

A Working Example of the LLM-based Steps of QAMR:

(a) Example of Query Rewriting

User Query #1:

What is the the acceptable transmit range for [product]?

Query Rewriting Output #1:

Base₁: What is the the acceptable transmit range for [product]?

Filtered₁: Valid transmit range for [product]

Release Number: None

User Query #2: (Follow-up Question)

What are the provisioning rules for it in [release]?

Query Rewriting Output #2:

Base₂: What are the provisioning rules for [product] in [release]?

Filtered₂: [product] provisioning rules in [release]

Versionless₂: [product] provisioning rules

Release Number: [release]

(b) Example of Context Reduction

Base₁ from Query Rewriting:

What is the the acceptable transmit range for [product]?

Context Chunk:

...

[product] description:

...

Minimum transmit value: [product's minimum transmit value]

Maximum transmit value: [product's maximum transmit value]

Damage level: [product's damage level]

Maximum allowed users: [product's maximum allowed users]

Capacity: [product's capacity]

Weight: [product's weight]

...

Reduced Context Chunk:

[product] description:

Minimum transmit value: [product's minimum transmit value]

Maximum transmit value: [product's maximum transmit value]

(c) Example of Context Selection

Base₁ from Query Rewriting:

What is the the acceptable transmit range for [product]?

Reduced Context Chunks:

Context 1:

[product]'s equipment description:

Maximum transmissions per day: [Maximum transmissions per day]

Context 2:

[product] description:

Minimum transmit value: [product's minimum transmit value]

Maximum transmit value: [product's maximum transmit value]

Context 3:

[product] description:

Transmit value: [product's minimum transmit value]

Context Ranking output:

Ranked IDs: [2,3,1]

(d) Example of Answer Generation

User Query:

What is the the acceptable transmit range for [product]?

Reduced Context Chunks:

Chunk 1:

[product] description:

Minimum transmit value: [product's minimum transmit value]

Maximum transmit value: [product's maximum transmit value]

Chunk 2:

[product] description:

Transmit value: [product's minimum transmit value]

Chunk 3:

[product]'s equipment description:

Maximum transmissions per day: [Maximum transmissions per day]

Generated Response:

The acceptable transmit range for the [product] is between [product's minimum transmit value] and [product's maximum transmit value].