

Flink Release and Feature Plan

This document is a community maintained roadmap of the upcoming releases and features (at a high level). The document contains **only estimations**, no guaranteed feature / release dates.

See also the [time-based release model](#).

- Past releases
 - [Flink 1.1 \(August 2016\)](#)
 - [Flink 1.2](#)
 - [Flink 1.3](#)
- Upcoming releases
 - [Flink 1.4](#)
 - [Flink 1.5](#)
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Last update: May 2016

Next scheduled major release: 1.4.0

Feature freeze (branch forking): 4. September 2017

Code freeze (first voting RC): 18 September 2017

Release date: 29 September 2017

Release	Date	Time span (days)
0.6	26 Aug 2014	
0.7	04 Nov 2014	70
0.8	21 Jan 2015	78
0.9	24 Jun 2015	154
0.10	16 Nov 2015	145
1.0	08 Mar 2016	113
1.1	08 Aug 2016	153
1.2	2 Feb 2017	178
1.3	26 May 2017	119
1.4	29 September 2017	
1.5	26 January 2018	

Past releases

Flink 1.1 (August 2016)

- Session Windows and Allowed lateness
- Table API and SQL on Calcite
- Metrics system
- Scala API for CEP
- Graph generators and new Gelly library algorithms
- Continuous File Sources
- Kinesis Connector
- Cassandra Connector

Flink 1.2

- Dynamic Scaling / Key Groups ([FLINK-3755](#)) ([Design Doc](#))
- Rescalable Non-Partitioned State ([FLIP-8](#))
- Backwards compatible savepoints ([FLINK-4797](#))
- Integrate Flink with Apache Mesos ([FLINK-1984](#)) ([Design Doc](#))
- Secure Data Access ([FLINK-3930](#)) ([Design Doc](#))
- Queryable State ([FLINK-3779](#))
- Async I/O ([FLIP-12](#))
- Metrics in Webinterface ([FLIP-7](#))
- Kafka 0.10 support ([FLINK-4035](#))
- Table API: Group Window Aggregates ([FLINK-4691](#), [FLIP-11](#))
- Table API: Scalar Functions ([FLINK-3097](#))

Flink 1.3

- (Large) State Handling / Recovery:
 - Incremental / lightweight snapshots for checkpoints ([FLINK-5053](#))
 - Asynchronous snapshots for heap-based state backends ([FLINK-6048](#), [FLINK-5715](#))
 - Allow upgrades to state serializers ([FLINK-6178](#))
 - Recover job state at the granularity of operator ([FLINK-5892](#))
 - Fine-grained recovery (beta) ([FLINK-4256](#))
- Streaming APIs:
 - Expose Broadcast Operator State through public APIs ([FLINK-5991](#))
 - Side Outputs ([FLINK-4460](#))
 - Extending AllWindow Function Metadata ([FLINK-5157](#), [FLINK-4997](#))
 - Access to Per-Window state in ProcessWindowFunction ([FLINK-5929](#))
 - Add support for "Distributed Cache" in streaming applications ([FLINK-6177](#))
- Deployment & Tooling:
 - Flink History Server ([FLINK-1579](#))
 - Flink automatically manages TM network buffer ([FLINK-4545](#))
 - Add Datadog HTTP metrics reporter ([FLINK-6013](#))
 - Add watermark monitoring to JobManager web frontend ([FLINK-3427](#))
- Table API / SQL:
 - Support for Retraction in Table API / SQL ([FLINK-6047](#))
 - Support for non-windowed aggregations in streaming Table API / SQL ([FLINK-6216](#))
 - Support for append, upsert and retraction StreamTableSinks ([FLINK-6093](#))
 - Integrate time indicators for Table API & SQL ([FLINK-5884](#))
 - Support for group windows in (batch + streaming) SQL (TUMBLE, HOP, SESSION) ([FLINK-6261](#),[FLINK-6011](#))
 - Support for OVER windows in streaming Table API and SQL ([FLINK-4557](#))
 - Support for QueryConfig for streaming queries to specify state retention interval ([FLINK-6491](#))
 - Support for user-defined aggregation functions ([FLINK-5564](#))
 - Support for standard deviation and variance aggregation functions ([FLINK-4604](#))
 - Support for TableSources with filter push down ([FLINK-3849](#),
 - Support for external catalogs ([FLINK-5570](#))
 - Add KafkaAvroTableSource ([FLINK-3871](#))
 - Add HBaseTableSource ([FLINK-2168](#))
 - Add CUBE/ROLLUP/GROUPING SETS operator in batch SQL ([FLINK-5303](#))
 - Support for DISTINCT GROUP BY aggregates for batch SQL ([FLINK-3849](#))
 - Add flink-table.jar to ./opt folder ([FLINK-6247](#))
 - Support for more scalar functions (SIN, COS, TAN, DEGREES, PI etc.) ([FLINK-6112](#))
- Connectors:
 - Elasticsearch 5.x support ([FLINK-4988](#))
 - Implement rescalable non-partitioned state for Kinesis Connector ([FLINK-4821](#))
 - Transparent shard discovery for Kinesis Consumer ([FLINK-4577](#))
 - Allow Kinesis Consumer to start from specific timestamp / Date ([FLINK-4523](#))
 - Allow setting custom start-offsets for the Kafka consumer ([FLINK-3123](#))
 - Allow out-opt from offset committing for the Kafka consumer ([FLINK-3398](#))
- CEP library improvements:
 - Make CEP operators rescalable ([FLINK-5420](#))
 - Late element handling ([FLINK-6205](#))
 - Support for quantifiers (*,+,?) to CEP's pattern API ([FLINK-3318](#))
 - Support for different continuity requirements ([FLINK-6208](#))
 - Add support for iterative conditions ([FLINK-6197](#))
 - Clean up state whenever possible ([FLINK-5174](#))

- Gelly Library:
 - Unified driver for running Gelly examples ([FLINK-4949](#))
 - PageRank algorithm for directed graphs ([FLINK-4896](#))
 - Add Circulant and Echo graph generators ([FLINK-6393](#))

Upcoming releases

Flink 1.4

Flink 1.5