

# JavaScript Event-Tracking

## Event-Tracking mit und ohne Google

In diesem Beispiel werden Aufrufe von externen Links, sprünge auf Sprungmarken, mailto, tel, Downloads, Videos und Audios als auch Ereignisse wie Scrollen auf der Seite oder Verlassen der Seite selbst das umschalten auf einen anderen Tab über XMLHttpRequest (Ajax) an den Server (aufgerufene Adresse) zurückgemeldet. Eine Routine auf dem Server kann dann einfach an Hand der POST Parameter die Zugriffe analysieren.

[GoogleAnalytics Code und die Event-Tracking Erweiterung \(/code/ga-snippet.js?mode=download\)](#) JavaScript (694 bytes) 14.05.2016 12:03

```
(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){
  (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();
  a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)
})(window,document,'script','/www.google-analytics.com/analytics.js','ga');
ga('create', 'UA-XXXXXX-X', 'auto');
ga('require', 'displayfeatures');
ga('set', 'anonymizeIp', true);
ga('send', 'pageview');
```

```
// activate GA event tracking
// Copyright 2016 Udo Schmal www.gocher.me
// http://www.gocher.me/Event-Tracking
(function(){
  var s=document.createElement('script');
  s.src='http://www.gocher.me/code/ga.js';
  document.body.appendChild(s);}());
```

```
// activate GA event tracking
// Copyright 2016 Udo Schmal www.gocher.me
// http://www.gocher.me/Event-Tracking
(function(){
  var s=document.createElement('script');
  s.src='http://www.gocher.me/code/ga.js';
  document.body.appendChild(s);}());
```

[im Moment nur für http]

Art	Kategorie	Aktion	Label	Wert
externe Links	external	click	url des Links	1
Sprung zu einer Sprungmarke	internal	click	id der Sprungmarke	1
E-Mail mailto: Link	email	click	E-Mail-Adresse	1
Telefonnummer	telefone	click	Telefonnummer	1
Download Link	download	click	url der Datei	1
Button Klick	button	click	id - Caption	1
Input Type Button Klick	input-[type]	click	id - Value	1
Video Start	video	play	url des Videos	Zeit in ms
Video Pause	video	pause	url des Videos	Zeit in ms
Video Beendet	video	ended	url des Videos	Zeit in ms
Audio Start	audio	play	url der Audiodatei	Zeit in ms
Audio Pause	audio	pause	url der Audiodatei	Zeit in ms
Audio Beendet	audio	ended	url der Audiodatei	Zeit in ms
Anzeige der Seite	Time on Page	show	url der Seite	Zeit in ms
Seite nicht mehr sichtbar, z.B. neuer Tab	Time on Page	hide	gemessene sichtbare Zeit in ms	Zeit in ms
Verlassen der Seite	Time on Page	leave	gemessene gesamte sichtbare Zeit in ms	Zeit in ms
Scroll Event	Scroll Depth	Percentage	Baseline, 25%, 50%, 75%, 100%	1

Code:

[tracking.js \(/code/tracking.js?mode=download\)](#) JavaScript (10,24 kByte) 11.05.2016 20:40

```
/*jshint indent: 2, white: true, browser: true, devel: true, plusplus: true, regexp: true */
'use strict';
(function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){
  (i[r].q=i[r].q||[]).push(arguments)},i[r].l=1*new Date();
  a=s.createElement(o), m=s.getElementsByTagName(o)[0];a.async=1;a.src=g;m.parentNode.insertBefore(a,m)
})(window,document,'script','/www.google-analytics.com/analytics.js','ga');
ga('create', 'UA-XXXXXX-X', 'auto');
ga('require', 'displayfeatures');
ga('set', 'anonymizeIp', true);
ga('send', 'pageview');

function ready(f) {
  if (/complete|loaded/i.test(document.readyState)) {
    f();
  } else {
    setTimeout("ready("+f+")",9);
  }
}

function Analyse() {
  this.scrollTrue = false;
  this.scroll25 = false;
  this.scroll50 = false;
  this.scroll75 = false;
```

```

this.scroll100 = false;
this.winHeight = null;
this.docHeight = null;
this.totalTime = 0;
this.startTime = null;
this.hidden = null;
}
Analyse.prototype = {
  addListener: function (target, eventName, listener) {
    if (target.addEventListener) {
      target.addEventListener(eventName, listener, false);
    } else if (target.attachEvent) {
      target.attachEvent("on"+eventName, listener);
    } else {
      target["on"+eventName] = listener;
    }
  },
  send: function (type, category, action, label, value) {
    // console output
    console.log("send(" + type + ", " + category + ", " + action + ", " + label + ", " + value + ")");
    // google analytics output
    ga('send', type, category, action, label, value);
  /*
  // own analyser output
  var xhr;
  try {
    xhr = new XMLHttpRequest();
    if (xhr) {
      xhr.onreadystatechange = function (){};
      xhr.open('post', window.location.pathname);
      xhr.setRequestHeader("content-type", "application/x-www-form-urlencoded");
      xhr.send('cmd=' + type + '&category=' + category + '&action=' + action + '&label=' + label + '&value=' + value );
    }
  } catch (e) {};
  */
},
  click: function (el) {
    var base, baseHref, href, extension, isThisDomain, category = null, action = null, label = null;
    switch (el.tagName.toLowerCase()) {
      case 'a':
        base = document.getElementsByTagName("base");
        baseHref = (base.length > 0 ? baseHref = base[0].href : window.location.protocol + "://" + window.location.host + "");
        href = el.getAttribute("href");
        if (href === undefined) {
          href = "";
        }
        isThisDomain = href.match(document.domain.split('.').reverse()[1] + '!' + document.domain.split('.').reverse()[0]);
        if (!href.match(/^javascript:/i)) {
          if (href.match(/^mailto:/i)) {
            category = "email";
            action = "click";
            label = href.replace(/^mailto:/i, "");
          } else if (href.match(/^#/i)) {
            category = "internal";
            action = "click";
            label = href.replace(/^#/i, "");
          } else if (href.match(/^(zip|exe|dmg|pdf|doc.*|xls.*|ppt.*|mp3|txt|rar|wma|mov|avi|wmv|flv|wav)$/i)) {
            extension = (/[/].exec(href) ? /^[^].+$/i.exec(href) : undefined);
            category = "download";
            action = "click-" + extension[0].toLowerCase();
            label = href.replace(/ /g, "-");
          } else if (href.match(/^https?:/i) && !isThisDomain) {
            category = "external";
            action = "click";
            label = href.replace(/^https?:/i, "");
          } else if (href.match(/^tel:/i)) {
            category = "telephone";
            action = "click";
            label = href.replace(/^tel:/i, "");
          }
        }
        break;
      case 'button':
        category = "button";
        action = "click";
        label = (el.getAttribute("id") ? el.getAttribute("id") + '-':) + el.textContent || el.innerText;
        break;
      case 'input':
        category = "input-" + el.getAttribute('type');
        action = "click";
        label = (el.getAttribute("id") ? el.getAttribute("id") + '-':) + el.value;
    }
  }
}

```

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    break;
  }
  if ((category !== null) && (action !== null)) {
    this.send('event', category, action, encodeURIComponent(label), 1);
    if ((el.tagName === 'a') && (el.getAttribute('target') === undefined || el.getAttribute('target').toLowerCase() !== '_blank')) {
      setTimeout(function() { location.href = href; }, 400);
      return false;
    }
  }
},
resize: function () {
  var body = document.body, doc = document.documentElement;
  this.winHeight = window.innerHeight || doc.clientHeight || body.clientHeight;
  this.docHeight = Math.max(body.scrollHeight, body.offsetHeight, doc.clientHeight, doc.scrollHeight, doc.offsetHeight);
},
scroll: function () {
  var scrollPos = 0, scrollPer;
  if (typeof(window.pageYOffset) === 'number') {
    //Netscape compliant
    scrollPos = window.pageYOffset;
  } else if (document.body && document.body.scrollTop) {
    //DOM compliant
    scrollPos = document.body.scrollTop;
  } else if (document.documentElement && document.documentElement.scrollTop) {
    //IE6 standards compliant mode
    scrollPos = document.documentElement.scrollTop;
  }
  scrollPer = (scrollPos / (this.docHeight - this.winHeight)) * 100;
  if ((scrollPer > 90) && !this.scroll100) {
    this.scroll100 = true;
    this.send("event", "Scroll Depth", "Percentage", "100%", 1);
  } else if ((scrollPer > 75) && !this.scroll75) {
    this.scroll75 = true;
    this.send("event", "Scroll Depth", "Percentage", "75%", 1);
  } else if ((scrollPer > 50) && !this.scroll50) {
    this.scroll50 = true;
    this.send("event", "Scroll Depth", "Percentage", "50%", 1);
  } else if ((scrollPer > 25) && !this.scroll25) {
    this.scroll25 = true;
    this.send("event", "Scroll Depth", "Percentage", "25%", 1);
  } else if ((scrollPer > 120) && !this.scrollTrue) {
    this.scrollTrue = true;
    this.send("event", "Scroll Depth", "Percentage", "Baseline", 1);
  }
},
unload: function () {
  var diffTime = 0;
  if (this.startTime !== null) {
    diffTime = new Date().getTime() - this.startTime;
  }
  this.send("event", "Time on Page", "leave", window.location.pathname, this.totalTime + diffTime);
},
visibilityChange: function () {
  if (document[!this.hidden]) {
    var diffTime = new Date().getTime() - this.startTime;
    this.totalTime = this.totalTime + diffTime;
    this.startTime = null;
    this.send("event", "Time on Page", "hide", window.location.pathname, diffTime);
  } else {
    this.startTime = new Date().getTime();
    this.send("event", "Time on Page", "show", window.location.pathname, this.totalTime);
  }
},
play: function (el) {
  var label = el.currentSrc.replace(/^https?:\W/i, "") || el.id;
  this.send('event', el.tagName.toLowerCase(), 'play', label, (el.currentTime * 1000).toFixed(0));
},
pause: function (el) {
  var label = el.currentSrc.replace(/^https?:\W/i, "") || el.id;
  this.send('event', el.tagName.toLowerCase(), 'pause', label, (el.currentTime * 1000).toFixed(0));
},
ended: function (el) {
  var label = el.currentSrc.replace(/^https?:\W/i, "") || el.id;
  this.send('event', el.tagName.toLowerCase(), 'ended', label, (el.currentTime * 1000).toFixed(0));
},
iterate: function (el) {
  var self = this, childs;
  el = el || document.getElementsByTagName("body")[0];
  if (el.nodeType === 1) {
    switch (el.tagName.toLowerCase()) {
      case "a": // ini link click tracking
    }
  }
}

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if (el.getAttribute("href")) {
  if ((el.getAttribute("href") !== undefined) && (el.getAttribute("href").indexOf("javascript:") === -1)) {
    this.addListener(el, 'click', function (event) { self.click(this); });
  }
}
break;
case "button": // init button click tracking
this.addListener(el, 'click', function (event) { self.click(this); });
break;
case "input": // init input type button click tracking
if (el.getAttribute("type").match(/(button|image|reset|submit)$/i)) {
  this.addListener(el, 'click', function (event) { self.click(this); });
}
break;
case "video": // init video tracking
this.addListener(el, "play", function (event) { self.play(this); });
this.addListener(el, "pause", function (event) { self.pause(this); });
this.addListener(el, "ended", function (event) { self.ended(this); });
break;
case "audio": // init video & audio tracking
this.addListener(el, "play", function (event) { self.play(this); });
this.addListener(el, "pause", function (event) { self.pause(this); });
this.addListener(el, "ended", function (event) { self.ended(this); });
break;
}
chlds = el.firstChild;
while (chlds !== null) {
  if (chlds.nodeType === 1) {
    this.iterate(chlds);
  }
  chlds = chlds.nextSibling;
}
}
},
init: function () {
this.startTime = new Date().getTime();
var self = this, el, els, visibilityChange, i;
//init scroll tracking
this.resize();
this.addListener(window, 'resize', function () { self.resize(); });
this.addListener(window, 'scroll', function () { self.scroll(); });
//init time on page tracking
if (document.hidden !== undefined) {
  this.hidden = "hidden";
  visibilityChange = "visibilitychange";
} else if (document.mozHidden !== undefined) {
  this.hidden = "moz-hidden";
  visibilityChange = "mozvisibilitychange";
} else if (document.msHidden !== undefined) {
  this.hidden = "msHidden";
  visibilityChange = "msvisibilitychange";
} else if (document.webkitHidden !== undefined) {
  this.hidden = "webkit-hidden";
  visibilityChange = "webkitvisibilitychange";
}
this.addListener(document, visibilityChange, function () { self.visibilityChange(); });
this.addListener(window, 'unload', function () { self.unload(); });
this.send("event", "Time on Page", "show", window.location.pathname, this.totalTime);
this.iterate();
}
};

ready(function(event) {
var analyse = new Analyse();
analyse.init();
});

```

Autor: [Udo Schmal \(https://plus.google.com/107378996518617284564?rel=author\)](https://plus.google.com/107378996518617284564?rel=author), veröffentlicht: 07.01.2016, letzte Änderung: 14.05.2016

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