

**HIGHER
FLEXIBILITY**



FLOWLEVEL
APPLICATION-TESTING FRAMEWORK

10 Levels

FlowLevel™ White Paper

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lowLevel is a standard DPDA (Design, Prototype, Deploy & Analysis) system. FlowLevel embraces the two, well deployed, approaches - the traditional systems and the graphical systems.

Traditional systems use coding in order to implement specific needs. Although, using code requires a simple platform and brings higher flexibility, you need skilled programmers to write code, and in addition to testing the development code the testing code must also be tested, thus creating unnecessary overhead and delay during the development cycle.

Design 10x Faster

TRADITIONAL SYSTEM DESIGN

```
icCountReg <= (others=>'0');  
elseif rising_edge(Clk) then  
  if icRisingEdgeDetected then  
    end if;
```



GRAPHICAL SYSTEM DESIGN



FlowLevel uses both approaches. The application platform provides a simple graphical user interface that enables drag and drop for all known protocols and external testing devices. Along with the graphical user interface, it enables writing Java, PERL, TCL/TK and C code. The graphical system design allows you to rapidly design, prototype, deploy and analyze software & embedded systems using graphical programming combined with external code development. With this approach, you can rapidly design and develop any kind of tests 10x times faster than using simple code development. When reaching the development phase, you can combine any code type required.

Using simple development code, a professional would expect maintenance to be faster and cheaper. However, until today a graphical platform delivers a higher ROI than a coding platform.

10Levels has always been, and will continue to be, a customer-focused company.

Features & capabilities

FlowLevel, as a platform, enables use of any known protocol with the ability to build a specific proprietary protocol. The usage of external applications and testing tools has never been easier. You simply move your mouse cursor to the relevant equipment card and select the relevant command.

Use the FlowLevel platform to the server side. Open two maps, traffic between them.

work both the client side and or more, and simulate

Current protocols &

Telnet, TL1, FTP, HTTP, SOAP/XML, BSF, BeanShell, PERL, LDAP, EXE, SSH, FS Blowtooth, CIFS, UPnP, TCP, UDP, GUI tester, building unique SIP stack)

External Testing Tools:

IXIA, SmartBits, Acterna, communications, Agilent, media devices and Ethreal sniffer and analyzer. Add as using the current protocol

Next release:

Audio and Video real time advanced algorithm known

Using the defined maps groups to use any specific monitoring and testing designs to their map.

FlowLevel GUI platform enables the usage of current capabilities with the easy to use of specific aggregation deployment. The analysis mechanism give , one of a kind, capabilities for both analysis and reporting

languages:

HTTPS, SNMP (V1-V3), ODBC, JAVA, TCL, I/O, Corba, USB, SMTP, IMAP, POP3, H.323, SIP (as well as and much more.

Storm, APCON, GL VCON & Polycom source code as a many as you want templates.

analysis using the most on today's market.

enables all company design, configuration, and add any one of them

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Work on any platform

Enjoy true platform freedom, FlowLevel is written in pure Java, meaning it will run on any Java supported platform. Allowing you to run FlowLevel on any OS you may want. FlowLevel is a multi hosting platform.

Load your application/device

Enjoy a true multi-threaded platform. FlowLevel is designed to run any specified flow as a stand-alone thread and run all specified threads at the same time. Configure, in the START block, the number of processes to run and the raise time needed. FlowLevel will calculate and process your request as specified.

Aggregate your flow

Configuring specific flows requires including specific blocks designed as one “black” block. Simply select all required blocks and apply them to one group. The newly created group can be collapsed and expanded as you want. The creation of the new group enables the operator to specify if the created group will run as a multi-threaded or as a single thread.

Work with external parameters

FlowLevel base block enables to work with Excel files. Import and export parameters to any sheet, column or row needed. The specific Excel block enables to create any complicated matrix test quickly and easily. Free yourself from writing complex functions, debugging and maintaining them time after time, test after test.

Run your code

You may want to, or discover a need to run external codes. FlowLevel platform enables you not only to work with specific code languages but empowers you to use the current supported: Java, TCL/TK, C, C++ and PERL.

Add remarks

The freedom to add remarks and comments to any block enables you, by moving your mouse, to see your comment as a popup balloon.

Create new blocks

An internal wizard enables you to create customized new blocks per your request. Create your block shape, color and behavior.

Customize your view

Defining a specific flow or debug it may require specific view per your request. You can mark any select objects and change their look&feel. Later on you can change them all back to normal with a simple click.

Included test tools

Use current embedded testing tools, such as network emulator, SIP call generator, TCP generator and the advanced analyzer (ethreal).

The Company

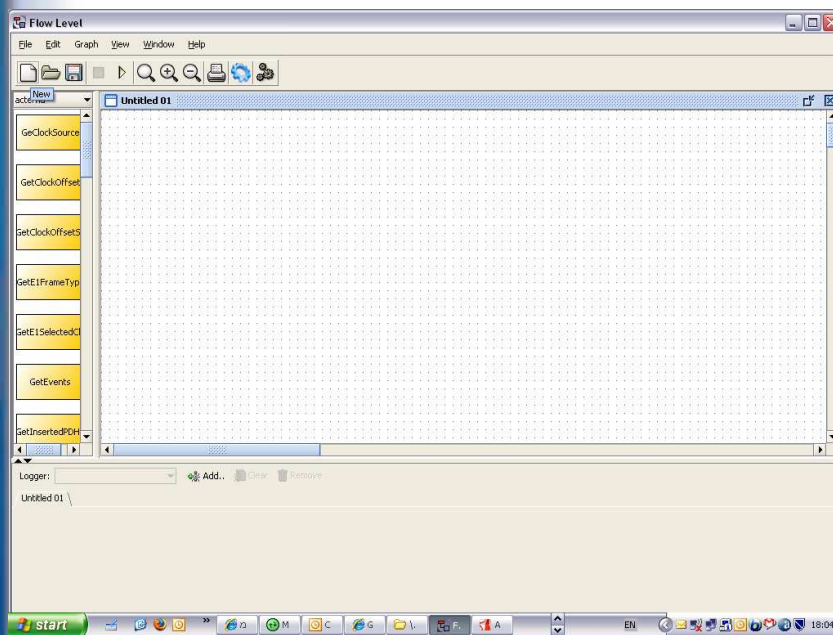
10levels is the leading company in the area of network and telecom testing. From consultant to development, 10levels develops unique testing and analyses tools. 10Levels FlowLevel application, has been developed from scratch and does not use open source tools as others. By eliminating the usage in open source 10levels does not relate in any way on unknown developer code.

**10Levels has always been, and will continue to be,
a customer-focused company.**

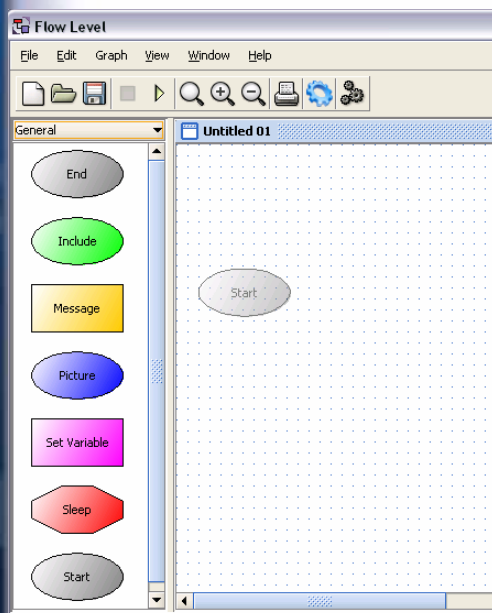
Step by Step

1. Open your map

Open your selected map (one or more) to start design and configure.

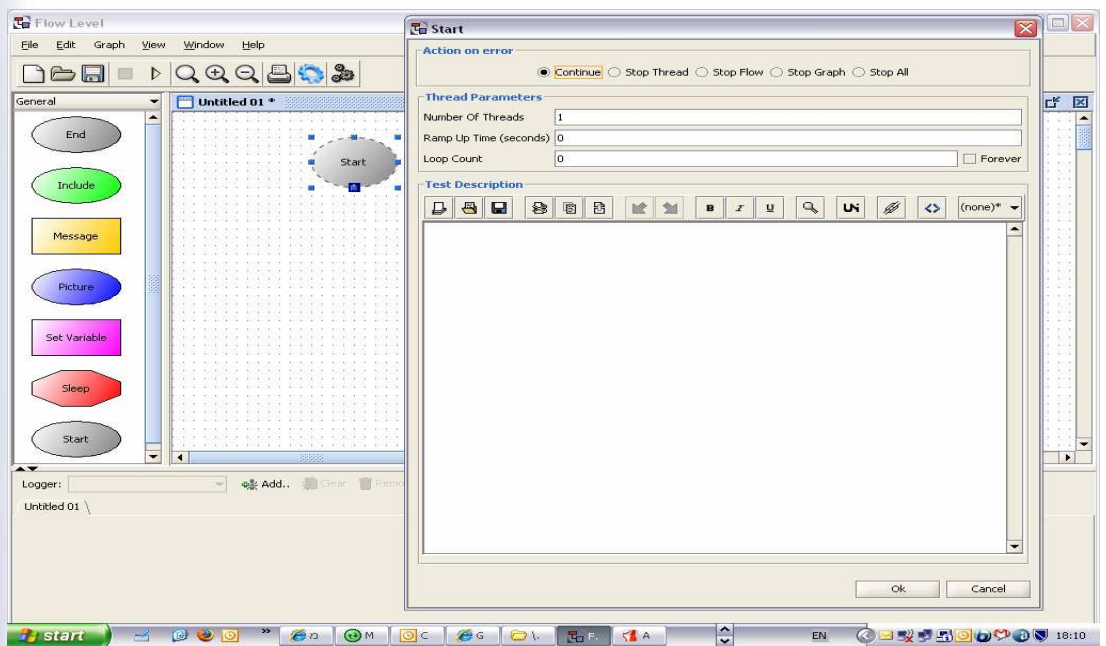


2. Start your flow.



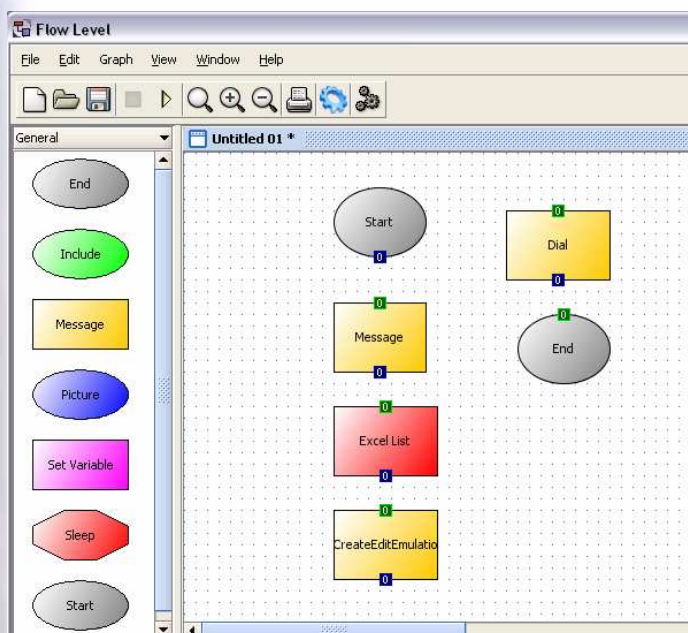
10Levels has always been, and will continue to be, a customer-focused company.

3. Define your flow.



Specify your action on error (continue, stop tread, stop flow, stop graph or to stop all).

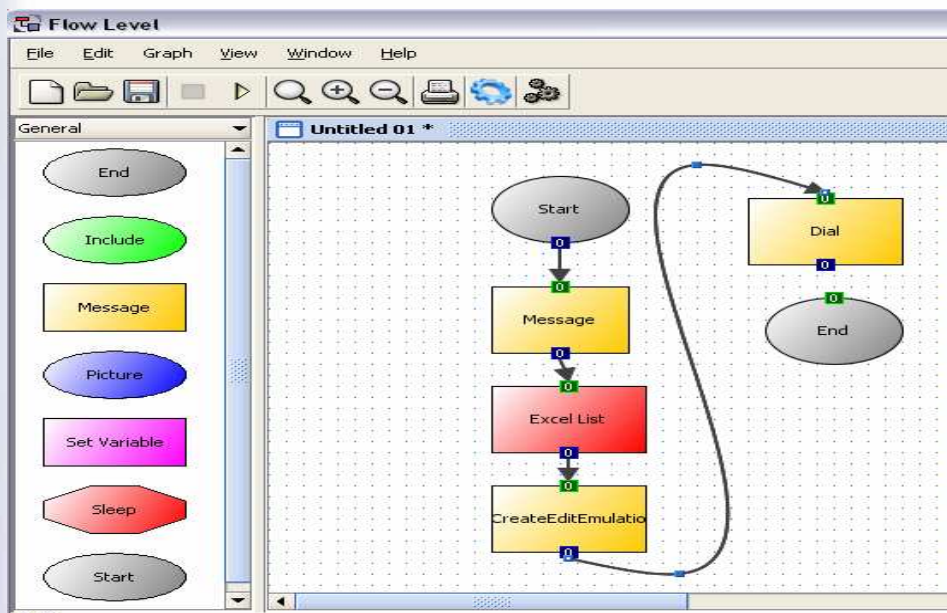
4. Drag&Drop your objects.



Simply by dragging your objects from the relevant menu and dropping them on the relevant map.

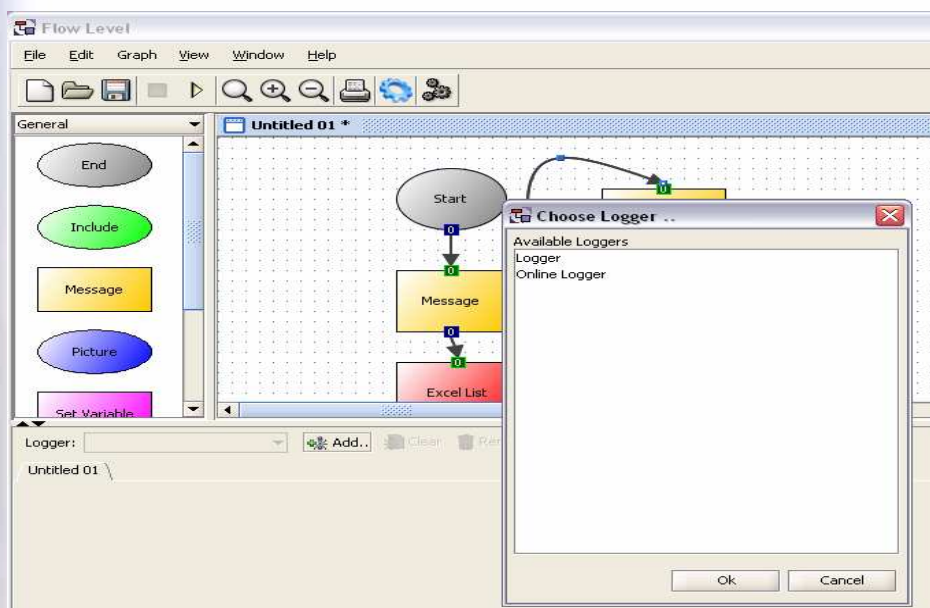
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5. Connect the objects



Simply by connecting your blocks you define the exact process flow.

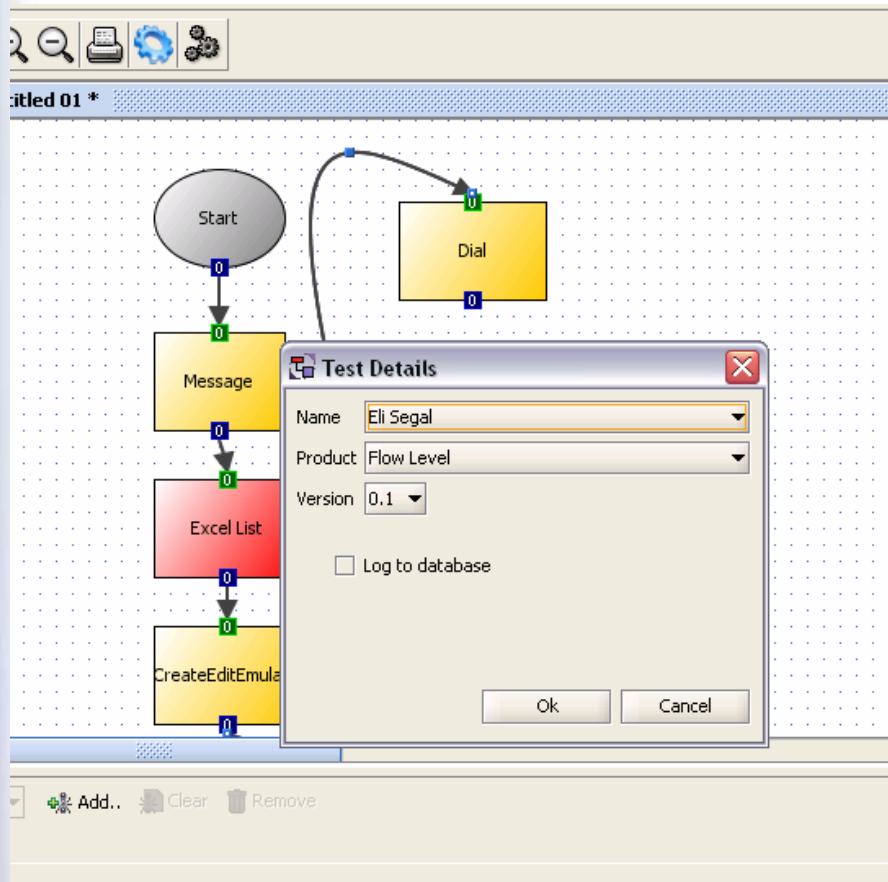
6. Create your view and report.



You can create one or more views. An “online” report enables you to view real time parameters during run time. The “logger” enables you to get all objects information with a specific debug filtering and colors. Your logger information will save all information after buffer filled up to the DB.

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7. Run your flow.



Pressing the “Run” button will open a new window asking for your relevant (and predefined) information in order to log all information to the DB, enabling you later to retrieve all information including the flow diagram, inserted parameters, output results and tester/SUT relevant information.