

Accessing essential documents where & when you need them

Permits, photos, measurement reports, e.g. from OTDR devices, etc. are often indispensable when building, operating, and maintaining networks.

AND PinBoard provides an effective and efficient means of accessing and managing these documents.

When out on the network, staff including technicians, installers, service crews, etc., regularly require a wide range of documents for their daily work. These might include authorisations for civil works, permits for access to apartment buildings, detailed drawings for street crossings, manhole documents, cable pull protocols, measurement and test reports, or even photos identifying specific infrastructure and objects.

So up to now if the inspector flashes his ID and requests to see papers authorising you to dig up the street this probably means a walk over to the van. These are probably in folders that you have hopefully remembered to take with you otherwise it's an unnecessary trip back to the office. All this costs time and effort, which could be better used for the actual build and maintenance of the network.

Apart from the necessity of having to drag these folders around there is also the not inconsiderable effort of making sure that these folders are up-to-date – correcting existing documents, replacing updated ones, and removing others that are no longer valid. More time and effort wasted.

However, this can all be in the past as network staff can now simply pull out their tablets, smartphones, etc. and access the information the easy, efficient, and effortless way. Show the required document and continue with their work.

AND PinBoard is an optional plug-in for AND SystemSolution that is essentially an integrated document management system (DMS). This option enables the user to assign a wide range of documents, e.g. permits (PDFs), photos, video clips, measurement reports, etc. to literally any type of network object in the AND documentation such as cabinets, amplifiers, cables, apartment buildings, and so forth.

So now you can assign an instruction manual for the installation of all the new devices recently acquired, perhaps even provide the instructions via a video clip. It's your choice, your decision.

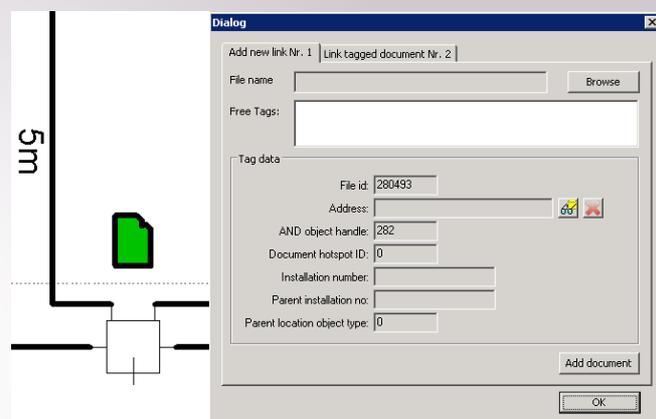


Figure 1: Dialogue for linking documents etc. to a component

As well as placing PinBoard documents on the maps the user can also place them inside schematics such as buildings, cabinets, splice boxes, central office, etc.

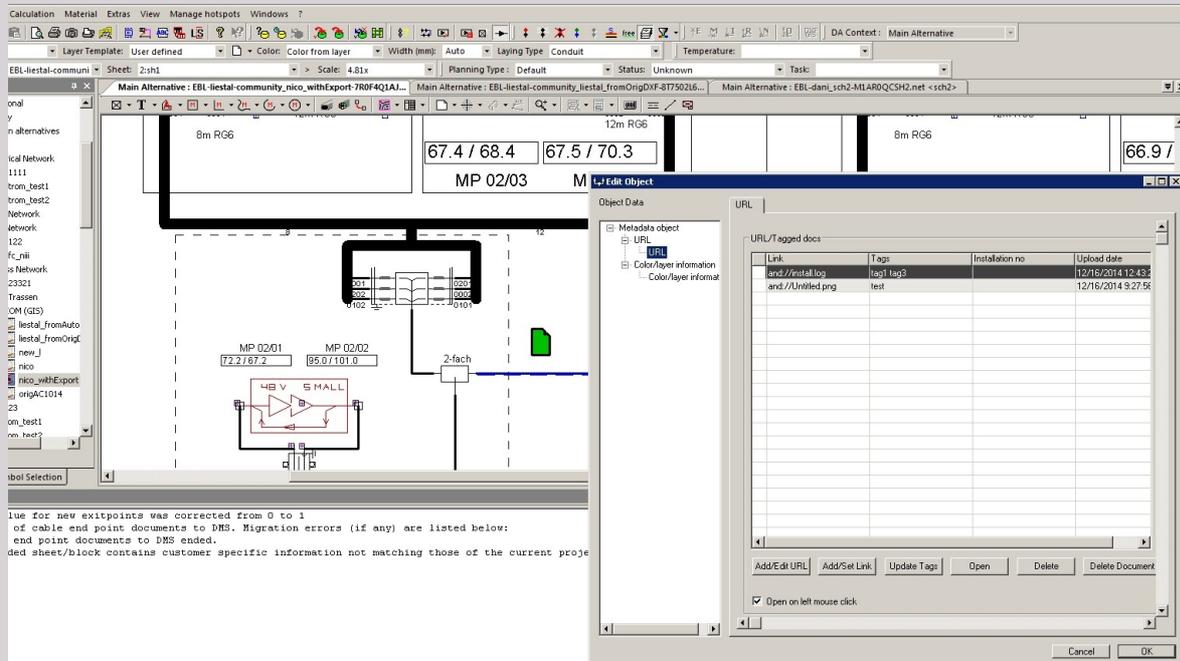


Figure 2: PinBoard inside a worksheet

Storing documents

The documents are stored in the system's database, i.e. they are not embedded in the AND documentation. This is a very relevant issue as it helps to avoid overloading projects unnecessarily with bulky data and possibly negatively affecting response times.

Furthermore, since the documents are in the database they can be easily accessed by external solutions and therefore re-used multiple times.

The user can add, index/tag, delete, search, and open documents. Administrable PinBoard service rights are required to be able to create or remove a reference to a document.

Any number of documents can be assigned to an object – for example you might have a building-entry permit, information regarding key access, as well as floor plans for an apartment block. It is also possible to associate a single document with several AND objects. Perhaps you have the same digging permit for several section so f civil works.

Documents can also be both inserted and accessed from external applications such as a work order or provisioning system using for example SOAP or WMS interface. It might be a case that AND stores all documents relevant to a project that can be later accessed by the work order system. Following completion of the project the corresponding acceptance report can then be made available to AND.

Documents stored in the database can be later retrieved using AND clients, viewers, as well as AND WebAccess. Clicking on the PinBoard icon opens a document; if more than one document is referenced a list is displayed.

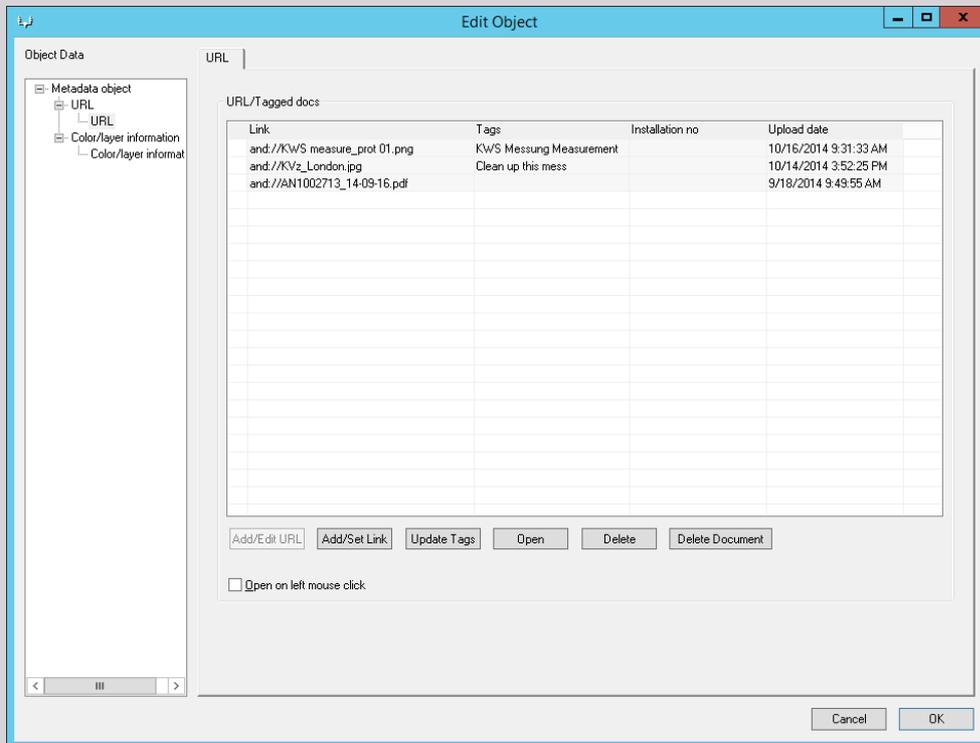


Figure 3: Managing the documents within a PinBoard

Note: to view the documents an appropriate reader or viewer must be activated depending on the actual document.

Attached PinBoard documents are easily identifiable in the network documentation via the AND HotSpot feature. A search for documents is also possible. By adding free tags such as a category the user can further improve the effectiveness of a search.

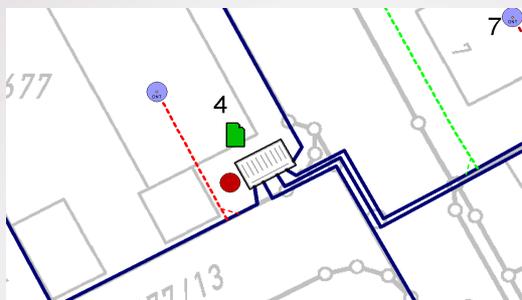


Figure 4: PinBoard positioned at cabinet

Of course, having the relevant technical documents within the same database as the network documentation itself allows cross-linking for easy access to all required information.

The relationships between documents and documentation objects are established via implicit keys such as installation number, geo-position, or object keys.

This automatically allows related objects to be linked to a network object even if the document has been indexed from within another context and has, for example, been added via SOAP interface.

Document management using client

Creating & placing documents

AND PinBoard can manage literally any type of document. However, it is advisable to store documents in non-editable formats e.g. as PDFs, JPEGs, etc., otherwise it will be necessary need to have the appropriate software application to open the documents.

Using the AND client a document can simply be dropped onto or near the target object. This object can be simply anything, e.g. cable, apartment building, cabinet, amplifier, etc.

Documents can also be added manually using a dialogue screen. Here the user simply selects the file and adds in information such as project or object ID.

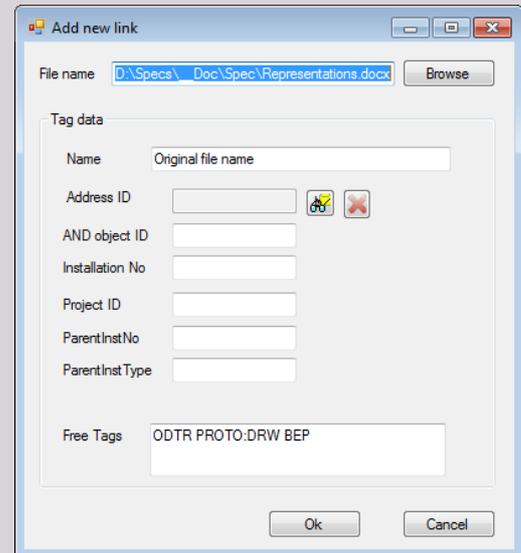


Figure 6: Adding new document to the PinBoard

Referencing

Once a document has been added to the database it is possible to reference it. Here the user searches for the document via a dialogue screen and selects it.

A document may be referenced by more than one object. This can be useful for example when an instruction document or video clip has to be provided for similar objects.

As well as referencing objects it is also possible to delete a reference from an object.

Searching

There are various ways of searching for documents apart from the obvious visual scan.

You can enter an address to look for documents and check the area for items stored there or in the proximity. Within a PinBoard symbol more than one document might be stored. By clicking on this you get a table and can select the target document from this.

If you are looking for a particular document enter its name and search for this.

Tags can be added to a document enabling enhanced searches. Typical tags include time stamp, installation no., geo-position, etc. In addition, free tags can also be added.

SOAP interface

A server interface allows you to manage tagged documents via a SOAP service, e.g. add a tagged document to the database. To retrieve a document, one or more tags are passed to a search function that returns a link to download the document.

Adding documents via WebAccess

You can be add photos and videos taken with your mobile device to the PinBoard. These can be pushed to the correct location on the network documentation via the WebAccess option. When ready the photos can be uploaded to the AND server where they are automatically stored in the database. If not already available, a virtual container is placed on the map overview or inside worksheets as required.

There are many uses for this function such as documentation before and after a maintenance task has been carried out; photo documentation following accidental or malicious damage to part of the network. This could also open the way for remote diagnosis with photo and video reports forwarded to technical staff via PinBoard.

Other documents such as measurement device reports, scanned-in signed customer agreements, etc. can also be added to the network documentation in the same manner.

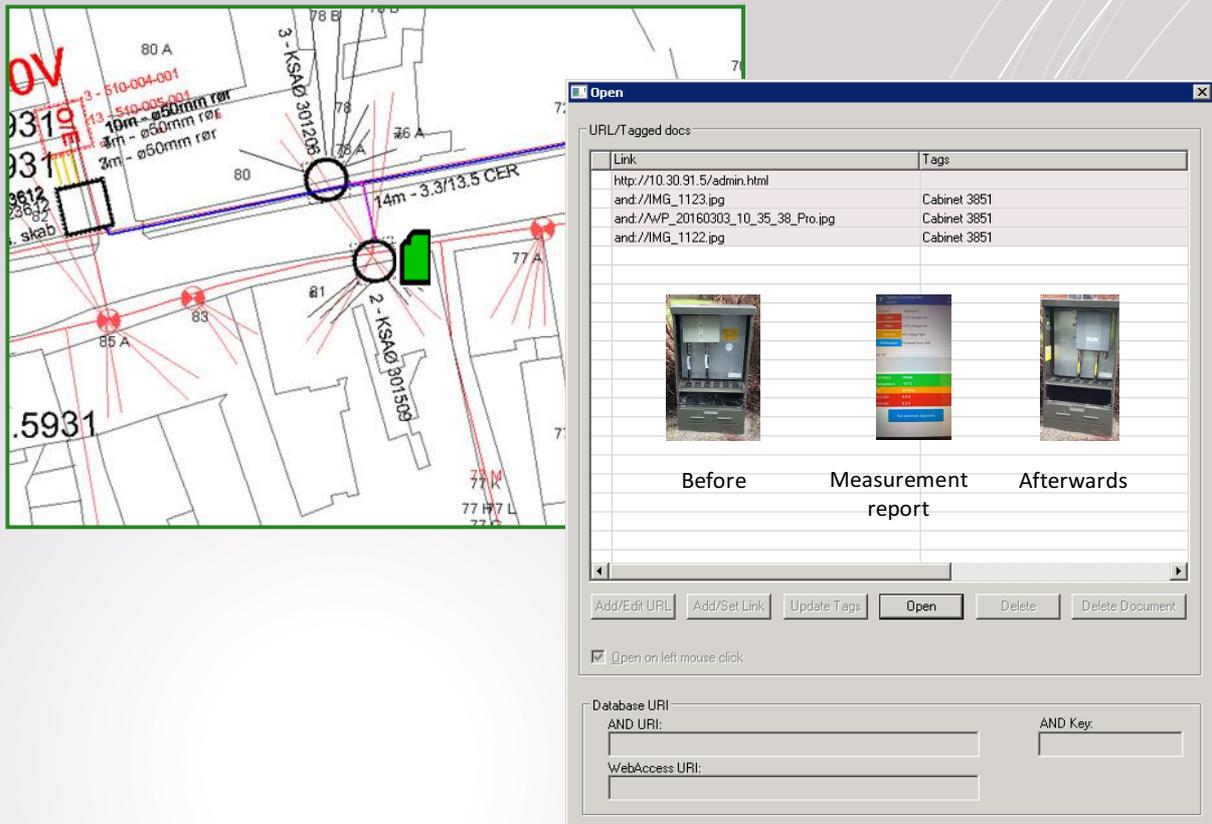


Figure 7: Photos & measurement report in PinBoard