

# Raiders of the Lost O&M

Common Documentation Problems And How To Deal With Them

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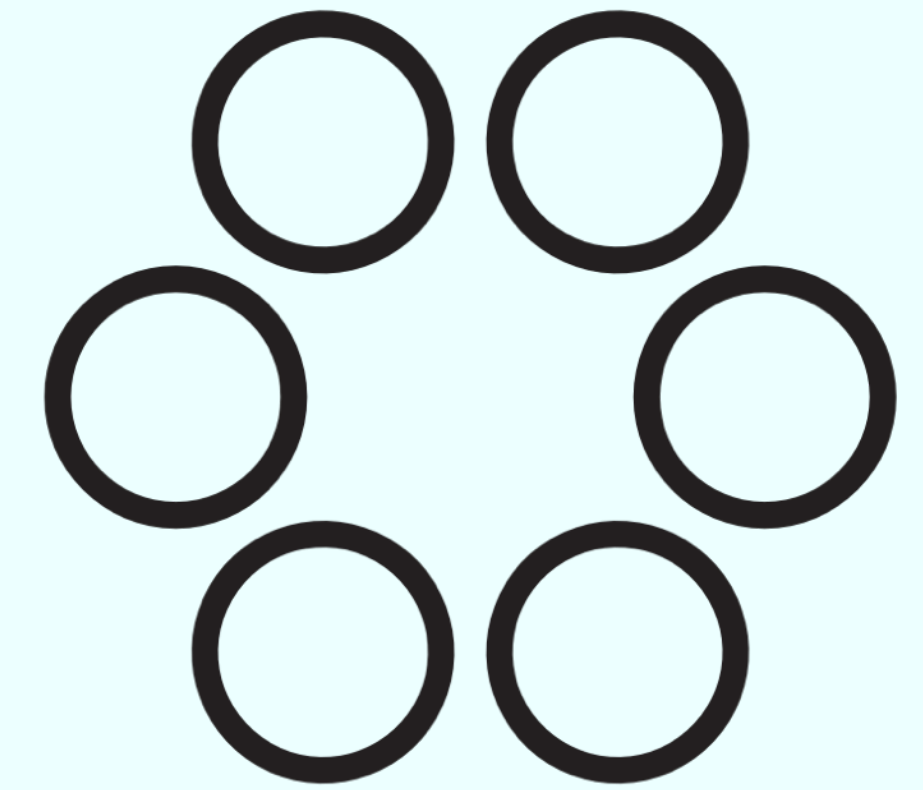
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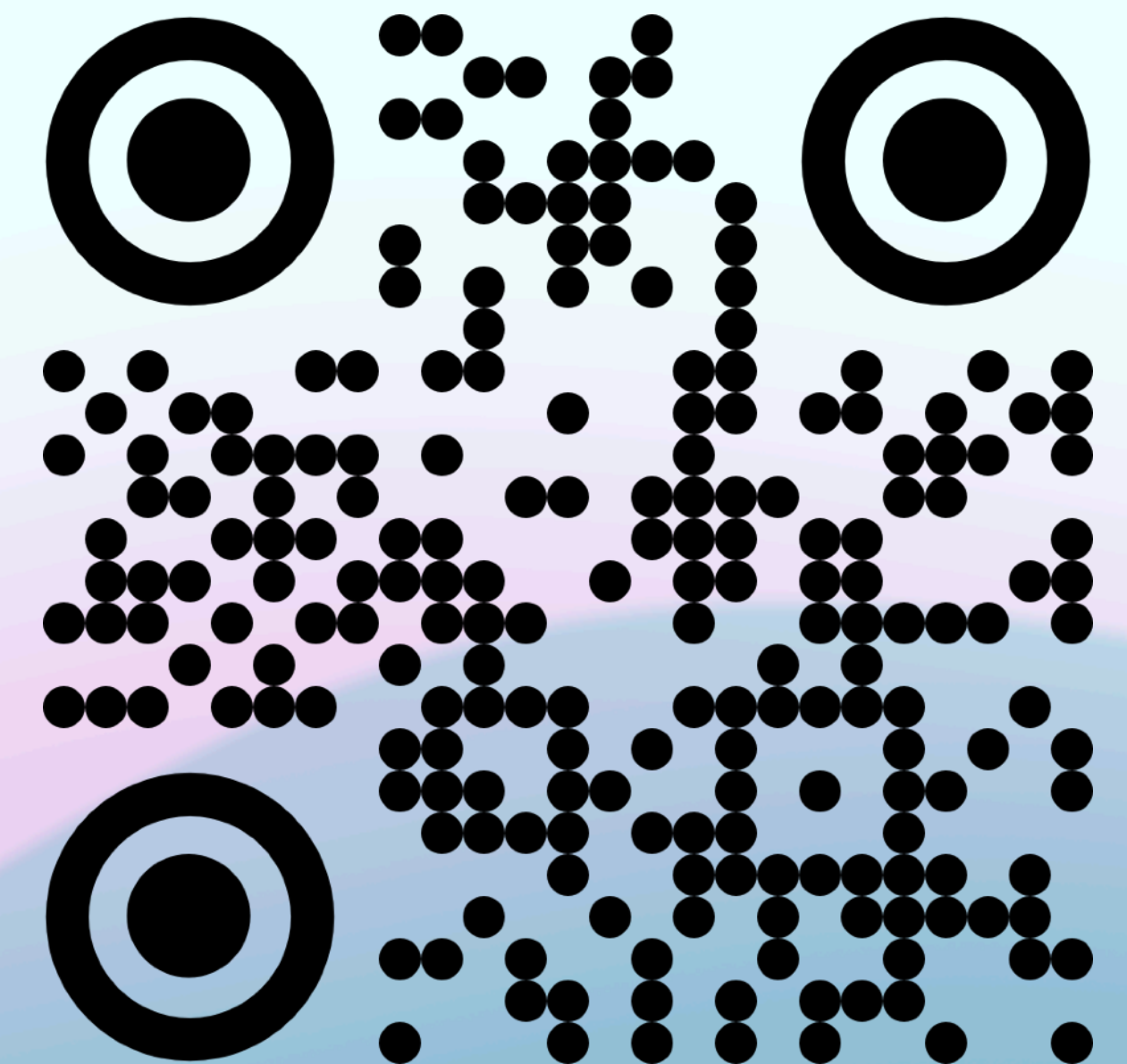
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**TIME/IMAGE**



# Your building is on fire.

Can you find the information you need?

# Common Issues

- Disorganised documentation.
- Missing documentation (which you may not know about) and long shadows.
- Inaccurate or obsolete documentation.
- A documentation archive that's become unmanageable.
- Inadequate review processes and 'Process theatre'.
- Stuck with 'solutions' that aren't helping, and the sunk cost fallacy.
- Lack of resources to tackle these issues.

# Things You Need

- Organised, searchable documentation.
- Oversight of your data.
- Someone to manage your documentation.
- Remote access.
- Local backups in an accessible format—never totally trust a cloud!
- Metadata.
- Confidence in your data.



# Document Control

- Microsoft Outlook is not document control software (and it is not your friend for long-term storage).
- Good version control and document registers are the heart of a good O&M.
- Great for keeping things organised, spotting gaps, tracking revisions, sharing documents with teams, and avoiding problems at handover.
- Document Control software requires a Document Controller or Document Manager. The people on your team already have jobs and will not keep their records up to date. This is also a specialised skillset and occupies a lot of brain space.
- Document Controllers can easily become massive SPOFs, but not having one means you already have many wide paths to failure.
- Document Controllers are specialised Project Managers, but they are generally not Engineers! Don't expect a Document Controller to be able to review O&Ms at a high technical level; their job is to facilitate, and monitor the progress of, proper review processes.





EVERYTHING  
NOT SAVED  
WILL BE LOST



# O&Ms with CDEs

All projects great and small.

- Good Common Document Environments solve a lot of problems; accessibility of information, version control, review processes, completion tracking, etc...
- CDEs are not magic. They won't fix bad data or inadequate processes.
- CDEs can house legacy data and live projects.
- Metadata is your friend.
- Subtypes of CDEs—files & folders versus tabular.



# O&Ms with CDEs

- Keep a copy of the original data structure!
- Prepare the data before upload to a CDE.
- Introduce unique filenames using batch software.
- Tidy up filenames where possible, but this may not be critical in tabular systems.
- Start cataloguing into the smallest possible number of tables—this takes time.
- File into categories (e.g. drawings, testing, scopes of works), not packages!
- Capture additional info in metadata fields, e.g. contractor, year of works, project.
- Introduce a tagging ontology to improve the searchability of your data.

# O&Ms with CDEs

- Abandon the idea of a 'core O&M' for a building that then gets updated. It's not sustainable in the long term.
- The least important piece of information is the project name.
- Extract as much information into your tables as possible—including paragraphs of text, because attached documents aren't always searchable. You can always delete/hide/filter this.
- Big tables can be filtered.
- Be as granular as you like with line items.
- Always include a 'Notes' column.
- Create controlled zones within your CDE for subcontractors to upload their documentation for review and later filing—ensuring quality and useful formatting.
- Iteration is likely to occur. Try to make your structure flexible to save yourself trouble later.



# O&Ms with the Basics

No budget. No scope. Smaller Projects.

- Tidy up filenames in bulk using specialised software.
- Add O&M section IDs to filenames.
- Ensure filenames contain revision numbers.
- Consolidate your files into fewer folders.
- Create document registers—the more columns of metadata.
- Provide simple guidance to subcontractors.
- Regularly update your files and registers as required.

# O&Ms with the Basics

- Excel (preferably in the cloud) or Google Sheets is key.
- Create metadata-rich document registers.
- Fields for you table(s): mm/yy, contractor, Category, Sub Category, title, building, level, revision, project, document reference, notes, filename
- Get your subcontractors to fill these out with every submission, or share a common one they can add to.
- Have as few folders as possible.
- Set a filename structure where possible, or else tidy up what you've got in a way that's consistent and legible.
- You can hyperlink filenames to files in Excel (but it sucks).
- Download copies regularly if keeping your registers in the cloud!
- Keep old revisions for reference.



# Software Recommendations



- Find Any File



- Nifty File Lists



- A Better Finder Rename



- Find Empty Folders



- Easy Data Transform



- The Big Mean Folder Machine



- QCAD Pro

- Numbers (Mac) vs. Excel (Windows)

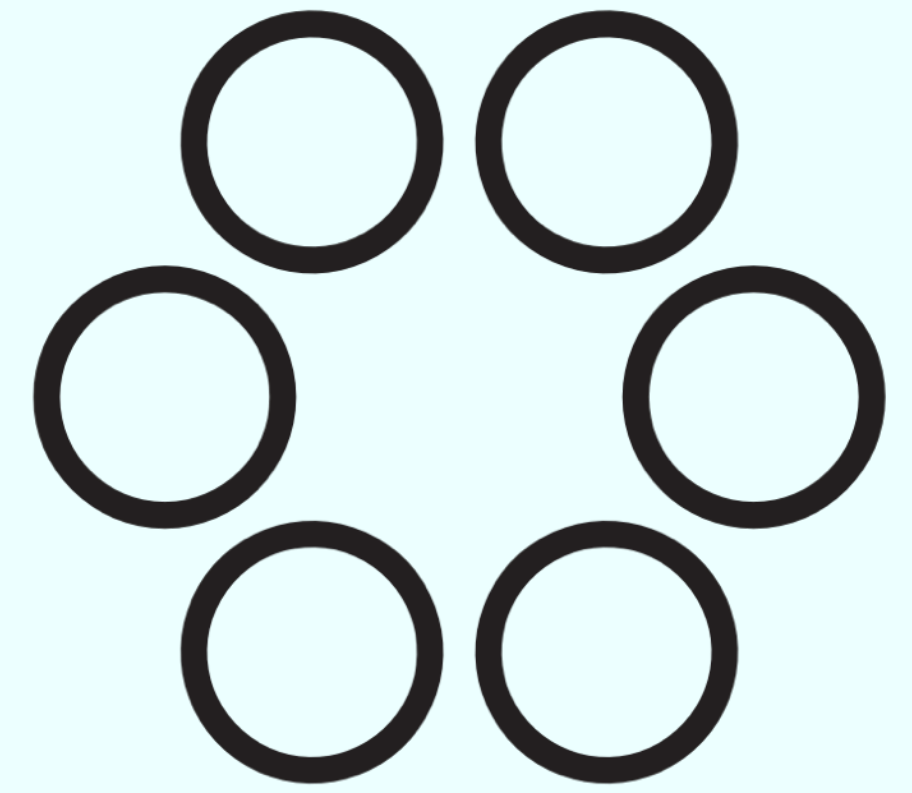
# Making Life Easier

- ALWAYS keep a copy of the original data in its original structure, even when you think you're finished.
- Structure your filenames consistently where possible for searchability.
  - *02-05-Test-TestName-L05.pdf*
- Ensure unique filenames (add numbers if necessary), and introduce a standard filename structure if possible.
- Windows doesn't necessarily show file extensions by default.
- Long file paths can be a problem!
  - */server/cloud/user/K:/Documents/Projects/AsBuilt-Approved/OverlyLongProjectName/Operations-and-Maintenance/Mechanical/Testing-and-Commissioning/Subcontractor/Level00/**BuildingName-ProjectName-Level5-CompanyName-ElectricalTestingCertificate-22.05.24-revision1-asbuilt.pdf***
- *Export a copy of your Word documents, CAD files, etc. to PDF wherever possible (and then keep both) for longevity and accessibility.*



# Where To Start

- Review what you've got—you may need help with this.
- Make your case for more resources—business resilience, audit, compliance, supporting multiple teams, financial benefits.
- Contracts: revisions and clauses.
- Think about the users of your data.
- Pick the right software.
- Iterate.
- Take the time to do it properly.



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