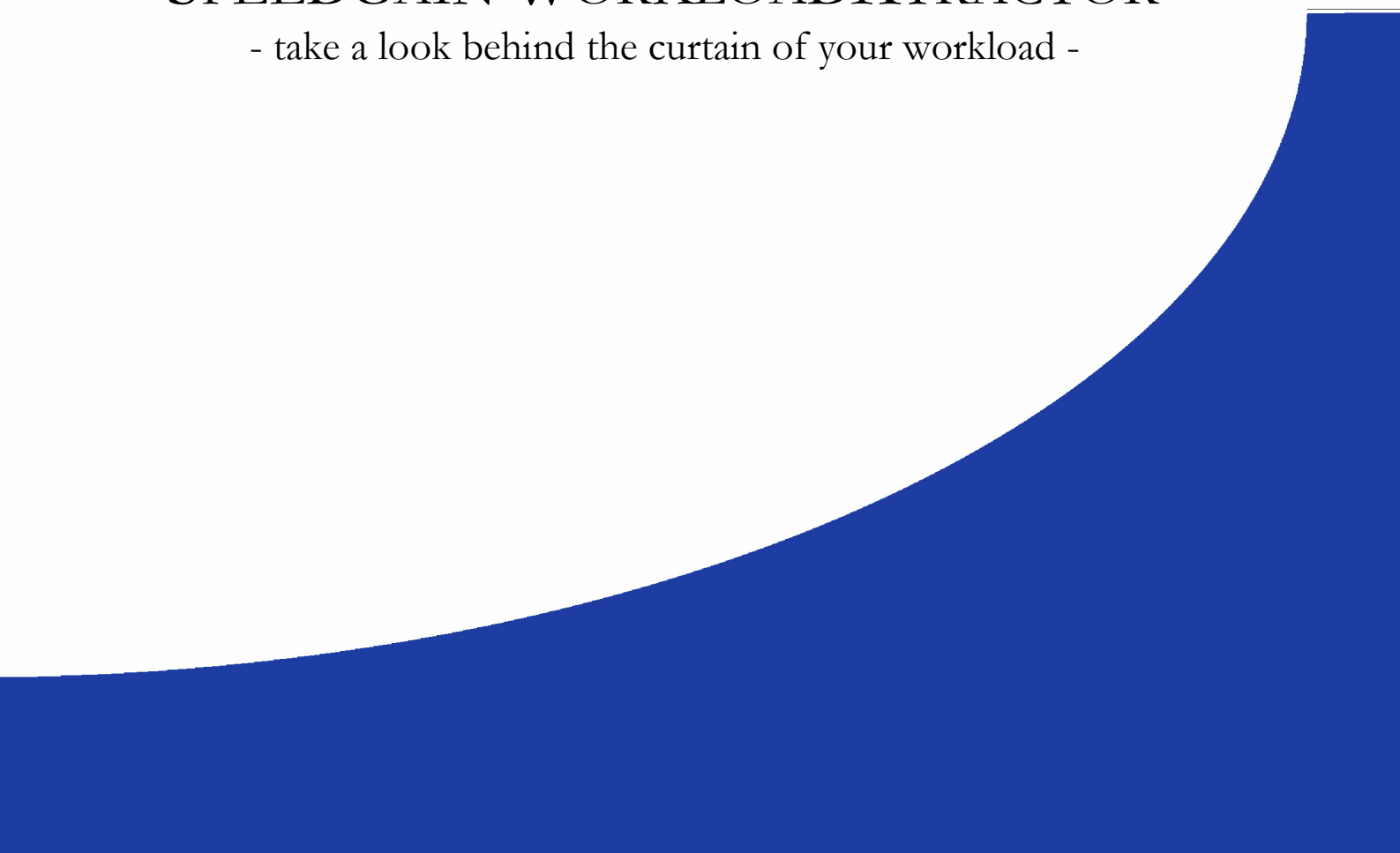




# SPEEDGAIN WORKLOADXTRACTOR

- take a look behind the curtain of your workload -



## **The Importance of the Workload**

One of the most challenging problems of designing and maintaining a database is the determination of optimal indexes. The process is complex and often tedious. It is even harder to locate unused indexes in an existing database. To get a significant and comprehensive analysis it is advisable to pay regard to a workload of the database and not to focus on single statements. It is quite difficult to extract the workload without the adequate instruments. Even if you have a workload, you will have the problem to identify the most expensive statements.

The Speedgain WorkloadXtractor gives you the ability to extract a workload. The user can customize this workload with a variety of parameters. Due to its seamless integration with the DB2® Design Advisor, Speedgain WorkloadXtractor extracts a workload and determines the optimal indexes with only a few clicks.

The process can be executed within a batch program without any user interaction, e.g. in maintenance tasks.

Please see the following pages for details.



## Workload Definition

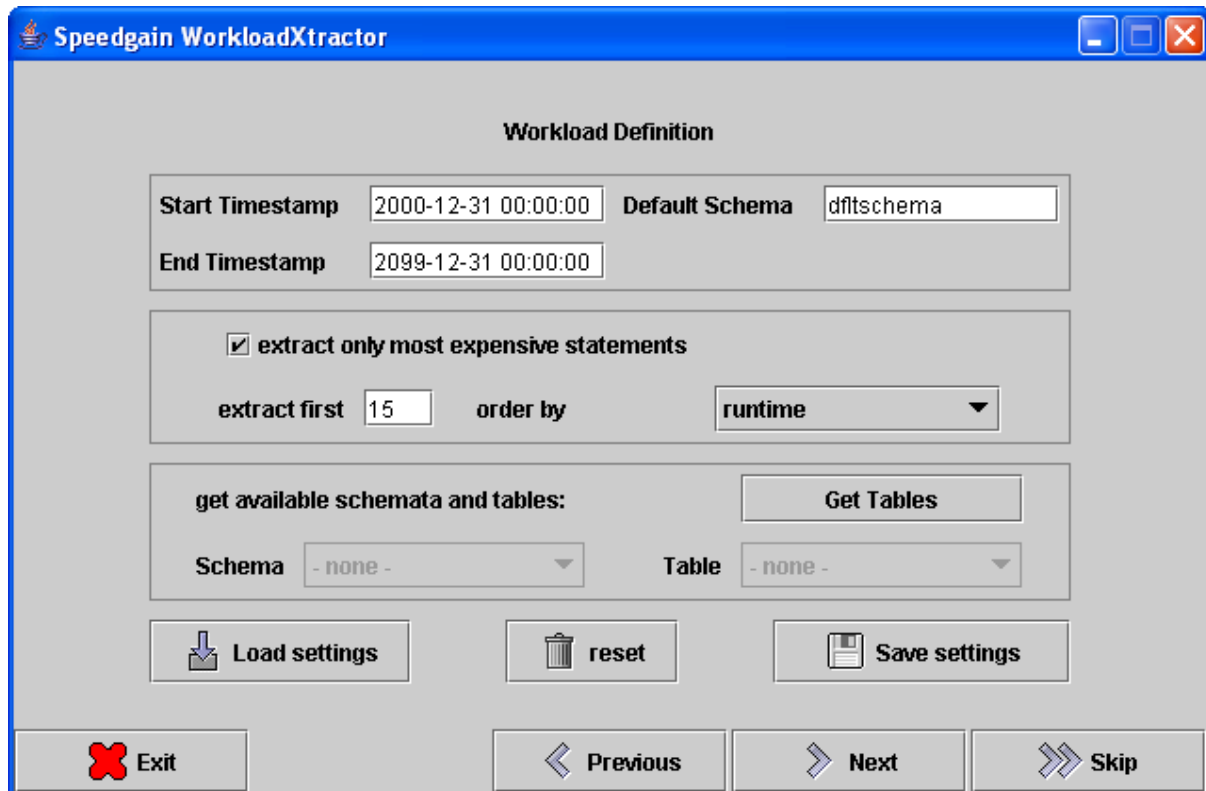


Figure 2 : Workload Definition

The Speedgain WorkloadXtractor gives the user the ability to customize the extraction of the workload to fit his special needs.

The workload can be customized by setting the following parameters:

- time a statement was executed
- focusing on most frequent statements
- focusing on statements with longest runtime
- restriction to statements executed against a specified table

## DB2® Design Advisor Parameters

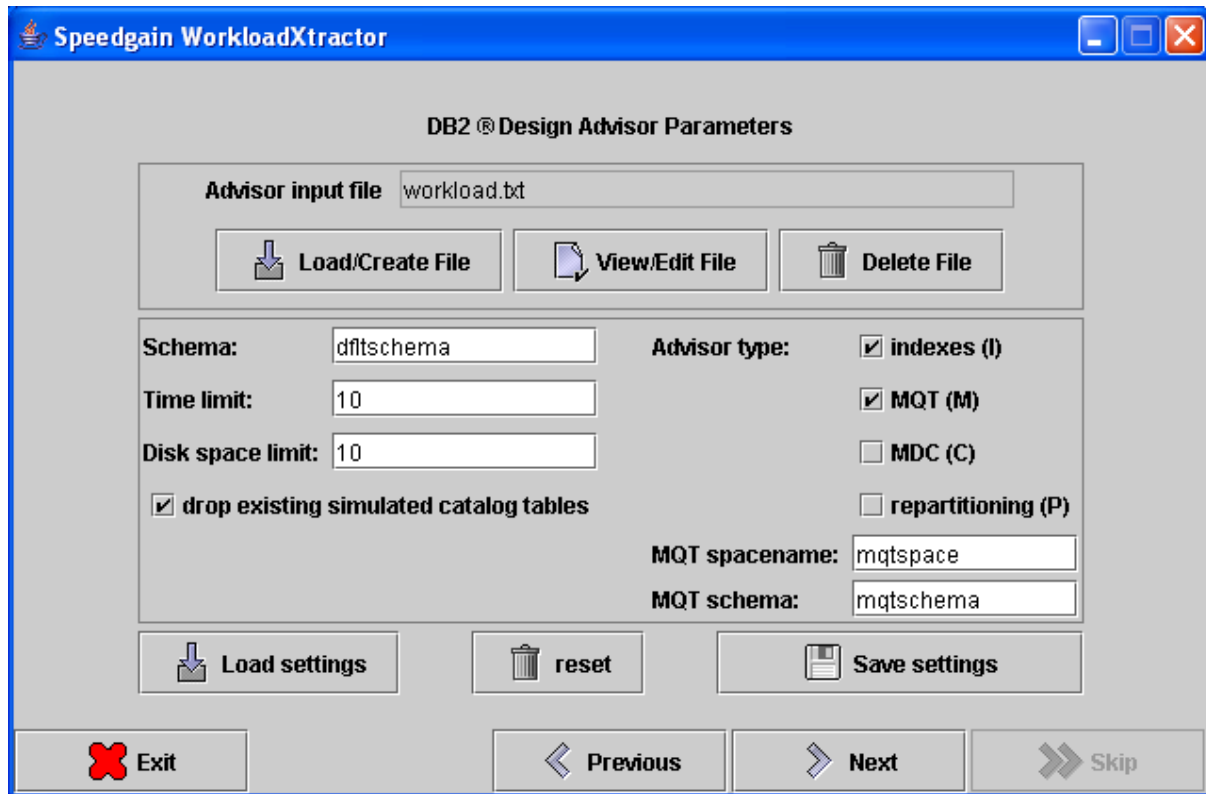


Figure 3 : DB2® Design Advisor Parameters

After the extraction of a workload, the Speedgain WorkloadXtractor can pass it directly to the DB2® Design Advisor. The Advisor can be executed with several parameters. Among others these are indexes, MQTs and MDCs.

## DB2® Design Advisor Output

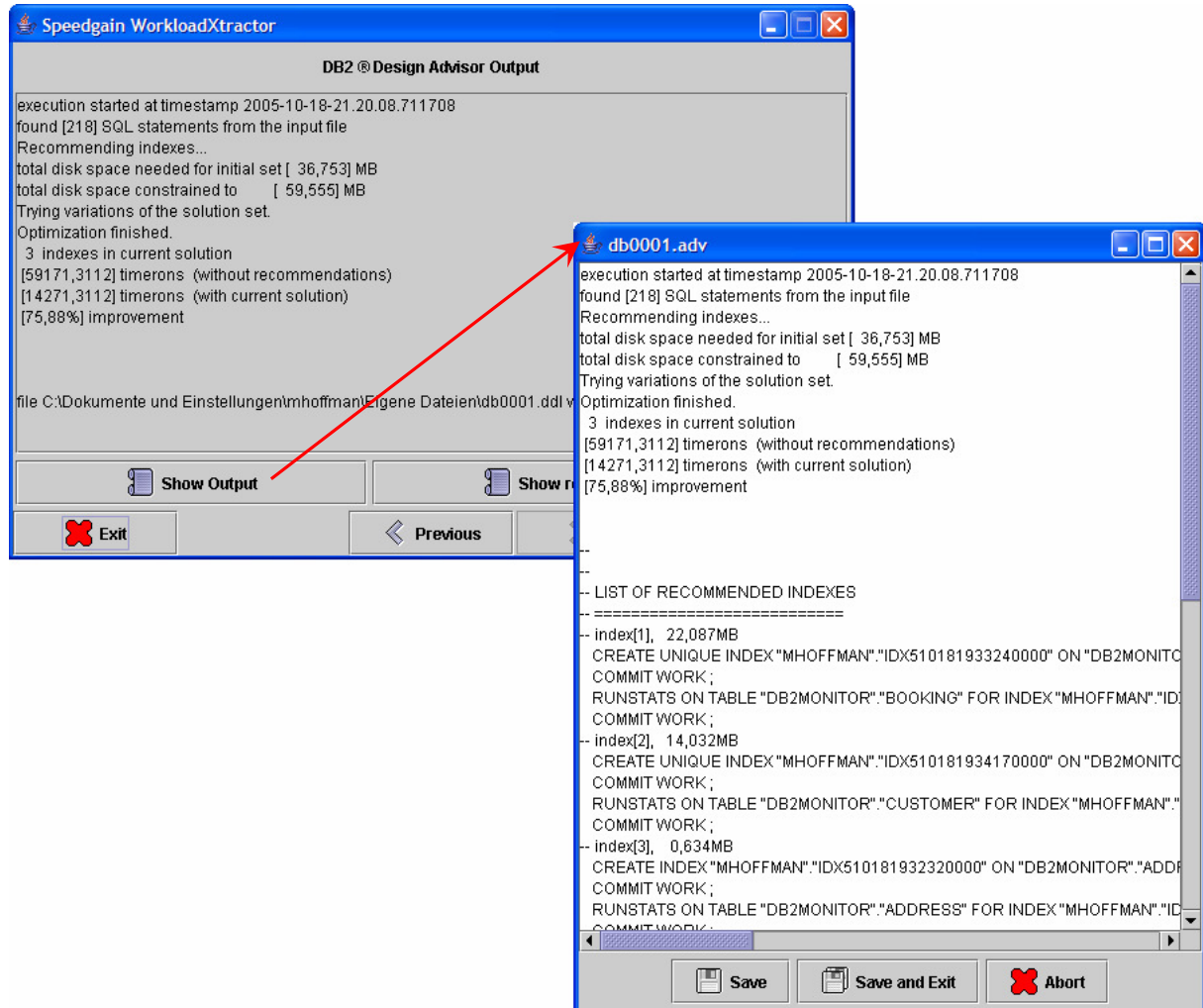
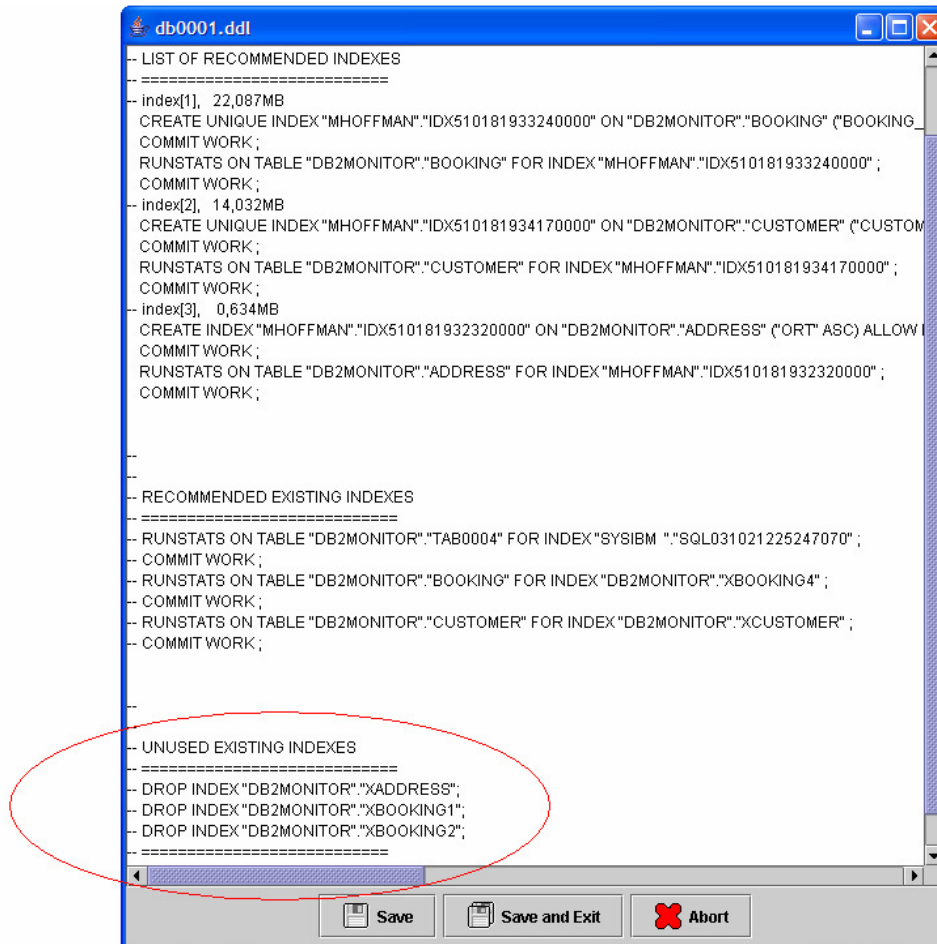


Figure 4 : DB2® Design Advisor Output

The output of the DB2® Design Advisor is accessible from this panel. A summary of the output is displayed within the main text area. The complete output and the DDL for the recommended indexes are available through the appropriate buttons.

See the next page for an example of generated DDL for creating recommended and dropping unused indexes respectively.

## Generated DDL



```

db0001.ddl
-- LIST OF RECOMMENDED INDEXES
=====
-- index[1], 22,087MB
CREATE UNIQUE INDEX "MHOFFMAN"."IDX510181933240000" ON "DB2MONITOR"."BOOKING" ("BOOKING"
COMMIT WORK;
RUNSTATS ON TABLE "DB2MONITOR"."BOOKING" FOR INDEX "MHOFFMAN"."IDX510181933240000";
COMMIT WORK;
-- index[2], 14,032MB
CREATE UNIQUE INDEX "MHOFFMAN"."IDX510181934170000" ON "DB2MONITOR"."CUSTOMER" ("CUSTOMER"
COMMIT WORK;
RUNSTATS ON TABLE "DB2MONITOR"."CUSTOMER" FOR INDEX "MHOFFMAN"."IDX510181934170000";
COMMIT WORK;
-- index[3], 0,634MB
CREATE INDEX "MHOFFMAN"."IDX510181932320000" ON "DB2MONITOR"."ADDRESS" ("ORT" ASC) ALLOW
COMMIT WORK;
RUNSTATS ON TABLE "DB2MONITOR"."ADDRESS" FOR INDEX "MHOFFMAN"."IDX510181932320000";
COMMIT WORK;

--
--
-- RECOMMENDED EXISTING INDEXES
=====
-- RUNSTATS ON TABLE "DB2MONITOR"."TAB0004" FOR INDEX "SYSIBM"."SQL031021225247070";
COMMIT WORK;
-- RUNSTATS ON TABLE "DB2MONITOR"."BOOKING" FOR INDEX "DB2MONITOR"."XBOOKING4";
COMMIT WORK;
-- RUNSTATS ON TABLE "DB2MONITOR"."CUSTOMER" FOR INDEX "DB2MONITOR"."XCUSTOMER";
COMMIT WORK;

--
--
-- UNUSED EXISTING INDEXES
=====
-- DROP INDEX "DB2MONITOR"."XADDRESS";
-- DROP INDEX "DB2MONITOR"."XBOOKING1";
-- DROP INDEX "DB2MONITOR"."XBOOKING2";
=====
Save Save and Exit Abort

```

Figure 5 : Generated DDL

The Speedgain WorkloadXtractor also stores automatically the gathered information you need to optimize your database in files. This is important in the batch program execution or for example for statistical purposes if you want to compare the results with each other.

### Further information about Speedgain

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