**AIRCRAFT CONFIGURATION REPORT**

**Two kinds of DWR we create A and B kind.**

**2 parts of section we want to create:**

1. **2A section and 2B section**

**2A section**

**Main data - We want all the DWR of A type which is not restored by B**

**cross reference data - A modifies A , A modified by A, A resorted by B, B restores A**

**User Input:**

User will select an aircraft number and eng\_worksheet\_date and we want to display all the configuration done on that aircraft before the specified date.

Tables involved:

**Cardinality** - aircraft – 1:M – DWR aircraft\_id in DWR table

DWR ---M:M -- AQ Mapping table 🡪 DWR\_AQ

DWR --- SOW {M:M} Mapping table -> DWR\_SOW

Aircraft – {aircraft\_id, model, sub\_model}

1. DWR - { dwr\_id, aircraft\_id, alter\_code}
2. DWR\_AQ - { id, aq\_id, dwr\_id, eng\_date}
3. DWR\_SOW - { id, sow\_id, dwr\_id, ftws}
4. Relation\_table – { relation\_id, dwr\_id\_modifying, dwr\_id\_modified,ftws\_modified}

Ex: DWR from main query alter A type - { 1,2,3,4,5}

DWR of alter B -{ 10,11,12,13}

Relation - 2 restored by 10

3 restored by 11

FINAL DWR we want is – 1,4,5

Approach 1 : select ………………….

From Dwr d,

AQ aq,

wpj wp where

d.aircraft\_id = ? and d.dwr\_id= aq.dwr\_id and aq.eng\_date< {?}

and d.alter\_code = ‘A’ and wpj.dwr\_id=d.dwr\_id

**Actual 🡪 select sow.ftws, dwr.dwr\_id**

**From DWR dwr**

**Join DWR\_AQ on**

**Dwr.aircraft\_id=? And dwr.alter\_code=’A’**

**And dwr.dwr\_id = aq.dwr\_id and aq.eng\_date<{?}**

**Join DWR\_SOW sow**

**on dwr.dwr\_id = sow.dwr\_id where sow.ftws NOT IN (**

**select r.ftws\_mod\_rest from**

**From DWR dwr**

**Join DWR\_AQ on**

**Dwr.aircraft\_id=? And dwr.alter\_code=’B’**

**And dwr.dwr\_id = aq.dwr\_id and aq.eng\_date<{?}**

**Join relation\_table r**

**On dwr.dwr\_id=r.dwr\_id )**

**CROSS REFERENCE –** the main query returns all alter A which is not restored by B. But A can modify A or modified by A. Hence we want to display the results.

Modified by 🡪 we need to find which all dwr/ftws\_number modifies the given dwr

Select sow.ftws from relation r

Join DWR\_SOW sow

On r.dwr\_modified=?

And r.dwr\_modifying=sow\_dwr\_id;

**MAIN QUERY**

**Select sow.ftws, dwr.dwr\_id**

**From DWR dwr**

**Join AQ aq**

**On dwr.dwr\_id=?**

**And aq.eng\_date< ?**

**And dwr.alter\_code=’A’**

**And dwr.dwr\_id=aq.dwr\_id**

**Join DWR\_SOW sow**

**On dwr.dwr\_id=sow.dwr\_id**

**NOT IN (**

**Select r.ftws**

**From DWR dwr**

**Join AQ aq**

**On dwr.dwr\_id=?**

**And aq.eng\_date< ?**

**And dwr.alter\_code=’B’**

**Join relation r**

**Dwr.dwr\_id=r.dwr\_mod\_restores)**

**CROSS REFERENCE**

**MODIFIES**

Select r.ftws

From relation r

Where r.dwr\_mod\_res=?

**MODIFIED BY**

Select sow.ftws

From relation r

Join DWR\_SOW

On r.dwr\_modified\_restored=?

And r.dwr\_modifes\_restores=sow.dwr\_id;

2B 🡪 all alter A restores by B

**Select r.ftws**

**From DWR dwr**

**Join AQ aq**

**On dwr.dwr\_id=?**

**And aq.eng\_date< ?**

**And dwr.alter\_code=’B’**

**Join relation r**

**Dwr.dwr\_id=r.dwr\_mod\_restores**

**HOW PDF IS CREATED?**

**ITEXTPDF library**

**ByteArrayOutputStream out=new BAOS();**

**PDFWrite writer=new PDFWrtier(out);**

**PDFDocument pdfdoc=new PDFDoc(writer);**

**Document doc=new Document(PDFDocument);**

**Table t=new Table(new Float[]{1,3,5});**

**t.addHeaderCell(new Cell.add(new Paragraph(“Header1”));**

**for(Data d= data){**

**t.addCell(new Paragraph(d.get(FTWS));**

**}**

**Doc.add(table);**

new ByteArrayInputStream(out.toByteArray())