GenSAP

Insight Solutions Inspiration

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DANBRED

GenSAP

SEGES
Svineproduktion

Insight Solutions Inspiration

Collaboration with Aarhus University (Foulum) … and friends

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Insight

Optimum-contribution selection

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DanBred uses POCS

Genomic predictions

Pedigree control of inbreeding

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POCS realises more genetic gain

ΔG_{true} at 0.01 ΔF_{true} with genomic predictions

POCS	100
GOCS	95-98

Observed relationships are proxies

POCS underestimates ΔF_{true}

GOCS overestimates ΔF_{true}

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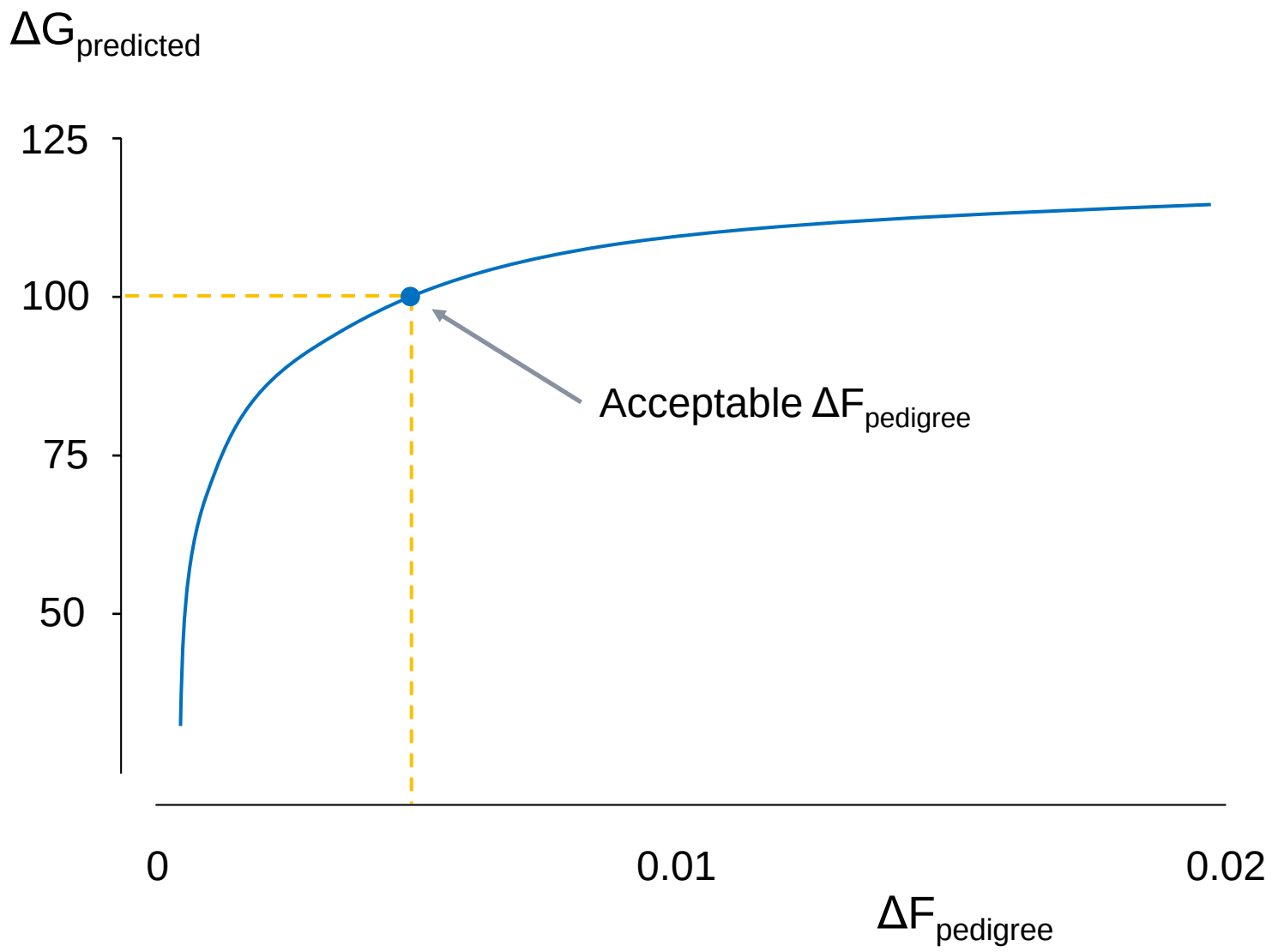
POCS in practice



So …

DanBred uses POCS – it realises more genetic gain than GOCS

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Solutions

Large-scale data

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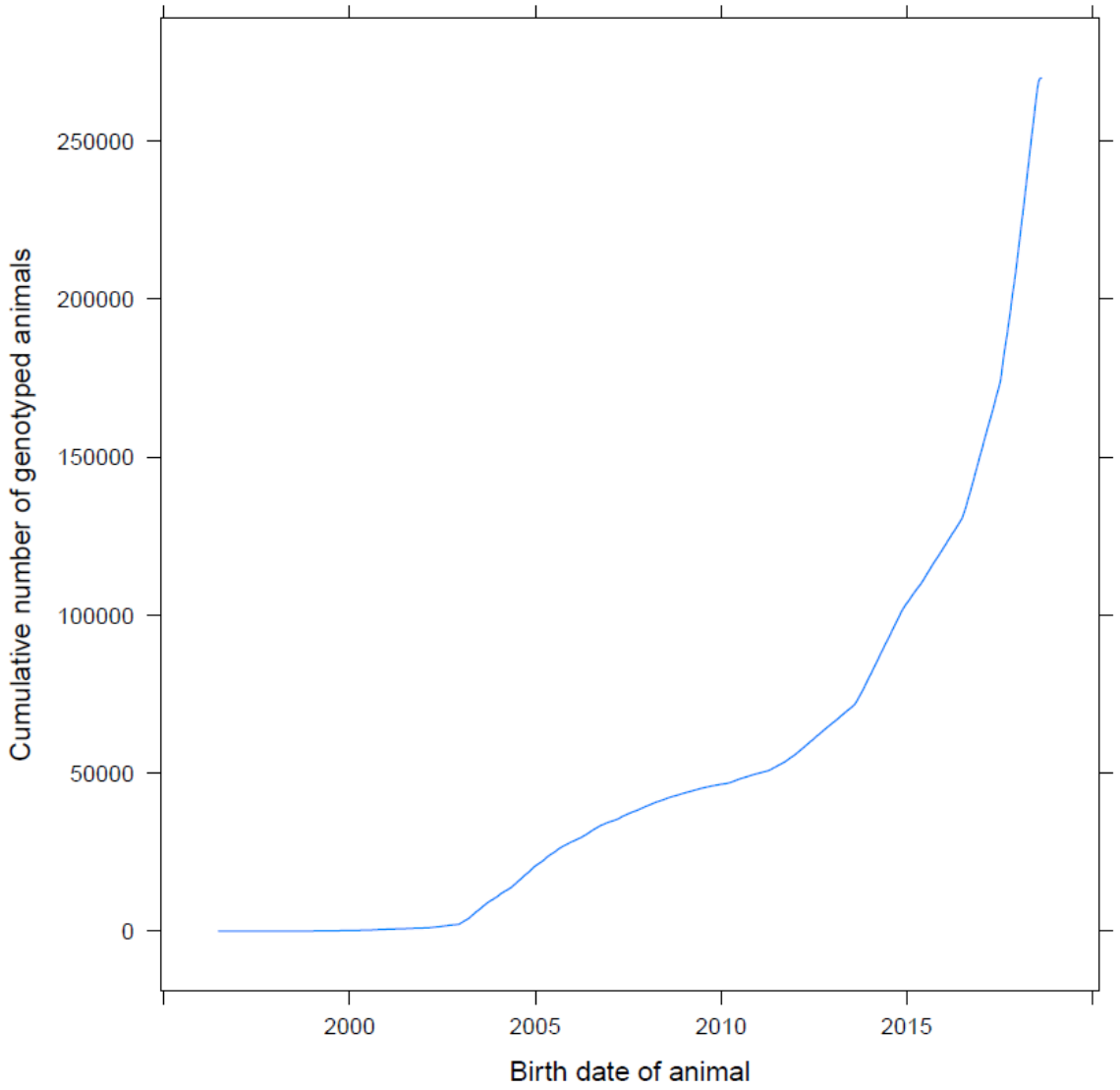
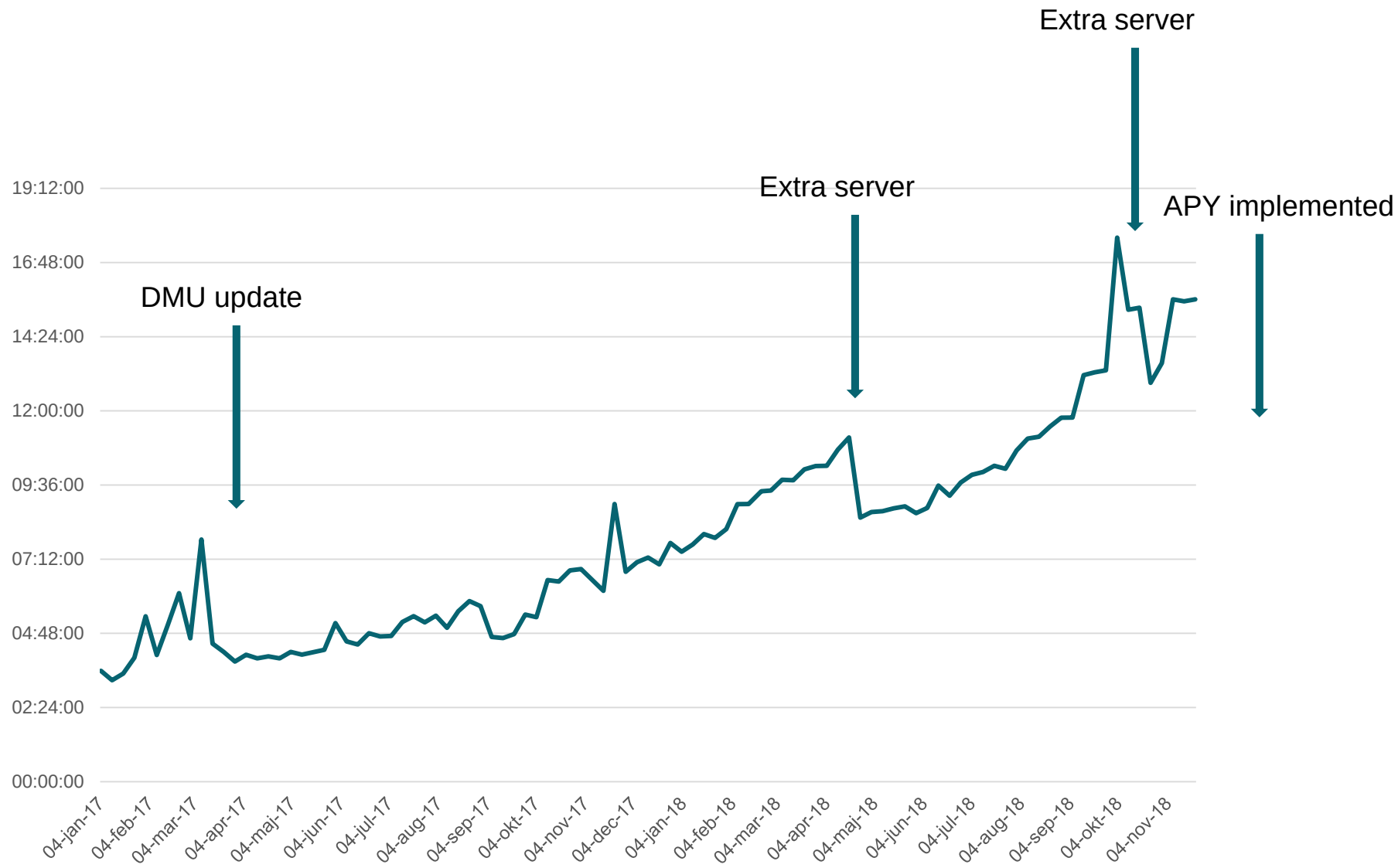
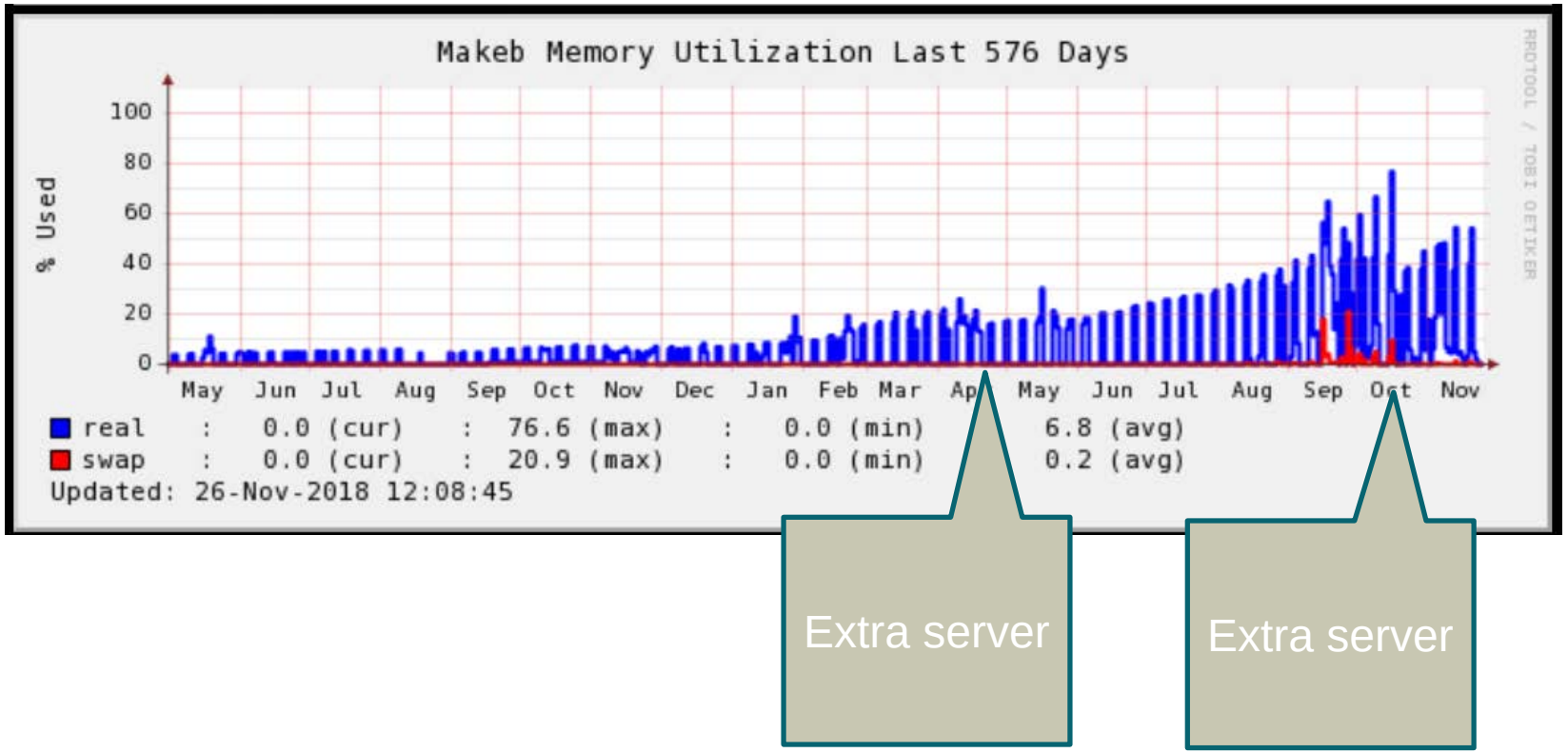
Number of genotyped animals is increasing



Time used to calculate breeding values



CPU and memory challenges



So …

Large data quantities a constant challenge

GenSAP network provides good solutions

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Inspiration

Metabolomics

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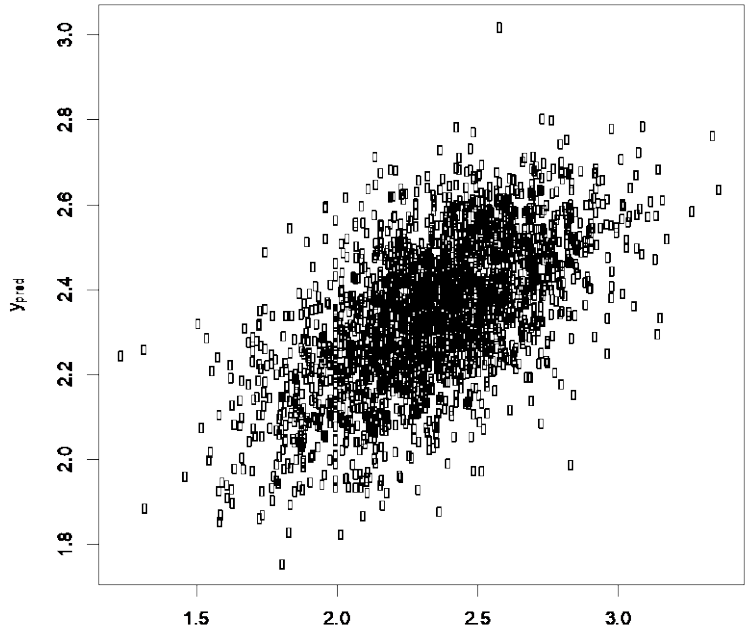
Metabolomics

Impressive results so far!

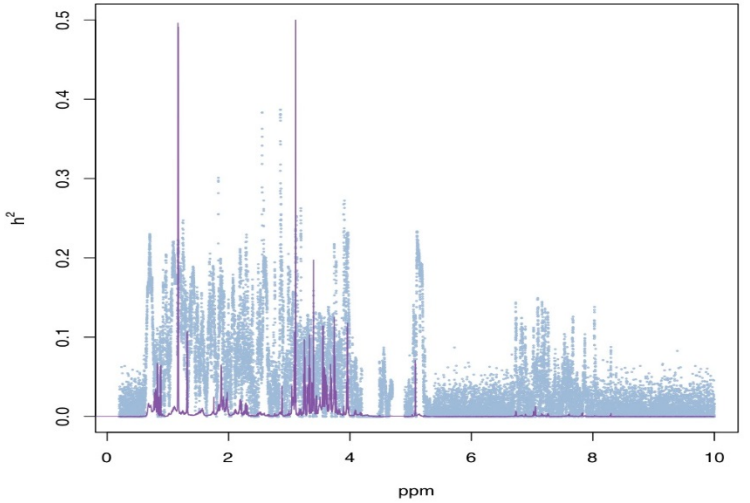
Is metabolomics the solution to breeding for difficult traits?

- Survival?
- Feed efficiency?

Average daily feed intake
Correlation between y and $\hat{y}_m$ = 0.6



Pig



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So …

Metabolomics is a potential game changer

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Final word …

DanBred gained insight, solutions, and inspiration from GenSAP

Future collaboration with Aarhus University (Foulum) … and friends

Ready for GenSAP II

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