

Analytics Database Schema



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Analytics Database Schema

This document describes tables in the analytics database. The analytics data model is a star schema form.

The schema is comprised of a fact table that represents the events in Jive SBS, and corresponding dimension tables that represent the actors and objects that take part in those events. Each column in the fact table contains a key that relates to an entry in the corresponding dimension table. For example, the `user_id` column contains ids that can be found in the `jivedw_user` table. A basic query against the analytics schema will be a `SELECT` from the fact table, optionally performing `INNER JOINS` against the dimension tables. The dimension tables are used both constrain the results of the query based on their attributes and also to provide attribute data, e.g. the usernames of users.

Note: Some information, like column indexes and foreign keys, is omitted. For this, please read the individual schema of the database you're interested in. Data types may also differ somewhat in each individual database schema.

For more about the schema's design, be sure to check out *Analytics Data Model in the Developers' Guide* on Jivespace.

Attention: When you provision the database you'll be using for analytics data, be sure that it supports stored procedures. For example, on PostgreSQL you can use the `CREATE LANGUAGE` command on your server to register the needed procedural language:

```
CREATE LANGUAGE plpgsql
```

Data Type Conventions

- Date/time values are stored as GMT -- in other words, the time zone is not stored. Applications using this data must make time zone conversions as an offset of GMT. Dates in the analytics database are stored using the timestamp data type of the DMBS.

Database Tables

| Table Name | Description |
|---|--|
| jivedw_activity_agg_day (page 3) | Aggregate Activity Fact Table at Day Granularity |
| jivedw_activity_agg_month (page 4) | Aggregate Activity Fact Table at Month Granularity |
| jivedw_activity_agg_user_day (page 4) | Aggregate Activity Fact Table over all Users at Day Granularity |
| jivedw_activity_agg_user_month (page 4) | Aggregate Activity Fact Table over all Users at Day Granularity |
| jivedw_activity_agg_user_week (page 5) | Aggregate Activity Fact Table over all Users at Week Granularity |
| jivedw_activity_agg_week (page 5) | Aggregate Activity Fact Table at Day Granularity |
| jivedw_activity_fact (page 6) | Activity Fact Table |
| jivedw_activity_stage (page 6) | Data Warehouse Table for Tracking User Activity. |
| jivedw_blogpost (page 6) | Blog post dimension table. |

| Table Name | Description |
|---|--------------------------------------|
| jivedw_blogpost_stage (page 7) | Blog post dimension staging table. |
| jivedw_container (page 7) | Container dimension |
| jivedw_container_stage (page 7) | Container dimension stage |
| jivedw_day (page 8) | Time dimension for Day granularity |
| jivedw_document (page 8) | Document dimension table. |
| jivedw_document_stage (page 8) | Document dimension staging table. |
| jivedw_etl_job (page 9) | ETL Jobs |
| jivedw_etl_task (page 9) | ETL Tasks |
| jivedw_message (page 9) | Jive Message dimension |
| jivedw_message_stage (page 10) | Jive Message dimension |
| jivedw_month (page 10) | Time dimension for Month granularity |
| jivedw_object (page 10) | Object dimension table. |
| jivedw_profilefield (page 11) | Profile field data table. |
| jivedw_profilefield_stage (page 11) | Profile field data table. |
| jivedw_user (page 11) | User dimension |
| jivedw_user_stage (page 11) | User dimension stage |
| jivedw_userprofile (page 12) | User profile data table. |
| jivedw_userprofile_stage (page 12) | User profile data stage table. |
| jivedw_version (page 12) | Version data table. |
| jivedw_week (page 13) | Time dimension for Day granularity |
| ' | |

jivedw_activity_agg_day Table

Aggregate Activity Fact Table at Day Granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------------|--------|--------|---------|--------|--|
| activity_count | int | N/A | false | | Count of the activities for the day |
| activity_type | int | N/A | false | | Activity type |
| day_id | int | N/A | false | | Time the activity occurred - foreign key to time dimension |
| direct_dw_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| dw_container_id | bigint | N/A | true | | Container of the target at the time of the activity |
| indirect_dw_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|--------|--------|---------|--------|----------------------------------|
| user_id | bigint | N/A | false | | User that initiated the activity |

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jivedw_activity_agg_month Table

Aggregate Activity Fact Table at Month Granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------------|--------|--------|---------|--------|--|
| activity_count | int | N/A | false | | Count of the activities for the day |
| activity_type | int | N/A | false | | Activity type |
| direct_dw_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| dw_container_id | bigint | N/A | true | | Container of the target at the time of the activity |
| indirect_dw_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |
| month_id | int | N/A | false | | Time the activity occurred - foreign key to time dimension |
| user_id | bigint | N/A | false | | User that initiated the activity |

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jivedw_activity_agg_user_day Table

Aggregate Activity Fact Table over all Users at Day Granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------------|--------|--------|---------|--------|--|
| activity_count | int | N/A | false | | Count of the activities for the day |
| activity_type | int | N/A | false | | Activity type |
| day_id | int | N/A | false | | Time the activity occurred - foreign key to time dimension |
| direct_dw_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| dw_container_id | bigint | N/A | true | | Container of the target at the time of the activity |
| indirect_dw_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |

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jivedw_activity_agg_user_month Table

Aggregate Activity Fact Table over all Users at Day Granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|----------------|------|--------|---------|--------|---------------------------------------|
| activity_count | int | N/A | false | | Count of the activities for the month |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------------|--------|--------|---------|--------|--|
| activity_type | int | N/A | false | | Activity type |
| direct_dw_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| dw_container_id | bigint | N/A | true | | Container of the target at the time of the activity |
| indirect_dw_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |
| month_id | int | N/A | false | | Time the activity occurred - foreign key to time dimension |

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jivedw_activity_agg_user_week Table

Aggregate Activity Fact Table over all Users at Week Granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------------|--------|--------|---------|--------|--|
| activity_count | int | N/A | false | | Count of the activities for the month |
| activity_type | int | N/A | false | | Activity type |
| direct_dw_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| dw_container_id | bigint | N/A | true | | Container of the target at the time of the activity |
| indirect_dw_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |
| week_id | int | N/A | false | | Time the activity occurred - foreign key to time dimension |

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jivedw_activity_agg_week Table

Aggregate Activity Fact Table at Day Granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------------|--------|--------|---------|--------|---|
| activity_count | int | N/A | false | | Count of the activities for the day |
| activity_type | int | N/A | false | | Activity type |
| direct_dw_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| dw_container_id | bigint | N/A | true | | Container of the target at the time of the activity |
| indirect_dw_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |
| user_id | bigint | N/A | false | | User that initiated the activity |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|------|--------|---------|--------|--|
| week_id | int | N/A | false | | Time the activity occurred - foreign key to time dimension |

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jivedw_activity_fact Table

Activity Fact Table

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------------|-----------|--------|---------|--------|--|
| activity_ts | timestamp | N/A | false | | Original timestamp of the activity |
| activity_type | int | N/A | false | | Activity type |
| day_id | int | N/A | false | | Time the activity occurred - foreign key to time dimension |
| direct_dw_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| dw_container_id | bigint | N/A | true | | Container of the target at the time of the activity |
| indirect_dw_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |
| metadata | varchar | 256 | true | | arbitrary metadata depending on the event |
| user_id | bigint | N/A | false | | User that initiated the activity |

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jivedw_activity_stage Table

Data Warehouse Table for Tracking User Activity.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|----------------------|-----------|--------|---------|--------|--|
| activity_ts | timestamp | N/A | false | | Timestamp of user activity |
| activity_type | int | N/A | false | | What the user did |
| container_id | bigint | N/A | true | | id of container direct object resides in |
| container_type | int | N/A | true | | type of container direct object resides in |
| direct_object_id | bigint | N/A | false | | id of direct object of action |
| direct_object_type | int | N/A | false | | type of direct object of action |
| indirect_object_id | bigint | N/A | true | | id of indirect object of action |
| indirect_object_type | int | N/A | true | | type of indirect object of action |
| metadata | varchar | 256 | true | | arbitrary metadata depending on the event |
| user_id | bigint | N/A | false | | User that performed activity |

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jivedw_blogpost Table

Blog post dimension table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|----------|--------|---------|--------|--|
| blog_id | bigint | N/A | false | | The ID of the blog this blog post is contained within. |
| blogpost_id | bigint | N/A | false | | The ID of the blog post. Primary key. |
| creation_ts | timestam | N/A | false | | Time record was created |
| modification_ts | timestam | N/A | false | | Time record was update |
| subject | varchar | 255 | true | true | The subject of the blog post. |

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jivedw_blogpost_stage Table

Blog post dimension staging table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|----------|--------|---------|--------|--|
| blog_id | bigint | N/A | false | | The ID of the blog this blog post is contained within. |
| blogpost_id | bigint | N/A | false | | The ID of the blog post. Primary key. |
| creation_ts | timestam | N/A | false | | Time record was created |
| modification_ts | timestam | N/A | false | | Time record was update |
| subject | varchar | 255 | true | true | The subject of the blog post. |

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jivedw_container Table

Container dimension

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|----------|--------|---------|--------|---|
| container_id | bigint | N/A | false | | ID of container Primary key. |
| container_type | int | N/A | false | | Type of container |
| creation_ts | timestam | N/A | false | | Time record was created |
| dw_container_id | bigint | N/A | false | | Surrogate primary key of this record, unique to the datawarehouse Primary key. |
| modification_ts | timestam | N/A | false | | Time record was update |
| name | varchar | 255 | false | true | Name of container. |

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jivedw_container_stage Table

Container dimension stage

| Column Name | Type | Length | Nullabl | Unicod | Description |
|----------------|----------|--------|---------|--------|-------------------------|
| container_id | bigint | N/A | false | | ID of container |
| container_type | int | N/A | false | | Type of container |
| creation_ts | timestam | N/A | false | | Time record was created |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|-----------|--------|---------|--------|------------------------|
| modification_ts | timestamp | N/A | false | | Time record was update |
| name | varchar | 255 | false | true | Name of container. |

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jivedw_day Table

Time dimension for Day granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|---------------|-----------|--------|---------|--------|--|
| begin_ts | timestamp | N/A | false | | Timestamp indicating the beginning range of this time period |
| day_id | bigint | N/A | false | | Surrogate primary key Primary key. |
| day_of_month | int | N/A | false | | The day of the year |
| end_ts | timestamp | N/A | false | | Timestamp indicating the end range of this time period |
| month_of_year | int | N/A | false | | The mont of the year |
| week_of_year | int | N/A | false | | The week of the year |
| year | int | N/A | false | | The year |

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jivedw_document Table

Document dimension table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|-----------|--------|---------|--------|--|
| container_id | bigint | N/A | false | | The ID of the container the document is within. |
| container_type | int | N/A | false | | The type of the container the document is within. |
| creation_ts | timestamp | N/A | false | | Time record was created |
| document_id | bigint | N/A | false | | The internal ID of the document. Primary key. |
| modification_ts | timestamp | N/A | false | | Time record was update |
| title | varchar | 255 | false | true | The document title. |

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jivedw_document_stage Table

Document dimension staging table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|----------------|--------|--------|---------|--------|---|
| container_id | bigint | N/A | false | | The ID of the container the document is within. |
| container_type | int | N/A | false | | The type of the container the document is within. |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|-----------|--------|---------|--------|--|
| creation_ts | timestamp | N/A | false | | Time record was created |
| document_id | bigint | N/A | false | | The internal ID of the document. Primary key. |
| modification_ts | timestamp | N/A | false | | Time record was update |
| title | varchar | 255 | false | true | The document title. |

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jivedw_etl_job Table

ETL Jobs

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|-----------|--------|---------|--------|---|
| end_ts | timestamp | N/A | true | | Time the job completed |
| error_msg | varchar | 2000 | true | | ' |
| etl_job_id | bigint | N/A | false | | Surrogate primary key Primary key. |
| start_ts | timestamp | N/A | false | | Time the job was started |
| state | int | N/A | false | | Status of the job |

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jivedw_etl_task Table

ETL Tasks

| Column Name | Type | Length | Nullabl | Unicod | Description |
|--------------------------|---------|--------|---------|--------|--|
| classname | varchar | 100 | false | | Name of the java class implementation |
| etl_task_id | bigint | N/A | false | | Surrogate primary key Primary key. |
| lastProcModificationDate | bigint | N/A | true | | Modification date of the last record processed |
| name | varchar | 20 | false | | Name of the ETL task |

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jivedw_message Table

Jive Message dimension

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------------|-----------|--------|---------|--------|---|
| container_id | bigint | N/A | false | | The ID of the container the document is within. |
| container_type | int | N/A | false | | The type of the container the document is within. |
| creation_ts | timestamp | N/A | false | | Time record was created |
| message_id | bigint | N/A | false | | Message ID. Primary key. |
| modification_ts | timestamp | N/A | false | | Time record was update |
| parent_message_id | bigint | N/A | true | | Parent message ID. |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|---------|--------|---------|--------|--|
| subject | varchar | 255 | true | true | Subject of message. |
| thread_id | bigint | N/A | false | | ID of thread to which message belongs. |

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jivedw_message_stage Table

Jive Message dimension

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------------|-----------|--------|---------|--------|---|
| container_id | bigint | N/A | false | | The ID of the container the document is within. |
| container_type | int | N/A | false | | The type of the container the document is within. |
| creation_ts | timestamp | N/A | false | | Time record was created |
| message_id | bigint | N/A | false | | Message ID. |
| modification_ts | timestamp | N/A | false | | Time record was update |
| parent_message_id | bigint | N/A | true | | Parent message ID. |
| subject | varchar | 255 | true | true | Subject of message. |
| thread_id | bigint | N/A | false | | ID of thread to which message belongs. |

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jivedw_month Table

Time dimension for Month granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|---------------|-----------|--------|---------|--------|--|
| begin_ts | timestamp | N/A | false | | Timestamp indicating the beginning range of this time period |
| end_ts | timestamp | N/A | false | | Timestamp indicating the end range of this time period |
| month_id | bigint | N/A | false | | Surrogate primary key Primary key. |
| month_of_year | int | N/A | false | | The mont of the year |
| year | int | N/A | false | | The year |

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jivedw_object Table

Object dimension table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|-----------|--------|---------|--------|--|
| creation_ts | timestamp | N/A | false | | Time record was created |
| dw_object_id | bigint | N/A | false | | The ID of the blog post. Primary key. |
| modification_ts | timestamp | N/A | false | | Time record was update |
| name | varchar | 255 | true | true | The name of the object |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|--------|--------|---------|--------|--|
| object_id | bigint | N/A | false | | Jive SBS Object ID Primary key. |
| object_type | int | N/A | false | | The type of the object |

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jivedw_profilefield Table

Profile field data table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|---------|--------|---------|--------|--|
| field_id | bigint | N/A | false | | The ID of the field. Primary key. |
| name | varchar | 255 | false | true | The name of the field. |

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jivedw_profilefield_stage Table

Profile field data table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|---------|--------|---------|--------|--|
| field_id | bigint | N/A | false | | The ID of the field. Primary key. |
| name | varchar | 255 | false | true | The name of the field. |

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jivedw_user Table

User dimension

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|-----------|--------|---------|--------|---|
| creation_ts | timestamp | N/A | false | | Time record was created |
| firstname | varchar | 100 | true | true | First name |
| initlogin_ts | timestamp | N/A | true | | Timestamp when the user first logged in |
| lastname | varchar | 100 | true | true | Last name |
| modification_ts | timestamp | N/A | false | | Time record was update |
| name | varchar | 100 | true | true | Name of user |
| user_id | bigint | N/A | false | | User id from Jive SBS Primary key. |
| userenabled | int | N/A | false | | Whether the current user is enabled or not. |
| username | varchar | 100 | false | true | User name. |

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jivedw_user_stage Table

User dimension stage

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|-----------|--------|---------|--------|-------------------------|
| creation_ts | timestamp | N/A | false | | Time record was created |

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-----------------|-----------|--------|---------|--------|---|
| firstname | varchar | 100 | true | true | First name |
| lastname | varchar | 100 | true | true | Last name |
| modification_ts | timestamp | N/A | false | | Time record was update |
| name | varchar | 100 | true | true | Name of user |
| user_id | bigint | N/A | false | | User id from Jive SBS Primary key. |
| userenabled | int | N/A | false | | Whether the current user is enabled or not. |
| username | varchar | 100 | false | true | User name. |

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jivedw_userprofile Table

User profile data table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|----------|--------|---------|--------|--|
| field_id | bigint | N/A | false | | The ID of the field. |
| primaryval | smallint | N/A | false | | Whether or not this value is the primary value in a list |
| user_id | bigint | N/A | false | | The ID if the user this profile is associated with. |
| value | varchar | 3500 | true | true | The value set for the field. |

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jivedw_userprofile_stage Table

User profile data stage table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|----------|--------|---------|--------|--|
| field_id | bigint | N/A | false | | The ID of the field. |
| primaryval | smallint | N/A | false | | Whether or not this value is the primary value in a list |
| user_id | bigint | N/A | false | | The ID if the user this profile is associated with. |
| value | varchar | 3500 | true | true | The value set for the field. |

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jivedw_version Table

Version data table.

| Column Name | Type | Length | Nullabl | Unicod | Description |
|-------------|---------|--------|---------|--------|---|
| name | varchar | 50 | false | true | The name of the version key. Primary key. |
| version | int | N/A | false | | The latest version number this instance is up to. |

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jivedw_week Table

Time dimension for Day granularity

| Column Name | Type | Length | Nullabl | Unicod | Description |
|--------------|-----------|--------|---------|--------|--|
| begin_ts | timestamp | N/A | false | | Timestamp indicating the beginning range of this time period |
| end_ts | timestamp | N/A | false | | Timestamp indicating the end range of this time period |
| week_id | bigint | N/A | false | | Surrogate primary key Primary key. |
| week_of_year | int | N/A | false | | The week of the year |
| year | int | N/A | false | | The year |

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