

Ellipsis Documentation

Ellipsis	In ₁	In ₂	EPL Query
$R \text{ AS } x$			<code>create schema R as (...)</code>
SEQ	x	y	<code>insert into x_y select * from pattern $[[every]$ ($x \rightarrow y$)</code>
AND	x	y	<code>insert into x_y select * from pattern $[[every]$ (x and y)</code>
OR	x	y	<code>insert into x_y select * from pattern $[[every]$ (x or y)</code>

Table 1: Mapping Ellipsis patterns and EPL queries.

Ellipsis	In	EPL
EVERY	x	<code>every x</code>
WITHIN n	x	<code>x where timer:within(n seconds)</code>
UNTIL R	x	<code>x and not R</code>

Table 2: Mapping Ellipsis and EPL operator modifiers.

Ellipsis	In	EPL Query
WINDOWED f	x	<code>create window $x_win:f$ from x insert into x_win select * from x</code>
WHERE $cond$	x	<code>insert into x_filter select * from x where $cond$</code>
PROJECT (Δ, AGG)	x	<code>insert into x_proj select Δ, AGG from x</code>

Table 3: Mapping Ellipsis expressions and EPL queries.

```

[[PROJECT sid, avg(tv) FROM
  (EVERY (H AS x)) SEQ (T AS y) WINDOWED  $\tau^{3,1}$ 
  WHERE (x.tv  $\leq$  y.tv - 20)]]S,ET

```

Figure 1: Ellipsis Query.

```

create schema H as (...)
create schema T as (...)

insert into H_T
select * from pattern [every x=H -> y=T];

create window H_T_win#time(3 seconds) from H_T;
insert into H_T_windowed select * from H_T

insert into H_T_win_proj
select sid, avg(tv) from H+T_win
where x.tv  $\leq$  y.tv - 20

```

Listing 1: EPL query correspondent to Query in Figure 1.