

Assuring Traceability

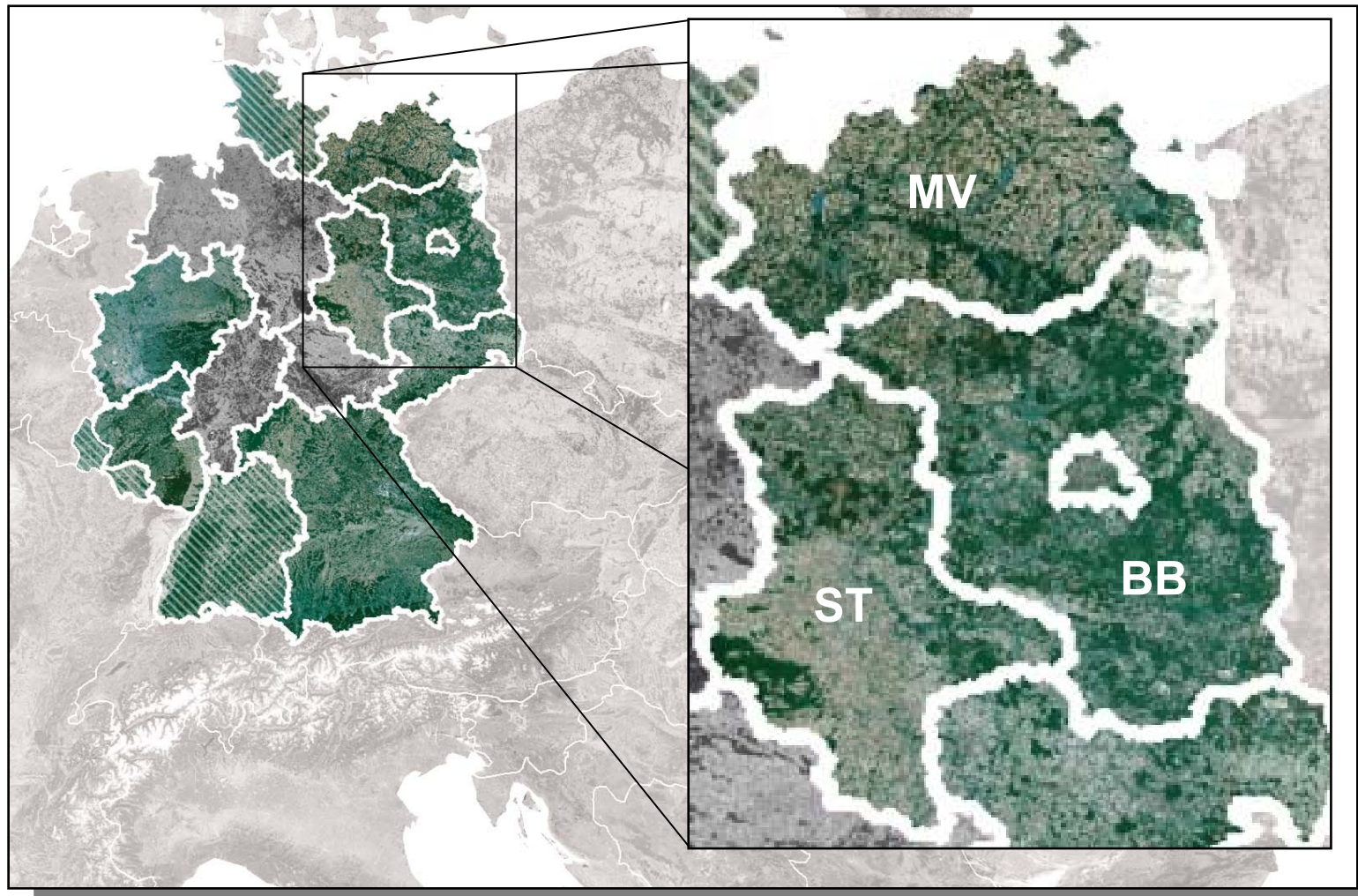
Principles of LPIS maintenance in 3 German federal states using reference maintenance requests

GAF AG

MARS 2008 - Ljubljana



- Country Overview
- Requirements
- Solutions
 - Reference Maintenance Requests
 - Four Eyes Principle
 - Reference Parcels History
- Conclusions





Brandenburg - Berlin



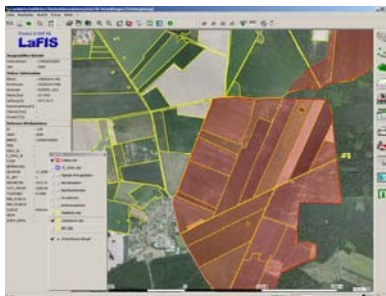
Mecklenburg –
Western Pomerania



Saxony-Anhalt

Country Facts:

- Federal States: BB + MV + ST
- Reference Parcel System: Physical Blocks
- Physical Blocks: ~250 000
- Landscape Elements: ~215 000
- Farms: ~15 000
- Agricultural Area [ha]: 3 800 000
- SW-System: LaFIS-LFK (GAF) since 2002/4
- History tracking: since 2005/6



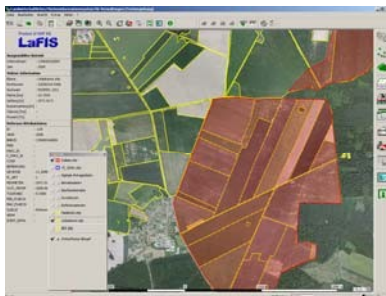
LPIS Requires Traceability:

- Basis for Payments
 - Legal and financial relevance (Audits)
 - Legal disputes (Farmer)

System Abilities Required:

- Tracing of all requests for LPIS update
- Confirmation of changes by administrative personal
- Recall of official historic reference
- Preserving system integrity and maintenance
- Quality Management

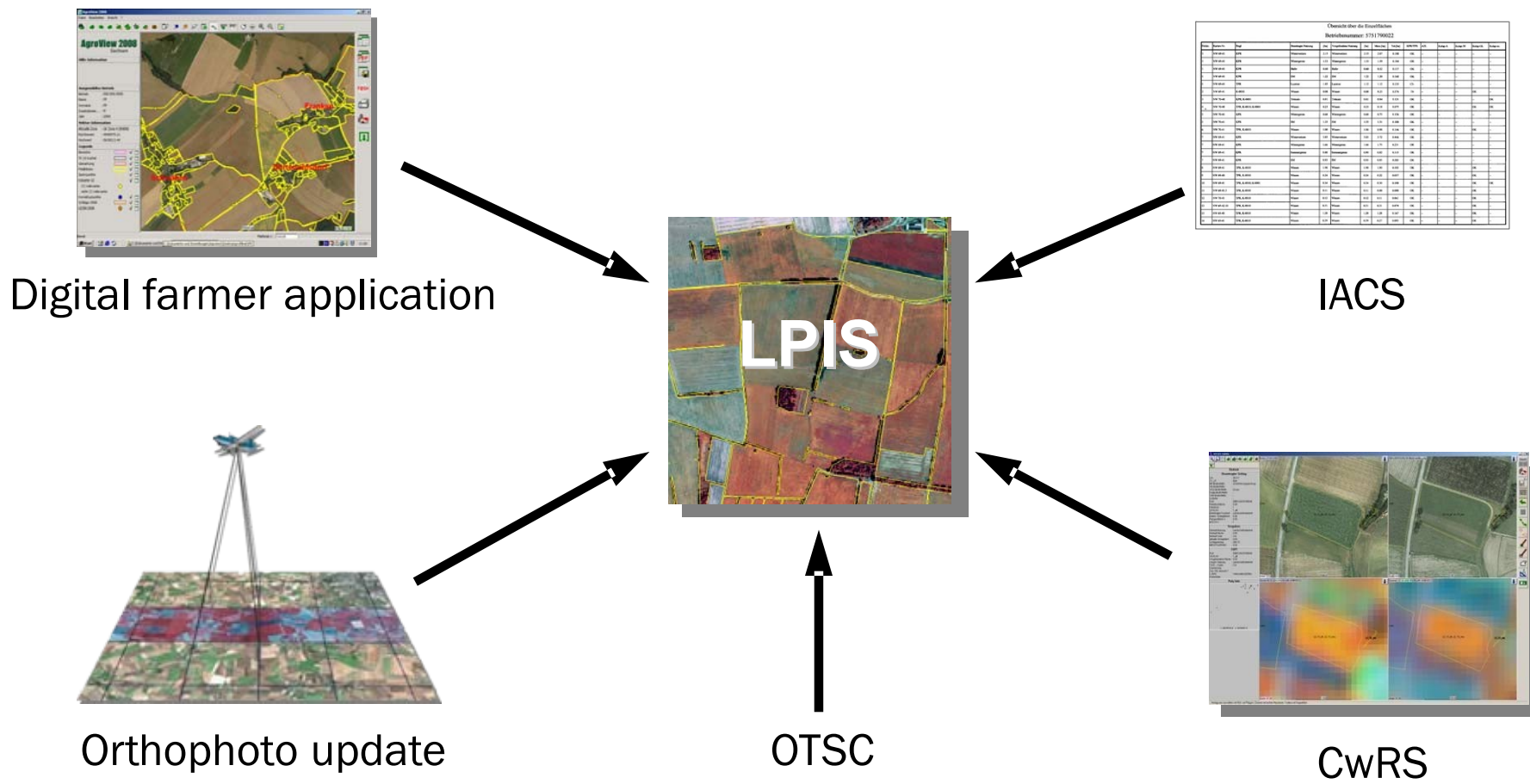
³/₄ Operation logging alone not sufficient !

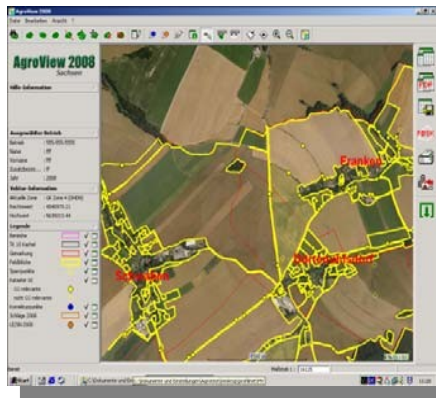


Solutions:

- Reference Maintenance Request System
-> Tracking of change requests from various sources
- Four Eyes Principle
-> Confirmation of each physical block and landscape element change
- Full Reference Parcel History
-> Tracking of historic objects, attributes and geometries
-> Maintenance of successor <-> predecessor relation

Sources for Reference Maintenance Requests





Ortho-Photo Update:

- Continuous update every year ~ 1/3 of surface
- Automatic generation of maintenance requests for each physical block (for manual checking)
- Tracking of update by maintenance request system

IACS:

- Inconsistencies detected by administrative control
- Submit request for checking to LPIS
- Independent checking by LPIS-Editor
- Online status tracking

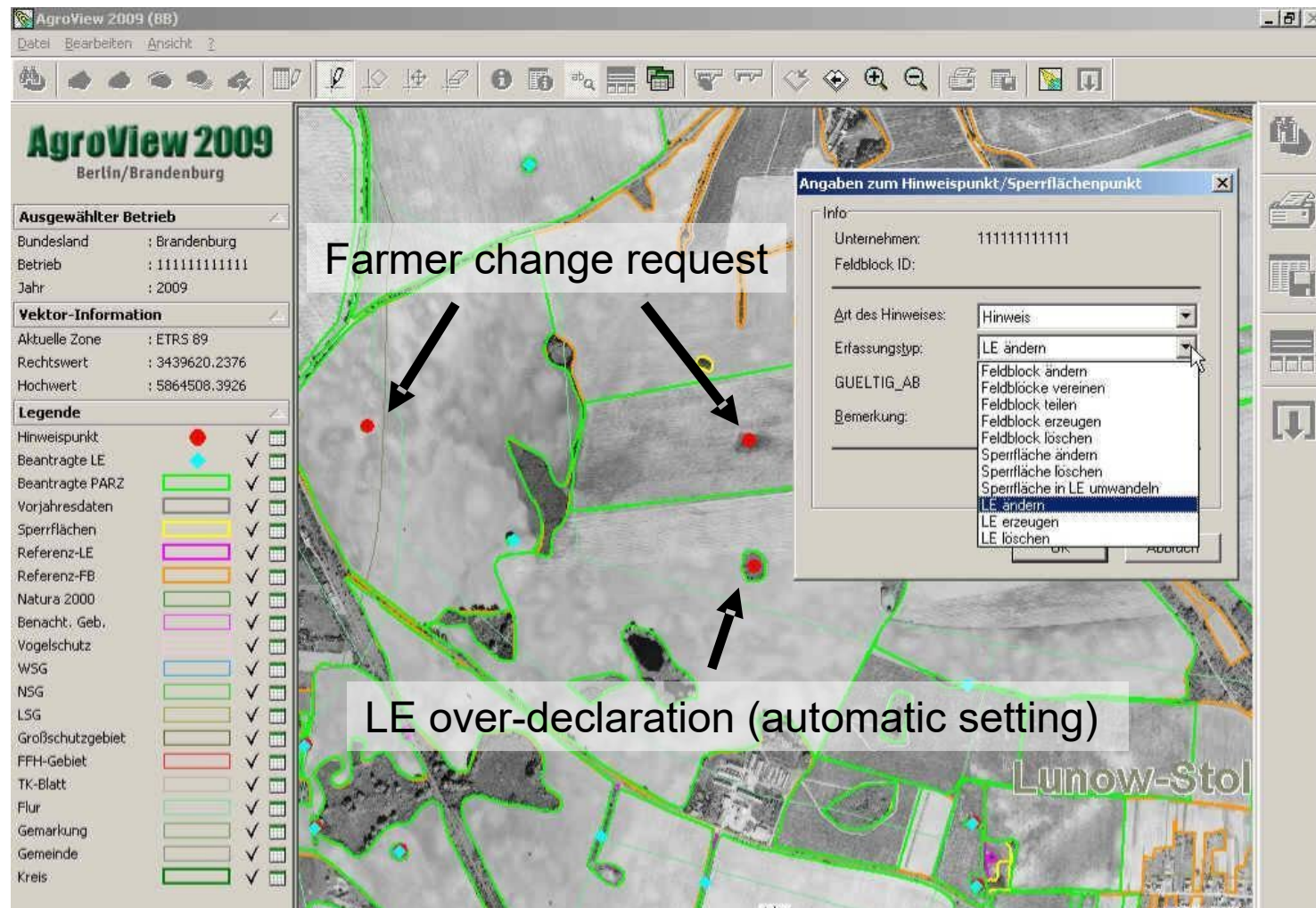


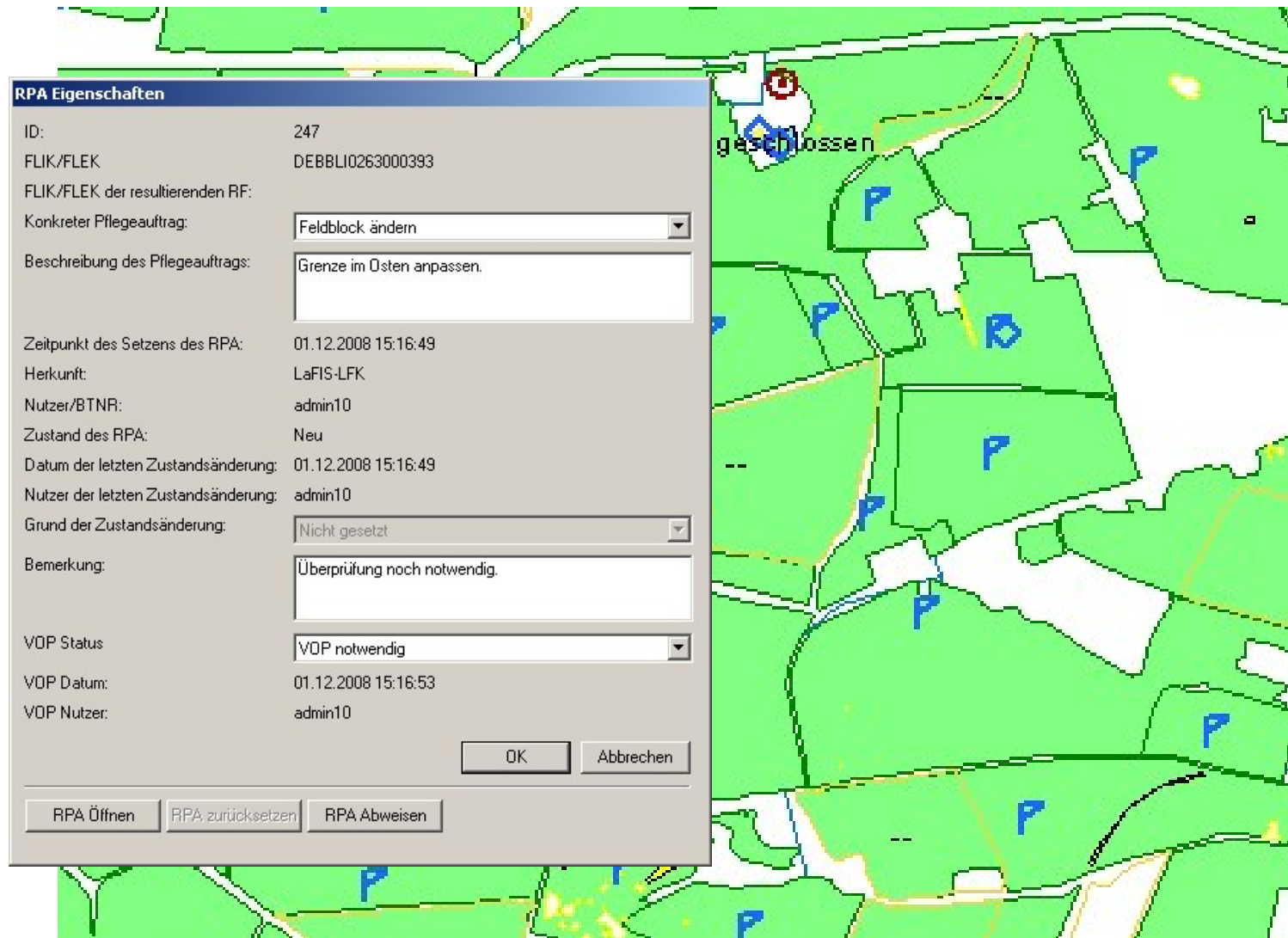
Digital Farmer Application:

- Operational since 2005/6 (AgroView CD)
- > 80% of farmers
- > 90% of declared area

Features for LPIS Update:

- By the farmer:
 - manual setting of requests by location
- By the system:
 - Automatic setting in case of
 - confirmed over-declaration
 - confirmed declaration outside reference



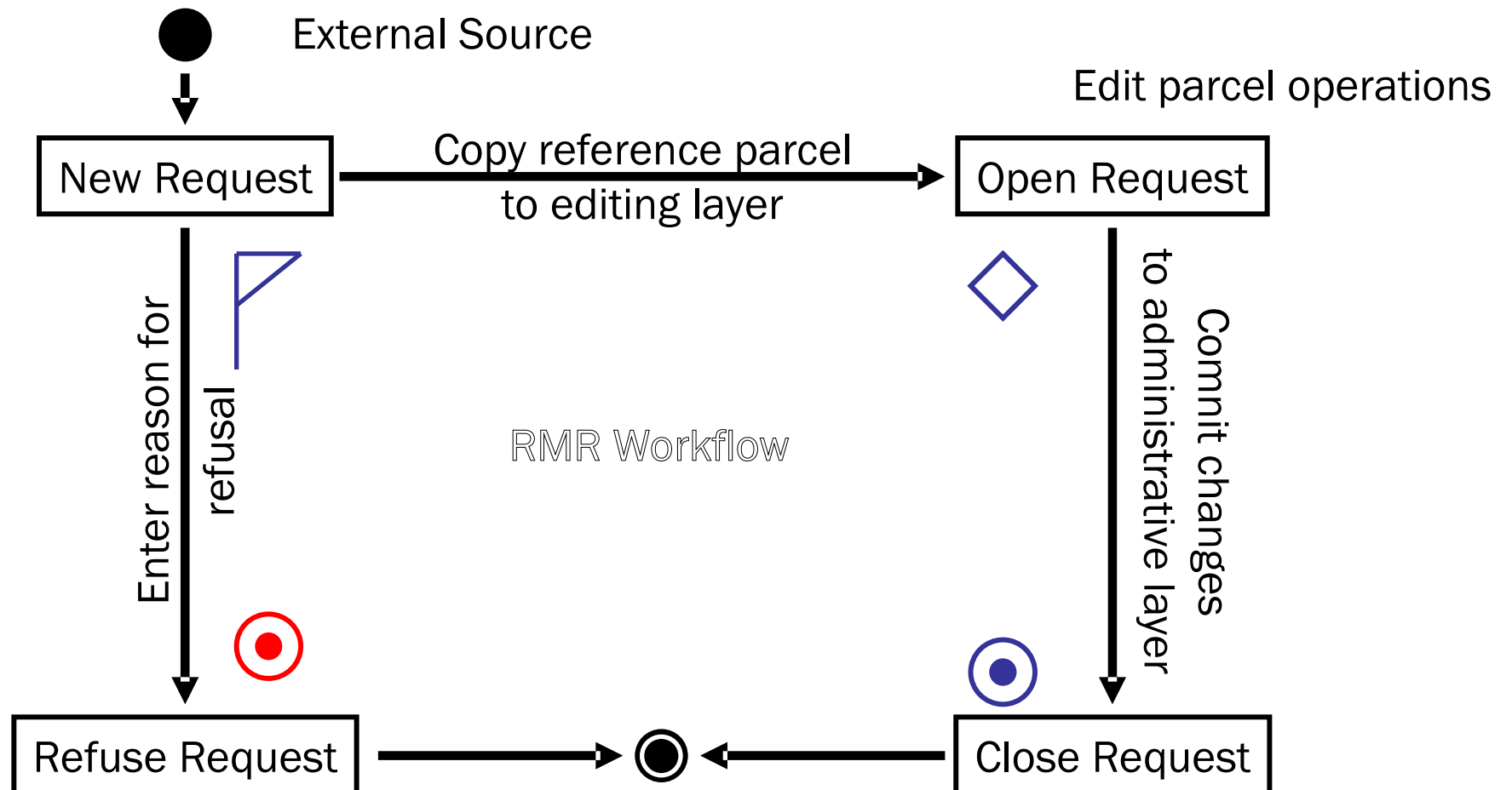


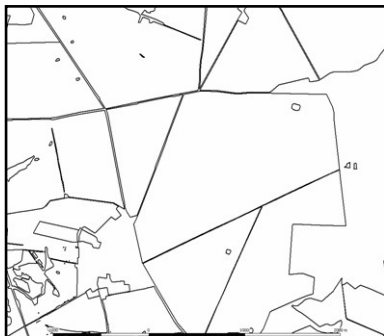
RPA Eigenschaften

ID:	247
FLIK/FLEK	DEBBLI0263000393
FLIK/FLEK der resultierenden RF:	
Konkreter Pflegeauftrag:	Feldblock ändern
Beschreibung des Pflegeauftrags:	Grenze im Osten anpassen.
Zeitpunkt des Setzens des RPA:	01.12.2008 15:16:49
Herkunft:	LaFIS-LFK
Nutzer/BTNR:	admin10
Zustand des RPA:	Neu
Datum der letzten Zustandsänderung:	01.12.2008 15:16:49
Nutzer der letzten Zustandsänderung:	admin10
Grund der Zustandsänderung:	Nicht gesetzt
Bemerkung:	Überprüfung noch notwendig.
VOP Status	VOP notwendig
VOP Datum:	01.12.2008 15:16:53
VOP Nutzer:	admin10

OK Abbrechen

RPA Öffnen RPA zurücksetzen RPA Abweisen



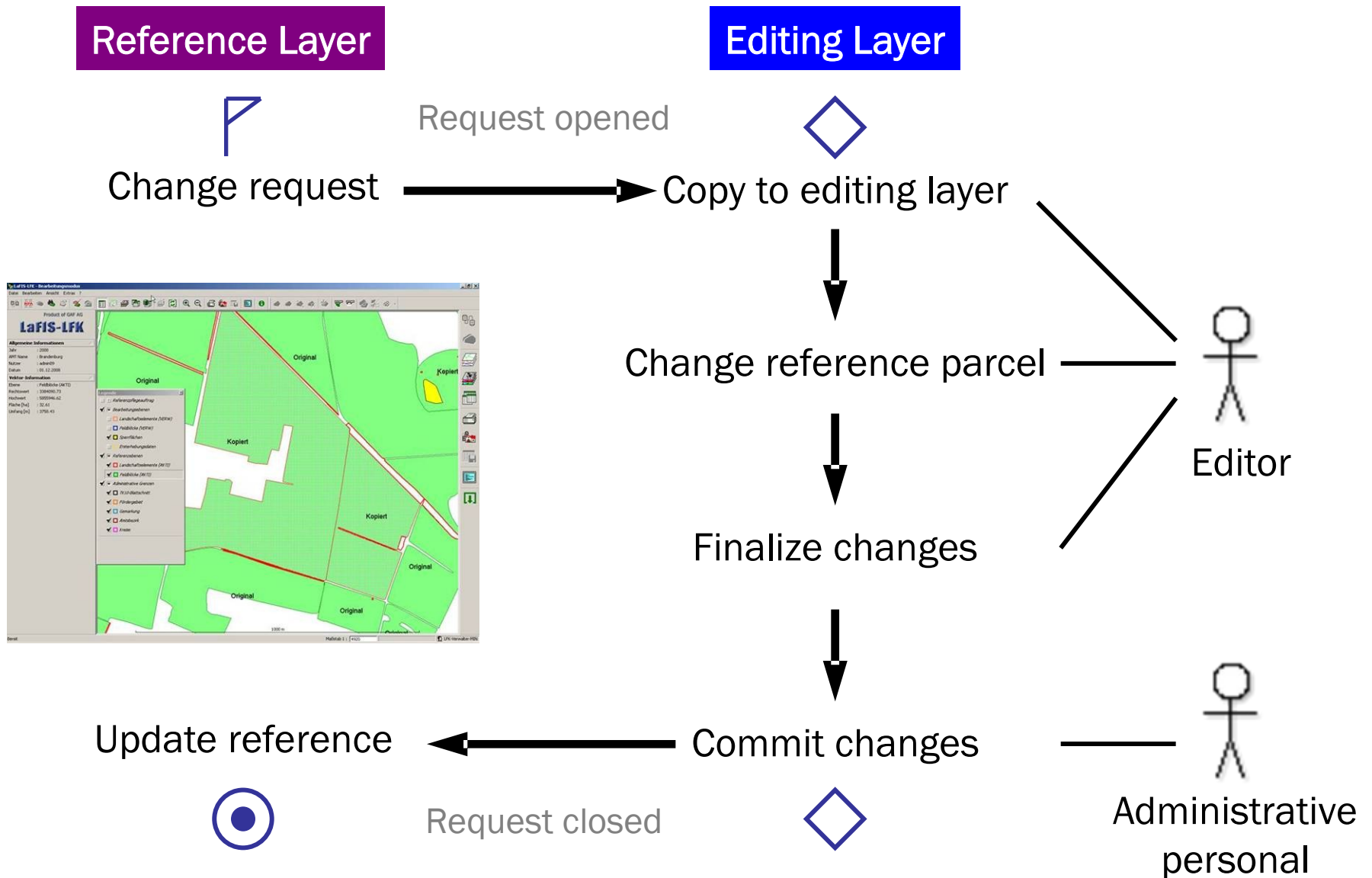


Four Eyes Principle

- Any change to LPIS has to be confirmed by administrative personal
 - > maintaining system integrity
 - > authorised changes only
 - > quality control

GIS Consequences

- Editing as multi session process
- Requires “long transactions”
- Separation of “Reference Layer” – “Editing Layer”
- More complex update workflow



Physical block status:

Original

Copy to
editing layer

In progress

Editing

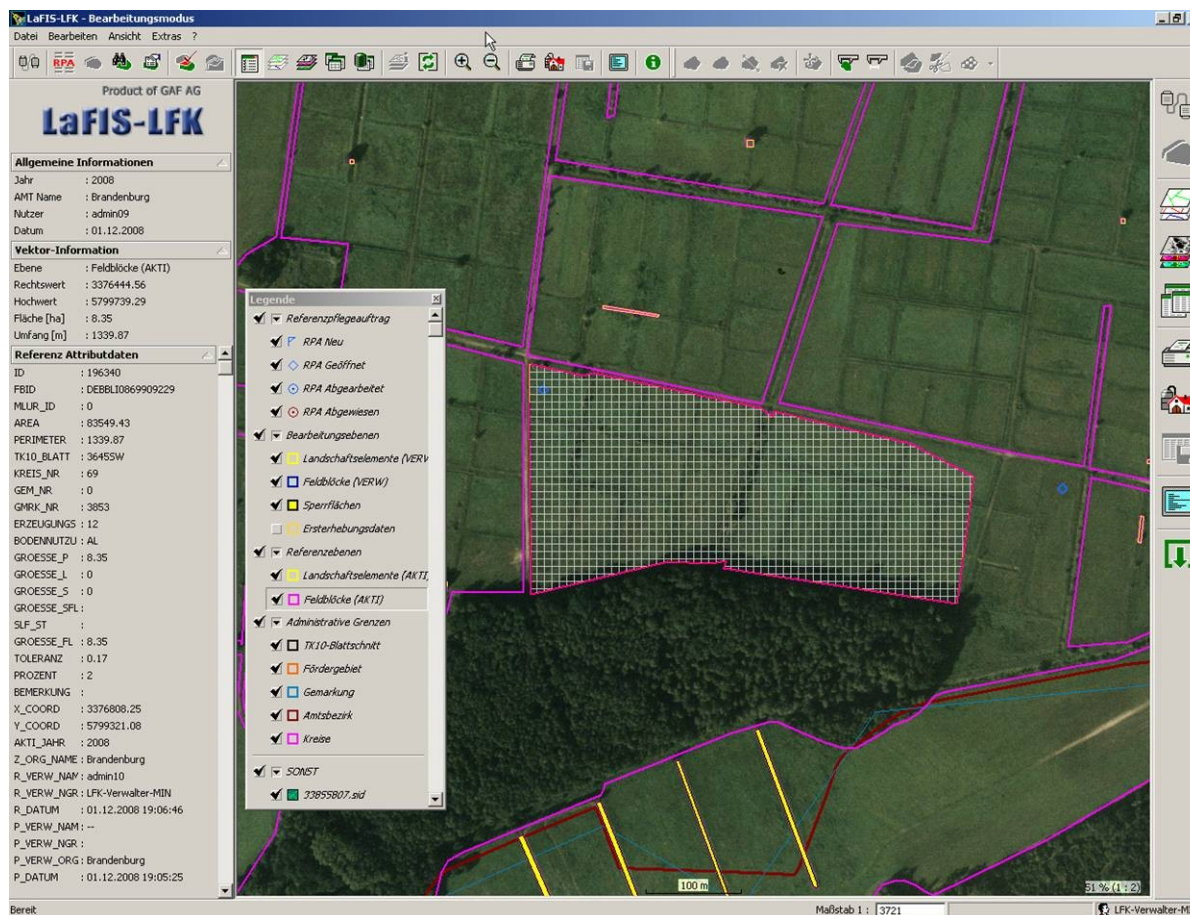
In progress

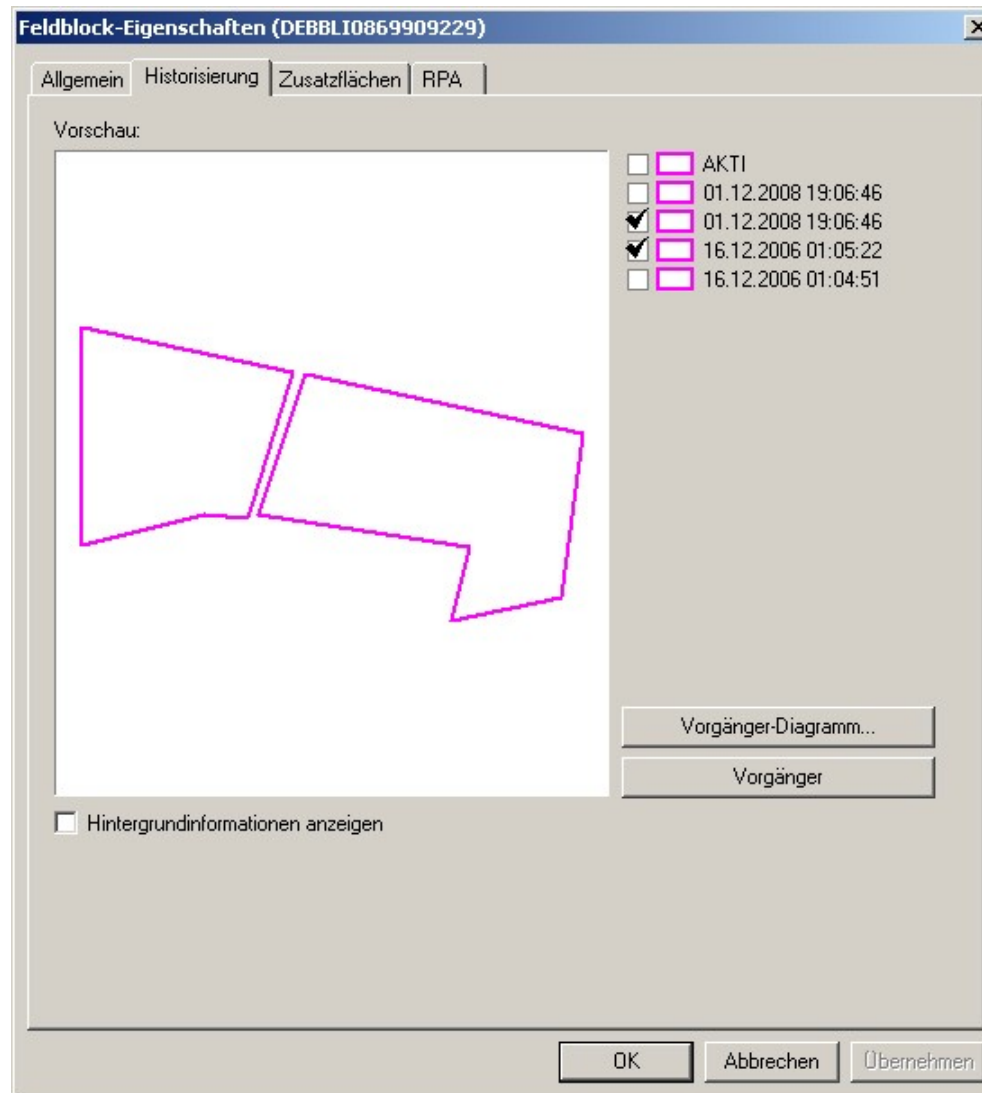
Finalizing

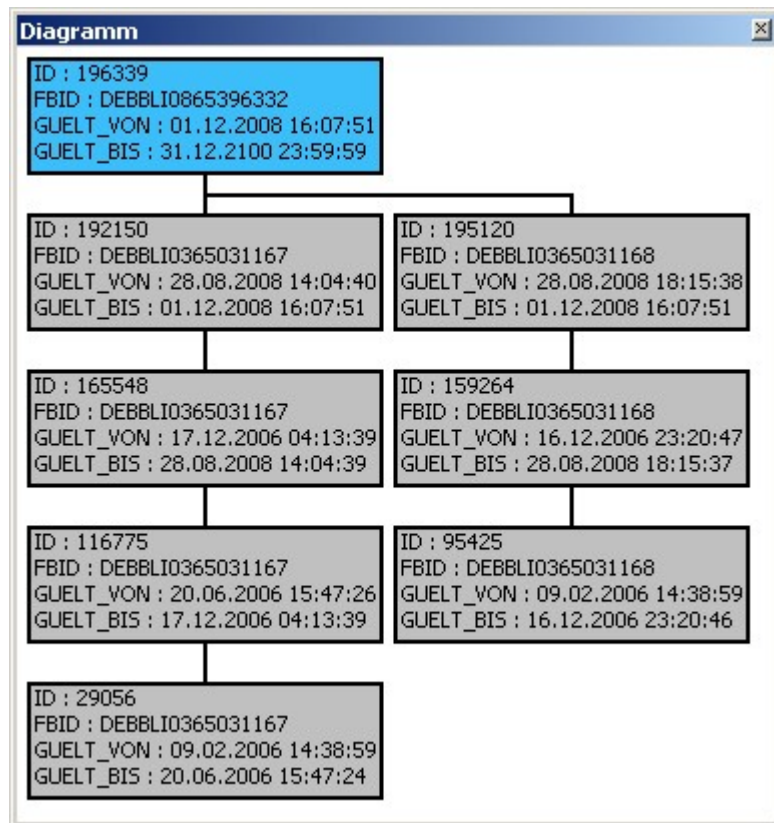
Finalized

Comit

Original





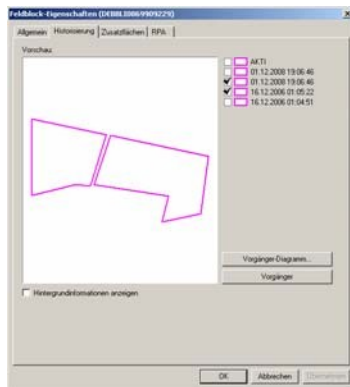
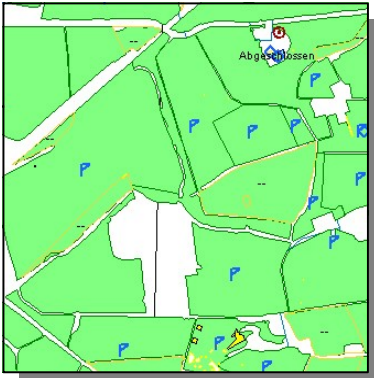


Physical Block History

- Complete history in DB (PB+LE)
- Predecessors and successors
- Validity from date – to date

Query and Visualize

- $\frac{3}{4}$ Reference at any point in time
- $\frac{3}{4}$ Historic relations
- $\frac{3}{4}$ Finding current block from historic ID



Conclusion

- Legal relevance of LPIS requires full traceability
- Digital integration of all possible source for LPIS update
- Digital farmers application important source of information
- Maintenance Request System secures tracking of all requests and changes



Thank you for your attention!

GAF AG:

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Agriculture



Water



Infrastructure



Forestry



Geology



Security



Environment



Land Management



Software

