

SIMSHIP Analysis

1.) Objectives of this Analysis:

The purpose of this report is to quantify the difference in gross profit, if any, of a simultaneous ship (simship) of a Microsoft application product versus a non simultaneous ship.

2.) Definitions:

"simship": The RTM date of a localized product that is within 30 days of the English version RTM date.
"delta": The time between the English version RTM date and a localized product RTM date.

3.) Approach:

The approach of this analysis is to measure the increased cost of a simship relative to the increased revenue and gross profit associated with releasing a product quickly in a foreign market. The objective is to find the point at which profit is maximized by a.) minimizing localization expense while b.) maximizing revenues and gross profit associated with the quick release of a foreign language product.

The first task undertaken is to quantify the incremental cost of simshipping a product (versus shipping with a delta of 90 days or greater). It is believed that due to rework, and the fact that resources must be in place to handle peak-level work associated with a short time-frame release, the cost of simship is as much as 1.7 times as great as the cost of a release with a longer delta (estimate from the Systems group). This can be measured with some degree of accuracy, and work is underway to derive reliable numbers in this area. For the purposes of this analysis, savings of 20% and 25% from simship base case are assumed for 60 and 90 day deltas respectively.

The second task is to measure the impact on market share and unit sales on a simship versus a longer delta. There are varying opinions on the relationship between delta and unit sales, and as shown in Appendix 2 of this report, the empirical data does not conclusively point to any relationship between delta and market share or unit sales. For the purposes of this analysis, we assume that with an increasing delta, market share and unit sales are negatively impacted. The economic model (found in Appendix 1), allows the reader to evaluate various market share results under three delta assumptions.

There is no lack of anecdotal information on the topic of simship, and its impact on localization costs and market share. Some of this information may be more important than the hard numbers presented in the economic model attached. This report lists some of the other factors which can affect Microsoft's profitability relating to simship policies.

4.) Economic Model

The model found in Appendix 1 measures the gross profit impact of three different deltas for the release of German Excel. The following paragraphs explain the steps in constructing the model and the assumptions used in it:

A) The cost of localization decreases as the delta increases.

Microsoft's Systems Division estimates that with shorter deltas, localization cost increases from 1.2x to 1.7x the cost of longer deltas. Other factors impacting the cost of localization include: the stability of the product, the quality of the initial programming, and the resources utilized. As the delta increases, the more stable the product becomes making it easier to localize the product and thus less expensive. This is graphically represented below:

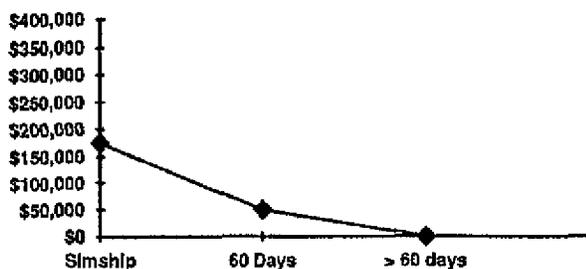
Plaintiff's Exhibit

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SIMSHIP Analysis

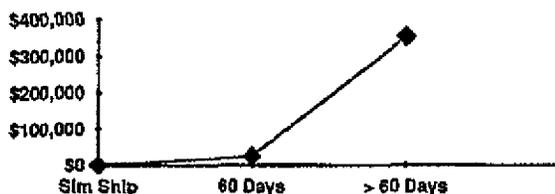
Incremental Cost for Deltas < 90 days



B) Gross Profits may be impacted as delta increases.

An additional economic cost associated with a non-simultaneous ship of a product is the gross profit lost as a result of lost market share. We were not able to prove that there is a relationship between delta and market share or unit sales, but intuitively one can argue that as delta increases, market share, unit sales, and therefore gross profit to Microsoft will be negatively impacted:

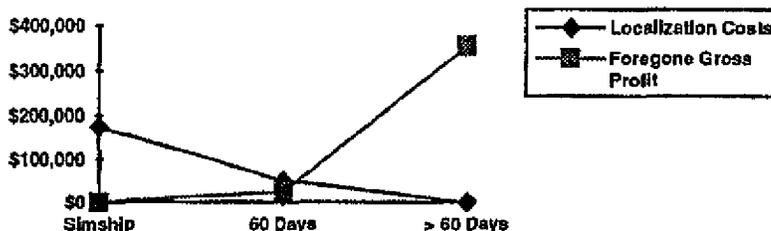
Foregone Gross Profit as a Result of Increased Delta



C) Balance/Tradeoff

What must be determined, is the point in time (0, 60, 90, >90 days) at which incremental costs are not too great, and market share is not lost. The optimal point on the horizontal axis, is the point at which the sum of the two lines is minimized. In the example below, that point is at the 60 day delta mark:

Cost-Benefit Summary
0, 60 and >60-day Deltas



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Obviously, the larger the market, the greater the impact of even one percentage point in market share loss. It is believed that the incremental cost of simship is no more than \$300,000. In a market like Germany, in which annual spreadsheet sales exceed 274,000 units, the financial impact of even a one market share point loss can be significant. Assuming a gross profit of as much as \$250 per unit, forgone gross profit could be as much almost \$700,000 in the first year alone.

5.) Other Factors:

There are other "less-measurable" factors which should be considered when formulating a simship strategy. The results of the model presented here should be evaluated in the context of other data points regarding the market, the product and the competitive environment:

A) The competitive environment plays a key role in the decision making process.

The actions of competitors should be considered when deciding on a delta for Microsoft products. For example, in a large market like Germany, Microsoft cannot afford to ignore Lotus' shipping of new version of 123.

B) European Holidays have an affect on simship effectiveness.

The European holiday during the summer could make simship less important if it occurs during this time period. Product releases which are scheduled for the summer, will often end up sitting on store shelves because there is little to no sales activity during the summer in Europe. The additional cost incurred for a simship in August may have little benefit.

C) RTM Dates vs. Shipped Dates vs. Actual Hit the Street Dates.

Today, the primary metric used to measure delta is RTM. A more relevant measure would be "time to market"; when the product actually hits the store shelves. Manufacturing and distribution functions can have a major impact on this "real delta", and can potentially offset efforts made by product development organizations to minimize delta.

D) Marketing.

It is believed that good marketing of an existing product can affect sales as much, or more than poor or no marketing of new product version. Microsoft must coordinate marketing efforts with product shipments in order to minimize the negative impact of deltas whether they be 0 or 60 days. Accurate and reliable product ship dates are essential in order to effectively capitalize on this strategy.

E) Product Strategies.

There are many qualitative points to consider in the decision making matrix for the subsidiary. They include whether or not to deliver a full scale localized version or a 'stripped down' version to the market place. In some cases it may not be financially optimal to incur the expenses necessary to deliver a FPP localized product when the market will tolerate a 'subset' version.

E.) English language market.

The prevalence of English language product in a subsidiary can have an effect on the sales of foreign language product. Many subsidiaries provide free upgrades of localized product to users who purchase the English language product during the delta period.

English Language Product Sales (18 months: Jan '92 - Jun '93)

	France	Germany	Italy	Sweden
Excel	2%	4%	7%	5%
Word	12%	17%	16%	23%
Project	3%	5%	18%	15%

6.) Conclusion:

One of the conclusions that can NOT be drawn from this analysis is that a delta of 60 or 90 days has a permanent, negative affect on market share or unit shipments of a Microsoft application product. The data suggests that other factors may have a greater impact on our shipments: competition, market conditions and our own management of the product launch. What we can conclude, is that simultaneous RTM of localized product is more expensive than working with a delta of 60 days or more. The data suggests that 10% to 25% of the costs of localization is due to rework associated with simship.

Given that a.) we know that simship is more expensive than deltas of 60 days or more, and b.) we cannot determine with any certainty that 60 day deltas negatively affect unit shipments, we recommend that the default delta for localized product be 60 days. Once this default is established, then a decision tree should be followed, evaluating other qualitative factors relating to the localized product launch. It is believed that if deltas are relaxed from 30 days to 60 days, significant cost savings can be achieved, while also maintaining the benefits of a "virtual" simship in the market place. Close coordination with manufacturing and distribution, combined with effective product launch marketing in the subsidiary means that the subs can combine the launch of English and localized product without incurring the expense of two separate launches.

Critical to this "decision-tree" strategy is accurate and RELIABLE product launch estimates. Working towards unrealistic 60 deltas can be as expensive as simship if the English RTM date slides late in the process.

Next Steps:

-An analysis of manufacturing and distribution issues should be undertaken to determine how we might reduce the time between RTM and the day product hits the streets. The goal should be to achieve a "hit the streets" delta which is as short or shorter than our RTM delta.

-We should work to improve communication between product development and the subsidiaries with respect to product launch planning. This should include the institutionalization of "business case" analyses of localization projects for "marginal" products in "marginal" markets.

-Other relevant information, critical to the product launch planning effort should be compiled and available to decision makers:

- Market Share
- Market Characteristics
- Competitive Environment
- Historical Data
- Business Case Improvements (justifications)
- RTM vs. Street dates

SIMSHIP Analysis

**LOCALIZATION IMPACT ANALYSIS
APPENDIX**

Appendix 1: Localization Impact Analysis Model

Appendix 2: Market Share Impacts for Foreign Subs Based on US Release

**APPENDIX 1:
LOCALIZATION IMPACT ANALYSIS**

Localization Assumption Drivers				
Input Product Specifications Below				
1) Localisation expense is driven by the ship date delays.				
2) Localization Expense Assumptions:				
	Percent of Current Costs			
SIMSHIP =	100%			
60 Days =	80%			
> 60 Days =	75%			
Product Specification Inputs				
Product:	Excel			
Language:	German			
Annual Size of the Market (in Units)	274,165.00			
Excel Annual Unit Sales	192,728.00			
Current Product Market Share:	70%			
Localization Costs:	\$1,236,000			
Revenue/Unit	\$293			
COGS/Unit	\$20.00			
PSS Costs/Unit	\$20.00			
Market Share %:	0.00%	0.25%	0.50%	1.00%
Unit Equivalent:	0	-685	-1,371	-2,742

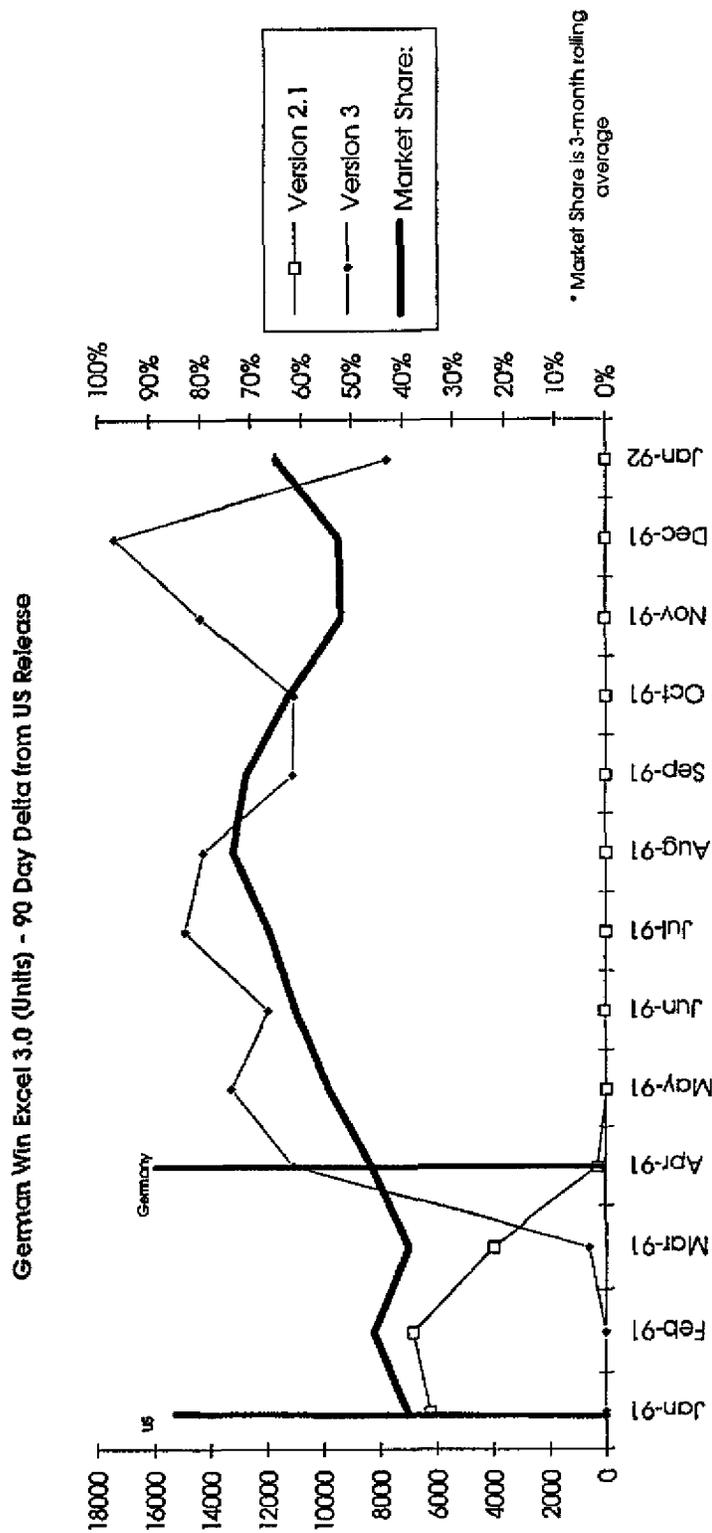
**APPENDIX 1:
LOCALIZATION IMPACT ANALYSIS**

Projected Variable Margin impact BASECASE: SIMSHIP	
Revenue	\$56,469,304
COGS	\$3,854,560
Localizations Costs	\$1,236,000
PSS Expense	\$3,854,560
Variable Margin	\$47,524,184

Lost Market Share Scenarios SimShip vs. Ship Delays Variable Margin Results					
Forgone Unit Sales	Lost Market Share Points	SimShip	60 Days	> 60 Days	
		0	60	90	
0	0.00%	\$47,524,184	\$47,771,384	\$47,833,184	
685	0.25%		\$47,597,975	\$47,659,775	
1,371	0.50%		\$47,424,565	\$47,486,365	
2,742	1.00%		\$47,077,747	\$47,139,547	

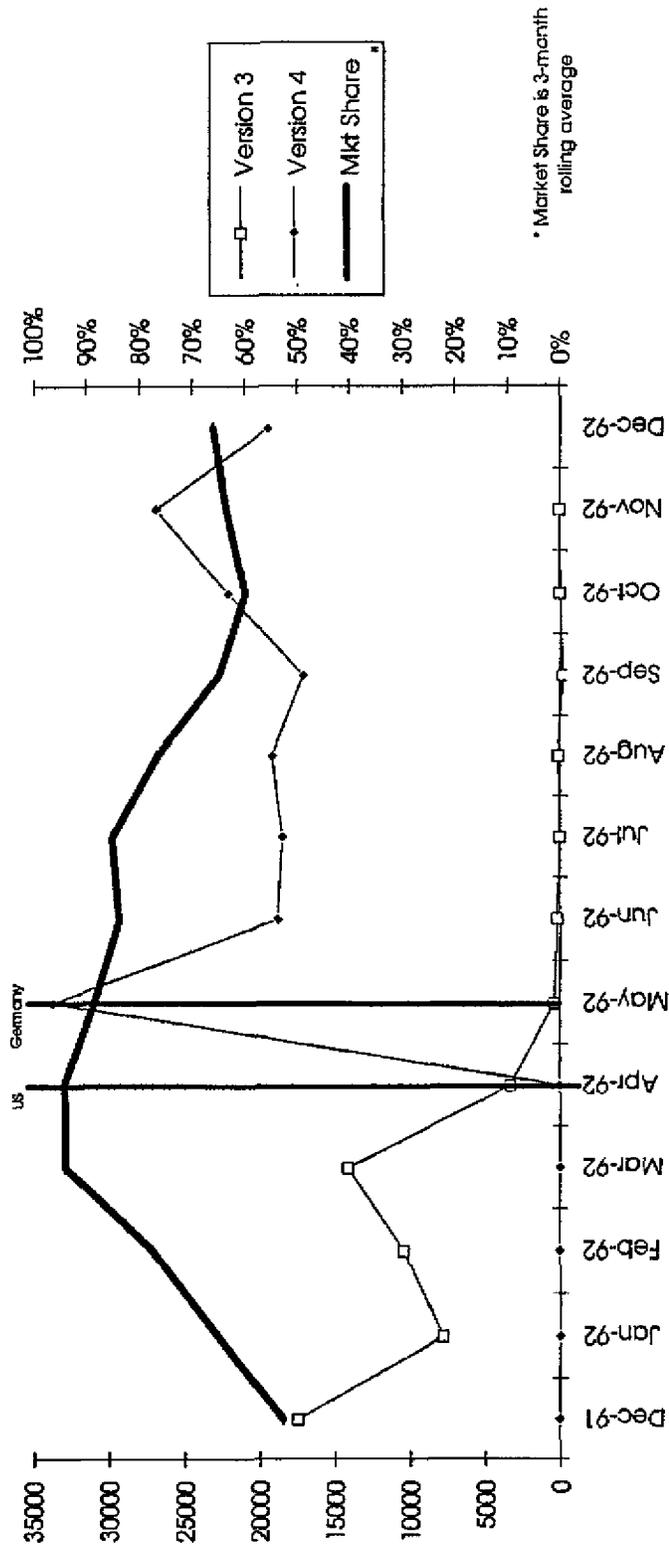
Variable Margin Deltas SIM/SHIP vs. Ship Delays Variable Margin (Lost)/ Gained					
Forgone Unit Sales	Lost Market Share Points	SimShip	60 Days	> 60 Days	
		0	60	90	
0	0.00%	\$0	\$247,200	\$309,000	
685	0.25%	\$0	\$73,791	\$135,591	
1,371	0.50%	\$0	(\$99,619)	(\$37,819)	
2,742	1.00%	\$0	(\$446,437)	(\$384,637)	

**APPENDIX 2:
Market Share Impacts For Foreign Subs Based on US RTM**



**APPENDIX 2:
Market Share Impacts For Foreign Subs Based on US RTM**

German Win Excel 4.0 (Units) - 30 Day Delta from US Release

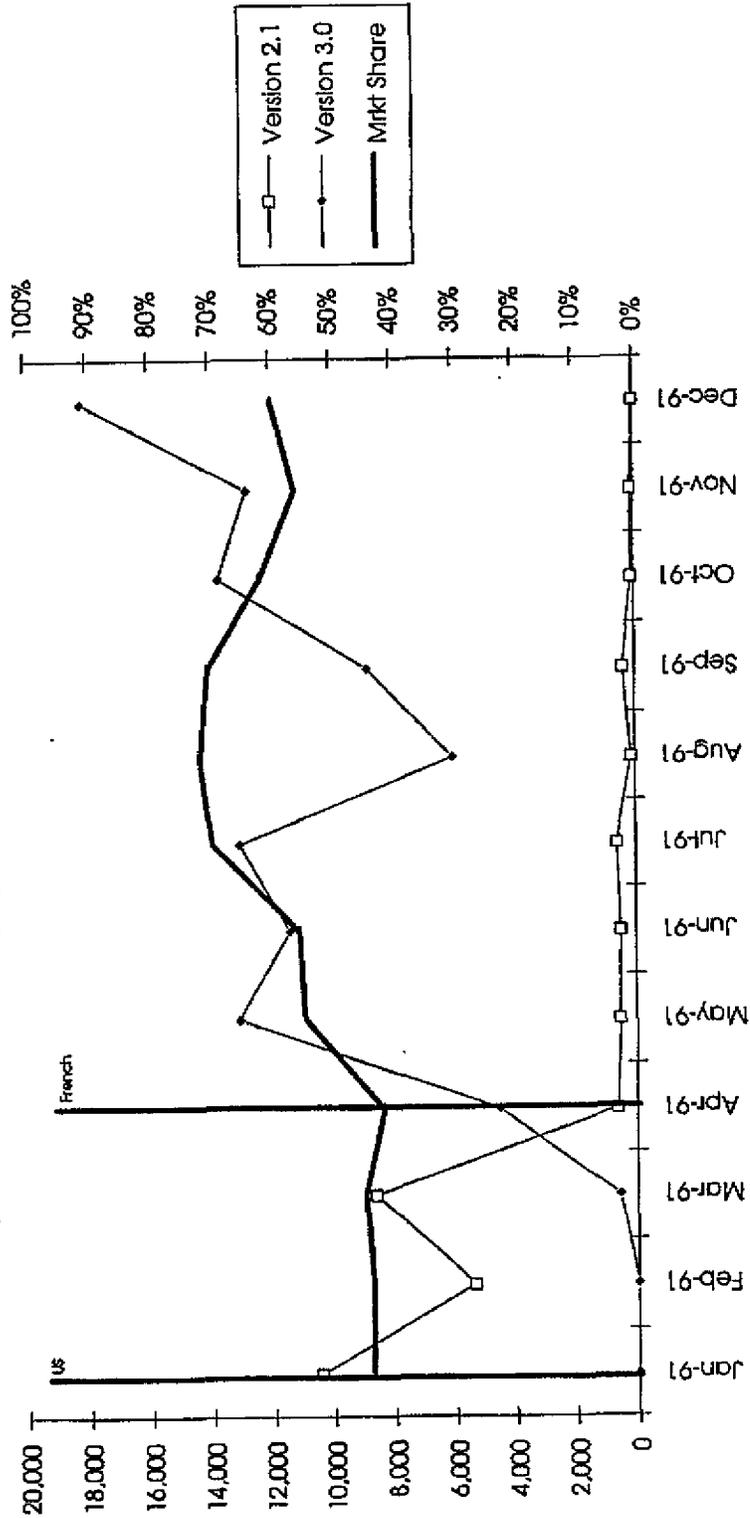


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APPENDIX 2:
Market Share Impacts for Foreign Subs Based on US RTM

French Win Excel 3.0 (Units) - 3 Month Delta from US Release

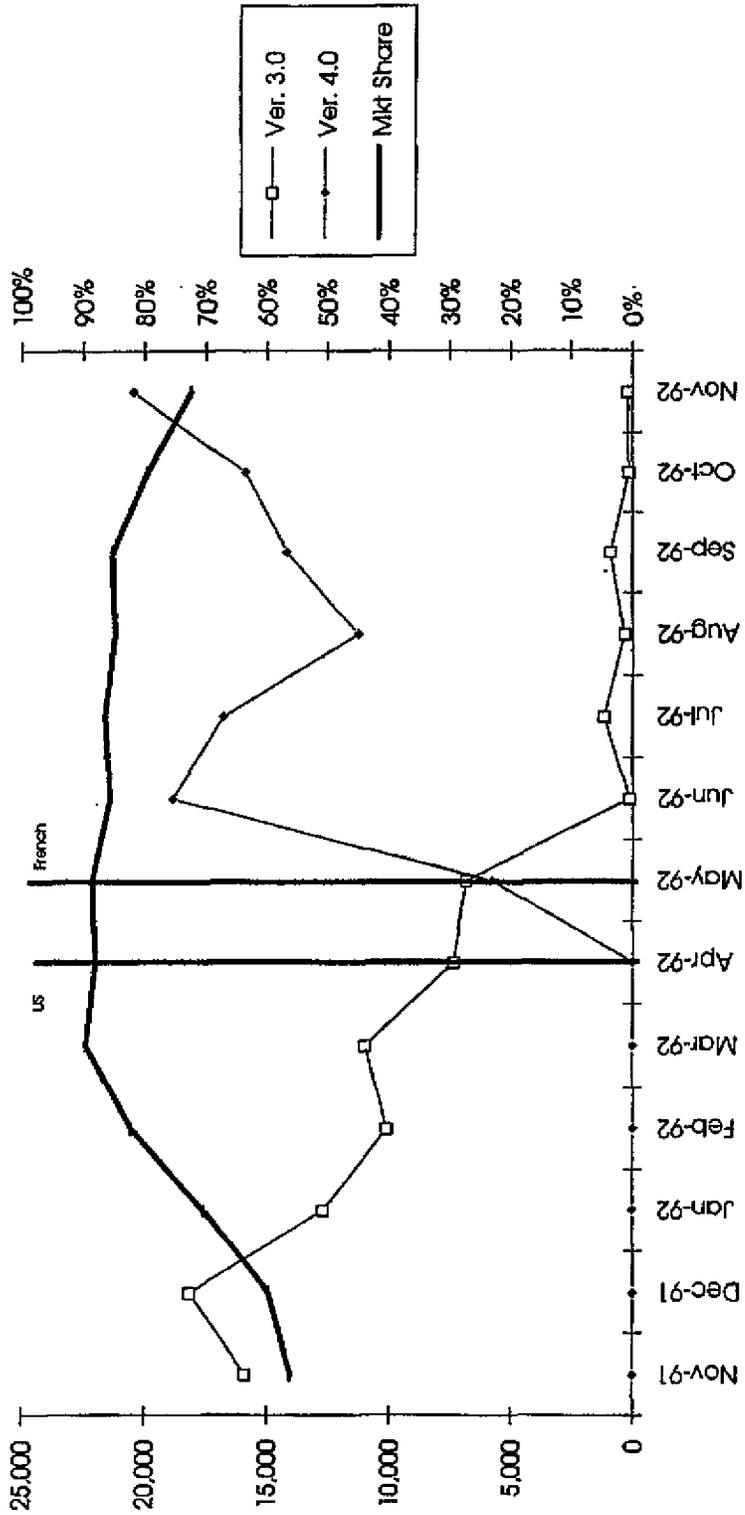
(Market Share is a 3 month rolling avg. all other numbers are actual units)



APPENDIX 2:
Market Share Impacts For Foreign Subs Based on US RTM

French Win Excel 4.0 (Units) - 1 Month Delta from US Release

(Market Share is a 3 month rolling avg. all other numbers are actual units)



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