

# Macros

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SpringServe macros are formatted as capital letters within double curly brackets and will be filled in by the adserver when properly implemented in multiple places: endpoint URLs of demand tags, event pixels, and landing page urls for creative asset demand.

## Demand Tag Setup

When setting up your demand tags, the macros must be implemented correctly in order to pass the values to your demand partners. You can replace them manually or you can use the **Suggested Macros** tool.

## Suggested Macros

Once your endpoint url has been inputted into the endpoint settings, the Suggested Macros tool will populate. SpringServe will detect the adserver and display the endpoint with supported macros replaced with SpringServe macros. Click the *Copy* button and paste the updated endpoint url into the *Endpoint URL* field. Most major adservers are included in the Suggested Macros platform list. If you are working with tags from an adserver that is unknown by the suggested macros tool, please reach out to support@springserve.com.

## Tag Validator

To check if the demand tag will return a response, you can use the **Tag Validation** tool. You can validate the tag *As Is* or you can *Replace Macros*. When validating *As Is*, SpringServe will call the tag as it appears in the *Endpoint URL* field. If there is targeting on the demand tag, you may need to hard code certain macros. For example, if the demand tag is targeting large players, you may want to replace the height and width values with *w=1600&h=900*. When you select *Replace Macros*, the endpoint will appear in the tag validator. Click *Validate* and see if there is a valid response, some error, or an empty VAST response.

## Supported Macros & Query String Parameters

### Notes:

- In order for a field to be passed to a demand tag it must be implemented on the supply tag.
- All macros and query string params listed below are restricted values for Key Value targeting.

Category	Demand Tag Macros	Supply tag query parameter	Description	Example values	Requirements
General	{{WIDTH}}	w=	player width	300	
General	{{HEIGHT}}	h=	player height	250	
Player	{{SIZE}}	size=	size of player; for use for SpotX only	S	Size is parsed into dimensions that are passed to demand tags.
General	{{DOMAIN}}	url=	page domain	<a href="http://weather.com">weather.com</a>	
General	{{URL}}	url=	page url	<a href="http://www.weather.com/weather/radar/interactive/l/1037891:5:US">http://www.weather.com/weather/radar/interactive/l/1037891:5:US</a>	This passes the full page url on the demand tag
General	{{ENCODED_URL}}	url=	encoded page url	http%3A%2F%2Fwww.weather.com%2Fweather%2Fradar%2Finteractive%2F%2F1037891%3A5%3AUS	
General	{{DOUBLE_ENCODED_URL}}	url=	double encoded page url	http%253A%252F%252Fwww.weather.com%252Fweather%252Fradar%252Finteractive%252F%252F1037891%253A5%253AUS	
General	{{CACHEBUSTER}}	cb=	random number to prevent caching	3708662946268	
General	{{TIMESTAMP}}		unix timestamp	1589919931	
General	{{TIMESTAMP_MS}}		unix timestamp w/ milliseconds	1589919931035	

Mobile	{{IP}}	ip=	user ip address	52.52.52.52	IP address is used for geo targeting. SpringServe will detect if macro is excluded from exported supply tag.
Mobile	{{USER_AGENT}}	ua=	user agent string	Mozilla/5.0 (iPhone; CPU iPhone OS 6_0 like Mac OS X) AppleWebKit/536.26 (KHTML, like Gecko) Version/6.0 Mobile/10A5376e Safari/8536.25	user agent used for device and operating system. SpringServe will detect if macro is excluded from exported supply tag.
Mobile	{{LAT}}	lat=	user latitude	33.543682	
Mobile	{{LON}}	lon=	user longitude	-86.779633	
Mobile	{{DNT}}	dnt=	do not track	0 or 1	dnt 1 = true and is essentially an opt out of advertisements
Player	{{DESCRIPTION}}	desc=	video description		
Player	{{IAB_CATEGORY}}	ic=	IAB Category ID of site content	IAB19	
Player	{{DURATION}}	dur=	video duration length in seconds	15	
Player	{{MINIMUM_DURATION}}	min_dur=	minimum duration in seconds	5	
Player	{{MAXIMUM_DURATION}}	max_dur=	maximum duration	30	
Player	{{AUTOPLAY}}	ap=	1 if player set to autoplay, 0 if not	0 or 1	
Player	{{AD_POSITION}}	ad_pos=	position of ad	1	position of the ad relative to other ads on the page. ex. 1 for first, 2 for second etc
Player	{{MUTE}}	mute=	is player muted	1 (muted) 0 (not muted)	
Player	{{PLACEMENT}}	placement=	placement of video	1 (In-Stream) 2 (In-Banner) 3 (In-Article) 4 (In-Feed) 5 (Interstitial/Slider/Floating)	see <a href="#">IAB documentation</a> for further details
fPlayer	{{SKIPPABLE}}	skip=	player will allow video to be skipped	0 1	see <a href="#">IAB documentation</a> for further details
Player	{{PRODUCTION_QUALITY}}	prodq=	content quality	0 (unknown) 1 (Professionally Produced) 2 (Prosumer) 3 (User Generated)	see <a href="#">IAB documentation</a> for further details
General	{{DEVICE_MAKE}}	device_make=	A device Make	Samsung, Apple	
General	{{DEVICE_MODEL}}	device_model=	A devices Model	Galaxy, F8332	
General	{{OPERATING_SYSTEM}}		Operating System	IOS, Android, Linux, Windows, etc.	
General	{{OPERATING_SYSTEM_VERSION}}		Version of Operating System	70.0.3538.110	
General	{{ISP}}		Internet service provider	comcast	
Mobile/CTV	{{APP_BUNDLE}}	app_bundle=	app bundle	591560124, com.pic.photoeditor	
Mobile/CTV	{{APP_NAME}}	app_name=	app name	photoeditor	

Mobile/CTV	{{APP_STORE_URL}}	app_store_url=	app store URL	<a href="https://play.google.com/store/apps/details?id=com.pic.photoeditor&amp;hl=en_US">https://play.google.com/store/apps/details?id=com.pic.photoeditor&amp;hl=en_US</a>	
Mobile/CTV	{{DEVICE_ID}}	did=	user device id for all device types	437825ef-a4a6-4575-8b70-81630c6d76e5	
Event	{{AUCTION_ID}}		auction id	b1b1501f-6bf6-43e6-8199-9b514a765848	
Event	{{PRICEPAID}}	pp=	price paid	10	For use on dynamically-priced supply
Event	{{BID_PRICE}}		header bidding bid price	10.5	Only for use on impression pixels
Media	{{KEYWORDS}}	kwds=	keywords		
Media	{{MEDIA_ID}}	mid=	media id	1234	
Media	{{CONTENT_ID}}	cid=	content id	12345	
Media	{{ENCODED_VIDEO_TITLE}}	vt=	encoded video title	my%20video%20content	
Media	{{VIDEO_ID}}	vid=	video id	12345	
Media	{{VIDEO_URL}}	v_url	encoded video url	<a href="https%3A%2F%2Fmy_video_content.mp4">https%3A%2F%2Fmy_video_content.mp4</a>	
GDPR	{{CONSENT}}	gdpr_consent=	A consent string passed from various Consent Management Platforms (CMP's). Also accept numeric value for CTV consent.	For all cookie based environments (non-CTV) and if user is from the EU, Springserve expects a consent string in version TCF2.0. For CTV environments we accept 0/1.	Mandatory for all European traffic for GDPR
GDPR	{{GDPR}}	gdpr=	A flag to indicate user is in the European Union and consent applies	1 (true, in EU) or 0 (false, non-EU, GDPR does not apply)  If not present, callee should do geoIP lookup, and GDPR applies for EU IP addresses	Mandatory for all European traffic for GDPR
CCPA	{{US_PRIVACY}}	us_privacy=	A mandatory string for all publishers in which they must pass the privacy consent for users from California		Mandatory for all traffic from California
COPPA	{{COPPA}}	coppa=	A flag indicating traffic that is subject to the Children's Online Privacy Protection Act of the United States	1 (true) or 0 (false)	This is a pass through macro that must be set by the supply partner on the top-level supply tag
Visibility	{{MOAT_VIEWABILITY}}		moat viewability	1 (visible), 0 (not visible), -1 (unknown)	for use with TbV tags. Based on historical Moat data.
Visibility	{{IS_VISIBLE}}		is visible	1 (visible), 0 (not visible), -1 (unknown)	for use with TbV tags. Detects visibility in real-time.
Detected	{{DETECTED_DOMAIN}}		domain as detected by SpringServe	detected-domain.com	
Detected	{{DETECTED_URL}}		url as detected by SpringServe	<a href="https://detected-domain.com">https://detected-domain.com</a>	
Detected	{{DETECTED_ENCODED_URL}}		encoded url as detected by SpringServe	<a href="https%3A%2F%2Fdetected-domain.com">https%3A%2F%2Fdetected-domain.com</a>	
Detected	{{DETECTED_DOUBLE_ENCODED_URL}}		double encoded url as detected by SpringServe	<a href="https%253A%252F%252Fdetected-domain.com">https%253A%252F%252Fdetected-domain.com</a>	
Detected	{{DETECTED_HEIGHT}}		height as detected by SpringServe	200	
Detected	{{DETECTED_WIDTH}}		width as detected by SpringServe	300	
Other	{{PAY_ID}}	payid=	payment id chain	XYZ01234:ABCD56789	Pass through macro. In OpenRTB bid requests, SpringServe will construct a payment chain which will also include this value if passed in the payid= param.

Other	{{SCHAIN}}	schain=	supply chain object	1.0,1!exchange1.com,1234,1,,,!exchange2.com,abcd,1,,,	Pass through macro. Similar to pay_id /pchain, SpringServe will add any schain nodes passed in the supply tag url to the schain object in the OpenRTB bid request.
Other	{{SS_USER_ID}}		SS specific user ID	3319d5bb-341b-4453-b452-776487657843	
Other	{{SUPPLY_TAG_ID}}		supply_tag_id	12345	
Other	{{DEMAND_TAG_ID}}		demand tag id	65432	
Other	{{ZONE_ID}}	zid=	zone id	12345	
CTV	{{DEVICE_BRAND_NAME}}	brand_name=	Connected TV brands	Samsung, Apple TV, Vizio	SpringServe will detect if macro is excluded from exported supply tag.
CTV Ad pod	{{CREATIVE_DURATION_MILLIS}}		Used as a demand tag macro. Will multiply CREATIVE_DURATION by 1000		This is for demand tags that require duration in milliseconds instead of seconds
CTV Ad Pod	{{CREATIVE_DURATION}}		Used as a demand tag macro. Duration of the mediafile.	00:00:07	
CTV Ad Pod	{{POD_MAX_DURATION}}	pod_max_dur=	Used to set the maximum duration of an ad pod in seconds	90	Optional - if blank, the default duration is 300 seconds. Could also use the UI to create custom settings
CTV Ad Pod	{{POD_MAX_DURATION_MILLIS}}		Used as a demand tag macro. Will multiply pod_max_dur by 1000	90000	This is for demand tags that require duration in milliseconds instead of seconds
CTV Ad Pod	{{POD_AD_SLOTS}}	pod_ad_slots=	used to set the minimum and maximum number of ads in a pod. Could also set the maximum and minimum	<p><b>To set a maximum number of ad slots without max/min:</b></p> <p>6 &lt;- will return 6 ads if there are 6 ads available to fill</p> <p><b>To set a maximum number of ad slots WITH a max/min:</b></p> <p>10-45,15-30,1-15 this is an example of an ad pod with 3 ad slots.</p> <p>Slot 1: minimum 10 seconds, maximum 45</p> <p>Slot 2: minimum 15 seconds, maximum 30</p> <p>Slot 3: minimum 1 seconds, maximum 15</p>	Optional- if blank, we will return as many ads as can fill the pod_max_dur. Could also use the UI to create custom settings
Content	{{CONTENT_ID}}	content_id=	id for "content" object for PC and SSHB bid requests (see <a href="#">OpenRTB 2.5</a> )	24!vch192b7	
Content	{{CONTENT_EPISODE}}	content_episode=	episode for "content" object for PC and SSHB bid requests (see <a href="#">OpenRTB 2.5</a> )	11	
Content	{{CONTENT_TITLE}}	content_title=	title for "content" object for PC and SSHB bid requests (see <a href="#">OpenRTB 2.5</a> )	A%20New%20Hope	
Content	{{CONTENT_SERIES}}	content_series=	series for "content" object for PC and SSHB bid requests (see <a href="#">OpenRTB 2.5</a> )	The%20Office	
Content	{{CONTENT_SEASON}}	content_season=	season for "content" object for PC and SSHB bid requests (see <a href="#">OpenRTB 2.5</a> )	5	
Content	{{CONTENT_GENRE}}	content_genre=	genre for "content" object for PC and SSHB bid requests (see <a href="#">OpenRTB 2.5</a> )	Comedy	

## Passthrough Macros

If your demand partners require macros that are not supported by SpringServe, you can use passthrough macros. Passthrough macros simply look for the matching query string parameter in the ad request and fill in the value with what follows the equals sign.

1. append `&querystring=[query_string_macro_placeholder]` to your exported supply tag
2. include `&querystring={{QP_querystring}}` in the demand tag endpoint URL

For example, if you have a demand tag that requires *appVersion*, the endpoint URL may contain *appVersion=[APPLICATION\_VERSION]*. SpringServe does not have a designated app version macro, but you can follow these steps to use a passthrough macro:

1. append *&appVersion=[APPLICATION\_VERSION]* to your supply tag that you export to your supply partner. You will need to do this for any supply that is selling to this demand tag.
2. replace *[APPLICATION\_VERSION]* in the demand tag endpoint url with *{{QP\_appVersion}}*

SpringServe will see *QP\_* in the endpoint url and look for *appVersion=* in the request. In this case, *appVersion* is the query string parameter and whatever follows the equals sign will be passed through the macro. Note that your supply partner must replace *[APPLICATION\_VERSION]* with their own supported macro in order for the value to be passed through.

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