# \_bridge\_excerpts

Group	Name	Excerpt			
Action Language	deprecat ed_alias_ macros	All macro	os that get information f	rom aliases are deprecated since Builder 7.5.0. Please use the new Alias Reader instead.	
Action Language	writeTyp eDiscrimi nator	option is tru	e, the Runtime will write	scriminator to suppress the generation of xUML type properties ("e2e:type") to the generated JSON. If this e the original xUML type to the generated JSON in form of "e2e:type": " <name does="" expected="" match="" metadata.<="" not="" of="" original="" rialized="" td="" the=""></name>	
Adapter	correlatio n_ID	The xUML Runtime assigns a correidentified by this ID. Also, it is logge		elation ID to each adapter call. This ID is stored in header field <b>X-Bridge-CorrelationID</b> . Adapter calls can be ed to the transaction log.	
Adapter	hint_bac kslash_in _path	When using the Windows style with also the "\". To avoid this, use forward slashes w		h backward slashes "\" you have to be aware that you have escape this character. The escape character is with Windows as well.	
Adapter	request_ http_hea der_roles			the context of HTTP based adapters (URL, REST, SOAP), enable automatic header generation for the listed te the default behavior, and X-Transaction-Id, X-Request-Id, X-Sender-Host and/or X-Sender-Service will	
Adapter	request_ http_hea der_roles _adapter	requestHttpHeaderRoles can hold a list of definitions in format <a href="http">http</a> header name>: <role>, that will automatically be generated for each adapter call on this alias. <role> can be one of the listed allowed values (one list entry per line).  Refer to HTTP Header Support &gt; Overwriting the Standard HTTP Headers for more details on header roles.</role></role>			
Education	documen tation_m ap	The BRIDGE is delivered with comprehensive documentation. Apart from this self-study, the BRIDGE also comes with many examples you can have a look at. Each feature is subject of an example that is ready to run.  This chapter provides an overview about all documentation available after installation. How to access the xUML examples is explained on Unzippi ng Examples.  The complete documentation is available online.			
		Documen	t	Content	
		BRIDGE Education Lesson 1-3		Comprehensive self-learning guide, which leads you through all steps of creating a Web service. Additionally, it provides conceptional information for each topic.	
		Bridge User Guide		Comprehensive guide explaining concepts and usage of the BRIDGE, which comprises all management tasks to run the BRIDGE and deployed xUML, Node.js and Java services.	
		Reference Guides	Reference Guide	Comprehensive reference guide for xUML modelers containing information about concepts, modeling, xUML Action Language, add-ons, and import/export mechanisms.	
			Node.js Services Reference Guide	Guide to Scheer PAS Node.js modules that can be used by Node.js modelers in BRIDGE context.	
		Utilities	Dashboards     Monitoring     Service With UI     RESTifier for     SAP     WSDL     Generator for     SAP RFC	Guides to BRIDGE utilities that may be helpful for modelers.	
		Builder User Guide		Comprehensive guide explaining concepts and usage of BUILDER including all tools like xUML Model Compiler, xUML Model Debugger, and xUML Importers.	
		Installation Guides	BRIDGE Installation Guide	Description of the installation of BRIDGE including a troubleshooting chapter. This guide also contains a description of the following firmware installations:  • BRIDGE SQL Libraries to integrate SQL databases  • BRIDGE SAP Libraries to integrate SAP systems  • BRIDGE Java Libraries to use Java classes in your service	
			BUILDER Installation Guide	Description of the installation of the BUILDER including a troubleshooting chapter.	
			ANALYZER	Description of the installation of the ANALYZER.	

## Installation guiless\_u pdate

#### Never change the guilessinstaller.properties after first installation, but use the same file for every update afterwards!

Bridge 5.1.39.6 Bridge 6.0.40.2 Only exception is, when you are moving from a version below 6.0.40.2/5.1.39.6 to a higher version. Since then, the settings **console.ip.address** and **console.hostname** are mandatory. It is necessary that you edit your existing **guilessinstaller.properties** file before making an update installation. If you don't specify these settings, you will get additional node instances and proxy nodes and won't be able to deploy services anymore.

- If console.hostname is empty use the value of Node Instance Name you find on the Preferences tab of the BRIDGE node instance.
- If console.ip.address is empty use 0.0.0.0.

### Logging date\_pick

When filtering the log entries of a service by date and time, you can use a date picker to select a date from/to. Click the date picker icon to the input fields to open the a tiny calendar to pick the dates from.



The time part will be only visible if the related log entries contain a time part in format "HH:MM:SS". In all other cases, it is not possible to select log entries by time.

Some dates within the calendar are colored to help you finding the appropriate date:

Color	Meaning
dark blue border	Today.
dark blue	The selected date.
bright blue	A weekday on which data has been logged.
light blue	A weekend day on which data has been logged.
grey	A day on which no data has been logged.

Select a day, enter a time (if necessary), and click **OK** to apply the selected date to the search field.

#### Logging

## date\_sea

Select the date/time range you want to inspect.

- Upon opening the logging tab, from is set to (now 10 minutes) if there are log entries existing within this range of time. If not, from will be set to the point of time the first entries are found.
- An empty to field displays all log entries from the from date/time until the most recent entries.
- An empty from field triggers a search backwards until the first entries are found.
- You can remove the time part of the to field to search until the end of the day, and of the from field to search from the beginning of the day.

#### Logging Is\_date\_fi Iter\_setti ngs

Click View to update the displayed logging information.

As per default, for logs with a time stamp the log entries are displayed latest first in the search results. Click the tiny arrow in the table header to change the order to oldest first.

The date filter settings will be kept as long as your Browser tab is open. They will be reset to default as soon as you open the **Logging** tab in a new Browser tab.

If you close your Browser with the **Logging** tab open, and start your Browser again with restoring all recent tabs (session restore), your date filter settings will be reloaded from your previous search.

#### Logging

## Is\_search for

Insert a string or a valid regular expression to search the log entries for. Only log entries that match the expression will be displayed. Refer to Java Regular Expressions for more information on which regular expressions you can use here.

Pressing Enter in this field triggers the search.

pstate	pstate_c ontrol_ad apter	The <b>Persistent State Control Adapter</b> gives access to persistent state metadata directly from within a service (self context). The same data can be retrieved using the <b>xUML Runtime API</b> .			
			at to retrieve metadata of persistent state of the very same service, always use the Persistent State Control Adapter.  It to retrieve data from other services, use the xUML Runtime API.		
PState	pstate_o wner	In Load Balancing context, when e.g. running multiple Bridges, you can setup persistent state services to share persistent state objects. The persistent state objects are distinguished by an owner and owner id reflecting the actual service that owns these objects.  Prerequisite is that these services share the same persistent state database, see Load Balanced Persistent State for more details.			
PState	pstate_se rvice_tra nsfer	Transfer the service to another Bridge (e.g. by service export and re-deployment).  In this case, you also need to transfer file <b>PersistentState.tab</b> from the service directory ( <your bridge="" data="" directory="">/<service directory="">) to the new location. This file contains the actual owner ID of the service. If not present, a new owner ID will be assigned and all objects with the old owner ID will still be stalled.</service></your>			
PState	pstate_w arning_e xternal_a ttributes	Do not switch an attribute between internal and external unless you are sure that no objects of the related class are still pending in the persistent state db. The attribute contents will get lost in this case. This behavior will be improved in future versions.			
Service	get_pid	If the service is up and running, you can see the system process id (PID) of the service. To match the PID with the Bridge service, you can also use system commands:			
		System	Command / Output		
		Linux	ps -efa   grepinstance		
			15228 /opt/e2e_bridge_prog/nodejs-8.11.4/linux-64/node index.jsinstance /opt /e2e_bridge_data/nodejs_NodeService 15265 /opt/e2e_bridge_prog/nodejs-8.11.4/linux-64/node app.jsinstance /opt /e2e_bridge_data/nodejs_api-test-helloworld_43 15853 /opt/e2e_bridge_prog/j2re-11.0.2/linux-64/bin/java -jar repository.jarinstance /opt/e2e_bridge_data/java_helloworld []		
		Windows	Run with administration privileges:		
			<pre>wmic process where "caption='bridgeserver.exe' or caption='node.exe' or caption='java.exe'" get processid,caption,commandLine /format:csv  findstr /C: instance</pre>		
			,bridgeserver.exe, "C:\E2E_BRIDGE_PROG\bridgeserver-2018.12\win32-64\bridgeserver.exe" config "C:\var\E2E_BRIDGE_DATA\server.cfg"instance "C:\var\E2E_BRIDGE_DATA\bridge_SoapWait", 17600,node.exe,C:\E2E_BRIDGE_PROG\nodejs-8.11.4\win32-64\node app.js "instance C: \var\E2E_BRIDGE_DATA\nodejs_api-test-helloworld",20144		
Service	http_hea der_roles	Runtime 2020.12 If the standard HTTP header handling does not meet your needs, you can take control of the header handling by defining your own header roles.  Refer to HTTP Header Support > Overwriting the Standard HTTP Headers for a detailed explanation of how to use this feature.			
Service	http_hea ders	Runtime 2019.9 Bridge xUML services read the following incoming HTTP headers containing correlation information:  • X-Transaction-Id or xTransactionId (in JMS context)  This header identifies the transaction the call belongs to. You can set the transaction id manually with setTransactionID. If not set, the Runtime will generate one.  This header will be passed through the callstack to identify all service calls that belong to a transaction.  • X-Request-Id  This header should identify the unique request.  • X-Sender-Host and X-Sender-Service  These headers should contain the sender host resp. the sender service.  These headers will be all logged to the transaction log. Having this information, you can use this for error analysis or usage metrics.			

Service	http_hea ders_ada pter	Runtime 2019.9 With xUML service adapter calls, the xUML Runtime adds the following outgoing HTTP headers containing correlation information to the request:  • X-Transaction-Id or xTransactionId (in JMS context) This header identifies the transaction the call belongs to. You can set the transaction id manually with setTransactionID. If not set, the Runtime will generate one. This header will be passed through the callstack to identify all service calls that belong to a transaction. • X-Request-Id This header identifies the unique request. The Runtime generates a unique number for each adapter call. • X-Sender-Host and X-Sender-Service These headers contain the sender host resp. the sender service. They are set by the Runtime automatically.  Transaction id and request id will be logged to the transaction log on the adapter call. Having this information, you can use this for error analysis or usage metrics.
Service	httpHead erMap	Runtime 2020.11 Header information as a map. The map contains arrays of header value strings whereas the header name is the key of the map.  • Header names are lowercase and treated case insensitive.  • Multiple headers with the same name are treated as arrays.  Refer to HTTP Header Support for more information on the standard xUML HTTP headers.
Service	httpHead ers_depr	DeprecatedThis attribute is deprecated as of Runtime 2020.11. Please use httpHeaderMap (see below) for new implementations as its implementation complies to the HTTP specification.
Service	kill_servi	Bridge 7.2.0 The <b>Kill</b> functionality will first try to regularly stop the service. When the service is still running after 10 seconds, it will forcibly terminate the service with Java Process.destroyForcibly().
Service	max_req uest_bod y_size	Runtime 2021.2 Specifies the maximum size of the request in KB (1 KB = 1024 Bytes). This can be used to prevent DoS or similar attacks. When the payload of the service exceeds the given maximum, incoming request are rejected.
Service	max_req uest_hea der_size	Runtime 2022.6 Specifies the maximum size of the request header in KB (1 KB = 1024 Bytes). This can be used to prevent DoS or similar attacks. When the header payload of the service exceeds the given maximum, incoming request are rejected.  Compatibility Hint  For older Runtimes, a limit of 8 KB applies.
Service	stop_ser	Bridge 7.2.0 Clicking <b>Stop</b> will send SIGTERM to the service. Older Bridges called Java Process.destroy().
Service	transacti on_id	The <b>Transaction ID</b> identifies a transaction. It is a unique number used to trace service calls through the call stack of multiple service calls.  Runtime 2019.9 Clients calling a service running on the Bridge can provide a transaction ID in HTTP header <b>X-Transaction-ID</b> or <b>xTransactionID</b> (in JMS context).  SOAP clients can also use the SOAP headers to provide a transaction ID.  If an xUML service is called without providing a transaction ID, the xUML Runtime will generate such an ID.  This ID will be passed on through the call stack of the xUML service, so that the whole transaction can be traced. This can be useful, when analyzing the log file in case of error.
Service Preferen ces	automati c_restart	Whenever the service crashes, it will restart immediately. Nevertheless, in the navigation the icon indicate the abnormal termination.
Service Preferen ces	automati c_startup	Select this option, if you want the service to startup automatically, whenever the Bridge is started. Only users who are member of a group, to which the role ADMIN has been assigned, are allowed to change this option.  This option can be globally disabled by the Disable Automatic Service Startup option on the node instance preferences.  When updating the BRIDGE, all deployed services (xUML, Node.js, and Java services) will be kept. However, the automatic startup option will be ignored on the very first start-up after the update.

Service Preferen ces	minimum _uptime	To allow the Bridge to distinct whether the service has crashed during start-up or not, specify the minimum uptime of the Node.js service in seconds.  Implications:  If the service crashes during the uptime period, the Bridge will assume that the service could not be started. No Automatic Restart will be applied.  If the service crashes after the uptime period, the Bridge will assume a crash. If option Automatic Restart is set, the Bridge will try to restart the service.
Service Preferen ces	owner	The group id of the user who has deployed the service. Only users who are member of a group, to which the role <b>ADMIN</b> has been assigned, are allowed to modify the owner of the service.
Update	service_s tartup_aft er_update	When updating the BRIDGE, all deployed services (xUML, Node.js, and Java services) will be kept. However, the <b>automatic startup</b> option will be ignored on the very first start-up after the update.