



mFlow

Advanced automation in the data warehouse

mFlow enables fast implementation, efficient control, management and monitoring of the ETL processes execution

ETL process involves collecting a complete, consistent set of data from multiple source systems. It is necessary to ensure proper ordering and control of all the interdependencies between individual transformations in order to load the data warehouse successfully.

Usual pitfalls in the design and management of ETL processes are:

- Process development time takes up significant developer resources
- Non-transparency of processes, their interdependence and performance results
- Lack of adaptive parallelism
- No support for process origin and impact reports (Lineage / Impact Analysis)
- Problematic migration between environments and the inability to gradually replace ETL tools

Increased productivity

- Creating an entire process tree of several hundred processes in a couple of hours
- Adaptive changes are measured in minutes
- Process creation: Individual (GUI), Bulk (SQL)
- There is no deploy
- Testing of process variants: selection of series / parallels is reduced to changing one attribute (update)

The screenshot shows a web application interface for 'multicom'. It features a navigation bar with 'DASHBOARD' and 'ADMIN'. Below the navigation bar is a search bar with a 'Go' button and an 'Actions' dropdown. The main content area displays a table with the following columns: ID, Load Date, Process, Start Time, End Time, Duration, Status, Execution, and Lineage. The table contains 15 rows of data, each representing a process execution. To the right of the table is a legend for status icons: Success (green checkmark), Warning (yellow triangle), Error (red X), Aborted (red circle with slash), Running (blue circle with arrow), and Unknown (purple question mark). The table data is as follows:

ID	Load Date	Process	Start Time	End Time	Duration	Status	Execution	Lineage
615678	13.09.2015	PF_DM_BANKA	14.09.2015 06:09:25	14.09.2015 06:09:27	2	Success	History	Storage
615675	13.09.2015	PF_DM_RACUN	14.09.2015 06:09:23	14.09.2015 06:10:34	71	Success	History	Storage
615664	13.09.2015	PF_DM_DELAFNOST	14.09.2015 06:06:22	14.09.2015 06:06:25	3	Success	History	Storage
615638	13.09.2015	PF_DM_NAMERNA	14.09.2015 06:05:27	14.09.2015 06:05:31	4	Success	History	Storage
615703	12.09.2015	PF_DM_BANKA	13.09.2015 06:13:59	13.09.2015 06:14:01	2	Success	History	Storage
615791	12.09.2015	PF_DM_RACUN	13.09.2015 06:13:57	13.09.2015 06:15:07	70	Success	History	Storage
615689	12.09.2015	PF_DM_DELAFNOST	13.09.2015 06:10:47	13.09.2015 06:10:50	3	Success	History	Storage
615661	12.09.2015	PF_DM_NAMERNA	13.09.2015 06:09:47	13.09.2015 06:09:51	4	Success	History	Storage
615582	11.09.2015	PF_FCT_STVK_IZV_U2	12.09.2015 11:48:45	12.09.2015 11:51:01	136	Success	History	Storage
615591	11.09.2015	PF_XTR_STVK_IZV_U2	12.09.2015 11:48:17	12.09.2015 11:48:45	28	Success	History	Storage
615590	11.09.2015	PF_XTR_STVK_IZV_U2_MRG	12.09.2015 11:47:41	12.09.2015 11:48:17	36	Success	History	Storage
615589	11.09.2015	PF_XTR_STVK_IZV_U2	12.09.2015 11:47:05	12.09.2015 11:47:41	36	Success	History	Storage
615588	11.09.2015	PF_FCT_STVK_IZV_U1	12.09.2015 11:46:00	12.09.2015 11:47:05	65	Success	History	Storage
615567	11.09.2015	PF_XTR_STVK_IZV_U1	12.09.2015 11:45:22	12.09.2015 11:46:00	38	Success	History	Storage
615586	11.09.2015	PF_XTR_STVK_IZV_U1_MRG	12.09.2015 11:44:53	12.09.2015 11:45:22	29	Success	History	Storage

Flexibility

- Modular development and testing
- Easy implementation of changes
- Independence of the ETL tool
- Flexible API addition - (combining ETL tools, gradual migration enabled)

Performance

- Intelligent adaptive parallelism
- The maximum number of simultaneous processes can be defined
- Queuing
- Maximum utilization of resources
- It is possible to define the order of entering the Queue

Supervision and maintenance

- Transparency (Lineage & Impact analysis)
- Load process monitoring via web browser
- Automation - (Re) start load with one command
- Unified logging (processed lines, errors)
- Interactive ad hoc reports

