

国土交通省総合技術開発プロジェクト
3次元地理空間情報を活用した安心・安全・快適な社会実現のための技術開発
第6回位置情報基盤WG

2016 オリンピック・パラリンピック リオデジャネイロ大会における 場所情報を使った移動支援の取組事例 2016年11月4日（金）

越塚 登
東京大学大学院情報学環教授

2012年ロンドン大会以後 オリンピック・パラリンピック運営に オープンデータが利活用されるように

IT立国日本としては、ロンドン、リオ以上が求められる



Row #	Date	Sex	Team/athlete	Team/athlete 2/country	Sport	Event	Results	Type of result	Position	Quality/Record
1	7/28/2012	M	Alan, Islamic Republic of		Cycling	Men's Road Race	Lapped	time		
2	7/28/2012	M	Hironaka Hironaka Japan	Elio Verde Italy	Judo	Men's -60 kg Samu Final of Table B	115-000	points		
3	7/28/2012	M	Anan Gantyan Russian Federation	Hironaka Hironaka Japan	Judo	Men's -60 kg Final - Gold Medal	100-000	points		
4	7/28/2012	W	Eva Csarneszlaki Hungary	Tomoko Fukumi Japan	Judo	Women's -68 kg Contest of Bronze Medal B	1001-0001	points		
5	7/28/2012	W	Joanna Melo Brazil		Swimming	Women's 400m Individual Medley Heats	CNS	time		
6	7/28/2012	M	Luca Paolini Italy		Cycling	Men's Road Race	DNF	time		
7	7/28/2012	M	Dreyfuss Pantuzo Brazil		Cycling	Men's Road Race	DNF	time		
8	7/28/2012	M	Edvard Bostad Hagen Norway		Cycling	Men's Road Race	DNF	time		
9	7/28/2012	M	Azzedine		Cycling	Men's Road Race		time		

■ ロンドンオリンピックは、初めてのオープンデータオリンピックとされている

■ 競技データが全てオープンデータとして提供されている（左ページ参照）



Rio 2016: The BigData Olympics

AUGUST 8, 2016 / EVA LOPEZ LOPEZ / DDJ TIPS AND TRICKS, OPEN DATA /

The complexity of turning sports events into data streams and visual results for a global audience

Sports are an infinite source of data with all its rankings, results tables and conditions. During the 2016 Summer Olympics in Rio, journalists, commentators and spectators will get head to head with that data live. But how do results and other metrics reach the displays of all the different stakeholders? The answer to this question lies in the [Olympic Data Feed \(ODF\)](#), the one source for all olympic live data.





Olympic Data Feed

[Home](#) | [Tools](#) | [Help](#)

Summer Olympic Games - Rio 2016

	Document ID	Version	Document Title	HTML	PDF	Samples	Upload date	Comments
	ODF/INT183	R-SOG-2016 V1.9 APP	ODF Foundation Principles	HTML	PDF		18 Dec 2015	Minor editing
	ODF/INT184	R-SOG-2016-GL V1.22 APP	ODF General Messages Interface Document	HTML	PDF		5 May 2016	New Version
	ODF/INT185	R-SOG-2016 V1.4 APP	Common Codes Definition	HTML	PDF		5 Feb 2016	Minor correction
	ODF/COD186	R-SOG-2016 V16.3 APP	Common Codes	HTML	ZIP		10 Aug 2016	New version
	ODF/COD187	R-SOG-2016 V14.0 APP	ODF Sport Codes	HTML	ZIP		1 Jun 2016	New version
	ODF/COD	R-SOG-2016 V16.3	ODF DT_CODES Messages		ZIP		10 Aug 2016	New version
	ODF/COD192	R-SOG-2016 V15.0 APP	ODF Header Values		ZIP		30 Jun 2016	New version
	ODF/INT190	R-SOG-2016 V1.6 APP	ODF Language Guidelines and Participant Names	HTML	PDF		18 Dec 2015	New Version, error correction
	ODF/INT145	R-SOG-2016-AR V2.4 APP	ODF Archery Data Dictionary	HTML	PDF	ODF Portal	5 May 2016	CR010642
	ODF/INT146	R-SOG-2016-AT V2.3 APP	ODF Athletics Data Dictionary	HTML	PDF	ODF Portal	5 May 2016	Minor corrections
	ODF/INT147	R-SOG-2016-BD V2.2 APP	ODF Badminton Data Dictionary	HTML	PDF	ODF Portal	24 Mar 2016	Minor corrections

Rio Adopts Transport App. To Try and Help Olympic Traffic

<http://www.dailyherald.com/article/20160712/sports/307129870/>



College Sports | updated: 7/12/2016 1:05 PM

Rio adopts transport app to try and help Olympic traffic

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RIO DE JANEIRO -- Rio de Janeiro's city hall has adopted a transportation app to try and help visitors get around the Olympic venues.

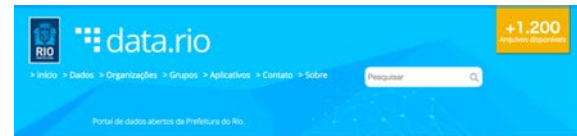
Rio does not have a public transportation information system, which will affect Olympic ticket-holders who have a short time to move between venues.

■ リオデジャネイロのオープンデータカタログサイト

▶ <http://data.rio>

■ 対象としているデータ

- ▶ 歴史 (922)
- ▶ 行政 (2)
- ▶ 社会発展 (1)
- ▶ 教育 (8)
- ▶ エンターテインメント (8)
- ▶ スポーツ (7)
 - ◆ オリンピックやパラリンピックのカレンダーなどを含む
- ▶ 税金 (2)
- ▶ 環境 (5)
- ▶ 歳入 (2)
- ▶ 健康 (2)
- ▶ 交通 (23)
- ▶ 観光 (5)
- ▶ 都市計画 (7)



Conheça os grupos



Dados em Destaque

1746 - Histórico - Aplicativo Móvel 1746 - Histórico - Aplicativo Móvel	Frequência e índice de aprovação escolares Frequência e índice de aprovação das escolas, por ano letivo.	Bairros do Rio de Janeiro Conjunto de dados com uma lista dos bairros do Rio de Janeiro, contendo apenas o nome do bairro e um ponto de...												
Estabelecimentos de Saúde Informações sobre estabelecimentos de saúde do município do Rio de Janeiro.	Museus Localização geográfica dos museus da cidade do Rio de Janeiro.	ACESSADOS <table border="1"> <thead> <tr> <th></th> <th>Mês</th> <th>Ano</th> </tr> </thead> <tbody> <tr> <td>Bairros do Rio de Janeiro</td> <td>28</td> <td>239</td> </tr> <tr> <td>Busleivam olimpico</td> <td>21</td> <td>149</td> </tr> <tr> <td>Estabelecimentos de saúde</td> <td>15</td> <td>129</td> </tr> </tbody> </table>		Mês	Ano	Bairros do Rio de Janeiro	28	239	Busleivam olimpico	21	149	Estabelecimentos de saúde	15	129
	Mês	Ano												
Bairros do Rio de Janeiro	28	239												
Busleivam olimpico	21	149												
Estabelecimentos de saúde	15	129												

data.rio : 公共交通データについて

■ Trem Supervia (鉄道)

- ▶ 駅の情報 : <http://data.rio/dataset/trem-supervia-estacoes>
- ▶ 駅(CSV) : <http://data.rio/dataset/pontos-de-parada-da-supervia>
- ▶ 路線(CSV) : <http://data.rio/dataset/pontos-dos-percursos-da-supervia>

■ Trem do Corcovado (鉄道)

- ▶ 駅(CSV) : <http://data.rio/dataset/pontos-de-parada-de-trem-do-corcovado>
- ▶ 路線(CSV) : <http://data.rio/dataset/pontos-dos-percursos-de-trem-do-corcovado>

■ VLT (LRT)

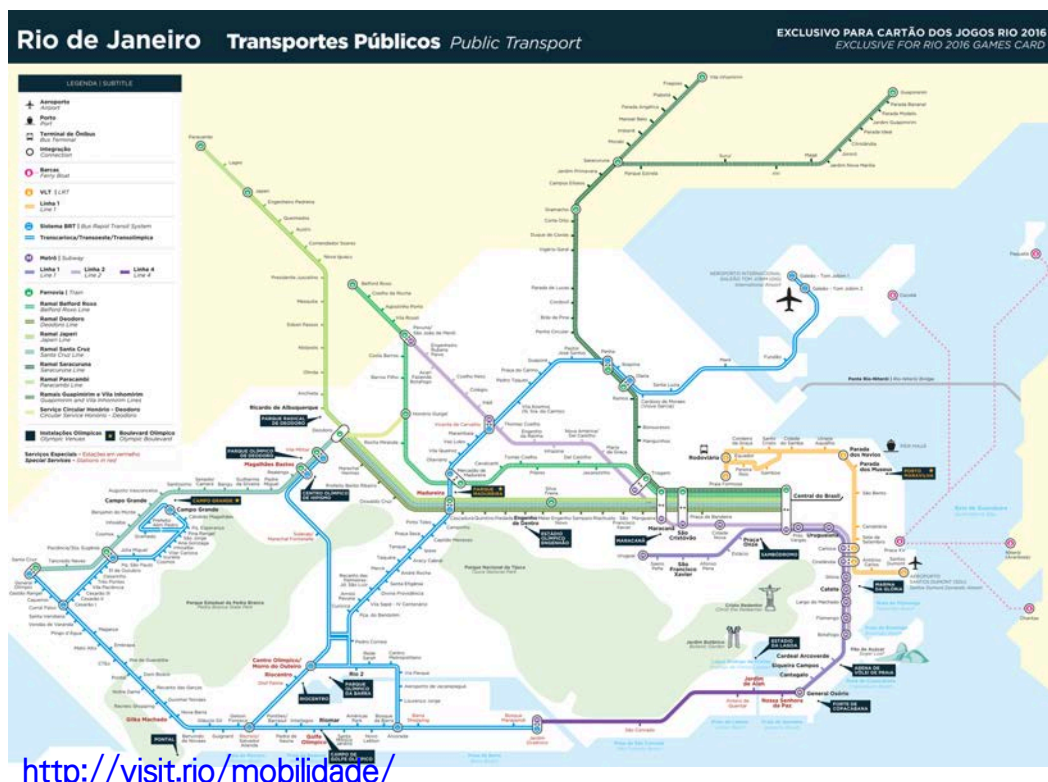
- ▶ 駅の情報 : <http://data.rio/dataset/vlt-estacoes>
- ▶ 路線の情報 : <http://data.rio/dataset/vlt-estacoes-linha-1>

■ Metro (地下鉄)

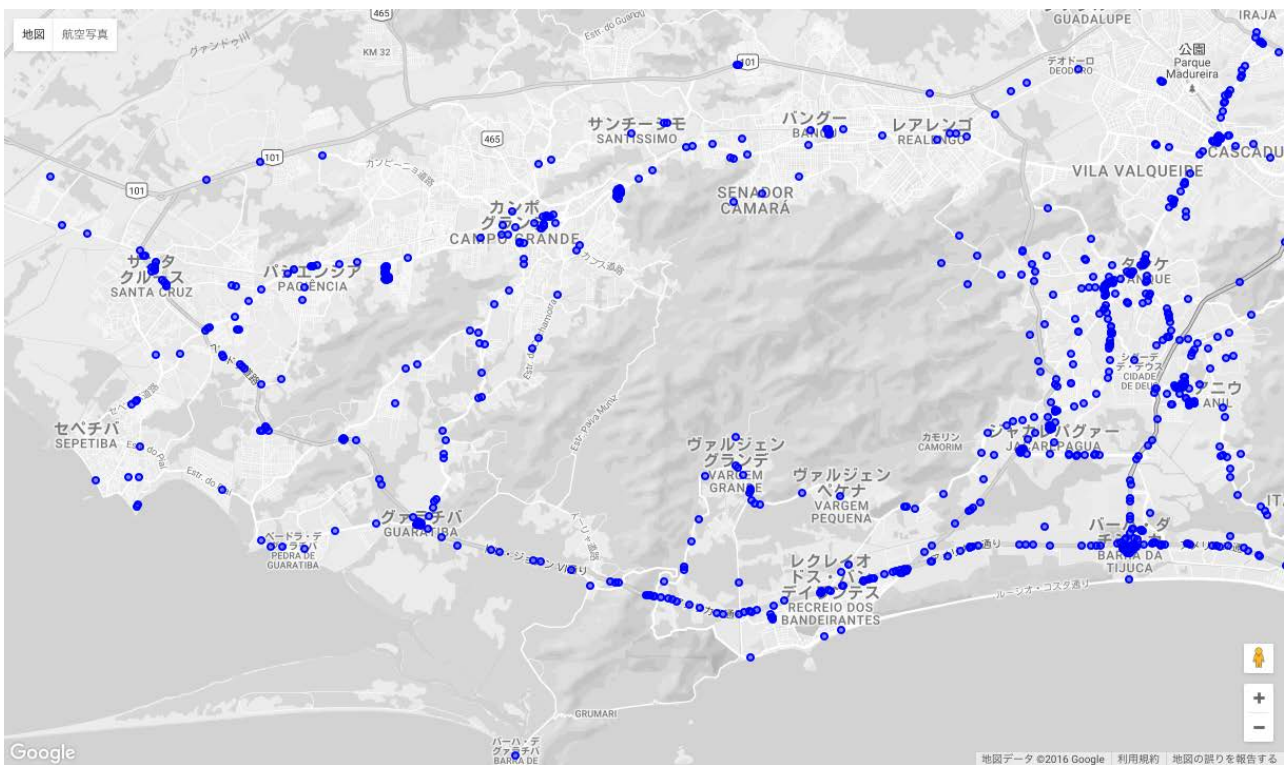
- ▶ 駅の情報 : <http://data.rio/dataset/metro-estacoes>
- ▶ 駅(CSV) : <http://data.rio/dataset/pontos-de-parada-de-metro>
- ▶ 路線(CSV) : <http://data.rio/dataset/pontos-dos-percursos-de-metro>

- **BRT (バス・ラピッド・トランジット)**
 - ▶ 車両の位置情報 : <http://data.rio/dataset/brt-gps>
 - ▶ Transoeste の駅の情報 : <http://data.rio/dataset/brt-transoeste-estacoes>
 - ▶ Transcarioca の駅の情報 : <http://data.rio/dataset/brt-transcarioca-estacoes>
- **Onibus (バス)**
 - ▶ バスの位置情報 : <http://data.rio/dataset/gps-de-onibus>
 - ▶ バスの位置情報 : <http://data.rio/dataset/onibus-gps-2>
 - ▶ バス路線の情報 : <http://data.rio/dataset/onibus-gtfs>
 - ▶ 停留所(CSV) : <http://data.rio/dataset/pontos-de-parada-de-onibus>
 - ▶ 路線(CSV) : <http://data.rio/dataset/pontos-dos-percursos-de-onibus>
- **Barcas (フェリー)**
 - ▶ 駅 : <http://data.rio/dataset/barcas-estacoes>
 - ▶ 停留所(CSV) : <http://data.rio/dataset/pontos-de-parada-de-onibus>
 - ▶ 路線(CSV) : <http://data.rio/dataset/pontos-dos-percursos-de-barcas>
- **その他**
 - ▶ Bike Rio : <http://data.rio/dataset/bike-rio>
 - ▶ 交通事故 : <http://data.rio/dataset/ocorrencias-de-transito>

(参考) リオの公共交通網



<http://visit.rio/mobilidade/>



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Olympic City Transportation Challenges

■ リオで実施された、オリンピックのための交通に関するアプリコンテスト

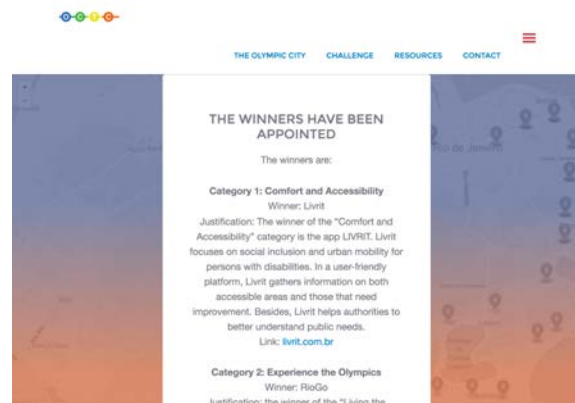
▶ <http://transportchallenge.rio/>

■ 以下のスケジュール

- ▶ 2015年11月3日 開始
- ▶ 2015年12月7日 コンセプト応募期限
- ▶ 2015年12月21日 ファイナリスト発表
- ▶ 2016年3月15日 アプリケーション応募
- ▶ 2016年4月1日 結果発表

■ 3部門

- ▶ Comfort and Accessibility 部門
- ▶ Experience the Olympics 部門
- ▶ Travel Planner 部門

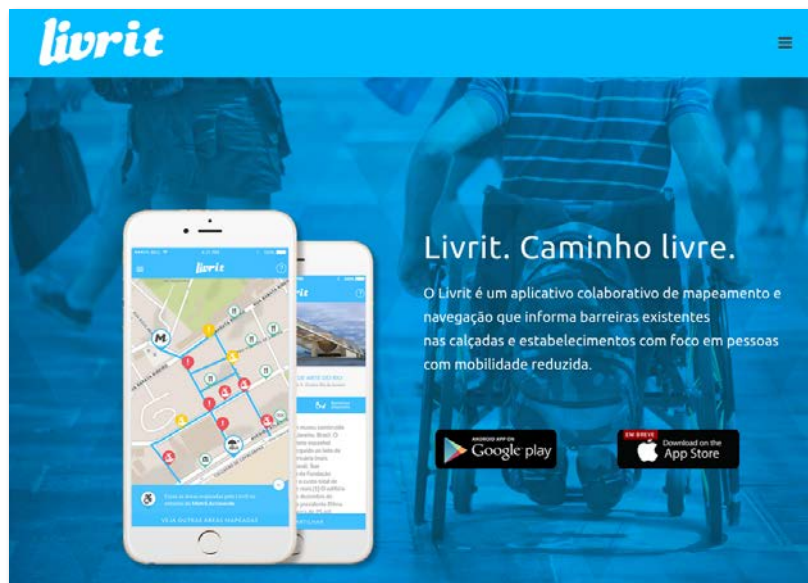


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■ みんなで作るバリアフリーナビ

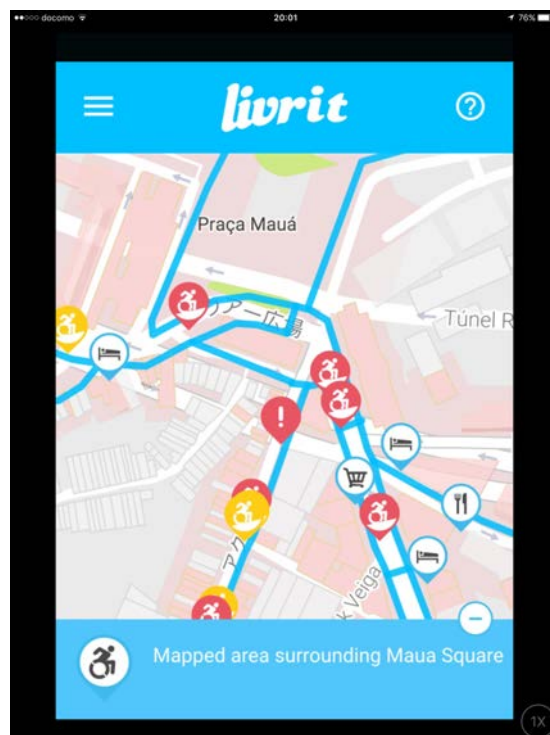
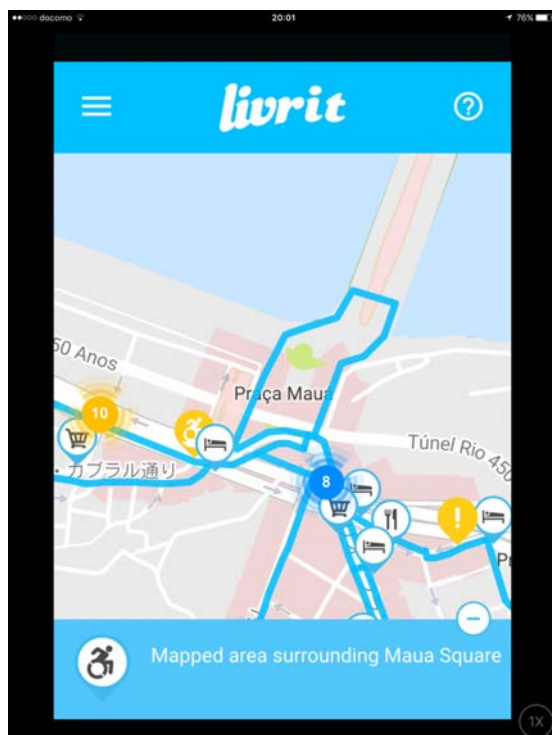
▶ <http://livrit.com.br/>



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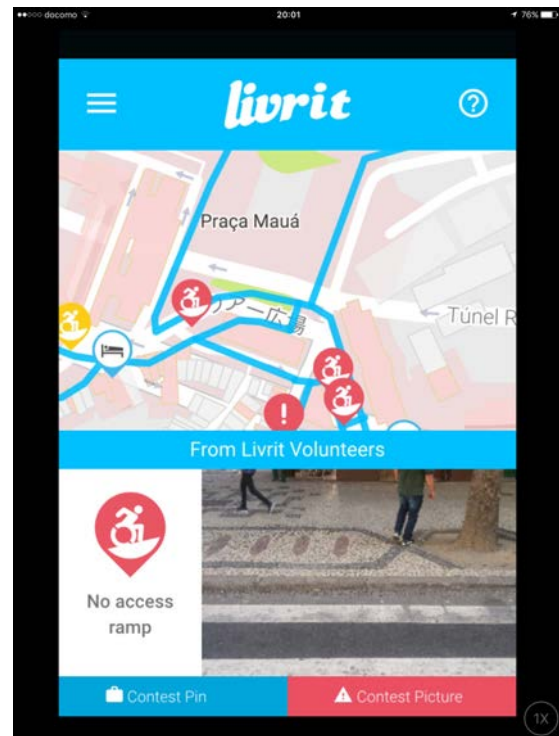
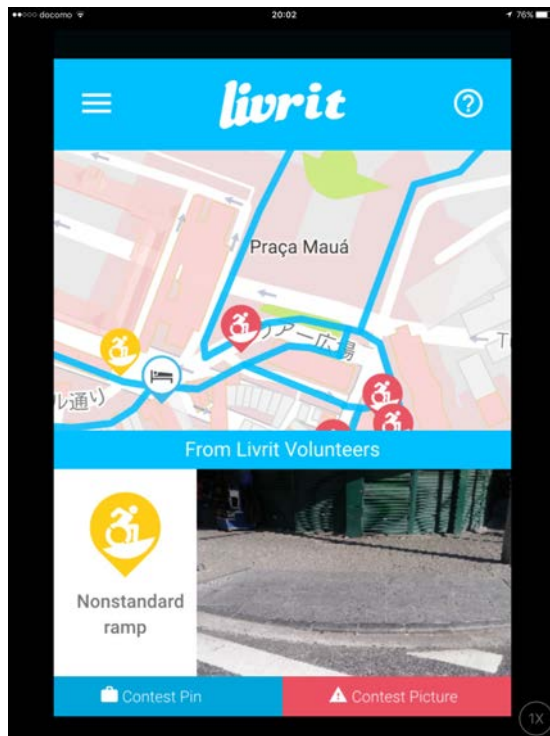
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地図の上に施設やハザードが表示



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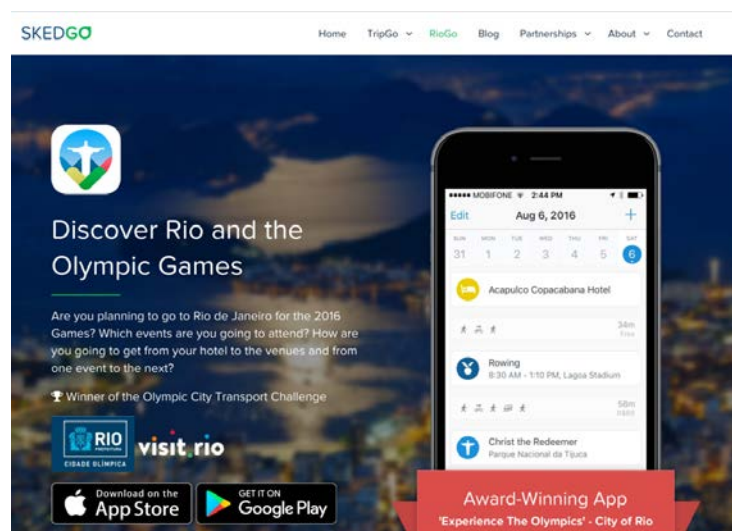
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Experience the Olympics 部門 : SKEDGO

■ オリンピックの観光支援アプリ

▶ <https://skedgo.com/home/riogo/>



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■ 「世界で最も正確な交通アプリ」を謳う

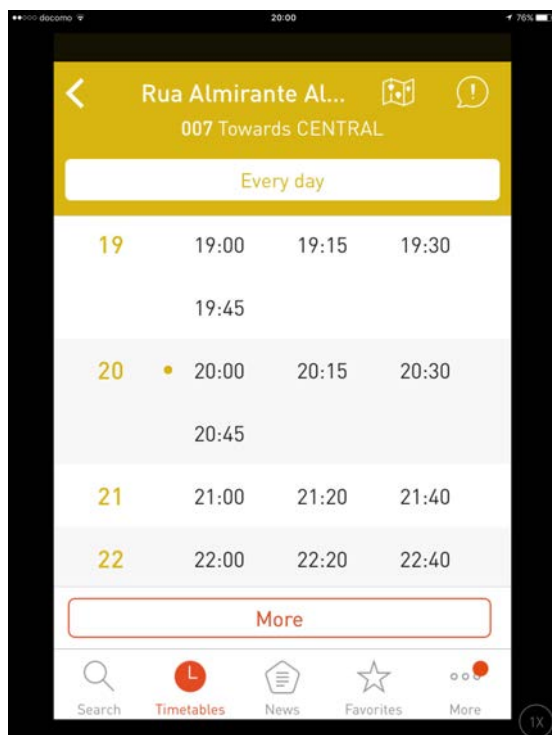
▶ <http://www.trafi.com/>



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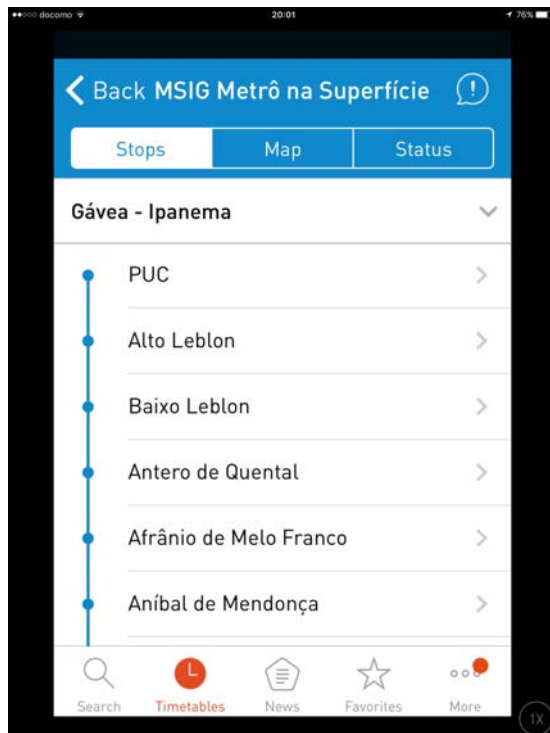
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TRAFI (左 : 駅の時刻表、右 : 利用者からの投稿情報)



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Rio Bus

Rio Bus – Acompanhe os ônibus do Rio em tempo real

[この開発者による他の App を見る](#)

開発: Mario A C Raduan

App を購入、ダウンロードするには iTunes を開いてください。



iTunes で見る

説明

Acompanhe a localização do seu ônibus em tempo real!

O RioBus é um sistema colaborativo de monitoramento de ônibus em tempo real, que utiliza a API de dados abertos

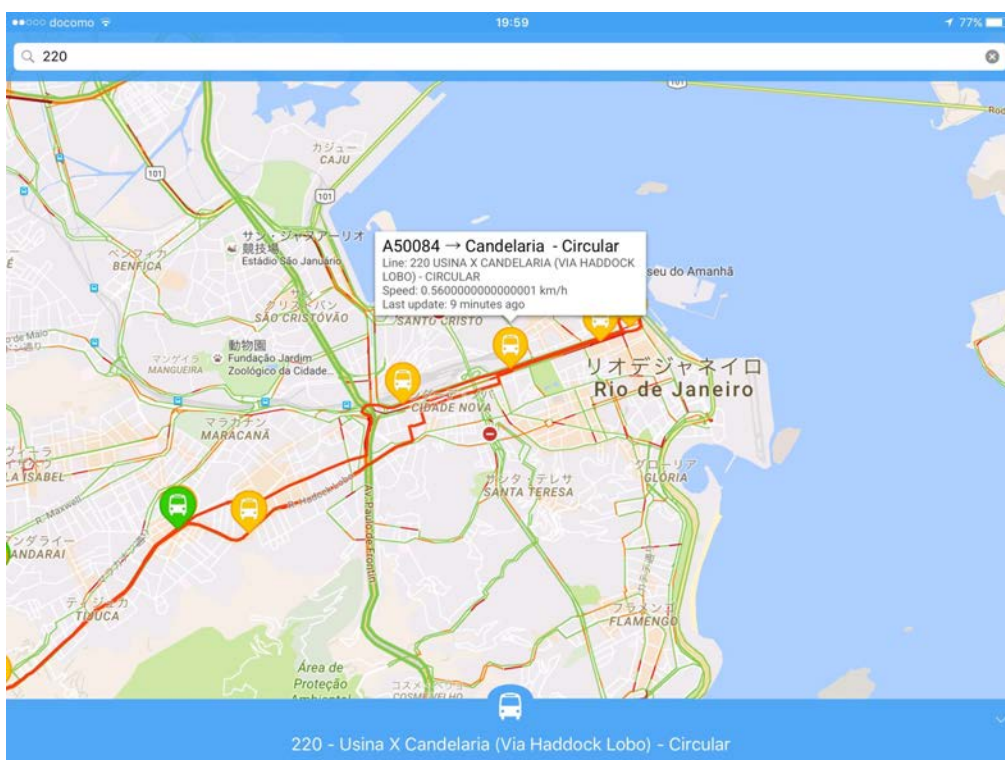
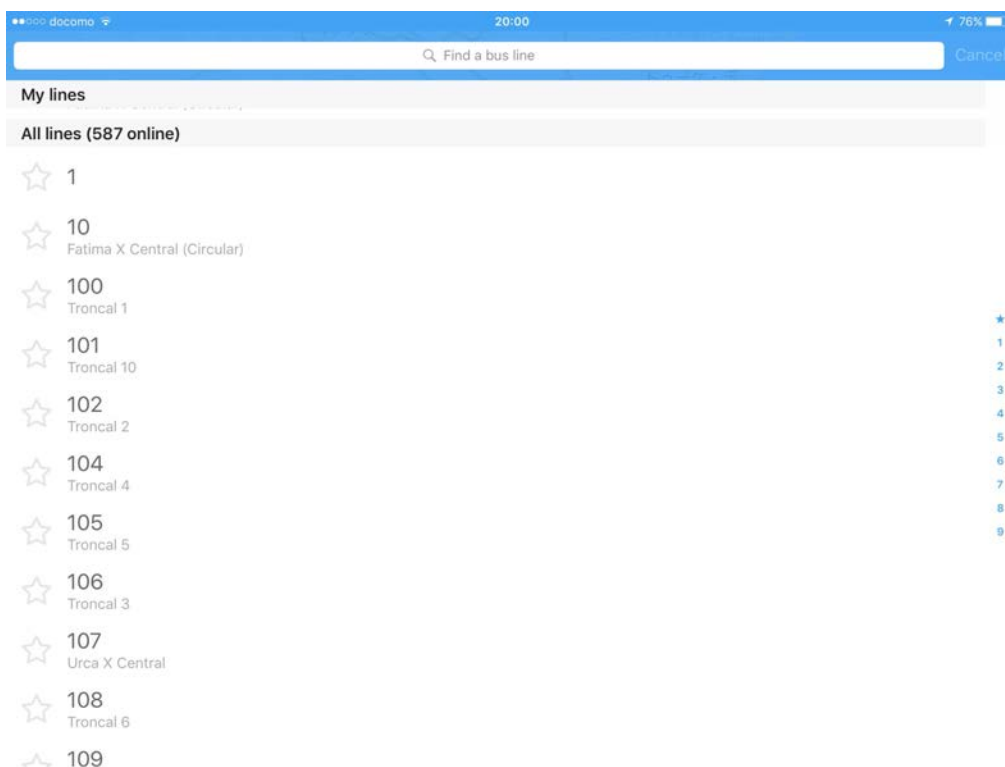
[Mario A C Raduan Web サイト](#) ▶ [Rio Bus – Acompanhe os ônibus do Rio em tempo real のサポート](#) ▶ ...さらに見る

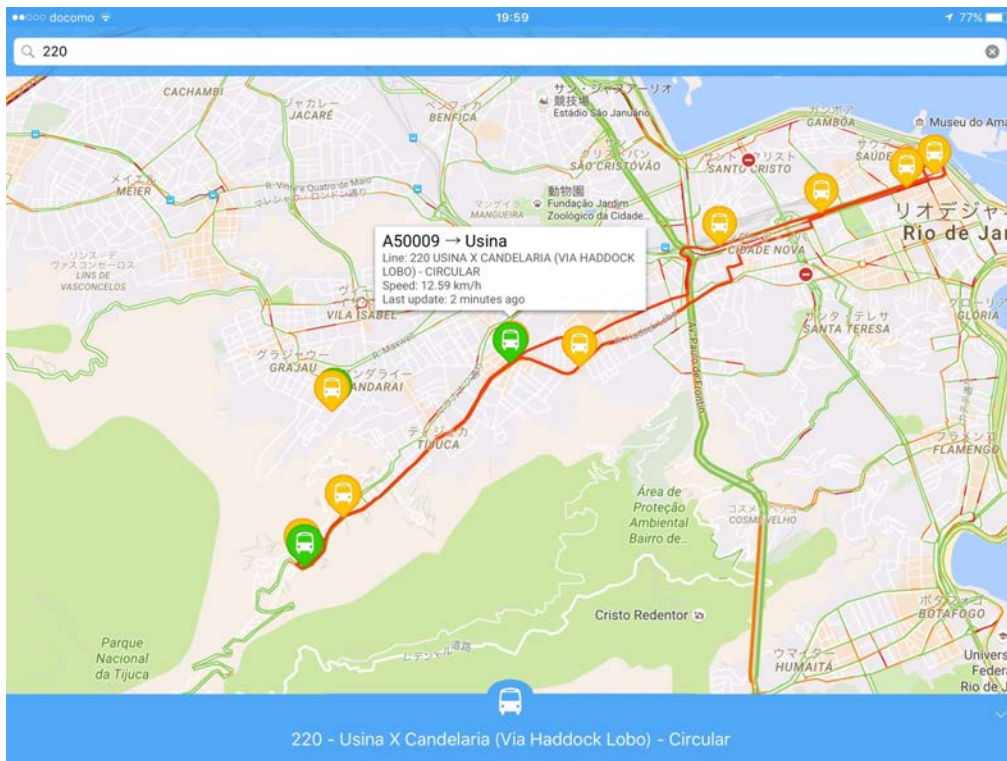
バージョン 3.1.2 の新機能

- Corrigimos um problema onde alguns ônibus apareciam duplicados no mapa quando atualizavam
- Corrigimos um problema que fazia o app fechar quando usando em inglês
- Corrigimos um problema que fazia o app fechar pra usuários que ainda usam o iOS 8 (que, aliás, recomendamos

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Busao Carioca

Busão Carioca: GPS dos Ônibus do Rio de Janeiro em Tempo Real

De Pedro Almeida

[Ver mais deste desenvolvedor](#)

Abra o iTunes para comprar e baixar apps.



Ver no iTunes

Descrição

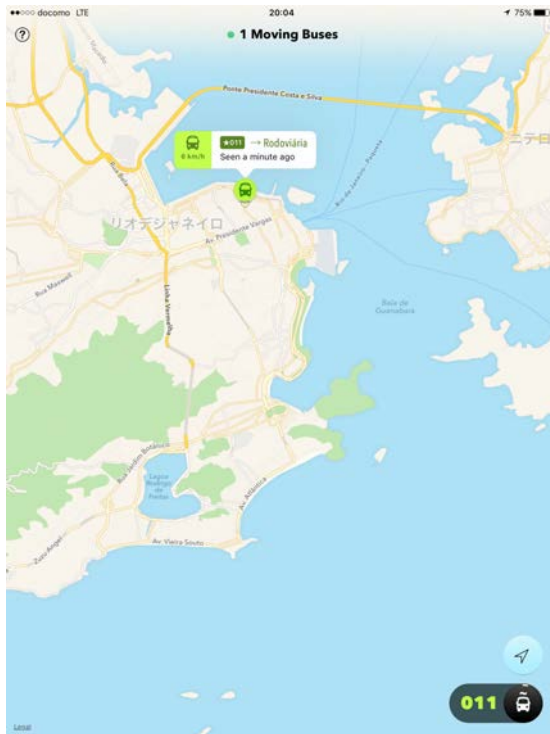
Quem pega ônibus no Rio de Janeiro sabe que isso pode ser uma aventura. Acompanhe no mapa os ônibus de até quatro linhas ao mesmo tempo, e além disso confira os trajetos e pontos de parada*.

[Site para Pedro Almeida](#) [Suporte para Busão Carioca: GPS dos Ônibus do Rio de Janeiro em Tempo Real](#)

[...Mais](#)

Novidades da versão 1.7.1

- corrige um problema raro que travava o app ao navegar no mapa
- corrige um problema na tela de status das linhas no iOS 7




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MetroRio – Official Rio Subway

By THERA SOLUTIONS INFORMATICA LTDA

Open iTunes to buy and download apps.



[View in iTunes](#)

Free

Description

Now, you will have in your hands all the information to travel around Rio de Janeiro, using of the fastest, most reliable and safest public transport in the Wonderful City.

[THERA SOLUTIONS INFORMATICA LTDA Web Site](#) [MetroRio - Official Rio Subway Support](#) [...More](#)

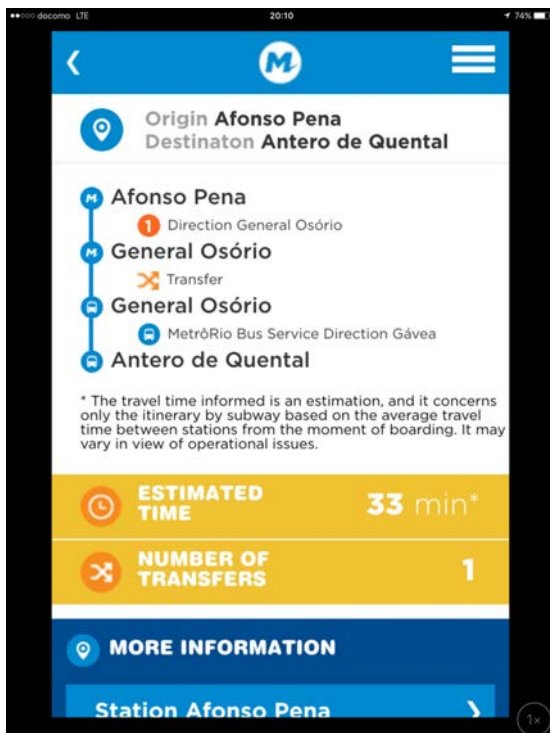
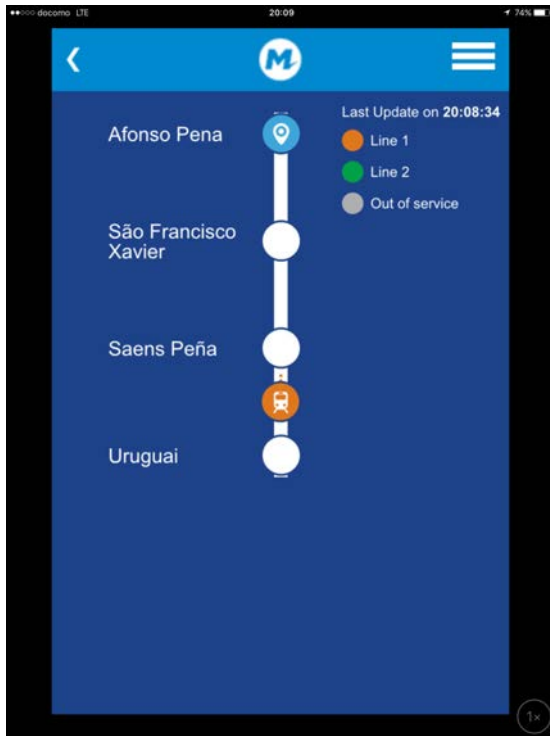
What's New in Version 2.70

Information updated in user guide

[View More by This Developer](#)

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- **TRAFI - world's most accurate public transport app (Trafı (Lithuania))**
 - ▶ <https://itunes.apple.com/us/app/trafi-worlds-most-accurate/id791973944?mt=8>www.trafi.com
- **Livrit (Comfort and Accessibility) (Ausraria)**
 - ▶ <http://livrit.com.br/>
- **RioGo (Australia)**
 - ▶ <http://www.skedgo.com/riogo>
- **Rio Buses**
 - ▶ <https://play.google.com/store/apps/details?id=com.tormentaLabs.riobus&hl=ja>
- **Busão Carioca: Public Transportation App for Rio de Janeiro**
 - ▶ <https://itunes.apple.com/jp/app/busao-carioca-public-transportation/id958372560?mt=8>
- **Rio Metro**
 - ▶ <http://riometro.org/rider-tools/gtfs-data>
- **Rome2Rio**
 - ▶ <https://www.rome2rio.com>
- **Moovit**
 - ▶ <http://moovitapp.com>
- **Accessibilidade CittaMobi**
 - ▶ <https://itunes.apple.com/jp/app/acessibilidade-cittamobi/id867764517?mt=8>

- **Ricardo Matheus and Manuella Maia Ribeiro: “Case Study: Open Government Data in Rio de Janeiro City (Final Draft)”, August, 2014.**
 - ▶ <http://www.opendataresearch.org/sites/default/files/publications/5-%20Open%20Government%20Data%20in%20Rio%20de%20Janeiro%20City-print.pdf>