specification considerations
 - Cabling infrastructure
 - Building environment (envir
 - Cabling component choice
 - Termination points
 - Closures
 - Frames and cabinets
 - Pathways
 - Resilience
 - Wide area connections
 - clause 5: Quality assurance
 - clause 6: Documentation
 - clause 7: Cabling administration
 - clause 8: Repair and maintenance

EN 50174-2

- principal contents
 - clause 4: Safety requirements
 - clause 5: General installation practices ...
 - clause 6: Additional installation practices ... copper
 - clause 7: Additional installation practices ... fibre

- NO single conformance statement
- true conformance based upon a two tier approach
 - basic conformance (“real shalls”)
 - selection of other conformance issues (“optional shalls”)

Impact on UK Standards

BS 7718: CoP “Installation of fibre optic cabling”

BS 6701: CoP “Installation of apparatus intended for connection to certain telecommunications systems”

- much of EN50174-1 and EN50174-2 is based on BS 7718 and BS 6701
- following publication of EN 50174
 - option to withdraw BS 7718
 - BS 7718 has a wider scope
 - requirement exists for modified BS 7718 to cover other applications
 - FIA Support Guides?
 - option to withdraw BS 6701
 - BS 6701 has a wider scope
 - requirement exists for modified BS 6701 to cover other issues
 - remove cabling from BS 6701
 - concentrate on equipment and facilities?

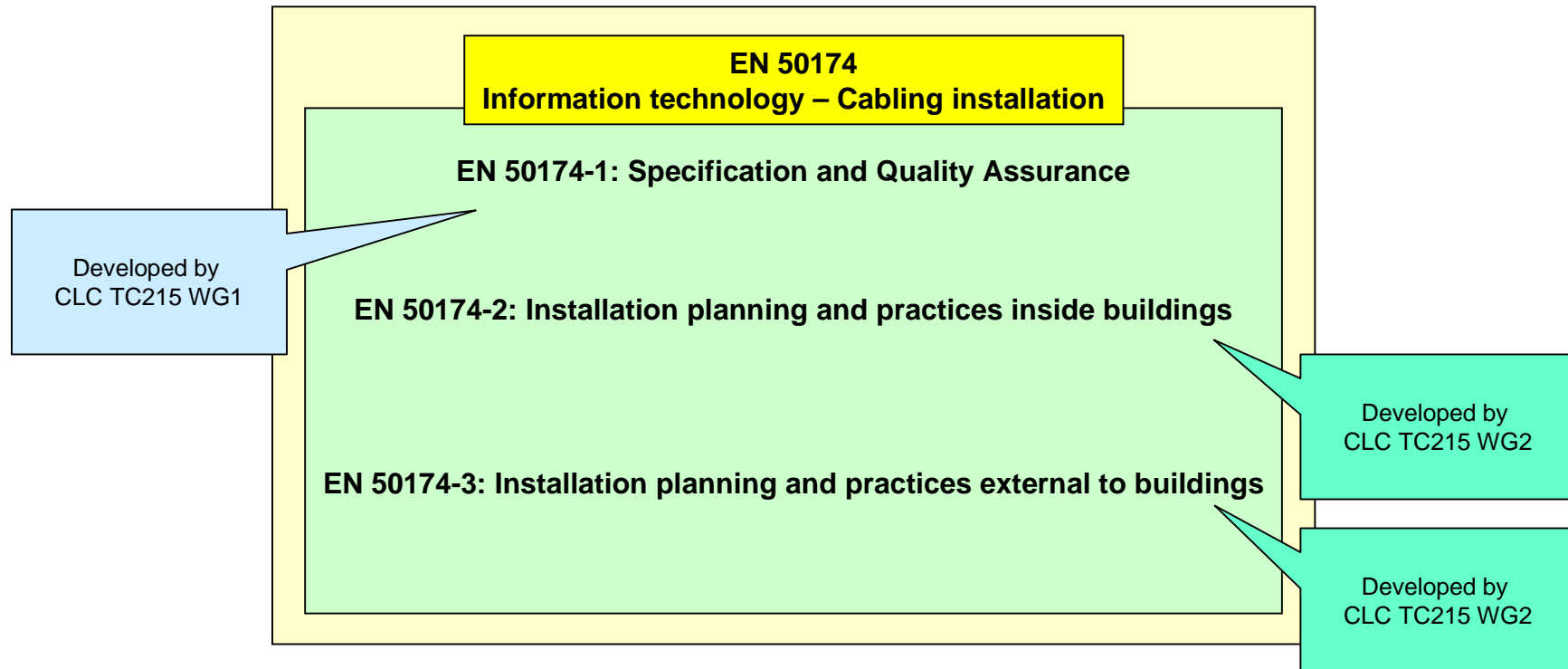
FIA Guides

Presentations 2000

2000 SERIES DOCUMENT SET

DESIGN	FIA-TSD-2000-1-1	OPTICAL FIBRE CABLING: LAN APPLICATION SUPPORT GUIDE
	FIA-TSD-2000-1-2	OPTICAL FIBRE CABLING: WAN APPLICATION SUPPORT GUIDE
COMPONENT SELECTION	FIA-TSD-2000-2-1	CABLE SELECTION GUIDE
	FIA-TSD-2000-2-2	CONNECTING HARDWARE SELECTION GUIDE
OPERATION	FIA-TSD-2000-3-1	OPTICAL FIBRE CABLING: QUALITY ASSURANCE
	FIA-TSD-2000-3-2	OPTICAL FIBRE CABLING: ADMINISTRATION
INSTALLATION	FIA-TSD-2000-4-1	OPTICAL FIBRE CABLING: INSTALLATION PRACTICE
	FIA-TSD-2000-4-2	OPTICAL FIBRE CABLING: TESTING
SAFETY	FIA-TSD-2000-5-1	OPTICAL POWER: SAFETY LEVELS
	FIA-TSD-2000-5-2	OPTICAL FIBRE: HANDLING OF PROCESSING CHEMICALS
	FIA-TSD-2000-5-3	OPTICAL FIBRE: DISPOSAL OF WASTE

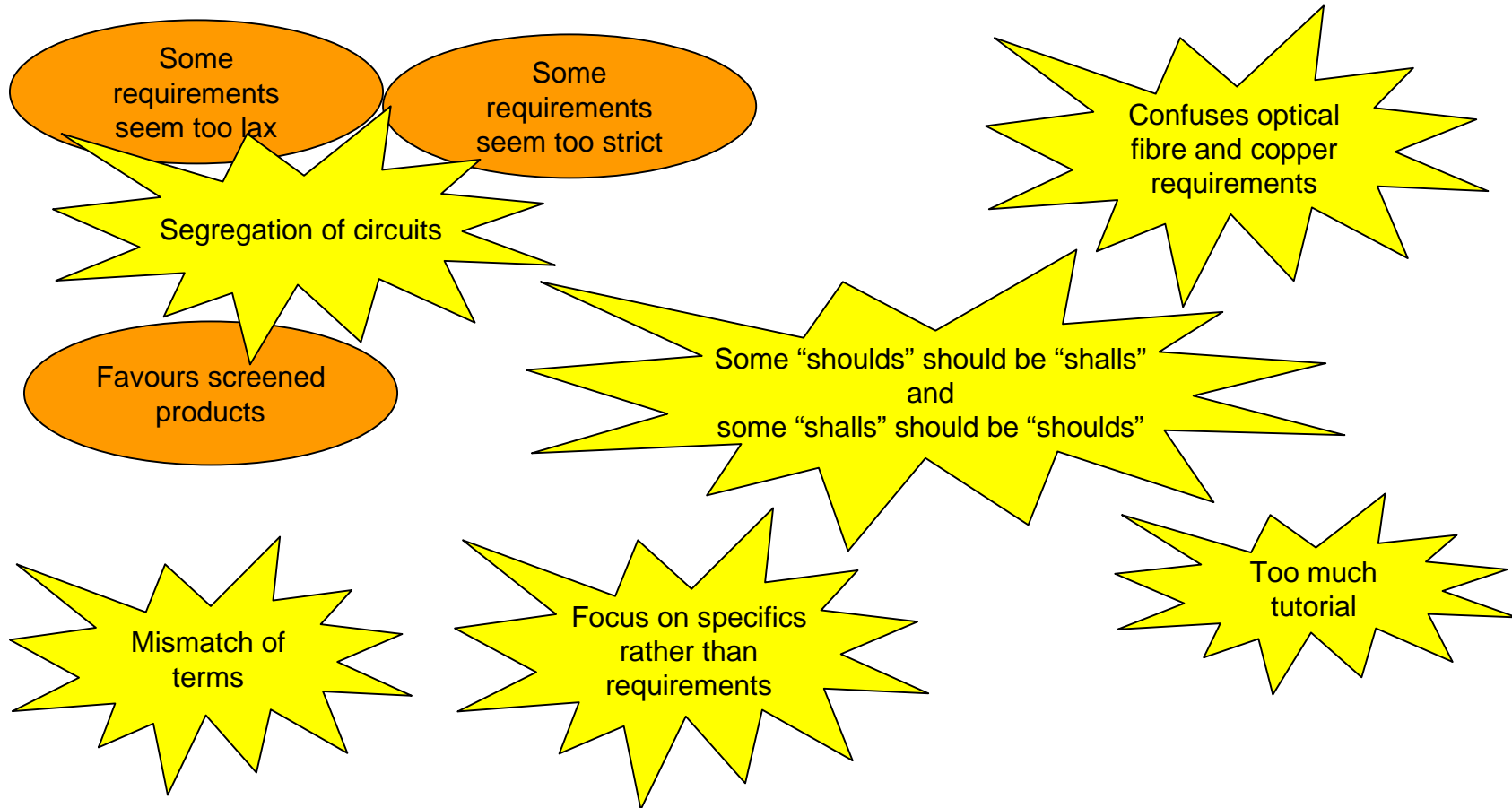
A Bit of a Do





Perceived Problems: EN 50174-2

Presentations 2000



Agenda

Session One

BS EN 50174

Structure and status

BS 6701?

BS 7718?

Break

BS EN 50174-1 Specification and Quality Assurance

Installation Specification

Quality Planning

Administration

Questions

Break

Session Two

BS EN 50174-2

Installation planning and practices inside buildings

Safety

Installation practices
Segregation of circuits

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How to use the standards?

Blanket acceptance or
selective application

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BS EN 50174-1

Presentations 2000

Session One

BS EN 50174

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BS EN 50174-1 Specification and Quality Assurance

*Installation Specification
Quality Planning
Administration*

Questions

Contents

The Shalls and the Shoulds

The True Shalls

Planning

Quality Assurance

Administration

Documentation

Alien Xtalk

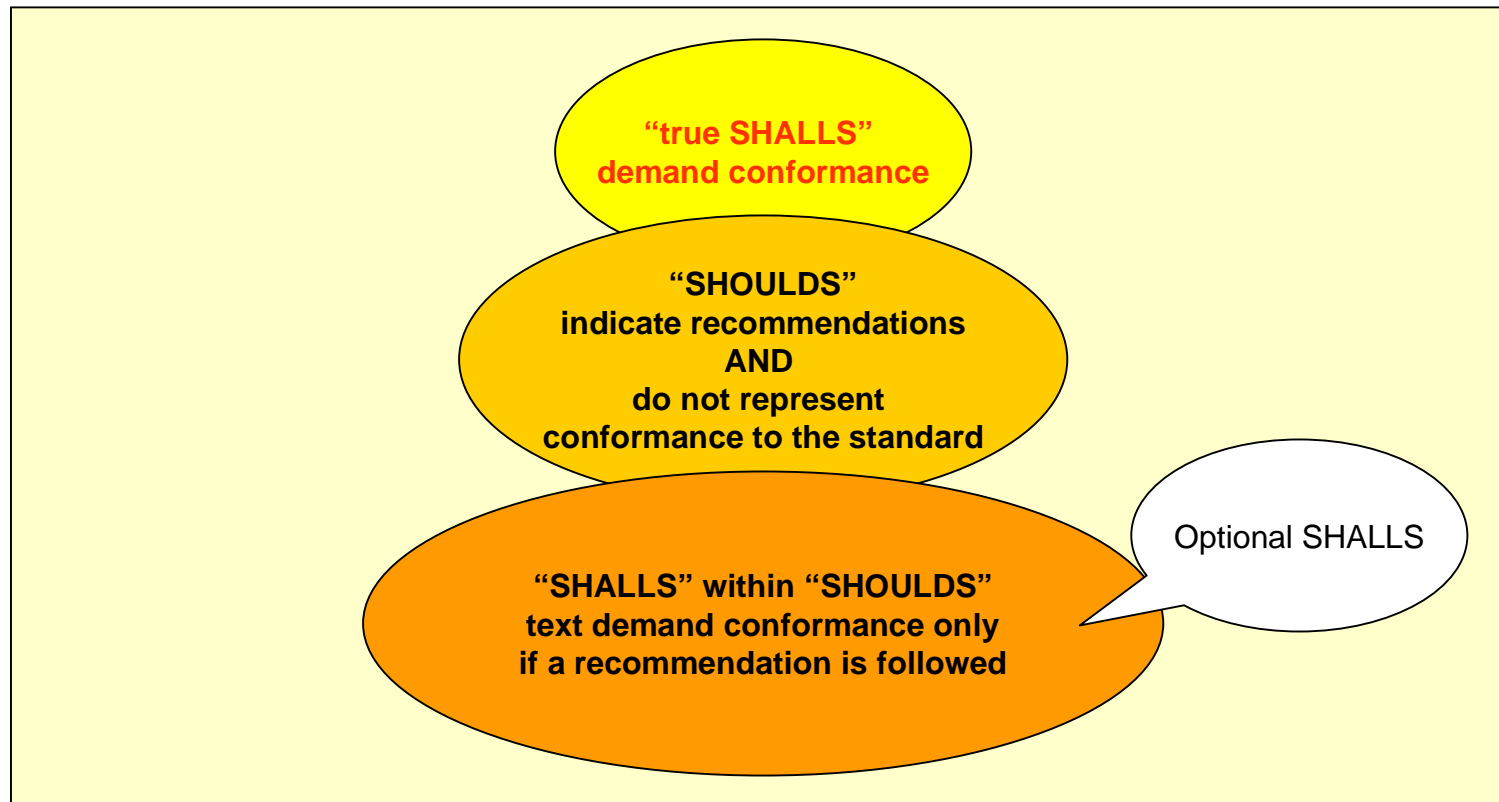


EN 50174-1 Contents

Presentations 2000

- “intended to be referenced in contracts between cabling installers and their customers.”
- **principal contents**
 - **clause 4: Specification considerations**
 - Cabling infrastructure
 - Building environment (environmental aspects)
 - Cabling component choice
 - Termination points
 - Closures
 - Frames and cabinets
 - Pathways
 - Resilience
 - Wide area connections
 - **clause 5: Quality assurance**
 - **clause 6: Documentation**
 - **clause 7: Cabling administration**
 - **clause 8: Repair and maintenance**

The Shalls and the Shoulds



True Shalls: BS EN 50174-1

**“true SHALLS”
demand conformance**

BS EN 50174-1 CLAUSE 4

- **specification (planning/design)**
 - general considerations
 - component selection
 - termination points
 - closures
 - frames/cabinets
 - cable (cord) management
 - pathways and pathway systems
 - wide area networks

BS EN 50174-1 CLAUSE 5

- **quality assurance**
 - installation specification
 - quality plan
- BS EN 50174-1 CLAUSE 7**
- **administration**
 - administration considerations
 - identification and labelling



General Consideration “Shalls”

- consideration **shall** be given to:
 - the applications to be supported
 - the administration of the cabling
 - the number of termination points per user/square metre
 - the growth in demand for termination points
 - resilience requirements



Environmental Definition “Shalls”

- consideration **shall** be given to:
 - vibration
 - exposure to ultraviolet radiation and thermal effects
 - ingress of dust, fluids and other contaminants
 - chemical or biological attack
 - physical damage (accidental or malicious) including that caused by animals
 - presence, or potential presence, of hazards
 - the movement of air (e.g. fans, heating and ventilation systems)
 - temperature range
 - humidity including condensation and icing effects
 - lightning strike
 - wind effects

Component Selection “Shalls”

- components selected **shall**:
 - ensure that the installed cabling performance meets application requirements
 - be compatible with the storage, installation and operational environment
 - consideration **shall** be given to defined abnormal environmental conditions
 - be addressed in terms of potential risk of fire and/or explosion
- screened cables and connecting hardware selected **shall**:
 - be compatible such that termination maintains screening effectiveness
- screened cables **shall** be terminated:
 - using instructions as supplied by the manufacturer of the connecting hardware
 - without using the screen as a strain relief



Termination Point “Shalls”

- termination points **shall** be located in order to:
 - ensure that the installed cabling performance meets application requirements
 - allow safe access during installation, termination and operation of the connections
 - be consistent with space, floor loading and service demands of active equipment
 - minimize the risk of electromagnetic interference
- the number of termination points per work area **shall**:
 - reflect the proposed occupancy of the premises
 - reflect the predicted requirements of those occupants
- the space allocated to a termination point **shall**:
 - provide adequate clearances to eliminate damage to the cabling during installation
 - maintain cable suppliers/standards specified minimum cable bend radii

Closure “Shalls”

- closures **shall** be located in order to:
 - allow safe access during installation, termination and operation of the connections
 - provide appropriate environmental protection for the termination points
- closures **shall**:
 - provide strain relief to the cables
 - provide appropriate environmental protection for the termination points
 - maintain segregation rules for protection from electric shock defined in EN 50174-2

Frame/Cabinet “Shalls”

- frames and cabinets **shall** be located in order to:
 - allow safe access during installation, termination and operation of connections
 - safe working height
 - free from risk of contamination
 - be provided with illumination (although not direct sunlight)
 - be consistent with space, floor loading and service demands of active equipment
 - allow 1.2 metres on each “access face”
 - minimize the risk of electromagnetic interference
- frames and cabinets **shall**:
 - maintain segregation rules for protection from electric shock defined in EN 50174-2
 - maintain cable suppliers/standards specified minimum cable bend radii
 - provide adequate facilities for the effective management of cords
 - provide appropriate environmental protection for their contents
 - be earthed



Cable (Cord) Management “Shalls”

- effective management **shall**:
 - provide space for horizontal and vertical cable routing fixtures
 - provide space for storage of excess cord length without risk of damage
 - minimize the length of patch and equipment cords
 - simplify the routing of patch and equipment cords
 - not obstruct termination points
 - conform to cable suppliers/standards specified:
 - minimum cable bend radii
 - tensile loads
 - crush loads



Pathway and Pathway System “Shalls”

- pathways **shall** be located in order to:
 - allow safe access during installation, repair and maintenance
 - allow space for the cable installation apparatus
 - maintain cable suppliers/standards specified minimum cable bend radii
 - avoid environmental conditions outside those specified for the cable
- pathway systems **shall**:
 - not contain sharp edges or corners that could damage the cable
 - provide adequate access
 - maintain cable suppliers/standards specified minimum cable bend radii
 - within the system
 - within drawboxes
 - be in clean condition prior to installation of cables



Wide Area Network “Shalls”

- the external service/equipment provider **shall**:
 - advise as to the permissible distances between items of apparatus
- the user, installer and the external service/equipment provider **shall** agree:
 - the location of network termination points (NTPs)
 - the supply and capacity of the equipment
 - identification and numbering of circuits at the NTP
 - the boundaries of responsibility between public and private network
 - liaison and fault reporting procedures
 - access arrangements



Installation Specification “Shalls”

- the Installation Specification **shall** contain:
 - Technical Specification
 - Scope of Work
 - contract documentation



Technical Specification Contents “Shalls”

Cable specifications	Balanced copper , optical fibre and associated cables
Connecting hardware specifications	Balanced copper and optical fibre
Termination points	Locations
Closures	Designs
Frames and cabinets	Structures
Earthing and equipotential bonding	Requirements
Cable accessories	Requirements

SoW Contents “Shalls”

PRE-INSTALLATION	INSTALLATION	POST-INSTALLATION
Civil works and preliminary actions	Safety	Reinstatement
Pathways	Security	Spares
Earthing and equipotential bonding	Connectivity	Support services
Building entrance facility	Attendance	Administration
List of materials	Programme	
Survey status	In-service date	
Installers facilities	Identification and Labelling	
Control of materials	Testing	
	Documentation	
	Documentation Hand-over date	



Contract Documentation “Shalls”

REGULATORY ISSUES	SITE CONTACTS	CONTRACT TERMS
Building regulations	Operation requirements	CHANGE PROCEDURES
Site regulations	Site information	
Safe working practices	Technical requirements	
Public network protection	Documentation (existing)	
Contractors authorization	Cabling compatibility	
	Storage/security	
	Other contractors	

Quality Plan “Shalls”

CONTRACT	COMPETENCE	INSTALLED CABLING ACCEPTANCE
Interfaces	Training plans	Inspection and test regimes
Transfer of responsibility	Training records	Sampling plans
	Qualifications	Test equipment
COMPONENT ACCEPTANCE	Evidenciary requirements	Calibration and storage
LEGACY CABLING		Fault resolution
Inspection and test regimes	INSTALLATION	
Sampling plans	Inspection routines	
Test equipment, calibration		



Cabling Administration “Shalls”

- consideration **shall** be given to:
 - the compatibility between the administration system and:
 - the installed cabling
 - the documentation for the installation
 - the type of administration system
 - paper for small systems
 - sophisticated soft solutions for large buildings



Identification and Labelling “Shalls”

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- labels **shall** be:
 - applied to provide easy access, reading and modification
 - robust and readable for the defined lifetime of the cabling elements
 - waterproof and “smudgeproof”

Identification and Labelling Guides

		LABELLING	RECORDS
PATHWAYS AND SPACES	UNIQUE and UNAMBIGUOUS IDENTIFIER	Pathways <ul style="list-style-type: none"> • at entry to spaces from pathways Spaces <ul style="list-style-type: none"> • at entry to pathways from spaces 	Pathways <ul style="list-style-type: none"> • interconnected spaces • type of pathway system • bonding points • fill details Spaces <ul style="list-style-type: none"> • type location • pathways served • equipment contained • services provided
FIXED CABLES, BUNDLES AND CORDS		At both ends At entry to spaces At each joint (multipair cables)	<ul style="list-style-type: none"> • cable type • length • installation date • termination point identifiers • pathways used • grounding point
TERMINATION POINTS		At each termination point including <ul style="list-style-type: none"> • Consolidation Points • ports 	<ul style="list-style-type: none"> • connection type • location (space, cabinet/frame, panel) • cable identifier • test results • application and connectivity path
EARTHS/BONDS (GENERIC CABLING)		All elements	<ul style="list-style-type: none"> • element type • location • connectivity path • test results (where appropriate)

Documentation

6.1

.....

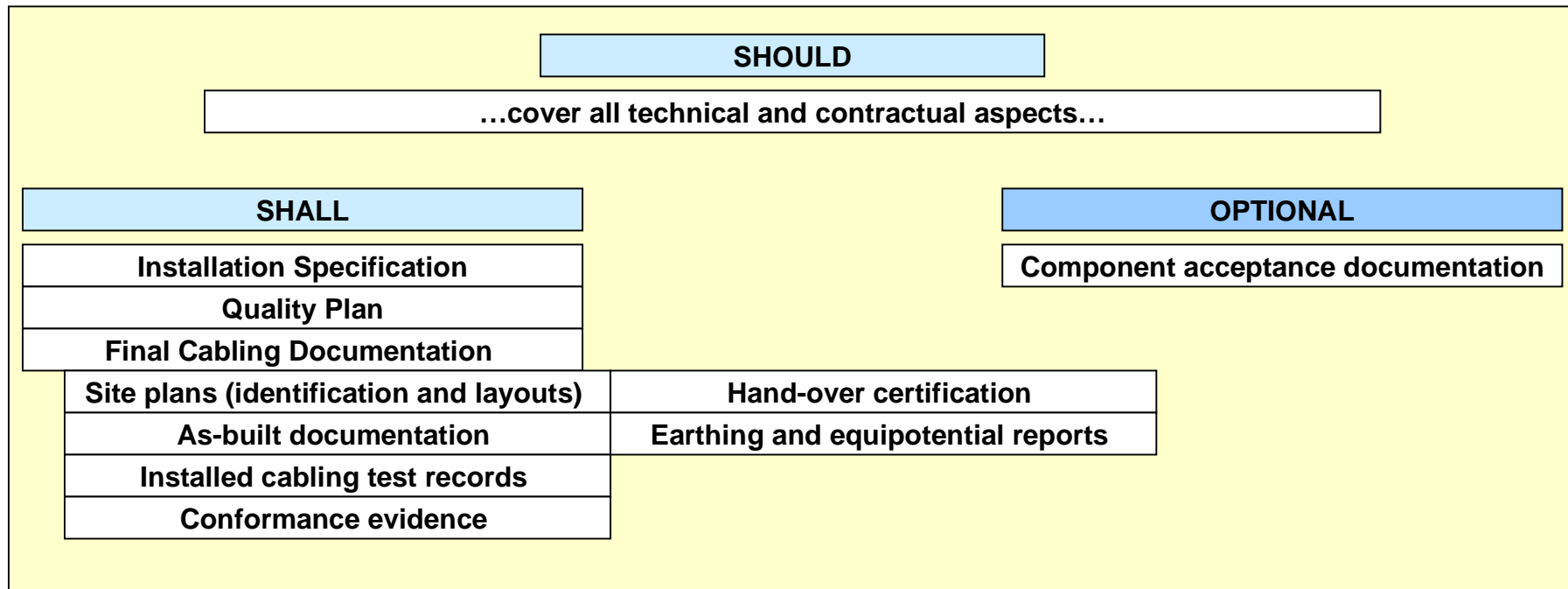
The proposed level of documentation shall be detailed in the
Installation Specification.

.....

Clause 6 details the
recommended level of
documentation

Documentation

Presentations 2000





Alien Xtalk

Presentations 2000

4.7.8.1

.....

Long parallel runs where cables lie in a fixed relationship to each other may induce additional crosstalk and should be avoided UNLESS the impact has been taken into account in the specification of the cables and the installation.

Agenda

Session One

BS EN 50174

Structure and status

BS 6701?

BS 7718?

Break

BS EN 50174-1 Specification and Quality Assurance

Installation Specification

Quality Planning

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Session Two

BS EN 50174-2

Installation planning and practices inside buildings

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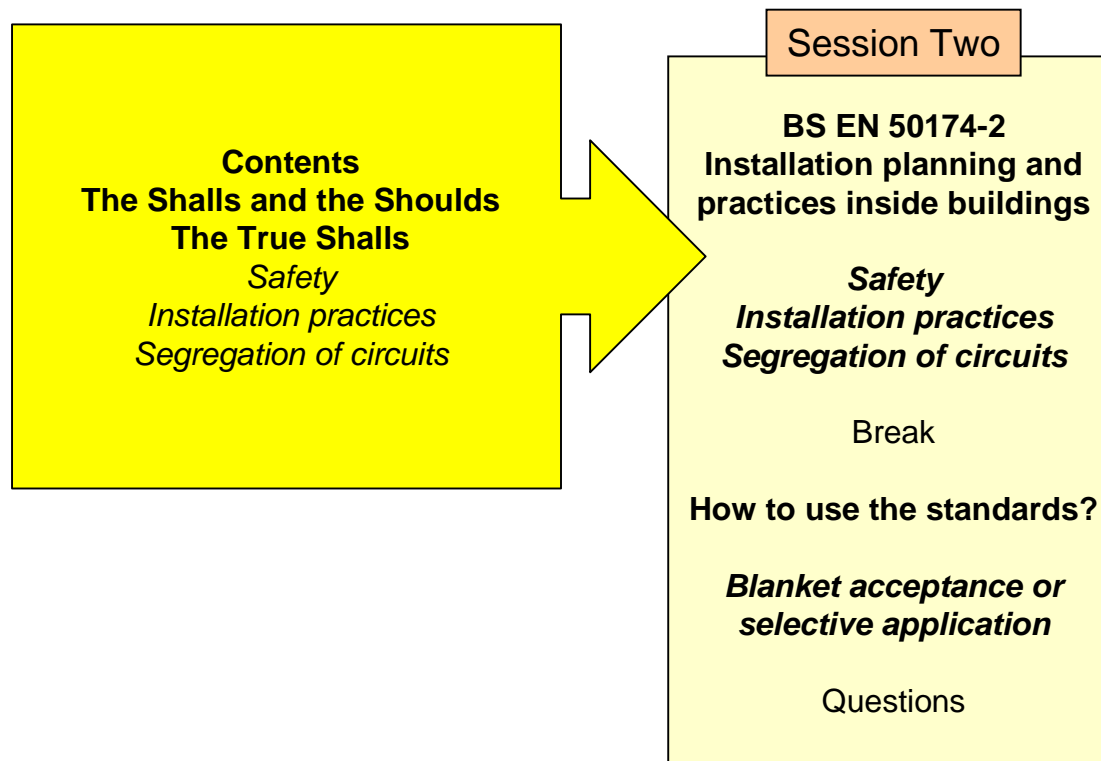
Break

How to use the standards?

*Blanket acceptance or
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Questions

BS EN 50174-2





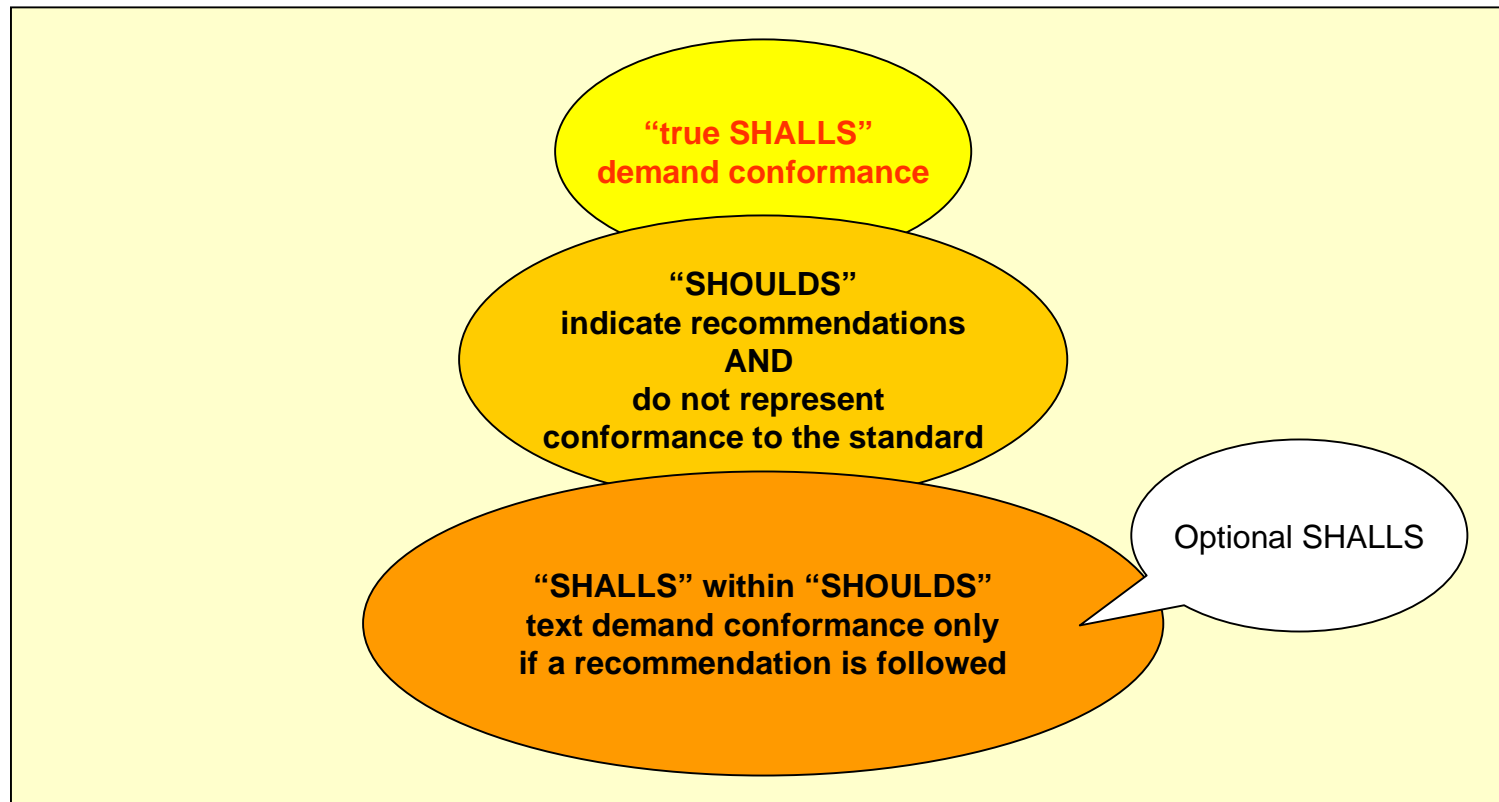
EN 50174-2 Contents

Presentations 2000

- detailed requirements and guidance .. installation planning and practices inside buildings
- intended to be used by the personnel directly involved in .. planning and installation.

- principal contents
 - clause 4: Safety requirements
 - clause 5: General installation practices for metallic and optical fibre cabling
 - clause 6: Additional installation practices for metallic cabling
 - clause 7: Additional installation practices for optical fibre cabling

The Shalls and the Shoulds



True Shalls: BS EN 50174-2

**“true SHALLS”
demand conformance**

BS EN 50174-2 CLAUSE 4

- **safety**
 - hazardous areas
 - protection against electric shock
 - equipment
 - pathway systems
 - termination points
 - closures
- fire and chemical
- explosive and asphyxiating gases
- optical fibre

BS EN 50174-1 CLAUSE 5

- **installation practices**
 - delivery
 - pre-installation
 - cable installation
 - installation of closures
 - termination

BS EN 50174-2 CLAUSE 6

- **additional installation practices (copper)**
 - segregation rules



Hazardous Area “Shalls”

- provisions **shall** ensure that:
 - locations and boundaries of hazardous areas are identified
 - procedures for working in hazardous areas are made available
 - fire precautions shall be explained
 - escape routes are known

Protection Against Electric Shock “Shalls”

- active equipment connected to installed cabling **shall** be:
 - in accordance with the SELV circuit and TNV requirements of IEC 60950
 - in accordance with the relevant product standards w.r.t. PAES

- where used, conductive pathways systems **shall** be:
 - included in measures w.r.t. PAES in accordance with HD384 standards (BS 7671)

- where power and data share the same pathway system segregation **shall** be:
 - in accordance with the requirements of HD384 standards (BS 7671)
 - in accordance with segregation “shalls” of EN 50174-2
 - **whichever is the most stringent**

- closures containing both termination of both power and data **shall** be:
 - designed to prevent unauthorized access to the mains power contacts

Problem No.1



Fire and Chemical Issues “Shalls”

- components selected **shall**:
 - meet the requirements of relevant European product standards
 - pending the completion of the above - national regulations shall be met
- installation procedures **shall not**:
 - impair the fire behaviour of the components used
 - release dangerous substances from the cabling



Explosive and Asphyxiating Gases “Shalls”

- national or local regulations **shall** be met regarding:
 - ventilation of areas containing equipment such as lead acid batteries
 - the pre-ventilation and testing of enclosed spaces
 - chambers
 - drawpits
 - ducts
 - maintenance holes



Optical Fibre “Shalls”

- practices **shall** be adopted to ensure that:
 - exposed skin and eyes are not in contact with exposed optical fibre “ends”
 - minimize the quantity of optical fibre waste
 - optical fibre waste is collected (not by hand) and transferred to suitable containers
 - optical fibre waste is disposed of by approved agencies
- optical fibre interfaces **shall**:
 - NOT be viewed directly unless the output power is known to be safe (IEC 60825-2)
 - be labelled with appropriate warning signs or text (IEC 60825-2)



Delivery and Pre-installation “Shalls”

- incoming goods **shall** be:
 - monitored during delivery to ensure freedom from damage
 - consistent with accompanying documentation
 - stored in a secure location
 - stored in accordance with specified environmental requirements

- prior to installation the installer **shall**:
 - NOT unpack cable until required (*except for testing*)
 - ensure that cable ends are taped/covered
 - check environmental aspects, availability and accessibility of:
 - pathways and pathways systems including catenary wires
 - installation apparatus
 - closures
 - “acclimatize” the cabling components



Cable Installation “Shalls”

- pathways systems **shall**:
 - conform to relevant European standards
 - conduit: EN 50086 series, trunk and duct: EN 50085
 - busbar trunking: EN 60439-2, tray and ladder: EN 61537
- the following practices **shall** be observed:
 - minimum bend radii
 - maximum pulling load
 - installed in accordance with specified environmental requirements
- the following practices **shall not** be allowed:
 - suspended pathways systems
 - fixing of cables leading to deformation or damage to sheath
 - joints other than those specified
 - processes that degrade the environmental performance of the components



Closure Installation “Shalls”

- the cable entrance to a closure **shall**:
 - maintain the environmental performance of the closure
 - provide cable support and prevent kinking
 - provide strain relief (unless provided elsewhere)
 - for optical fibre
 - provide suitable cable glands

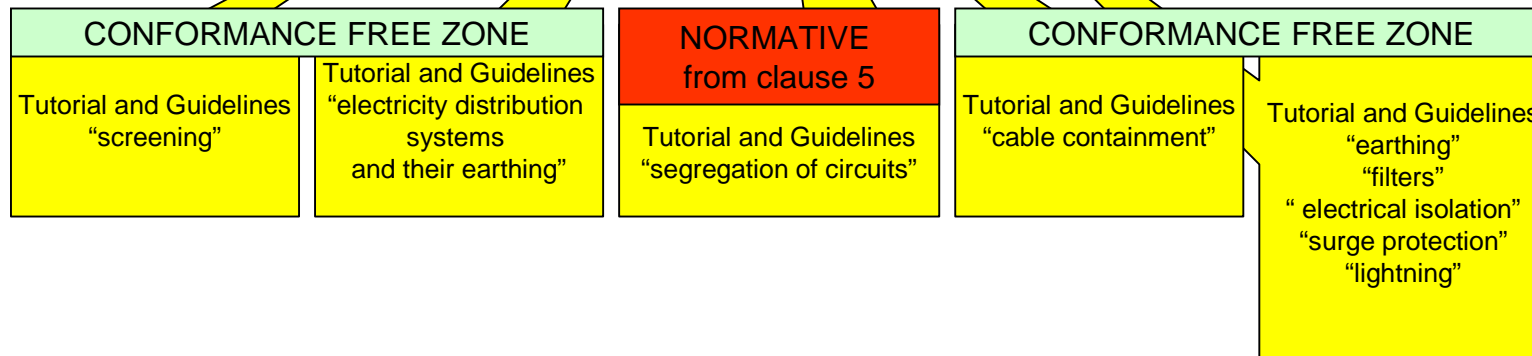


Termination “Shalls”

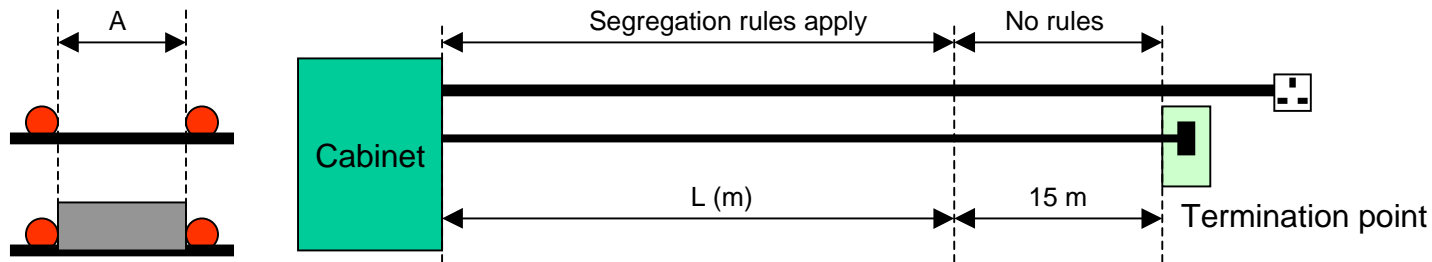
- cables **shall** be terminated:
 - using instructions as supplied by the manufacturer of the connecting hardware
 - using tools as recommended by the manufacturer of the connecting hardware
 - for copper
 - removing the minimum of cable sheath material

Segregation "Shalls" - I

- detailed requirements and guidance .. installation planning and practices inside buildings
- intended to be used by the personnel directly involved in .. planning and installation.
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 - clause 4: Safety requirements
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 - **clause 6: Additional installation practices for metallic cabling**
 - clause 7: Additional installation practices for optical fibre cabling



Segregation "Shalls" - Horizontal Cabling

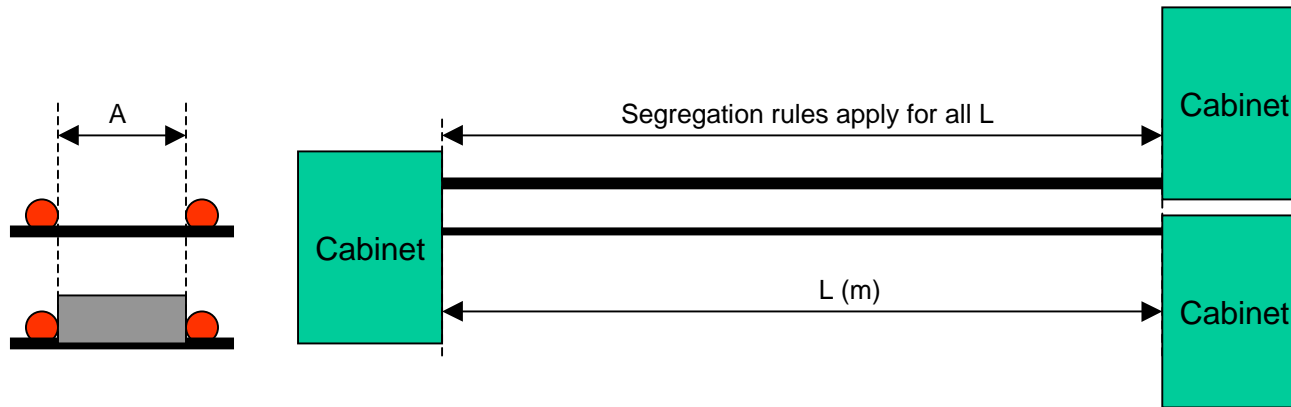


Separation **shall** exceed 130 mm for fluorescent, neon or h-i discharge lamps

Cable crossing shall be at 90 degrees

		A			
		No divider or non-metallic divider	Aluminium divider	Steel divider	
Power cable	Data cable				
Unscreened	Unscreened	200 mm	100 mm	50 mm	
Unscreened	Screened	50 mm	20 mm	5 mm	0 mm for L < 20 m
Screened	Unscreened	30 mm	10 mm	2 mm	
Screened	Screened	0 mm	0 mm	0 mm	

Segregation "Shalls" - Backbone Cabling

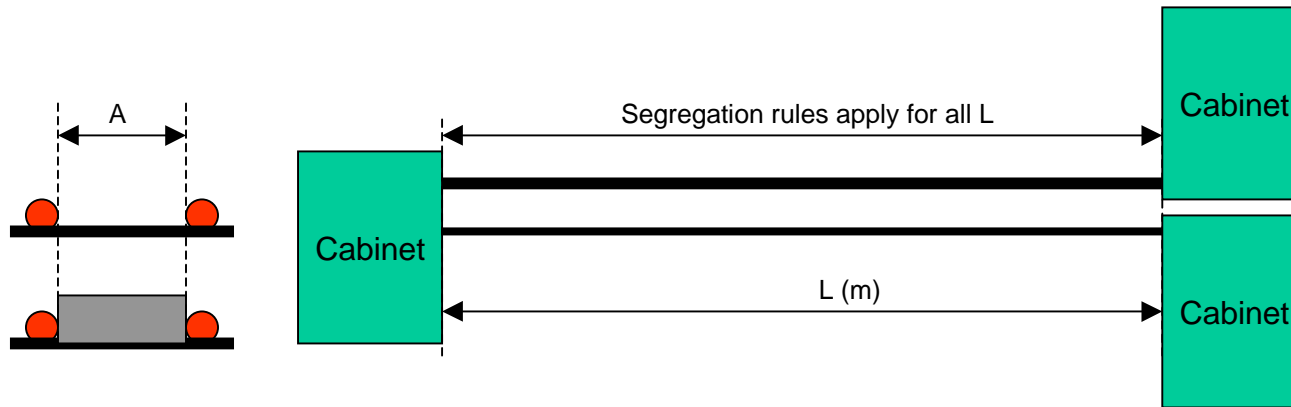


Separation shall exceed 130 mm for fluorescent, neon or h-i discharge lamps
Cable crossing shall be at 90 degrees

		A			
		No divider or non-metallic divider	Aluminium divider	Steel divider	
Power cable	Data cable				
Unscreened	Unscreened	200 mm	100 mm	50 mm	
Unscreened	Screened	50 mm	20 mm	5 mm	0 mm for L < 20 m
Screened	Unscreened	30 mm	10 mm	2 mm	
Screened	Screened	0 mm	0 mm	0 mm	

These rules also apply to horizontal cabling when the electrical environment exceeds the levels of EN 50081/82

BS 6701 Requirement (PAES)



	A		
	No divider	Non-conducting divider	
50 < V a.c. < 600	50 mm	0 mm	Assuming that power cabling insulation conforms to BS 7671
600 < V a.c.	150 mm	50 mm	

These rules apply assuming that interference issues have already been resolved

Agenda

Session One

BS EN 50174

Structure and status

BS 6701?

BS 7718?

Break

BS EN 50174-1 Specification and Quality Assurance

Installation Specification

Quality Planning

Administration

Questions

Break

Session Two

BS EN 50174-2

Installation planning and practices inside buildings

Safety

Installation practices
Segregation of circuits

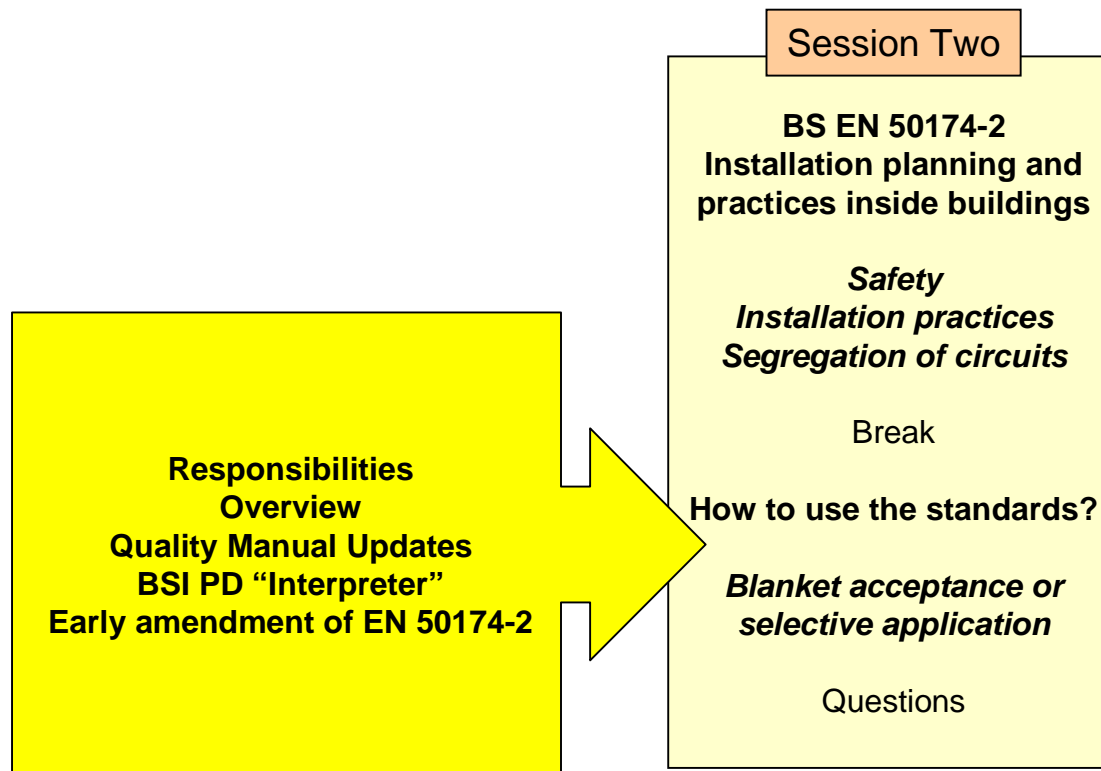
Break

How to use the standards?

Blanket acceptance or
selective application

Questions

How to use the standards?



Specification: BS EN 50174-1

	Responsibility		
	Customer	Installer	Third Party
General considerations: overall provision	●	●	
General considerations: environment	●	●	
Component selection		●	
Closures		●	
Cabinets	●	●	
Cable (cord) management		●	
Pathways	●	●	
Wide area connections	●	●	●

Quality Assurance: BS EN 50174-1

	Responsibility		
	Customer	Installer	Third Party
Technical Specification	•	•	
Scope of Work	•	•	
Contract terms etc.	•	•	
Quality Plan		•	

Administration: BS EN 50174-1

	Responsibility		
	Customer	Installer	Third Party
General considerations	•	•	
Labels		•	

Safety: BS EN 50174-2

	Responsibility		
	Customer	Installer	Third Party
Hazardous areas	●		
Protection against electric shock		●	
Fire and chemical		●	
Explosive and asphyxiating gases		●	
Optical fibre		●	

Practices: BS EN 50174-2

	Responsibility		
	Customer	Installer	Third Party
Installation		●	
Segregation of circuits	●	●	



Overview

Presentations 2000

**Unilateral
conformance
NOT possible**

Beware of tenders
request written
conformance on a
unilateral basis

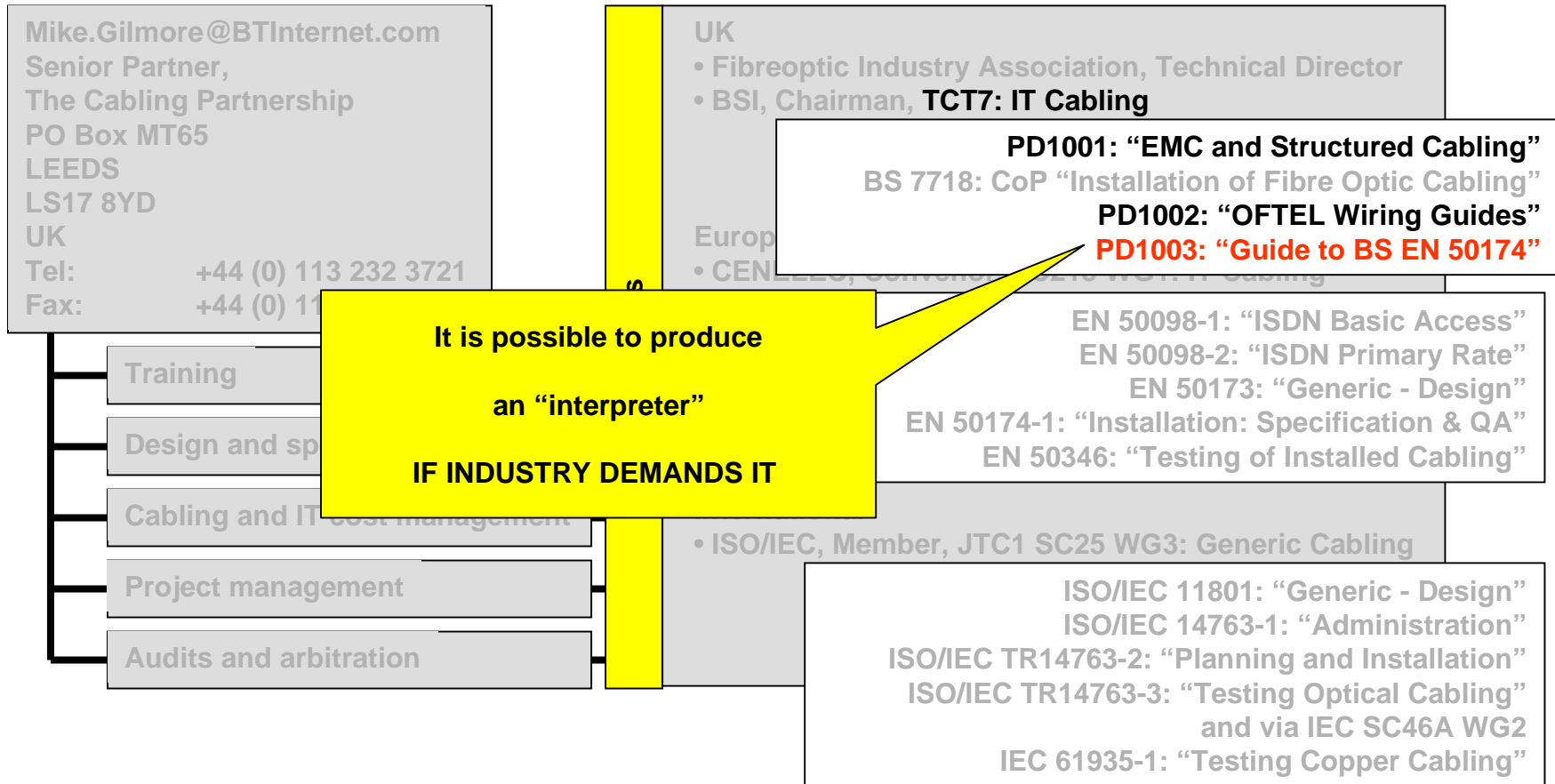


Quality Manual Updates

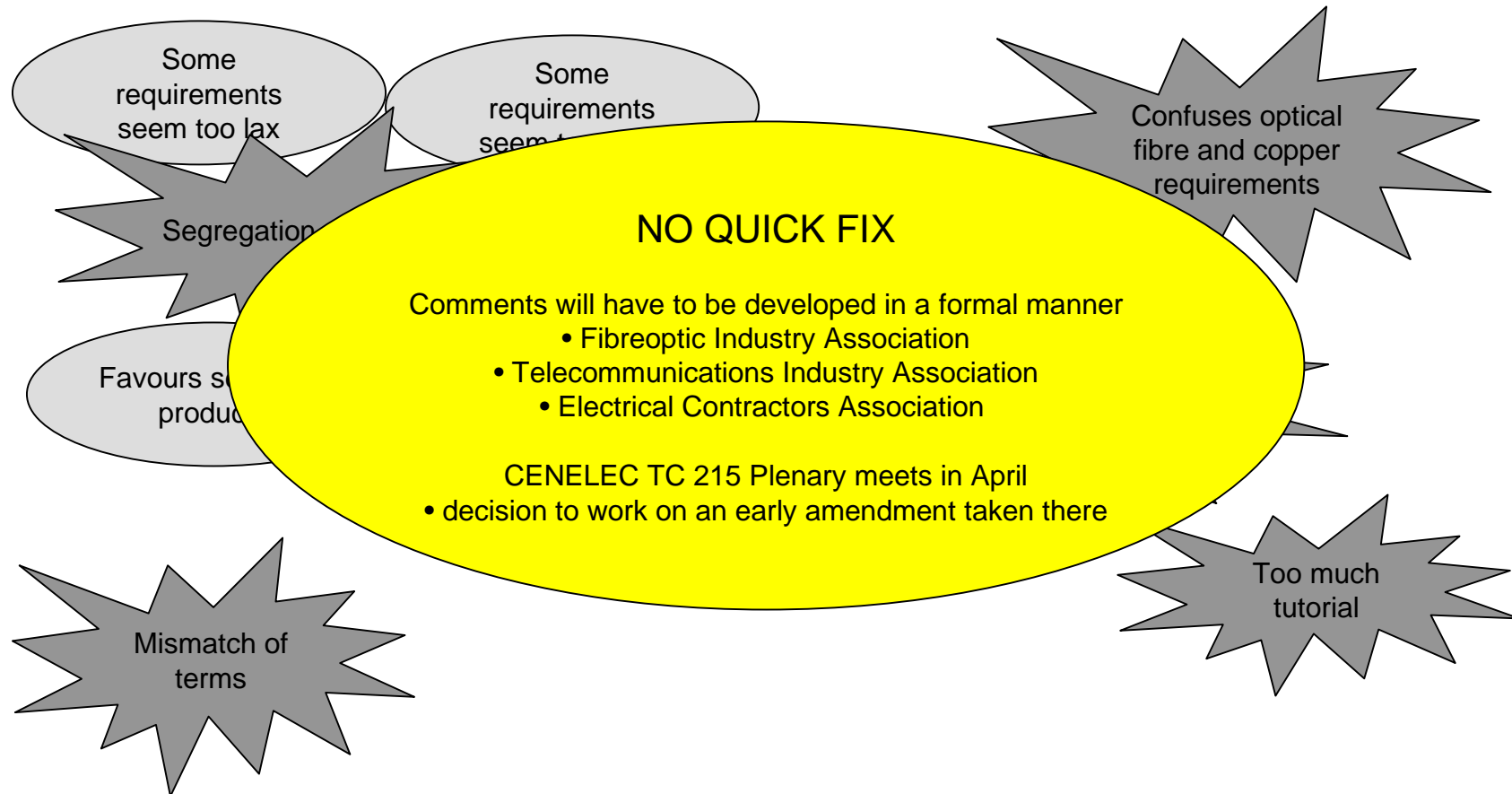
Presentations 2000

- incorporation of BS EN 50174 into installers Quality Manuals
- incorporation of BS EN 50174 into installers Method Statements
- incorporation of BS EN 50174 into installers Safety Procedures

BSI PD "Interpreter"



Early Amendment of EN 50174-2





The End

Presentations 2000

- full colour copy of presentation
- www.it-cabling.com/gendocs/pobd.pdf