

10 Minutes with Ionic 2: Using the Camera with Ionic Native

(<https://blog.ionicframework.com/10-minutes-with-ionic-2-using-the-camera-with-ionic-native/>)



By Andrew (<https://twitter.com/andrewmcgivery>) on May 10, 2016 IONIC

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In past posts in this series, we looked at some of the basics of creating an Ionic App, including a basic Hello World App (<http://blog.ionic.io/10-minutes-with-ionic-2-hello-world/>), an app with pages and navigation (<http://blog.ionic.io/10-minutes-with-ionic-2-adding-pages-and-navigation/>), and finally an app that calls an API (<http://blog.ionic.io/10-minutes-with-ionic-2-calling-an-api/>).

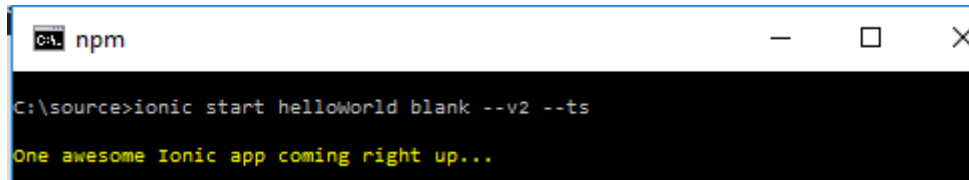
In this article, we will look at using Ionic Native to interface with the Cordova Camera plugin. We'll use the native camera to take a picture and output that picture into our view.

Ionic Start

We'll start by creating an app with the blank template using `ionic start`.

```
ionic start cameraApp blank --v2 --ts
```

As described in the first post of this series, we now have some basic plumbing, including a `home` page.



Setting up the Plugin

If you have not yet installed Cordova, you'll need to do that before completing this tutorial. This may require adding `sudo` before the command.

```
npm install -g cordova
```

After changing into our app directory (`cd cameraApp`), you'll want to add a platform for your app.

```
ionic platform add android
```

Add the `camera` plugin.

```
ionic plugin add cordova-plugin-camera
```

Taking a Picture

In our `home.ts` file, we'll need to import `Camera` from `ionic-native`.

```
import {Camera} from 'ionic-native';
```

Inside of our `HomePage` class, we'll want to create a property that will hold the base64 string of our picture.

```
import {Page} from 'ionic-angular';
import {Camera} from 'ionic-native';

@Page({
  templateUrl: 'build/pages/home/home.html'
})
export class HomePage {
  public base64Image: string;

  constructor() {}
}
```

Now, let's add a method, `takePicture`, which calls the `Camera.getPicture` method. This method accepts an `options` parameter and returns a promise that resolves when we get an image from the user. In our options array, we are specifying that we want our image to be a `base64Image` (`destinationType`) and that we want it to be `1000` by `1000` pixels. In the resolved promise, we are receiving `imageData`, which is our base64 image data.

```
import {Page} from 'ionic-angular';
import {Camera} from 'ionic-native';

@Page({
  templateUrl: 'build/pages/home/home.html'
})
export class HomePage {
  public base64Image: string;

  constructor() {}

  takePicture(){
    Camera.getPicture({
      destinationType: Camera.DestinationType.DATA_URL,
      targetWidth: 1000,
      targetHeight: 1000
    }).then((imageData) => {
      // imageData is a base64 encoded string
      this.base64Image = "data:image/jpeg;base64," + imageData;
    }, (err) => {
      console.log(err);
    });
  }
}
```

UPDATE: A previous version of this post discussed using `ngZone` due to a bug in an earlier version of the framework. This is no longer required in the newest version of the framework.

Inside of our template, we'll add a button that calls our `takePicture` method and shows an image if we have image data in our `base64Image` property.

```
<ion-navbar *navbar>
  <ion-title>
    Home
  </ion-title>
</ion-navbar>

<ion-content class="home">
  <ion-card>
    <ion-card-content>
      Hello World, this is my camera app

      <button (click)="takePicture()">Take a Picture</button>

      Latest Picture:
      <img [src]="base64Image" *ngIf="base64Image" />
    </ion-card-content>
  </ion-card>
</ion-content>
```

Ionic Upload

In previous parts of this series, we would normally run `ionic serve` here. However, in this case, because we're working with Cordova plugins, we will need to run it on a device. `ionic upload` allows us to view and rapidly develop the app in the Ionic View app (<http://blog.ionic.io/rapid-development-with-ionic-view/>).

Before we run this, let's make sure that inside our `gulpfile`, we're running the `build` task before we upload. I added this task in the `Ionic hooks` section.

```
gulp.task('serve:before', ['watch']);
gulp.task('emulate:before', ['build']);
gulp.task('deploy:before', ['build']);
gulp.task('build:before', ['build']);
gulp.task('upload:before', ['build']); //Build before we upload
```

Now, we can build and upload our app to ionic.io:

```
ionic upload
```

```
C:\source\cameraApp>ionic upload
WARN: ionic.config.js has been deprecated, you can remove it.

Running 'upload:before' gulp task before upload
[15:25:17] Starting 'clean'...
[15:25:17] Finished 'clean' after 19 ms
[15:25:17] Starting 'build'...
[15:25:17] Starting 'sass'...
[15:25:17] Starting 'html'...
[15:25:17] Starting 'fonts'...
[15:25:17] Starting 'scripts'...
[15:25:17] Finished 'html' after 41 ms
[15:25:17] Finished 'scripts' after 49 ms
[15:25:17] Finished 'fonts' after 101 ms
[15:25:18] Finished 'sass' after 1.06 s
[15:25:34] Finished 'build' after 17 s
[15:25:34] Starting 'upload:before'...
[15:25:34] Finished 'upload:before' after 8.8 μs

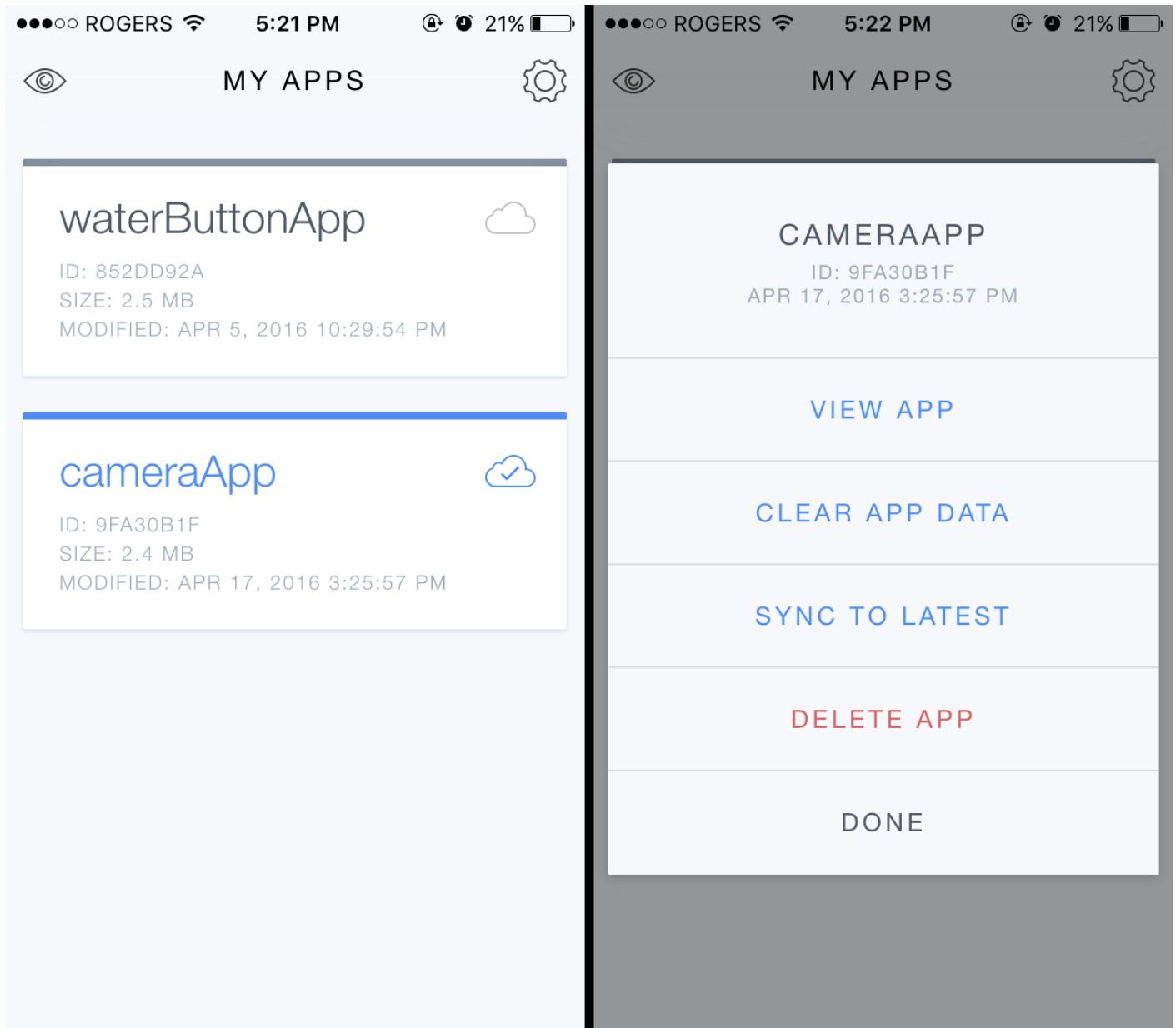
Uploading app....
WARN: ionic.config.js has been deprecated, you can remove it.
Saved app_id, writing to ionic.io.bundle.min.js...
Successfully uploaded (9fa30b1f)

Share your beautiful app with someone:

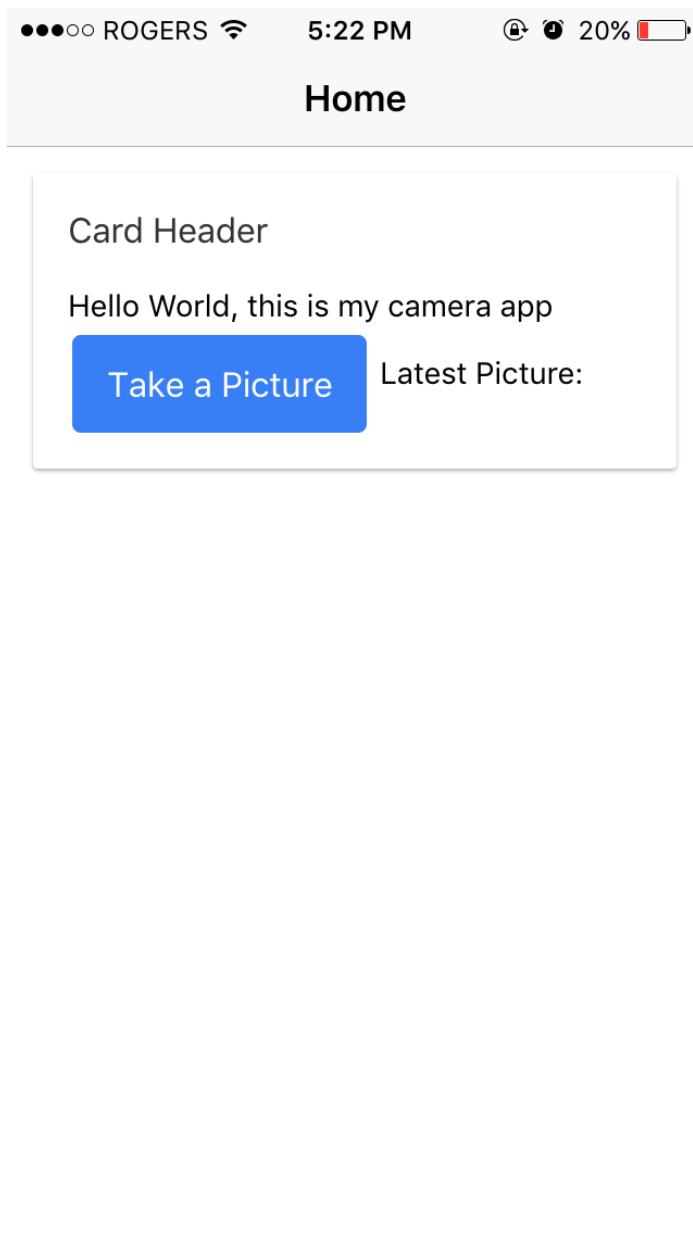
$ ionic share EMAIL

Saved api_key, writing to ionic.io.bundle.min.js...
```

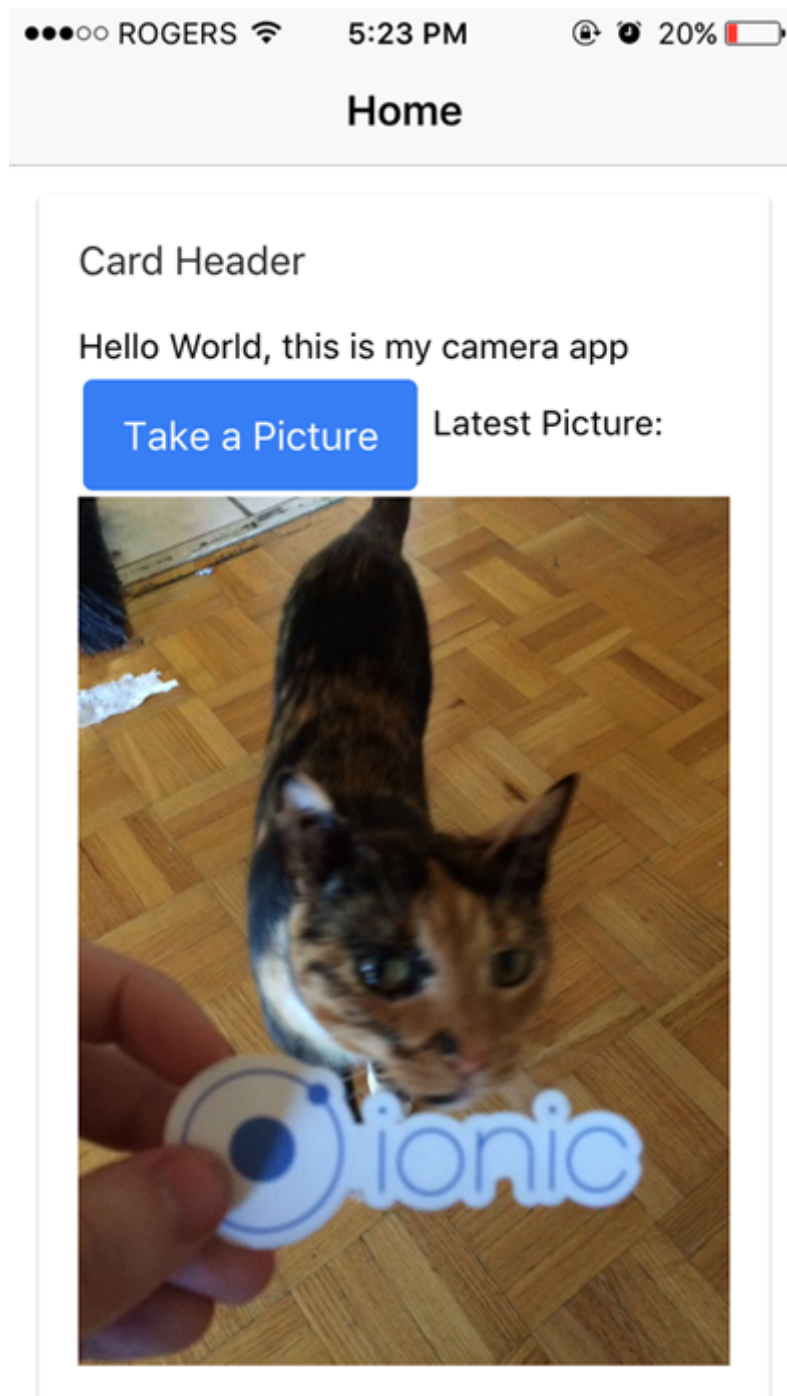
Now, we can go into Ionic View, Sync To Latest, and View our App.



Once in our app, we can take a picture of a cute kitten and an awesome sticker by pressing the “Take a Picture” button.



And our awesome picture will be outputted to our view:



Conclusion

In under ten minutes, we have integrated a common native feature into our app with a relatively small amount of code. The combination of Ionic Native and Ionic View is a killer partnership for rapid prototyping, developing, and ultimately creating top-of-the-line mobile apps.

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Ionic Framework

Arjun Gupta

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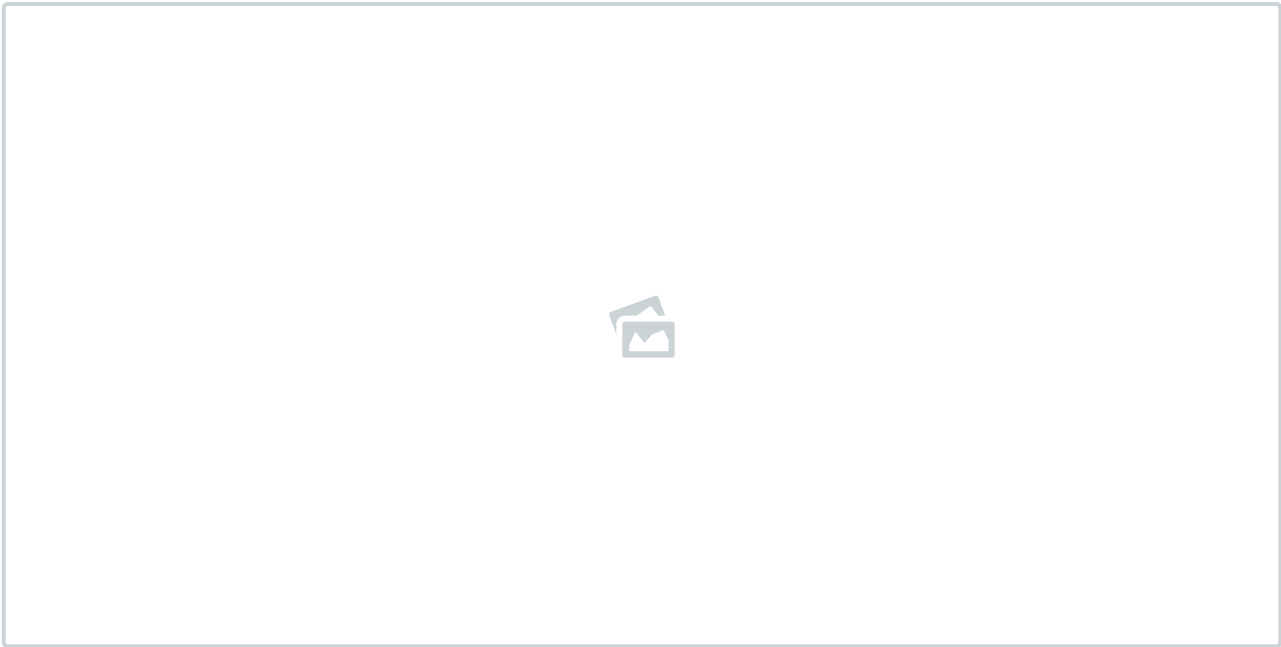


Join the discussion...



Juv Chan • a year ago

I am following the post above to create the camera app but I am getting the error below. The system, framework & modules version are as shown. Please kindly give me some guide on this, thanks very much.



19 ^ | v • Reply • Share ›



CroModder ➔ Juv Chan • a year ago

Use Component instead:
<https://forum.ionicframework.com/>

<https://forum.ionicframework.com/10-minutes-with-ionic-2-using-the-camera-with-ionic-native/>

^ | v • Reply • Share ›



Shalom iluz → Juv Chan • a year ago

me too i guess the same error not sure what to do

^ | v • Reply • Share ›



iriekun • a year ago

hi! the image is not shown even I use `` any help?

4 ^ | v • Reply • Share ›



Gabrielle Cozart → iriekun • a year ago

Try using `<ion-img [src]="base64Image"></ion-img>` instead

^ | v • Reply • Share ›



최규민 → iriekun • a year ago

same here

^ | v • Reply • Share ›



Gabrielle Cozart → 최규민 • a year ago

Also not working. I think it's a problem with Ionic View. I can't display any base 64 image on my page in Ionic View, but works within the browser.

^ | v • Reply • Share ›



Alan Joseph → Gabrielle Cozart • 9 months ago

Should be because the url is getting sanitized automatically by the angular. you can de-sanitize it by using

```
//this.captureDataUrl =
this.sanitizer.bypassSecurityTrustUrl('data:image/jpeg;base64,' +
imageData)
```

^ | v • Reply • Share ›



Marcelo • 2 years ago

Do you know how to take a square picture ?

3 ^ | v • Reply • Share ›



Kushal Atreya → Marcelo • 2 years ago

```
Camera.getPicture().then(function(imageURI) {
  console.log(imageURI);
  $scope.lastPhoto = imageURI;
}, function(err) {
  console.err(err);
}, {
  quality: 75,
  targetWidth: 320,
  -- -- --
```

```
targetHeight: 320,  
saveToPhotoAlbum: false  
});
```

```
};
```

2 ^ | v • Reply • Share ›

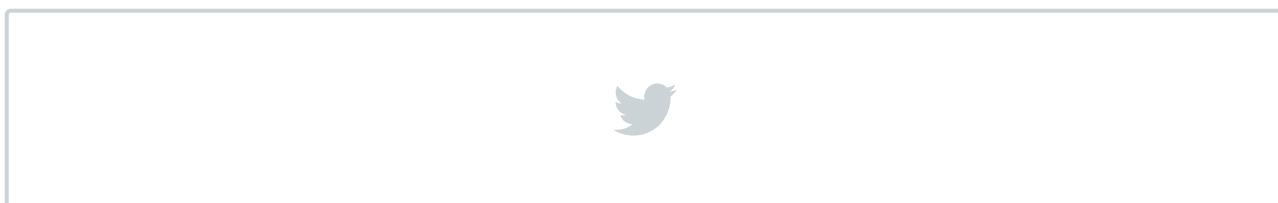


Nic Raboy • 2 years ago

Good post. I wrote one very similar here:

<https://www.thepolyglotdeve...>

This is beyond where I'm going though. I had a long discussion with Max Lynch on Twitter regarding NgZone seen here:



He claims that you shouldn't have to do this, but I agree with Andrew that this is a requirement.

2 ^ | v • Reply • Share ›



Andrew McGivern → Nic Raboy • 2 years ago

So, the version of the framework that I based this post on (beta 4) had a bug that made ngZone needed to get this to work. In the newest version of the framework (beta 6), this is fixed and zones are no longer required. The post has been updated to reflect this.

^ | v • Reply • Share ›



minhnd → Andrew McGivern • a year ago

How about in the 2.0.0 rc 2 version. I can not show image in ios platform (android is fine).

^ | v • Reply • Share ›



minhnd → minhnd • a year ago

I discovered it is error with ios 10 not because of ionic framework (it worked ok with ios 9). So how can i fix it now ?

^ | v • Reply • Share ›



Raymond Camden • 2 years ago

I was curious why you used base64 instead of the file system, but when I saw you were using the Ionic View app, it made sense. You may want to call that out for folks who don't read comments. It is a bit distracting but a good reminder about the kind of issue you may run into w/ Ionic View. (And to be clear, I don't mean to imply that diminishes the usefulness of Ionic View, but you definitely don't want to forget the limitations.)

2 ^ | v • Reply • Share ›



Andrew McGivern → Raymond Camden • 2 years ago

This was mostly just to show an example of what you can do with it... base64 could also be useful if you wanted to send the image to a server.

^ | v • Reply • Share ›



Raymond Camden → Andrew McGivern • 2 years ago

Not any more useful than a raw file you can send with XHR2 or FileTransfer.

(And yes - I know I'm debating something that isn't necessarily important to the post - sorry! :)

^ | v • Reply • Share ›



Andrew McGivern → Raymond Camden • 2 years ago

haha. No problem Ray. Always enjoy your discussion. :)

I can't really debate with you on this one cause I agree that those are viable options for sure. Only issue I could see with XHR2 would be older versions of Android (4.3 and 4.4) may not have the best support.

Again, I was just using base64 as a quick and easy example, but I agree that the file system would also be valid. :)

^ | v • Reply • Share ›



Rohan Gupta • a year ago

can we also access the properties of the clicked image like (name of image, type of image and location of image)???

1 ^ | v • Reply • Share ›



Hanan Ur Rehman • 2 days ago

This tutorial is outdated

Please update according to Ionic 3

^ | v • Reply • Share ›



UMESH SHELKE • 2 months ago

if i want to choose image from a list of image ..like " whats App camera functionality " what should i do ?? any solution please

^ | v • Reply • Share ›



xiwi • 4 months ago

Why it reloads the app when I take the picture sometimes?

^ | v • Reply • Share ›



Nii Quartey • 5 months ago

Hello. Is there a way we can do this using ionic In the creator rather than CLI

^ | v • Reply • Share ›



Lahiru Liyanage • 6 months ago

I can take the image from photo library but I have a problem that is how to upload that image with in an API . I am stuck with this problem for three days

^ | v • Reply • Share ›



Asad Waheed • 8 months ago

Png image gets rotated on samsung when are you guys going to fix this ? its been like this since the start of this plugin.

^ | v • Reply • Share ›



Wouter Magré • 8 months ago

Hi, According to this tutorial I have to add some info to the gulpfile. In my development folders I can't find this file. Where should it be and how should it look like?

^ | v • Reply • Share ›



Dan Marinescu ➔ Wouter Magré • 7 months ago

Hi, have you find the gulpfile?

^ | v • Reply • Share ›



Mor Tzuber • 9 months ago

this doesn't allow to take a video as well...it is possible to have the both option, camera and video?

^ | v • Reply • Share ›



Samiullah Khan • 10 months ago

Looking at so many people getting issues, The only thing that I changed is to use the reference of Camera module using constructor to assignment to call the getPicture function. But I have read it somewhere to stay away from DestinationType.DATA_URL and use other options.

^ | v • Reply • Share ›



Nguyễn Long • a year ago

i wanna mute camera sound .. how i can do that with ionic?

^ | v • Reply • Share ›



Tomaz Kosar • a year ago

Hi!

The image didn't show up to me either.

I changed

```
<img [src]="base64Image" *ngif="base64Image"/>
```

to

```
<img id="camera-image"/>
```

11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

and inserted the following code in `getPicture`:

```
this.camera.getPicture(options).then((imageData) => {
  let cameraImageSelector = document.getElementById('camera-image');
  let image = "data:image/jpeg;base64," + imageData;
  cameraImageSelector.setAttribute('src', image );
}, (err) => {
  console.log(err);
});
```

Cheers!

^ | v • Reply • Share ›



VictorL ➔ Tomaz Kosar • 7 months ago

this worked for me.

^ | v • Reply • Share ›



Minhaj Sayyad • a year ago

Not working after update ionic to v3.1
Showing error camera cancelled.

^ | v • Reply • Share ›



Silver Watkins • a year ago

If i wanted to add the camera function to a tab page(full screen camera when "camera" page is called" how would I go about this? I couldn't find any docs referencing what I'm looking for... Any help?

^ | v • Reply • Share ›



xnosx • a year ago

I have a problem running on a Nexus 7, the code is exactly like yours, when i comment the function `takePicture` and make ionic run android again, the app run correctly but with out this function obviously cannot take a pic with my device,what do you think!?

Whit this example can run it with out problem!<https://github.com/aaronksa...>

^ | v • Reply • Share ›



Ritesh Bhat • a year ago

should be labeled Deprecated or should be updated soon...

^ | v • Reply • Share ›



Pétalomine • a year ago

Actually, I'm doing the same things with the new functionalities of Ionic 2 nowadays. It opens the camera, I take the picture click on OK but nothing happened, the picture doesn't appear. I use "`@Component`" instead of "`@Page`" and `Template` instead of `TemplateURL`.

I tried with "`[src]`" and "`src`"

There is the part of the code :

```
import { Component } from '@angular/core';
import { Camera } from 'ionic-native';

@Component({
  template: `
    <ion-content>Profile
    <ion-card>
    <ion-card-content>
    
    </ion-card-content>
    </ion-card>
    <ion-card>
```

[see more](#)

^ | v • Reply • Share ›



Clem → Pétaomine • 9 months ago

Hello Pétaomine,
Do you solve your issue? Because I'm afraid that I'm in the same situation.
Thank you

^ | v • Reply • Share ›



Arul MaNo Adaptive • a year ago

in my phone this code not working as open camera why?

^ | v • Reply • Share ›



madthew83 • a year ago

Guys does anyone of you know a good js library that allow me to make the image in black and white and compress it further before to upload it as base64?

^ | v • Reply • Share ›



Tomas Saieg → madthew83 • a year ago

Not sure about compression, but Jimp does the greyscaling -
<https://www.npmjs.com/package/jimp>

^ | v • Reply • Share ›



Alex Devoid • a year ago

Does anybody know why I would get "Camera.getPicture: source type 1 not available." and "No camera available" when I run this code on my ios simulator with xcode?

^ | v • Reply • Share ›



Felipe EstradaMEJ • a year ago

Hello, i doing just what the post says but i end up with the app restarting its self and going back to the rootview.

Any idea of how to work this out.

I am using
Ionic Framework 2.0.0-rc.5
Cli version 2.2.1
ionic App Lib 2.2.0
Ionic App Script 1.0.0
Cordova Cli 6.4
node 6.9.4

Thanks

^ | v • Reply • Share ›



Ankit Maheshwari → Felipe EstradaMEJ • 7 months ago

Did you found any solution for same problem..?

^ | v • Reply • Share ›



minhnd • a year ago

Hello I have just started with ionic 2. I followed this tutorial and it worked fine with Android. However in the ios platform, the image did not show to the view - just a blank square in the screen. This is my version info. Please help me .

Cordova CLI: 6.4.0

Ionic Framework Version: 2.0.0-rc.2

Ionic CLI Version: 2.1.4

Ionic App Lib Version: 2.1.2

Ionic App Scripts Version: 0.0.39

OS: Windows 7 SP1

Node Version: v4.5.0

^ | v • Reply • Share ›



minhnd → minhnd • a year ago

I discovered it is error with ios 10 not because of ionic framework (it worked ok with ios 9). So how can i fix it now? Is there any solutions?

^ | v • Reply • Share ›



snakelecaps → minhnd • a year ago

Hey, i was crazy 30mn to show this fuckin image on ios and i just read your post... did you found any solution? Thks a lot

^ | v • Reply • Share ›



Sundara Vel • a year ago

Thanks for your article. I've also wrote some articles about ionic 2 camera

Access Gallery: <https://phonegappro.com/ion...>

Access Camera: <https://phonegappro.com/ion...>

^ | v • Reply • Share ›



Adir Zorari • 2 years ago



2 years ago

hey andrew,
i'm trying to display the photo after i take it but it's not working at all.
i wrote in
ts file
this.notePicture = "data:image/jpeg;base64," + imageData;

in html file

it display me error photo and show this error
"Failed to load resource: net::ERR_FILE_NOT_FOUND"

^ | v • Reply • Share ›



Vivek Gautam → Adir Zoari • a year ago

in html do this.

^ | v • Reply • Share ›

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