**Automated Daily Digest – System Overview**

June 29, 2025

**1. Purpose**

End-to-end pipeline auto-generates the EquiLend D&A Daily Digest, pulling latest short-interest data, surfacing key moves, and saving a branded email draft each morning.

**2. Data Flow**

- Source: SQL view “equilend.factors\_daily”; CSV fallback.

- Metrics calculated: Loan Qty Δ, Utilisation Δ, Short-Interest Δ, Fee Δ, Short-Squeeze Score Δ (absolute + sector-relative).

- Top outliers feed purple Data bullets; top fees populate “Today’s Specials” table.

**3. AI Insight Layer**

- GPT-4o generates three level-headed takeaways from bullet list (EquiLend system prompt).

**4. Outputs**

- Word archive: Daily\_Digest\_YYYY-MM-DD.docx

- HTML email: Daily\_Digest\_YYYY-MM-DD.html (EquiLend colours)

- Outlook draft via Microsoft Graph.

**5. Email Routing (updated)**

Authenticated mailbox (Graph userId): rsheehan@equilend.com

Primary “To:” recipient: bob.sheehan@equilend.com

Friendly From: “EquiLend Data & Analytics”

**6. One-Cell Runner (excerpt)**

SENDER\_USER\_ID = "rsheehan@equilend.com"  
DRAFT\_OWNER\_TO = "bob.sheehan@equilend.com"  
...  
r = requests.post("https://graph.microsoft.com/v1.0/users/"+SENDER\_USER\_ID+"/messages", ... )

**7. Schedule**

- Execute notebook 07:00 ET via Papermill; parameters feed avg fee/util and three headlines.

**8. Support**

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