BILAG 1- UNDERBILAG 1A

PROJEKTBESKRIVELSE

banedanmark

INDHOLD

1. BAGRUND OG OVERORDNET PROJEKTBESKRIVELSE

Signalprogrammet i Banedanmark arbejder med at tilvejebringe en udskiftning af de eksisterende signalsystemer på S-banen og på regional-banerne.
Som en del af Signalprogrammets tilpasning af administrative IT systemer til det nye Signalsystem skal det eksisterende P-base system funktionelt migreres over i en ny platform.

Migreringen skal foregå ved omkodning af den eksisterende funktionalitet. P-base er systemet til operationalisering af køreplaner. Det vil sige, at P-base anvendes i Drift til at udskrive arbejdsplaner til at afvikle trafikken efter. Togenes sporbenyttelser og bemærkninger til støtte for Trafiklederen redigeres i P-base. Endvidere anvendes systemet til udsendelse af telegrammer om særtog, aflysninger, farligt gods med mere.

Signalprogrammet ønsker derfor at købe en løsning som indeholder en defineret delmængde af den eksisterende funktionalitet i P-base systemet. Disse områder er

- Bruger og rollestyring
- Kvitteringsoversigt
- UT melding (UT = Usædvanlig transport)
- UT cirkulærer
- RID telegram
- Manglende slutsignal

Projektet, som skal sikre en 1:1 migrering af det eksisterende system skal, baseret på det eksisterende system, analysere, designe, udvikle, teste og idriftsætte et nyt system. Projektet eksekveres agilt med løbende analyse, design og accept af delelementerne i P-base systemet. Ligeledes udgives delleverancer undervejs med henblik på løbende brugertest af de udviklede delkomponenter.

2. INTRODUCTION (IN ENGLISH)

Purpose of this document is to introduce and overall specify the scope of work BDK intend to ask the supplier to deliver to the Signaling Programme as part of the PBASE replacement task.
The current PBASE setup is shown in figure 1 below:

- PBASE contains at an overall level the list of features listed in figure 1.
- The PBASE system is loaded with the yearly timetable from TPS before the start of a new year.
- PBASE provides an interface to ATNS. ATNS holds 4-5 days of timetables. Once every night the fifths day of timetables are transferred to ATNS. Timetable changes are continuously transferred to ATNS as well.
- PBASE provides Train Announcements (toganmeldelser) to DLK (DSB) through an FTP site (XML files) and as pdf documents distributed by email.
- PBASE receives train consist information from MADS2(DSB)
- Finally UT circulars are accessible for PBASE to support the management of UT documents

The replacement of PBASE with:

- TMS Light
- extended scope of TPS
- the introduction of a component X

are shown in figure 2 and in more detail in figure 3 below. The original scope of the component (until now called TA Publisher) was Train Announcement publishing based on data

received from TPS. It is now the intention to increase the scope of this component (now called X) as listed in figure 2:

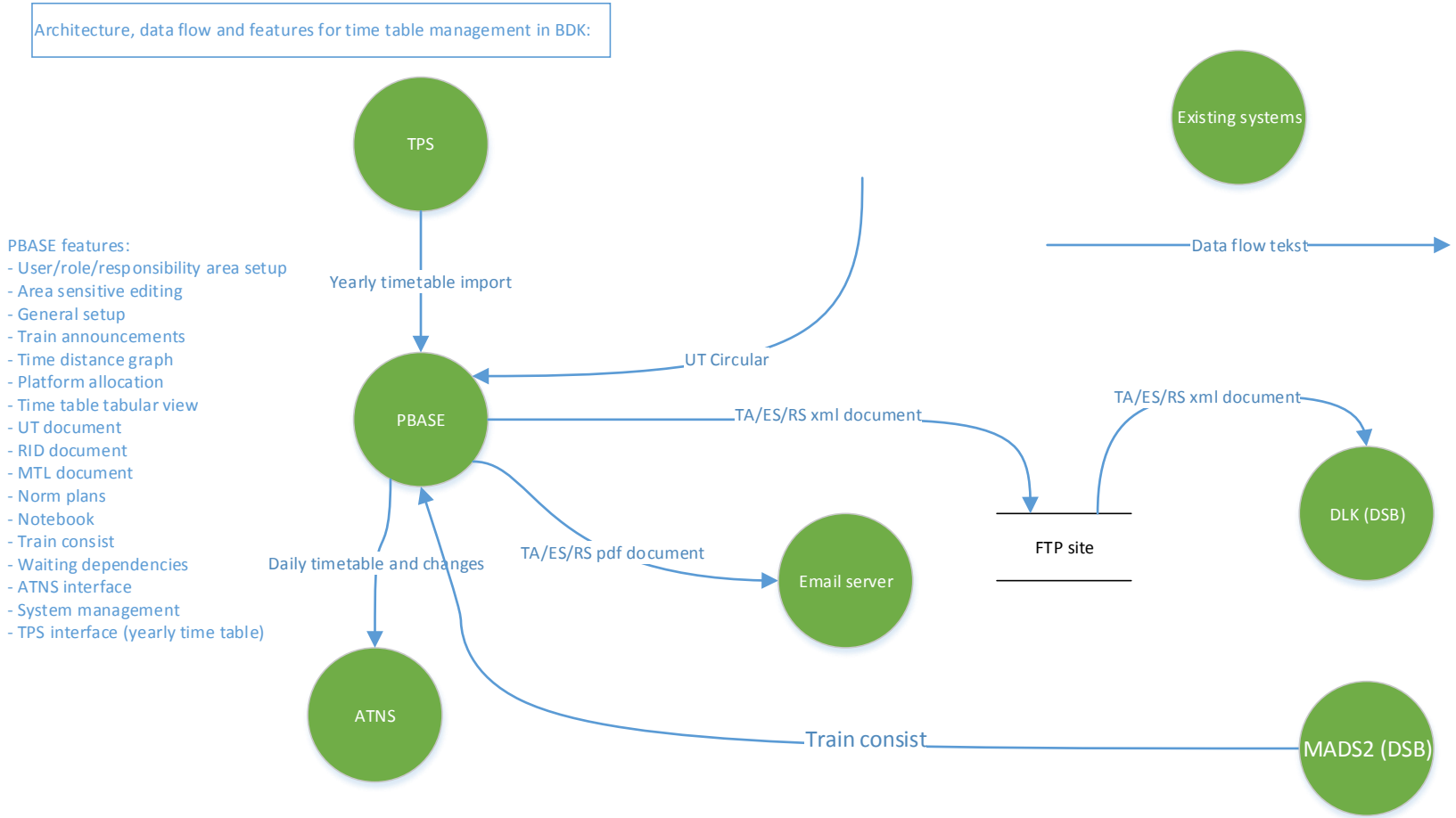
- The train announcement publishing feature needs to be supplemented with:
    - Distribution list generation – the list of stations relevant for the train announcement shall be converted to responsibility areas
    - Acknowledgement flow management, which consist of the following subfeatures, cf. figure 6 for PBASE windows to be inspired from:
        - Access for responsibility areas to view the TA document
        - Access for responsibility areas to acknowledge the reading of the TA document
        - Access for the issuer of the TA document to verify the acknowledgement status
    - Setup of users, roles and responsibility areas – to support the previous two bullets, cf. figure 4 and 5 for PBASE windows to "copy".
- Management of three additional types of documents similar to but significantly simpler than the Train Announcement document:
    - Missing Tail Light (MTL) documents
    - RID documents
    - UT documents

The scope of work for these three types of documents is the same as for train announcement documents (extended scope as described above) with the following exceptions:

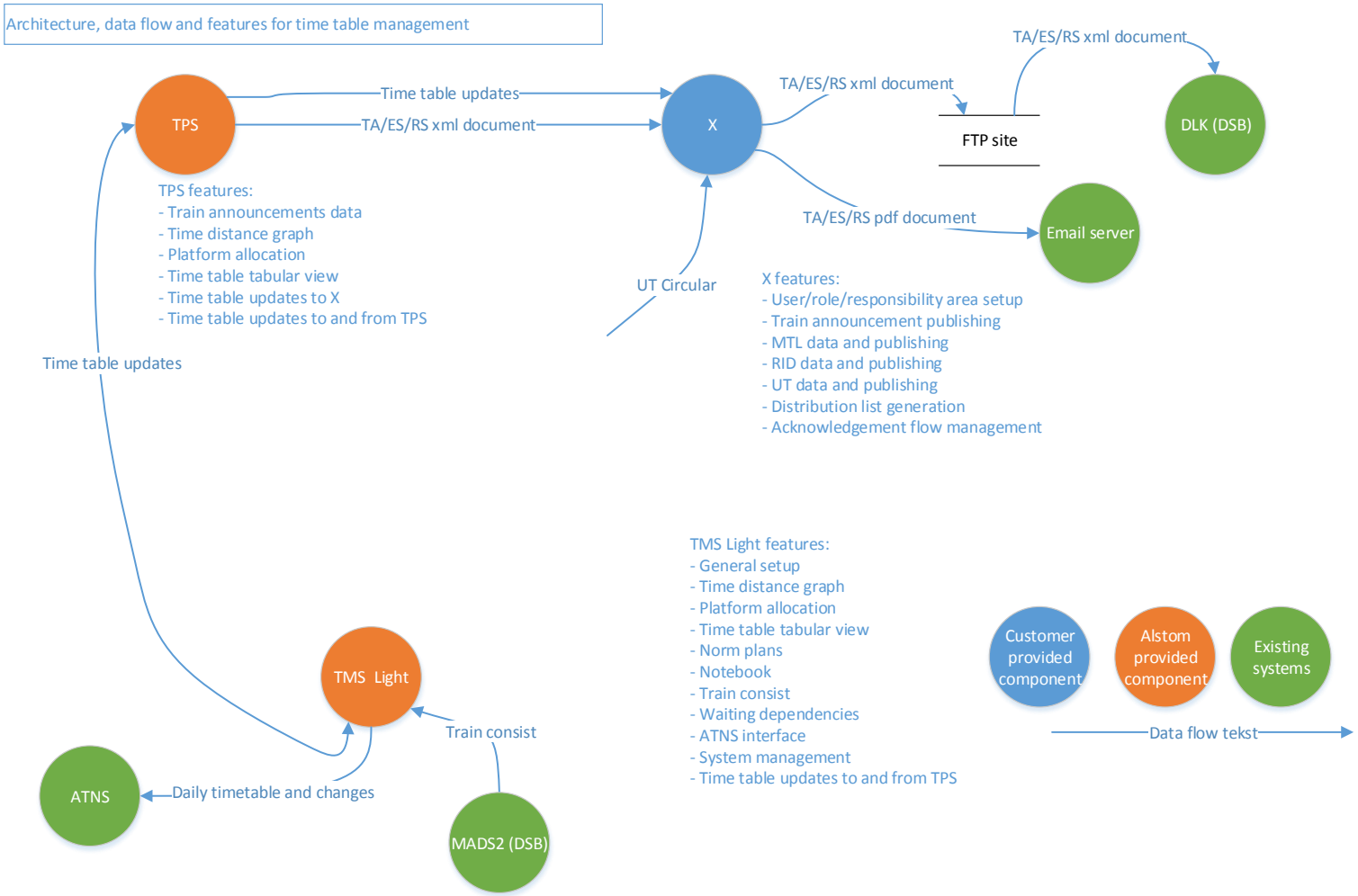
- The data input for the documents is in scope as well – this is for train announcement provided by TPS
- No XML and pdf-files shall be published externally. The pdf-files are published internally through the acknowledgement flow management mentioned above

The data input shall be provided according to the corresponding user interfaces in PBASE, cf. figure 7, 8, 10 and 12. The pdf document output shall be as shown by the examples from PBASE, cf. figure 9, 11 and 13.

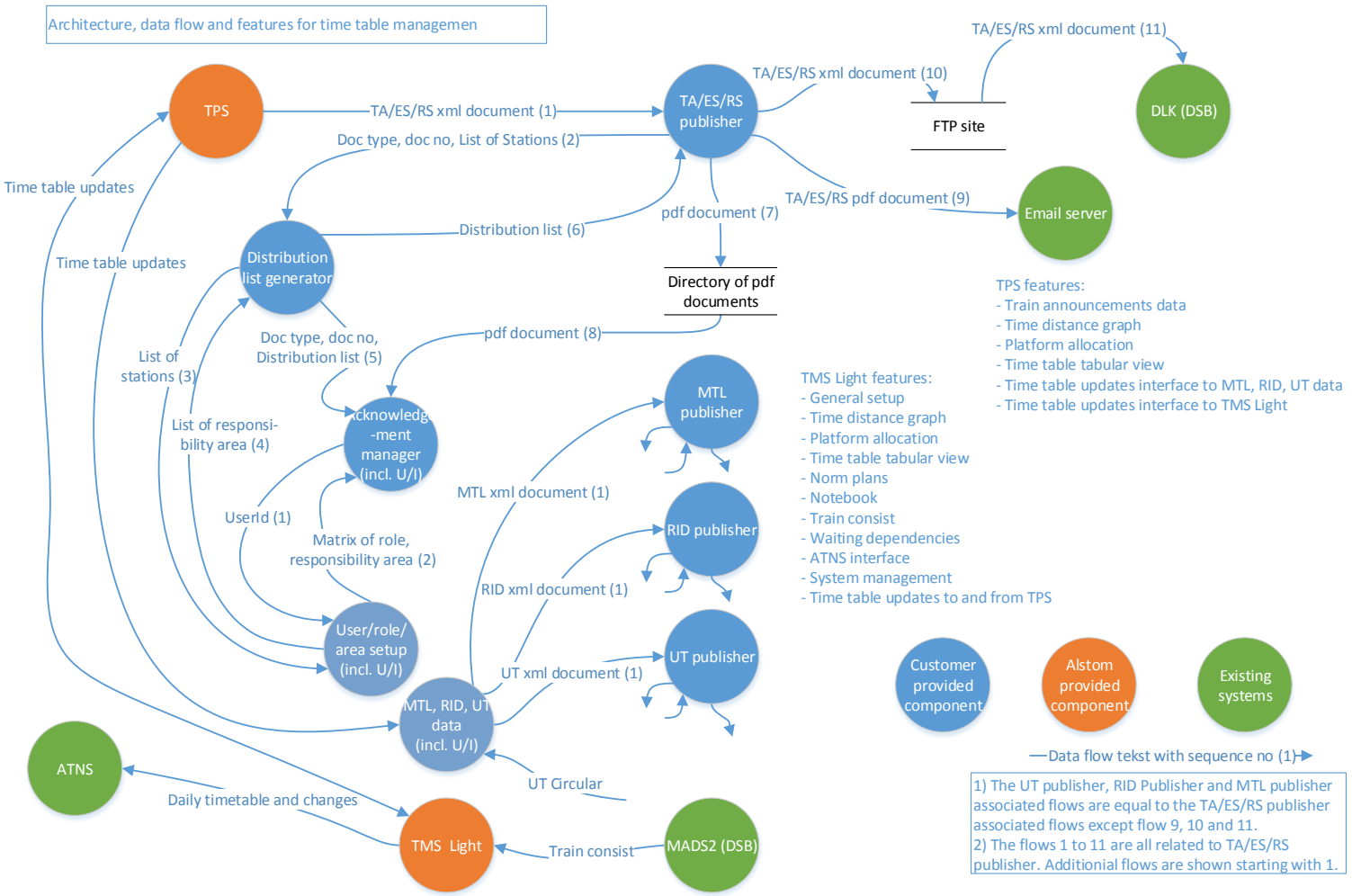
3. ARCHITECTURE OVERVIEW



Figur 1: Current PBASE setup



Figur 2: Overall architecture of the solution including component X

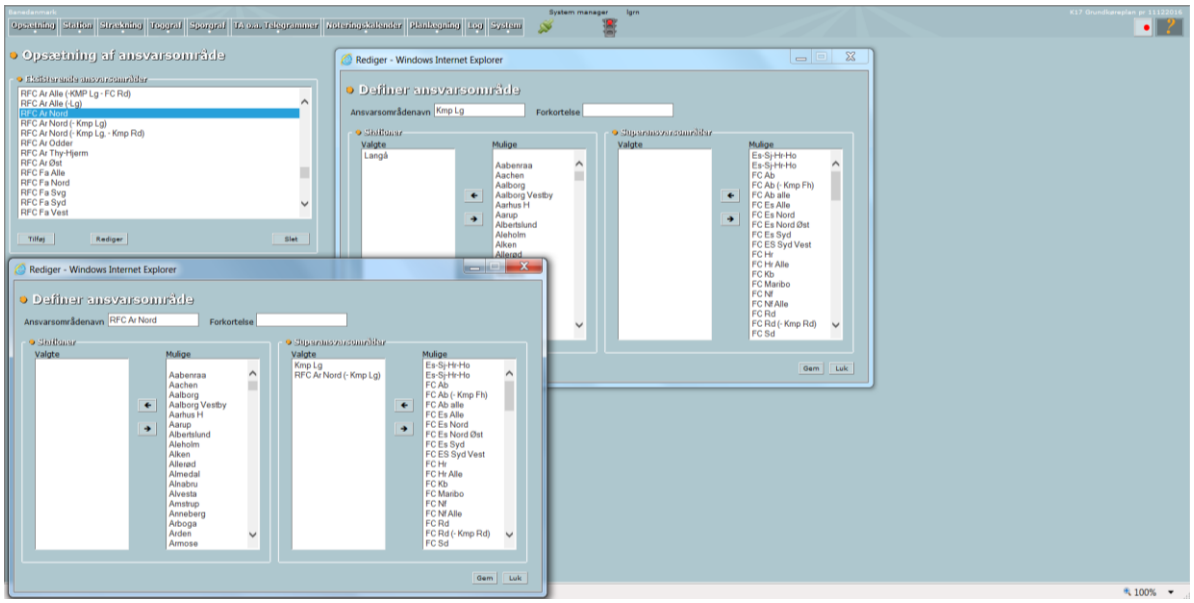


Figur 3: Detailed data flow diagram of the solution including the components which makes up the overall component X

4. PBASE FUNCTIONAL OVERVIEW EXTRACT

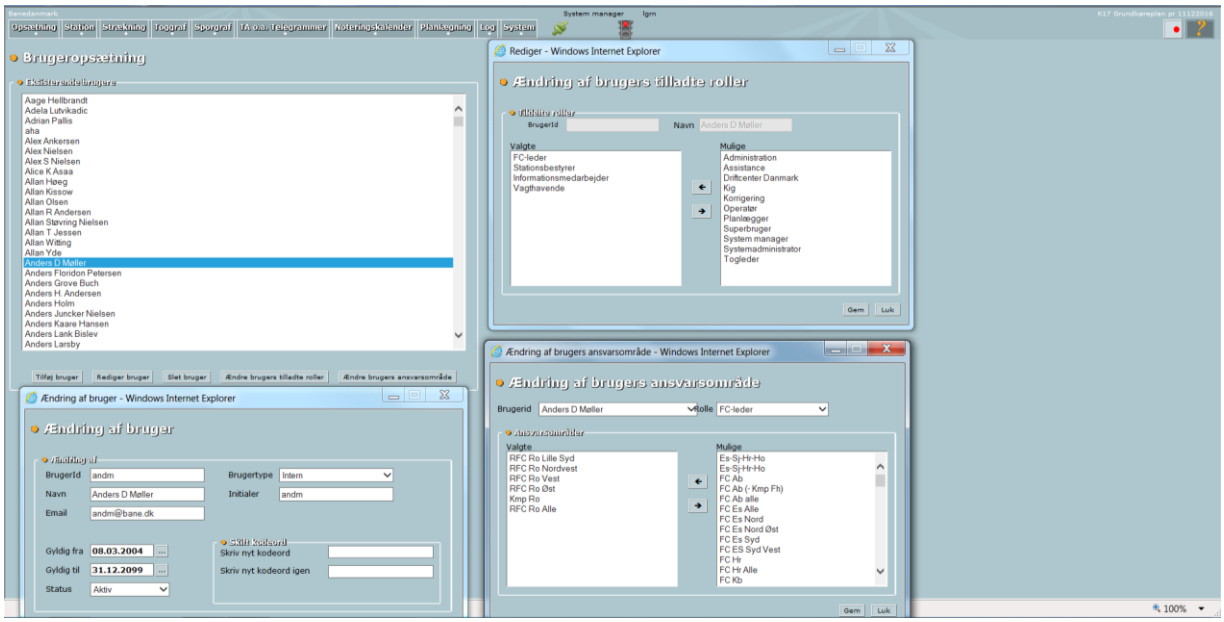
4.1 User, role and responsibility area concept

Responsibility area setup is the key to defining what a PBASE user can see and do in PBASE. A responsibility area is the stations and lines for which a user the responsibility in a given role. The window and two popup below show examples of the hierarchy: responsibility area – super responsibility area – stations.



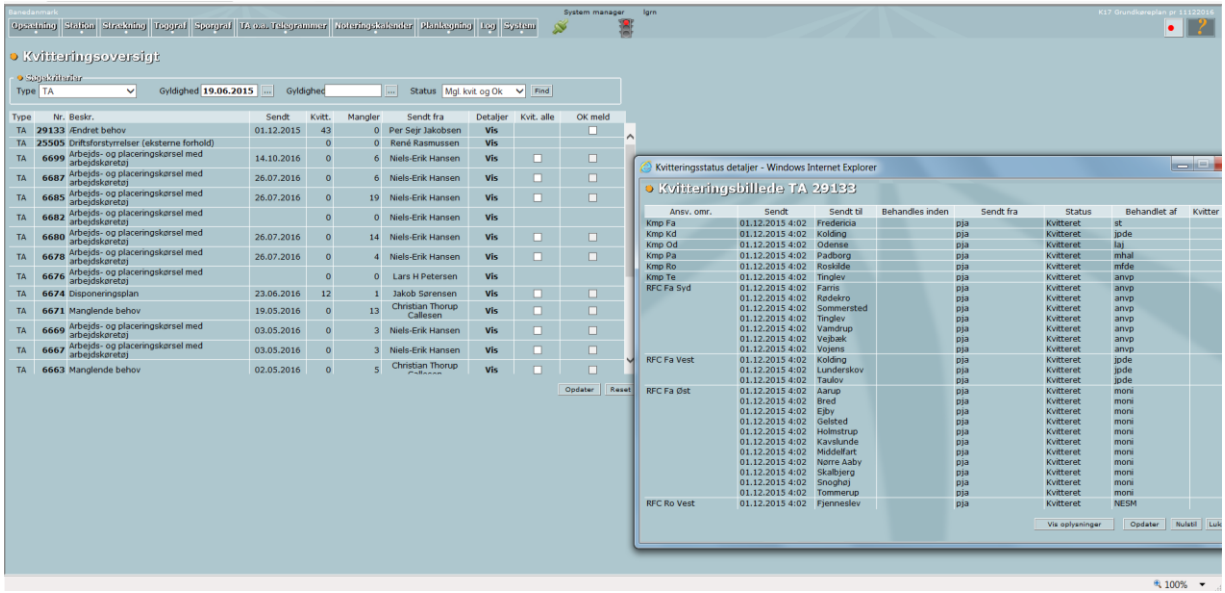
Figur 4: PBASE windows supporting responsibility area setup

The bottom level of the hierarchy is a kmp, which consists of typically one station, and a FC which consists of a number of stations.
The next level is "superansvarsområder", which consists of exactly one kmp and one or more FCs/RFCs. A station must **never** be part of more than one "superansvarsområde".
Please note that e.g. RFC Ar Nord (-Kmp Lg) is equal to RFC Ar Nord except Langå (Lg).
PBASE does not monitor that each and every station at all times is manned with at least one user. This is up to the users to assure this "coverage". Lack of coverage will e.g. be discovered when an acknowledgement is expected for the unmonitored station.
The list of roles available in PBASE is fixed, cf. the user setup screen dump below.
A user can be setup to be able to take on one of more roles. For each role a responsibility area can be setup.



Figur 5: PBASE windows supporting user and role setup

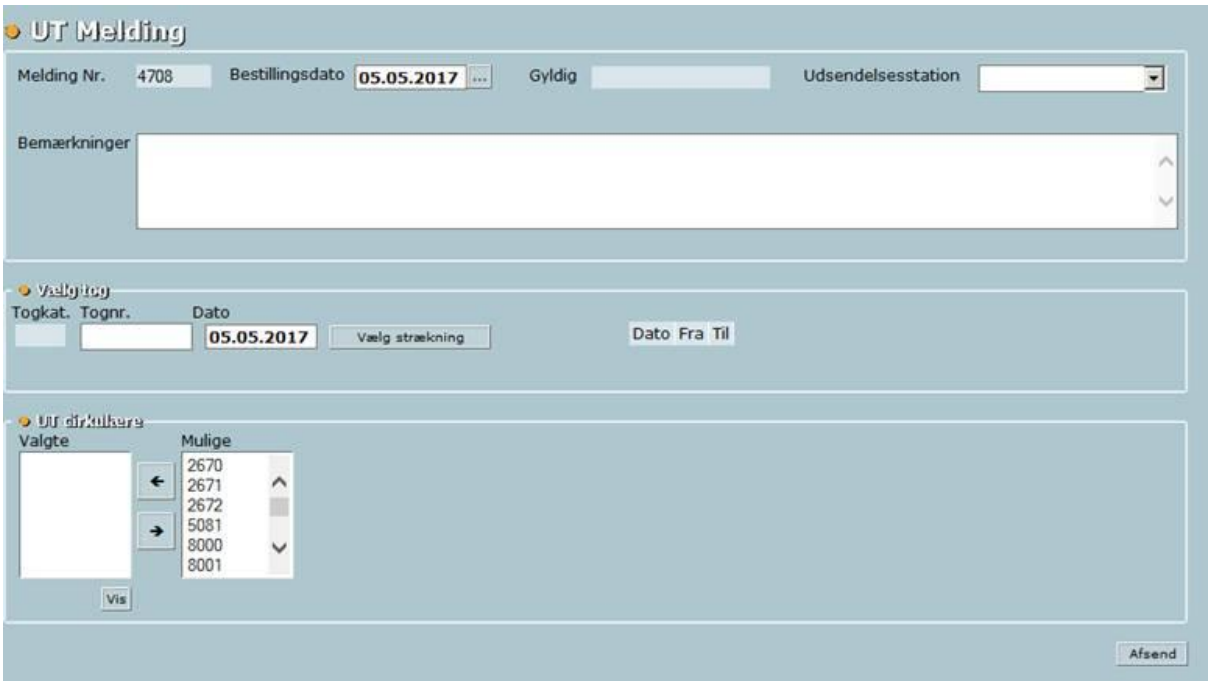
4.2 Kvitteringsoversigt (acknowledgement overview)



Figur 6: PBASE windows supporting acknowledgement overview

4.3 UT melding (UT document)

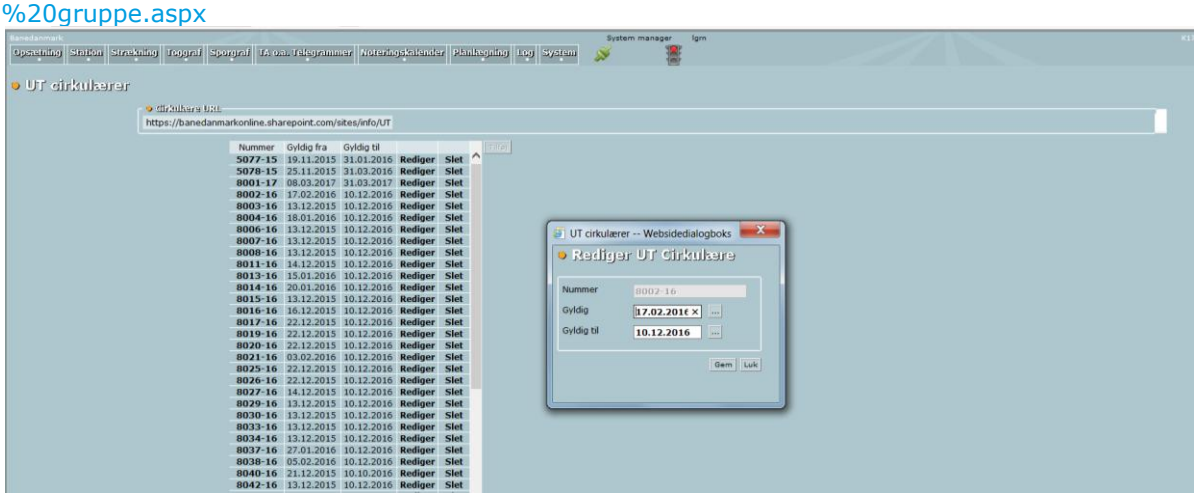
UT meldinger are created by the "Stationsbestyrer" for the origin station. A UT melding contains a reference to a UT Circular which can be viewed. The train must not depart origin station before all people/functions in the distribution list have read and acknowledged the UT document.



Figur 7: PBASE window supporting data for UT document

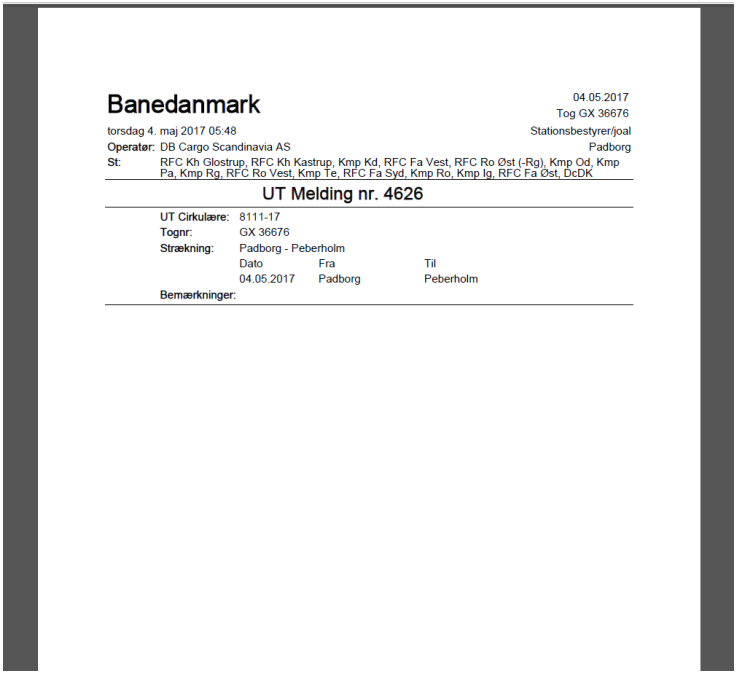
4.4 UT cirkulærer (UT circular)

The UT circular documents are accessible in PBASE from a file share. This is process to be changed to Sharepoint:
https://banedanmarkonline.sharepoint.com/teams/KeyAccountManagement/UT/Forms/UT%20gruppe.aspx



Figur 8: PBASE window supporting viewing of UT Circulars

The following is an example of a UT melding document.



Banedanmark

04.05.2017
Tog GX 36676

torsdag 4. maj 2017 05:48 — Stationsbestyrer/joal

Operatør: DB Cargo Scandinavia AS — Padborg

St: RFC Kh Glostrup, RFC Kh Kastrup, Kmp Kd, RFC Fa Vest, RFC Ro Øst (-Rg), Kmp Od, Kmp Pa, Kmp Rg, RFC Ro Vest, Kmp Te, RFC Fa Syd, Kmp Ro, Kmp Ig, RFC Fa Øst, DcDK

UT Melding nr. 4626

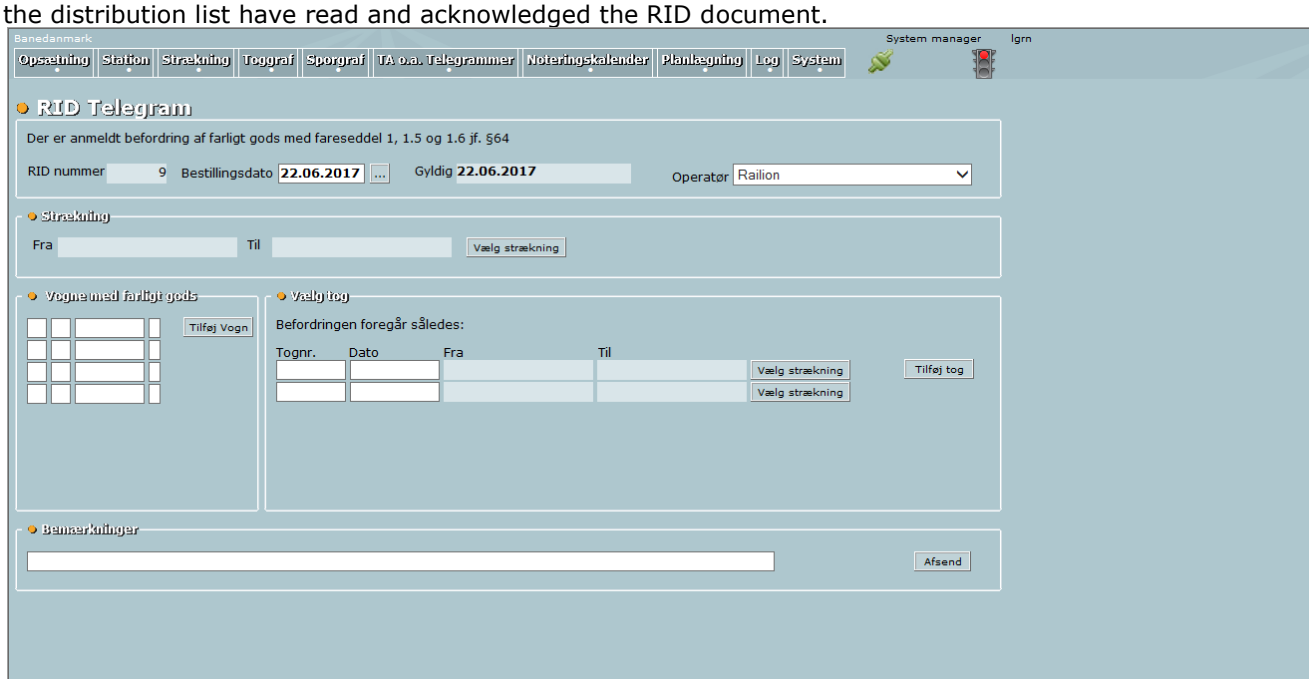
UT Cirkulære:	8111-17		
Tognr:	GX 36676		
Strækning:	Padborg - Peberholm		
	Dato	Fra	Til
	04.05.2017	Padborg	Peberholm

Bemærkninger:

Figur 9: PBASE UT document example

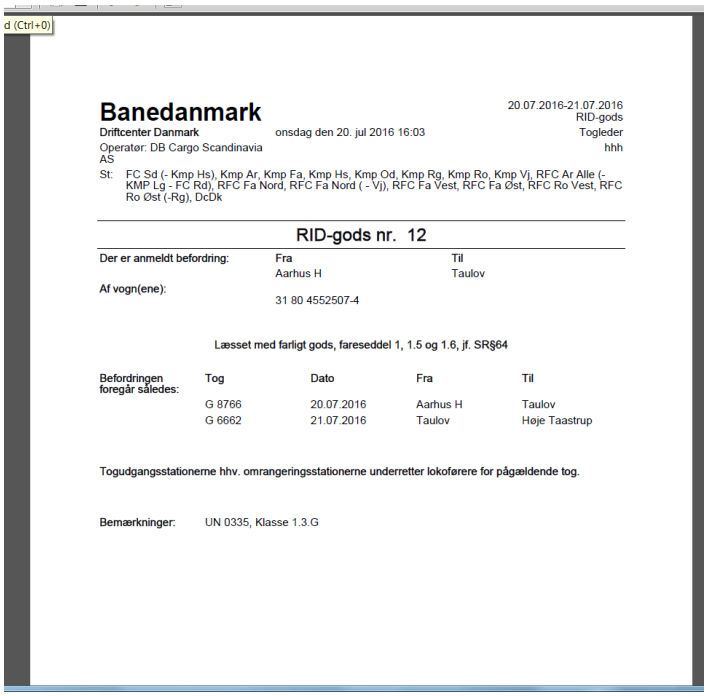
4.5 RID telegram (RID document)

The RID document can contain many units with dangerous goods. They can be transported by many trains during more than one day. It is created by the "Stationsbestyrer" for the origin station. The train must not depart origin station before all people/functions in the distribution list have read and acknowledged the RID document.



Figur 10: PBASE window supporting data for RID document

The following is an example of a RID document.



Banedanmark

20.07.2016-21.07.2016
RID-gods

Driftcenter Danmark onsdag den 20. jul 2016 16:03 Togleder

Operatør: DB Cargo Scandinavia AS hhh

St: FC Sd (- Kmp Hs), Kmp Ar, Kmp Fa, Kmp Hs, Kmp Od, Kmp Rg, Kmp Ro, Kmp Vj, RFC Ar Alle (- KMP Lg - FC Rd), RFC Fa Nord, RFC Fa Nord (- Vj), RFC Fa Vest, RFC Fa Øst, RFC Ro Vest, RFC Ro Øst (-Rg), DcDk

RID-gods nr. 12

Der er anmeldt befordring:	Fra	Til
	Aarhus H	Taulov
Af vogn(ene):	31 80 4552507-4	

Læsset med farligt gods, fareseddel 1, 1.5 og 1.6, jf. SR§64

Befordringen foregår således:	Tog	Dato	Fra	Til
	G 8766	20.07.2016	Aarhus H	Taulov
	G 6662	21.07.2016	Taulov	Høje Taastrup

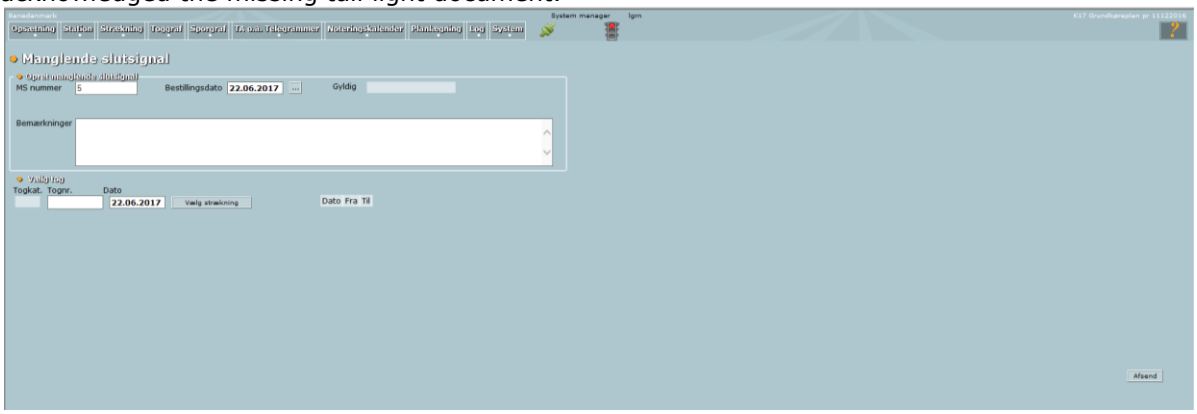
Togudgangsstationerne hhv. omrangeringsstationerne underretter lokoførere for pågældende tog.

Bemærkninger: UN 0335, Klasse 1.3.G

Figur 11: PBASE RID document example

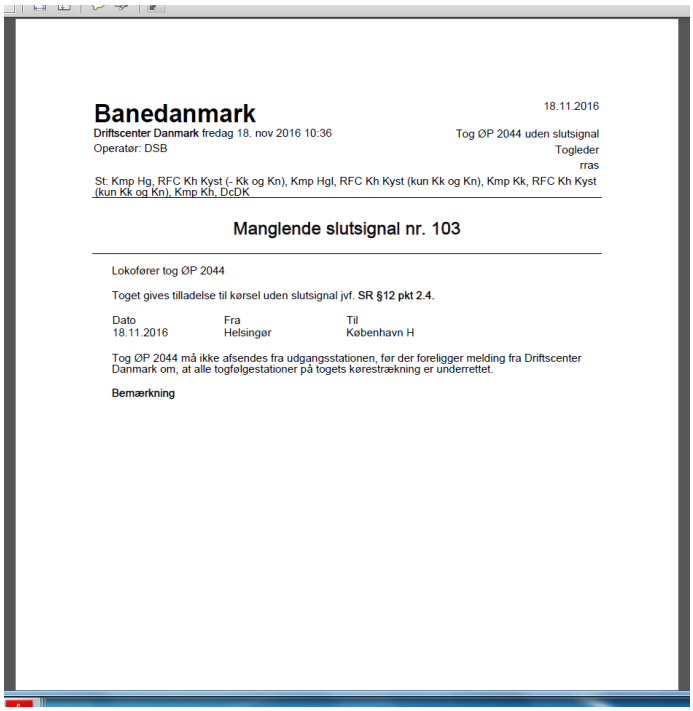
4.6 Manglende slutsignal (missing tail light document)

The missing tail light document is used to grant dispensation for a train to run without tail lights. It is created by the "Stationsbestyrer" for the origin station. The train must not depart origin station before all people/functions in the distribution list have read and acknowledged the missing tail light document.



Figur 12: PBASE window for missing tail light data

The following is an example of a missing tail light document.



Banedanmark

18.11.2016

Driftscenter Danmark fredag 18. nov 2016 10:36

Tog ØP 2044 uden slutsignal

Operatør: DSB

Togleder

rras

St: Kmp Hg, RFC Kh Kyst (- Kk og Kn), Kmp Hgl, RFC Kh Kyst (kun Kk og Kn), Kmp Kk, RFC Kh Kyst (kun Kk og Kn), Kmp Kh, DcDK

Manglende slutsignal nr. 103

Lokofører tog ØP 2044

Toget gives tilladelse til kørsel uden slutsignal jvf. **SR §12 pkt 2.4**.

Dato	Fra	Til
18.11.2016	Helsingør	København H

Tog ØP 2044 må ikke afsendes fra udgangsstationen, før der foreligger melding fra Driftscenter Danmark om, at alle togfølgestationer på togets kørestrækning er underrettet.

Bemærkning

Figur 13: PBASE missing tail light document example