

Flex Route Planning and Implementation in Trapeze V15



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Introduction to Flex Route Service

Flex route transit service is a blend of fixed route and demand response services. Flex routes may be operated in different manners including:

- **Route Deviation**—vehicles operating on a regular schedule along a well-defined path, with or without marked bus stops, that deviate to serve demand-responsive requests within a zone around the path.
- **Point Deviation**—vehicles serving demand-responsive requests within a zone and serving a limited number of stops within the zone without any regular path between the stops.
- **Demand-Responsive Connector**—vehicles operating in demand-responsive mode within a zone, with one or more scheduled transfer points.
- **Flexible-Route Segments**—vehicles operating in conventional fixed-route, fixed-schedule mode, but switching to demand-responsive operation for a limited portion of the route.
- **Zone Route**—vehicles operating in demand-responsive mode along a corridor with an established schedule at one or more end points in the zone.



Each of these Flex Routes types may be set up the same manner in Trapeze using the procedures in this guide. As you develop your routes in Trapeze, you should keep in mind some of the benefits experienced by other transit agencies while operating Flex Routes and the ADA requirements.

TCRP Report 140 explores best practices among almost 200 transit agencies and was able to demonstrate that the benefits of Flex Route services include:

- Reducing the costs of full demand-response services where passengers frequent common destinations such as medical, senior citizen, or shopping centers.
- Introducing public transportation to suburban residents not served by regular fixed-route service by offering convenient connections to frequent fixed-route buses.
- Eliminating the need to operate ADA-complementary paratransit in a specific geographic area or systemwide, if an agency chooses to eliminate fixed-route services in those areas.

The ADA's complementary paratransit regulation (Subpart F) applies to any public entity operating a fixed route system. This unfunded mandate does not apply to Flex Route service if the service:

1. Area and deviation policy is published along with instructions for requesting deviations.
2. Has no deviation restrictions due to ability or age. Deviations must be made available to anyone that requests one within the service parameters.

Trapeze Flex

Trapeze FLEX is a routing, dispatch, scheduling, and client management application for flexible transit services. Just as Flex Routes blends demand response and fixed routes services, Trapeze FLEX combines various functions of Trapeze FX and Trapeze PASS.

Trapeze FX (Fixed Route) is a fully automated scheduling, routing, runcutting, and rostering application. The FX tools helps transit agencies define the routes, build the schedules and develops the blocks or groups of runs for later assignment to drivers and vehicles.

Trapeze PASS is a demand response scheduling and dispatching application used to register passengers, create bookings, schedule passengers to vehicles, dispatch vehicles and drivers, record trip events, and geocode locations.

FLEX shares the Workstation with PASS and FX. Some functions in the Workstation are shared by the three applications. These functions are made visible to Trapeze users by user level permissions granted by the Trapeze System Administrator. If any of the functions described in this guide are not visible to a user, contact the System Administrator to check the user's permissions.

Guide Format

This guide is written for transit service planning team members to plan and implement most average Flex Route service changes. It is a step by step guide and is not intended to trouble shoot issues. If you need troubleshooting assistance, ask some of the subject matter experts within the region or on Trapeze Collaborate. Troubleshooting assistance can also be found in the Trapeze FLEX v15 and v12 User Guides as well as the Trapeze v15 System Administrator and User Guide. Excerpts of these Trapeze guides were used in the development of this consolidated guide.

Notes of caution or standards are highlighted in this guide using two blue bars and the caution

⚠ icon and the standards 🛡 icon. General notes will have the 📝 icon.



Getting Started

Ancillary data defines the foundation for transit schedules. Before you can start building a new route, you must construct a solid foundation. This foundation includes unique sign-up periods and line/route names with specific service days. At each step of the route design phase, you must verify that you are in the correct sign-up period with the correct line and service.

⚠ *Setting the mode should be performed or verified prior to each major step such as Route Definition or Trip Building.*

Setting the Mode

The Set Mode feature enables you to load the information such as the line, division, service, and sign-up period for which you are performing FLEX tasks.

To set the mode:

1. Click **File** → **Set Mode** or press F3.
Result: The Set Mode dialog box appears.



Field	Value
Schedule Type:	LIVE
Agency	JTA
Signup Period	2017 AUGUST
Division:	CS
Line:	300
Service:	1-WKD
Line Group:	300
Service Group:	1-WKD1
Exception Combo:	Off

2. From the **Schedule Type** drop-down list, select LIVE.
3. From the **Agency** drop-down list, select your agency.
4. From the **Signup Period**, select the sign-up period you will be modifying.
5. From the **Division** drop-down list, select your Division name.
6. From the **Line** and **Line Group** drop-down lists, select the appropriate line.
7. From the **Service** and **Service Group** drop-down lists, select the appropriate weekday type.
8. The **Exception Combo** drop-down list should typically be **Off**.
9. Click **OK**.

This is just a sample of documents created by Regional Mobility Group. For the complete document, please contact Liz Peak at Liz@RegionalMobilityGroup.com. Thank you!